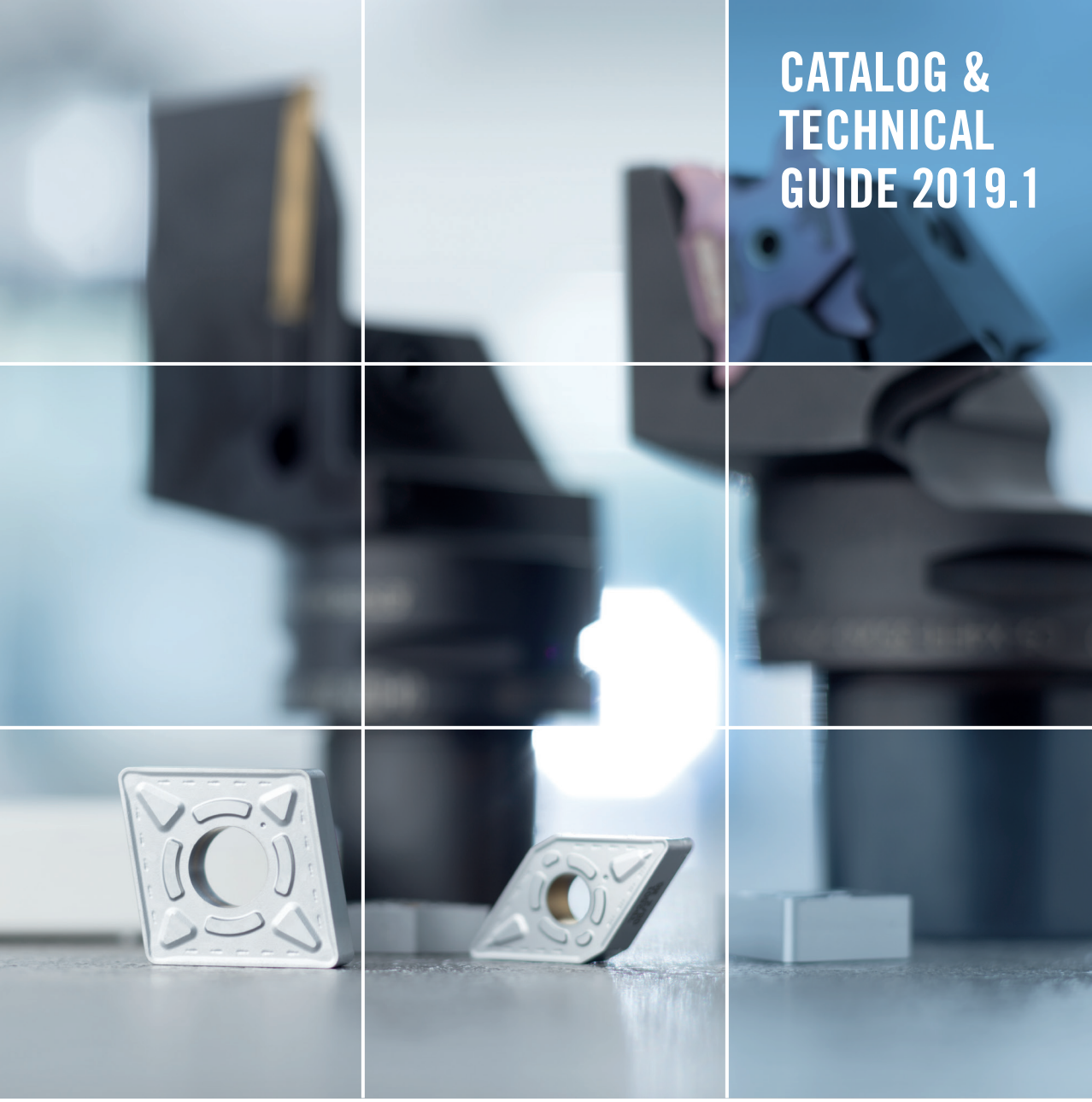
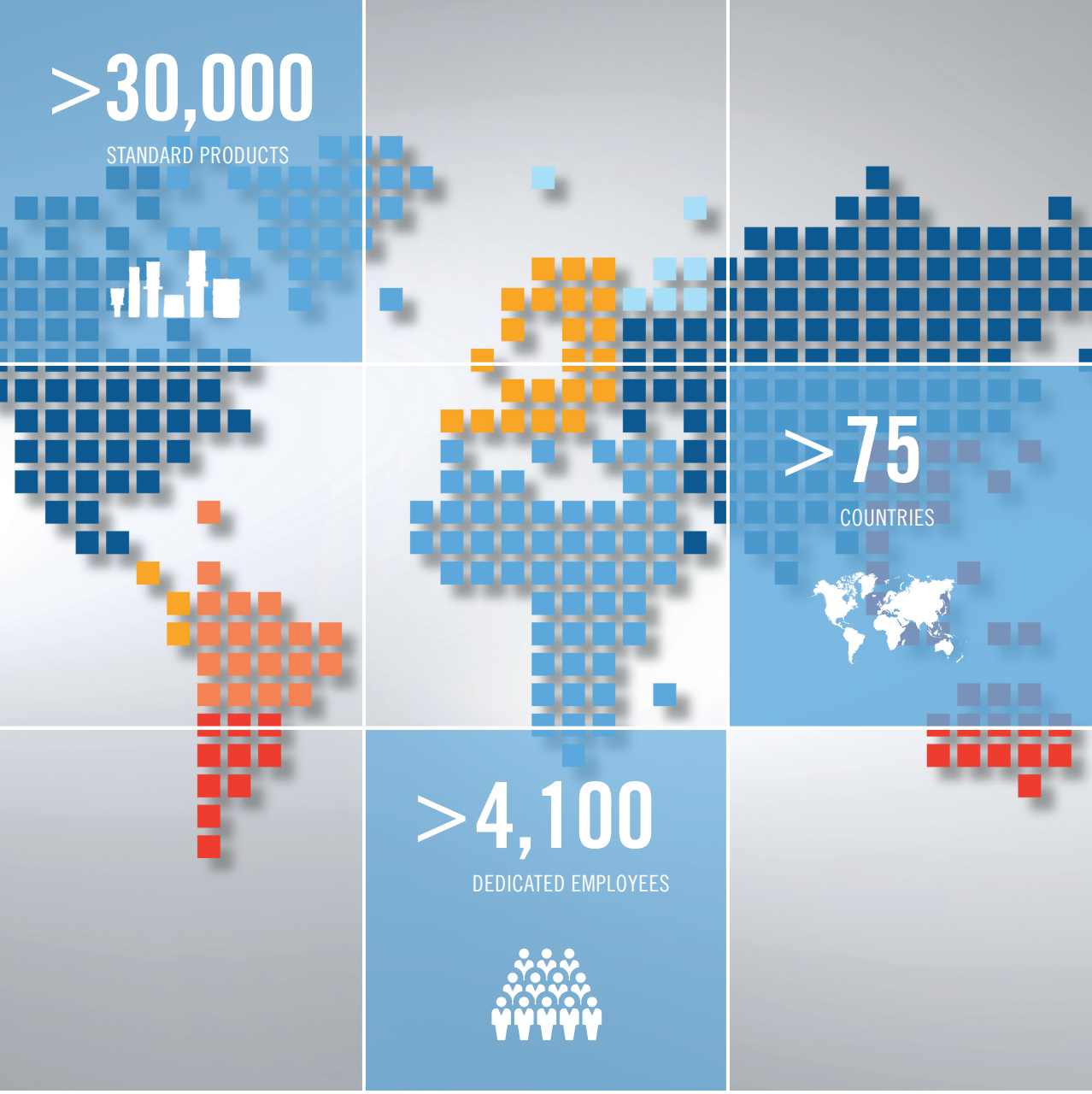


CATALOG & TECHNICAL GUIDE 2019.1

TURNING

SECO



Headquartered in Fagersta, Sweden and present in more than 75 countries, Seco Tools is a leading global provider of metal cutting solutions for milling, stationary tools, holemaking and tooling systems.

For more than 80 years, the company has provided the technologies, processes and support that manufacturers depend on for maximum productivity and profitability. For more information on how Seco's innovative products and expert services bring success to manufacturers across all industry segments, please visit www.secotools.com.

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LPGN . . . 689

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RCGN . . . 470
RCGS . . . 407, 447
RCGX . . . 473
RCMT . . . 408
RCMX . . . 409
RNGN . . . 447-448, 471, 474
RNGN-LF . . . 447
RNMA . . . 410
RNMG . . . 410
RNMN . . . 449
RPGN . . . 474
RPGX . . . 475

S

SCGW . . . 450
SCMN . . . 450
SCMT . . . 411-412
SNGA . . . 451
SNGF . . . 452
SNGN . . . 453
SNMA . . . 413
SNMG . . . 413-415
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SNMN . . . 454
SNUN . . . 418
SPGW . . . 455

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TCGN 455
TCGT 419
TCGW 456
TCGX 420
TCMT 421
TCMW 471
TCMX 422
TDAB 422
TDCH 423
TNGA 457
TNGN 458-459
TNGX 460
TNMA 424
TNMG 424-427
TNMM 428
TNMN 461
TNMX 429, 462
TPGN 462, 472

V

VBGT 429
VBGW 463
VBMT 430
VBMW 472
VCGR 431
VCGT 431
VNGA 464
VNGG 432
VNGM 432
VNMA 433, 465
VNMG 433
VNMU 434

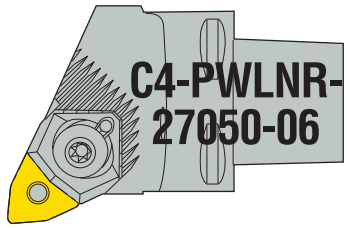
W

WCMT 435
WNGA 466
WNGG 435
WNMA 436, 467
WNMG 436-439
WNMM 439

X

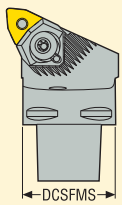
X4FR/L...JETI 724
X4GK 727-730

External toolholders



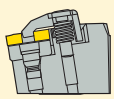
C4	-	P	W	L	N	R	-	27	050	-	06	-	
1		2	3	4	5	6		7	8		9		10

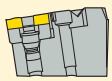
1. Seco-Capto™ size

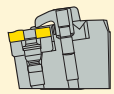


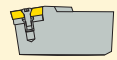
C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm
C8 = 80 mm
C10 = 100 mm

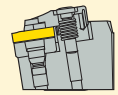
2. Insert clamping

D

Clamp/inserts with centre hole

P

Pin/Wedge or Lever

M

Pin/Clamp

S

Screw

C

Clamp

3. Insert shape

A


B


C


D


E


H


K


L


M


O


P


R


S

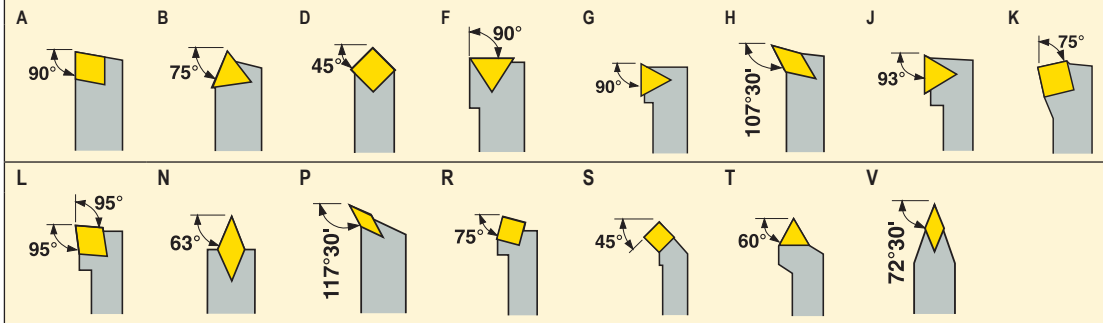

T


V

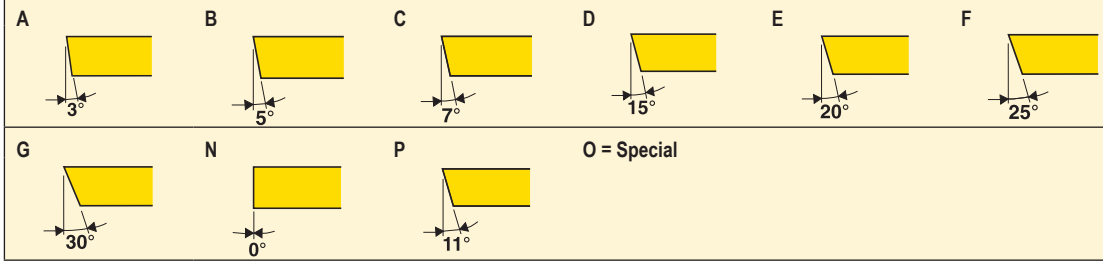

W


Code keys – Seco-Capto™, external

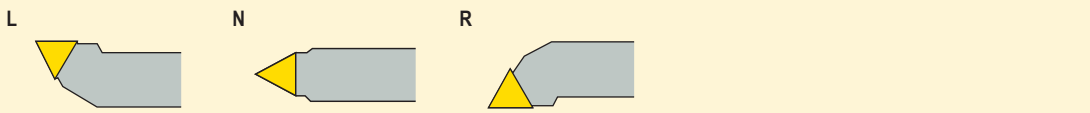
4. Tool type



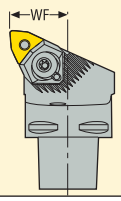
5. Insert side clearance angle



6. Cutting direction

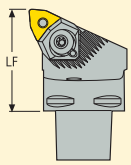


7. WF-dimension



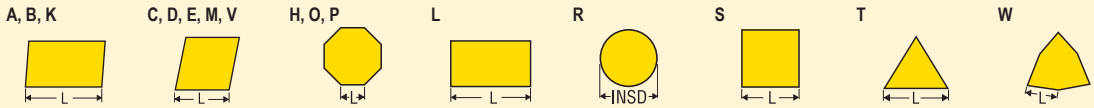
22 = 22 mm
27 = 27 mm
35 = 35 mm
45 = 45 mm
etc.

8. LF-dimension



040 = 40 mm
042 = 42 mm
044 = 44 mm
050 = 50 mm
060 = 60 mm
etc.

9. Cutting edge length



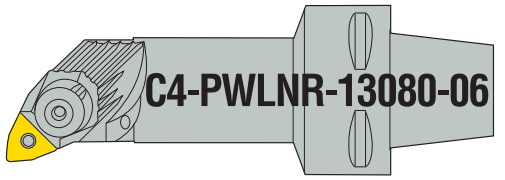
10. Internal designation

JET = Jetstream Tooling®
JETL = Jetstream Tooling® with P-lever clamp
PL = Plunging

JETB = Jetstream Tooling® with inlet on backend of shank
JETLB = Jetstream Tooling® with P-lever clamp and inlet on backend of shank
X = Back boring

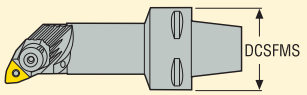
Code keys – Seco-Capto™ and GL-heads, internal

Internal toolholders and modular turning heads

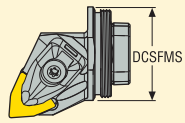


C4	-	P	W	L	N	R	-	13	080	-	06	-	
1		2	3	4	5	6		7	8		9		10

1. Seco-Capto™ and GL size



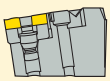
C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm
C8 = 80 mm



GL25 = 25 mm
GL32 = 32 mm
GL40 = 40 mm
GL50 = 50 mm

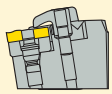
2. Insert clamping

P



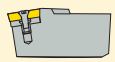
Pin/Wedge or Lever

M



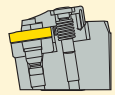
Pin/Clamp

S



Screw

C



Clamp

3. Insert shape

A



B



C



D



E



H



K



L



M

O



P



R



S



T



V



W



4. Tool type

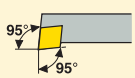
F



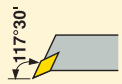
K



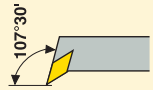
L



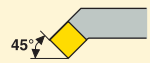
P



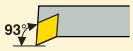
Q



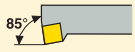
S



U



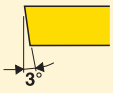
Y

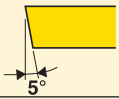


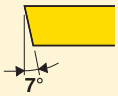
X = Special

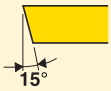
Code keys – Seco-Capto™ and GL-heads, internal

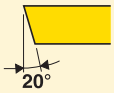
5. Insert side clearance angle

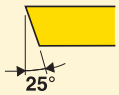
A 

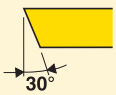
B 

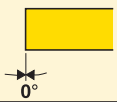
C 

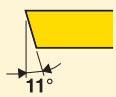
D 

E 

F 

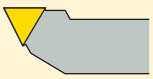
G 

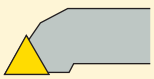
N 

P 

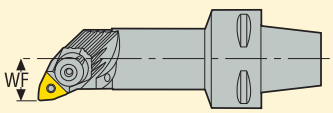
O = Special

6. Cutting direction

L 

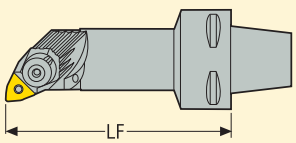
R 

7. WF-dimension



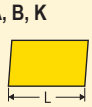
11 = 11 mm
13 = 13 mm
17 = 17 mm
22 = 22 mm
etc.

8. LF-dimension

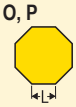


064 = 64 mm
065 = 65 mm
070 = 70 mm
075 = 75 mm
etc.

9. Cutting edge length

A, B, K 

C, D, E, M, V 

H, O, P 

L 

R 

S 

T 

W 

10. Internal designation

PL = Plunging
X = Back boring
JET = Jetstream Tooling®

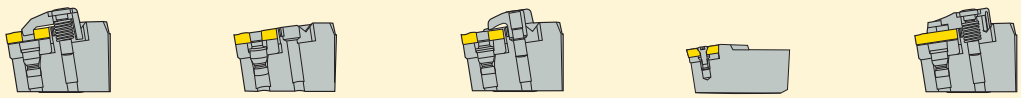
Code keys – Turning, external

External toolholders

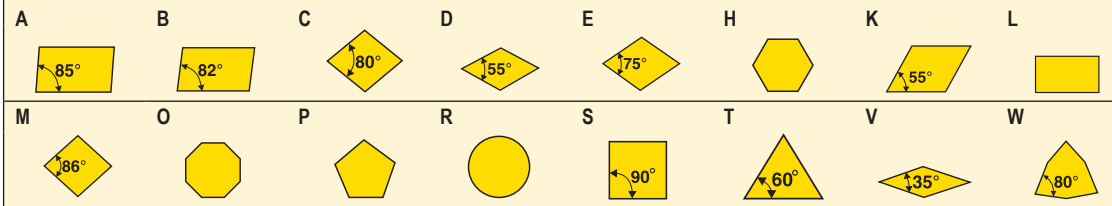


D	W	L	N	R	25	25	X	06	JETI
1	2	3	4	5	6	7	8	9	10

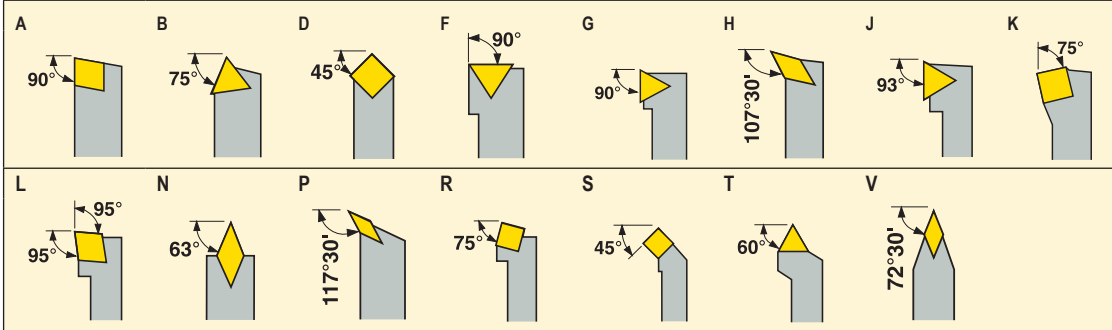
1. Insert clamping



2. Insert shape

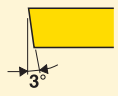


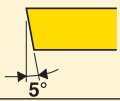
3. Tool type

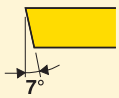


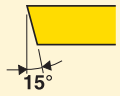
Code keys – Turning, external

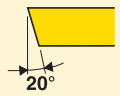
4. Insert side clearance angle

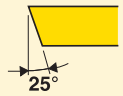
A 

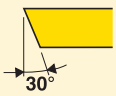
B 

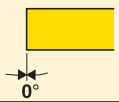
C 

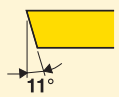
D 

E 

F 

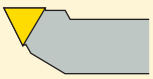
G 

N 

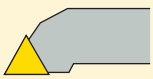
P 

O = Special

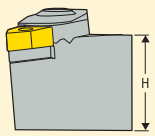
5. Cutting direction

L 

N 

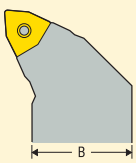
R 

6. Shank height



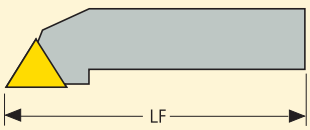
12 = 12 mm
25 = 25 mm
32 = 32 mm
etc.

7. Shank width



12 = 12 mm
25 = 25 mm
32 = 32 mm
etc.

8. Tool length



A = 32 mm
C = 50 mm
D = 60 mm
E = 70 mm
F = 80 mm

H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

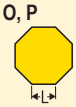
S = 250 mm
T = 300 mm
V = 400 mm
X = Special

Standard length as above

9. Cutting edge length

A, B, K 

C, D, E, M, V 

H, O, P 

L 

R 

S 

T 

W 

10. Internal designation

JET = Jetstream Tooling®
JETI = Jetstream Tooling® integrated coolant inlet
JETL = Jetstream Tooling® with P-lever clamp

JETB = Jetstream Tooling® with inlet on backend of shank
JETLB = Jetstream Tooling® with P-lever clamp and inlet on backend of shank

-PL = Plunging

Internal toolholders



A	20	Q	-	P	W	L	N	R	06	R
1	2	3		4	5	6	7	8	9	10

1. Toolholder type

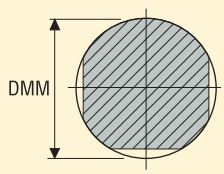
A = Steel with coolant passage

S = Solid steel

E = Solid carbide with brazed* cutting head and coolant passage

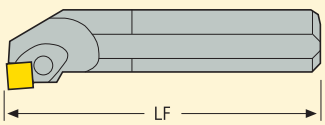
* Brazed or equivalent

2. Shank diameter



12 = 12 mm
20 = 20 mm
25 = 25 mm
etc.

3. Tool length



K = 125 mm
L = 140 mm
M = 150 mm
N = 160 mm
P = 170 mm

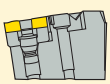
Q = 180 mm
R = 200 mm
S = 250 mm
T = 300 mm
U = 350 mm

V = 400 mm

Standard length as above

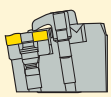
4. Insert clamping

P



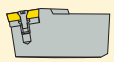
Pin/Wedge or Lever

M



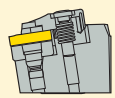
Pin/Clamp

S



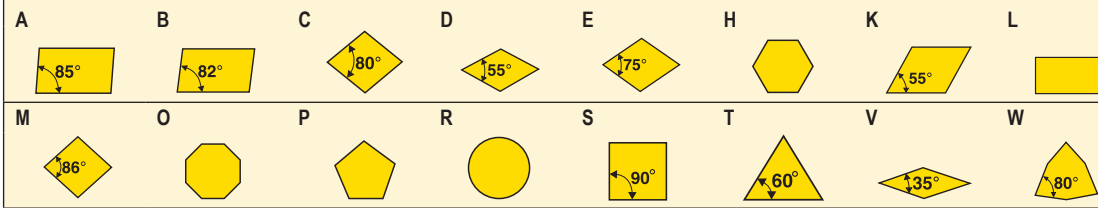
Screw

C



Clamp

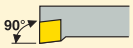
5. Insert shape



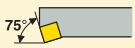
Code keys – Turning, internal

6. Tool type

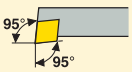
F



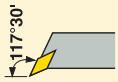
K



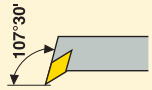
L



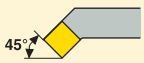
P



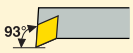
Q



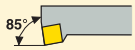
S



U

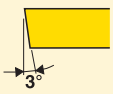


Y

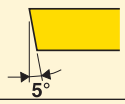


7. Insert side clearance angle

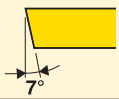
A



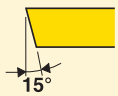
B



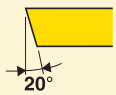
C



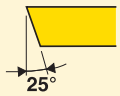
D



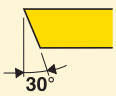
E



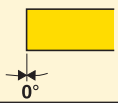
F



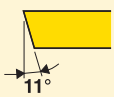
G



N



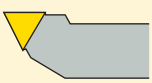
P



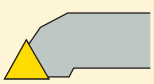
O = Special

8. Cutting direction

L



R



9. Cutting edge length

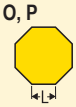
A, B, K



C, D, E, M, V



H, O, P



L



R



S



T



W

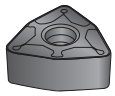


10. Internal designation

R = Round
W = Wedge clamping
PL = Plunging
X = Back boring

Insert/Metric series, Extract from ISO 1832-2004

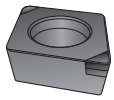




W	N	M	G	06	04	08		-	M3
1	2	3	4	5	6	7	8		9

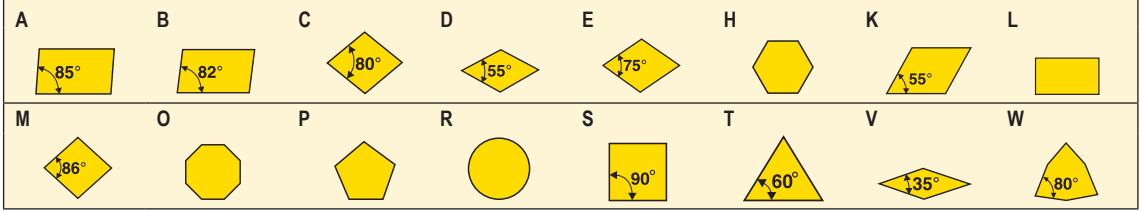
Insert/Metric series, Extract from ISO 1832-2004



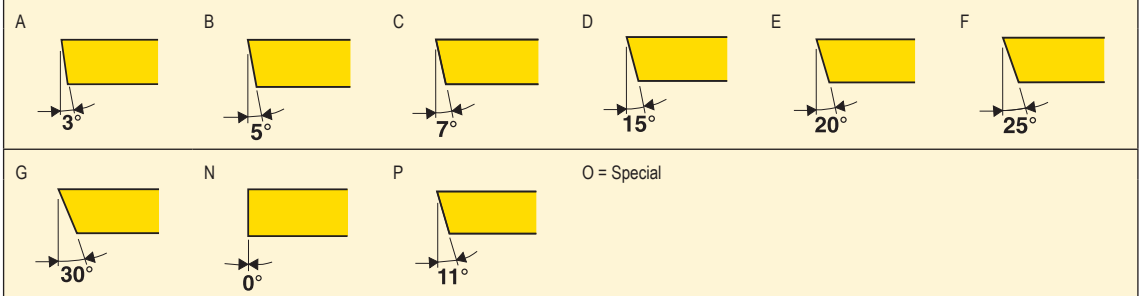


C	C	M	W	09	T3	08	S	-		-		-	L1	-		-	B
1	2	3	4	5	6	7	8		9		10		11		12		13

1. Insert shape



2. Insert side clearance angle

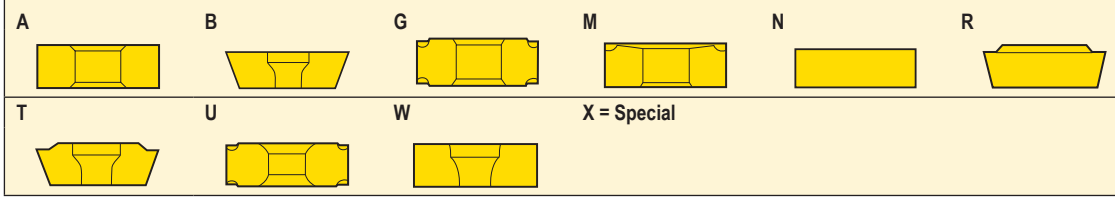


3. Tolerances

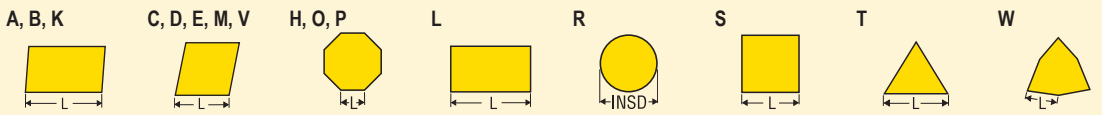
Tolreanceclass	Tolerance ± mm		For IC, dimension in mm												
	S	IC	3,175*	3,969	4,064	4,760	6,350	9,525	12,700	15,875	19,050	20,000	25,400	31,750	38,100
A	0,025	0,025	•			•	•	•	•	•	•	•	•	•	•
C	0,025	0,025	•	•	•	•	•	•	•	•	•	•	•	•	•
E	0,025	0,025	•			•	•	•	•	•	•	•	•	•	•
F	0,025	0,013	•			•	•	•	•	•	•	•	•	•	•
G	0,130	0,025	•			•	•	•	•	•	•	•	•	•	•
H	0,025	0,013	•			•	•	•	•	•	•	•	•	•	•
J	0,025	0,050	•			•	•	•							
	0,025	0,080							•						
	0,025	0,100								•	•	•			
	0,025	0,130											•		
	0,025	0,150												•	•
K	0,025	0,050	•			•	•	•							
	0,025	0,080							•						
	0,025	0,100								•	•	•			
	0,025	0,130											•		
	0,025	0,150												•	•
M	0,130	0,050	•			•	•	•							
	0,130	0,080							•						
	0,130	0,100								•	•	•			
	0,130	0,130											•		
	0,130	0,150												•	•
U	0,130	0,080	•			•	•	•							
	0,130	0,130							•						
	0,130	0,180								•	•	•			
	0,130	0,250											•	•	•

* Not ISO

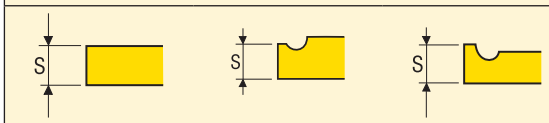
4. Fixing and/or chipbreaker



5. Cutting edge length



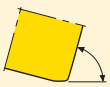
6. Thickness



01 = 1,59 mm	T3 = 3,97 mm	07 = 7,94 mm
T1 = 1,98 mm	04 = 4,76 mm	08 = 8,00 mm
02 = 2,38 mm	05 = 5,56 mm	09 = 9,52 mm
03 = 3,18 mm	06 = 6,35 mm	

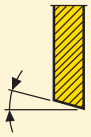
7. Corner configuration

1st letter



A = 45°
D = 60°
E = 75°
F = 85°
P = 90°
Z = Special

2nd letter



A = 45°
B = 5°
C = 7°
D = 15°
E = 20°
F = 25°
G = 30°
N = 0°
P = 11°
Z = Special

nose radius



M0 = round inserts (metric version)

005 = 0,05 mm
01 = 0,1 mm
02 = 0,2 mm
04 = 0,4 mm
08 = 0,8 mm
12 = 1,2 mm
etc.

8. Cutting edge condition

F



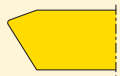
E



T



S



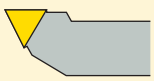
W

= High feed inserts

Not mandatory information

9. Cutting direction

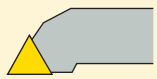
L



N



R



Not mandatory information

10. Internal designation

e.g. chipbreaker designation
F = Finishing
M = Medium
R = Roughing

e.g. edge designation
e.g. 01020 = 0,1 mm x 20°

Not mandatory information

11. Manufacturers option

Tip sizes:
L0
L1
L2
LF = full-face insert (sintered layer)

Not mandatory information

12. Internal designation

Turning
e.g. chipbreaker designation
F = Finishing
M = Medium
R = Roughing
WZ = Wiper (PCBN)
etc.

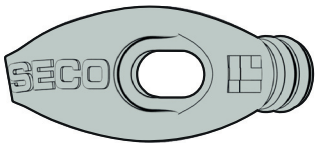
Not mandatory information

13. No. of tips

B = 2
C = 3
D = 4
U = 4 (double sided)
V = 6 (double sided)

Not mandatory information

Coolant clamps for internal toolholders and modular turning heads

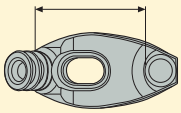


CP	14	U	20	S	-	2	R
1	2	3	4	5		6	7

1. Coolant clamp type

CN = Coolant clamp for negative inserts
CP = Coolant clamp for screw clamped inserts

2. Clamping length

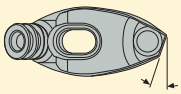


14 = 14 mm
17 = 17 mm

3. Hole diameter

U = 1,6 mm
L = 2,2 mm
X = Custom

4. Outlet angle



00 = 0°
10 = 10°
20 = 20°

5. Coolant clamp application type

F = Fine
R = Roughing
S = Standard

6. Number of holes

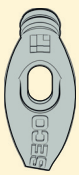
0, 1, 2 etc.

7. Orientation of outlet face

R = Right



L = Left



Otherwise neutral

ISO attribute	Explanation
AN	clearance angle major
B	shank width
BAWS	workpiece side body angle
BD	body diameter
BLQ	balance quality code
CDRX	cutting depth radial maximum
CDX	cutting depth maximum
CDXI	cutting depth maximum insert
CDXSH	cutting depth maximum shank
CF	spot chamfer
CNT	coolant entry thread size
CP	coolant pressure
CTMS	connection text machine side
CTWS	connection text workpiece side
CUTDIA	work piece parting diameter maximum
CW	cutting width
D1	fixing hole diameter
DCB	connection bore diameter
DCB1	connection bore diameter 1
DCB2	connection bore diameter 2
DCINN	cutting diameter internal minimum
DCINN2	cutting diameter internal minimum 2
DCINN3	cutting diameter internal minimum 3
DCP	data chip provision
DCSFMS	contact surface diameter machine side
DF	flange diameter
DIX	tool changer interference diameter maximum
DMM	shank diameter
EPSR	insert included angle
GAMO	rake angle orthogonal
H	shank height
HF	functional height
HRY	measure, Measure from ref. plane of mounting to bottom plane of unit in direction Y m
IC	inscribed circle diameter
IGL	insert gauge length
INPLM	minimum initial plunge diameter
INPLX	initial plunge maximum
INSD	insert diameter
INSL	insert length
KCHL	corner chamfer angle left hand
KCHR	corner chamfer angle right hand
L	cutting edge length
LAMS	inclination angle
LB1	body length 1
LB2	body length 2
LCOG	length to center of gravity
LF	functional length
LF2	functional length_2
LFS	functional length secondary
LH	head length
LH2	head length 2
LPR	protruding length

ISO attribute	Explanation
LS	shank length
LSC	clamping length
LU	usable length
OAH	overall height
OAL	overall length
OAW	overall width
PDX	profile distance ex
PSIRL	cutting edge angle major left hand
PSIRR	cutting edge angle major right hand
RADH	radial body height
RADW	radial body width
RE	corner radius
RETL	flank radius left hand
RETR	flank radius right hand
RoundedUpWeight	roundedUpWeight
RPMX	rotational speed maximum
S	insert thickness
TDZ	thread diameter size
TPI	threads per inch
W1	insert width
WF	functional width
WF2	functional width 2
WFS	functional width secondary

Insert shape and size

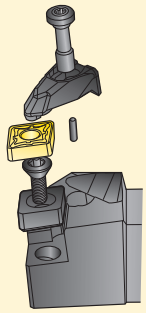
The application often determines what insert shape and size should be utilized

Insert shape	Insert size	Maximum depth of cut a_p (mm)
C	04, 06, 09, 12, 16, 19, 25	2 – 28
D	07, 11, 15	2 – 28
R	06, 08, 10, 12, 15, 16, 19, 20, 25, 32	2 – 28
S	09, 12, 15, 19, 25, 31, 38	2 – 28
T	06, 11, 16, 22, 27, 33	2 – 28
V	11, 16, 22	2 – 28
W	06, 08	2 – 28

D Toolholder
First choice for general machining, external

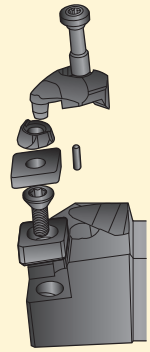
- For negative basic shape inserts with hole
- Robust, stable locking arrangement

The insert is locked in position by means of a clamp which presses the insert into and down onto the fixed insert seat



D.....-C Toolholder

- With pin and carbide pressure pad

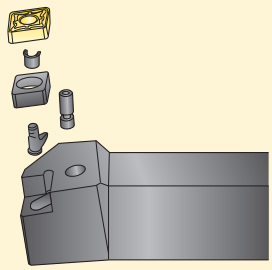


P Toolholder
A complement to the D Toolholder, external

- For negative inserts with hole
- No clamp on the top, facilitates free chip flow

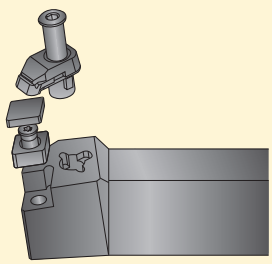
In the illustration when the clamping screw is tightened and the toggle lever secures the insert in the insert seat

In the alternative design the clamping screw act upon the wedge that fix the insert towards the centre pin



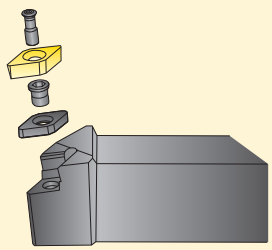
C Toolholder
Designed mainly for Seco PCBN inserts without hole

The insert is locked in position by means of a clamp, which is equipped with a carbide plate



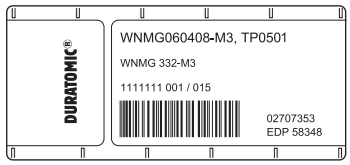
S Toolholder
For external and internal turning with positive inserts

The insert is locked in position by a centre screw



Insert type and size

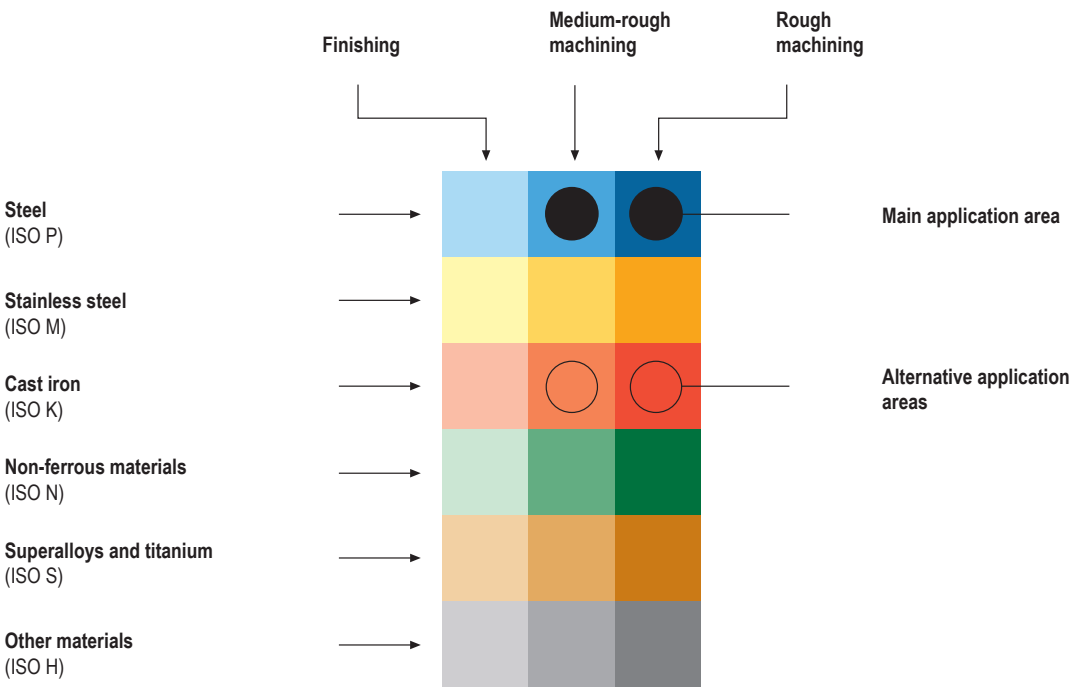
The insert type and size are often determined by the toolholder choice.
The code on the insert must correspond to the code on the toolholder.



Insert type and size

Secolor is a system for presenting the application area for a specific insert. It is based on a matrix with eighteen squares symbolizing different workpiece materials and different machining conditions. The geometry of the insert i.e. the basic shape and the chipbreaker, together with the carbide grade forms the application area that the insert is meant for.

Black dots in the matrix indicate the main application areas for the inserts and circles indicate alternative areas.



Chipbreakers

Chipbreaker application areas

The chipbreakers are designed to give the insert proper edge geometry for different application areas.
Chipbreaker designations describe the application area as follows:

Letters: F = Finishing
M = Medium turning
R = Roughing

Digits: 1 = Low edge strength
9 = High edge strength

The colors in the chart indicates the ISO material group the chipbreakers are adaptable for.

ISO material group use

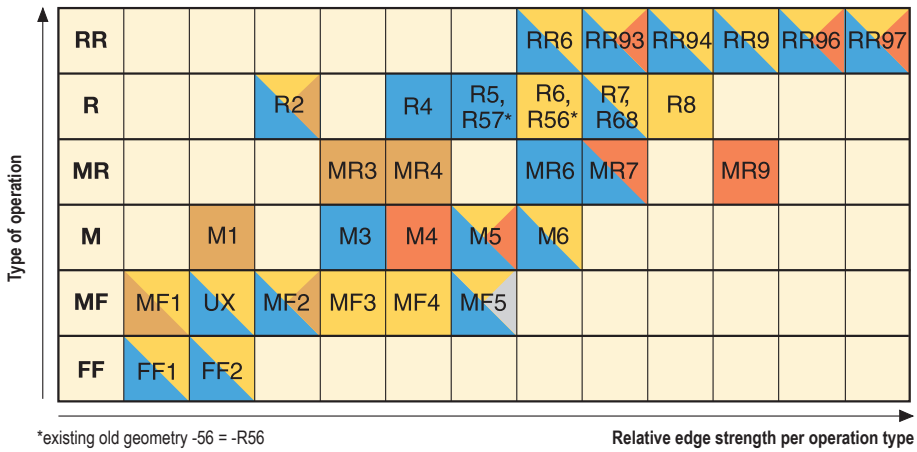
MF4 Stainless steel (ISO M)

FF2 Steel (ISO P)
Stainless steel (ISO M)

MR7 Steel (ISO P)
Cast iron (ISO K)

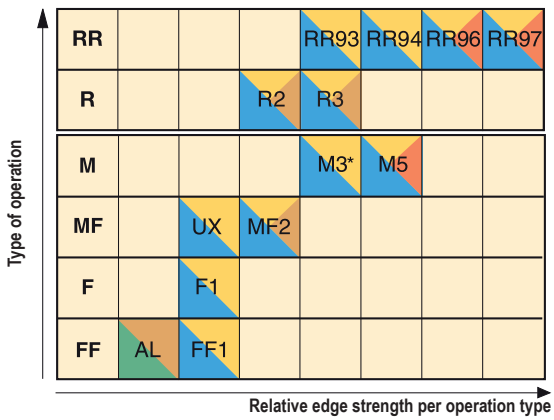
M5 Steel (ISO P)
Stainless steel (ISO M)
Cast iron (ISO K)

Chipbreaker chart for negative basic shape inserts

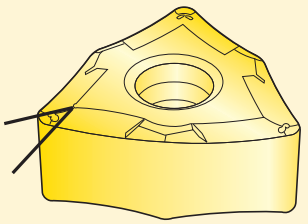
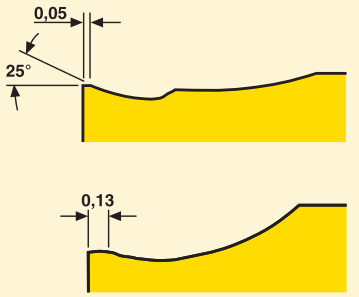
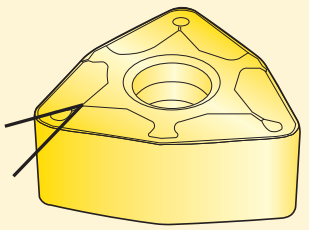
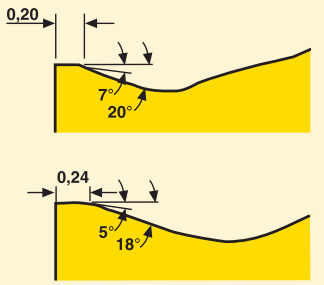
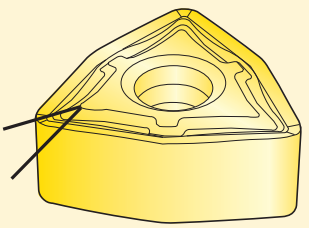
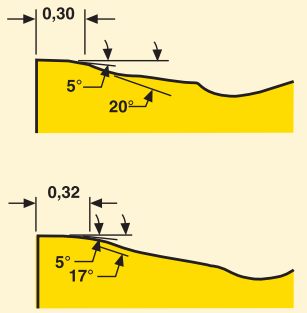


*existing old geometry -56 = -R56
existing old geometry -57 = -R57

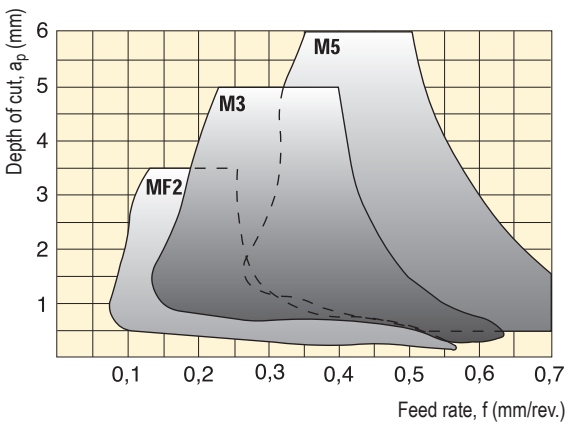
Chipbreaker chart for positive basic shape inserts



*existing old geometry -F2:
= -M3 for smaller inserts
= -RR96/-RR97 for heavy machining inserts

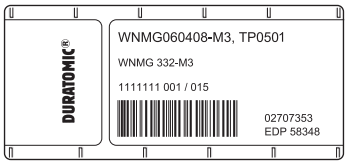
-MF2 	**WNMG0804..** 	For finishing
-M3 	**WNMG0804..** 	For general machining
-M5 	**WNMG0804..** 	For roughing

Complete programme is shown on the following pages.



Insert grades

The Seco range consists of coated (CVD and PVD), uncoated, and cermet grades.
The designation of the grades indicates a ranking regarding their wear resistance and toughness behaviour.
All the grades are also classified according to ISO (P, M, K, N, S, H).



Indicative ISO classification of the grades

	Grades	Steel						Stainless steel					Cast iron					Non-ferrous metals				Superalloys and titanium				Hard materials			
		P						M					K					N				S				H			
		P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
CVD	TP0501	■	■											○															
	TP1501		■	■										○													○		
	TP2501			■	■				○						○														
	TP3501			■	■	■				○																			
	TP200			■	■				○						○														
	TP40				■	■				■	■																		
	TM2000			○	■				■	■																			
	TM4000				○	■	■				■	■																	
	TK0501												■	■														○	
	TK1501		○					○						■	■														
	TH1500												○														■		
PVD	TS2000		○					■						○									■					○	
	TS2050							○															■					○	
	TS2500			○					○						○								■						
	TH1000																						■				■		
	CP200		○					■						○									■						
	CP500			○					■						○									○					
	CP600				○					■														○					
Cermet	TP1030	■							○																				
	TP1020		■																										
Uncoated	890								○					○					○				■					○	
	HX									○					○					○									
	KX																		■										
	883									○						○				○				■					○

The black areas in the chart indicate an insert's main ISO application groups and the white areas indicate other supplementary application groups.

Jetstream Tooling® – Introduction

Seco Jetstream Tooling® is a revolutionary solution to the problem of delivering coolant precisely to the cutting zone. It works by delivering a concentrated high pressure jet of coolant at high velocity straight to the optimum position close to the cutting edge. The jet lifts the chips away from rake face, improving chip control and tool life enabling increased cutting data. It is proven to show improvement in nearly all material groups and with a wide choice of coolant pressures.

Seco Jetstream Tooling® consists of holders for external turning, both square shanks, Parting-off blades and Seco-Capto™ backends. For internal turning, Jetstream Tooling® capability is being integrated to JET GL-Turning heads for Steadyline® and some internal turning bars with the help of the unique coolant clamps. It can be mounted and used on a large selection of machines. For general ISO turning coolant can either be supplied to the toolholder internally in the case of JETI or Seco-Capto™ toolholders.or externally through a coolant hose.

The JETI is developed with a compact assembly in mind. The JETI tooling with integrated coolant channels eliminates the need for any external piping and connections that would otherwise obstruct machine movements in tight workspaces. Integrated channels in adapter and toolholder make it possible for coolant to reach the cutting edge directly from the adapter.

Hoses for external connection which is attached to one of the inlet positions of the toolholder allow the coolant supply to be connected to almost any position on the turret or tool block.

Seco Jetstream Tooling® Duo toolholders, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life.

Products are available for ISO turning with positive and negative inserts, as well as for Grooving and Parting-off area. Note that it is up to the skilled artisan to make sure that all aspects of health and security are fulfilled.

Type of tool	**Maximum recommended coolant pressure**	
Insert carrier	**bar**	**psi**
Square shank with hose	275	4000
GL-Head with Steadyline® bar - Cylindrical	200	3000
GL-Head with Steadyline® bar – HSK	100	1500
GL-Head with Steadyline® bar – Seco-Capto™ (with coolant tubes)	70 (150)	1000 (2000)
Seco-Capto (with coolant tubes)	70 (150)	1000 (2000)
JETI toolholders and blades	200	3000
Adapters	**bar**	**psi**
JETI Adapter with Seco-Capto™ (with coolant tubes)	70 (150)	1000 (2000)
JETI Adapter with VDI	80	1100 (2000)
JETI Adapter with HSK-T	100	1500
JETI Adapter with Square shank	275	4000

* When using toolholder together with an adapter the Maximum coolant pressure is limited to the adapter's maximum coolant pressure.

Designation of Jetstream Tooling® holders follows ISO, see page(s) 10-15.

Jetstream Tooling® for Grooving and Parting-off, see page(s) 477, 691, 713.



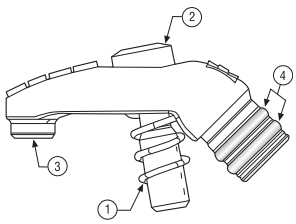
Coolant clamps

Coolant clamps
The unique 3D printed coolant clamps.



The coolant clamp executes many functions. It provides a secure and fast clamping of the insert by virtue of the spring loaded design with a single screw. It directs and orients the high pressure coolant jets straight and close to the cutting edge. The manufacturing flexibility of the coolant clamp allowes it to have an optimised coolant channel.
Selection includes standard, finishing and roughing coolant clamps with orientations neutral, right and left.
The horizontal orientation angles 0°, 10° and 20 ° are also available.
A major portion of the ordering code is laser marked on the coolant clamp.

Changing the insert
Simply loosen the spring loaded coolant clamp screw.
Change or index the insert. Ensure the coolant clamp pin and the double O-ring are well inside the fixing hole before tightening from the top.
Tighten the screw with recommended torque.



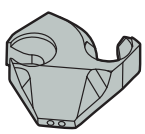
1. Spring
2. Clamp screw
3. Clamp pin
4. O-rings



Changing the O-Rings
After changing the O-rings, ensure that both the Coolant clamp pin & the O-rings are in the correct angle to the fixing hole position before tightening the screws. Otherwise it may cause damage to the O-rings.
The double O-rings at the entry point of the Coolant Clamps ensures high pressure operational safety up to 200 bars.

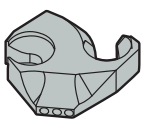
JET/ JETL inducer

Finishing inducer



The mounted Jetstream Tooling® Finishing Inducer gives a universally applicable coolant jet, which provides a well positioned coolant wedge from finishing to medium-roughing applications.
The inducers are marked with “-F” suffix.

Roughing inducer



As accessories there are Jetstream Tooling® Roughing Inducers available for easy exchange providing a more boosted coolant wedge for clearer roughing applications or for cases demanding more space for the chip flow.
The inducers are marked with “-R” suffix.

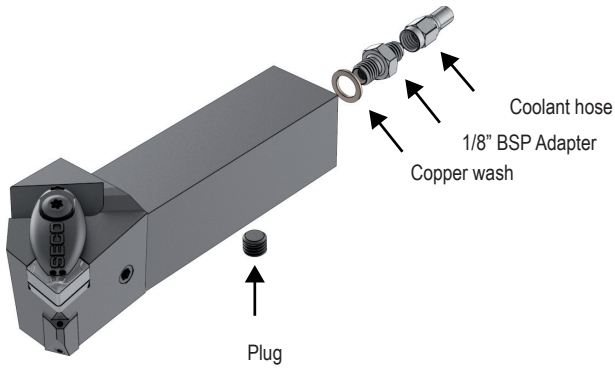
Changing the insert

Simply loosen both locking screws, and rotate the inducer clear of the insert. Check the condition of the tool, screws and O-ring and exchange regularly. Change or index the insert in the standard way before rotating the inducer back into position (make sure the inducer O-ring is still in place) and re-tighten the insert locking screw before locking the inducer.



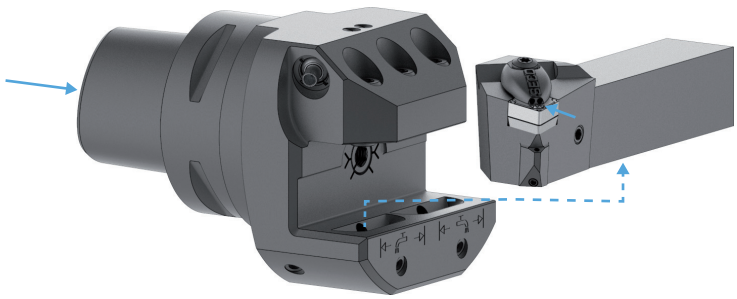
JETI Assembly instructions with hoses

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures. Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hose should have a blanking plug fitted.



For accessories, see page(s) 746.

JETI Assembly instructions with adapter

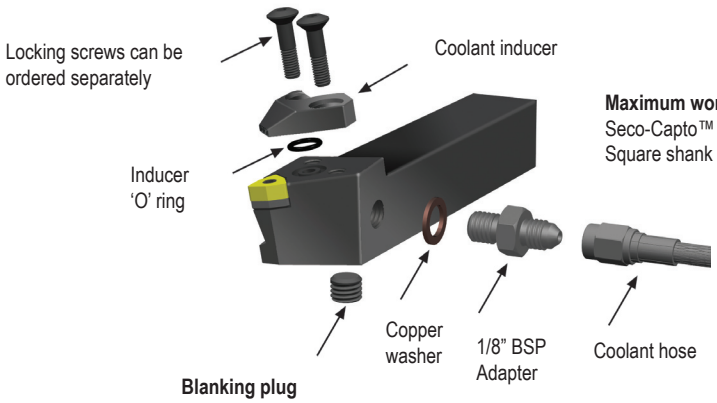


To use the benefits of a JETI-holder there is a need to use toolholder adapter designed for JETI-connections. Maximum coolant pressure when using this feature is limited to the adapter's maximum coolant pressure.
Note: The unused coolant hole (from the back) should have a blanking plug fitted.

JET/ JETL Assembly instructions

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures. Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hole should have a blanking plug fitted. Please note the maximum safe working pressures shown below.

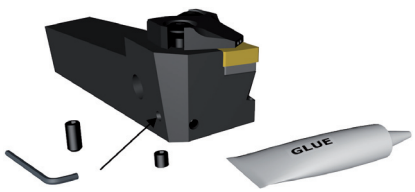
The recommended torque for tightening the inducer locking screw 117.26-655 is 4 Nm, see page(s) 748 .



Maximum working pressures
Seco-Capto™ – 70 bar (1000 psi)
Square shank – 275 bar (4000 psi)

Blanking plug
Make sure the blanking plug is securely in position in the unused coolant hole prior to use.

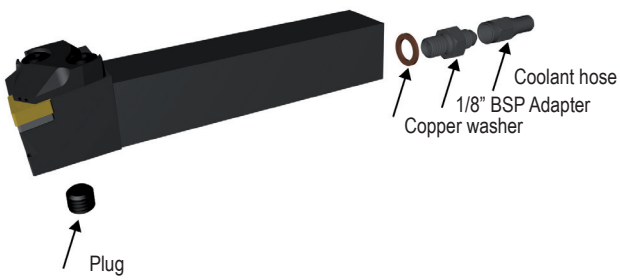
In the rare cases you need to shut off the Duo outlet underneath the insert, first remove the short screw in the side of the toolholder. Then mount the long plugging screw P6SS4X8 (02885815) using suitable glue to seal the thread (e.g. Loctite® 270). Plugging the underneath outlet should be considered permanent and irreversible.



Replace the short screw here with the long screw to shut off underneath coolant

Alternative coolant inlet

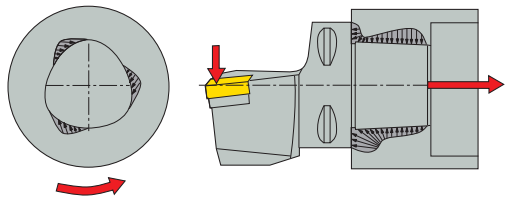
The range of toolholders denominated …B in the description offers one coolant inlet underneath and one in the backend of the shank, see code keys on page(s) 14-15.



For Accessories, see page(s) 746.

Introduction

Seco-Capto™ is a quick-change modular tooling system for quick set-up and replacement of the cutting edge.



Advantages

- Quick tool change, increases the available productive time.
- Flexible, same toolholder can be used in different machines which reduces the tool stock.
- Modular, building of tools with extension adapters reduces the tool stock
- Rigid, no reduction of cutting data.
- Accurate, tapered polygon coupling produces a strong, self centering joint with repeatability within ±0,002 mm.

All toolholders have through holes for coolant.

Clamping units

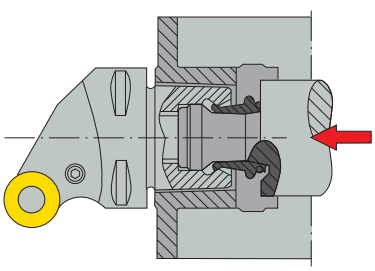
The manual clamping units are available in different versions;

- VDI shaft, straight or angled.
- Shank type to use with external toolholders.
- Cylindrical type to use with internal toolholders.
- Versions for special applications.

The unit is locked with a drawbar or screw from the back

Clamping units, please see page(s) 732-740.

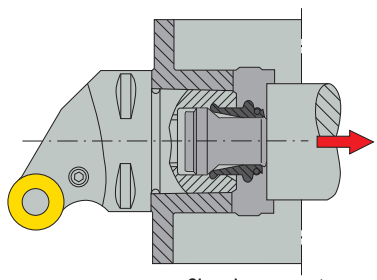
Unclamped position



Clamping segments

When the drawbar is pushed forward the diameter of the clamping segments decreases and the clamping segments are loosened from the cutting unit. The drawbar also pushes the cutting unit out from the joint.

Clamped position



Clamping segments

When the drawbar is pulled back, the diameter of the clamping segments expand and the cutting unit is pulled into position.

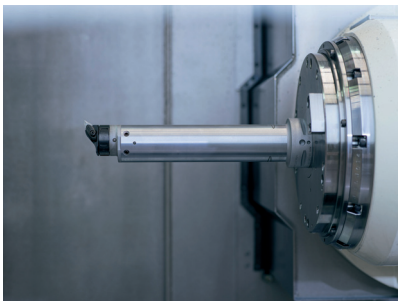
Steadyline® vibration damping holders for turning and boring operations

Steadyline® for tool overhang challenges

Seco`s patented Steadyline® vibration damping holders drastically improve the productivity of the turning assembly. It allows the use of much higher cutting data, with quieter operation and optimum stability.

They are available in:

- Body diameters ∅25, ∅32, ∅40, ∅50, ∅60, ∅80 & ∅100 mm.
- Lengths 6XD, 8xD and 10xD.
- Seco-Capto™ C4, C5, C6, C8 connections, HSK-T/A 63, HSK-T/A 100.
- Cylindrical shanks-Both in Metric & Inch Sizes.
- With the unique work-piece side connection called GL-Heads in 4 sizes. GL25, GL32, GL40, GL50.
- Flexibility by using same bars for turning and boring applications.
- Intermediate BA connection for Body diameters ∅60, ∅80 and ∅100 mm.



The Picture shows a Steadyline bar together with Jet GL-Turning head on a machine.

A Steadyline bar is one of the most stable solution in the market for tool overhang challenges for reducing vibrations and increasing productivity.

Benefits from Increased productivity

Every aspect of Steadyline® holders has been designed with the consideration for increasing productivity, capacity and machining economy. The design features of the unique GL-Turning heads enhances the steadyline bars to perform & deliver maximum benefits. The Jetstream integrated Jet GL-Heads ensures a cool & steady turning to utmost stability & productivity.

- Increase productivity by increased parameters, surface finish, tool life and vibration free machining
- Reduce head changing down times & insert indexing down times thanks to the unique GL-Heads
- Achieve highly accurate parts with secured surface finish
- Increase selection & less critical spares for maximized versatility
- Increase flexibility by using same bars for turning and boring & same heads for 0°/180° turning head orientation
- Control wear, heat & chips with Jetstream Tooling®
- Increased operational safety at high pressures



GL -Turning heads are of different designs.

- Standard GL Heads ∅32, ∅40 and ∅50
- Jetstream tooling integrated “Jet GL heads” ∅32, ∅40 and ∅50
- Standard GL Heads for ∅25.
- Jetstream tooling integrated GL- Grooving/Parting off heads ∅25, ∅32, ∅40 and ∅50.
- Jetstream tooling integrated GL- Threading heads ∅25, ∅32, ∅40 and ∅50.

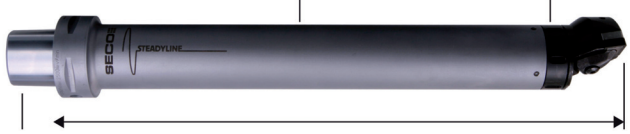
Note: The Jet GL-Turning heads uses a coolant clamp. See Coolant clamp page for more details regarding this in page(s) 31.

Product range and design

Steadyline body diameter	Machine side connections	Working length	BA Connection	GL-Heads	Jetstream Integration	GL-Head styles LH & RH	Inserts
∅25	C4, C5,C6 HSK-T/A63 ∅25, ∅ 1”	6xBD (Steel) 8xBD (Steel) 10xBD (Carbide reinforced)	–	**GL25**	–	SCLCx-09, SDUCx-07 & 11, SDXCx-11, SDUCx-11X, STFCx-11, SVUBx-11, SDUNx-11	CC09, DC07, DC11, TC11, VB11, DN11
∅32	C4, C5, C6,C8 HSK-T/A 63 HSK-T/A100 ∅32, ∅1,25”	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	**GL32**	–	SCLCx-06, 09 & 12, SDUCx-11, SDXCx-11, SDUCx-11X, SDXNx-11, SDUNx-11X, STFCx-16, SVUBx-16, SVUNx-13, DCLNx-12, DDUNx-11 & 15, DWLNx-06 & 08; CTUNx-11, CRSNx-09, CRSNx-09	CC06, CC09, CC12, DC11, TC16, CN12, DN11, VN13, WN06, WN08, TN11, RN09
					GL32..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET, DCLNx-12JET, DDUNx-11JET, DDUNx15JET, DWLNx-06 JET	CC09, DC11, VB16, CN12, DN11, DN15, WN06
∅40	C5, C6, C8 HSK-T/A 63 HSK-T/A100 ∅40, ∅1,5”	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	**GL40**	–	SCLCx-06, 09 &12, SDUCx-11, SDXCx-11, SDUCx-11X, SVUBx-16, DDUNx-11 & 15, STFCx-16, DCLNx-12, DWLNx-06 & 08	CC06, CC09, CC12, CN12, DC11, DN11, DN15, TC16, WN06, WN08
					GL40..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET, DCLNx-12 JET, DDUNx-11JET, DDUNx-15JET, DWLNx-06 JET	CC09, DC11, VB16, CN12, DN11, DN15, WN06
∅50	C6, C8 HSK-T/A 63 HSK-T/A100 ∅50, ∅2”	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	–	**GL50**	–	SCLCx-06, 09 & 12; SDUCx-11, SDXCx-11, SDUCx-11X, STFCx.16, SUBx-16, DCLNx-12, 16 & 19; DDUNx-15, DWLNx-06 & 08; CCLNx-12	CC06, CC09, CC12, DC11, TC16, CN12, CN16, CN19, DN15, WN06, WN08, CNMN12
∅60	C6, C8 HSK-T/A100 ∅60, ∅2.5”	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	BA60				
∅80	C8 HSK-T/A100 ∅80, ∅3”	6xBD (Steel) 8xBD (Steel) 10xBD (Steel)	BA80		GL50..JET	DCLCx-09JET, DDUCx-11JET, DVUBx-16JET,DCLNx-12JET, DDUNx-15JET, DWLNx-06JET	CC09, DC11, VB16, CN12, DN15, WN06
∅100	∅100, ∅4”	10xBD (Steel)	BA100				

Body diameters: ∅25, ∅32, ∅40, ∅50, ∅60, ∅80 & ∅100 mm

Internal turning, Thread-turning, MDT & Boring heads



Machine side connections: Seco-Capto™ (C4, C5, C6, C8) & HSK-T/A63, and HSK-T/A100, Cylindrical (∅25, ∅32, ∅40, ∅50, ∅60, ∅80, ∅100)

Lengths: 6xD, 8xD, 10xD

GL-Heads: GL25, GL32, GL40 and GL50
Intermediate BA-Connection for ∅60, ∅80 & ∅100 mm

Unique GL-Turning Heads

The patented unique GL-Turning Heads are precisely ground, taper quadrilobe based connection which can be accurately centered & grabbed firm to the Steadyline® bar using the fine pitch threaded clamping nut.

– The centering accuracy and repeatability of the GL-Heads as good as Seco-Capto™.

– Designed for 0°/180° turning head orientation.

– Optimum damping effect through short and compact GL-Heads.

– Wide range of selection of GL-Turning heads, more than 200 GL-Heads available.

– Jet GL-Heads for Integrated Jetstream Tooling® capability.

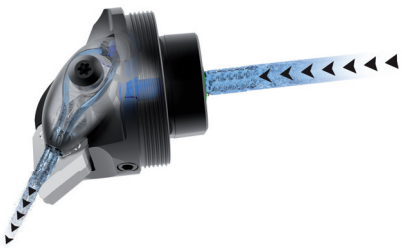
– Jet GL-Heads are designed with the unique 3D printed coolant clamp.

– Good selection of GL-Head styles, insert sizes & insert shapes.

The compact GL-Turning head preserves the damping strengths of the Steadyline® bars. A Steadyline® bar is one of the most stable solutions in the market for tool overhang challenges for reducing vibrations and increasing productivity.

JET GL-Turning heads

The JET GL-Turning heads further strengthen the solution by integrating the Jetstream Tooling® benefits to the GL-Turning head and in turn to the Steadyline® bar. JET GL-Turning heads use a multifunction coolant clamp for the successful integration.





Coolant Seal



Advantages

– Efficient: Ensures a quick and firm connection and thus decreases the head changing time drastically and increases productivity.
– Flexible: The quadrilobe enables 180 degree orientation of the turning head and hence can be used as left & right hand tools depending on the machining system.
– Accurate: The taper quadrilobe coupling produces a strong self-centering connection with repeatability within ±0,002 mm at identical conditions.
– Modular: Building different types and styles of Steadyline® bars with suitable GL-Turning heads reduces the inventory.
– Enhances the damping function: The compact and short GL-turning heads are close to the Steadyline® damping mass.
– Jetstream Tooling® gives higher tool life, especially for superalloys and enhances chipbreaking.
– Operational safety: The coolant seal at the backend and the doube O-rings of the coolant clamp ensures maximum operational safety up to 200 bars.

Recommended tightening torques for GL connection nut

For GL workpiece side size	Recommended tightening torque
GL25	25 Nm
GL32	25 Nm
GL40	35 Nm
GL50	55 Nm

To apply the recommended tightening torque, we recommend to use torque spanners, available as Accessories, see MN Tooling systems catalogue.



BA-Connection allows making use of a wide range of GL50-Heads for Steadyline® bars ∅60, ∅80, ∅100.
Each BA-Connection is available in 2 radial offset sizes 'WF' to achieve 2 'f1' reaches, for flexibility over minimum bore diameter & chip space.

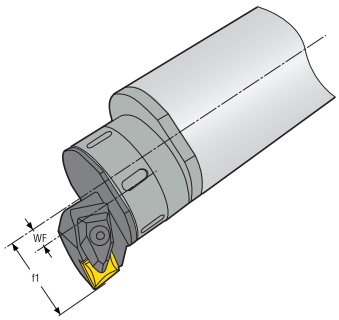


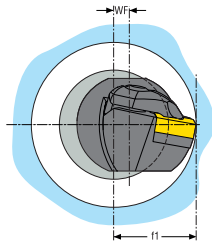


First choice: Wide offset WF providing a wider space.

Additional option: Mini offset WF when accessibility is limited.

Steadyline® BA-Connection with Seco-Capto™ and HSK-T/A machine side connections can also be used for rotating boring operations, when fitted.





For detailed information about BA to GL adapters, see page(s) 284.

Recommended tightening torques for BA connection screws

For BA workpiece side size	Kit of 4 locking screws	Recommended tightening torque
BA060	90FQ4	11 Nm
BA080	90FQ52	16 Nm
BA100	90FQ6	23 Nm

We recommend to use HC torque spanners, commonly available on the market.

∅25 Steadyline bars and GL25-Turning heads

Steadyline bars has been extended to smaller diameter ∅25. They are designed to function at 6xBD, 8xBD and 10XBD lengths. The longer designs are supported with solid carbide body for rigidity. The unique GL-heads range also has been extended for ∅25 Steadyline bars.

Sixteen GL25-Turning heads are being added. Most of them are with positive inserts to reduce the deflection. The turning head range includes applications like general turning, plunge turning, recessing and back boring. Jetstream tooling integration is not included in this extension. The range is explained in the following Table.

Steadyline body diameter	Machine side connections	Working length	GL-Heads	GL-Head styles LH & RH	Inserts
∅25	C4, C5,C6, HSK-T/ A63, ∅25, ∅25,4 (1")	6xBD, 8xBD, 10xBD (Carbide)	**GL25 (16 heads)**	SCLCx-09, SDUCx-7&11, SDXCx-11, SDUCx-11X, STFCx-11, SVUBx-11, SDUNx-11	CC09, DC07, DC11, TC11, VB11, DN11









Detailed operating instructions are part of bars delivery content.

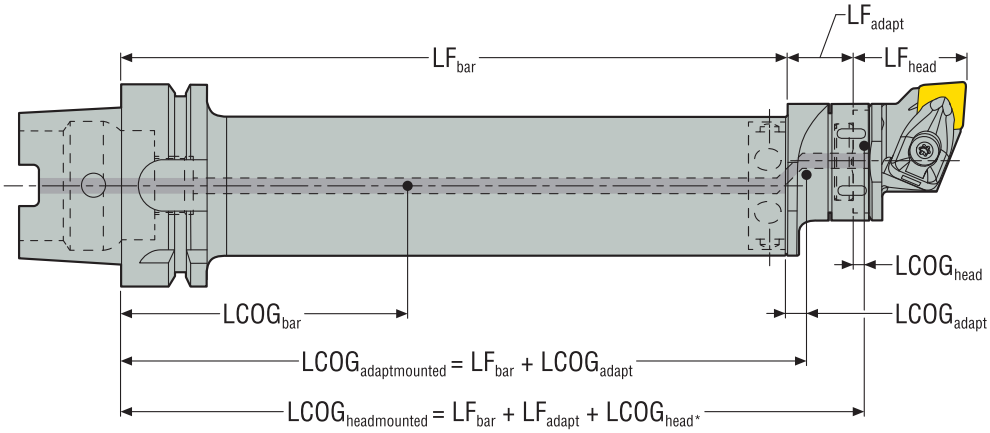
For details of GL-Turning Heads for Turning, and MDT, see page(s) 285-312, 610-613.
For details of GL-Boring heads, see MN Holemaking catalogue.

Steadyline® bars in automatic tool changers

The maximum swinging torque (T) of heavy, long assemblies must be taken into consideration when an automatic tool changers is used to move the bar in the machine.

As a first rough estimate comparing the needed swinging torque of a Steadyline® bar with a specific machine's automatic tool change torque limit, Tswinglimit, the following simplified formula can be used using only data from the Steadyline® bar in mind.

$$T_{simple} = g \times [\mathbf{LCOG}_{bar} * \mathbf{m}_{bar}] * 1.25 / 1000 \text{ Nm} < T_{swinglimit}$$



However, it is recommended to consider the swinging torque for the whole assembly by using the following formula.

$$T = \frac{g \times (\mathbf{LCOG}_{bar} * \mathbf{m}_{bar} + \mathbf{LCOG}_{adaptmounted} * \mathbf{m}_{adapt} + \mathbf{LCOG}_{headmounted} * \mathbf{m}_{head})}{1000}$$

T = Maximum swinging torque of the assembly in Nm
m = mass in kg
LF = functional lengths in mm
LCOG = Positions of the center of gravity in mm

Notes:
a) During tool change, the tool acceleration generates an additional force. It is strongly recommended to slow down the tool changing process if the tool weight or torque is close to the machine limits or to change the tool manually.
b) LCOG, LF and mass values are available in Product pages. If $LCOG_{adapt}$ / $LCOG_{head}$ is unknown, a good estimation can be obtained by replacing LCOG by respective ½ LF.

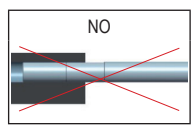
Machine clamping recommendations

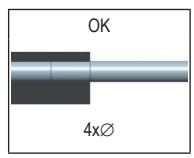
Seco's first recommendation for clamping the bars onto the machines is to use bars with Seco-Capto™ machine side connections.

Second choice is the bars with HSK-T/A machine side connections, as both these solutions provide several benefits:

- Maximum stability thanks to the taper-face system and higher bending resistance
- High positioning accuracy of cutting edge, etc.

While using the third choice, the cylindrical bars, Seco strongly recommend to clamp on the marked cylindrical clamping area ensuring the full 4xD clamping lengths using split sleeves / boring holders.





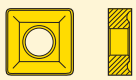
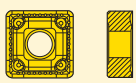
Chipbreaker programme, negative basic shape inserts

	**-FF1**	Chipbreaker for negative inserts. Used to achieve a very fine finish when turning slender steel and stainless steel components. Indicative machining range: f = 0,08-0,30 mm/rev, a_p = 0,2-3,0 mm.
	**-FF2**	Chipbreaker for negative inserts. Intended for fine-finishing and semi-finishing of steels and stainless steels. The positive, tight chip groove offers light cutting action combined with superior chip forming. Indicative machining range: f = 0,08–0,30 mm/rev, a_p = 0,2–1,5 mm.
	**-MF1**	Chipbreaker intended for machining stainless steel, superalloys and titanium alloys. Type ..GG insert has a sharp, precision ground edge. Type ..MG insert has a lightly honed cutting edge for increased strength. MF1 is intended for use in semi-finishing and finishing applications. Indicative machining range: f = 0,08–0,30 mm/rev, a_p = 0,2–3,5 mm.
	**-MF2**	First choice for finishing with negative inserts. Suitable for chip control at depths of cut down to 0,25 mm, provided that the feed rate is in excess of 0,25 mm/rev. Good capacity for medium rough machining. Indicative machining range: f = 0,10–0,40 mm/rev, a_p = 0,2–3,0 mm.
	**-MF3**	Chipbreaker with positive cutting rake angle intended for moderately difficult stainless steel. The MF3 is also intended for light roughing in relatively soft, “tacky” steel and difficult to machine stainless steel if the depth of cut is limited. MF3 can also be used for finishing of cast iron. Indicative machining range: f = 0,2–0,4 mm/rev, a_p = 1–4 mm.
	**-MF4**	Chipbreaker intended for medium/finishing of stainless steel, very open and highly positive geometry. Indicative machining range: f = 0,15–0,50 mm/rev, a_p = 0,5–4,0 mm.
	**-MF5**	Chipbreaker intended for medium finishing of steel and stainless steel at high feeds. Very easy cutting and open geometry. Indicative machining range: f = 0,2–0,8 mm/rev, a_p = 0,2–2,7 mm.
	**-M1**	Chipbreaker intended for superalloys and titanium alloys. It has a positive cutting rake angle which is slightly honed to increase the edge strength. Also available with a perfectly sharp edge (type ..GG insert). The M1 is intended for light roughing and for semi-finishing. Indicative machining range: f = 0,2–0,4 mm/rev, a_p = 1,5–5,0 mm.

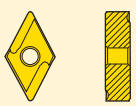
Chipbreaker programme, negative basic shape inserts

	**-M3**	First choice for medium-rough machining and also the most versatile Seco chipbreaker. In most cases, it is the only chipbreaker needed. Offers the best useful life and best chipbreaking in a wide range of cutting data and workpiece materials. Suitable for precision forged and cast workpieces (NNS or Near Net Shape workpieces) as regards both chip control and edge strength. Indicative machining range: f = 0,15-0,50 mm/rev, a_p = 0,5-5,0 mm.
	**-M4**	Chipbreaker intended for cast iron. Positive rake angle with a narrow T-land gives low cutting forces. First choice for cast iron machining at high speeds. Indicative machining range: f = 0,1-0,7 mm/rev, a_p = 0,2-0,7 mm.
	**-M5**	The choice for roughing by means of double-sided inserts. Intended for demanding operations at high feed rates in steel. stainless steel and cast iron. Combines high edge strength with comparatively low cutting forces. Indicative machining range: f = 0,3-0,7 mm/rev,a_p = 1,5-7,0 mm.
	**-M6**	Strong double-sided chipbreaker, intended for semi-roughing and roughing of steel. A well-balanced design combining excellent chip control and relatively low cutting forces which provides reliable cutting action in both continuous as well as interrupted cuts. Well suited also for machining of ferritic and martensitic stainless steels. Indicative machining range: f = 0,2-0,8 mm/rev, a_p = 1,0-7,0 mm
	**-MR3**	Chipbreaker with a positive cutting rake angle that reduces cutting forces and gives a very high edge strength. Intended for medium-rough and rough machining of superalloys, titanium alloys and hardened steel. Indicative machining range: f = 0,2–0,6 mm/rev, a_p = 1,5–7,0 mm.
	**-MR4**	The MR4 has a negative T-land, which gives extremely high edge strength. The chipbreaker is intended for more difficult machining applications on superalloys and titanium alloys, such as intermittent cuts and the machining of parts with raw surface. Indicative machining range: f = 0,15–0,50 mm/rev, a_p = 1,5–7,0 mm.
	**-MR6**	Chipbreaker for medium and medium roughing of steel. Very easy cutting and open geometry. Double and single-sided. Indicative machining range: f = 0,25–0,80 mm/rev, a_p= 0,9–5,0 mm.
	**-MR7**	The strongest chipbreaker for double-sided inserts. The MR7 is suitable for high feed rates and depths of cut that normally require a single-sided insert. The chipbreaker has a wide negative T land, which gives high edge strength. Indicative machining range: f = 0,35–0,90 mm/rev, a_p = 1,5–7,0 mm.

Chipbreaker programme, negative basic shape inserts

	**-MR9**	The strongest chipbreaker intended for cast iron. The negative chamfers makes it very suitable for high feeds in interupted cuts and still with very reliable action in cast irons. Intended machining range: f = 0,2-1,0 mm/rev a_p = 1,0-12mm
	**-R4**	Chipbreaker for single-sided inserts. It has a positive cutting edge which gives low cutting forces. Indicative machining range: f = 0,2–0,6 mm/rev, a_p = 2–10 mm.
	**-R5**	Chipbreaker for single-sided inserts. Recommended for medium-roughing of steel. Indicative machining range: f = 0,3–1,0 mm/rev, a_p = 2–12 mm.
	**-56** **-R56**	Chipbreaker with easy-cutting geometry for single-sided inserts. Intended for stainless steel machining applications. Indicative machining range: f = 0,4–0,8 mm/rev, a_p = 2–12 mm.
	**-57** **-R57**	Chipbreaker for single-sided roughing inserts. Recommended for roughing operations on steel at high feed rates and high depth of cut. Indicative machining range: f = 0,45-1,10 mm/rev, a_p = 2-12 mm.
	**-R6**	Chipbreaker for single-sided inserts. Recommended for medium-roughing of stainless steel. Indicative machining range: f = 0,25–0,70 mm/rev, a_p = 2–10 mm.
	**-R68**	Chipbreaker for single sided insert. Recommended for heavy-roughing of steel. Indicative machining range: f = 0,4–1,4 mm/rev, a_p = 4–14 mm.
	**-R7**	A strong but easy-cutting chipbreaker for single sided inserts. The R7 is well suited for intermittent machining of both stainless and ordinary carbon steel. Indicative machining range: f = 0,4–1,6 mm/rev, a_p = 3–18 mm.

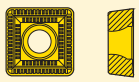
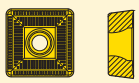
Chipbreaker programme, negative basic shape inserts

	**-R8**	A very strong chipbreaker for single-sided inserts. The R8 is intended for high feed rates when machining castings and forgings of austenitic stainless steel. Indicative machining range: f = 0,35–0,80 mm/rev, a_p = 2–12 mm.
	**-RR6**	A very easy-cutting chipbreaker for single-sided inserts. Recommended for roughing of stainless steel and steel. Indicative machining range: f = 0,3–1,0 mm/rev, a_p = 2–12 mm.
	**-RR9**	Extremely strong chipbreaker for single-sided negative inserts, for use at high feed rates. Suitable for difficult castings and forgings and for austenitic stainless steel. Indicative machining range: f = 0,5–1,2 mm/rev, a_p = 2,5–15,0 mm.
	**-RR93**	Heavy roughing chipbreaker for negative single-sided inserts for very high parameters for all materials. Indicative machining range: f = 1,3–2,6 mm/rev, a_p = 10–30 mm.
	**-RR96**	Heavy roughing chipbreaker for negative single-sided inserts for high parameters and chip control for all materials. Indicative machining range for LNMX50: f = 1,5–2,6 mm/rev, a_p = 12–36 mm.
	**-RR97**	Heavy roughing chipbreaker for negative single-sided inserts for soft materials. Indicative machining range for LNMX50: f = 1,5–2,6 mm/rev, a_p = 10–36 mm.
	**-UX**	Chipbreaker for negative inserts. Positive cutting rake with sharp edge. Low cutting force. Suitable for slim components. Indicative machining range: f = 0,2–0,4 mm/rev, a_p =1,0–6,0 mm.

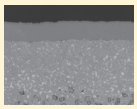
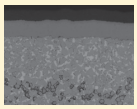
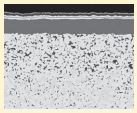
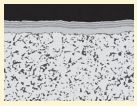
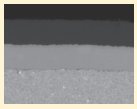
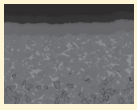
Chipbreaker programme, positive basic shape inserts

	**-AL**	Chipbreaker for positive inserts. Intended for machining of aluminium alloys. The highly polished rake face and the very large rake angle ensure extremely light cutting action. Indicative machining range: f = 0,15–0,60 mm/rev, a_p = 0,5–4,0 mm.
	**-FF1**	Chipbreaker for positive inserts. Used to achieve a very fine finish when turning slender steel and stainless steel components. Indicative machining range: f = 0,05-0,30 mm/rev, a_p = 0,2-2,0 mm.
	**-F1**	Chipbreaker for positive inserts. Positive geometry with sharp cutting edge gives easy-cutting properties. Suitable for high feed rates at fine depths of cut in precision forgings and castings. Indicative machining range: f = 0,1-0,5 mm/rev, a_p = 0,2-3,0 mm. Machining in bar automatics, for instance: f = 0,08-0,25 mm/rev, a_p = 1-3 mm.
	**-MF2**	A versatile finishing to semi-finishing chipbreaker with light-cutting action for positive inserts. Suitable for a wide range of cuts in steel and stainless steel finishing applications including boring. Indicative machining range: f = 0,08–0,50 mm/rev, a_p = 0,15–3,00 mm.
	**-M3** **-F2**	A reliable semi-finishing to medium roughing chipbreaker ensuring safe chip flow. Suitable for medium cuts in steel and stainless steels application including boring. Indicative machining range: f = 0,12–0,60 mm/rev, a_p = 0,2–4,0 mm.
	**-M5**	A highly reliable chipbreaker for positive inserts. Intended for medium-rough and rough machining of steels, stainless steels and cast iron. Combines high edge strength with comparatively low cutting forces. Safe action in interruptions and rough skin on parts also including boring. Indicative machining range: f = 0,15–0,60 mm/rev, a_p = 1–5 mm
	**-R2**	Chipbreaker for large inserts intended for finishing of railway wheels. Indicative machining range: f = 0,3–0,8 mm/rev, a_p = 1,0–5,0 mm.
	**-R3** **RCMT**	Chipbreaker for large round inserts are for finishing and medium machining of railway wheels, large components and difficult machine materials for enhanced chipbreaking and surface finish. Indicative machining range: f = 0,5–1,2 mm/rev, a_p = 1,5–5,0 mm.

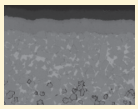
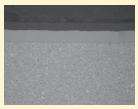
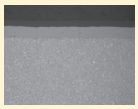
Chipbreaker programme, positive basic shape inserts

	**-R3** **RCMX**	Chipbreaker for large round inserts are for finishing and medium machining of railway wheels, large components and difficult machine materials for enhaced chipbreaking. Indicative machining range: f = 0,5–1,2 mm/rev, a_p = 1,5–5,0 mm.
	**-RR93**	Chipbreaker for large round inserts are for medium machining and roughing of railway wheels, large components. Indicative machining range: f = 0,6-1,5 mm/rev, a_p = 3,0-10,0 mm
	**-RR94**	Chipbreaker for large inserts intended for roughing of railway wheels. Indicative machining range: f = 0,6–1,5 mm/rev, a_p = 3,0–10,0 mm.
	**-RR96**	Chipbreaker for large inserts intended for machining of steel with high depth of cut and large feed rates. Indicative machining range: f = 0,6–2,2 mm/rev, a_p = 3,0–24,0 mm.
	**-RR97**	Chipbreaker for large inserts intended for machining of steel with high depth of cut and large feed rates. The –RR97 geometry is stronger than the –RR96. Indicative machining range: f = 0,8–2,2 mm/rev, a_p = 3,0–24,0 mm.
	**-UX**	Chipbreaker for positive inserts. Smooth and easy chip flow on finishing and medium roughing in steel and stainless steel. Well suited for slim components. Indicative machining range: f = 0,05–0,40 mm/rev, a_p =0,5-4,0 mm.

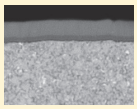
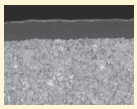
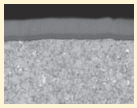
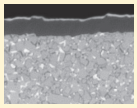
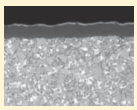
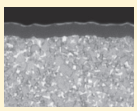
CVD coated grades

TP0501 		**Duratomic®** technology coated grade. A grade with an extremely high degree of heat and wear resistance for many steel applications such as in alloy steels and especially capable under dry conditions, but also applicable for demanding applications in cast irons. $Ti(C,N) + Al_2O_3$ + Used Edge Detection (Chrome)
TP1501 		**Duratomic®** technology coated grade. Highly heat and wear resistant grade extremely well suited for productive general turning of steels and a useful backup in other material groups. $Ti(C,N) + Al_2O_3$ + Used Edge Detection (Chrome)
TP2501 		**Duratomic®** technology coated grade. Designed with high wear resistance and edge strength applicable in a wide range of turning applications in steels as well as many stainless steels and cast irons. $Ti(C,N) + Al_2O_3$ + Used Edge Detection (Chrome)
TP3501 		**Duratomic®** technology coated grade. Enhanced edge toughness still with the characteristic high wear resistance intended for versatile performance in turning applications in steels as well as stainless steels especially including interrupted cuts. $Ti(C,N) + Al_2O_3$ + Used Edge Detection (Chrome)
TP200 		Univeral grade for high versatile performance over a wide range of application in steels, stainless steels and cast irons. $Ti(C,N) + Al_2O_3$ + TiN
TP40 		Universal grade for a extremely secure performance in the most demanding application from steels, stainless steels to superalloys especially in castings and forgings. TiC/Ti(C,N) + TiN
TH1500 		**Duratomic®** technology coated grade. An extremetly hard super micrograin grade intended for machining of partly hardened steels and provides an alternative for cast iron finishing. $Ti(C,N) + Al_2O_3$
TM2000 		**Duratomic®** technology coated grade. Highly resistant and optimized grade for stainless steel machining with capability in softer steels. $Ti(C,N) + Al_2O_3$

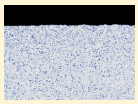
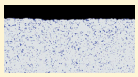
CVD coated grades

TM4000 		**Duratomic®** technology coated grade. A highly capable stainless steel grade with combinations of high resistance and superior edge toughness making it versatile with high performance also in many steels. Ti(C,N) + Al_2O_3
TK0501 		**Duratomic®** technology coated grade. A extremely wear resistant optimized grade choice for machining of grey cast iron and easier ductile cast irons. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)
TK1501 		**Duratomic®** technology coated grade. A highly wear resistant grade for cast irons in general as well as in steels. The grade is particularly capable in machining of ductile (nodular) cast irons also in more demanding setups and interrupted cuts. Ti(C,N) + Al_2O_3 + Used Edge Detection (Chrome)

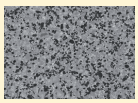
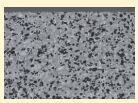
PVD coated grades

TH1000 		Very hard supermicrograin grade intended for partly hardened steel components as well as generally workpiece materials such as superalloys and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating
TS2000 		Hard micrograin wear resistant grade intended for finishing in superalloys and titanium as well as in many stainless steels. (Ti,Al)N + TiN
TS2050 		Hard and wear resistant micrograin grade intended for finishing and semi-finishing of superalloys. Ti-Al-Si-N nanolaminate coating
TS2500 		Relatively hard micrograin grade for machining of superalloys and titanium in roughing applications and due to its design also applicable in a wide range of materials such as stainless steels. (Ti,Al)N + TiN
CP200 		Hard micrograin grade principally intended for finishing in superalloys and titanium. Also works well in stainless steels. (Ti, Al) N + TiN
CP500 		Tough micrograin grade intended for finishing to medium-roughing of stainless steels but with wide applicability for example in steels and aluminium alloys. Especially suitable in intermittent cuts. (Ti,Al)N + TiN
CP600 		Very tough micrograin grade intended for stainless steels and steels applicable but generally applicable when ever high edge toughness required e.g. more difficult interrupted cuts. (Ti,Al)N + TiN

Uncoated

HX 		Universal uncoated grade intended for machining of cast iron and hardened steels useful also in non-ferrous materials.
KX 		Optimized micrograin grade intended for the machining of aluminium and other non-ferrous materials.
883 		Relatively hard and still tough uncoated micrograin grade for machining of titanium in roughing applications and also suitable for superalloys.
890 		High hardness uncoated micrograin grade maintaining good toughness intended for superalloys and titanium can also be applied in other materials.

Cermet

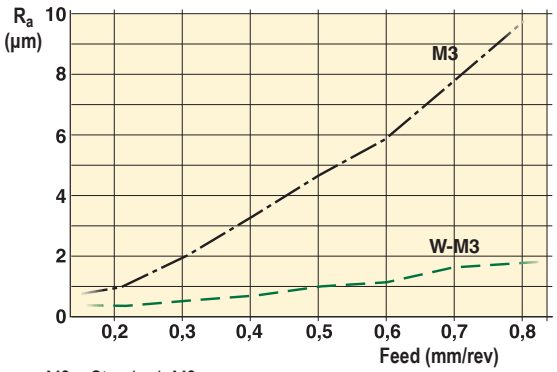
TP1020 		High wear resistance cermet grade for highest surface finish with predictability, first of all, in steels and stainless steels.
TP1030 		Coated highly wear resistant cermet grade for high surface finish and productivity requirements mainly used in steels and stainless steels. Ti-Al-Si-N nanolaminate coating.

High Feed Wiper inserts – Introduction

The Seco High Feed Wiper inserts offer

- Excellent surface finish at high feed rates.
- Superior surface finish at normal feed rates.

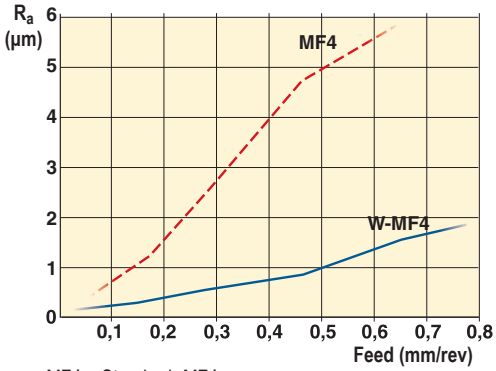
The use of Seco High Feed Wiper inserts often eliminates the need for finishing operations (including grinding).



M3 = Standard -M3
W-M3 = Wiper -M3

The diagram shows the superior surface finish in steel achieved with a Seco High Feed W-M3 wiper insert compared to a conventional insert.

CNMG120408W-M3 TP2501, a_p = 1 mm, cutting speed adjusted for feed, workpiece material: (steel) SMG P4.

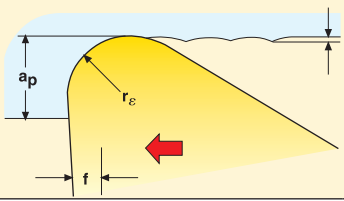


MF4 = Standard -MF4
W-MF4 = Wiper -MF4

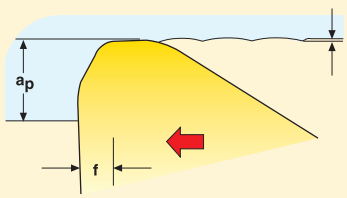
When applying a Seco High Feed W-MF4 wiper insert in stainless steel the diagram shows the superior surface finish achieved compared to a conventional insert.

CNMG120408W-MF4 TM4000, a_p = 1 mm, cutting speed tool life adjusted for feed in SMG M2 (stainless steel).

Standard insert geometry

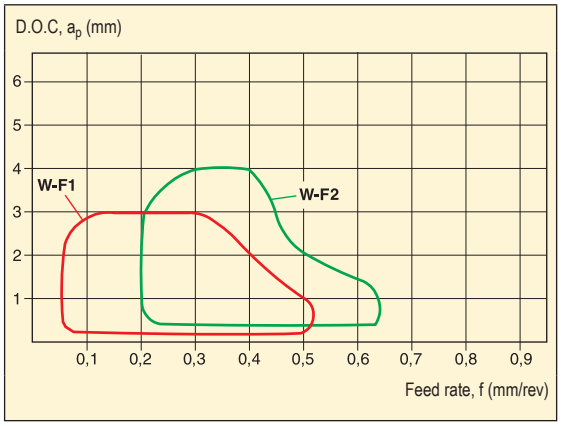


High Feed Wiper insert geometry

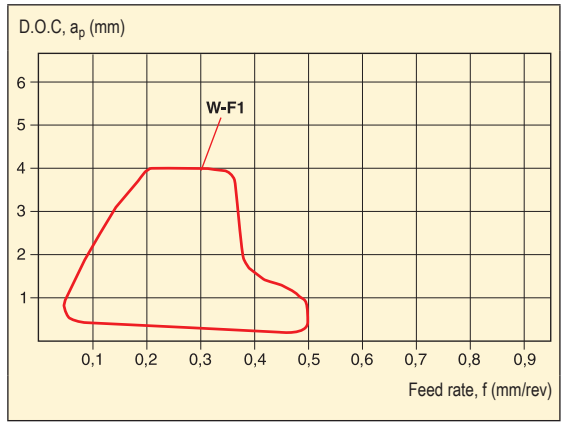


Indicative chipbreaking range

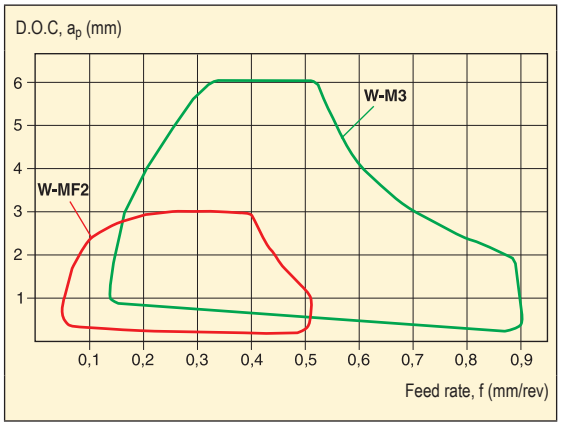
Positive inserts, C and W



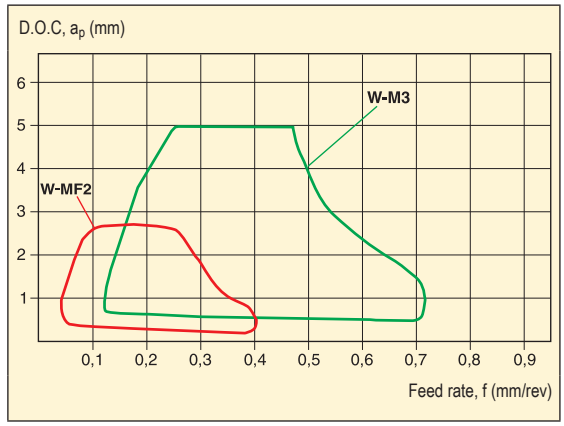
Positive inserts, D and T



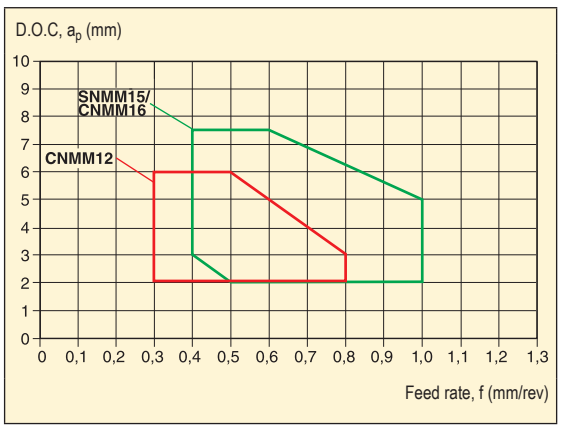
Negative inserts, C and W



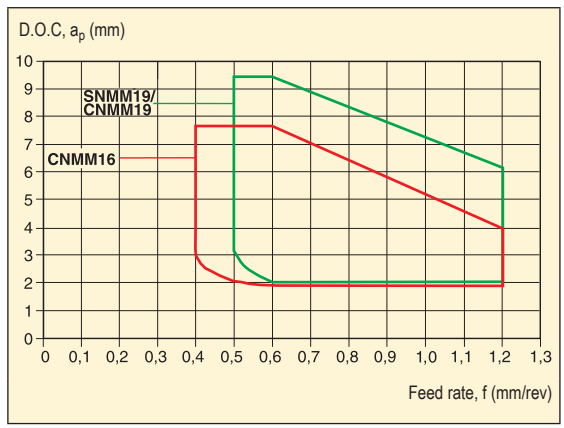
Negative inserts, D and T



Negative inserts, C and S Chipbreaker W-R4



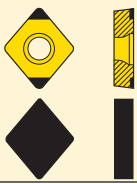
Negative inserts, C and S Chipbreaker W-R7



Chipbreaker programme, High Feed Wiper inserts

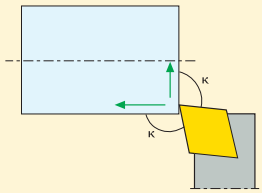
	**W-F1**	A versatile chipbreaker for positive inserts. For finishing machining of steel, stainless steel and cast iron giving good surface finish. Suitable for high feed rates at small depths of cut. Indicative machining range: f = 0,05-0,50 mm/rev, a_p = 0,25-3,00 mm.
	**W-F2**	Chipbreaker for high feed finishing and medium-roughing machining of steel and cast iron. Ensures safe and well directed chip flow and good surface finish. Indicative machining range: f = 0,20-0,65 mm/rev, a_p = 0,5-4,0 mm.
	**W-FF2**	Chipbreaker for high feed finishing of steel and stainless steel. Wide chip control range in finishing and generates a superior surface quality. Indicative machining range: f = 0,1-0,5 mm/rev, a_p = 0,2-1,5 mm.
	**W-MF2**	First choice for finishing with both positive and negative inserts. Chipbreaker suitable for finishing machining of steel, stainless steel and cast iron at high feed rates giving good surface finish. Indicative machining range: f = 0,05-0,60 mm/rev, a_p = 0,5-4,0 mm.
	**W-MF4**	Easy cutting action chipbreaker for high feed machining of stainless steel. Provides good surface finish in finishing operations and High Feed Wiper productivity in medium-roughing machining. Indicative machining range: f = 0,05-0,90 mm/rev, a_p= 0,2 - 6,0 mm
	**W-MF5**	Chipbreaker intended for medium finishing of steel at high feed. The geometry is very open and highly positive and equipped with wiper radius. Indicative machining range: f = 0,2-0,8 mm/rev, a_p = 0,2-2,7 mm.
	**W-M3**	Versatile chipbreaker for high feed finishing and medium-roughing machining of steel, stainless steel and cast iron. Operates in a wide application area. Gives a good surface finish even at high feeds. Indicative machining range: f = 0,2-0,9 mm/rev, a_p = 0,5-6,0 mm.
	**W-M6**	Strong double-sided chipbreaker, intended for high-feed semi-roughing and roughing of steel. A well-balanced design combining excellent chip control and relatively low cutting forces which provides reliable cutting action in both continuous as well as interrupted cuts. Indicative machining range: f = 0,3-1,0 mm/rev, a_p = 1,0-7,0 mm

Chipbreaker programme, High Feed inserts

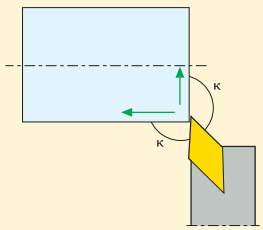
	**W-R4**	Chipbreaker for single sided inserts intended for high feed medium-roughing and rough machining of steel, stainless steel and cast iron. Gives a good surface finish even at high feeds. Low cutting forces. Indicative machining range: f = 0,3-1,0 mm/rev, a_p = 2,0-7,5 mm.
	**W-R7**	A strong easy cutting chipbreaker for single sided inserts. Intended for the highest feeds when medium-roughing and roughing machining of steel, stainless steel and cast iron. Gives a good surface finish even at the higher feeds. Indicative machining range: f = 0,4-1,2 mm/rev, a_p = 2,0-9,5 mm.
	**-WZ** **-WZN** **-WZP** **-WS** **-WL**	Wiper geometries on PCBN inserts. Available in various insert styles in solid or brazed format. Developed for machining pearlitic grey cast iron and hardened steel. Gives a high quality surface finish at high feeds.

Operation guidelines

- The favourable surface finish results are lost, if the cutting edge angle diverges from 95° (C-and W-style inserts).
- Max diversion allowed: ±2°.
- Back-turning is NOT recommended.



- The favourable surface finish results are lost, if the cutting edge angle diverges from 93° (D-and T-style inserts).
- Max diversion allowed: ±2°.
- Back-turning is NOT recommended.



C-style High Feed inserts
On C-style High Feed inserts, except for PCBN inserts, the wiper geometry is also located on the 100° corner.

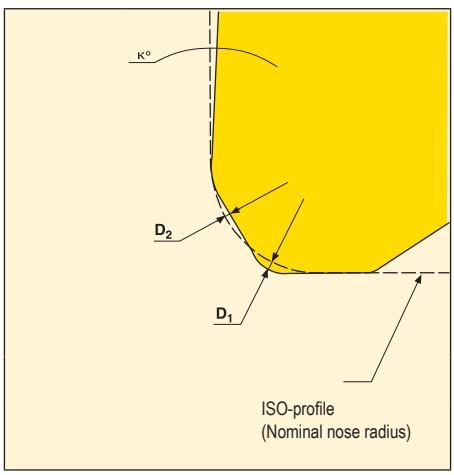
Chipbreaker W-R4 and W-R7
When using W-R4 or W-R7 chipbreaker use a toolholder with P- or M-type clamping.

S-style High Feed inserts
S-style High Feed insert to be used in a toolholder with 75° setting angle. The favourable surface finish results are lost, if the cutting edge angle diverges from 75°. Max diversion allowed: ± 2°.

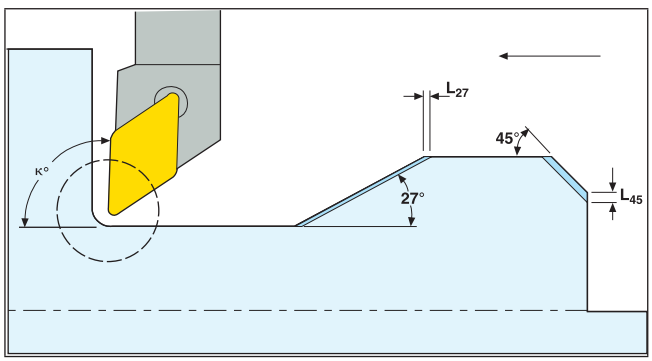
Copying with D- and T-style Wiper inserts

Since D- and T-style High Feed inserts not are designed within ISO-tolerances, an adjustment in the tool offset must be made.

A deviation from the nominal nose radius shape, will always occur (D1, D2) when going towards a corner.



The High Feed geometry on a D-and T-style insert does not provide an exact corner radius.



When copying with a D- or T-style High Feed insert, an adjustment must be made for dimensional deviations.

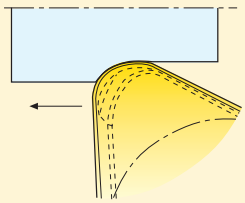
Seco Crossbill™ Wiper insert

A deviation from the normal radius shape will always occur when a standard wiper geometry is used to machine towards a corner/face.

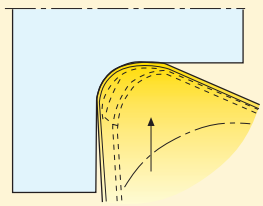
The Crossbill High Feed insert gives the opportunity to produce a radius without deviation from the normal shape and without losing the advantages from a standard wiper insert.

The Seco High Feed inserts are available in PCBN grade CBN010 and CBN060K.

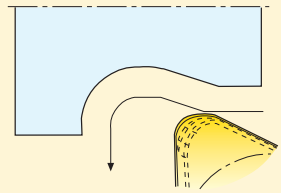
Design/Function



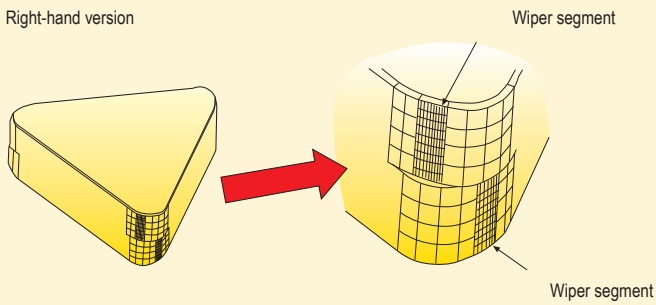
Axial turning (full wiper effect)



Facing (no wiper effect)



Copying (no deviation forming a radius)

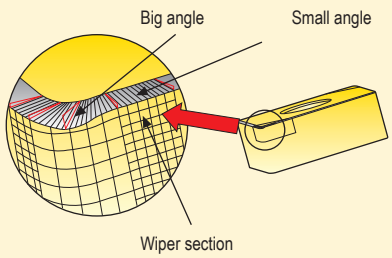


The Helix™ wiper technology

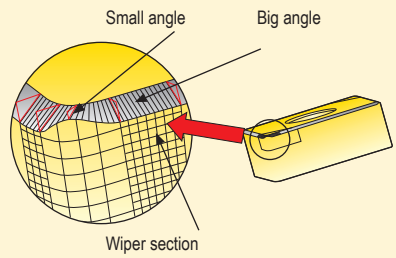
Our unique patented, Helix™ wiper concept is designed for optimization in finish machining. It has a wiper on both sides of the corner radii (as the standard) but the protection chamfer is twisted from negative to positive or from positive to negative depending on the application.

It is available in grade CH0550, CBN060K and CBN010. The following considerations apply when selecting the appropriate geometry:

Positive Wiper, WZP
- Reducing vibrations in weak set-ups
- Lower radial cutting forces
- Used where standard wiper cannot be used



Negative Wiper, WZN
- Longer tool life
- Reducing vibrations in stable set-ups
- Increasing compressive stresses



Nomenclature and formulae

RPM

$$n = \frac{v_c \cdot 1000}{\pi \cdot D_c} \quad \text{(rev/min)}$$

Cutting speed

$$v_c = \frac{n \cdot \pi \cdot D_c}{1000} \quad \text{(m/min)}$$

Surface finish (arithmetic average deviation)
Rough estimates

$$R_a = \frac{f^2 \cdot 50}{RE} \quad (\mu m)$$

$$R_a = \frac{R_t}{3,5} \quad (\mu m)$$

Refined estimate

$$R_a \approx 770 \cdot \left(1 - \frac{\frac{f}{2RE}}{\arcsin\left(\frac{f}{2RE}\right)}\right) \cdot RE\,(\mu m)$$

Valid for:

$$f \leq 2\sqrt{a_p(2RE - a_p)} \leq 2RE$$

see note and table in page(s) 58

Surface finish total height of profile estimate

$$R_t = k \cdot \frac{f^2 \cdot 1000}{8 \cdot RE} \quad \text{(µm)}$$

Power demand estimate

$$P_c = \frac{v_c \cdot f \cdot a_p}{25} \quad \text{(kW)}$$

Metal removal rate

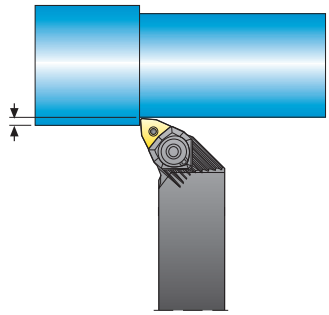
$$Q = v_c \cdot f \cdot a_p \quad (cm^3/min)$$

a_p	=	Depth of cut	(mm)
DC	=	Workpiece diameter	(mm)
f	=	Feed rate	(mm/rev)
h	=	Chip thickness	(mm)
k	=	Constant 1,0 for steel and strainless steel 1,4 for cast iron	
n	=	RPM	(rev/min)
P_c	=	Power demand	(kW)
Q	=	Metal removal rate	(cm^3/min)
R_a	=	Surface finish (arithmetic average deviation)	(µm)
RE	=	Nose radius	(mm)
R_t	=	Total height of profile surface	(µm)
v_c	=	Cutting speed	(m/min)

Depth of cut

The maximum depth of cut that can be used depends on a number of factors. Machine power, stability, workpiece material, insert shape and size, nose radius, chipbreaker, grade and cutting edge angle.
Start with the insert size to get an indication and proceed with the recommendations for the chosen chipbreaker. This will give a suitable maximum depth of cut.

A rule of thumb could be that the minimum depth of cut should not be smaller than the nose radius.

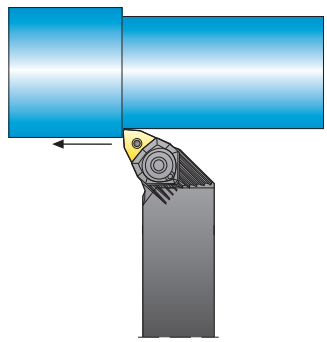


Feed rate

The maximum feed rate that can be used depends on a number of factors. Machine power, stability, workpiece material, insert shape and size, nose radius, chipbreaker, grade and cutting edge angle. Another, very important factor is the required surface finish. Start by looking at the recommendations for the chosen chipbreaker. Then look in the surface finish table below to be sure that the required surface finish can be achieved.

The maximum feed rate should preferably be considerably smaller than the nose radius.

A too low feed rate can result in poor chipbreaking and tool life.



Surface finish

A large nose radius normally produces a better surface finish.
The table gives recommended maximum, theoretical, feed rates to achieve a specified R_a-value.
Always consider the possibility to use high feed inserts (Seco Wiper), for turning with high feed with retained surface finish.
For more information, see page(s) 51-56.

Note: The refined estimate R_a equation is based on work by J-E Ståhl and gives better surface estimates often indicating potential to increase feeds compared to other estimates.

Table A. Data according to refined estimate R_a equation

Surface finish R_a value (µm)	Nose radius, RE (mm)					
	0,2	0,4	0,8	1,2	1,6	2,4
	Feed rate, f (mm/rev)					
0,6	0,06	0,08	0,12	0,14	0,17	0,21
1,6	0,10	0,14	0,20	0,24	0,28	0,34
3,2	0,14	0,20	0,28	0,34	0,39	0,48
6,3	–	0,27	0,39	0,48	0,55	0,68
8,0	–	–	0,44	0,54	0,63	0,77

Turning – Cutting data, workpiece materials

In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unambiguous adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated. (A more complete extract can be found on page(s) 60, 750

SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R_m < 1200	C 45E R_m = 660 N/mm^2
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R_m < 1200	42 CrMo 4 R_m = 700 N/mm^2

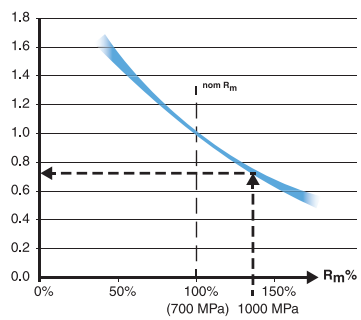
SMG	Description	Properties	Reference
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC

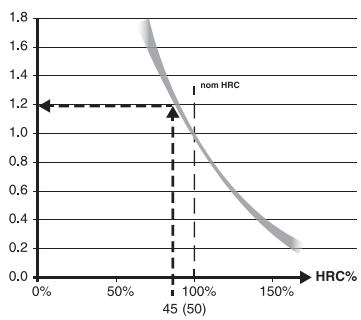
Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between Rm = 630 N/mm^2 and R_m = 780 N/mm^2, which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R_m may typically be between R_m = 900 N/mm^2 and R_m = 1100 N/mm^2 thus still belongs to SMG P5. However, if hardened above R_m = 1200 N/mm^2 it instead belongs to SMG H5.

SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R_{m_nom}	HRC_{nom}
P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).





To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength R_m data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm^2 according to above table (bold blue arrows).

Assume that we find that the SMG P5 nominal v_c = 280 m/min for a certain product and machining.

Then, actual recommended v_c = 280 m/min x 0,75 = 210 m/min.

Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal v_c = 50 m/min for a certain product and machining using a coated cemented carbide tools then, actual recommended v_c = 50 m/min x 1,2 = 60 m/min.

Note that when using PCBN tools cutting data recommendation starts at page(s) 92.

For further workpiece material details please see page(s) 750 and suggested cutting data at applicable pages.

For more convenient cutting data handling we recommend applicable tools in My Pages – Suggest on www.secotools.com

Extract from Workpiece materials classification on page(s) 750

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	$360 < R_m < 880$	11 SMn30 $R_m = 385$ N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	$320 < R_m < 600$	S235JRG2 $R_m = 420$ N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	$430 < R_m < 610$	16 MnCr 5 $R_m = 550$ N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	$520 < R_m < 1200$	C 45E $R_m = 660$ N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	$550 < R_m < 1200$	42 CrMo 4 $R_m = 700$ N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	$520 < R_m < 1200$	C 100S $R_m = 600$ N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	$600 < R_m < 1200$	100 Cr 6 $R_m = 650$ N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	$600 < R_m < 1200$	X 40 CrMoV 5 1 $R_m = 700$ N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	$415 < R_m < 1200$	X 20 Cr 13 $R_m = 675$ N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	$500 < R_m < 1200$	X 5 CrNiCuNb 16 4 $R_m = 1100$ N/mm^2	2100	0,17

Hard materials

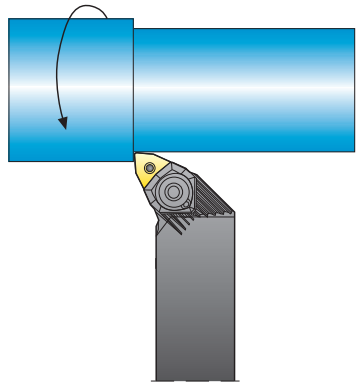
SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Cutting speed v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions and a selected SMG.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com



KAPR = cutting edge angle (°) (from holder)

RE = nose radius (mm)

a_p = depth of cut (mm)

f = feed rate (mm/rev)

Universal insert: CCMT09T304-MF2 **Tool life = 15 min** **a_p = 1 mm** **Holder: SCLCL1212M09**

	TP1501			TP2501			TP3501			CP500		
	f			f			f			f		
SMG	0,15	0,2	0,25	0,15	0,2	0,25	0,15	0,2	0,25	0,15	0,2	0,25
P1	820	750	700	680	640	600	610	550	510	295	265	250
P2	790	730	680	560	580	580	600	510	455	285	260	240
P3	530	530	520	580	600	590	420	370	330	245	225	210
P4	600	560	520	500	470	440	450	390	350	215	195	185
P5	445	445	435	410	425	425	350	310	280	205	190	175
P6	640	600	550	540	500	475	485	420	380	230	210	195
P7	475	475	460	370	400	410	330	295	265	220	200	185
P8	445	445	435	410	425	425	350	310	280	205	190	175
P11	460	460	445	280	310	320	250	240	195	275	235	200
P12	270	270	265	165	180	190	155	150	120	125	115	105

Universal insert: CCMT09T304-MF2 **Tool life = 15 min** **a_p = 1 mm** **Holder: SCLCL1212M09**

	TP1030			TP1020		
	f			f		
SMG	0,1	0,2	0,3	0,1	0,2	0,3
P1	550	445	360	350	235	170
P2	540	430	355	340	230	165
P3	465	370	305	295	195	145
P4	410	325	270	260	170	125
P5	390	310	255	245	165	120
P6	440	350	285	280	185	135
P7	415	330	270	260	175	130
P8	390	310	255	245	165	120
P11	400	320	265	255	170	125

Universal insert: CNMG120408-M3 Tool life = 15 min a_p = 2,5 mm **Holder: DCLNR2525M12-M**

	TP0501			TP1501			TP2501			TP3501			TP200		
	f			f			f			f			f		
SMG	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4
P1	780	690	610	690	590	510	590	510	450	510	405	335	335	290	255
P2	760	670	590	680	570	495	560	520	460	495	400	330	330	280	250
P3	620	590	510	500	450	400	570	530	465	360	300	250	280	240	215
P4	580	510	450	510	435	375	435	375	330	380	310	250	250	210	190
P5	520	495	435	420	380	335	405	375	330	300	250	220	235	205	180
P6	620	550	480	550	465	405	465	405	355	410	335	270	265	230	200
P7	550	520	460	445	405	355	390	380	350	285	240	210	250	215	190
P8	520	495	435	420	380	335	405	375	330	270	220	180	235	205	180
P11	540	510	445	435	390	345	300	295	270	250	160	130	195	165	145
P12	315	300	265	255	230	205	175	175	160	150	100	75	115	95	85

Universal insert: CNMG190616-MR7 Tool life = 15 min a_p = 6 mm **Holder: DCLNR4040R19-M**

	TP0501			TP1501			TP2501			TP3501			TP40		
	f			f			f			f			f		
SMG	0,4	0,55	0,7	0,4	0,55	0,7	0,4	0,55	0,7	0,4	0,55	0,7	0,4	0,55	0,7
P1	590	480	400	490	405	340	435	365	315	320	250	200	235	190	155
P2	570	465	385	480	395	335	440	350	285	305	240	195	230	185	155
P3	490	375	290	385	310	250	450	355	285	205	170	140	195	155	130
P4	430	355	295	360	295	250	320	270	230	235	185	150	170	140	115
P5	415	315	245	320	260	210	315	245	195	170	140	115	165	130	110
P6	465	380	315	390	320	270	345	290	250	255	200	160	185	150	125
P7	435	335	260	340	275	225	335	275	225	170	145	120	175	140	115
P8	415	315	245	320	260	210	315	245	195	165	135	105	165	130	110
P11	425	325	250	330	265	220	260	210	165	125	120	85	100	85	75
P12	250	190	150	195	155	130	155	125	100	75	70	50	60	50	46

Universal insert: CNMG120408-MF2 Tool life = 15 min a_p = 1,5 mm **Holder: DCLNR2525M12-M**

	TH1000			TH1500		
	f			f		
SMG	0,1	0,25	0,4	0,1	0,25	0,4
H3	90	70	55	125	80	60
H5	170	125	100	230	150	110
H7	90	70	55	125	80	60
H8	170	125	100	230	150	110
H11	215	160	130	295	195	140
H12	350	260	205	—	—	—
H21	170	125	100	—	—	—

Universal insert: CCMT09T308-MF2 Tool life = 10 min a_p = 1 mm **Holder: C4-SCLCR-13080-09**

	TM4000			CP500			TP3501		
	f			f			f		
SMG	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3
M1	390	335	290	430	335	255	350	335	270
M2	315	270	235	350	270	205	280	270	215
M3	240	205	180	265	205	155	210	200	160
M4	180	155	135	200	155	115	170	160	130
M5	150	130	110	165	130	95	130	125	100

Universal insert: CNMG120408-MF4 Tool life = 10 min a_p = 2 mm Holder: PCLNL2020K12JETL

	TM2000			TM4000			CP500		
	f			f			f		
SMG	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4
M1	335	300	270	325	275	240	305	215	160
M2	270	240	215	260	220	190	245	170	125
M3	205	185	165	200	170	145	185	130	95
M4	155	135	125	150	125	110	140	100	75
M5	130	115	105	125	105	90	115	80	60

Universal insert: CCMT09T308-M5 Tool life = 15 min a_p = 1 mm Holder: C4-SCLCL-17090-09

	TK0501			TK1501			TP1501		
	f			f			f		
SMG	0,2	0,3	0,4	0,2	0,3	0,4	0,2	0,3	0,4
K1	600	560	520	530	475	440	455	470	460
K2	465	435	415	455	420	400	395	405	400
K3	395	365	350	385	355	340	335	345	340
K4	375	350	335	365	340	325	320	330	325
K5	225	210	200	220	205	190	190	195	195
K6	375	340	320	325	295	270	280	290	285
K7	285	265	255	280	260	245	245	250	245

Universal insert: CNMG120412-MR7 Tool life = 15 min a_p = 3 mm Holder: A40U-PCLNL12

	TK0501			TK1501			TP1501		
	f			f			f		
SMG	0,2	0,35	0,5	0,2	0,35	0,5	0,2	0,35	0,5
K1	570	495	455	480	405	355	450	435	405
K2	420	380	355	420	375	345	390	380	350
K3	355	320	300	355	315	290	330	320	295
K4	340	305	285	340	300	280	315	305	280
K5	205	180	170	200	180	165	185	180	170
K6	350	305	280	295	250	220	275	270	250
K7	260	235	215	260	230	210	240	235	215

Universal insert: CCGT060204F-AL Tool life = 15 min a_p = 1 mm Holder: A10L-SCLCR06

	KX		
	f		
SMG	0,1	0,15	0,2
N1	610	540	495
N2	490	435	400
N3	330	290	265
N11	375	335	305

Universal insert: CCMT09T304-F1 Tool life = 10 min a_p = 1 mm Holder: C4-SCLCR-27050-09JET

	TS2000			CP200			CP500		
	f			f			f		
SMG	0,08	0,15	0,2	0,08	0,15	0,2	0,08	0,15	0,2
S1	90	70	60	48	40	36	42	35	32
S2	70	55	47	39	32	29	36	30	27
S3	60	47	40	33	28	25	31	26	24
S11	130	100	85	70	60	55	—	—	—
S12	100	75	65	55	44	41	—	—	—
S13	75	60	50	41	34	31	—	—	—

Turning – Cutting data, ISO inserts

Universal insert: CNMG120408-MF1 | **Tool life = 10 min** | **a_p = 1,5 mm** | **Holder: PCLNL2525K12JETLB**

	TS2000			CP200			890			CP500		
	f			f			f			f		
SMG	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3	0,1	0,2	0,3
S1	80	55	43	44	35	31	40	33	28	38	31	27
S2	65	46	35	36	29	25	33	26	23	33	27	23
S3	55	39	30	31	25	21	28	23	20	29	23	20
S11	115	80	65	65	50	44	60	47	41	—	—	—
S12	90	65	48	49	39	34	45	36	31	—	—	—
S13	70	49	37	38	31	26	35	28	24	—	—	—

Universal insert: CNMG120408-MR4 | **Tool life = 10 min** | **a_p = 3 mm** | **Holder: C6-PCLNR-45065-12JETL**

	TS2500			883		
	f			f		
SMG	0,2	0,3	0,45	0,2	0,3	0,45
S1	45	34	24	25	21	18
S2	37	27	20	20	17	14
S3	32	24	17	17	15	12
S11	65	49	35	36	30	26
S12	50	38	27	27	23	20
S13	39	29	21	21	18	15

Note: We recommend to use My Pages – Suggest on www.secotools.com, using accurate workpiece material classification, SMG.

Turning – Small diameter boring, principles

Introduction

Seco offers a range of small diameter boring bars to machine holes as small as 5,5 mm. Inserts are available in C and T shape.

The toolholders are available in steel and have the possibility for internal through coolant.

Set-up information

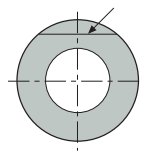
When positioned in the machine the insert will sit slightly above centre line. This is a design feature of the tool that compensates for the deflection and improves the machining operation.

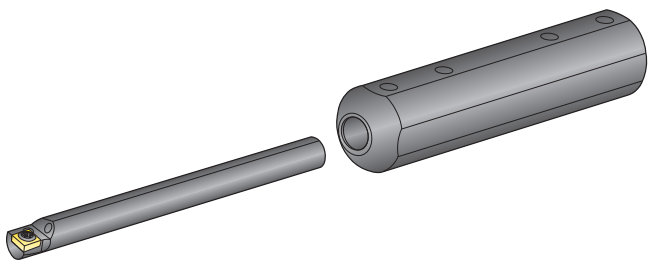
When setting the tool in the machine be sure to position it with the flat parallel and in the same plane as the bed of the machine.

The boring bars can be used with or without the cylindrical toolholder sleeve.

Please see page(s) 381.

Position flat parallel with machine bed





Introduction

Turning – New railway wheels

The product range consists of:

– Inserts for finish machining R2 and R3 geometries

– Inserts for rough machining RR93 & RR94 geometries

– Inserts for heavy roughing at high feed rate RR97 geometry

– Solid PRDCN toolholders up to 50x50 shank

– Seco-Capto™ custom made toolholders

Machining of new wheels

R2, R3

Stong geometries for finishing and semi finishing at high feet rates



RCMX-R2



RCMX-R3



RCMT-R3

Feed recommendation: 0,5-1,2 mm/rev
D.O.C. recommendation: a_p < 5 mm

RR94, RR93

Stong geometries for medium machining and roughing at high feet rates



RCMX-RR94



RCMX-RR93



RCMX-H-RR93

Feed recommendation: 0,6-1,4 mm/rev
D.O.C. recommendation: a_p < 12 mm

RCMX-RR97

Strong geometries for machining at high feed rates.



Feed recommendation: 0,6-1,5 mm/rev
D.O.C. recommendation: a_p < 15 mm

SNMM-R7

For roughing operations at high feed rates and large depth of cut.



Feed recommendation: 0,6-1,2 mm/rev
D.O.C. recommendation: a_p < 15 mm

R3, RR93 geometries with the chipbreaker grooves and bumps improves the chipbreaking.

Seco dedicated Duratomic® grades improves the performance.

Railway wheel re-turning

The product range consists of:

– Inserts for finish machining MF and R2 geometries

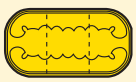
– Inserts for medium rough machining RR94 geometry

– Inserts for rough machining MR and RR97 geometries

– Cassettes for railway wheel re-turning RWRT

Inserts for railway wheel re-turning

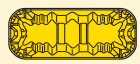
LNMX-MF



For re-machining at small depth of cut. (Normally used when machining with an under floor lathe.)

Feed recommendation: 0,4-1,0 mm/rev
D.O.C. recommendation: a_p < 10 mm

LNMX19-R2



R2 – for less worn out, soft wheels for best chip control.

Feed recommendation: 0,40-1,10 mm/rev
D.O.C. recommendation: a_p = 2-5 mm

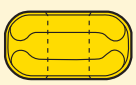
LNMX-RR94



RR94 – for the moderately damaged wheels.

D.O.C. and feed recommendation:
LNMX19, a_p = 2-5 mm; f = 0,45-1,40 mm/rev
LNMX30, a_p = 2-10 mm; f = 0,55-1,80 mm/rev

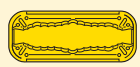
LNMX-MR



Basic choice for re-machining.

Feed recommendation: 0,6-2,0 mm/rev
D.O.C. recommendation: a_p < 15 mm

LNMX-RR97



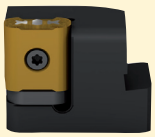
RR97 – for the highly damaged wheels at high parameters.

D.O.C. and feed recommendation:
LNMX30, a_p = 2-12 mm; f = 0,75-1,80 mm/rev

Cassettes for railway wheel re-turning RWRT

Standard products

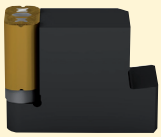
CT-PLANR/L (R/L175.32)



Pin clamped cassettes for LNMX19 and LNMX30

Right-hand version shown

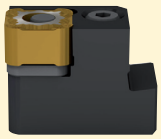
CT-PLFNR/L (R/L177.32-3219-19)



Pin clamped cassettes for LNMX19 and LNMX30

Right-hand version shown

CT-PSANR/L



Lever clamped cassettes for SNMX1911

Right-hand version shown

The cassettes are equipped with carbide shims for insert support and cassette protection.

The toolholders for these cassettes are machine specific. The combination cassettes are also machine specific. Some of them are offered as specials.

Turning – Cutting data, Railway wheels

Cutting speed, v_c (m/min)

Use the tables beginning in page(s) 750 to classify the workpiece material into a SMG
Use the feed rate recommendation table in page(s) 67 to get a start value
Formulae for cutting data calculation can be found in page(s) 57

v_c = cutting speed (m/min)

a_p = depth of cut (mm)

f = feed rate (mm/rev)

Universal insert: LNMX191940-RR94 **Tool life = 60 min** **a_p = 8 mm** **Holder: CT-PLANL3223-19**

	TP0501			TP2501			TP200		
	f			f			f		
SMG	0,6	0,9	1,2	0,6	0,9	1,2	0,6	0,9	1,2
P4	185	120	90	175	130	105	115	95	80

Universal insert: LNMX401432-RR93 **Tool life = 60 min** **a_p = 5 mm** **Holder: PLBNR6060V40-A**

	TP0501			TP2501		
	f			f		
SMG	0,6	1,0	1,4	0,6	1,0	1,4
P8	175	90	50	155	85	50

Universal insert: RCMX320900-R2 **Tool life = 45 min** **a_p = 3 mm** **Holder: PRDCN5050T32**

	TP0501			TP2501		
	f			f		
SMG	0,6	0,9	1,2	0,6	0,9	1,2
P7	250	160	110	210	150	110

Universal insert: RCMX250700-RR94 **Tool life = 60 min** **a_p = 6 mm** **Holder: PRDCN4040S25**

	TP0501			TP2501			TP200			TP40		
	f			f			f			f		
SMG	0,6	1	1,5	0,6	1	1,5	0,6	1	1,5	0,6	1	1,5
P4	205	125	75	190	135	95	125	95	80	95	60	41

Universal insert: SNMM250724-R7 **Tool life = 45 min** **a_p = 3 mm** **Holder: PSBNR4040S25**

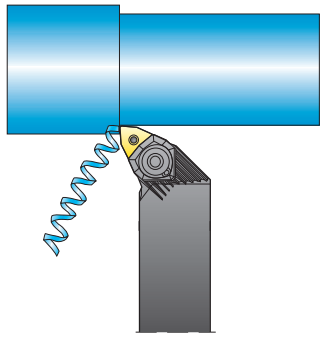
	TP0501			TP2501			TP3501			TP200		
	f			f			f			f		
SMG	0,6	0,9	1,2	0,6	0,9	1,2	0,6	0,9	1,2	0,6	0,9	1,2
P4	265	190	145	230	180	145	215	155	125	140	115	100

Chipbreaking problems

Too long chips

Step 1. Increase the feed rate.

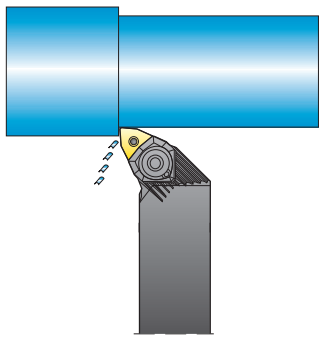
Step 2. Use the chart on page(s) 27 to select a more suitable chipbreaker. Take one to the left or below the one being used.



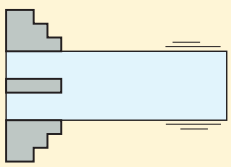
Too hard chipbreaking

Step 1. Reduce the feed rate.

Step 2. Use the chart on page(s) 27 to select a more suitable chipbreaker. Take one to the right or above the one being used.

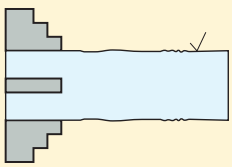


Vibrations



- Improve the stability of the tool and workpiece.
- Change the cutting speed.
- Increase the feed rate.
- Reduce the depth of cut.
- Select a more easy-cutting chipbreaker.
- Select a smaller nose radius.

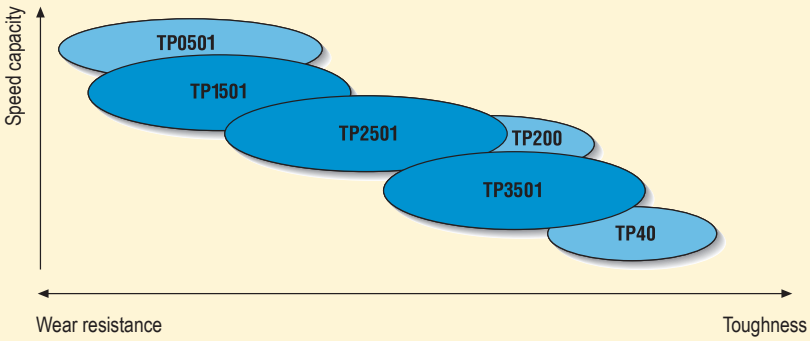
Poor surface finish



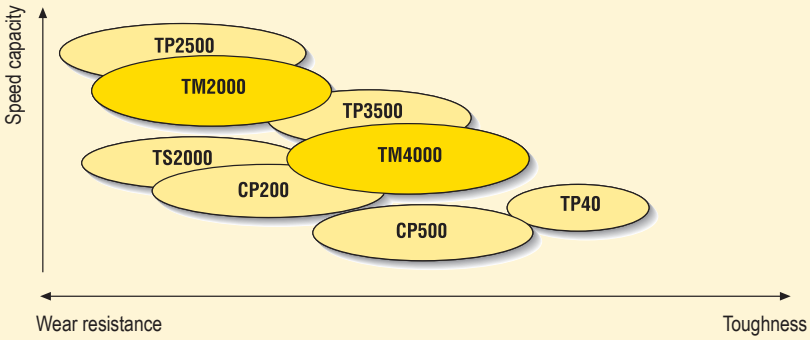
- Reduce the feed rate.
- Increase the cutting speed.
- Use a coolant.
- Improve the stability of the tool and workpiece.
- Select a more easy-cutting chipbreaker.
- Increase the nose radius.

Optimisation – Grades

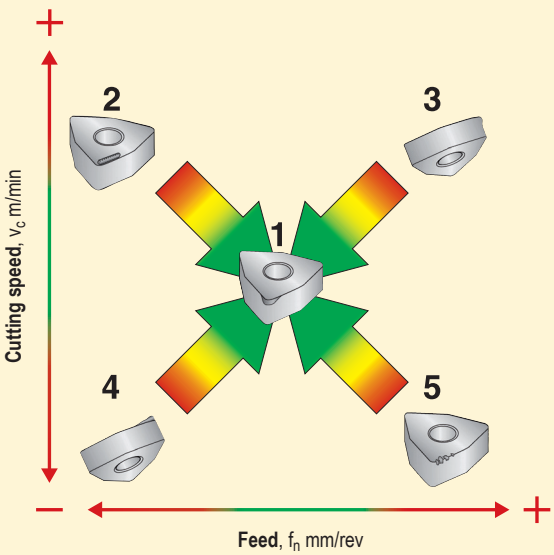
Steel



Stainless steel



Optimisation – Wear



1. Flank wear
2. Crater wear
3. Plastic deformation
4. Built-up edge
5. Chipping, Fracture

Flank wear

The normal flank wear, since it is uniform, predictable and dependable, is the most desirable wear mode.



Cause

Abrasive wear. Hard microscopic inclusions often of carbides at workpiece material surface in contact with insert cut into the insert. In some cases fractions of non-contained micro-scopic hard particles that cannot be retained in a matrix may tumble between surfaces in contact and also cut into the insert. A irregular flank wear that initially may look uniform as well as a too rapid uniform flank wear pre-maturely reach a set target wear criterion, require corrective action in some form.

What to look for

- Relatively uniform abrasion along the cutting edge
- Non-uniform appearance may indicate influence of other wear modes (see other wear descriptions)

Note: Metal from the workpiece can be smeared over the cutting edge and can exaggerate the apparent size of the wear scar.

When to expect it

- In all materials, an insert will finally fail due to normal flank wear if it doesn't fail from something else first.

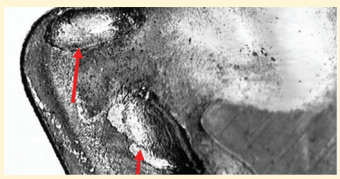
Corrective actions (to rapid flank wear)

- Select a more wear resistant, harder, or coated carbide grade
- Reduce the cutting speed (or RPM)
- Apply coolant correctly
- If possible, select insert with larger radius

Crater wear

Cause

A combination of chemical diffusion, decomposition and abrasive wear causes cratering. Classically the heat from workpiece chips decomposes the tungsten carbide grains in the substrate, and carbon leaches into the chips (diffusion), wearing a 'crater' on the top of the insert. The crater will eventually grow large enough to cause the insert to fail e.g. by chipping or rapid flank wear. Modern coating technology such as Duratomic® has reduced this wear mode drastically, but by achieving better performance by high cutting data it inevitably ap-pears again.



What to look for

- Craters or pits on top of inserts
- Chipbreaking may change to better or worse after cratering started

When to expect it

- Iron or titanium-based alloys

Corrective actions

- Use wear resistant grades and if needed try another grade with other coating design

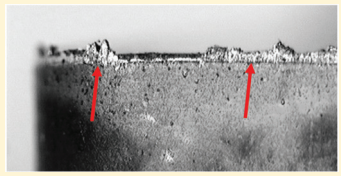
Or reduce heat by…

- Use coolant
- Use a freer cutting geometry
- Reduce the cutting speed (or RPM)
- Change feed rate

Built-up edge

Cause

Material adhesion. Built-up edge (BUE) is a result of the workpiece material being pressure welded to the cutting edge. This could be an indicator of exit conditions from cutting in workpiece materials with high chemical affinity, high cutting forces/pressure, and locally insufficient temperature around the cutting zone. The wear mode itself could in some cases even be beneficial for tool life, but the consequence of built-up edge breaks off and allows chips to bring pieces of the insert with it or acting as an indicator of chipping, notching or other discontinuous wear modes, makes it important.



What to look for

- Shiny material on the top or flank of the insert edge
- Erratic changes in part size or surface finish

When to expect it

- High temp alloys and stainless steel and other workpiece materials appearing 'gummy'
- At relatively low speeds especially at limited cuts e.g. facing to center & parting-off and even more apparent in the centre of a drill

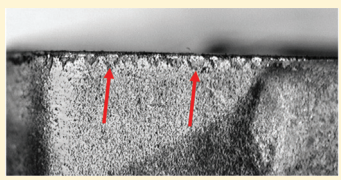
Corrective actions

- Change of grade to other coating designs may reduce built-up edge.
- Increase the cutting speed (or RPM) or increase the feed rate
- Try an insert with a sharper cutting edge geometry
- Apply coolant correctly or not at all; perhaps do another check on the emulsion concentration

Chipping

Cause

Mechanical instability or material adhesion. Chipping of the insert edge could be a result of vibrations in the workpiece or spindle. Larger hard inclusions in the material being cut and interrupted cuts may result in local stress concentrations that can cause chipping. In addition adhered material may cause a tensile stress that on removal can tear off parts of an insert.



What to look for

- Chippings along the edge of the insert

When to expect it

- Non-rigid set-ups (bad bearings, worn spindles, etc.)
- Demanding entrance and exit conditions
- Hard spots at well as soft spots in work materials
- Powder Metallurgically (PM) made materials

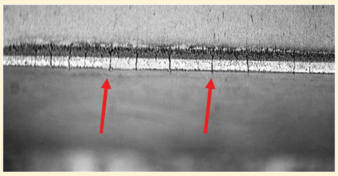
Corrective actions

- Ensure rigid machine tool setup
- Tougher insert grade or stronger cutting edge geometry
- Reduce the feed rate
- In some cases, turn-off the coolant
- See also corrective actions for built-up edge

Thermo mechanical failure

Cause

A combination of thermal cycling (frequency changing the working temperature for the insert rapidly), thermal load (amount of heat), thermal shock (fast temperature change from warm to cold and the other way around in different zones), and mechanical shock (stress change from release to full load) causes thermo mechanical failure. Stress cracks form along the insert edge, eventually causing sections of carbide to pull out and appear to be chipping. Seen most commonly in milling.



What to look for

- Multiple cracks perpendicular to cutting edge
- Irregular chipping on edges or wear spots on rake face

When to expect it

- Intermittent cuts e.g. facing over slots, but also tool paths when machining a large number of parts creating the thermal cycling or intermittence in coolant flow

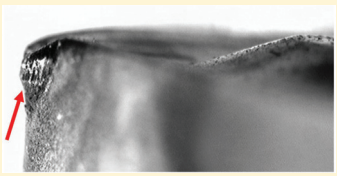
Corrective Actions

- Apply coolant differently or not at all
- Select a tougher grade
- Reduce the cutting speed (or RPM) or reducing the feed rate
- Use a free-cutting geometry or chipbreaker to reduce heat

Edge deformation

Cause

Thermal overloading. Excessive heat causes the carbide binder (cobalt) to soften. It could come in combination with mechanical overloading where the pressure of the insert against the workpiece all in all making an insert edge deform partly or fully, eventually breaking off or leading to irregular flank wear.



What to look for

- Deformation at the cutting edge or excessive irregular flank wear
- The dimensions of the workpiece may change drastically

When to expect it

- High speed and/or high feed rates
- Hard steels or work-hardened surfaces
- High temperature superalloys or stainless steels

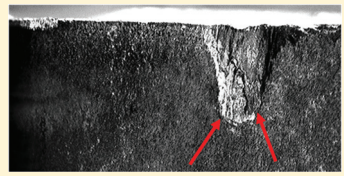
Corrective actions

- Apply coolant correctly
- Try a harder, more wear resistant grade
- Reduce cutting speed (or RPM) or reduce the feed rate
- Select an insert with other geometric features

Notching

Cause

Combinations of local properties in workpiece materials and cutting conditions. Notching is often caused by the conditions at the surface of the workpiece e.g. surface hardening from previous cuts, forged or cast surfaces, or surface scale. This causes the insert to wear more rapidly in that part of the cutting zone. Local stress concentration can also lead to notching as a result of the compressive stress along the cutting edge and lack of the same behind the cutting edge – the insert is particularly affected at the depth of cut.



What to look for

- Notching or clusters of chippings for example at the depth of cut area on the insert

Note: The notch could be of two kinds; the smoother which indicate more chemical/abrasive interaction or the irregular more mechanical/adhesive extensive chipping.

When to expect it

- Materials with surface scale or oxidation
- Work hardening materials
- Cast or other process affected surfaces

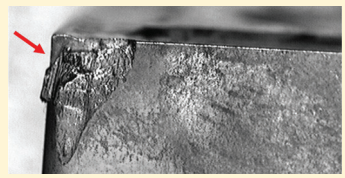
Corrective actions

- Vary the depth of cut
- Adjust the feed rate or increase cutting speed (NOTE: This will generate more flank wear)
- Select a tougher insert grade
- Exchange chipbreaker design drastically
- Prevent built-up edge

Mechanical fracture

Cause

Excessive load (also caused by other wear modes than finally) can cause mechanical fracture. Mechanical overload could of course cause the insert to break from the first moments in a cut to the exit or even after the release from cut. To be considered are also surrounding cutting conditions such as the conditions of the shim, workpiece clamping or machine condition.



What to look for

- Fracture of insert (e.g appearing as irregular flank wear often at the insert radius)
- Sudden increase of cutting force level

When to expect it

- Inhomogeneous workpieces e.g. with major inclusions, pores or design features that cause heavy impact or load release
- Unstable cutting conditions
- Low cutting data especially cutting speed

Corrective actions

- Reduce the feed rate or the depth of cut
- Increase speed
- Verify set-up rigidity
- Select a tougher insert grade or a more secure insert or cutting edge
- If possible reduce workpiece's inclusions and difficult geometrical features

Introduction

Polycrystalline Cubic Boron Nitride (PCBN) is a material which is sintered at extremely high pressure and high temperature into a wear-resistant material with properties close to those of diamond. Due to the hot hardness, oxidation resistance and fracture toughness of the material, inserts made of PCBN have excellent edge strength and long tool life when machining hard ferrous materials and pearlitic grey cast iron.

Secomax™ PCBN inserts are suitable for machining:

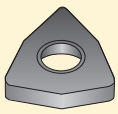
- Hardened steel (including hard-facing alloys)
- Pearlitic grey cast iron
- Chilled and white cast iron
- Manganese steel
- Cemented carbide
- Valve seat materials
- Powder Metallurgy (PM) alloys
- Nickel-based superalloys e.g. Inconel 718

For more information including a comprehensive guide to understanding and applying PCBN successfully, please ask your sales representative for the Secomax™ PCBN, Technical Guide (available in English).

Selection of insert types

Solid insert





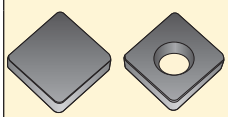
According to the geometry, two sides can be used.

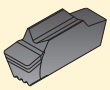
Grades:
CH0550, CBN060K, CH2540, CBN150, CBN300P, CBN400C, CBN010, CBN170, CBN200, CBN300, CBN500, CBN600

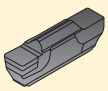
Toolholder styles:
D, P, C and M

CBN060K and CBN300 are also, in some geometries, available with hole.

Sintered layer insert -LF





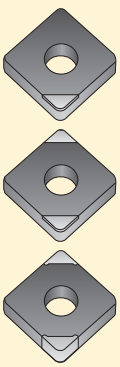


CBN layer sintered on to carbide. One side is usable.

Grades:
CBN060K, CH3515, CBN010, CBN150, CBN200
Toolholder styles: S, C and M

MDT
Grades:
CBN010, CBN170, CBN200
Toolholder styles: C (MDT)

Brazed tip -L1 (single and double sided) and -L2



CBN brazed onto standard carbide inserts.

Grades:
CH0550, CBN060K, CH2540, CH3515, CBN010, CBN150, CBN170, CBN200

Toolholder styles:
D, P, S and M

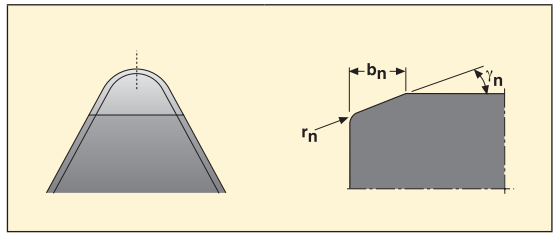
Geometry recommendations

Strong cutting edge geometries are always preferred.

- Negative cutting geometry
- Chamfered cutting edge
- Large nose radius

Sharp positive cutting edge geometry can be advantageous when:

- Finishing of small hardened bores without interruptions
- Finishing of unstable components without interruptions
- Finishing of pearlitic grey cast iron



b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Edge preparation

E	=	Honed
E25	=	Extra honed, intended for Nickel-based superalloys
S	=	Chamfered and honed
S25	=	Chamfered and extra honed intended for PM material
WZ	=	High Feed (Wiper) geometry
WZP	=	High Feed (Wiper) geometry Positive
WZN	=	High Feed (Wiper) geometry Negative
WL	=	High Feed (Wiper) geometry
WS	=	High Feed (Wiper) geometry

Design

LF	=	Complete top layer (full faced)
B	=	Brazed tips (single sided), Insert geometry C, D and V
C	=	Brazed tips (single sided), Insert geometry T and W
D	=	Brazed tips (single sided), Insert geometry S
U	=	Brazed tips (double sided), Insert geometry C, D and V
V	=	Brazed tips (double sided), Insert geometry T and W

Chamfer size and angle

Solid CBN inserts

CH0550	=	0,15 mm x 25°
CBN150	=	0,15 mm x 25°
CBN060K	=	0,15 mm x 25°
CH2540	=	0,15 mm x 25°
CBN400C	=	0,20 mm x 20°
CBN010	=	0,10 mm x 20°
CBN200	=	0,20 mm x 20°
CBN300	=	0,20 mm x 20°
CBN500	=	0,20 mm x 20°
CBN600	=	0,20 mm x 20°
S-04015	=	0,40 mm x 15°
X-05015	=	0,50 mm x 15°

Brazed & full faced CBN inserts

CH0550

L1	=	0,10 mm x 15°
L1	=	0,15 mm x 25°

CBN060K, CH2540

LF	=	0,15 mm x 25°
L1	=	0,15 mm x 25°

CH3515

L1	=	0,05 mm x 40°
L1	=	0,20 mm x 20°
LF	=	0,20 mm x 20°

CBN010

L1	=	0,10 mm x 20°
L2	=	0,20 mm x 20°
LF	=	0,10 mm x 20°
LF-MDT	=	0,10 mm x 25°

CBN200

L1	=	0,20 mm x 20° (L1-WZ = 0,10mm x 20 °)
L2	=	0,20 mm x 20°
LF	=	0,20 mm x 20°
LF-MDT	=	0,10 mm x 25°
X4	=	0,10 mm x 20°

CBN150

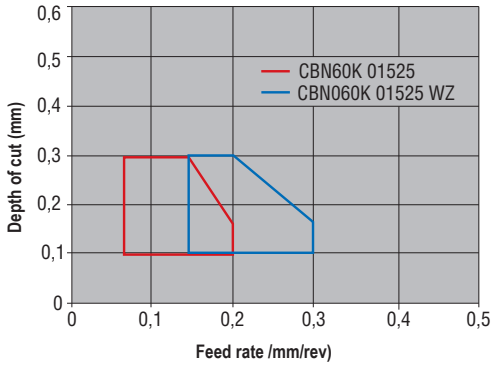
L1	=	0,15 mm x 25° (positive C-lock inserts, 0,10 mm x 20°)
LF	=	0,15 mm x 25°

PCBN Chipbreaker inserts

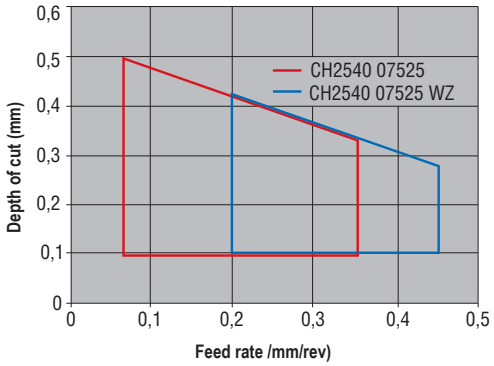
The laser machined chipbreaker comes in two different styles, one for low and one for high feed applications. The non-wiper Secomax™ chip-breaker insert makes it possible to have good chip control when low feed rates are used. The wiper Secomax™ chipbreaker insert provides improved chip control when using high feed rates.

Secomax PCBN, non-wiper and wiper chipbreaker inserts

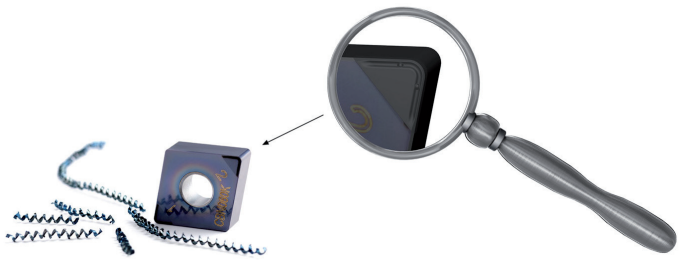
Application area grade CBN060K



Application area grade CH2540



Laser machining provides several benefits over conventional production technologies such as grinding. Laser technology meets the highest requirements regarding dimensional accuracy, geometrical precision and surface quality for the machining of complex, three-dimensional geometries. These advantages and possibilities have led to a complex formed chipbreaker with “bumps” that would have been impossible to produce with any other production technology.

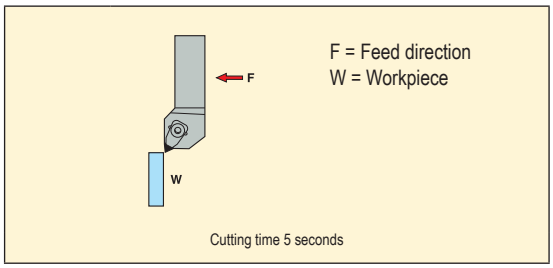


Plunge Turning

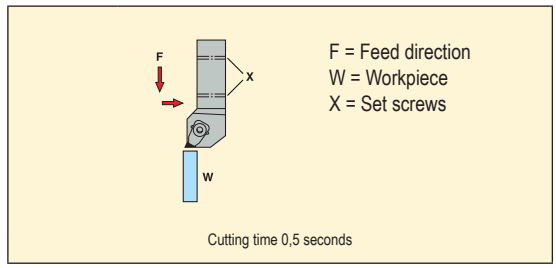
The vast majority of heat treated components in the metalworking industry are machined to their final geometrical form after hardening. Seco have developed a method in hard turning, the Seco patented Plunge Turning.

The plunging process consists of an orthogonal cut, using the solid CBN010, CBN150, CBN060K, CH0550 or CH2540.
Using the Plunge Turning method gives two great advantages compared to conventional hard turning, reduction in cutting time (up to 90%) and improved surface integrity.

Conventional Turning



Plunge Turning

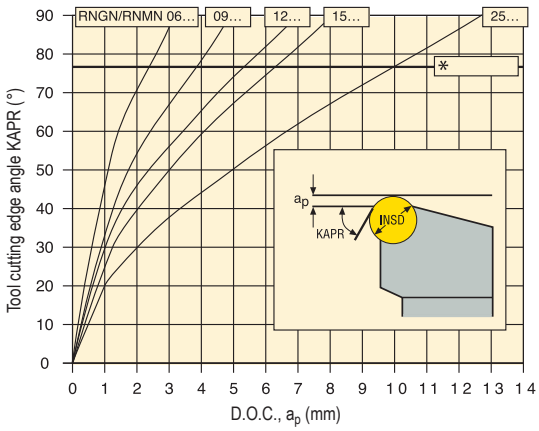


General cutting data recommendation for Plunge Turning is v_c = 200–400 m/min and f = 0,04 mm/rev.
To avoid the cutting edge profile affecting surface finish, complete the operation with a small axial movement.

In addition to the introduction of the Plunge Turning method there are also some standard toolholders. These toolholders have set screws which give the possibility to adjust the toolholder to an exact setting angle. The toolholders have a designation ending with – PL, and are available for inserts in sizes T..11 and T..16.

Maximum depth of cut recommendations

Round inserts



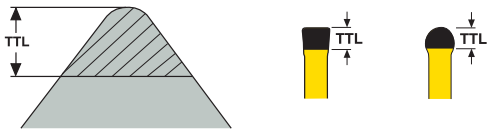
* = KAPR limited
The tool cutting edge angle is limited to 75° resulting in maximum depth of cut (a_p).

Max. D.O.C. a_p (mm)	Number of usable cutting edges/side at 80% utilization		
	R...06	R...09	R...12
0,10	20	24	–
0,15	16	20	23
0,20	14	17	20
0,25	12	15	18
0,30	11	14	16
0,40	10	12	14
0,50	8	10	12
0,80	7	8	10
1,00	6	7	9
1,20	5	7	8
1,50	5	6	7
1,80	4	5	6
2,00	4	5	6
2,50	3	4	5
3,00	3	4	5
3,50	–	4	4
4,00	–	3	4
4,50	–	–	4
5,00	–	–	3

Other inserts

Type	Grade	Depth of cut a_p (mm)
L1	CH0550 CBN060K CH2540 CH3515 CBN170 CBN010 CBN150 CBN200	0,5 0,5 0,5 1,0 0,5 0,5 0,5 1,0
L2	CBN010	0,5
LF	CBN010 CBN150 CBN200 CH3515	0,5 0,5 30% of cutting edge length 30% of cutting edge length
Solid	CH0550 CBN060K CH2540 CBN010 CBN150 CBN200 CBN300 CBN400C CBN500 CBN600	0,5 0,5 0,5 0,5 0,5 30% of cutting edge length 30% of cutting edge length 30% of cutting edge length 30% of cutting edge length 30% of cutting edge length

MDT		
Type	Grade	Max. D.O.C. a_p (mm)
-LF	CBN010 CBN170 CBN200	0,5
M0-LF	CBN010 CBN170 CBN200	1,5



True tip length (TTL) in mm per nose radius (RE) and tip type

Insert shape	Nose angle	RE = 0,2 mm		RE = 0,4 mm		RE = 0,8 mm		RE = 1,2 mm		RE = 1,6 mm		RE = 2,0 mm	
		L1	L2	L1	L2	L1	L2	L1	L2	L1	L2	L1	L2
C	80°	–	–	2,7	–	2,4	–	2,2	–	–	–	–	–
D	55°	3,5	–	3,2	–	2,7	–	2,2	–	–	–	–	–
S	90°	–	–	–	–	2,2	–	–	–	–	–	–	–
T	60°	–	–	2,6	–	2,2	–	1,8	–	1,4	–	1,8	–
V	35°	4,4	–	3,7	5,1	2,8	4,2	–	–	–	–	–	–
W	80°	–	–	–	–	2,2	–	1,9	–	–	–	–	–

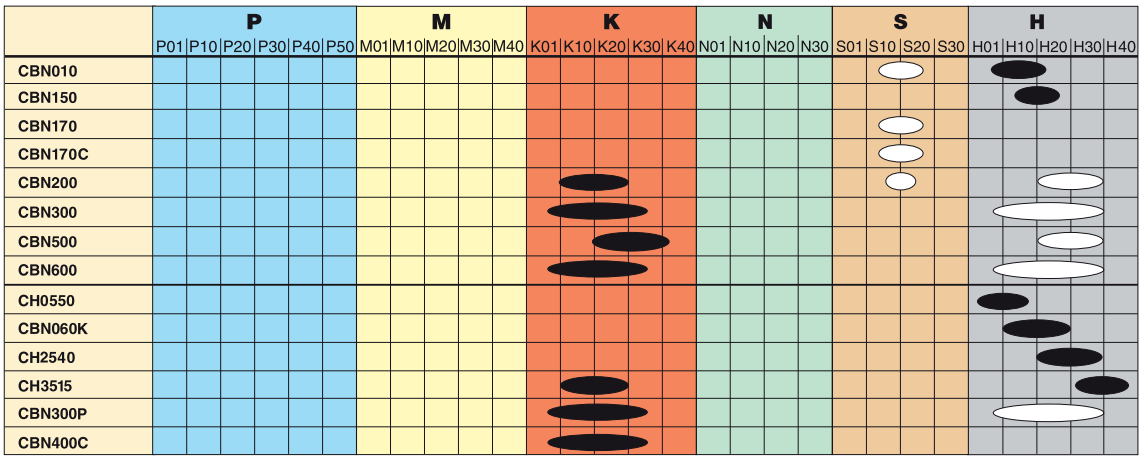
MDT size	..-LF	..M0-LF
LC..13..	2,2	2,4
LC..1304..	2,4	2,4
LC..1603..	2,5	2,5
LC..1604..	2,5	3,1
LC..1605..	2,8	3,0
LC..1606..	3,2	3,0

Secomax – PCBN, Grades

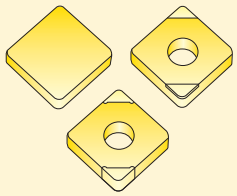
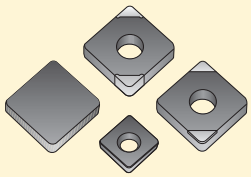
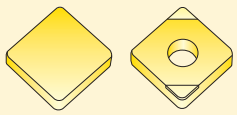
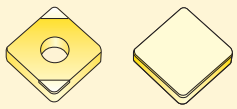
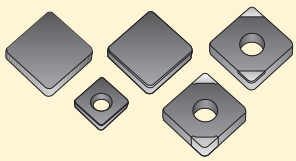
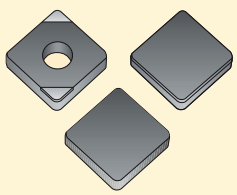
The Secomax™ PCBN range of grades consists of both coated and uncoated grades.
The application areas for the Secomax™ grades are shown below.
The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

Uncoated grades:
CBN010
CBN150
CBN170
CBN200
CBN300
CBN500
CBN600

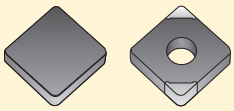
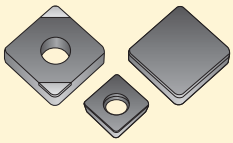
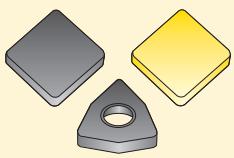
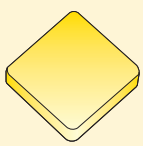
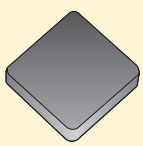
PVD coated grades:
CH0550
CBN060K
CH2540
CH3515
CBN170C
CBN300P
CBN400C



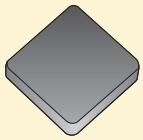
Grades

CH0550 	Format: Solid & brazed tips (single & double sided). Composition: 40% cBN bi-modal grain size distribution with average grain size of 3 µm and a TiCN ceramic binder. Coating: (Ti, Al, Cr)N coating.
CBN060K 	Format: Solid, full-face layer and brazed tips (single and double sided). Composition: 60% cBN content grade with an average grain size of 1-2 µm and a TiCN ceramic binder. Coating: (Ti, Al, Si)N coating.
CH2540 	Format: Solid & brazed tips. Composition: 65% cBN bi-modal grain size distribution with average grain size of 6 µm and a TiCN ceramic binder. Coating: (Ti, Si)N coating.
CH3515 	Format: Full-face layer and brazed tips (single sided). Composition: 90% cBN average grain size of 4 µm and a AlN ceramic binder. Coating: (Ti, Al)N coating.
CBN010 	Format: Solid, full-face layer and brazed tips (single & double sided). Composition: 50% cBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN150 	Format: Solid, full-face layer and brazed tips (single sided). Composition: 45% cBN content grade with an average grain size of < 1 µm and a TiCN ceramic binder. Coating: No coating.

Grades

CBN170 	Format: Solid and brazed tips (double sided). Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: No coating
CBN200 (Tipped and Full-face) 	Format: Full-face layer and brazed tips (single sided). Composition: 85% cBN content grade with an average grain size of 2 µm and a Co-W-Al ceramic binder. Coating: No coating
CBN200 (Solid) 	Format: Solid. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.
CBN300, CBN300P 	Format: Solid. Composition: 90% cBN content grade with an average grain size of 22 µm and a Al ceramic binder. Coating: CBN300: No coating. CBN300P: (Ti, Al)N coating.
CBN400C 	Format: Solid. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: (Ti, Si)N coating.
CBN500 	Format: Solid. Composition: 90% cBN content grade with an average grain size of 15 µm and a Al ceramic binder. Coating: No coating.

Grades, PCBN

CBN600 	Format: Solid. Composition: 90% cBN content grade with multi modal grain size and Al ceramic binding. Coating: No coating.

Cast Irons

SMG	Description	Reference	Recommendations
K1	Grey cast irons (GCI)	EN-GJL-250	First choice in dry machining: CBN300. Universal option: CBN600. First choice when coolant is used: CBN200. First choice for finish machining: CBN400C. Adjust the depth of cut to get under the casting skin and blow holes.
K4	Nodular cast irons (SGI)	EN-GJS-500-7	First choice for finish machining: CBN010.

Superalloys and Titanium

SMG	Description	Reference	Recommendations
S1	Iron-based superalloys	Discalloy	First choice for finish machining: CBN010 with E25 edge preparation. Use coolant.
S2	Cobalt-based superalloys	Stellite 21	First choice for finish machining: CBN010 with E25 edge preparation. Use coolant.
S3	Nickel-based superalloys	Inconel 718	PCBN tools can be used on Inconel 718 with following properties. Solution annealed + age hardened Direct age hardened Hardness 32 – 44 Hrc First choice for finish machining: CBN170. Use coolant.

Hard Materials

SMG	Description	Reference	Recommendations
H3	Case-hardened steels	16 MnCr 5 60 HRC	Dry machining is preferable. Coolant can be used. The chips should be fully annealed and brittle. First choice for finish machining: CH0550. Universal grade for finish machining: CBN010. For high surface finish requirements, use CH0550. **In interrupted machining:** Moderate interruptions, use CBN060K/CBN010. Aggressive interruptions, use CH2540/CH3515/CBN150. Reduce the feed rate. Machine without coolant. If possible, chamfer any sharp edges of the workpiece before machining.
H5	Quenched & Tempered steels	42 CrMo 4 50 HRC	Dry machining is preferable. Coolant can be used. The chips should be fully annealed and brittle. First choice for finish machining: CBN060K. Universal grade for finish machining: CBN010. For high surface finish requirements, use CH0550. **In interrupted machining:** Moderate interruptions, use CBN060K/CBN010. Aggressive interruptions, use CH2540/CH3515/CBN150. Reduce the feed rate. Machine without coolant. If possible, chamfer any sharp edges of the workpiece before machining.
H7	Quenched & Tempered steels Bearing steels	100 Cr 6 60 HRC	Dry machining is preferable. Coolant can be used. The chips should be fully annealed and brittle. First choice for finish machining: CBN060K. Universal grade for finish machining: CBN010. For rough machining, use CBN200/CBN300. For high surface finish requirements, use CH0550. **In interrupted machining:** Moderate interruptions, use CBN060K/CBN010. Aggressive interruptions, use CH2540/CH3515/CBN150. Reduce the feed rate. Machine without coolant. If possible, chamfer any sharp edges of the workpiece before machining.
H8	Tool steels High Speed Steels (HSS)	X 40 CrMoV 5 1 50 HRC	First choice for finish machining: CBN010. First choice for rough machining: CBN200. Interrupted machining of high speed steels can not be done.

Hard Materials

SMG	Description	Reference	Recommendations
H11	Martensitic stainless steels	X 20 Cr 13 45 HRC	First choice for finish machining: CBN010. First choice for rough machining: CBN300. **In interrupted machining:** Moderate interruptions, use CBN010. Aggressive interruptions, use CH2540/CH3515/CBN150.
H21	Manganese steels	X 120 Mn 12 50 HRC	First choice CBN300. When a tougher grade is needed use CBN500. Use chamfered inserts. Use stable toolholder and rigid clamping of the workpiece. Machine without coolant. Chamfer workpiece edges first.
H31	White cast irons	EN-GJN-HV600(XCr11) 55 HRC	Use CBN500 or when centerlock inserts are used CBN200. Universal option: CBN600. Adjust the depth of cut to get under the casting skin and blow holes. Dry machining is preferable.

Other Difficult Materials

SMG	Description	Reference	Recommendations
PM1	Low-alloy PM-materials	F-0008 Fe-0.7C	PCBN tools can be used on PM parts as soft as 25 HRC. The critical parameter is particle hardness, when the particle hardness exceeds 50 HRC, PCBN is useful, no matter what the bulk hardness is. First choice CBN200. For rough machining CBN300 is an alternative. Use chamfered inserts, S25 edge preparation. Do not use coolant for interrupted cut.
PM2	Medium-alloy PM-materials	FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C	PCBN tools can be used on PM parts as soft as 25 HRC. The critical parameter is particle hardness, when the particle hardness exceeds 50 HRC, PCBN is useful, no matter what the bulk hardness is. First choice CBN200. For rough machining CBN300 is an alternative. Use chamfered inserts, S25 edge preparation. Do not use coolant for interrupted cut.
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.		First choice CBN150. Second choice CBN010. Use positive inserts. Use chamfered and honed edges for longer tool life. Use honed edges when tight tolerances are required. Machining can be carried out either with or without coolant.
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys		Cr-based alloys – Hardness <60 HRC. Co-based alloys – Hardness >35 HRC. Ni-based alloys – Hardness >35 HRC. Fe-based alloys – Hardness >35 HRC. First choice for finish machining: CBN010. First choice for rough machining: CBN500, or when centerlock inserts are used: CBN200. Use round inserts if possible. Use chamfered inserts. Adjust the depth of cut to get under the welding skin and blow holes. Dry machining is preferable. Remove any weld spatter before machining.
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys		Cr-based alloys – Hardness <60 HRC. Co-based alloys – Hardness >35 HRC. Ni-based alloys – Hardness >35 HRC. Fe-based alloys – Hardness >35 HRC. First choice for finish machining: CBN010. First choice for rough machining: CBN500, or when centerlock inserts are used: CBN200. Use round inserts if possible. Use chamfered inserts. Adjust the depth of cut to get under the welding skin and blow holes. Dry machining is preferable. Remove any weld spatter before machining.

Other Difficult Materials

SMG	Description	Reference	Recommendations
CC1	Sintered tungsten carbide	G50	Sintered tungsten carbide with a Co content >17%. **Basic conditions:** Use CBN300. When a tougher grade is needed use CBN500. Use round inserts. Use chamfered inserts. Machining with coolant is preferable. Chamfer the workpiece at entry and exit.

PCBN, Finishing a_p < 0,5 mm

SMG	CH0550		CBN060K		CH2540		CH3515	
	v_c	f	v_c	f	v_c	f	v_c	f
K1	—	—	—	—	—	—	500 — 1000	0,10 — 0,60
K4	—	—	—	—	—	—	—	—
H3	100 — 300	0,050 — 0,36	100 — 250	0,050 — 0,36	110 — 230	0,050 — 0,36	90 — 200	0,050 — 0,36
H5	100 — 250	0,050 — 0,36	100 — 220	0,050 — 0,36	110 — 200	0,050 — 0,36	90 — 180	0,050 — 0,36
H7	100 — 230	0,050 — 0,36	100 — 200	0,050 — 0,36	110 — 180	0,050 — 0,36	90 — 170	0,050 — 0,36
H8	90 — 180	0,050 — 0,36	80 — 170	0,050 — 0,36	90 — 160	0,050 — 0,36	70 — 150	0,050 — 0,36
H11	80 — 170	0,050 — 0,36	70 — 160	0,050 — 0,36	80 — 150	0,050 — 0,36	—	—
H21	—	—	—	—	—	—	—	—
H31	—	—	—	—	—	—	—	—
PM1	—	—	—	—	—	—	100 — 250	0,050 — 0,30
PM2	—	—	—	—	—	—	100 — 220	0,050 — 0,30
PM3	100 — 170	0,050 — 0,15	—	—	—	—	—	—
HF1	—	—	—	—	50 — 150	0,050 — 0,20	—	—
HF2	—	—	—	—	100 — 200	0,050 — 0,20	—	—
CC1	—	—	—	—	—	—	—	—

SMG	CBN010		CBN150		CBN170		CBN200	
	v_c	f	v_c	f	v_c	f	v_c	f
K1	—	—	—	—	—	—	500 — 1000	0,10 — 0,60
K4	140 — 240	0,050 — 0,20	160 — 260	0,050 — 0,20	—	—	—	—
S1	70 — 140	0,050 — 0,30	—	—	120 — 220	0,050 — 0,24	—	—
S2	—	—	—	—	—	—	40 — 60	0,050 — 0,15
S3	100 — 240	0,050 — 0,24	—	—	120 — 280	0,050 — 0,24	—	—
H3	80 — 200	0,050 — 0,36	70 — 180	0,050 — 0,36	—	—	—	—
H5	80 — 190	0,050 — 0,36	70 — 170	0,050 — 0,36	—	—	—	—
H7	80 — 180	0,050 — 0,36	70 — 160	0,050 — 0,36	—	—	—	—
H8	70 — 170	0,050 — 0,36	60 — 150	0,050 — 0,36	—	—	—	—
H11	70 — 160	0,050 — 0,36	60 — 140	0,050 — 0,36	—	—	—	—
H21	—	—	—	—	—	—	—	—
H31	—	—	—	—	—	—	—	—
PM1	—	—	—	—	—	—	100 — 220	0,050 — 0,30
PM2	—	—	—	—	—	—	90 — 200	0,050 — 0,30
PM3	80 — 170	0,050 — 0,15	80 — 150	0,050 — 0,15	—	—	—	—
HF1	50 — 150	0,050 — 0,24	50 — 130	0,050 — 0,24	—	—	100 — 170	0,050 — 0,30
HF2	60 — 190	0,050 — 0,24	60 — 170	0,050 — 0,24	—	—	170 — 250	0,050 — 0,30
CC1	—	—	—	—	—	—	—	—

SMG	CBN300		CBN400C		CBN500		CBN600	
	v_c	f	v_c	f	v_c	f	v_c	f
K1	500 — 1700	0,10 — 0,60	500 — 1800	0,10 — 0,60	500 — 1500	0,10 — 0,60	500 — 1300	0,10 — 0,60
K4	—	—	—	—	—	—	—	—
S1	—	—	—	—	—	—	—	—
S2	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—
H3	—	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—	—
H7	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—
H21	130 — 250	0,10 — 0,60	—	—	150 — 270	0,10 — 0,60	120 — 220	0,10 — 0,60
H31	80 — 200	0,10 — 0,60	—	—	80 — 220	0,10 — 0,60	80 — 180	0,10 — 0,60
PM1	—	—	—	—	—	—	—	—
PM2	—	—	—	—	—	—	—	—
PM3	—	—	—	—	—	—	—	—
HF1	—	—	—	—	100 — 220	0,050 — 0,30	—	—
HF2	—	—	—	—	170 — 270	0,050 — 0,30	—	—
CC1	20 — 40	0,050 — 0,20	—	—	—	—	20 — 40	0,050 — 0,20

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PCBN, Roughing a_p 0,5 – 3,0 mm

	CBN200		CBN300		CBN500		CBN600	
SMG	v_c	f	v_c	f	v_c	f	v_c	f
K1	500 — 1000	0,20 — 0,65	500 — 1500	0,20 — 0,70	500 — 1200	0,20 — 0,70	500 — 1200	0,20 — 0,70
K4	—	—	—	—	—	—	—	—
H3	—	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—	—
H7	70 — 150	0,10 — 0,50	90 — 180	0,10 — 0,55	90 — 180	0,10 — 0,60	70 — 150	0,10 — 0,55
H8	50 — 130	0,10 — 0,50	50 — 150	0,10 — 0,55	50 — 150	0,10 — 0,60	50 — 130	0,10 — 0,55
H11	—	—	—	—	—	—	—	—
H21	—	—	130 — 230	0,10 — 0,60	150 — 250	0,10 — 0,60	120 — 200	0,10 — 0,60
H31	—	—	80 — 180	0,10 — 0,60	80 — 200	0,10 — 0,60	80 — 160	0,10 — 0,60
PM1	100 — 200	0,10 — 0,30	100 — 220	0,10 — 0,30	—	—	100 — 220	0,10 — 0,30
PM2	90 — 180	0,10 — 0,30	100 — 200	0,10 — 0,30	—	—	100 — 200	0,10 — 0,30
PM3	—	—	—	—	—	—	—	—
HF1	100 — 150	0,10 — 0,30	—	—	100 — 200	0,10 — 0,60	—	—
HF2	170 — 230	0,10 — 0,30	—	—	170 — 250	0,10 — 0,60	—	—
CC1	—	—	20 — 30	0,050 — 0,20	—	—	20 — 30	0,050 — 0,20

PCBN, Plunging

	CH0550		CBN060K		CH2540		CBN010		CBN150	
SMG	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f
K1	—	—	—	—	—	—	—	—	—	—
H3	180 — 330	0,030 — 0,13	170 — 300	0,030 — 0,13	170 — 280	0,030 — 0,13	160 — 270	0,030 — 0,13	160 — 250	0,030 — 0,13
H5	180 — 310	0,030 — 0,13	170 — 280	0,030 — 0,13	170 — 260	0,030 — 0,13	160 — 240	0,030 — 0,13	160 — 220	0,030 — 0,13
H7	180 — 220	0,030 — 0,13	170 — 260	0,030 — 0,13	170 — 240	0,030 — 0,13	160 — 220	0,030 — 0,13	160 — 200	0,030 — 0,13
H8	150 — 200	0,030 — 0,13	140 — 230	0,030 — 0,13	140 — 210	0,030 — 0,13	130 — 200	0,030 — 0,13	130 — 180	0,030 — 0,13
H11	80 — 170	0,050 — 0,36	70 — 160	0,050 — 0,36	80 — 150	0,050 — 0,36	70 — 160	0,050 — 0,36	60 — 140	0,050 — 0,36
H21	—	—	—	—	—	—	—	—	—	—
H31	—	—	—	—	—	—	—	—	—	—
PM1	—	—	—	—	—	—	—	—	—	—
PM2	—	—	—	—	—	—	—	—	—	—
PM3	130 — 260	0,030 — 0,13	—	—	—	—	110 — 230	0,030 — 0,13	100 — 200	0,030 — 0,13
HF1	—	—	—	—	50 — 150	0,050 — 0,20	50 — 150	0,050 — 0,24	50 — 130	0,050 — 0,24
HF2	—	—	—	—	100 — 200	0,050 — 0,20	60 — 190	0,050 — 0,24	60 — 170	0,050 — 0,24
CC1	—	—	—	—	—	—	—	—	—	—

	CBN200		CBN300		CBN400C		CBN500		CBN600	
SMG	v_c	f	v_c	f	v_c	f	v_c	f	v_c	f
K1	500 — 1000	0,10 — 0,60	500 — 1700	0,10 — 0,60	500 — 1800	0,10 — 0,60	500 — 1500	0,10 — 0,60	500 — 1300	0,10 — 0,60
S1	—	—	—	—	—	—	—	—	—	—
S2	40 — 60	0,050 — 0,15	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—	—	—
H3	—	—	—	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—	—	—	—
H7	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—
H21	—	—	130 — 250	0,10 — 0,60	—	—	150 — 270	0,10 — 0,60	120 — 220	0,10 — 0,60
H31	—	—	80 — 200	0,10 — 0,60	—	—	80 — 220	0,10 — 0,60	80 — 180	0,10 — 0,60
PM1	200 — 350	0,030 — 0,13	—	—	—	—	—	—	—	—
PM2	150 — 300	0,030 — 0,13	—	—	—	—	—	—	—	—
PM3	—	—	—	—	—	—	—	—	—	—
HF1	100 — 170	0,050 — 0,30	—	—	—	—	100 — 220	0,050 — 0,30	—	—
HF2	170 — 250	0,050 — 0,30	—	—	—	—	170 — 270	0,050 — 0,30	—	—
CC1	—	—	20 — 40	0,050 — 0,20	—	—	—	—	20 — 40	0,050 — 0,20

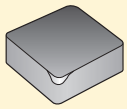
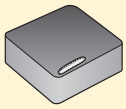
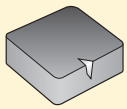
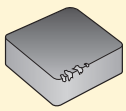
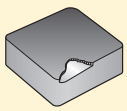
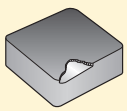
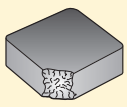
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PCBN, Grooving

SMG	CBN010		CBN170		CBN200	
	v_c	f	v_c	f	v_c	f
K1	—	—	—	—	500 — 1000	0,030 — 0,15
S1	70 — 140	0,030 — 0,15	120 — 220	0,030 — 0,15	—	—
S2	—	—	—	—	40 — 60	0,030 — 0,15
S3	100 — 240	0,030 — 0,15	120 — 280	0,030 — 0,15	—	—
H3	80 — 200	0,030 — 0,15	—	—	—	—
H5	80 — 190	0,030 — 0,15	—	—	—	—
H7	80 — 180	0,030 — 0,15	—	—	—	—
H8	70 — 170	0,030 — 0,15	—	—	—	—
H11	70 — 160	0,030 — 0,15	—	—	—	—
H21	—	—	—	—	—	—
H31	—	—	—	—	80 — 220	0,030 — 0,15
PM1	—	—	—	—	100 — 180	0,030 — 0,15
PM2	—	—	—	—	90 — 160	0,030 — 0,15
PM3	—	—	—	—	—	—
HF1	—	—	—	—	100 — 170	0,030 — 0,15
HF2	—	—	—	—	170 — 250	0,030 — 0,15

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Troubleshooting

Problem	Cause	Suggested action(s)
Flank wear 	• Not correct edge temperature	• Increase cutting speed • Increase feed rate • Increase depth of cut • Check cutting tool centre height • Check the ferrite content
Crater wear 	• Not correct edge temperature	• Decrease cutting speed • Decrease feed rate • Reduce chamfer angle • Use E edge preparation • Use coated insert • Use coolant (only in continuous cut)
Notch wear 	• Not correct edge temperature • Too high cutting forces	• Increase cutting speed • Decrease feed rate • Increase insert approach angle (preferably round inserts) • Vary the depth of cut • Use inserts with chamfered cutting edges
Edge chipping 	• Too high cutting forces	• Use inserts with chamfered cutting edges • Increase system rigidity • For interrupted cuts, chamfer the tool entry/exit slots and holes • Vary the cutting speed to eliminate vibrations
Edge flaking (continuous cut) 	• Too high cutting forces	• Increase cutting speed • Reduce feed rate • Use chamfered and honed cutting edges • Check cutting tool center height • Reduce insert approach angle
Edge flaking (interrupted cut) 	• Too high cutting forces	• Do not use coolant • Use chamfered and honed cutting edges • Reduce feed rate • Increase cutting speed • Check cutting tool centre height • Reduce insert approach angle
Edge breakage 	• Too high cutting forces	• Reduce depth of cut • Reduce cutting speed • Increase nose radius • Use chamfered and honed inserts • Check cutting tool center height
Insert breakage 	• Too high cutting forces	• Check insert seating • Check insert shim and insert clamp • Check cutting tool centre height

Introduction

Polycrystalline Diamond (PCD) is produced by sintering together carefully selected particles of diamond under conditions of high temperature and high pressure. PCD cutting tools combine the hardness, abrasion resistance and thermal conductivity of diamond with the toughness of tungsten carbide.

Secomax™ PCD inserts are suitable for machining non-ferrous metals and alloys, e.g.:

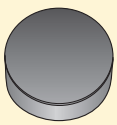
- Aluminium
- Copper
- Brass
- Bronze

It can also be used for other materials, e.g.:

- Composites (MMC, ...)
- Reinforced plastics
- Graphite
- Cemented/tungsten carbide
- Ceramics
- Titanium alloys

Selection of insert types

Sintered layer -LF

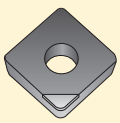


PCD sintered on carbide.
All cutting edges on one side are usable.

Grade:
PCD30

Toolholder style:
C

Brazed tip -L1



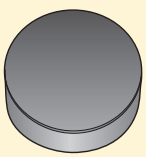
PCD brazed on to standard carbide inserts.

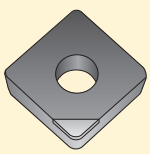
Grades:
PCD20, PCD30

Toolholder styles:
D, P, M and C

Grades

PCD20



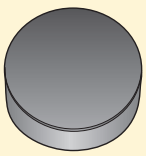


Format:
Full-face brazed layer and brazed tips (single sided).

Composition:
Grade with an average grain size of 10 µm and a Co binder.

Coating:
No coating.

PCD30



Format:
Full-face brazed layer (single sided).

Composition:
Grade with an average grain size of 25 µm and a Co binder.

Coating:
No coating.

Non Ferrous Metals

SMG	Description	Reference	Recommendations
N1	Aluminium alloys, Si < 9%	AW-7075	First choice for finish and rough machining: PCD20.
N2	Aluminium alloys, 9% < Si < 16%	AC-44200 Si = 12%	First choice for finish and rough machining: PCD20.
N3	Aluminium alloys, Si >16%	AlSi17Cu5	First choice for finish and rough machining: PCD30.
N11	Copper alloys	CW614N	First choice for finish and rough machining: PCD20.

Other Difficult Materials

SMG	Description	Reference	Recommendations
CC1	Sintered tungsten carbide	G50	First choice for finish machining: PCD30.

Plastics and Composites

SMG	Description	Reference	Recommendations
TS1	Thermosetting polymers	Urea formaldehyde (UF)	First choice for finish and rough machining: PCD20.
TS2	Thermosetting carbon-fibre composites	T300 T700 T800 HTA-S IMA - Epoxy (M21)...	First choice for finish and rough machining: PCD20.
TS3	Thermosetting glass-fibre composites	Epoxy - HX..(42..)/E glass (7781...)...	First choice for finish and rough machining: PCD20.
TS4	Thermosetting aramide-fibre composites	Kevlar 49	First choice for finish and rough machining: PCD20.
TP1	Thermoplastic polymers	Polycarbonate (PC)	First choice for finish and rough machining: PCD20.
TP2	Thermoplastic carbon-fibre composites	PPS/PEEK - T300..	First choice for finish and rough machining: PCD20.
TP3	Thermoplastic glass-fibre composites	PPS/PEEK - E glass or A glass...	First choice for finish and rough machining: PCD20.
TP4	Thermoplastic aramide-fibre composites		First choice for finish and rough machining: PCD20.

Graphites

SMG	Description	Reference	Recommendations
GR1	Graphite	R 8500	First choice for finish- and rough machining: PCD20.

PCD, Roughing a_p 0,5 – 3,0 mm

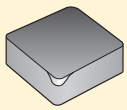
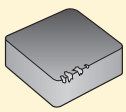
SMG	PCD20		PCD30		PCD30M	
	v_c	f	v_c	f	v_c	f
N1	600 — 3500	0,050 — 0,30	—	—	—	—
N2	450 — 2500	0,050 — 0,20	—	—	—	—
N3	300 — 1000	0,050 — 0,10	300 — 1000	0,10 — 0,40	300 — 1000	0,10 — 0,40
N11	600 — 1200	0,10 — 0,50	600 — 1200	0,10 — 0,50	600 — 1200	0,10 — 0,50
TS1	100 — 1500	0,10 — 0,40	—	—	—	—
TS2	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TS3	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20
TS4	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TP1	100 — 1500	0,10 — 0,40	—	—	—	—
TP2	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TP3	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20
TP4	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
GR1	100 — 1500	0,10 — 0,20	—	—	—	—

PCD, Finishing a_p < 0,5 mm

SMG	PCD20		PCD30		PCD30M	
	v_c	f	v_c	f	v_c	f
N1	600 — 3500	0,050 — 0,30	—	—	—	—
N2	450 — 2500	0,050 — 0,20	—	—	—	—
N3	300 — 1000	0,050 — 0,10	300 — 1000	0,10 — 0,40	300 — 1000	0,10 — 0,40
N11	600 — 1200	0,10 — 0,50	600 — 1200	0,10 — 0,50	600 — 1200	0,10 — 0,50
CC1	—	—	10 — 20	0,050 — 0,15	10 — 20	0,050 — 0,15
TS1	100 — 1500	0,10 — 0,40	—	—	—	—
TS2	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TS3	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20
TS4	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TP1	100 — 1500	0,10 — 0,40	—	—	—	—
TP2	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
TP3	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20	100 — 800	0,050 — 0,20
TP4	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20	400 — 800	0,10 — 0,20
GR1	100 — 1500	0,10 — 0,20	—	—	—	—

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Troubleshooting

Problem	Cause	Suggested action(s)
Flank wear 	• Wrong grade • Presence of Fe/Ni/Co	• Change to coarser PCD grade • Check material composition • Reduce cutting speed • Use coolant
Built-up edge 	• Not correct edge temperature • Wrong grade	• Decrease or increase cutting speed • Choose a sharper insert • Change to a finer grade
Edge chipping 	• Poor rigidity • Wrong grade • Incorrect cutting data • High run-out	• Minimize vibrations • Change to a tougher grade • Change cutting data • Check set-up
Poor surface finish	• Wrong grade • Too high cutting data • Incorrect wiper position	• Change to a finer PCD grade • Reduce cutting speed and feed rate • Check wiper position
Flaking of work-piece	• To high depth of cut	• Decrease depth of cut • Add entry chamfer on component

Introduction

Secomax ceramics include a range of products developed to meet the manufacturing industries ever increasing demands on productivity and product performance.

The inserts are die-pressed and sintered by a HIP process using very fine and pure raw materials with fine microstructure to reach excellent material properties. All surfaces are then ground ensuring a product with superior dimensions and tolerances.

This comes together in a product with outstanding features:

– high thermal shock resistance

– optimised fracture toughness

– excellent wear resistance

– high product quality

Application areas

Heat resistant superalloys (HRSA) include a broad range of nickel, iron and cobalt based alloys developed specifically for applications demanding exceptional mechanical and chemical properties at elevated temperatures.

Seco ceramic inserts are intended for rough machining of nickel based heat resistant superalloys. The most common nickel based superalloy is Inconel 718, which is a precipitation hardenable nickel chromium alloy containing significant amounts of iron, niobium and molybdenum along with lesser amounts of aluminium and titanium.

Other common nickel based superalloy names are:

– Hastalloy

– Haynes (Waspaloy)

– MAR

– Nimonic

– Rene

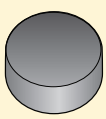
– Udimet

Selection of insert types

Ceramic inserts are only available in solid format.

Solid insert



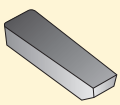


According to the geometry, two sides can be used.

Grade:
CS100, CS300

Toolholder style:
C

Solid insert



According to the geometry, one edge can be used.

Grade:
CW100

Toolholder style:
CFxx

Geometry recommendations

Strong cutting edge geometries are always preferred.

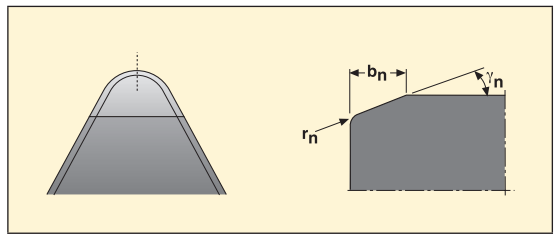
- Negative cutting geometry
- Chamfered cutting edge
- Large nose radius

Edge preparation

S = Chamfered and honed

T = Chamfered, no honing

E = Honed



b_n = Chamfer width
γ_n = Chamfer angle
r_n = Hone radius

Chamfer size and angle

CS100 = 0,10 mm x 20°

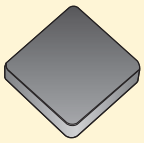
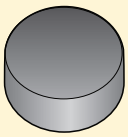
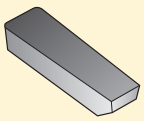
CS300 = 0,10 mm x 20°

CW100 = Honed

ISO classification

	P						M					K					N				S				H			
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
CS100																												
CS300																												
CW100																												

Grades

CS100 	Format: Solid. Composition: Sialon (Si, Al, O, N) ceramic grade. Coating: No coating.
CS300 	Format: Solid. Composition: Sialon (Si, Al, O, N) ceramic grade. Coating: No coating.
CW100 	Format: Solid. Composition: Aluminium oxide (Al_2O_3) + SiC-whisker reinforced ceramic grade. Coating: No coating.

Superalloys

SMG	Description	Reference	Recommendations
S1	Iron-based superalloys	Discalloy	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant
S2	Cobalt-based superalloys	Stellite 21	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant
S3	Nickel-based superalloys	Inconel 718	First choice for rough machining: CS100 First choice for grooving: CW100 Use coolant

Ceramic, Roughing a_p 0,5 – 3,0 mm

Cutting data and application area for CS100 is also applicable for CS300

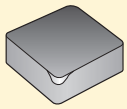
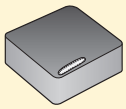
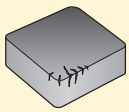
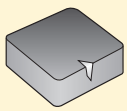
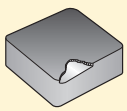
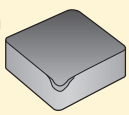
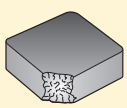
SMG	CS100	
	v_c	f
S1	150 — 300	0,10 — 0,40
S2	150 — 300	0,10 — 0,40
S3	150 — 300	0,10 — 0,40

Ceramic, Grooving

SMG	CW100	
	v_c	f
S1	150 — 300	0,050 — 0,10
S2	150 — 300	0,050 — 0,10
S3	150 — 300	0,050 — 0,10

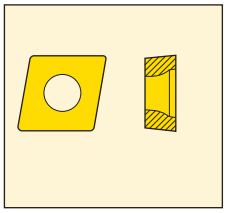
For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

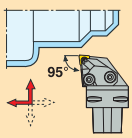
Troubleshooting

Problem	Cause	Suggested action(s)
Flank wear 	Excessive feed rate and cutting speed	• Reduce cutting speed • Use larger corner radius • Use high wear-resistant grade
Crater wear 	Excessive feed rate and cutting speed	• Reduce cutting speed • Use smaller lead angle • Check edge geometry
Thermal cracking 	Severe cycle of heating & cooling during cutting Excessive feed rate and cutting speed	• Change to dry machining • Reduce cutting speed • Reduce feed rate
Notch wear 	Excessive feed rate and cutting depth	• Reduce cutting depth • Reduce feed rate • Increase coolant supply
Edge flaking 	Excessive feed rate Separation of BUE Weak cutting edge	• Check edge geometry • Increase stability of the system • Use larger lead angle
Plastic deformation 	Excessive feed rate and cutting speed	• Reduce cutting speed • Reduce feed rate • Reduce cutting depth
Built-up edge 	High affinity with workpiece Low cutting speed	• Increase cutting speed • Increase feed rate • Use larger rake angle
Breakage 	Excessive feed rate and cutting depth	• Reduce feed rate • Reduce cutting depth • Increase stability of the system

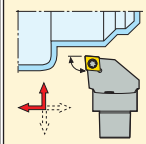
Application overview – Toolholders external, Seco-Capto™

Inserts CC..

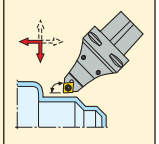




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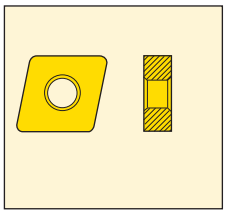


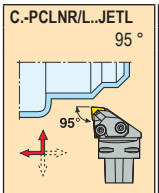
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page(s) 348

Inserts CN..

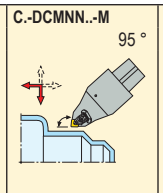




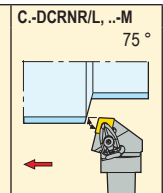
page(s) 126



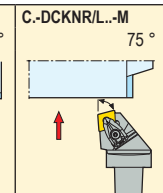
page(s) 155-157



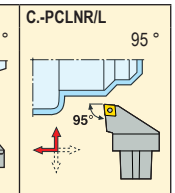
page(s) 349



page(s) 158-159

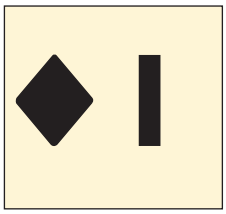


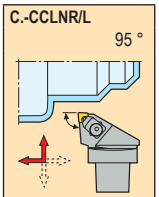
page(s) 153-154



page(s) 152

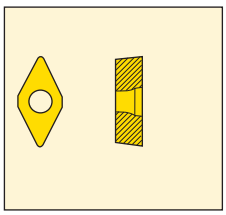
Inserts CN.N

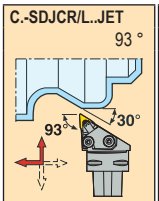




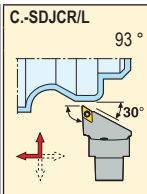
page(s) 160

Inserts DC..

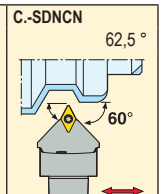




page(s) 127

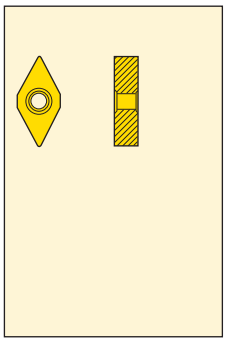


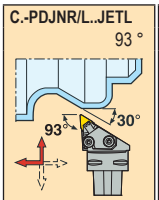
page(s) 161



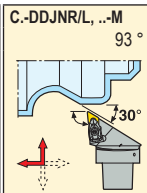
page(s) 162

Inserts DN..

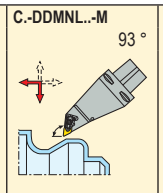




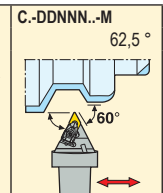
page(s) 128



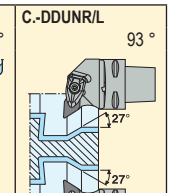
page(s) 163



page(s) 350



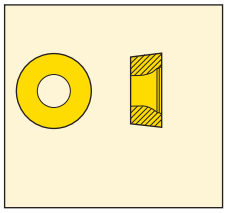
page(s) 165



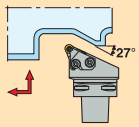
page(s) 164

Application overview – Toolholders external, Seco-Capto™

Inserts RC..

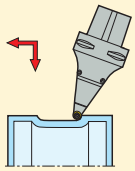


C.-SRSCR/L..JET



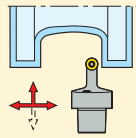
page(s) 129

C.-SRDCN



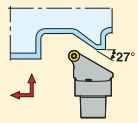
page(s) 351

C.-SRDCN-..A



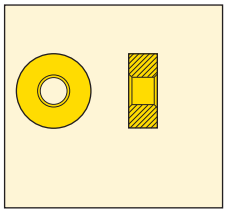
page(s) 166

C.-SRSCR/L

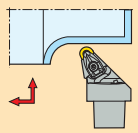


page(s) 167

Inserts RN..

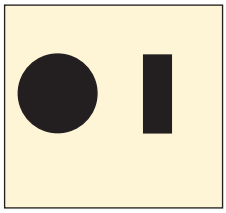


C.-DRSNR/L..-M

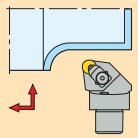


page(s) 170

Inserts RN.N

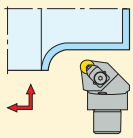


C.-CRSNR/L



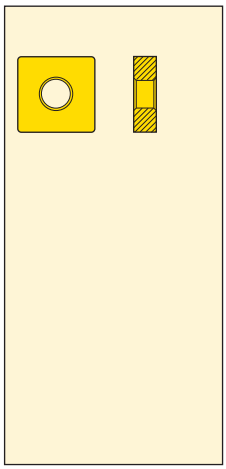
page(s) 168

C.-CRSNR/L-..C



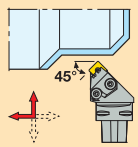
page(s) 169

Inserts SN..



C.-PSSNR/L..JETL

45 °



page(s) 130

C.-DSRNR/L, ..-M

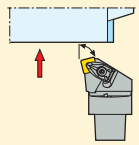
75 °



page(s) 173

C.-DSKNR/L, ..-M

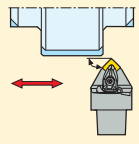
75 °



page(s) 171

C.-DSDNN..-M

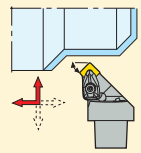
45 °



page(s) 176

C.-DSSNR/L, ..-M

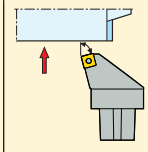
45 °



page(s) 175

C.-PSKNR/L

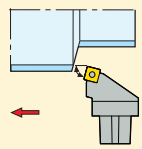
75 °



page(s) 172

C.-PSRNR/L

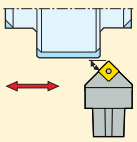
75 °



page(s) 174

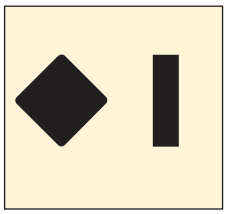
C.-PSDNN

45 °



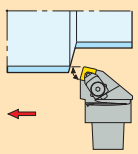
page(s) 177

Inserts SN.N



C.-CSRNR/L

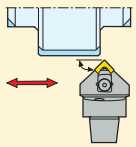
75 °



page(s) 179

C.-CSDNN

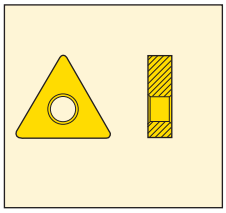
45 °

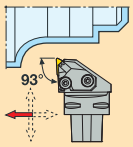
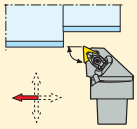
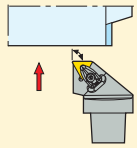


page(s) 178

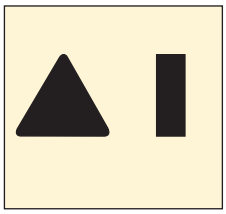
Application overview – Toolholders external, Seco-Capto™

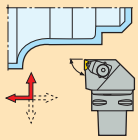
Inserts TN..



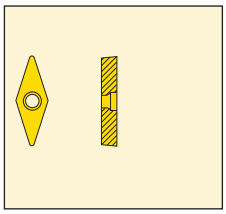
C.-PTJNR/L..JETL	C.-DTJNR/L..-M	C.-DTGNR/L..-M	C.-DTFNR/L..-M
93 °	93 °	90 °	90 °
			
page(s) 131	page(s) 180	page(s) 181	page(s) 182

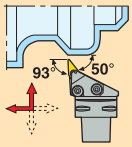
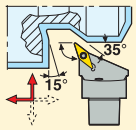
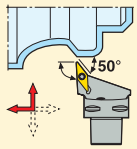
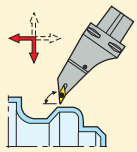
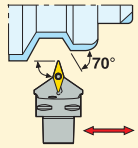
Inserts TN.N



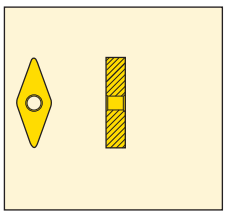
C.-CTJNR/L
93 °

page(s) 183

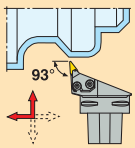
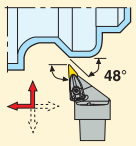
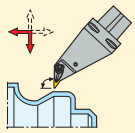
Inserts VB../VC..



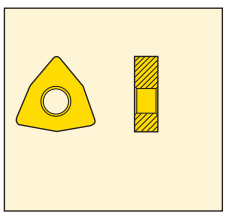
C.-SVJBR/L..JET	C.-SVHBR/L	C.-SVJBR/L	C.-SVMBL	C.-SVVBN
93 °	107,5 °	93 °	95 °	72,5 °
				
page(s) 132	page(s) 184	page(s) 185	page(s) 352	page(s) 186

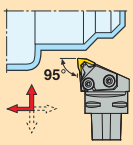
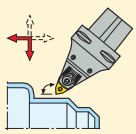
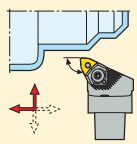
Inserts VN..



C.-PVJNR/L..JETL	C.-DVJNR/L	C.-DVMNL..-M
93 °	93 °	93 °
		
page(s) 133	page(s) 187	page(s) 353

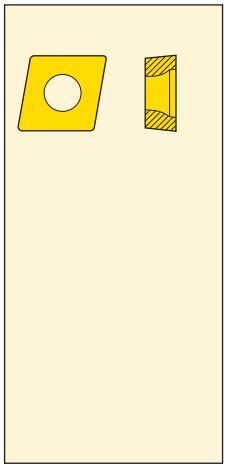
Inserts WN..

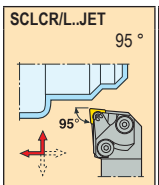


C.-PWLNR/L..JETL	C.-DWLNR/L	C.-PWLNN	C.-PWLNR/L
95 °	95 °	95 °	95 °
			
page(s) 134	page(s) 188	page(s) 354	page(s) 189

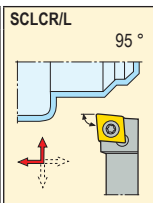
Application overview – Toolholders external

Inserts CC..

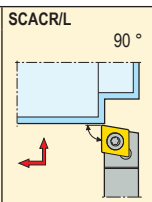




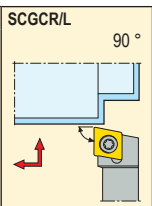
page(s) 135



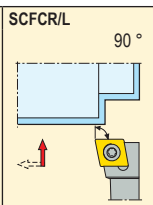
page(s) 193



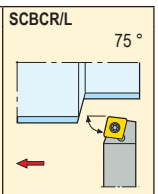
page(s) 190



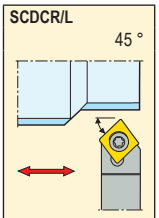
page(s) 194



page(s) 192

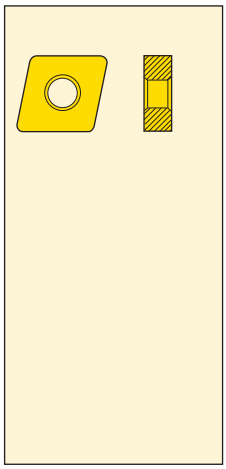


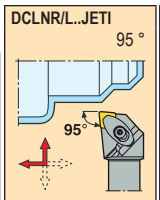
page(s) 191



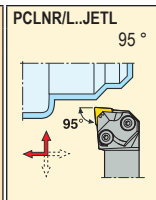
page(s) 192

Inserts CN..

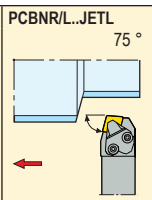




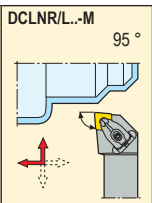
page(s) 137



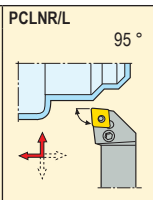
page(s) 136



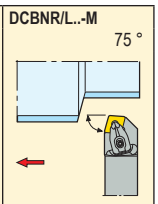
page(s) 138



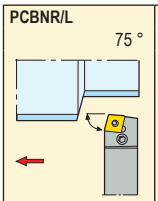
page(s) 197-198



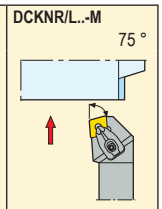
page(s) 199



page(s) 195

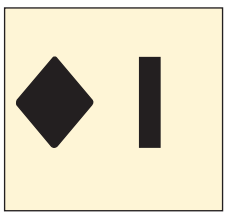


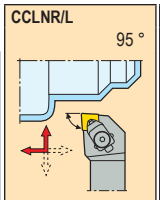
page(s) 200



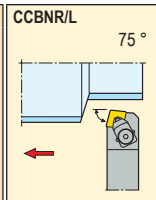
page(s) 196

Inserts CN.N

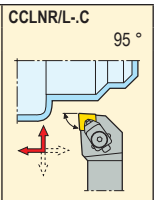




page(s) 201

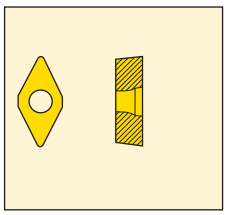


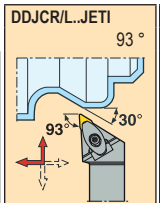
page(s) 201



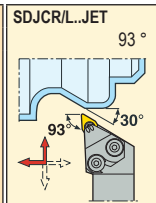
page(s) 202

Inserts DC..

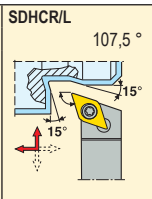




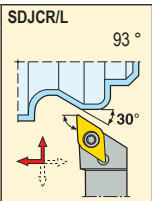
page(s) 140



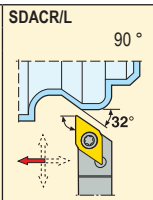
page(s) 139



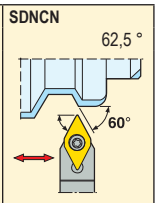
page(s) 203



page(s) 204



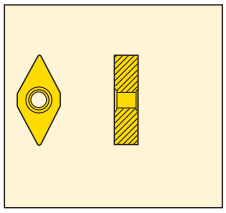
page(s) 205



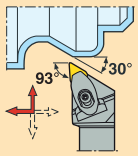
page(s) 206

Application overview – Toolholders external

Inserts DN..

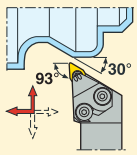


DDJNR/L..JETI — 93 °



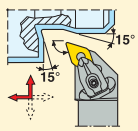
page(s) 142

PDJNR/L..JETL — 93 °



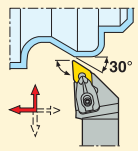
page(s) 141

DDHNR/L — 107,5 °



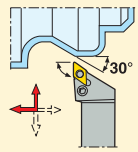
page(s) 207

DDJNR/L, ..-M — 93 °



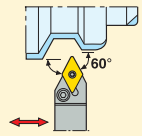
page(s) 208

PDJNR/L — 93 °



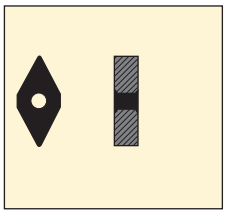
page(s) 209

PDNNR/L — 63 °

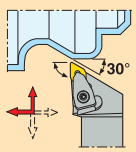


page(s) 210

Inserts DN.A

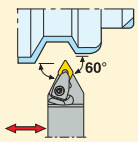


DDJNR/L..-C — 93 °



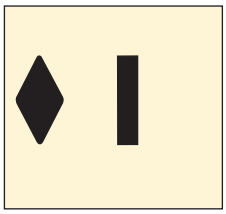
page(s) 212

DDNNN..-C — 62,5 °

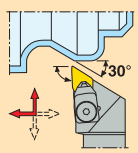


page(s) 212

Inserts DN.N

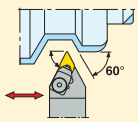


CDJNR/L — 93 °



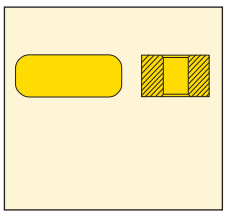
page(s) 211

CDNNN — 62,5 °

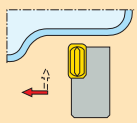


page(s) 211

Inserts LNMX19/30

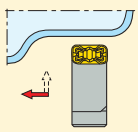


CT-PLANR/L (175.32) — 90 °



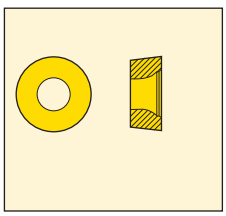
page(s) 363

CT-PLFNR/L — 90 °

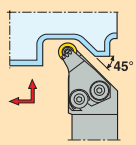


page(s) 364

Inserts RC..

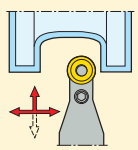


SRSCR/L..JET



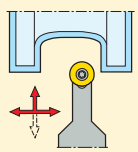
page(s) 143

PRDCN



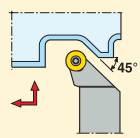
page(s) 216

SRDCN



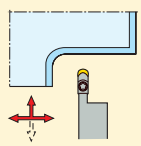
page(s) 215

SRSCR/L



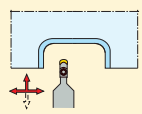
page(s) 214

CRDCR/L..C



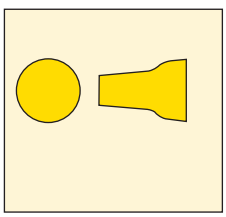
page(s) 217

CRDCN...C

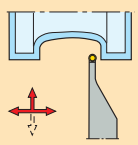


page(s) 217

Inserts RCG.

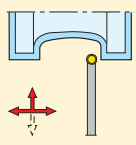


TRAOR/L



page(s) 213

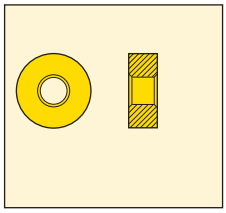
TRDON

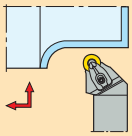


page(s) 213

Application overview – Toolholders external

Inserts RN..

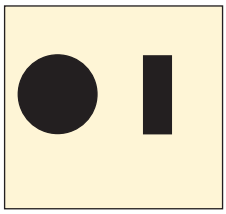


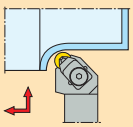


DRSNR/L..-M

page(s) 220

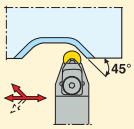
Inserts RN.N





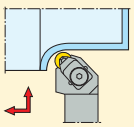
CRSNR/L

page(s) 218



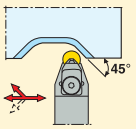
CRDNN

page(s) 218



CRSNR/L..C

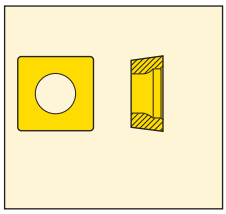
page(s) 219

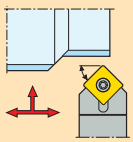


CRDNN..C

page(s) 219

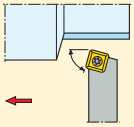
Inserts SC..





SSDCN

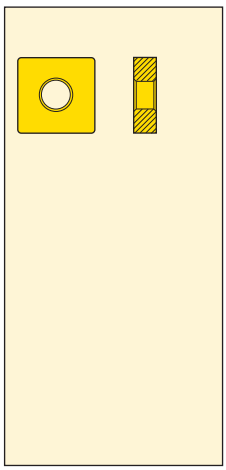
page(s) 221

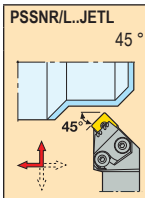


SSBCR/L

page(s) 222

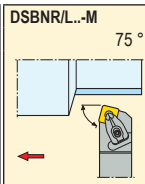
Inserts SN..





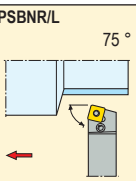
PSSNR/L..JETL

page(s) 144



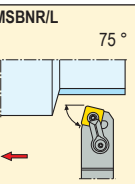
DSBNR/L..-M

page(s) 226



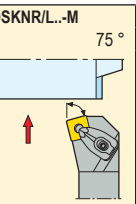
PSBNR/L

page(s) 232



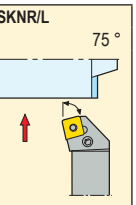
MSBNR/L

page(s) 230



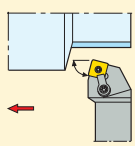
DSKNR/L..-M

page(s) 228



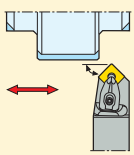
PSKNR/L

page(s) 234



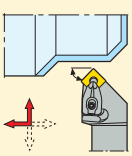
MSRNR

page(s) 231



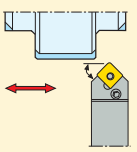
DSDNN..-M

page(s) 227



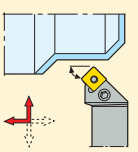
DSSNR/L..-M

page(s) 229



PSDNN

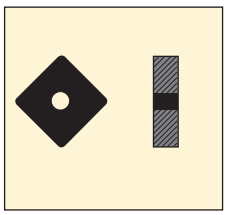
page(s) 234

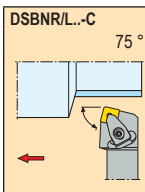


PSSNR/L

page(s) 233

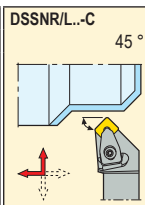
Inserts SN.A





DSBNR/L..-C

page(s) 235

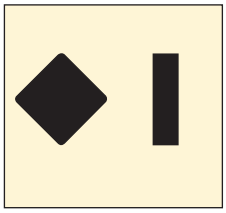


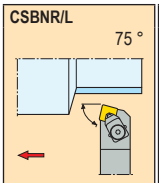
DSSNR/L..-C

page(s) 235

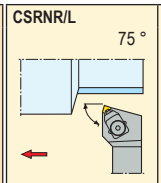
Application overview – Toolholders external

Inserts SN.N

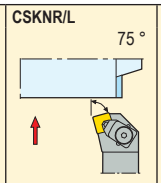




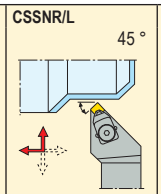
page(s) 223



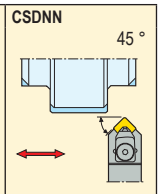
page(s) 223



page(s) 224

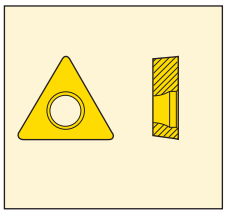


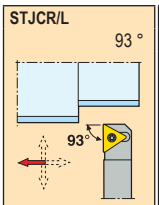
page(s) 225



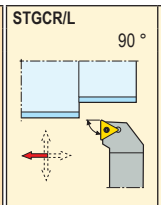
page(s) 224

Inserts TC..

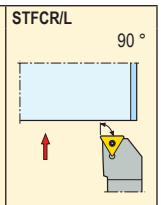




page(s) 237

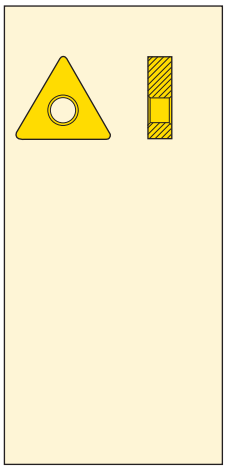


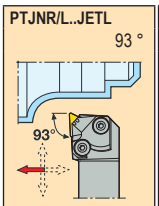
page(s) 236



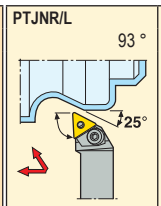
page(s) 236

Inserts TN..

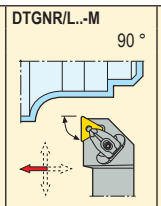




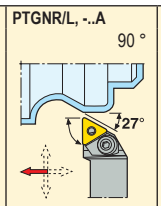
page(s) 145



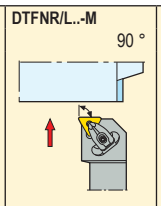
page(s) 242



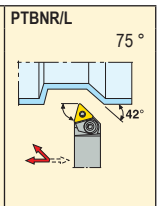
page(s) 239



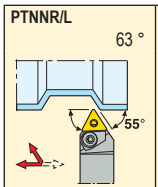
page(s) 241



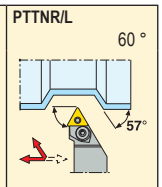
page(s) 238



page(s) 240

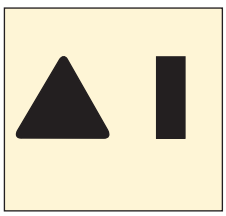


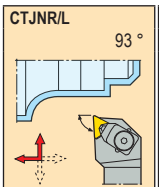
page(s) 240



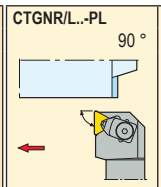
page(s) 243

Inserts TN.N

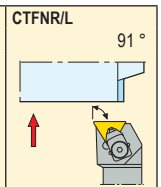




page(s) 245



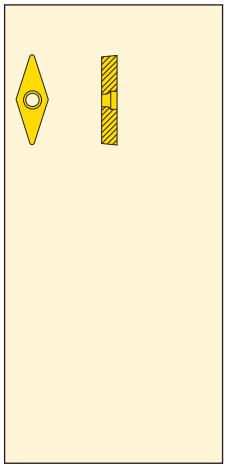
page(s) 244



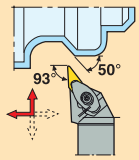
page(s) 245

Application overview – Toolholders external

Inserts VB/VC..

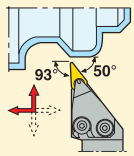


DVJBR/L...JETI 93 °



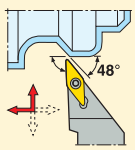
page(s) 146

SVJBR/L...JET 93 °



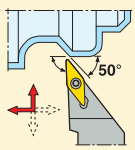
page(s) 147

SVLBR/L 95 °



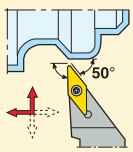
page(s) 248

SVJBR/L 93 °



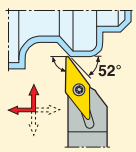
page(s) 246

SVJCR/L 93 °



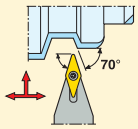
page(s) 247

SVABR/L 90 °



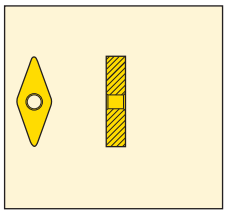
page(s) 247

SVVBN 72,5 °

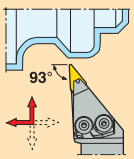


page(s) 249

Inserts VN..

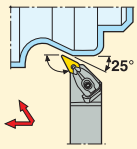


PVJNR/L..JETL 93 °



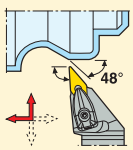
page(s) 148

DVPNR/L 117,5 °



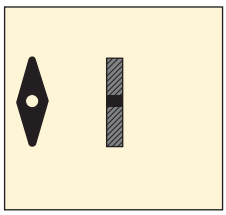
page(s) 252

DVJNR/L 93 °

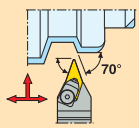


page(s) 251

Inserts VN.A

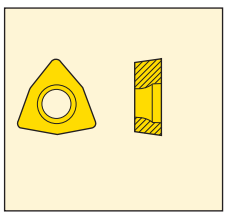


CVVNN 72,5 °

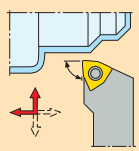


page(s) 250

Inserts WC..

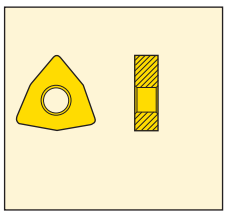


SWLCR/L 95 °

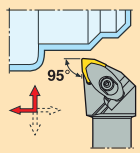


page(s) 253

Inserts WN..

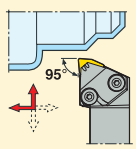


DWLNR/L..JETI 95 °



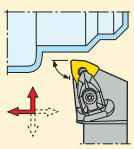
page(s) 149

PWLNR/L..JETL 95 °



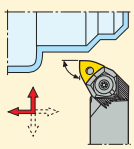
page(s) 150

DWLNR/L 95 °



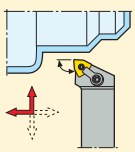
page(s) 254

PWLNR/L 95 °



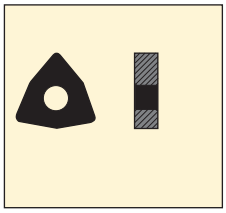
page(s) 256

MWLNR/L 95 °



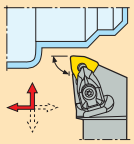
page(s) 255

Inserts WN.A



DWLNR/L..-C

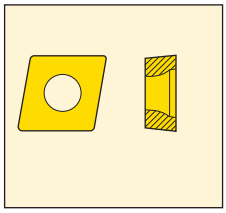
95 °



page(s) 257

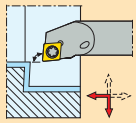
Application overview – Toolholders internal, Seco-Capto™

Inserts CC..



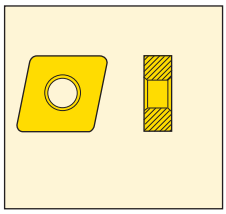
C.-SCLCR/L

95 °



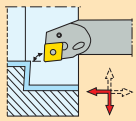
page(s) 258

Inserts CN..



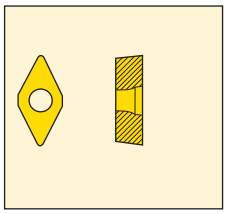
C.-PCLNR/L

95 °



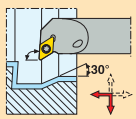
page(s) 259-260

Inserts DC..



C.-SDUCR/L

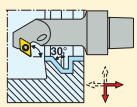
93 °



page(s) 261-262

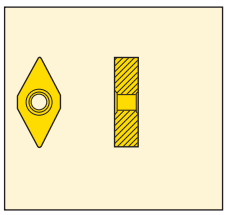
C.-SDUCR/L-..X

93 °



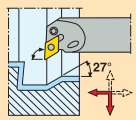
page(s) 263

Inserts DN..



C.-PDUNR/L..-15

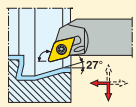
93 °



page(s) 264

C.-PDQNR/L

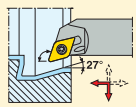
107,5 °



page(s) 266

C.-SDQNR/L

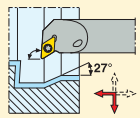
107,5 °



page(s) 266

C4-S/PDUNR/L..-11

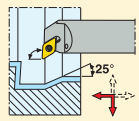
93 °



page(s) 265

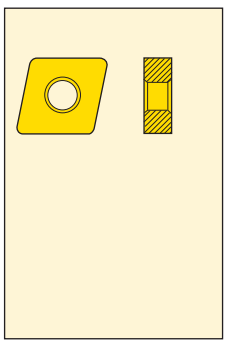
C5-S/PDUNR/L..-11

93 °



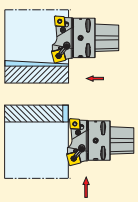
page(s) 265

Inserts SN../CN..



C.-MSKNR/L
- PCLNR/L

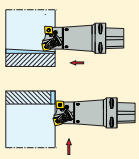
75 °



page(s) 274

C.-DSKNR/L
- PCLNR/L

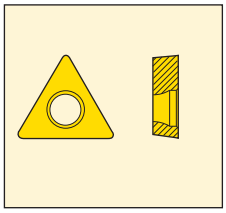
75 °

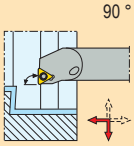


page(s) 275

Application overview – Toolholders internal, Seco-Capto™

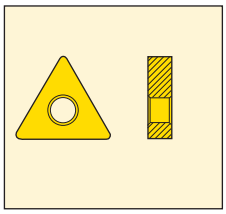
Inserts TC..

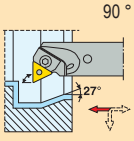




page(s) 267

Inserts TN..

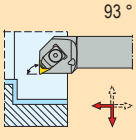




page(s) 268

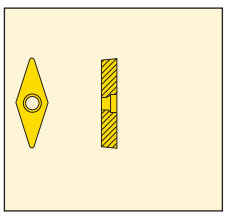
Inserts TN.N

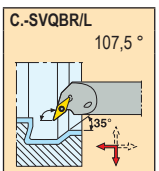




page(s) 269

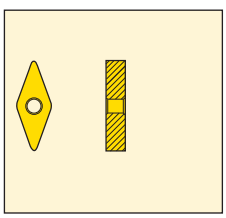
Inserts VB../VC..

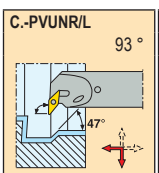




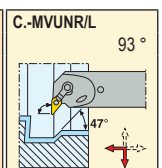
page(s) 270

Inserts VN..



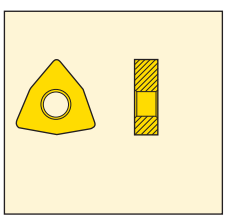


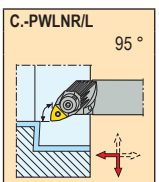
page(s) 271



page(s) 271

Inserts WN..

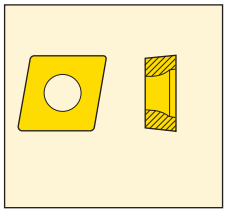


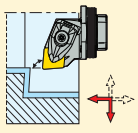
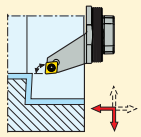


page(s) 272-273

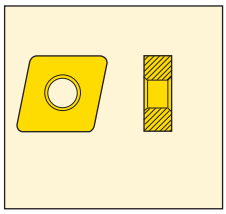
Application overview – GL-heads internal

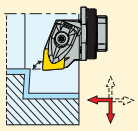
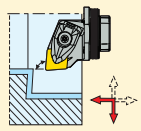
Inserts CC..



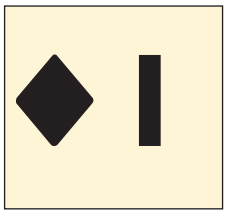
GL..-DCLCR/L...JET	GL..-SCLCR/L
95 °	95 °
	
page(s) 285	page(s) 291-292

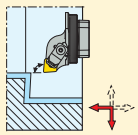
Inserts CN..



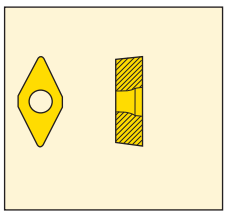
GL..-DCLNR/L...JET	GL..-DCLNR/L
95 °	95 °
	
page(s) 286	page(s) 293

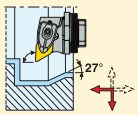
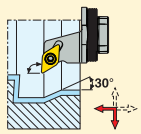
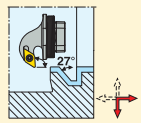
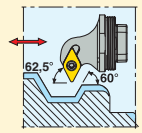
Inserts CN.N



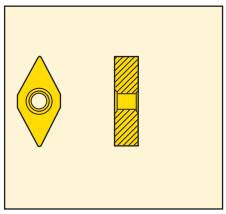
GL..-CCLNR/L
95 °

page(s) 294

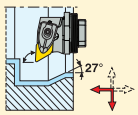
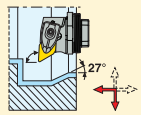
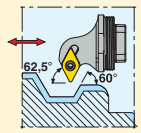
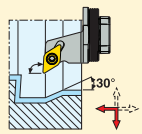
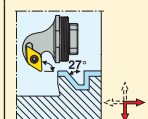
Inserts DC..



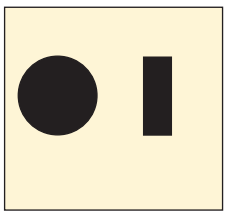
GL..-DDUCR/L...JET	GL..-SDUCR/L	GL..-SDUCR/L...X	GL..-SDXCR/L
93 °	93 °	93 °	62,5 °
			
page(s) 287	page(s) 295-296	page(s) 297-298	page(s) 299-300

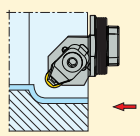
Inserts DN..



GL..-DDUNR/L...JET	GL..-DDUNR/L	GL..-SDXNR/L	GL..-SDUNR/L	GL..-SDUNR/L...X
93 °	93 °	62,5 °	93 °	93 °
				
page(s) 288	page(s) 301	page(s) 302	page(s) 303	page(s) 304

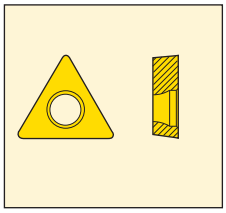
Inserts RN.N



GL..-CRSNR/L

page(s) 305

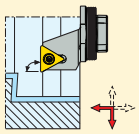
Application overview – GL-heads internal

Inserts TC..



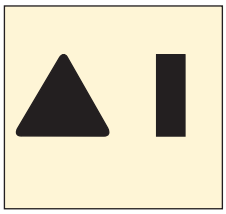
GL..-STFCR/L

90 °



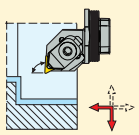
page(s) 306-307

Inserts TN.N



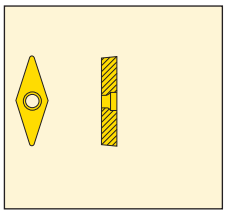
GL..-CTUNR/L

93 °



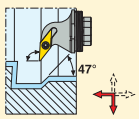
page(s) 308

Inserts VB..



GL..-DVUBR/L..JET

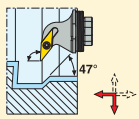
93 °



page(s) 289

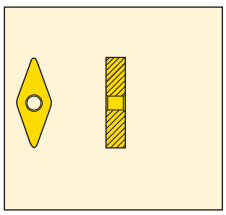
GL..-SVUBR/L

93 °



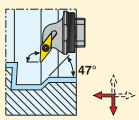
page(s) 309-310

Inserts VN..



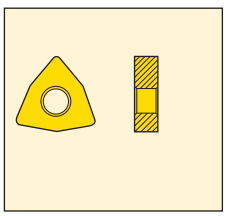
GL..-SVUNR/L

93 °



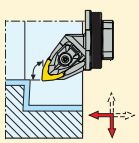
page(s) 311

Inserts WN..



GL..-DWLNR/L..JET

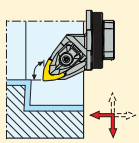
95 °



page(s) 290

GL..-DWLNR/L

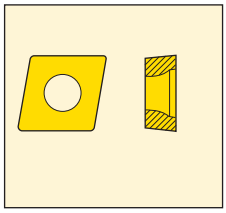
95 °

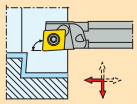


page(s) 312

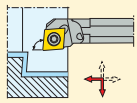
Application overview – Toolholders internal

Inserts CC..

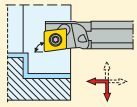




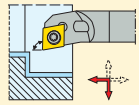
A..-SCLCR/L06, .-R
95 °
page(s) 315



A..-SCLCR/L09, .-R
95 °
page(s) 316

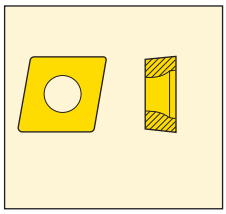


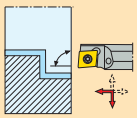
A..-SCFCR/L, .-R
90 °
page(s) 313



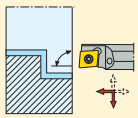
E..-SCFCR/L-R
90 °
page(s) 314

Inserts CD..



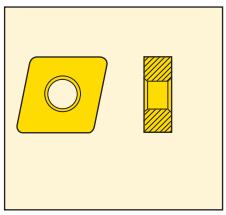


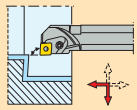
A..-SCFDR/L
90 °
page(s) 317



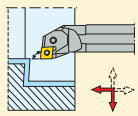
A..-SCLDR/L
95 °
page(s) 317

Inserts CN..

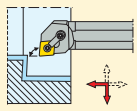




A..-PCLNR/L
95 °
page(s) 319-320

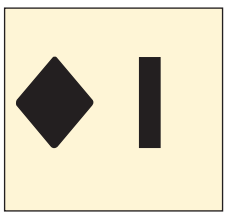


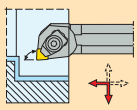
S..-PCLNR/L
95 °
page(s) 321



S..-MCLNR/L
95 °
page(s) 318

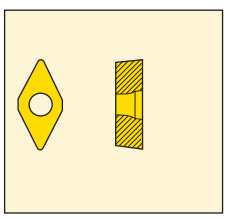
Inserts CN.N

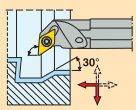




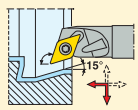
S..-CCLNR/L
95 °
page(s) 322

Inserts DC..





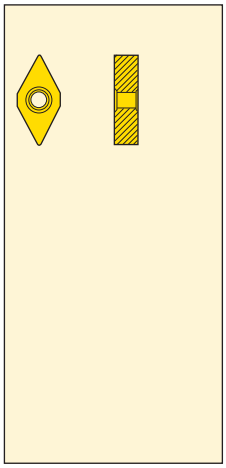
A..-SDUCR/L, .-R
93 °
page(s) 324



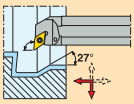
A..-SDQCR/L, .-R
107,5 °
page(s) 323

Application overview – Toolholders internal

Inserts DN..

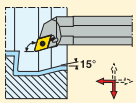


A..-SDUNR/L 93 °



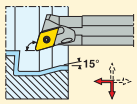
page(s) 325

A..-PDQNR/L 107,5 °



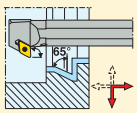
page(s) 330

A..-SDQNR/L 107,5 °



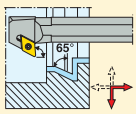
page(s) 330

A..-PDYNR/L 95 °



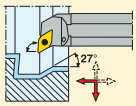
page(s) 329

A..-SDYNR/L 95 °



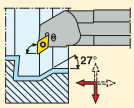
page(s) 329

A..-PDUNR/L 93 °



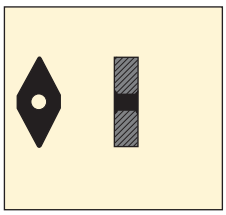
page(s) 326

S..-PDUNR/L 93 °

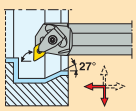


page(s) 327

Inserts DNMA

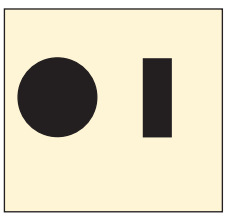


A..-DDUNR/L..-C 93 °

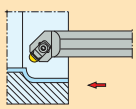


page(s) 328

Inserts RN.N

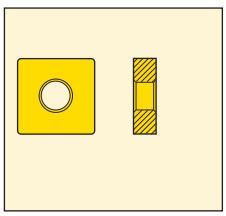


S..-CRSNR/L

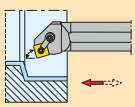


page(s) 331

Inserts SN..

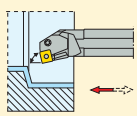


S..-MSKNR/L 75 °



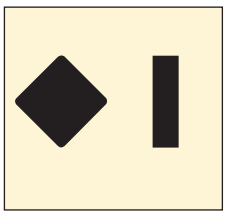
page(s) 332

S..-PSKNR/L 75 °

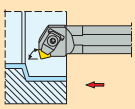


page(s) 334

Inserts SN.N



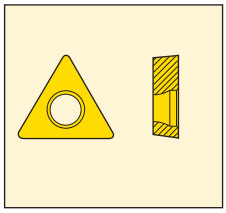
S..-CSKNR/L 75 °

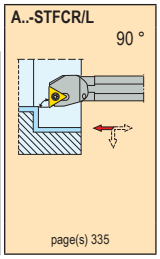


page(s) 333

Application overview – Toolholders internal

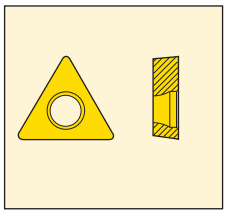
Inserts TC..

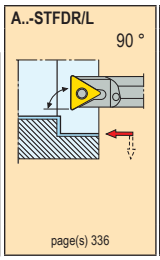




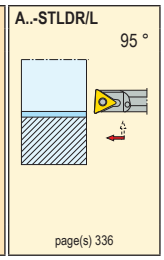
page(s) 335

Inserts TD..



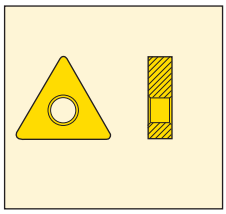


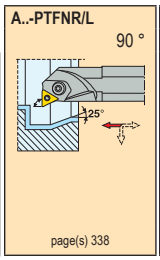
page(s) 336



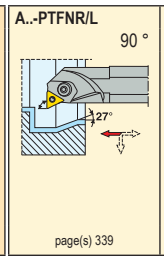
page(s) 336

Inserts TN..

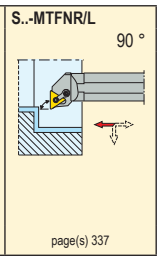




page(s) 338

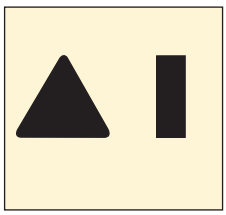


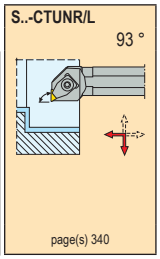
page(s) 339



page(s) 337

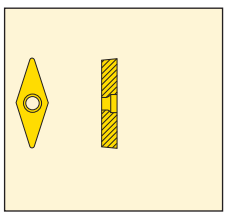
Inserts TN.N

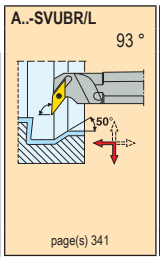




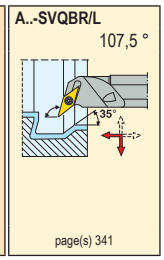
page(s) 340

Inserts VB..



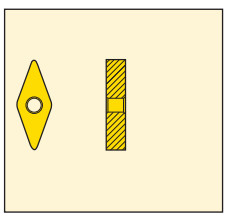


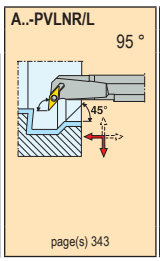
page(s) 341



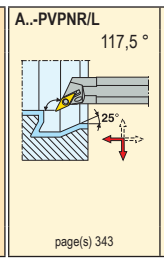
page(s) 341

Inserts VN..

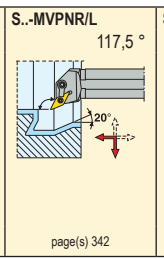




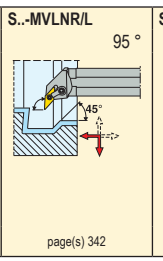
page(s) 343



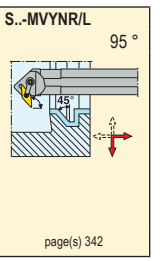
page(s) 343



page(s) 342



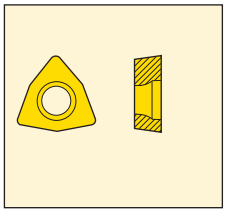
page(s) 342



page(s) 342

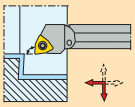
Application overview – Toolholders internal

Inserts WC..



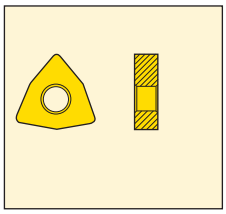
A..-SWLCR/L

95 °



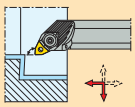
page(s) 344

Inserts WN..



A..-PWLNR/L

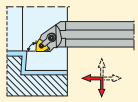
95 °



page(s) 346

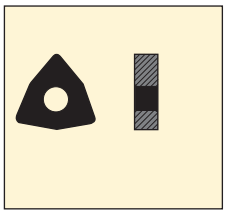
S..-MWLNR/L

95 °



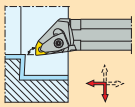
page(s) 345

Inserts WN.A



A..-DWLNR/L..-C

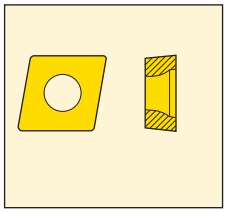
95 °

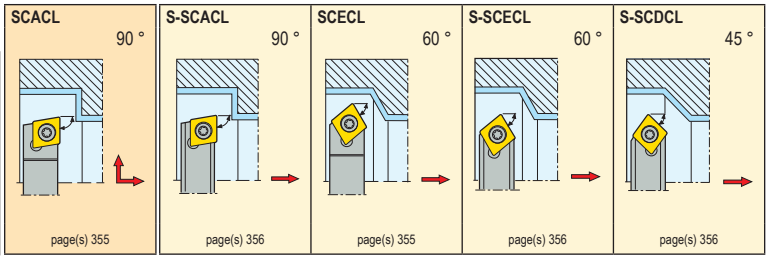


page(s) 347

Application overview – Toolholders for boring

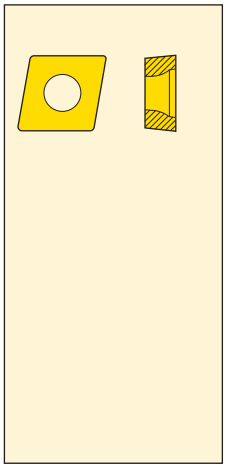
Inserts CC..





Application overview – Cartridges

Inserts CC..

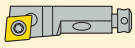


SCFCR/L 90 °



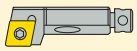
page(s) 357

SCLCR/L 95 °



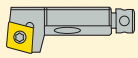
page(s) 357

SCGCR/L 90 °



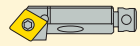
page(s) 358

SCRCR/L 75 °



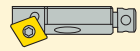
page(s) 359

SCTCR/L 60 °



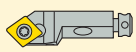
page(s) 359

SCWCR/L 60 °



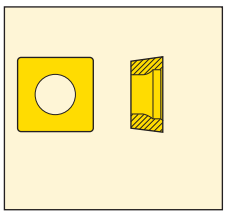
page(s) 357

SCSCR/L 45 °



page(s) 358

Inserts SC..

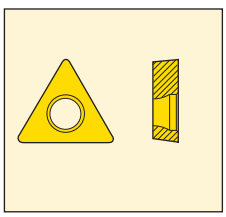


SSKCR/L 75 °

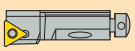


page(s) 360

Inserts TC..



STFCR/L 90 °



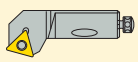
page(s) 361

STGCR/L 90 °



page(s) 362

STRCR/L 75 °



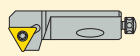
page(s) 362

STTCR/L 60 °



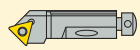
page(s) 362

STWCR/L 60 °



page(s) 361

STSCR/L 45 °



page(s) 361

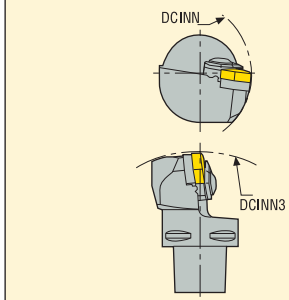


Toolholders for inserts CCGT, CCGW, CCMT and CCMW



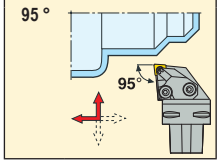
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SCLCR/L...JET



Right-hand version shown
KAPR = 95°

C.-SCLCR/L...JET



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	CP*	GAMO°	LAMS°	KG	
C4												
	09	C4-SCLCR-27050-09JET	40	27,0	50	75	165	70	0	0	0,5	CC..09T3..
		C4-SCLCL-27050-09JET	40	27,0	50	75	165	70	0	0	0,5	CC..09T3..
	12	C4-SCLCR-27050-12JET	40	27,0	50	75	165	70	0	0	0,5	CC..1204..
		C4-SCLCL-27050-12JET	40	27,0	50	75	165	70	0	0	0,5	CC..1204..
C5												
	12	C5-SCLCR-35060-12JET	50	35,0	60	95	165	70	0	0	0,7	CC..1204..
		C5-SCLCL-35060-12JET	50	35,0	60	95	165	70	0	0	0,7	CC..1204..
C6												
	12	C6-SCLCR-45065-12JET	63	45,0	65	121	165	70	0	0	1,3	CC..1204..
		C6-SCLCL-45065-12JET	63	45,0	65	121	165	70	0	0	1,3	CC..1204..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

Accessories*

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Shim screw	Shim key
...R-09	JET-CIKC12RC-KIT	117.26-655	3SMS795/T15P	C04008-T15P	–	ORING-8X1.5	–	–
...L-09	JET-CIKC12LC-KIT	117.26-655	3SMS795/T15P	C04008-T15P	–	ORING-8X1.5	–	–
...R-12	JET-CIKC12RC-KIT	117.26-655	3SMS795/T15P	C05012-T15P	123.19-621	ORING-8X1.5	CA5008	5SMS795
...L-12	JET-CIKC12LC-KIT	117.26-655	3SMS795/T15P	C05012-T15P	123.19-621	ORING-8X1.5	CA5008	5SMS795

Please check availability in current price and stock-list

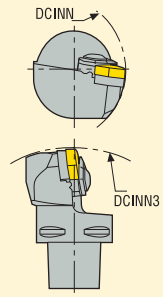
* To be ordered separately

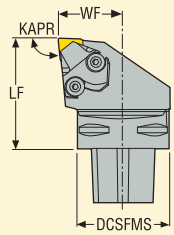
Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

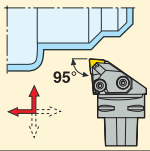
C.-PCLNR/L...JETL





Right-hand version shown
KAPR = 95°

C.-PCLNR/L...JETL
95 °



Capto size		Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3					
C4												
	12	C4-PCLNR-27050-12JETL	40	27,0	50	75	165	70	-6	-6	0,5	CN..1204..
		C4-PCLNL-27050-12JETL	40	27,0	50	75	165	70	-6	-6	0,5	CN..1204..
C5												
	12	C5-PCLNR-35060-12JETL	50	35,0	60	95	165	70	-6	-6	0,9	CN..1204..
		C5-PCLNL-35060-12JETL	50	35,0	60	95	165	70	-6	-6	0,9	CN..1204..
C6												
	12	C6-PCLNR-45065-12JETL	63	45,0	65	121	165	70	-6	-6	1,5	CN..1204..
		C6-PCLNL-45065-12JETL	63	45,0	65	121	165	70	-6	-6	1,5	CN..1204..
	16	C6-PCLNR-45065-16JETL	63	45,0	65	121	165	70	-6	-6	1,4	CN..1606..
		C6-PCLNL-45065-16JETL	63	45,0	65	150	200	70	-6	-6	1,4	CN..1606..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
...R-12	CILC12RA-F	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
...L-12	CILC12LA-F	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
...R-16	CILC16RA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	MP1519	RP8286
...L-16	CILC16LA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	MP1519	RP8286

Accessories*

Inducer
CILC12RA-R
CILC12LA-R
CILC16RA-R
CILC16LA-R

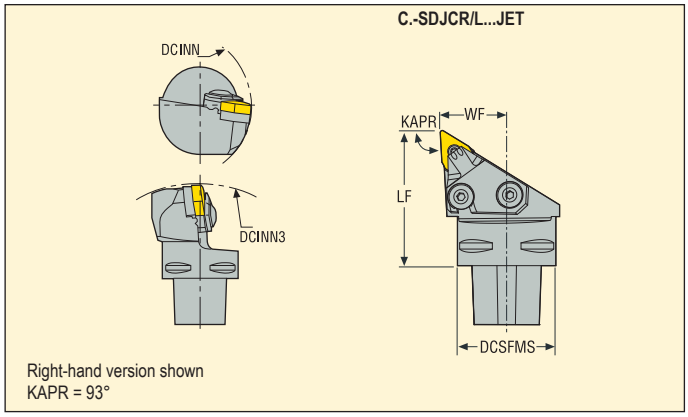
Please check availability in current price and stock-list

* To be ordered separately

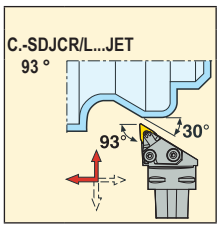
Toolholders for inserts DCGT, DCGW, DCMT and DCMW



- For inserts programme, see page(s) 395-397, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	CP*	GAMO°	LAMS°	KG	
C4												
	11	C4-SDJCR-27050-11JET	40	27,0	50	75	165	70	0	0	0,4	DC..11T3..
		C4-SDJCL-27050-11JET	40	27,0	50	75	165	70	0	0	0,4	DC..11T3..
C5												
	11	C5-SDJCR-35060-11JET	50	35,0	60	95	165	70	0	0	0,7	DC..11T3..
		C5-SDJCL-35060-11JET	50	35,0	60	95	165	70	0	0	0,7	DC..11T3..
C6												
	11	C6-SDJCR-45065-11JET	63	45,0	65	121	165	70	0	0	1,1	DC..11T3..
		C6-SDJCL-45065-11JET	63	45,0	65	121	165	70	0	0	1,1	DC..11T3..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Shim screw
...R-11	JET-CIKD11RB-KIT	117.26-655	3SMS795/T15P	C03512-T15P	126.19-620	ORING-6.07X1.78	CA3510
...L-11	JET-CIKD11LB-KIT	117.26-655	3SMS795/T15P	C03512-T15P	126.19-620	ORING-6.07X1.78	CA3510

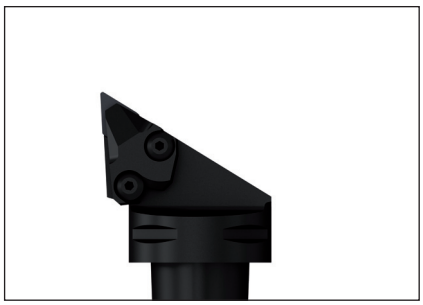
Accessories*

Shim key
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

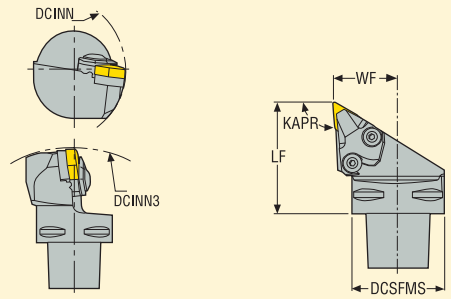
* To be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM and DNMX



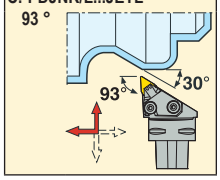
- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PDJNR/L...JETL



Right-hand version shown
KAPR = 93°

C.-PDJNR/L...JETL
93 °



Capto size		Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3					
C4												
	15	C4-PDJNR-27055-15JETL	40	27,0	55	75	165	70	-6	-6	0,5	DN..1506..
		C4-PDJNR-27055-15-04JETL	40	27,0	55	75	165	70	-6	-6	0,5	DN..1504..
		C4-PDJNL-27055-15JETL	40	27,0	55	75	165	70	-6	-6	0,5	DN..1506..
		C4-PDJNL-27055-15-04JETL	40	27,0	55	75	165	70	-6	-6	0,5	DN..1504..
C5												
	15	C5-PDJNR-35060-15JETL	50	27,0	55	95	165	70	-6	-6	0,8	DN..1506..
		C5-PDJNR-35060-15-04JETL	50	35,0	60	121	165	70	-6	-6	0,8	DN..1504..
		C5-PDJNL-35060-15JETL	50	27,0	55	95	165	70	-6	-6	0,8	DN..1506..
		C5-PDJNL-35060-15-04JETL	50	35,0	60	121	165	70	-6	-6	0,8	DN..1504..
C6												
	15	C6-PDJNR-45065-15JETL	62	45,0	65	121	165	70	-6	-6	1,2	DN..1506..
		C6-PDJNR-45065-15-04JETL	62	45,0	65	121	165	70	-6	-6	1,2	DN..1504..
		C6-PDJNL-45065-15JETL	62	45,0	65	121	165	70	-6	-6	1,2	DN..1506..
		C6-PDJNL-45065-15-04JETL	62	45,0	65	121	165	70	-6	-6	1,2	DN..1504..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
...R-15	CILD15RA-F	117.26-655	PP4716	PDN150308	3SMS795	LS0822	ORING-8X1.5	MP0912	RP6757
...R-15-04	CILD15RA-F	117.26-655	PP4716	PDN150408	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757
...L-15	CILD15LA-F	117.26-655	PP4716	PDN150308	3SMS795	LS0822	ORING-8X1.5	MP0912	RP6757
...L-15-04	CILD15LA-F	117.26-655	PP4716	PDN150408	3SMS795	LS0818	ORING-8X1.5	MP0912	RP6757

Accessories*

Inducer
CILD15RA-R
CILD15RA-R
CILD15LA-R
CILD15LA-R

Please check availability in current price and stock-list

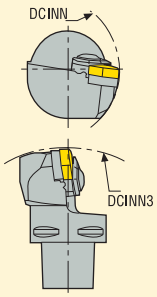
* To be ordered separately

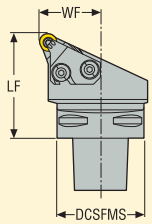
Toolholders for inserts RCMT



- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

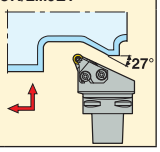
C.-SRSCR/L...JET





Right-hand version shown

C.-SRSCR/L...JET



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	CP*	GAMO°	LAMS°	KG	
C5												
	12	C5-SRSCR-35060-12JET	50	35,0	60	95	165	70	0	0	0,8	RCMT1204..
		C5-SRSCL-35060-12JET	50	35,0	60	95	165	70	0	0	0,8	RCMT1204..
C6												
	12	C6-SRSCR-45065-12JET	63	45,0	65	121	165	70	0	0	1,2	RCMT1204..
		C6-SRSCL-45065-12JET	63	45,0	65	121	165	70	0	0	1,2	RCMT1204..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Shim screw
...R-12	JET-CIKR00RB-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	CA3510
...L-12	JET-CIKR00LB-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	CA3510

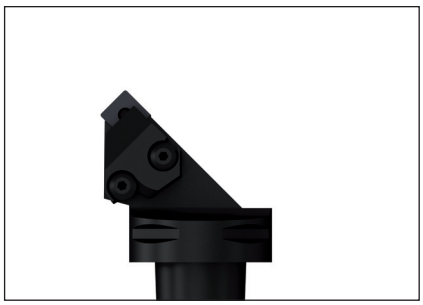
Accessories*

Shim key
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

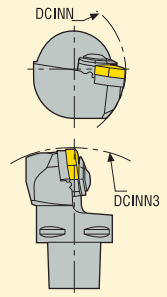
* To be ordered separately

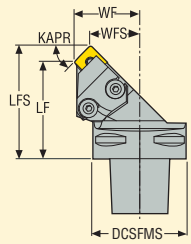
Toolholders for inserts SNGA, SNMA, SNMG and SNMM



- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

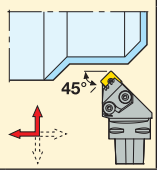
C.-PSSNR/L...JETL





Right-hand version shown
KAPR = 45°

C.-PSSNR/L...JETL
45 °



Capto size		Designation	Dimensions in mm							CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	WFS	LF	LFS	DCINN	DCINN3					
C4														
	12	C4-PSSNR-27048-12JETL	40	27,0	19,0	48	56	95	165	70	-8	0	0,5	SN..1204..
		C4-PSSNL-27048-12JETL	40	27,0	19,0	48	56	95	165	70	-8	0	0,5	SN..1204..
C5														
	12	C5-PSSNR-35052-12JETL	50	35,0	27,0	52	60	95	165	70	-8	0	0,7	SN..1204..
		C5-PSSNL-35052-12JETL	50	35,0	27,0	52	60	95	165	70	-8	0	0,7	SN..1204..
C6														
	12	C6-PSSNL-45056-12JETL	63	45,0	37,0	56	64	121	165	70	-8	0	1,1	SN..1204..
	15	C6-PSSNR-45056-15JETL	63	45,0	34,0	56	67	121	165	70	-8	0	1,1	SN..1506..
		C6-PSSNL-45056-15JETL	63	45,0	34,0	56	67	121	165	70	-8	0	1,1	SN..1506..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Punch	Shim pin
...R-12	CILS12RA-F	117.26-655	PP4713	PSN120312	3SMS795	LS0818	ORING-6.07X1.78	MP0912	RP6757
...L-12	CILS12LA-F	117.26-655	PP4713	PSN120312	3SMS795	LS0818	ORING-6.07X1.78	MP0912	RP6757
...R-15	CILS15RA-F	117.26-655	PP6017	PSN150412	3SMS795	LS0820	ORING-6.07X1.78	MP1519	RP8286
...L-15	CILS15LA-F	117.26-655	PP6017	PSN150412	3SMS795	LS0820	ORING-6.07X1.78	MP1519	RP8286

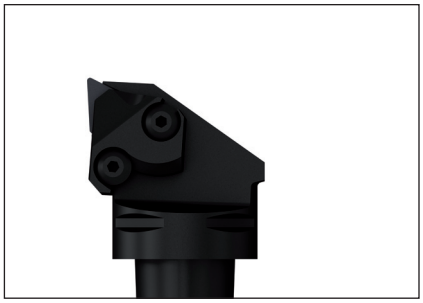
Accessories*

Inducer
CILS12RA-R
CILS12LA-R
CILS15RA-R
CILS15LA-R

Please check availability in current price and stock-list

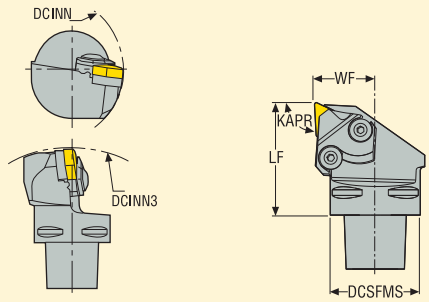
* To be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG, TNMM and TNMX



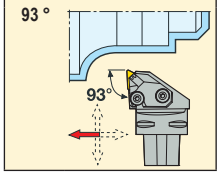
- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PTJNR/L...JETL



Right-hand version shown
KAPR = 93°

C.-PTJNR/L...JETL
93 °



Capto size		Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3					
C4												
	16	C4-PTJNR-27050-16JETL	40	27,0	50	75	165	70	-6	-6	0,5	TN..1604..
		C4-PTJNL-27050-16JETL	40	27,0	50	75	165	70	-6	-6	0,5	TN..1604..
C6												
	16	C6-PTJNR-45065-16JETL	63	45,0	65	121	165	70	-6	-6	1,5	TN..1604..
		C6-PTJNL-45065-16JETL	63	45,0	65	121	165	70	-6	-6	1,5	TN..1604..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever key	Lever screw	O-ring	Punch	Shim pin
...R-16	CILT16RA-F	3SMS795	117.26-655	PP3612	PTN160208	2.5SMS795	LS0616	ORING-8X1.5	MP0912	RP5152
...L-16	CILT16LA-F	3SMS795	117.26-655	PP3612	PTN160208	2.5SMS795	LS0616	ORING-8X1.5	MP0912	RP5152

Accessories*

Torque key
H00-2530
H00-2530

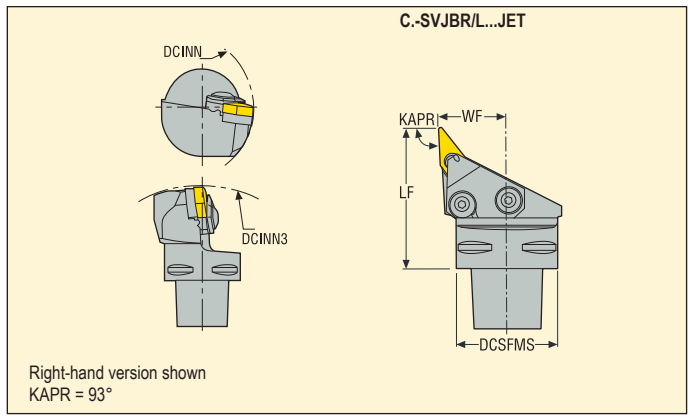
Please check availability in current price and stock-list

* To be ordered separately

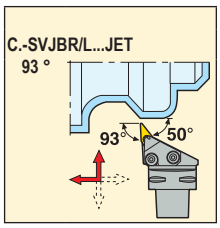
Toolholders for inserts VBMT, VBGT, VBGW, VBMW and VCGT



- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	CP*	GAMO°	LAMS°	KG	
C4												
	16	C4-SVJBR-27055-16JET	40	27,0	55	75	165	70	0	0	0,4	VB../VC..1604..
		C4-SVJBL-27055-16JET	40	27,0	55	75	165	70	0	0	0,4	VB../VC..1604..
C5												
	16	C5-SVJBR-35060-16JET	50	35,0	60	95	165	70	0	0	0,7	VB../VC..1604..
		C5-SVJBL-35060-16JET	50	35,0	60	95	165	70	0	0	0,7	VB../VC..1604..
C6												
	16	C6-SVJBR-45065-16JET	63	45,0	65	121	165	70	0	0	1,1	VB../VC..1604..
		C6-SVJBL-45065-16JET	63	45,0	65	121	165	70	0	0	1,1	VB../VC..1604..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Shim screw
...R-16	JET-CIKV16RB-KIT	117.26-655	3SMS795/T15P	C03512-T15P	171.19-620	ORING-6.07X1.78	CA3510
...L-16	JET-CIKV16LB-KIT	117.26-655	3SMS795/T15P	C03512-T15P	171.19-620	ORING-6.07X1.78	CA3510

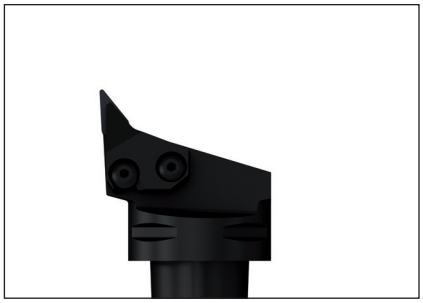
Accessories*

Shim key
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

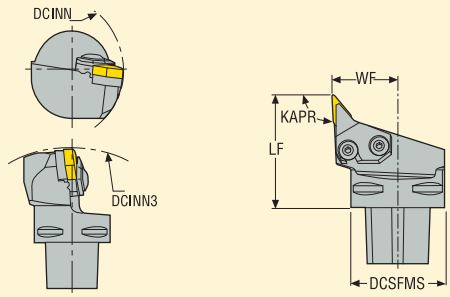
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM and VNMG



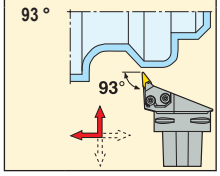
- For inserts programme, see page(s) 432-433, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PVJNR/L...JETL



Right-hand version shown
KAPR = 93°

C.-PVJNR/L...JETL
93 °



Capto size		Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3					
C4												
	16	C4-PVJNR-27060-16JETL	40	27,2	60	75	165	70,0	-4,5	-13,5	0,5	VN..1604..
		C4-PVJNL-27060-16JETL	40	27,2	60	75	165	70,0	-4,5	-13,5	0,5	VN..1604..
C5												
	16	C5-PVJNR-35060-16JETL	50	35,0	60	95	165	70,0	-4,5	-13,5	0,7	VN..1604..
		C5-PVJNL-35060-16JETL	50	35,0	60	95	165	70,0	-4,5	-13,5	0,7	VN..1604..
C6												
	16	C6-PVJNR-45065-16JETL	63	45,0	65	121	165	70,0	-4,5	-13,5	1,3	VN..1604..
		C6-PVJNL-45065-16JETL	63	45,0	65	121	165	70,0	-4,5	-13,5	1,3	VN..1604..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

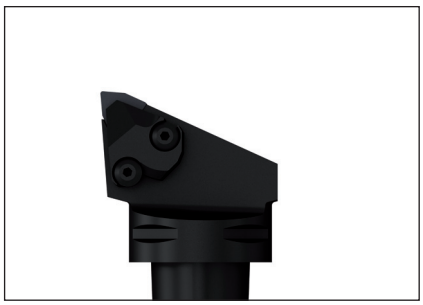
Accessories*

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever key	Lever screw	O-ring	Punch	Shim pin	Torque key
...R-16	CILV16RC-F	3SMS795	117.26-655	PP3512	PVN160304	2.5SMS795	LS0616	ORING-6.07X1.78	MP0912	RP5153	H00-2530
...L-16	CILV16LC-F	3SMS795	117.26-655	PP3512	PVN160304	2.5SMS795	LS0616	ORING-6.07X1.78	MP0912	RP5153	H00-2530

Please check availability in current price and stock-list

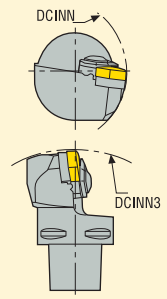
* To be ordered separately

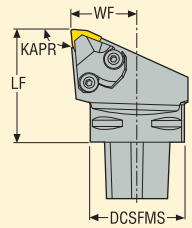
Toolholders for inserts WNGA, WNMA, WNMG and WNMM



- For inserts programme, see page(s) 436-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

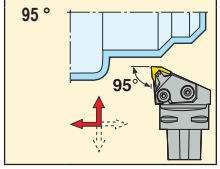
C.-PWLNR/L...JETL





Right-hand version shown
KAPR = 95°

C.-PWLNR/L...JETL



Capto size		Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3					
C4												
	06	C4-PWLNR-27050-06JETL	40	27,0	50	75	165	70	-6	-6	0,5	WN..0604..
		C4-PWLNL-27050-06JETL	40	27,0	50	75	165	70	-6	-6	0,5	WN..0604..
	08	C4-PWLNR-27050-08JETL	40	27,0	50	75	165	70	-6	-6	0,4	WN..0804..
		C4-PWLNL-27050-08JETL	40	27,0	50	75	165	70	-6	-6	0,4	WN..0804..
C5												
	06	C5-PWLNR-35060-06JETL	50	35,0	60	95	165	70	-6	-6	0,8	WN..0604..
		C5-PWLNL-35060-06JETL	50	35,0	60	95	165	70	-6	-6	0,8	WN..0604..
	08	C5-PWLNR-35060-08JETL	50	35,0	60	95	165	70	-6	-6	0,8	WN..0804..
		C5-PWLNL-35060-08JETL	50	35,0	60	95	165	70	-6	-6	0,8	WN..0804..
C6												
	08	C6-PWLNR-45065-08JETL	63	45,0	65	121	165	70	-6	-6	1,3	WN..0804..
		C6-PWLNL-45065-08JETL	63	45,0	65	121	165	70	-6	-6	1,3	WN..0804..

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever key	Lever screw	O-ring	Punch	Shim pin
R-06	CILW06RA-F	3SMS795	117.26-655	PP3612	PWN060312	–	2.5SMS795	LS0616	ORING-8X1.5	MP0912	RP5152
L-06	CILW06LA-F	3SMS795	117.26-655	PP3612	PWN060312	–	2.5SMS795	LS0616	ORING-8X1.5	MP0912	RP5152
R-08	CILW08RA-F	–	117.26-655	PP4713	PWN080312	3SMS795	–	LS0818	ORING-8X1.5	MP0912	RP6757
L-08	CILW08LA-F	–	117.26-655	PP4713	PWN080312	3SMS795	–	LS0818	ORING-8X1.5	MP0912	RP6757

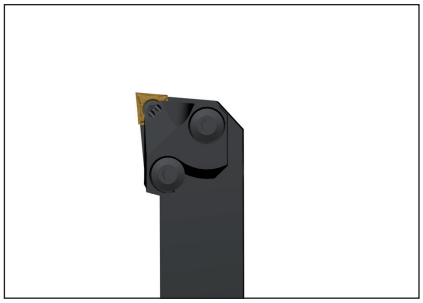
Accessories*

Inducer	Torque key
CILW06RA-R	H00-2530
CILW06LA-R	H00-2530
CILW08RA-R	–
CILW08LA-R	–

Please check availability in current price and stock-list

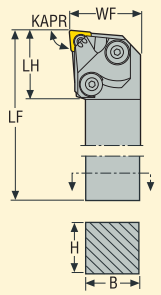
* To be ordered separately

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



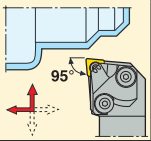
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCLCR/L...JET



Right-hand version shown
KAPR = 95°

SCLCR/L...JET
95 °



	Designation	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
09	**SCLCR2020K09JET**	20	20	125	27,0	33	275	0	0	0,5	CC..09T3..
	SCLCR2525M09JET	25	25	150	32,0	33	275	0	0	0,8	CC..09T3..
	SCLCL2020K09JET	20	20	125	27,0	33	275	0	0	0,5	CC..09T3..
	SCLCL2525M09JET	25	25	150	32,0	33	275	0	0	0,8	CC..09T3..
12	**SCLCR2525M12JET**	25	25	150	32,0	33	275	0	0	0,8	CC..1204..
	SCLCL2525M12JET	25	25	150	32,0	33	275	0	0	0,8	CC..1204..

* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

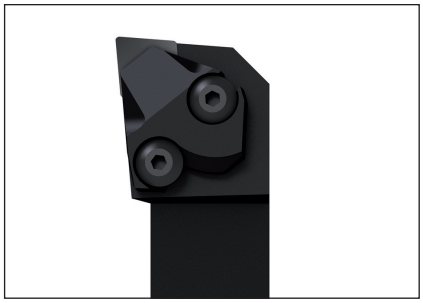
Accessories*

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw	Shim key
R..09	JET-CIKC12RA-KIT	117.26-655	3SMS795/T15P	C04008-T15P	–	ORING-8X1.5	JET-P1/8-5MM	–	–
L..09	JET-CIKC12LA-KIT	117.26-655	3SMS795/T15P	C04008-T15P	–	ORING-8X1.5	JET-P1/8-5MM	–	–
R..M/P12	JET-CIKC12RB-KIT	117.26-655	3SMS795/T15P	C05012-T15P	123.19-621	ORING-8X1.5	JET-P1/8-5MM	CA5008	5SMS795
L..M/P12	JET-CIKC12LB-KIT	117.26-655	3SMS795/T15P	C05012-T15P	123.19-621	ORING-8X1.5	JET-P1/8-5MM	CA5008	5SMS795

Please check availability in current price and stock-list

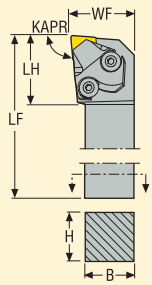
* To be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



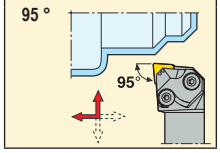
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PCLNR/L...JETL



Right-hand version shown
KAPR = 95°

PCLNR/L...JETL
95 °



	Designation	**	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
12	PCLNR2020K12JETL	Duo	20	20	125	27,0	34	275	-6	-6	0,5	CN..1204..
	PCLNR2525M12JETL	Duo	25	25	150	32,0	34	275	-6	-6	0,8	CN..1204..
	PCLNR3225P12JETL	Dou	32	25	170	32,0	34	275	-6	-6	1,2	CN..1204..
	PCLNL2020K12JETL	Duo	20	20	125	27,0	34	275	-6	-6	0,5	CN..1204..
	PCLNL2525M12JETL	Duo	25	25	150	32,0	34	275	-6	-6	0,8	CN..1204..
	PCLNL3225P12JETL	Duo	32	25	170	32,0	34	275	-6	-6	1,2	CN..1204..
16	PCLNR3232P16JETL	Duo	32	32	170	40,0	37	275	-6	-6	1,4	CN..1606..
	PCLNL3232P16JETL	Duo	32	32	170	40,0	37	275	-6	-6	1,4	CN..1606..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Plug	Punch	Shim pin
R-12	CILC12RA-F	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757
L-12	CILC12LA-F	117.26-655	PP4713	PCN120308	3SMS795	LS0818	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757
R3232.-16	CILC16RA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	JET-P1/8-5MM	MP1519	RP8286
L3232.-16	CILC16LA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	JET-P1/8-5MM	MP1519	RP8286

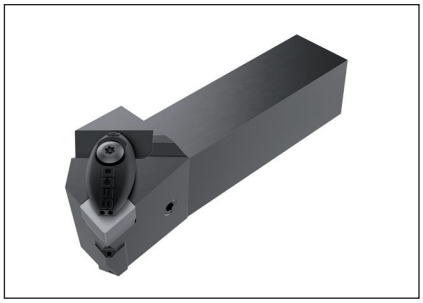
Accessories*

Inducer	Plug
CILC12RA-R	P6SS4X8
CILC12LA-R	P6SS4X8
CILC16RA-R	P6SS4X8
CILC16LA-R	P6SS4X8

Please check availability in current price and stock-list

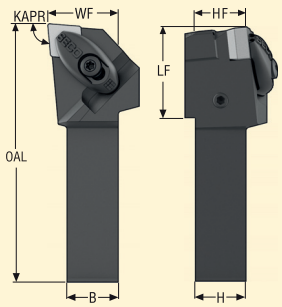
* To be ordered separately

Toolholders for inserts CNGA, CNGG, CNGM, CNMA, CNMG and CNMM

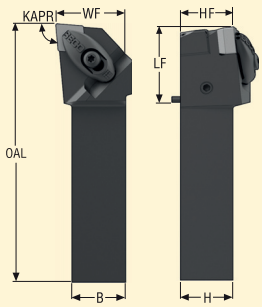


- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

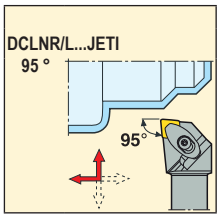
DCLNR/L2020...JETI



DCLNR/L2525...JETI



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm						CP*	GAMO°	LAMS°	KG	
		H	B	OAL	LF	WF	HF					
12	DCLNR2020X12JETI	20	20	100	36	27,2	20	200	-6	-6	0,4	CN..1204..
	DCLNR2525X12JETI	25	25	120	36	32,2	25	200	-6	-6	0,8	CN..1204..
	DCLNL2020X12JETI	20	20	100	36	27,2	20	200	-6	-6	0,4	CN..1204..
	DCLNL2525X12JETI	25	25	120	36	32,2	25	200	-6	-6	0,7	CN..1204..

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant clamp	Insert shim	Plug	Plug screw	Shim/ clamp key	Shim screw	Spring
...12	L85021-T15P	CN17U00S-2	DCO120310	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories, to be ordered separately

Coolant kit	Duo coolant plug screw	Plug screw JETI	Torque key
CN17U00S-2-SET	P6SS3X5	P6SS6X6	T00-15P35

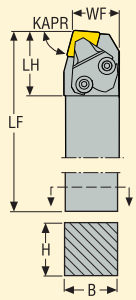
Please check availability in current price and stock-list

Toolholders for inserts CNMA, CNMG and CNMM



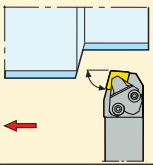
- For inserts programme, see page(s) 388-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PCBNR/L...JETL



Right-hand version shown
KAPR = 75°

PCBNR/L...JETL
75 °



	Designation	**	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
16	PCBNR3232P16JETL	Duo	32	32	170	40,0	39	275	-6	-6	1,4	CN..1606..
	PCBNL3232P16JETL	Duo	32	32	170	40,0	39	275	-6	-6	1,4	CN..1606..

* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Plug	Punch	Shim pin
PCBNL	CILC16LA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	JET-P1/8-5MM	MP1519	RP8286
PCBNR	CILC16RA-F	117.26-655	PP6017	PCN160412	3SMS795	LS0820	ORING-8X1.5	JET-P1/8-5MM	MP1519	RP8286

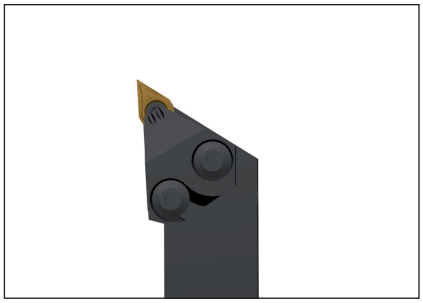
Accessories*

Inducer	Plug
CILC16LA-R	P6SS4X8
CILC16RA-R	P6SS4X8

Please check availability in current price and stock-list

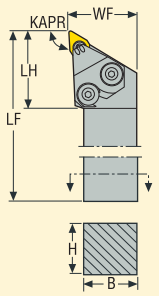
* To be ordered separately

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



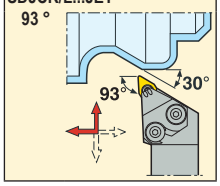
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SDJCR/L...JET



Right-hand version shown
KAPR = 93°

SDJCR/L...JET
93 °



	Designation	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
11	SDJCR2020K11JET	20	20	125	27,0	38	275	0	0	0,5	DC..11T3..
	SDJCR2525M11JET	25	25	150	32,0	38	275	0	0	0,8	DC..11T3..
	SDJCL2020K11JET	20	20	125	27,0	38	275	0	0	0,5	DC..11T3..
	SDJCL2525M11JET	25	25	150	32,0	38	275	0	0	0,8	DC..11T3..

* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

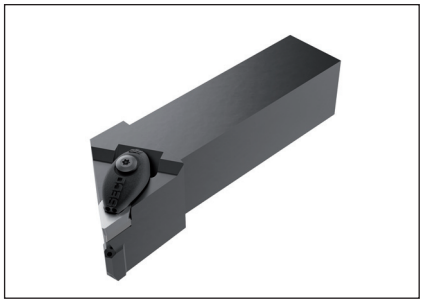
Accessories*

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw	Shim key
L-11	JET-CIKD11LA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	126.19-620	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875
R-11	JET-CIKD11RA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	126.19-620	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875

Please check availability in current price and stock-list

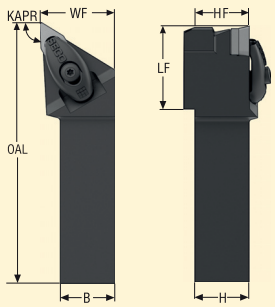
* To be ordered separately

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX

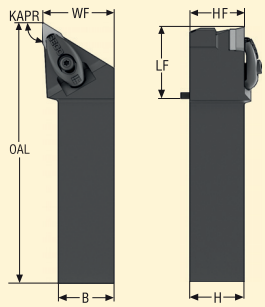


- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

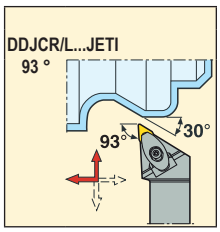
DDJCR/L2020...JETI



DDJCR/L2525...JETI



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm H	B	OAL	LF	WF	HF	CP*	GAMO°	LAMS°	KG	
11	DDJCR2020X11JETI	20	20	95	31	27,2	20	200	0	0	0,4	DC..11T3..
	DDJCR2525X11JETI	25	25	117	33	32,2	25	200	0	0	0,5	DC..11T3..
	DDJCL2020X11JETI	20	20	95	31	27,2	20	200	0	0	0,4	DC..11T3..
	DDJCL2525X11JETI	25	25	117	33	32,2	25	200	0	0	0,5	DC..11T3..

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

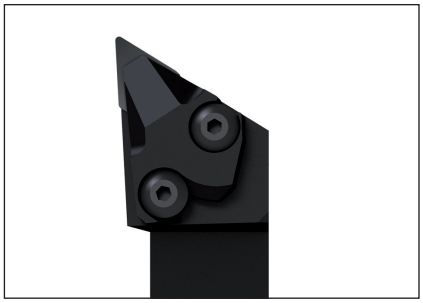
For size	Clamp key	Clamp screw	Coolant clamp	Insert shim	Plug	Plug screw	Shim screw	Spring
...11	T09P-2	L84017-T09P	CP14U00S-2	126.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

Accessories, to be ordered separately

Coolant kit	Duo coolant plug screw	Plug screw JETI	Shim key	Torque key
CP14U00S-2-SET	P6SS3X5	P6SS6X6	T15P-2	T00-09P20

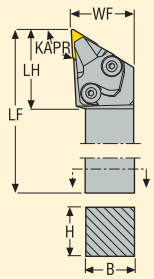
Please check availability in current price and stock-list

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



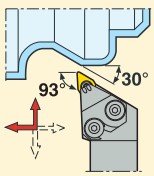
- For inserts programme, see page(s) 398-404, 444
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PDJNR/L...JETL



Right-hand version shown
KAPR = 93°

PDJNR/L...JETL
93 °



	Designation	**	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
15	PDJNR2020K15JETL	Duo	20	20	125	27,2	41	275	-6	-6	0,5	DN..1506..
	PDJNR2525M15JETL	Duo	25	25	150	32,2	41	275	-6	-6	0,8	DN..1506..
	PDJNR3225P15JETL	Duo	32	25	170	32,2	42	275	-6	-6	1,1	DN..1506..
	PDJNL2020K15JETL	Duo	20	20	125	27,2	41	275	-6	-6	0,5	DN..1506..
	PDJNL2525M15JETL	Duo	25	25	150	32,2	41	275	-6	-6	0,8	DN..1506..
	PDJNL3225P15JETL	Duo	32	25	170	32,2	42	275	-6	-6	1,1	DN..1506..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Plug	Punch	Shim pin
R-15	CILD15RA-F	117.26-655	PP4716	PDN150308	3SMS795	LS0822	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757
L-15	CILD15LA-F	117.26-655	PP4716	PDN150308	3SMS795	LS0822	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757

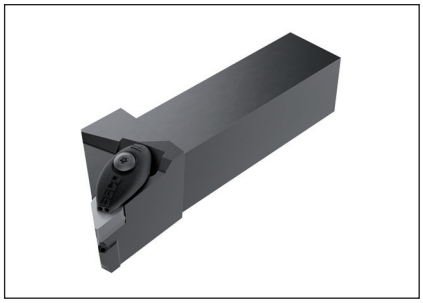
Accessories*

Inducer	Plug
CILD15RA-R	P6SS4X8
CILD15LA-R	P6SS4X8

Please check availability in current price and stock-list

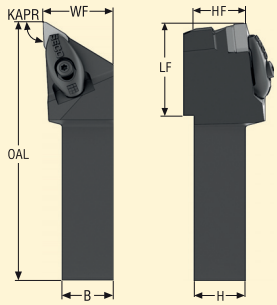
* To be ordered separately
Shim DSN150612 for insert DN..1504.., to be ordered separately

Toolholders for inserts DNMA, DNMU and DNMX

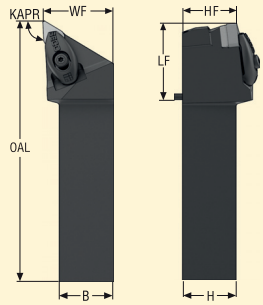


- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DDJNR/L2020...JETI

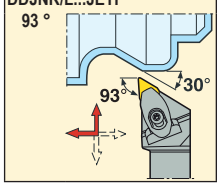


DDJNR/L2525...JETI



Right-hand version shown
KAPR = 93°

DDJNR/L...JETI
93 °



	Designation	Dimensions in mm						CP*	GAMO°	LAMS°	KG	
		H	B	OAL	LF	WF	HF					
11	DDJNR2020X11JETI	20	20	100	36	27,2	20	200	-6	-6	0,3	DN..1104..
	DDJNR2525X11JETI	25	25	120	36	32,2	25	200	-6	-6	0,5	DN..1104..
	DDJNL2020X11JETI	20	20	100	36	27,2	20	200	-6	-6	0,4	DN..1104..
	DDJNL2525X11JETI	25	25	120	36	32,2	25	200	-6	-6	0,7	DN..1104..
15	DDJNR2020X15JETI	20	20	105	41	27,2	20	200	-6	-6	0,4	DN..1104..
	DDJNR2525X15JETI	25	25	127	43	32,2	25	200	-6	-6	0,6	DN..1104..
	DDJNL2020X15JETI	20	20	105	41	27,2	20	200	-6	-6	0,4	DN..1104..
	DDJNL2525X15JETI	25	25	127	43	32,2	25	200	-6	-6	0,5	DN..1104..

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

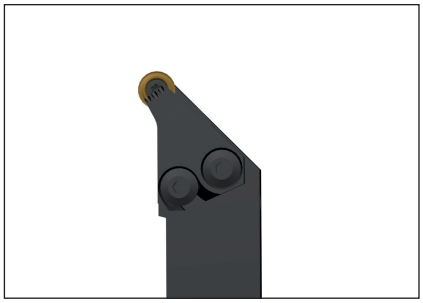
For size	Clamp screw	Coolant clamp	Insert shim	Plug	Plug screw	Shim/ clamp key	Shim screw	Spring
L-11	L84017-T09P	CN14U10S-2L	DDN110310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
L-15	L85021-T15P	CN17U10S-2L	DDN150416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111
R-11	L84017-T09P	CN14U10S-2R	DDN110310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
R-15	L85021-T15P	CN17U10S-2R	DDN150416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories, to be ordered separately

Coolant kit	Duo coolant plug screw	Plug screw JETI	Torque key
CN14U10S-2R-SET	P6SS3X5	P6SS6X6	T00-09P20
CN14U10S-2L-SET	P6SS3X5	P6SS6X6	T00-09P20
CN17U10S-2R-SET	P6SS3X5	P6SS6X6	T00-15P35
CN17U10S-2L-SET	P6SS3X5	P6SS6X6	T00-15P35

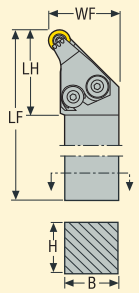
Please check availability in current price and stock-list

Toolholders for inserts RCMT



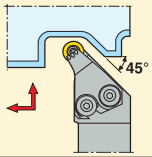
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SRSCR/L...JET



Right-hand version shown

SRSCR/L...JET



	Designation	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
12	SRSCR2525M12JET	25	25	150	32,0	40	275	0	0	0,7	RCMT1204..
	SRSCR3225P12JET	32	25	170	32,0	40	275	0	0	1,1	RCMT1204..
	SRSCL2525M12JET	25	25	150	32,0	40	275	0	0	0,7	RCMT1204..
	SRSCL3225P12JET	32	25	170	32,0	40	275	0	0	1,1	RCMT1204..

* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

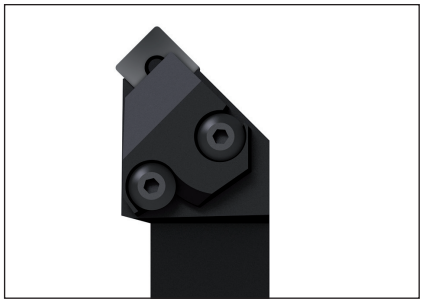
Accessories*

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw	Shim key
R-12	JET-CIKR00RA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875
L-12	JET-CIKR00LA-KIT	117.26-655	3SMS795/T15P	C03510-T15P	111.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875

Please check availability in current price and stock-list

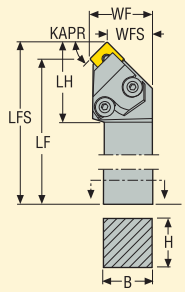
* To be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



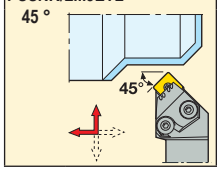
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PSSNR/L...JETL



Right-hand version shown
KAPR = 45°

PSSNR/L...JETL



	Designation	**	Dimensions in mm							CP*	GAMO°	LAMS°	KG	
			H	B	LF	LFS	WF	WFS	LH					
12	**PSSNR2525M12JETL**	Duo	25	25	150	159,1	32,0	23,9	41	275	-8	0	0,8	SN..1204..
	PSSNL2525M12JETL	Duo	25	25	150	159,1	32,0	23,9	41	275	-8	0	0,8	SN..1204..
15	**PSSNR3225P15JETL**	Duo	32	25	170	181,7	32,2	22,7	32	275	-8	0	1,2	SN..1506..
	PSSNL3225P15JETL	Duo	32	25	170	181,7	32,2	22,7	32	275	-8	0	1,2	SN..1506..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

For size	Inducer	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever screw	O-ring	Plug	Punch	Shim pin
...R-12	CILS12RA-F	117.26-655	PP4713	PSN120312	3SMS795	LS0818	ORING-6.07X1.78	JET-P1/8-5MM	MP0912	RP6757
...L-12	CILS12LA-F	117.26-655	PP4713	PSN120312	3SMS795	LS0818	ORING-6.07X1.78	JET-P1/8-5MM	MP0912	RP6757
...R-15	CILS15RA-F	117.26-655	PP6017	PSN150412	3SMS795	LS0820	ORING-6.07X1.78	JET-P1/8-5MM	MP1519	RP8286
...L-15	CILS15LA-F	117.26-655	PP6017	PSN150412	3SMS795	LS0820	ORING-6.07X1.78	JET-P1/8-5MM	MP1519	RP8286

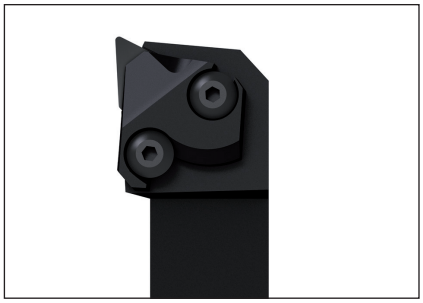
Accessories*

Inducer	Plug
CILS12RA-R	P6SS4X8
CILS12LA-R	P6SS4X8
CILS15RA-R	P6SS4X8
CILS15LA-R	P6SS4X8

Please check availability in current price and stock-list

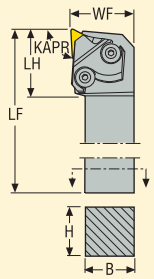
* To be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG, TNMM and TNMX



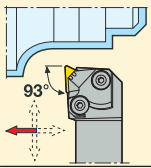
- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PTJNR/L...JETL



Right-hand version shown
KAPR = 93°

PTJNR/L...JETL
93 °



	Designation	**	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
16	PTJNR2020K16JETL	Duo	20	20	125	27,2	34	275	-6	-6	0,5	TN..1604..
	PTJNR2525M16JETL	Duo	25	25	150	32,2	38	275	-6	-6	0,8	TN..1604..
	PTJNL2020K16JETL	Duo	20	20	125	27,2	34	275	-6	-6	0,5	TN..1604..
	PTJNL2525M16JETL	Duo	25	25	150	32,2	38	275	-6	-6	0,8	TN..1604..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever key	Lever screw	O-ring	Plug	Punch	Shim pin
R-16	CILT16RA-F	3SMS795	117.26-655	PP3612	PTN160208	2.5SMS795	LS0616	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP5152
L-16	CILT16LA-F	3SMS795	117.26-655	PP3612	PTN160208	2.5SMS795	LS0616	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP5152

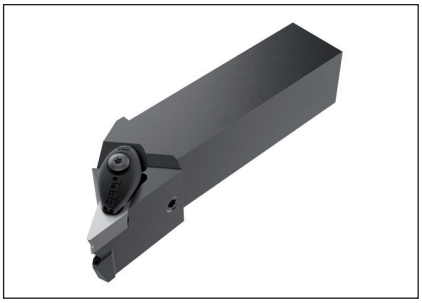
Accessories*

Plug	Torque key
P6SS4X8	H00-2530
P6SS4X8	H00-2530

Please check availability in current price and stock-list

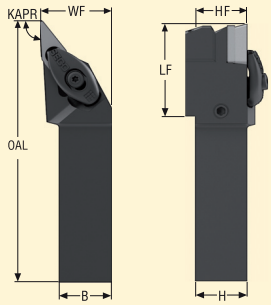
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT and VBMW

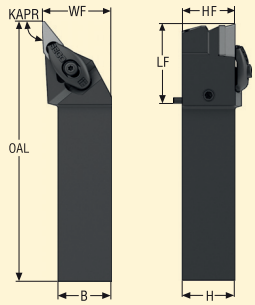


- For inserts programme, see page(s) 429-430, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DVJBR/L2020...JETI

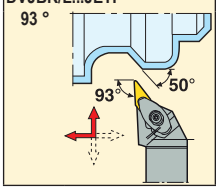


DVJBR/L2525...JETI



Right-hand version shown
KAPR = 93°

DVJBR/L...JETI



	Designation	Dimensions in mm H	B	OAL	LF	WF	HF	CP*	GAMO°	LAMS°	KG	
16	DVJBR2020X16JETI	20	20	100	36	27,2	20	200	0	0	0,5	VB..1604..
	DVJBR2525X16JETI	25	25	122	38	32,2	25	200	0	0	0,5	VB..1604..
	DVJBL2020X16JETI	20	20	100	36	27,2	20	200	0	0	0,4	VB..1604..
	DVJBL2525X16JETI	25	25	122	38	32,2	25	200	0	0	0,6	VB..1604..

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

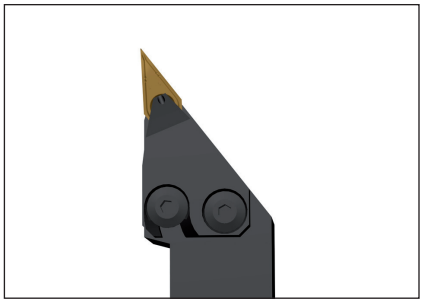
For size	Clamp key	Clamp screw	Coolant clamp	Insert shim	Plug	Plug screw	Shim screw	Spring
L-16	T09P-2	L84017-T09P	CP14U20S-2L	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808
R-16	T09P-2	L84017-T09P	CP14U20S-2R	171.19-620	JET-P1/8-5MM	P6SS3X3G	C94006-T15P	S5808

Accessories, to be ordered separately

Coolant kit	Duo coolant plug screw	Plug screw JETI	Shim key	Torque key
CP14U20S-2R-SET	P6SS3X5	P6SS6X6	T15P-2	T00-09P20
CP14U20S-2L-SET	P6SS3X5	P6SS6X6	T15P-2	T00-09P20

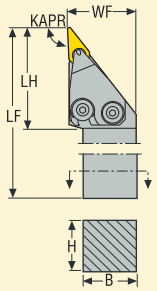
Please check availability in current price and stock-list

Toolholders for inserts VBMT, VBGT, VBGW, VBMW and VCGT



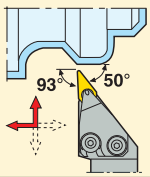
- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SVJBR/L...JET



Right-hand version shown
KAPR = 93°

SVJBR/L...JET
93 °



	Designation	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
		H	B	LF	WF	LH					
16	SVJBR2020K16JET	20	20	125	27,2	47	275	0	0	0,5	VB../VC..1604
	SVJBR2525M16JET	25	25	150	32,2	47	275	0	0	0,7	VB../VC..1604
	SVJBR3225P16JET	32	25	170	32,2	43	275	0	0	1,0	VB../VC..1604
	SVJBL2020K16JET	20	20	125	27,2	47	275	0	0	0,5	VB../VC..1604
	SVJBL2525M16JET	25	25	150	32,2	47	275	0	0	0,7	VB../VC..1604
	SVJBL3225P16JET	32	25	170	32,2	43	275	0	0	1,0	VB../VC..1604

* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

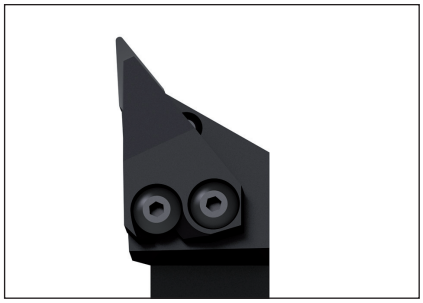
Accessories*

For size	Inducer kit	Inducer screw	Insert/inducer key	Insert screw	Insert shim	O-ring	Plug	Shim screw	Shim key
R-16	JET-CIKV16RA-KIT	117.26-655	3SMS795/T15P	C03512-T15P	171.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875
L-16	JET-CIKV16LA-KIT	117.26-655	3SMS795/T15P	C03512-T15P	171.19-621	ORING-6.07X1.78	JET-P1/8-5MM	CA3510	9/64SMS875

Please check availability in current price and stock-list

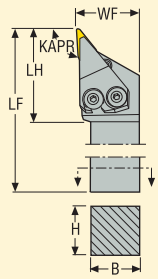
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM and VNMG



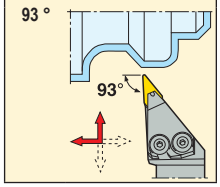
- For inserts programme, see page(s) 432-433, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PVJNR/L...JETL



Right-hand version shown
KAPR = 93°

PVJNR/L...JETL
93 °



	Designation	**	Dimensions in mm H	B	LF	WF	LH	CP*	GAMO°	LAMS°	KG	
16	PVJNR2020K16JETL	Duo	20	20	125	27,2	46	275,0	-4,5	-13,5	0,5	VN..1604..
	PVJNR2525M16JETL	Duo	25	25	150	32,2	47	275,0	-4,5	-13,5	0,8	VN..1604..
	PVJNL2020K16JETL	Duo	20	20	125	27,2	46	275,0	-4,5	-13,5	0,5	VN..1604..
	PVJNL2525M16JETL	Duo	25	25	150	32,2	47	275,0	-4,5	-13,5	0,8	VN..1604..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

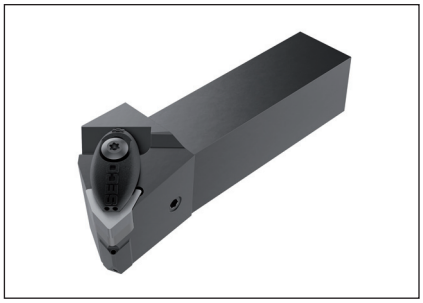
Accessories*

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever key	Lever screw	O-ring	Plug	Punch	Shim pin	Plug	Torque key
R-16	CILV16RA-F	3SMS795	117.26-655	PP3512	PVN160304	2.5SMS795	LS0616	ORING-6.07X1.78	JET-P1/8-5MM	MP0912	RP5153	P6SS4X8	H00-2530
L-16	CILV16LA-F	3SMS795	117.26-655	PP3512	PVN160304	2.5SMS795	LS0616	ORING-6.07X1.78	JET-P1/8-5MM	MP0912	RP5153	P6SS4X8	H00-2530

Please check availability in current price and stock-list

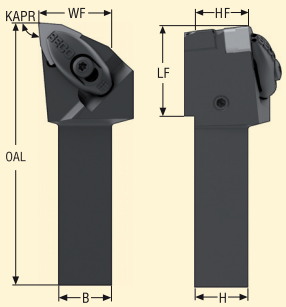
* To be ordered separately

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM

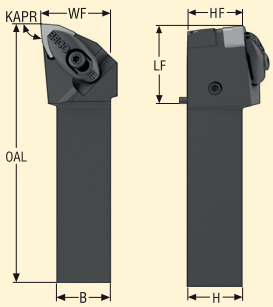


- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

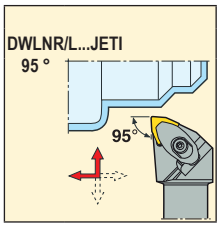
DWLNR/L2020...JETI



DWLNR/L2525...JETI



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm H	B	OAL	LF	WF	HF	CP*	GAMO°	LAMS°	KG	
06	DWLNR2020X06JETI	20	20	95	31	27,2	20	200	-6	-6	0,3	WN..0604..
	DWLNR2525X06JETI	25	25	117	33	32,2	25	200	-6	-6	0,5	WN..0604..
	DWLNL2020X06JETI	20	20	95	31	27,2	20	200	-6	-6	0,4	WN..0604..
	DWLNL2525X06JETI	25	25	117	33	32,2	25	200	-6	-6	0,7	WN..0604..
08	DWLNR2020X08JETI	20	20	98	98	27,2	20	200	-6	-6	0,4	WN..0804..
	DWLNR2525X08JETI	25	25	120	36	32,2	25	200	-6	-6	0,5	WN..0804..
	DWLNL2020X08JETI	20	20	98	98	27,2	20	200	-6	-6	0,4	WN..0804..
	DWLNL2525X08JETI	25	25	120	36	32,2	25	200	-6	-6	0,7	WN..0804..

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

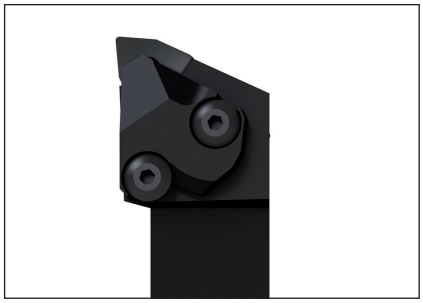
For size	Clamp screw	Coolant clamp	Insert shim	Plug	Plug screw	Shim/ clamp key	Shim screw	Spring
...06	L84017-T09P	CN14U00S-2	DWN060310	JET-P1/8-5MM	P6SS3X3G	T09P-2	C03007-T09P	S5808
...08	L85021-T15P	CN17U00S-2	DWN080416	JET-P1/8-5MM	P6SS3X3G	T15P-2	C04008-T15P	S7111

Accessories, to be ordered separately

Coolant kit	Duo coolant plug screw	Plug screw JETI	Torque key
CN14U00S-2-SET	P6SS3X5	P6SS6X6	T00-09P20
CN17U00S-2-SET	P6SS3X5	P6SS6X6	T00-15P35

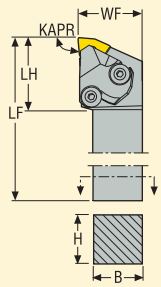
Please check availability in current price and stock-list

Toolholders for inserts WNGA, WNMA, WNMG and WNMM



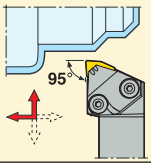
- For inserts programme, see page(s) 436-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PWLNR/L...JETL



Right-hand version shown
KAPR = 95°

PWLNR/L...JETL
95 °



	Designation	**	Dimensions in mm					CP*	GAMO°	LAMS°	KG	
			H	B	LF	WF	LH					
06	**PWLNR2020K06JETL**	Duo	20	20	125	27,2	35	275	-6	-6	0,5	WN..0604..
	PWLNR2525M06JETL	Duo	25	25	150	32,2	35	275	-6	-6	0,8	WN..0604..
	PWLNL2020K06JETL	Duo	20	20	125	27,2	35	275	-6	-6	0,5	WN..0604..
	PWLNL2525M06JETL	Duo	25	25	150	32,2	35	275	-6	-6	0,8	WN..0604..
08	**PWLNR2020K08JETL**	Duo	20	20	125	27,2	36	275	-6	-6	0,5	WN..0804..
	PWLNR2525M08JETL	Duo	25	25	150	32,2	36	275	-6	-6	0,8	WN..0804..
	PWLNR3225P08JETL	Duo	32	25	170	32,2	36	275	-6	-6	1,1	WN..0804..
	PWLNL2020K08JETL	Duo	20	20	125	27,2	36	275	-6	-6	0,5	WN..0804..
	PWLNL2525M08JETL	Duo	25	25	150	32,2	36	275	-6	-6	0,8	WN..0804..
	PWLNL3225P08JETL	Duo	32	25	170	32,2	36	275	-6	-6	1,1	WN..0804..

* Max coolant pressure (bar) using hose connection
** Jetstream Tooling® Duo, see page(s) 30-33

Spare Parts, Parts included in delivery

For size	Inducer	Inducer key	Inducer screw	Insert lever	Insert shim	Lever/inducer key	Lever key	Lever screw	O-ring	Plug	Punch	Shim pin
R-06	CILW06RA-F	3SMS795	117.26-655	PP3612	PWN060312	–	2.5SMS795	LS0616	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP5152
L-06	CILW06LA-F	3SMS795	117.26-655	PP3612	PWN060312	–	2.5SMS795	LS0616	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP5152
R-08	CILW08RA-F	–	117.26-655	PP4713	PWN080312	3SMS795	–	LS0818	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757
L-08	CILW08LA-F	–	117.26-655	PP4713	PWN080312	3SMS795	–	LS0818	ORING-8X1.5	JET-P1/8-5MM	MP0912	RP6757

Accessories*

Inducer	Plug	Torque key
CILW06RA-R	P6SS4X8	H00-2530
CILW06LA-R	P6SS4X8	H00-2530
CILW08RA-R	P6SS4X8	–
CILW08LA-R	P6SS4X8	–

Please check availability in current price and stock-list

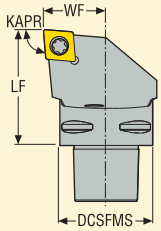
* To be ordered separately

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



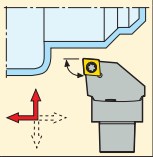
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SCLCR/L



Right-hand version shown
KAPR = 95°

C.-SCLCR/L 95 °



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C3									
	09	C3-SCLCR-22040-09	32	22,0	40	0	0	0,3	CC..09T3..
		C3-SCLCL-22040-09	32	22,0	40	0	0	0,3	CC..09T3..
C4									
	09	C4-SCLCR-27050-09	40	27,0	50	0	0	0,5	CC..09T3..
		C4-SCLCL-27050-09	40	27,0	50	0	0	0,5	CC..09T3..
	12	C4-SCLCR-27050-12	40	27,0	50	0	0	0,5	CC..1204..
		C4-SCLCL-27050-12	40	27,0	50	0	0	0,5	CC..1204..
C5									
	09	C5-SCLCR-35060-09	50	35,0	60	0	0	0,8	CC..09T3..
		C5-SCLCL-35060-09	50	35,0	60	0	0	0,8	CC..09T3..
	12	C5-SCLCR-35060-12	50	35,0	60	0	0	0,7	CC..1204..
		C5-SCLCL-35060-12	50	35,0	60	0	0	0,7	CC..1204..
		C6-SCLCR-45065-12	63	45,0	65	0	0	1,4	CC..1204..
		C6-SCLCL-45065-12	63	45,0	65	0	0	1,4	CC..1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw	Shim key
C3, C4..-09	CN6	T15P-2	C03512-T15P	SCN090308	CA3507	9/64SMS875
C3, C4..-12	CN6	T15P-2	C04014-T15P	SCN12T308	CA4010	4SMS795
C5, C6..-09	CN7	T15P-2	C03512-T15P	SCN090308	CA3507	9/64SMS875
C5, C6..-12	CN7	T15P-2	C04014-T15P	SCN12T308	CA4010	4SMS795

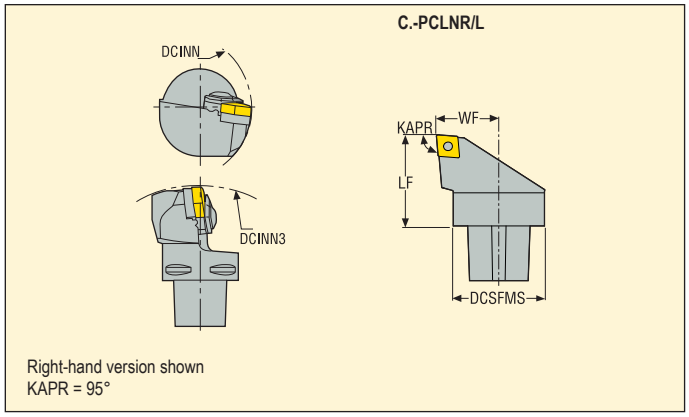
Please check availability in current price and stock-list

* To be ordered separately

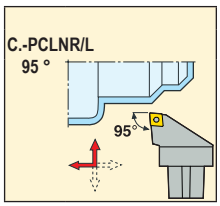
Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 95°



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C5											
	16	C5-PCLNR-35060-16	50	35,0	60	100	150	-6	-6	0,8	CN..1606..
		C5-PCLNL-35060-16	50	35,0	60	100	150	-6	-6	0,7	CN..1606..
C6											
	16	C6-PCLNR-45065-16	63	45,0	65	120	200	-6	-6	1,5	CN..1606..
		C6-PCLNL-45065-16	63	45,0	65	120	200	-6	-6	1,5	CN..1606..
	19	C6-PCLNR-45065-19	63	45,0	65	120	200	-6	-6	1,5	CN..1906..
		C6-PCLNL-45065-19	63	45,0	65	120	200	-6	-6	1,5	CN..1906..
C8											
	19	C8-PCLNR-55080-19	80	55,0	80	120	220	-6	-6	3,0	CN..1906..
		C8-PCLNL-55080-19	80	55,0	80	120	220	-6	-6	3,0	CN..1906..
C10											
	25	C10-PCLNR-68110-25	100	68,0	110	240	400	-6	-6	5,3	CN..2509..
		C10-PCLNL-68110-25	100	68,0	110	240	400	-6	-6	5,6	CN..2509..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
..-16	CN7	PP6017	PCN160412	3SMS795	LS0820	MP1519	RP8286
C6..-19	CN7	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811
C8..-19	CN8	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811
..-25	CN16	PP1325	PCN250620	5SMS795	LS1236	MP25	RP1312

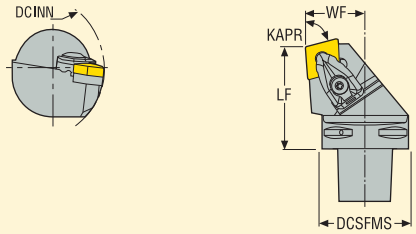
Please check availability in current price and stock-list

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



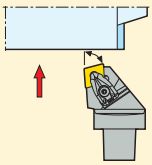
- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCKNR/L...-M



Right-hand version shown
KAPR = 75°

C.-DCKNR/L...-M
75 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	GAMO°	LAMS°	KG	
C4										
	12	C4-DCKNR-27050-12-M	40	27,0	50	110	-6	-6	0,5	CN..1204..
		C4-DCKNL-27050-12-M	40	27,0	50	110	-6	-6	0,5	CN..1204..
C5										
	12	C5-DCKNR-35060-12-M	50	35,0	60	110	-6	-6	0,9	CN..1204..
		C5-DCKNL-35060-12-M	50	35,0	60	110	-6	-6	0,9	CN..1204..
	16	C5-DCKNR-35060-16-M	50	35,0	60	125	-6	-6	0,9	CN..1606..
		C5-DCKNL-35060-16-M	50	35,0	60	125	-6	-6	0,9	CN..1606..
	19	C5-DCKNR-35060-19-M	50	35,0	60	95	-6	-6	0,8	CN..1906..
		C5-DCKNL-35060-19-M	50	35,0	60	95	-6	-6	0,8	CN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C5..-12	FP2012	L85021-T15P	CN7	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
-16	FP2012	L86026-T20P	CN7	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN6	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

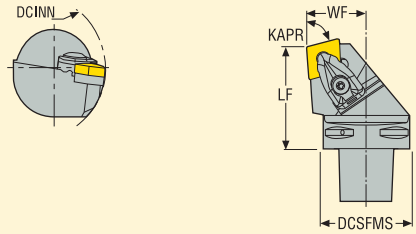
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



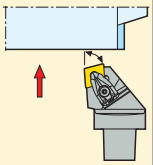
- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCKNR/L...-M



Right-hand version shown
KAPR = 75°

C.-DCKNR/L
75 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	GAMO°	LAMS°	KG	
C6										
	12	C6-DCKNR-45065-12-M	63	45,0	65	110	-6	-6	1,4	CN..1204..
		C6-DCKNL-45065-12-M	63	45,0	65	110	-6	-6	1,4	CN..1204..
	16	C6-DCKNR-45065-16-M	63	45,0	65	125	-6	-6	1,4	CN..1606..
		C6-DCKNL-45065-16-M	63	45,0	65	125	-6	-6	1,4	CN..1606..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-12	FP2012	L85021-T15P	CN7	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
-16	FP2012	L86026-T20P	CN7	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16

Please check availability in current price and stock-list

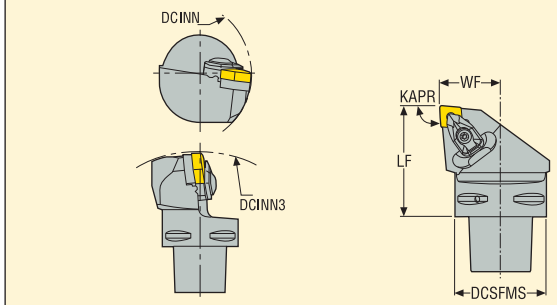
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



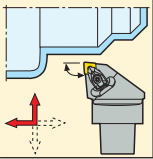
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCLNR/L..-M



Right-hand version shown
KAPR = 95°

C.-DCLNR/L..-M
95 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	12	C4-DCLNR-27050-12-M	40	27,0	50	110	140	-6	-6	0,4	CN..1204..
		C4-DCLNL-27050-12-M	40	27,0	50	110	140	-6	-6	0,4	CN..1204..
	16	C4-DCLNR-27055-16-M	40	27,0	55	125	155	-6	-6	0,5	CN..1606..
		C4-DCLNL-27055-16-M	40	27,0	55	125	155	-6	-6	0,5	CN..1606..
C5											
	12	C5-DCLNR-35060-12-M	50	35,0	60	110	165	-6	-6	0,8	CN..1204..
		C5-DCLNL-35060-12-M	50	35,0	60	110	165	-6	-6	0,8	CN..1204..
	16	C5-DCLNR-35060-16-M	50	35,0	60	125	165	-6	-6	0,8	CN..1606..
		C5-DCLNL-35060-16-M	50	35,0	60	125	165	-6	-6	0,8	CN..1606..
	19	C5-DCLNR-35060-19-M	50	35,0	60	80	165	-6	-6	0,8	CN..1906..
		C5-DCLNL-35060-19-M	50	35,0	60	80	165	-6	-6	0,8	CN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-12	FP2012	L85021-T15P	CN3	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

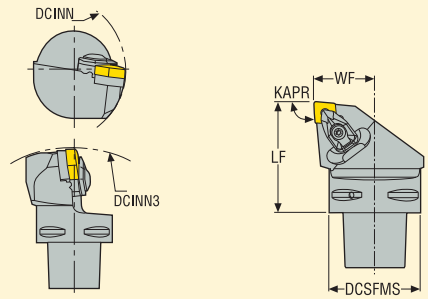
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



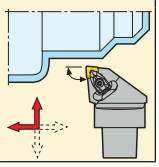
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCLNR/L..-M



Right-hand version shown
KAPR = 95°

C.-DCLNR/L..-M
95 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C6											
	12	C6-DCLNR-45065-12-M	63	45,0	65	110	190	-6	-6	1,3	CN..1204..
		C6-DCLNL-45065-12-M	63	45,0	65	110	190	-6	-6	1,3	CN..1204..
	16	C6-DCLNR-45065-16-M	63	45,0	65	125	190	-6	-6	1,3	CN..1606..
		C6-DCLNL-45065-16-M	63	45,0	65	125	190	-6	-6	1,3	CN..1606..
	19	C6-DCLNR-45065-19-M	63	45,0	65	81	190	-6	-6	1,3	CN..1906..
		C6-DCLNL-45065-19-M	63	45,0	65	81	190	-6	-6	1,3	CN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-12	FP2012	L85021-T15P	CN3	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

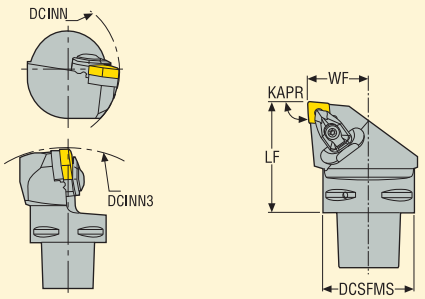
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNMA, CNMG and CNMM



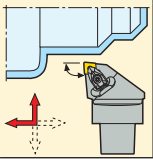
- For inserts programme, see page(s) 388-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCLNR/L



Right-hand version shown
KAPR = 95°

C.-DCLNR/L
95 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C8											
	16	C8-DCLNR-55080-16	80	55,0	80	125	150	-6	-6	2,5	CN..1606..
		C8-DCLNL-55080-16	80	55,0	80	125	150	-6	-6	2,5	CN..1606..
	19	C8-DCLNR-55080-19	80	55,0	80	100	250	-6	-6	2,5	CN..1906..
		C8-DCLNL-55080-19	80	55,0	80	100	250	-6	-6	2,5	CN..1906..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories*

Clamp kit
CD16-S16
CD19-S19

Please check availability in current price and stock-list

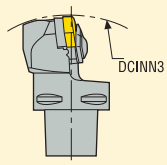
* To be ordered separately

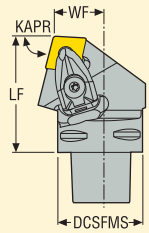
Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

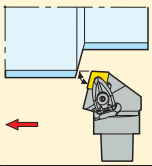
C.-DCRNR/L..-M





Right-hand version shown
KAPR = 75°

C.-DCRNR/L..-M
75 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN3	GAMO°	LAMS°	KG	
C4										
	12	C4-DCRNR-22050-12-M	40	22,0	50	140	-6	-6	0,4	CN..1204..
		C4-DCRNL-22050-12-M	40	22,0	50	140	-6	-6	0,4	CN..1204..
	16	C4-DCRNR-22055-16-M	40	22,0	55	165	-6	-6	0,5	CN..1606..
		C4-DCRNL-22055-16-M	40	22,0	55	165	-6	-6	0,5	CN..1606..
C5										
	12	C5-DCRNR-27060-12-M	50	27,0	60	165	-6	-6	0,8	CN..1204..
		C5-DCRNL-27060-12-M	50	27,0	60	165	-6	-6	0,8	CN..1204..
	16	C5-DCRNR-27060-16-M	50	27,0	60	165	-6	-6	0,8	CN..1606..
		C5-DCRNL-27060-16-M	50	27,0	60	165	-6	-6	0,8	CN..1606..
C6										
	12	C6-DCRNR-35065-12-M	63	35,0	65	190	-6	-6	1,2	CN..1204..
		C6-DCRNL-35065-12-M	63	35,0	65	190	-6	-6	1,2	CN..1204..
	16	C6-DCRNR-35065-16-M	63	35,0	65	190	-6	-6	1,3	CN..1606..
		C6-DCRNL-35065-16-M	63	35,0	65	190	-6	-6	1,3	CN..1606..
	19	C6-DCRNR-35065-19-M	63	35,0	65	190	-6	-6	1,3	CN..1906..
		C6-DCRNL-35065-19-M	63	35,0	65	190	-6	-6	1,3	CN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C4..-16	FP2012	L86026-T20P	CN6	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
C5, C6..-12	FP2012	L85021-T15P	CN3	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C5, C6..-16	FP2012	L86026-T20P	CN3	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

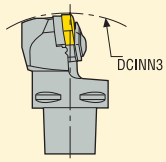
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

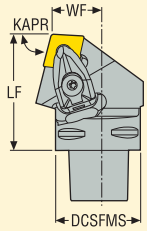
Toolholders for inserts CNMA, CNMG and CNMM



- For inserts programme, see page(s) 388-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

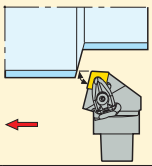
C.-DCRNR/L





Right-hand version shown
KAPR = 75°

C.-DCRNR/L
75 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN3	GAMO°	LAMS°	KG	
C8										
	19	C8-DCRNR-55080-19	80	55,0	80	250	-6	-6	2,6	CN..1906..
		C8-DCRNL-55080-19	80	55,0	80	250	-6	-6	2,6	CN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-19	FP2012	L86026-T20P	CN3	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

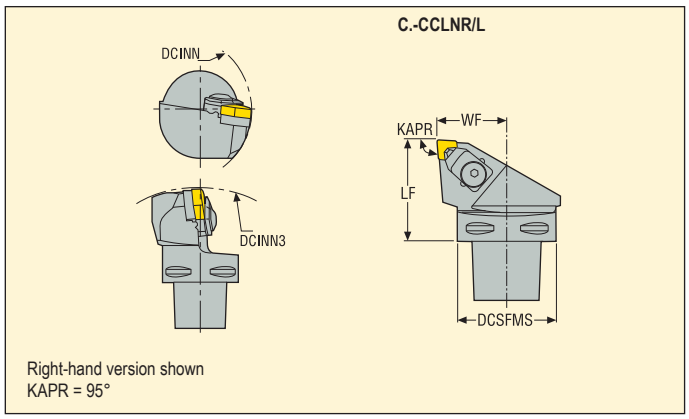
Please check availability in current price and stock-list

* To be ordered separately

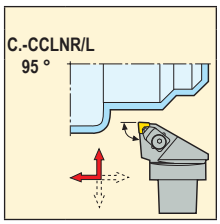
Toolholders for PCBN inserts CNGN and CNMN



- For inserts programme, see page(s) 442, 473
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 95°



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	09	C4-CCLNR-27050-09	40	27,0	50	75	165	-6	-6	0,5	CN.N0903..
		C4-CCLNL-27050-09	40	27,0	50	75	165	-6	-6	0,5	CN.N0903..
	12	C4-CCLNR-27050-12	40	27,0	50	75	165	-6	-6	0,5	CN.N1204..
		C4-CCLNL-27050-12	40	27,0	50	75	165	-6	-6	0,5	CN.N1204.
C5											
	09	C5-CCLNR-35060-09	50	35,0	60	95	165	-6	-6	0,8	CN.N0903..
		C5-CCLNL-35060-09	50	35,0	60	95	165	-6	-6	0,8	CN.N0903..
	12	C5-CCLNR-35060-12	50	35,0	60	95	165	-6	-6	0,8	CN.N1204.
		C5-CCLNL-35060-12	50	35,0	60	95	165	-6	-6	0,8	CN.N1204.
C6											
	12	C6-CCLNR-45065-12	63	45,0	65	121	165	-6	-6	1,3	CN.N1204.
		C6-CCLNL-45065-12	63	45,0	65	121	165	-6	-6	1,3	CN.N1204.

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw
C4..-09	CC17P-09	4SMS795	CN6	CCN090412	P1311-09	174.10-652-T07P
C4..-12	CC17P	4SMS795	CN6	CCN120312	P1311	F94009-T09P
C5..-09	CC17P-09	4SMS795	CN8	CCN090412	P1311-09	174.10-652-T07P
C5, C6..-12	CC17P	4SMS795	CN8	CCN120312	P1311	F94009-T09P

Accessories*

Shim key
T07P-2
T09P-2
T07P-2
T09P-2

Please check availability in current price and stock-list

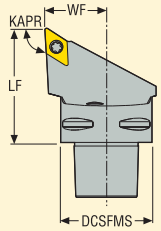
* To be ordered separately

Toolholders for inserts DCGT, DCMT, DCMW and DCMX

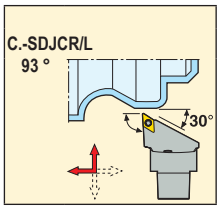


- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SDJCR/L



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C3									
	11	C3-SDJCR-22040-11	32	22,0	40	0	0	0,3	DC..11T3..
		C3-SDJCL-22040-11	32	22,0	40	0	0	0,3	DC..11T3..
C4									
	11	C4-SDJCR-27050-11	40	27,0	50	0	0	0,4	DC..11T3..
		C4-SDJCL-27050-11	40	27,0	50	0	0	0,4	DC..11T3..
C5									
	11	C5-SDJCR-35060-11	50	35,0	60	0	0	0,7	DC..11T3..
		C5-SDJCL-35060-11	50	35,0	60	0	0	0,7	DC..11T3..
C6									
	11	C6-SDJCR-45065-11	63	45,0	65	0	0	1,1	DC..11T3..
		C6-SDJCL-45065-11	63	45,0	65	0	0	1,1	DC..11T3..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
C3, C4..-11	CN6	T15P-2	C03512-T15P	126.19-620	CA3507
C5, C6..-11	CN7	T15P-2	C03512-T15P	126.19-620	CA3507

Accessories*

Shim key
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

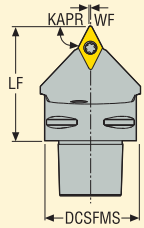
* To be ordered separately

Toolholders for inserts DCGT, DCMT and DCMW

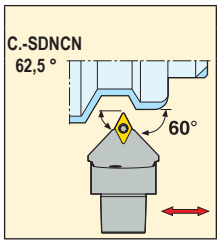


- For inserts programme, see page(s) 395-397, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SDNCN



Neutral version shown
KAPR = 62,5°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C4									
	11	C4-SDNCN-00050-11	40	0,5	50	0	0	0,4	DC..11T3..
C5									
	11	C5-SDNCN-00060-11	50	0,5	60	0	0	0,6	DC..11T3..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
C3, C4..-11	CN6	T15P-2	C03512-T15P	126.19-620	CA3507
C5..-11	CN7	T15P-2	C03512-T15P	126.19-620	CA3507

Accessories*

Shim key
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

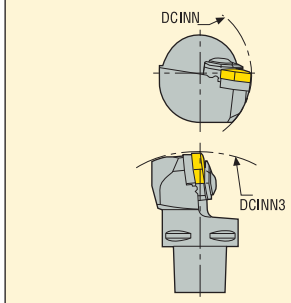
* To be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM and DNMX



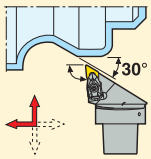
- For inserts programme, see page(s) 398-404, 444
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DDJNR/L, ..-M



Right-hand version shown
KAPR = 93°

C.-DDJNR/L, ..-M
93 °



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	11	C4-DDJNR-27050-11-M	40	27,0	50	60	140	-6	-7	0,4	DN..1104..
		C4-DDJNL-27050-11-M	40	27,0	50	60	140	-6	-7	0,4	DN..1104..
	15	C4-DDJNR-27055-15-M	40	27,0	55	110	145	-6	-7	0,4	DN..1506..
		C4-DDJNL-27055-15-M	40	27,0	55	110	145	-6	-7	0,4	DN..1506..
C5											
	11	C5-DDJNR-35060-11-M	50	35,0	60	65	165	-6	-7	0,7	DN..1104..
		C5-DDJNL-35060-11-M	50	35,0	60	65	165	-6	-7	0,7	DN..1104..
	15	C5-DDJNR-35060-15-M	50	35,0	60	110	165	-6	-7	0,7	DN..1506..
		C5-DDJNL-35060-15-M	50	35,0	60	110	165	-6	-7	0,7	DN..1506..
C6											
	11	C6-DDJNR-45065-11-M	63	45,0	65	81	190	-6	-7	1,1	DN..1104..
		C6-DDJNL-45065-11-M	63	45,0	65	81	190	-6	-7	1,1	DN..1104..
	15	C6-DDJNR-45065-15-M	63	45,0	65	110	190	-6	-7	1,1	DN..1506..
		C6-DDJNL-45065-15-M	63	45,0	65	110	190	-6	-7	1,1	DN..1506..
C8											
	15	C8-DDJNR-55080-15	80	55,0	80	110	250	-6	-7	2,2	DN..1506..
		C8-DDJNL-55080-15	80	55,0	80	110	250	-6	-7	2,2	DN..1506..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
..-11	FP1508	L84017-T09P	CN6	CD09-S	DDN110310	T09P-2	C03007-T09P	S5608	CD09-S09
C4..-15	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12
C5..-15	FP2012	L85021-T15P	CN3	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12
C6..-15	FP2012	L85021-T15P	CN7	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12
C8..-15	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

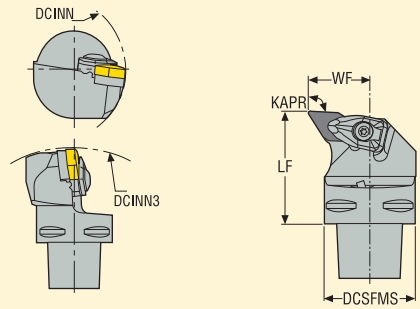
* To be ordered separately
Shim DDN150616 for insert DN..1504.., to be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM and DNMX



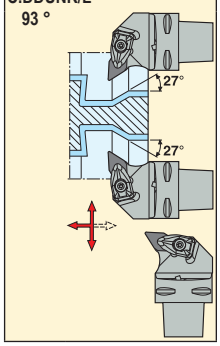
- For inserts programme, see page(s) 398-404, 444
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DDUNR/L



Right-hand version shown
KAPR = 93°

C.DDUNR/L
93 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	15	C4-DDUNR-27050-15	40	27,0	50	110	140	-6	-7	0,5	DN..1506..
		C4-DDUNL-27050-15	40	27,0	50	110	140	-6	-7	0,5	DN..1506..
C5											
	15	C5-DDUNR-35060-15	50	35,0	60	110	165	-6	-7	0,8	DN..1506..
		C5-DDUNL-35060-15	50	35,0	60	110	165	-6	-7	0,8	DN..1506..
C6											
	15	C6-DDUNR-45065-15	63	45,0	65	110	190	-6	-7	1,3	DN..1506..
		C6-DDUNL-45065-15	63	45,0	65	110	190	-6	-7	1,3	DN..1506..
C8											
	15	C8-DDUNR-55080-15	80	55,0	80	110	250	-6	-7	2,6	DN..1506..
		C8-DDUNL-55080-15	80	55,0	80	110	250	-6	-7	2,6	DN..1506..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
C4, C5..-15	FP2012	L85021-T15P	CN7	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912	CD12-S12
C6, C8..-15	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912	CD12-S12

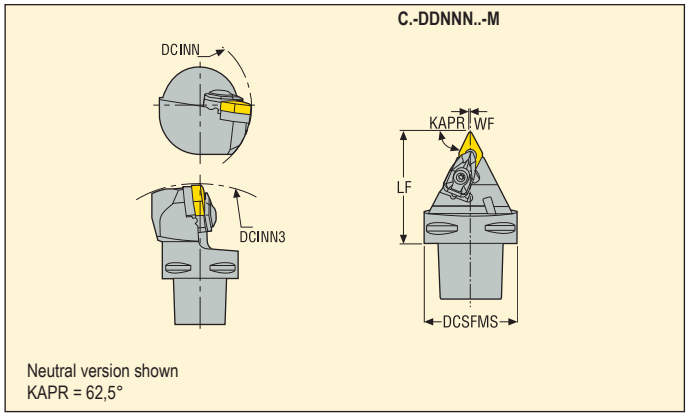
Please check availability in current price and stock-list

* To be ordered separately
Shim DDN150616 for insert DN..1504.., to be ordered separately

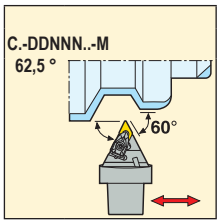
Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG and DNMM



- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Neutral version shown
KAPR = 62,5°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	11	C4-DDNNN-00050-11-M	40	,5	50	–	140	-5	-9	0,4	DN..1104..
	15	C4-DDNNN-00055-15-M	40	,5	55	–	145	-5	-9	0,4	DN..1506..
C5											
	15	C5-DDNNN-00060-15-M	50	,5	60	–	165	-5	-9	0,6	DN..1506..
C6											
	11	C6-DDNNN-00065-11-M	63	,5	65	165	190	-5	-9	1,0	DN..1104..
	15	C6-DDNNN-00065-15-M	63	,5	65	–	190	-5	-9	1,0	DN..1506..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-11	FP1508	L84017-T09P	CN6	CD09-S	DDN110310	T09P-2	C03007-T09P	S5608	CD09-S09
C4..-15	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12
C5, C6..-15	FP2012	L85021-T15P	CN3	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

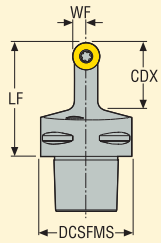
* To be ordered separately
Shim DDN150616 for insert DN..1504.., to be ordered separately

Toolholders for inserts RCMT



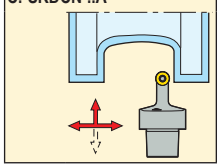
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SRDCN-..A



Neutral version shown

C.-SRDCN-..A



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	CDX	GAMO°	LAMS°	KG	
C4										
	12	C4-SRDCN-00050-12A	40	6,0	50	28	0	0	0,3	RCMT1204..
C5										
	06	C5-SRDCN-00060-06A	50	3,0	60	12	0	0	0,7	RCMT0602..
	08	C5-SRDCN-00060-08A	50	4,0	60	16	0	0	0,7	RCMT0803..
	10	C5-SRDCN-00060-10A	50	5,0	60	25	0	0	0,8	RCMT10T3..
	12	C5-SRDCN-00060-12A	50	6,0	60	28	0	0	0,6	RCMT1204..
	16	C5-SRDCN-00060-16A	50	8,0	60	35	0	0	0,6	RCMT1606..
C6										
	10	C6-SRDCN-00065-10A	63	5,0	65	25	0	0	1,1	RCMT10T3..
	12	C6-SRDCN-00065-12A	63	6,0	65	28	0	0	1,0	RCMT1204..
	16	C6-SRDCN-00065-16A	63	8,0	65	35	0	0	0,9	RCMT1606..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
-06	CN7	T07P-2	C02506-T07P	–	–
-08	CN7	T09P-2	C03007-T09P	–	–
-10	CN7	T15P-2	C03510-T15P	111.19-620	CA3507
-16	CN7	T20P-7	C05018-T20P	SRN160400	CA5010
C4..-12	CN6	T15P-2	C03512-T15P	111.19-621	CA3507
C5, C6..-12	CN7	T15P-2	C03512-T15P	111.19-621	CA3507

Accessories*

Shim key
–
–
9/64SMS875
5SMS795
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

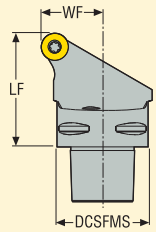
* To be ordered separately

Toolholders for inserts RCMT



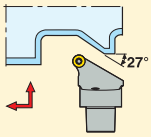
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SRSCR/L



Right-hand version shown

C.-SRSCR/L



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C5									
	06	C5-SRSCR-35060-06	50	35,0	60	0	0	0,7	RCMT0602..
		C5-SRSCL-35060-06	50	35,0	60	0	0	0,7	RCMT0602..
	08	C5-SRSCR-35060-08	50	35,0	60	0	0	0,7	RCMT0803..
		C5-SRSCL-35060-08	50	35,0	60	0	0	0,7	RCMT0803..
	10	C5-SRSCR-35060-10	50	35,0	60	0	0	0,7	RCMT10T3..
		C5-SRSCL-35060-10	50	35,0	60	0	0	0,7	RCMT10T3..
	12	C5-SRSCR-35060-12	50	35,0	60	0	0	0,8	RCMT1204..
		C5-SRSCL-35060-12	50	35,0	60	0	0	0,8	RCMT1204..
	16	C5-SRSCR-35060-16	50	35,0	60	0	0	0,8	RCMT1606..
		C5-SRSCL-35060-16	50	35,0	60	0	0	0,8	RCMT1606..
C6									
	10	C6-SRSCR-45065-10	63	45,0	65	0	0	1,2	RCMT10T3..
		C6-SRSCL-45065-10	63	45,0	65	0	0	1,2	RCMT10T3..
	12	C6-SRSCR-45065-12	63	45,0	65	0	0	1,2	RCMT1204..
		C6-SRSCL-45065-12	63	45,0	65	0	0	1,2	RCMT1204..
	16	C6-SRSCR-45065-16	63	45,0	65	0	0	1,2	RCMT1606..
		C6-SRSCL-45065-16	63	45,0	65	0	0	1,2	RCMT1606..

Spare Parts, Parts included in delivery

Accessories*

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw	Shim key
-06	CN7	T07P-2	C02506-T07P	–	–	–
-08	CN7	T09P-2	C03007-T09P	–	–	–
-10	CN7	T15P-2	C03510-T15P	111.19-620	CA3507	9/64SMS875
-12	CN7	T15P-2	C03512-T15P	111.19-621	CA3507	9/64SMS875
-16	CN7	T20P-7	C05013-T20P	SRN160400	CA5010	5SMS795

Please check availability in current price and stock-list

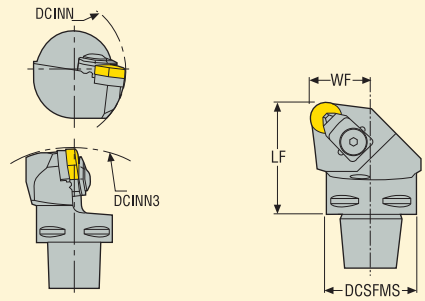
* To be ordered separately

Toolholders for PCBN inserts RNGN and RNMN



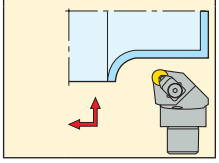
- For inserts programme, see page(s) 447-449, 471, 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-CRSNR/L



Right-hand version shown

C.-CRSNR/L



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	09	C4-CRSNR-27050-09	40	27,0	50	75	165	0	-8	0,5	RN.N0903..
		C4-CRSNL-27050-09	40	27,0	50	75	165	0	-8	0,5	RN.N0903..
	12	C4-CRSNR-27050-12	40	27,0	50	75	165	0	-8	0,5	RN.N1203..
	09	C5-CRSNR-35060-09	50	35,0	60	95	165	0	-8	0,8	RN.N0903..
		C5-CRSNL-35060-09	50	35,0	60	95	165	0	-8	0,8	RN.N0903..
	12	C5-CRSNR-35060-12	50	35,0	60	95	165	0	-8	0,8	RN.N1203..
		C5-CRSNL-35060-12	50	35,0	60	95	165	0	-8	0,8	RN.N1203..
	09	C6-CRSNR-45065-09	63	45,0	65	121	165	0	-8	1,3	RN.N0903..
		C6-CRSNL-45065-09	63	45,0	65	121	165	0	-8	1,3	RN.N0903..
	12	C6-CRSNR-45065-12	63	45,0	65	121	165	0	-8	1,3	RN.N1203..
		C6-CRSNL-45065-12	63	45,0	65	121	165	0	-8	1,3	RN.N1203..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw	Shim key
C4..-09	CC17P-09	4SMS795	CN6	117.10-620	P1311-09	174.10-652-T07P	T07P-2
C4..-12	CC17P	4SMS795	CN6	117.10-622	P1311	F94009-T09P	T09P-2
C5..-09	CC17P-09	4SMS795	CN7	117.10-620	P1311-09	174.10-652-T07P	T07P-2
C5..-12	CC17P	4SMS795	CN7	117.10-622	P1311	F94009-T09P	T09P-2
C6..-09	CC17P-09	4SMS795	CN8	117.10-620	P1311-09	174.10-652-T07P	T07P-2
C6..-12	CC17P	4SMS795	CN8	117.10-622	P1311	F94009-T09P	T09P-2

Please check availability in current price and stock-list

* To be ordered separately

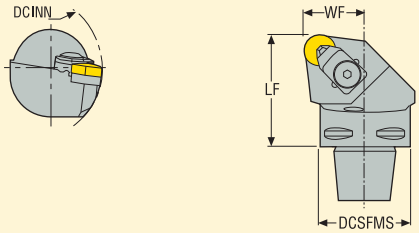
Shim 117.10-621 for insert RN.N1204.., to be ordered separately

Toolholders for ceramic inserts RNGN



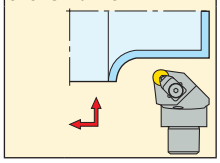
- For inserts programme, see page(s) 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-CRSNR/L-..C



Right-hand version shown

C.-CRSNR/L-..C



Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN				
C5										
	12	C5-CRSNR-35060-12C	50	35,0	60	250	-6	-6	0,9	RNGN1207..
		C5-CRSNL-35060-12C	50	35,0	60	250	-6	-6	0,9	RNGN1207..
C6										
	12	C6-CRSNR-45065-12C	63	45,0	65	325	-6	-6	1,4	RNGN1207..
		C6-CRSNL-45065-12C	63	45,0	65	325	-6	-6	1,4	RNGN1207..

Spare Parts, Parts included in delivery

For size	Clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim key	Shim screw
C5-..-12C	CC17P	4SMS795	CN2	CRN120400	P1311	T20P-2D	L85013-T20P
C6-..-12C	CC17P	4SMS795	CN2	CRN120400	P1311	T20P-2D	L85013-T20P

Accessories*

Insert shim
CRN120800
CRN120800

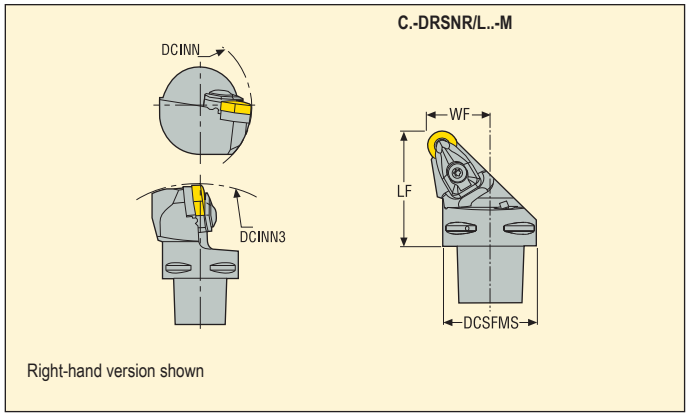
Please check availability in current price and stock-list

* To be ordered separately

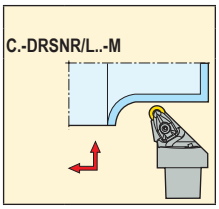
Toolholders for inserts RNMA and RNMG



- For inserts programme, see page(s) 410
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	12	C4-DRSNR-27050-12-M	40	27,0	50	110	140	-6	-6	0,4	RN..1204..
		C4-DRSNL-27050-12-M	40	27,0	50	110	140	-6	-6	0,4	RN..1204..
C6											
	19	C6-DRSNR-45065-19-M	63	45,0	65	121	165	-6	-6	1,3	RN..1906..
		C6-DRSNL-45065-19-M	63	45,0	65	121	165	-6	-6	1,3	RN..1906..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DRN120600	T15P-2	C04008-T15P	S6912
-19	FP2012	L86026-T20P	CN6	CD19-S	DRN190600	T20P-7L	C05010-T20P	S7010

Accessories*

Clamp kit
CD12-S12
CD19-S19

Please check availability in current price and stock-list

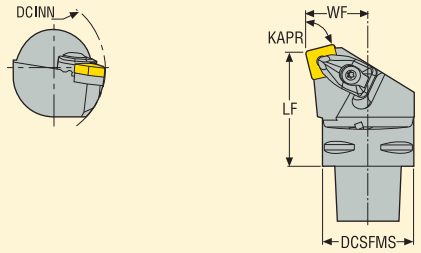
* To be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



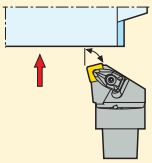
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DSKNR/L, ..-M



Right-hand version shown
KAPR = 75°

C.-DSKNR/L, ..-M
75 °



Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN				
C4										
	12	C4-DSKNR-27050-12-M	40	27,0	50	110	-6	-6	0,5	SN..1204..
		C4-DSKNL-27050-12-M	40	27,0	50	110	-6	-6	0,5	SN..1204..
C6										
	19	C6-DSKNR-45065-19-M	63	45,0	65	125	-6	-6	1,3	SN..1906..
		C6-DSKNL-45065-19-M	63	45,0	65	125	-6	-6	1,3	SN..1906..
C8										
	19	C8-DSKNR-55080-19	80	55,0	80	125	-6	-6	2,6	SN..1906..
		C8-DSKNL-55080-19	80	55,0	80	125	-6	-6	2,6	SN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-12	FP2012	L85021-T15P	CN6	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C6..-19	FP2012	L86026-T20P	CN7	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19
C8..-19	FP2012	L86026-T20P	CN8	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

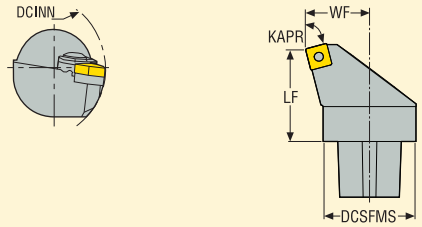
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately
Shim DSN190640 for insert SN..190624.., to be ordered separately

Toolholders for inserts SNMA, SNMG and SNMM

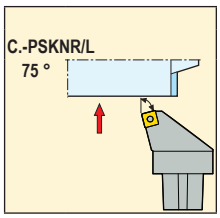


- For inserts programme, see page(s) 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PSKNR/L



Right-hand version shown
KAPR = 75°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	GAMO°	LAMS°	KG	
C6										
	19	C6-PSKNR-45065-19	63	45,0	65	100	-6	-6	1,4	SN..1906..
		C6-PSKNL-45065-19	60	45,0	65	100	-6	-6	1,4	SN..1906..
C8										
	25	C8-PSKNR-55080-25	80	55,0	80	180	-6	-6	3,3	SN..2507..
		C8-PSKNL-55080-25	80	55,0	80	180	-6	-6	3,3	SN..2507..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
C6..-19	CN7	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
..-25	CN8	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

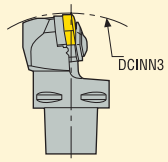
Please check availability in current price and stock-list

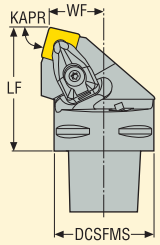
Toolholders for inserts SNGA, SNMA, SNMG and SNMM



- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

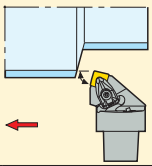
C.-DSRNR/L, ..-M





Right-hand version shown
KAPR = 75°

C.-DSRNR/L, ..-M
75 °



Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN3				
C4										
	12	C4-DSRNR-22050-12-M	40	22,0	50	140	-6	-6	0,4	SN..1204..
		C4-DSRNL-22050-12-M	40	22,0	50	140	-6	-6	0,4	SN..1204..
	15	C4-DSRNR-22055-15-M	40	22,0	55	165	-6	-6	0,5	SN..1506..
C5										
	12	C5-DSRNR-27060-12-M	50	27,0	60	165	-6	-6	0,7	SN..1204..
		C5-DSRNL-27060-12-M	50	27,0	60	165	-6	-6	0,7	SN..1204..
C6										
	15	C6-DSRNR-35065-15-M	63	35,0	65	190	-6	-6	1,2	SN..1506..
		C6-DSRNL-35065-15-M	63	35,0	65	190	-6	-6	1,2	SN..1506..
C8										
	19	C8-DSRNR-45080-19	80	45,0	80	250	-6	-6	2,4	SN..1906..
		C8-DSRNL-45080-19	80	45,0	80	250	-6	-6	2,4	SN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-12	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12
-19	FP2012	L86026-T20P	CN3	CD19-S	DSN190624	T20P-7	C05010-T20P	S7010	CD19-S19
C4..-15	FP2012	L86026-T20P	CN6	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16
C6..-15	FP2012	L86026-T20P	CN3	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16

Please check availability in current price and stock-list

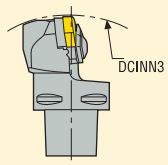
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately

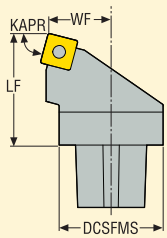
Toolholders for inserts SNMA, SNMG and SNMM



- For inserts programme, see page(s) 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

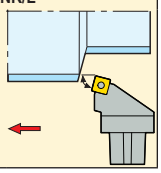
C.-PSRNR/L





Right-hand version shown
KAPR = 75°

C.-PSRNR/L
75 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN3	GAMO°	LAMS°	KG	
C5										
	19	C5-PSRNR-27060-19	50	27,0	60	130	-6	-6	0,9	SN..1906..
		C5-PSRNL-27060-19	50	27,0	60	130	-6	-6	0,9	SN..1906..
C6										
	19	C6-PSRNR-35065-19	63	35,0	65	160	-6	-6	1,4	SN..1906..
		C6-PSRNL-35065-19	63	35,0	65	160	-6	-6	1,4	SN..1906..
C8										
	25	C8-PSRNR-45080-25	80	45,0	80	220	-6	-6	2,4	SN..2507..
		C8-PSRNL-45080-25	80	45,0	80	220	-6	-6	2,4	SN..2507..
C10										
	25	C10-PSRNR-58110-25	80	58,0	110	320	-6	-6	5,3	SN..2507..
		C10-PSRNL-58110-25	100	58,0	110	320	-6	-6	5,3	SN..2507..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
C5, C6..-19	CN7	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
C8..-25	CN8	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312
C10..-25	CN16	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

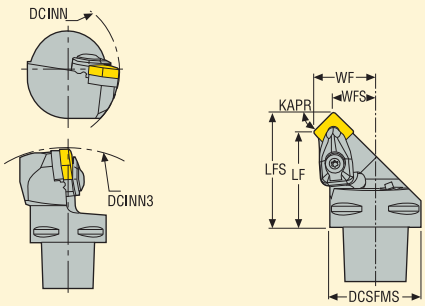
Please check availability in current price and stock-list

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



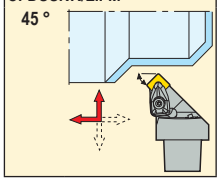
- For inserts programme, see page(s) 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DSSNR/L..-M



Right-hand version shown
KAPR = 45°

C.-DSSNR/L..-M
45 °



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			DCSFMS	WF	WFS	LF	LFS	DCINN	DCINN3				
C4													
	12	C4-DSSNR-27042-12-M	40	27,0	18,7	42	50	110	140	-8	0	0,4	SN..1203..
		C4-DSSNL-27042-12-M	40	27,0	18,7	42	50	110	140	-8	0	0,4	SN..1203..
C5													
	12	C5-DSSNR-35052-12-M	50	35,0	26,7	52	60	110	165	-8	0	0,7	SN..1203..
		C5-DSSNL-35052-12-M	50	35,0	26,7	52	60	110	165	-8	0	0,7	SN..1203..
	15	C5-DSSNR-35050-15-M	50	35,0	24,8	50	60	125	165	-8	0	0,6	SN..1506..
		C5-DSSNL-35050-15-M	50	35,0	24,8	50	60	125	165	-8	0	0,6	SN..1506..
C6													
	12	C6-DSSNR-45056-12-M	63	45,0	36,7	56	64	110	190	-8	0	1,1	SN..1203..
		C6-DSSNL-45056-12-M	63	45,0	36,7	56	64	110	190	-8	0	1,1	SN..1203..
	19	C6-DSSNR-45052-19-M	63	45,0	32,5	52	65	125	190	-8	0	1,1	SN..1906..
		C6-DSSNL-45052-19-M	63	45,0	32,5	52	65	125	190	-8	0	1,1	SN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-15	FP2012	L86026-T20P	CN7	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN7	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19
C4..-12	FP2012	L85021-T15P	CN6	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C5..-12	FP2012	L85021-T15P	CN7	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C6..-12	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

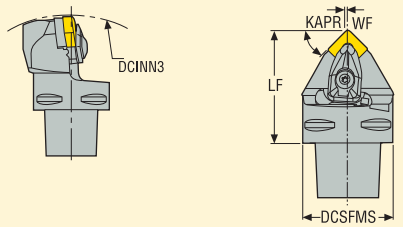
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



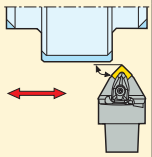
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DSDNN, ..-M



Neutral version shown
KAPR = 45°

C.-DSDNN..-M
45 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN3	GAMO°	LAMS°	KG	
C4										
	09	C4-DSDNN-00050-09-M	40	0,3	50	165	-6	-6	0,4	SN..0903..
	15	C4-DSDNN-00055-15-M	40	0,5	55	165	-6	-6	0,5	SN..1506..
C5										
	12	C5-DSDNN-00060-12-M	50	0,3	60	165	-6	-6	0,7	SN..1204..
	15	C5-DSDNN-00060-15-M	50	0,5	60	165	-6	-6	0,7	SN..1506..
C6										
	12	C6-DSDNN-00065-12-M	63	0,3	65	190	-6	-6	1,5	SN..1204..
	19	C6-DSDNN-00070-19-M	63	0,5	70	195	-6	-6	1,2	SN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-09	FP1508	L84017-T09P	CN6	CD09-S	DSN090310	T09P-2	C03007-T09P	S5608	CD09-S09
C4..-15	FP2012	L86026-T20P	CN6	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16
C5, C6..-12	FP2012	L85021-T15P	CN3	CD12-S	DSN120616	T15P-2	C04008-T15P	S6912	CD12-S12
C5, C6..-15	FP2012	L86026-T20P	CN3	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16
-19	FP2012	L86026-T20P	CN3	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list
Shim DSN120416 for insert SN..1206.., to be ordered separately

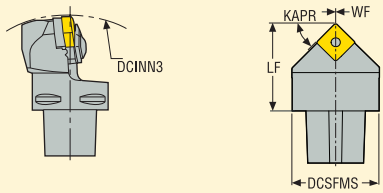
* To be ordered separately
Shim DSN190640 for insert SN..190624.., to be ordered separately
Shim DSN250424 for insert SN..2509.., to be ordered separately

Toolholders for inserts SNMA, SNMG and SNMM

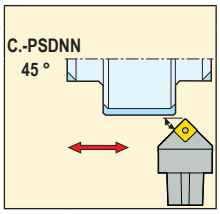


- For inserts programme, see page(s) 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PSDNN



Neutral version shown
KAPR = 45°



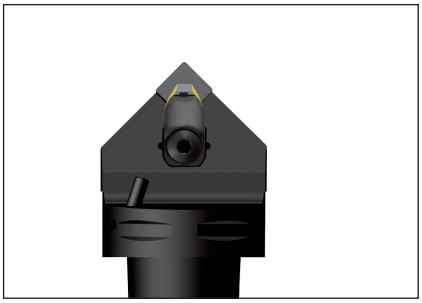
Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN3				
C5										
	19	C5-PSDNN-00060-19	50	0,5	60	130	-6	-6	0,8	SN..1906..
C10										
	25	C10-PSDNN-00110-25	100	1,0	110	200	-6	-6	5,7	SN..2507..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
.-19	CN7	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
C10..-25	CN16	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

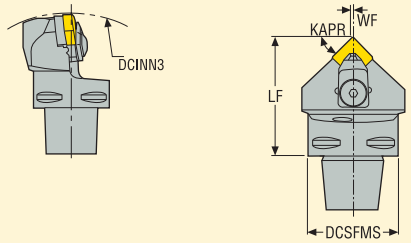
Please check availability in current price and stock-list

Toolholders for PCBN inserts SNGN, SNMN and SNUN



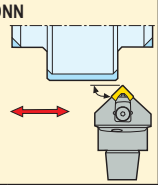
- For inserts programme, see page(s) 453-454
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-CSDNN



Neutral version shown
KAPR = 45°

C.-CSDNN
45 °



Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN3				
C5										
	09	C5-CSDNN-00060-09	50	0,3	60	165	-6	-6	0,7	SN.N0903..
	12	C5-CSDNN-00060-12	50	0,3	60	165	-6	-6	0,7	SN.N1204..
		C6-CSDNN-00065-12	63	0,3	65	165	-6	-6	1,2	SN.N1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw	Shim key
-09	CC17P-09	4SMS795	CN6	CSN090412	P1311-09	174.10-652-T07P	T07P-2
-12	CC20P	4SMS795	CN6	174.10-621	P1311	F94009-T09P	T09P-2

Please check availability in current price and stock-list

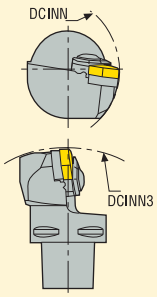
* To be ordered separately
Shim 174.10-622 for insert SN.N1203.., to be ordered separately

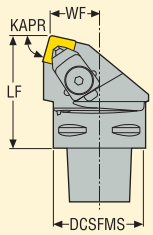
Toolholders for PCBN inserts SNGN, SNMN and SNUN



- For inserts programme, see page(s) 453-454
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

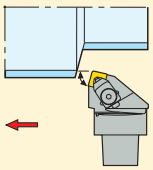
C.-CSRNR/L





Right-hand version shown
KAPR = 75°

C.-CSRNR/L
75 °



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	09	C4-CSRNR-22050-09	40	22,0	50	75	165	-6	-6	0,4	SN.N0903..
		C4-CSRNL-22050-09	40	22,0	50	75	165	-6	-6	0,4	SN.N0903..
C5											
	09	C5-CSRNR-27060-09	50	27,0	60	95	165	-6	-6	0,8	SN.N0903..
		C5-CSRNL-27060-09	50	27,0	60	95	165	-6	-6	0,8	SN.N0903..
C6											
	12	C6-CSRNR-35065-12	63	35,0	65	121	165	-6	-6	1,4	SN.N1204..
		C6-CSRNL-35065-12	63	35,0	65	121	165	-6	-6	1,4	SN.N1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw	Shim key
-09	CC17P-09	4SMS795	CN6	CSN090412	P1311-09	174.10-652-T07P	T07P-2
C5, C6..-12	CC20P	4SMS795	CN8	174.10-621	P1311	F94009-T09P	T09P-2

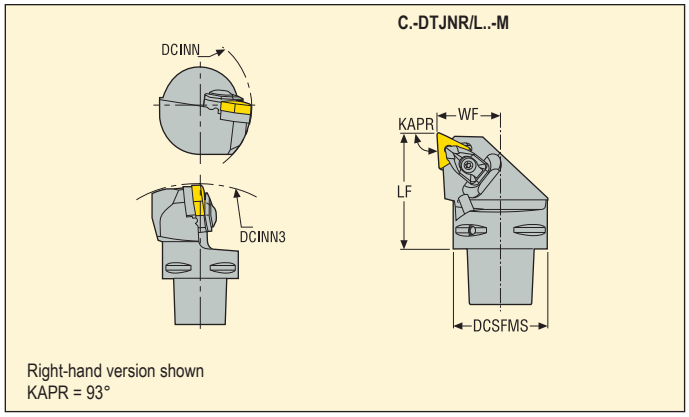
Please check availability in current price and stock-list

* To be ordered separately
Shim 174.10-622 for insert SN.N1203.., to be ordered separately

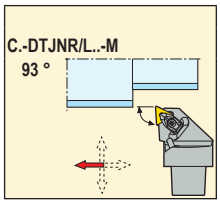
Toolholders for inserts TNGA, TNMA, TNMG, TNMM and TNMX



- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	16	C4-DTJNR-27050-16-M	40	27,0	50	110	140	-6	-6	0,4	TN..1604..
		C4-DTJNL-27050-16-M	40	27,0	50	110	140	-6	-6	0,4	TN..1604..
C5											
	16	C5-DTJNR-35060-16-M	50	35,0	60	110	165	-6	-6	0,8	TN..1604..
		C5-DTJNL-35060-16-M	50	35,0	60	110	165	-6	-6	0,8	TN..1604..
	22	C5-DTJNR-35060-22-M	50	35,0	60	110	165	-6	-6	0,8	TN..2204..
		C5-DTJNL-35060-22-M	50	35,0	60	110	165	-6	-6	0,8	TN..2204..
C6											
	16	C6-DTJNR-45065-16-M	63	45,0	65	110	190	-6	-6	1,3	TN..1604..
		C6-DTJNL-45065-16-M	63	45,0	65	110	190	-6	-6	1,3	TN..1604..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
-16	FP1508	L84017-T09P	CN3	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608	CD09-S09
-22	FP2012	L85021-T15P	CN3	CD12-S	DTN220616	T15P-2	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

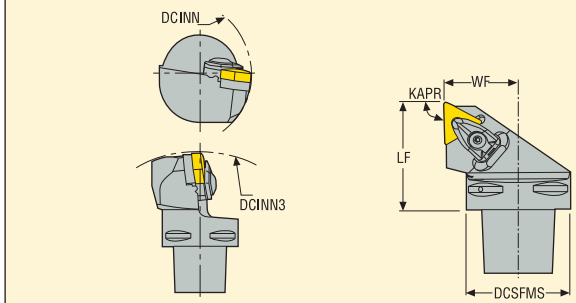
* To be ordered separately
Shim DTN220640 for insert TN..220432.., to be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



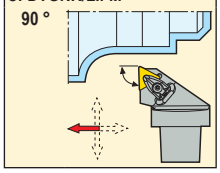
- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DTGNR/L..-M



Right-hand version shown
KAPR = 90°

C.-DTGNR/L..-M
90 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	22	C4-DTGNR-27050-22-M	40	27,0	50	110	140	-6	-6	0,5	TN..2204..
		C4-DTGNL-27050-22-M	40	27,0	50	110	140	-6	-6	0,5	TN..2204..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
-22	FP2012	L85021-T15P	CN3	CD12-S	DTN220616	T15P-2	C04008-T15P	S6912

Accessories*

Clamp kit
CD12-S12

Please check availability in current price and stock-list

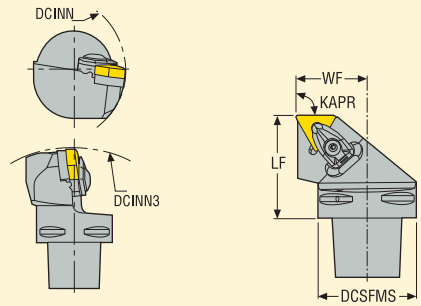
* To be ordered separately
Shim DTN220640 for insert TN..220432.., to be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



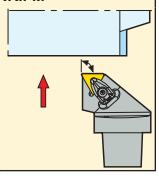
- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DTFNR/L..-M



Right-hand version shown
KAPR = 90°

C.-DTFNR..-M
90 °



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	16	C4-DTFNR-27050-16-M	40	27,0	50	110	140	-6	-6	0,4	TN..1604..
		C4-DTFNL-27050-16-M	40	27,0	50	110	140	-6	-6	0,4	TN..1604..
C5											
	16	C5-DTFNR-35060-16-M	50	35,0	60	110	165	-6	-6	0,8	TN..1604..
		C5-DTFNL-35060-16-M	50	35,0	60	110	165	-6	-6	0,8	TN..1604..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
-16	FP1508	L84017-T09P	CN3	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608

Accessories*

Clamp kit
CD09-S09

Please check availability in current price and stock-list

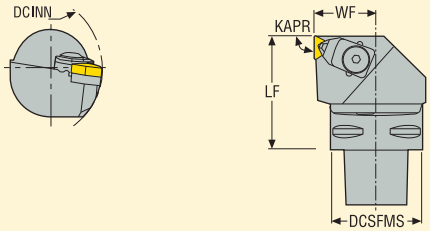
* To be ordered separately
Shim DTN220640 for insert TN..220432.., to be ordered separately

Toolholders for PCBN inserts TNGN, TNGX, TNMN and TNMX



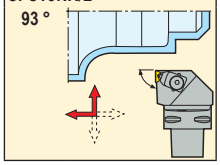
- For inserts programme, see page(s) 458-462
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-CTJNR/L



Right-hand version shown
KAPR = 93°

C.-CTJNR/L
93 °



Capto size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN				
C4										
	11	C4-CTJNR-27050-11	40	27,0	50	75	-6	-6	0,5	TN..1103..
		C4-CTJNL-27050-11	40	27,0	50	75	-6	-6	0,5	TN..1103..
C5										
	11	C5-CTJNL-35060-11	50	35,0	60	95	-6	-6	1,0	TN..1103..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Pressure plate	Shim screw	Shim key
C4..-11	CC17P-06	4SMS795	CN6	CTN110308	P1311-06	CS2507-T07P	T07P-2
C5, C6..-11	CC17P-06	4SMS795	CN8	CTN110308	P1311-06	CS2507-T07P	T07P-2

Please check availability in current price and stock-list

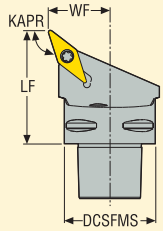
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



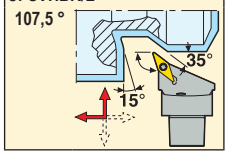
- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SVHBR/L



Right-hand version shown
KAPR = 107,5°

C.-SVHBR/L



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C4									
	11	C4-SVHBR-27050-11	40	27,0	50	0	0	0,4	VB..1102..
		C4-SVHBL-27050-11	40	27,0	50	0	0	0,4	VB..1102..
	16	C4-SVHBR-27050-16	40	27,0	50	0	0	0,4	VB../VC..1604..
		C4-SVHBL-27050-16	40	27,0	50	0	0	0,4	VB../VC..1604..
C5									
	16	C5-SVHBR-35060-16	50	35,0	60	0	0	0,7	VB../VC..1604..
		C5-SVHBL-35060-16	50	35,0	60	0	0	0,7	VB../VC..1604..
C6									
	16	C6-SVHBR-45065-16	63	45,0	65	0	0	1,2	VB../VC..1604..
		C6-SVHBL-45065-16	63	45,0	65	0	0	1,2	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
C4, C5..-11	CN7	T07P-2	C02506-T07P	–	–
C4..-16	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5, C6..-16	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories*

Shim key
–
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

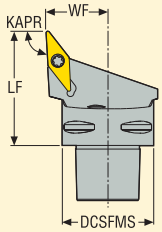
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT

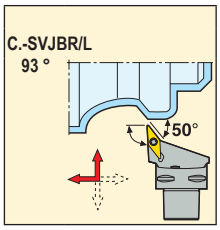


- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SVJBR/L



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C3									
	11	C3-SVJBR-22040-11	32	22,0	40	0	0	0,2	VB..1102..
		C3-SVJBL-22040-11	32	22,0	40	0	0	0,2	VB..1102..
C4									
	11	C4-SVJBR-27050-11	40	27,0	50	0	0	0,4	VB..1102..
		C4-SVJBL-27050-11	40	27,0	50	0	0	0,4	VB..1102..
	16	C4-SVJBR-27050-16	40	27,0	50	0	0	0,4	VB../VC..1604..
		C4-SVJBL-27050-16	40	27,0	50	0	0	0,4	VB../VC..1604..
C5									
	16	C5-SVJBR-35060-16	50	35,0	60	0	0	0,7	VB../VC..1604..
		C5-SVJBL-35060-16	50	35,0	60	0	0	0,7	VB../VC..1604..
C6									
	16	C6-SVJBR-45065-16	63	45,0	65	0	0	1,1	VB../VC..1604..
		C6-SVJBL-45065-16	63	45,0	65	0	0	1,1	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
C3..-11	CN6	T07P-2	C02506-T07P	–	–
C4, C5..-11	CN7	T07P-2	C02506-T07P	–	–
C4..-16	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5, C6..-16	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories*

Shim key
–
–
9/64SMS875
9/64SMS875

Please check availability in current price and stock-list

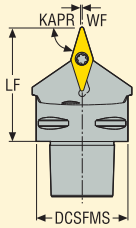
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT

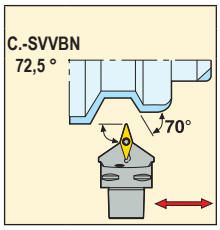


- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SVVBN



Neutral version shown
KAPR = 72,5°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C4									
	16	C4-SVVBN-00050-16	40	0,6	50	0	0	0,4	VB../VC..1604..
C5									
	16	C5-SVVBN-00060-16	50	0,6	60	0	0	0,7	VB../VC..1604..
C6									
	16	C6-SVVBN-00065-16	63	0,6	65	0	0	1,1	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
C4..-16	CN6	T15P-2	C03512-T15P	171.19-620	CA3507
C5, C6..-16	CN7	T15P-2	C03512-T15P	171.19-620	CA3507

Accessories*

Shim key
9/64SMS875
9/64SMS875

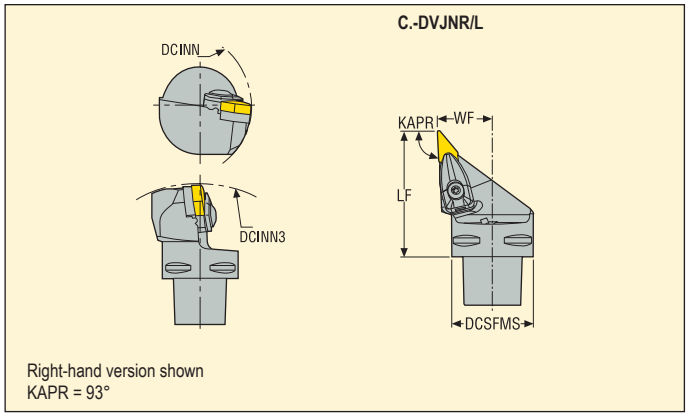
Please check availability in current price and stock-list

* To be ordered separately

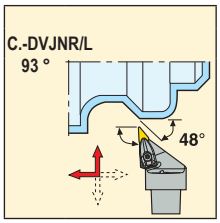
Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG and VNMU



- For inserts programme, see page(s) 432-434, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	DCINN	DCINN3	GAMO°	LAMS°	KG	
C4											
	16	C4-DVJNR-27062-16	40	27,0	62	65	152	-4,0	-13,0	0,4	VN..1604..
		C4-DVJNL-27062-16	40	27,0	62	65	152	-4,0	-13,0	0,4	VN..1604..
C5											
	16	C5-DVJNR-35065-16	50	35,0	65	65	170	-4,0	-13,0	0,7	VN..1604..
		C5-DVJNL-35065-16	50	35,0	65	65	170	-4,0	-13,0	0,7	VN..1604..
C6											
	16	C6-DVJNR-45065-16	63	45,0	65	81	190	-4,0	-13,0	1,1	VN..1604..
		C6-DVJNL-45065-16	63	45,0	65	81	190	-4,0	-13,0	1,1	VN..1604..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
C4..-16	FP2012	L85021-T15P	CN6	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912
C5, C6..-16	FP2012	L85021-T15P	CN7	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912

Accessories*

Clamp kit
CD19-V16
CD19-V16

Please check availability in current price and stock-list

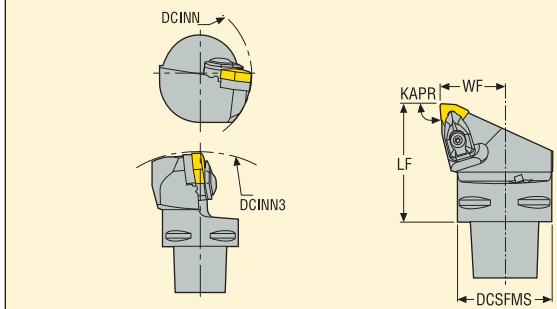
* To be ordered separately

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



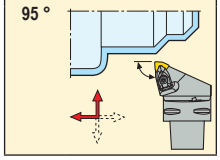
- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DWLNR/L



Right-hand version shown
KAPR = 95°

C.-DWLNR/L
95 °



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	06	C4-DWLNR-27050-06	40	27,0	50	60	140	-6	-6	0,4	WN..0604..
		C4-DWLNL-27050-06	40	27,0	50	60	140	-6	-6	0,4	WN..0604..
	08	C4-DWLNR-27050-08	40	27,0	50	110	140	-6	-6	0,4	WN..0804..
		C4-DWLNL-27050-08	40	27,0	50	110	140	-6	-6	0,4	WN..0804..
C5											
	06	C5-DWLNR-35060-06	50	35,0	60	65	165	-6	-6	0,5	WN..0604..
		C5-DWLNL-35060-06	50	35,0	60	65	165	-6	-6	0,5	WN..0604..
	08	C5-DWLNR-35060-08	50	35,0	60	110	165	-6	-6	0,7	WN..0804..
		C5-DWLNL-35060-08	50	35,0	60	110	165	-6	-6	0,7	WN..0804..
C6											
	06	C6-DWLNR-45065-06	63	45,0	65	81	190	-6	-6	1,3	WN..0604..
		C6-DWLNL-45065-06	63	45,0	65	81	190	-6	-6	1,3	WN..0604..
	08	C6-DWLNR-45065-08	63	45,0	65	110	190	-6	-6	1,3	WN..0804..
		C6-DWLNL-45065-08	63	45,0	65	110	190	-6	-6	1,3	WN..0804..

Spare Parts, Parts included in delivery

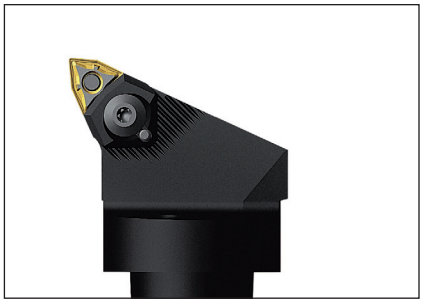
Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit	Insert shim
C4..-06	FP1508	L84017-T09P	CN6	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608	CD09-S09	–
C4..-08	FP2012	L85021-T15P	CN6	CD12-S	DWN080416	T15P-2	C04008-T15P	S6912	CD12-S12	DWN080316
C5, C6..-06	FP1508	L84017-T09P	CN3	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608	CD09-S09	–
C5, C6..-08	FP2012	L85021-T15P	CN3	CD12-S	DWN080416	T15P-2	C04008-T15P	S6912	CD12-S12	DWN080316

Please check availability in current price and stock-list

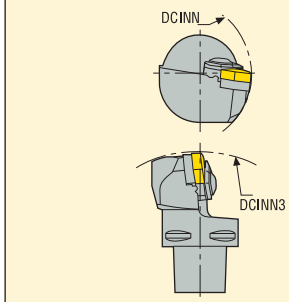
* To be ordered separately
Shim DWN080316 for insert WN..0806.., to be ordered separately

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



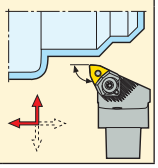
- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PWLNR/L



Right-hand version shown
KAPR = 95°

C.-PWLNR/L
95 °



Capto size		Designation	Dimensions in mm					GAMO°	LAMS°	KG	
			DCSFMS	WF	LF	DCINN	DCINN3				
C4											
	06	C4-PWLNR-27050-06	40	27,0	50	75	165	-6	-6	0,4	WN..0604..
		C4-PWLNL-27050-06	40	27,0	50	75	165	-6	-6	0,4	WN..0604..
	08	C4-PWLNR-27050-08	40	27,0	50	75	165	-6	-6	0,4	WN..0804..
		C4-PWLNL-27050-08	40	27,0	50	75	165	-6	-6	0,4	WN..0804..
C5											
	06	C5-PWLNR-35060-06	50	35,0	60	95	165	-6	-6	0,8	WN..0604..
		C5-PWLNL-35060-06	50	35,0	60	95	165	-6	-6	0,8	WN..0604..
	08	C5-PWLNR-35060-08	50	35,0	60	95	165	-6	-6	0,8	WN..0804..
		C5-PWLNL-35060-08	50	35,0	60	95	165	-6	-6	0,8	WN..0804..
C6											
	08	C6-PWLNR-45065-08	63	45,0	65	121	165	-6	-6	1,3	WN..0804..
		C6-PWLNL-45065-08	63	45,0	65	121	165	-6	-6	1,3	WN..0804..

Spare Parts, Parts included in delivery

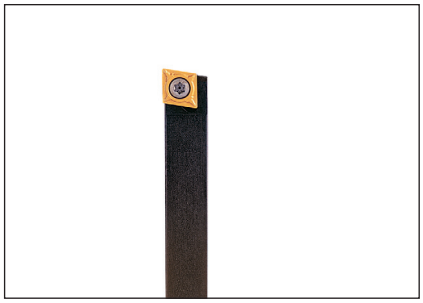
Accessories*

For size	Coolant nozzle	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
C4..-06	CN6	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
C4..-08	CN6	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2
C5..-06	CN7	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
C5..-08	CN6	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2
C6..-08	CN8	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2

Please check availability in current price and stock-list

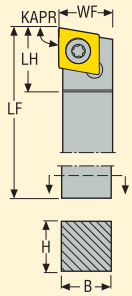
* To be ordered separately
Shim WAE080312 for insert WN..0806.., to be ordered separately
Wedge WNW08 for insert WNMM08.., to be ordered separately

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



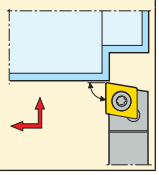
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCACR/L



Right-hand version shown
KAPR = 90°

SCACR/L
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**SCACR0808K06**	8	8	125	8,7	9	0	0	0,1	CC..0602..
	SCACR1010M06	10	10	150	10,7	9	0	0	0,2	CC..0602..
	SCACR1212M06	12	12	150	12,7	9	0	0	0,2	CC..0602..
	SCACL0808K06	8	8	125	8,7	9	0	0	0,1	CC..0602..
	SCACL1010M06	10	10	150	10,7	9	0	0	0,2	CC..0602..
	SCACL1212M06	12	12	150	12,7	9	0	0	0,2	CC..0602..
09	**SCACR1212M09**	12	12	150	12,7	13	0	0	0,2	CC..09T3..
	SCACR1414M09	14	14	150	14,7	13	0	0	0,3	CC..09T3..
	SCACR1616H09	16	16	100	16,7	21	0	0	0,2	CC..09T3..
	SCACL1212M09	12	12	150	12,7	13	0	0	0,2	CC..09T3..
	SCACL1414M09	14	14	150	14,7	13	0	0	0,3	CC..09T3..
	SCACL1616H09	16	16	100	16,7	21	0	0	0,2	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

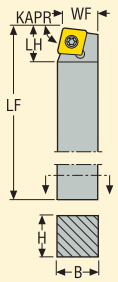
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCMT and CCGW..-LF



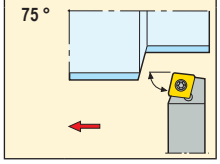
- For inserts programme, see page(s) 382-386, 440
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCBCR/L



Right-hand version shown
KAPR = 75°

SCBCR/L
75 °



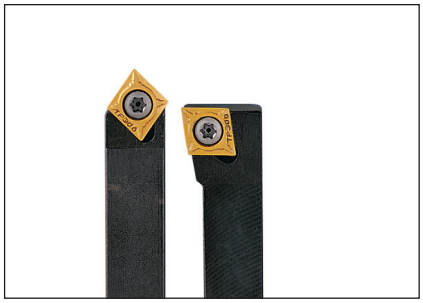
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
09	SCBCR1616H09	16	16	100	13,0	12	0	0	0,2	CC..09..(-LF)
	SCBCR2020K09	20	20	125	17,0	12	0	0	0,4	CC..09..(-LF)
	SCBCL1616H09	16	16	100	13,0	12	0	0	0,2	CC..09..(-LF)
	SCBCL2020K09	20	20	125	17,0	12	0	0	0,4	CC..09..(-LF)

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...09	T15P-2	C04008-T15P

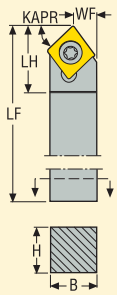
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



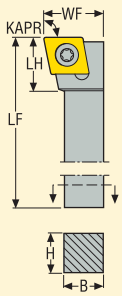
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCDCR/L



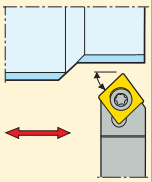
Right-hand version shown
KAPR = 45°

SCFCR/L

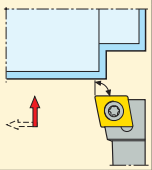


Right-hand version shown
KAPR = 90°

SCDCR/L
45 °



SCFCR/L
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	SCDCR0808K06	8	8	125	4,2	11	0	0	0,1	CC..0602..
	SCDCR1010M06	10	10	150	5,2	11	0	0	0,2	CC..0602..
	SCDCL0808K06	8	8	125	4,2	11	0	0	0,1	CC..0602..
	SCDCL1010M06	10	10	150	5,2	11	0	0	0,2	CC..0602..
09	SCDCR1212M09	12	12	150	6,2	21	0	0	0,2	CC..09T3..
	SCDCR1414M09	14	14	150	7,2	21	0	0	0,3	CC..09T3..
	SCDCL1212M09	12	12	150	6,2	21	0	0	0,2	CC..09T3..
	SCDCL1414M09	14	14	150	7,2	21	0	0	0,3	CC..09T3..
06	SCFCR0808D06	8	8	60	10,0	9	0	0	0,1	CC..0602..
09	SCFCR1212F09	12	12	80	16,0	15	0	0	0,1	CC..09T3..
	SCFCL1212F09	12	12	80	16,0	15	0	0	0,1	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

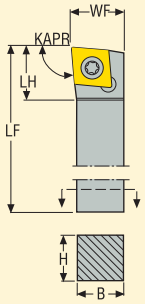
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW

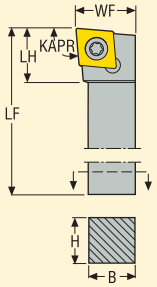


- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCLCR/L

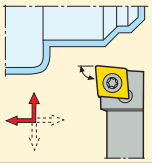


SCLCR/L..K09, ..K12



Right-hand version shown
KAPR = 95°

SCLCR/L
95 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
06	SCLCR0808K06	8	8	125	8,5	9	0	0	0,1	CC..0602..
	SCLCR1010M06	10	10	150	10,5	9	0	0	0,2	CC..0602..
	SCLCR1212M06	12	12	150	12,5	8	0	0	0,2	CC..0602..
	SCLCL0808K06	8	8	125	8,5	9	0	0	0,1	CC..0602..
	SCLCL1010M06	10	10	150	10,5	9	0	0	0,2	CC..0602..
	SCLCL1212M06	12	12	150	12,5	8	0	0	0,2	CC..0602..
09	SCLCR1212M09	12	12	150	12,5	12	0	0	0,2	CC..09T3..
	SCLCR1616H09	16	16	100	16,5	12	0	0	0,2	CC..09T3..
	SCLCR2020K09	20	20	125	25,0	20	0	0	0,4	CC..09T3..
	SCLCL1212M09	12	12	150	12,5	12	0	0	0,2	CC..09T3..
	SCLCL1616H09	16	16	100	16,5	12	0	0	0,3	CC..09T3..
	SCLCL2020K09	20	20	125	25,0	20	0	0	0,5	CC..09T3..
12	SCLCR2020K12	20	20	125	25,0	20	0	0	0,4	CC..1204..
	SCLCL2020K12	20	20	125	25,0	20	0	0	0,4	CC..1204..

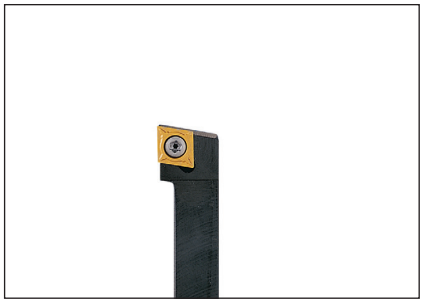
Spare Parts, Parts included in delivery

Accessories, to be ordered separately

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...06	T07P-2	C02506-T07P	–	–	–
...09	T15P-2	C04008-T15P	–	–	–
...12	T15P-2	C05012-T15P	123.19-621	CA5008	5SMS795

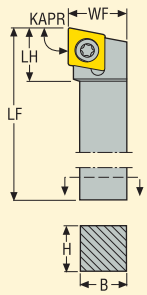
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



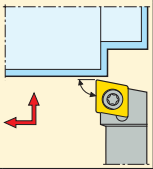
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCGCR/L



Right-hand version shown
KAPR = 90°

SCGCR/L
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**SCGCR0808D06**	8	8	60	10,0	11	0	0	0,1	CC..0602..
	SCGCR1010E06	10	10	70	12,0	11	0	0	0,1	CC..0602..
	SCGCL1010E06	10	10	70	12,0	11	0	0	0,1	CC..0602..
09	**SCGCR1212F09**	12	12	80	16,0	15	0	0	0,1	CC..09T3..
	SCGCL1212F09	12	12	80	16,0	15	0	0	0,1	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

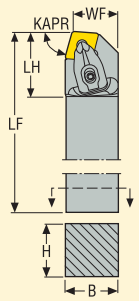
Please check availability in current price and stock-list

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



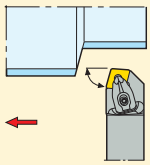
- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DCBNR/L..-M



Right-hand version shown
KAPR = 75°

DCBNR/L..-M
75 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**DCBNR2020K12-M**	20	20	125	17,0	32	-6	-6	0,4	CN..1204..
	DCBNR2525M12-M	25	25	150	22,0	31	-6	-6	0,8	CN..1204..
	DCBNR3225P12-M	32	25	170	22,0	31	-6	-6	1,1	CN..1204..
	DCBNL2020K12-M	20	20	125	17,0	32	-6	-6	0,4	CN..1204..
	DCBNL2525M12-M	25	25	150	22,0	31	-6	-6	0,8	CN..1204..
	DCBNL3225P12-M	32	25	170	22,0	31	-6	-6	1,1	CN..1204..
16	**DCBNR2525M16-M**	25	25	150	22,0	41	-6	-6	0,8	CN..1606..
	DCBNR3225P16-M	32	25	170	22,0	42	-6	-6	1,1	CN..1606..
	DCBNL2525M16-M	25	25	150	22,0	41	-6	-6	0,8	CN..1606..
	DCBNL3225P16-M	32	25	170	22,0	42	-6	-6	1,1	CN..1606..
19	**DCBNR3232P19-M**	32	32	170	27,0	41	-6	-6	1,4	CN..1906..
	DCBNR4040R19-M	40	40	200	35,0	42	-6	-6	2,5	CN..1906..
	DCBNL3232P19-M	32	32	170	27,0	41	-6	-6	1,4	CN..1906..
	DCBNL4040R19-M	40	40	200	35,0	42	-6	-6	2,5	CN..1906..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories*

Clamp kit
CD12-S12
CD16-S16
CD19-S19

Please check availability in current price and stock-list

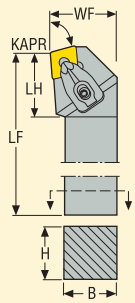
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



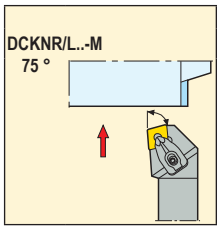
- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DCKNR/L..-M



Right-hand version shown
KAPR = 75°

DCKNR/L..-M
75 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	DCKNR2020K12-M	20	20	125	25,0	30	-6	-6	0,5	CN..1204..
	DCKNR2525M12-M	25	25	150	32,0	31	-6	-6	0,8	CN..1204..
	DCKNR3225P12-M	32	25	170	32,0	31	-6	-6	1,1	CN..1204..
	DCKNL2020K12-M	20	20	125	25,0	30	-6	-6	0,5	CN..1204..
	DCKNL2525M12-M	25	25	150	32,0	31	-6	-6	0,8	CN..1204..
	DCKNL3225P12-M	32	25	170	32,0	31	-6	-6	1,1	CN..1204..
16	DCKNR2525M16-M	25	25	150	32,0	36	-6	-6	0,8	CN..1606..
	DCKNR3225P16-M	32	25	170	32,0	36	-6	-6	1,2	CN..1606..
	DCKNL2525M16-M	25	25	150	32,0	36	-6	-6	0,8	CN..1606..
	DCKNL3225P16-M	32	25	170	32,0	36	-6	-6	1,2	CN..1606..
19	DCKNR3232P19-M	32	32	170	40,0	36	-6	-6	1,5	CN..1906..
	DCKNL3232P19-M	32	32	170	40,0	36	-6	-6	1,5	CN..1906..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010

Accessories*

Clamp kit
CD12-S12
CD16-S16
CD19-S19

Please check availability in current price and stock-list

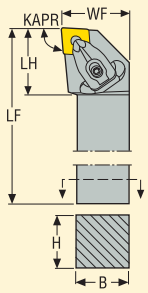
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



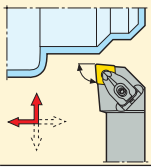
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DCLNR/L..-M



Right-hand version shown
KAPR = 95°

DCLNR/L..-M
95 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
09	DCLNR1616H09-M	16	16	100	20,0	25	-6	-6	0,3	CN..0903..
	DCLNR2020K09-M	20	20	125	25,0	23	-6	-6	0,4	CN..0903..
	DCLNR2525M09-M	25	25	150	32,0	25	-6	-6	0,8	CN..0903..
	DCLNL1616H09-M	16	16	100	20,0	25	-6	-6	0,3	CN..0903..
	DCLNL2525M09-M	25	25	150	32,0	25	-6	-6	0,8	CN..0903..
	DCLNL2020K09-M	20	20	125	25,0	23	-6	-6	0,4	CN..0903..
12	DCLNR2020K12-M	20	20	125	25,0	32	-6	-6	0,4	CN..1204..
	DCLNR2525M12-M	25	25	150	32,0	32	-6	-6	0,8	CN..1204..
	DCLNR3225P12-M	32	25	170	32,0	32	-6	-6	1,1	CN..1204..
	DCLNR3232P12-M	32	32	170	40,0	32	-6	-6	1,4	CN..1204..
	DCLNL2020K12-M	20	20	125	25,0	32	-6	-6	0,4	CN..1204..
	DCLNL2525M12-M	25	25	150	32,0	32	-6	-6	0,8	CN..1204..
	DCLNL3225P12-M	32	25	170	32,0	32	-6	-6	1,1	CN..1204..
	DCLNL3232P12-M	32	32	170	40,0	32	-6	-6	1,4	CN..1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...09	FP1508	L84017-T09P	CD09-S	DCN090310	T09P-2	C03007-T09P	S5608	CD09-S09
...12	FP2012	L85021-T15P	CD12-S	DCN120616	T15P-7	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

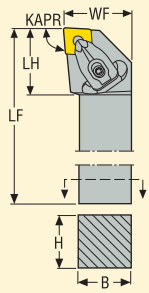
* To be ordered separately
Shim DCN120416 for insert CN..1206.., to be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



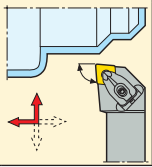
- For inserts programme, see page(s) 387-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DCLNR/L..-M



Right-hand version shown
KAPR = 95°

DCLNR/L..-M
95 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
16	DCLNR2525M16-M	25	25	150	32,0	40	-6	-6	0,8	CN..1606..
	DCLNR3225P16-M	32	25	170	32,0	42	-6	-6	1,1	CN..1606..
	DCLNR3232P16-M	32	32	170	40,0	42	-6	-6	1,4	CN..1606..
	DCLNL2525M16-M	25	25	150	32,0	40	-6	-6	0,8	CN..1606..
	DCLNL3225P16-M	32	25	170	32,0	42	-6	-6	1,1	CN..1606..
	DCLNL3232P16-M	32	32	170	40,0	42	-6	-6	1,4	CN..1606..
19	DCLNR3232P19-M	32	32	170	40,0	42	-6	-6	1,4	CN..1906..
	DCLNR4040R19-M	40	40	200	50,0	40	-6	-6	2,5	CN..1906..
	DCLNL3232P19-M	32	32	170	40,0	42	-6	-6	1,4	CN..1906..
	DCLNL4040R19-M	40	40	200	50,0	40	-6	-6	2,5	CN..1906..

Spare Parts, Parts included in delivery

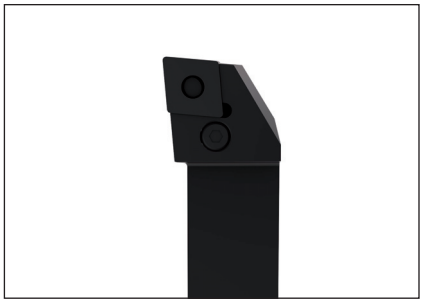
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...16	FP2012	L86026-T20P	CD16-S	DCN160616	T20P-7L	C05010-T20P	S7010	CD16-S16
...19	FP2012	L86026-T20P	CD19-S	DCN190416	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

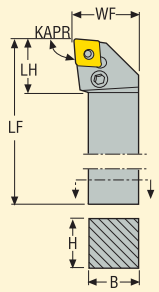
* To be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



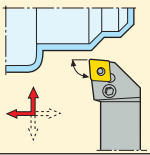
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PCLNR/L



Right-hand version shown
KAPR = 95°

PCLNR/L
95 °



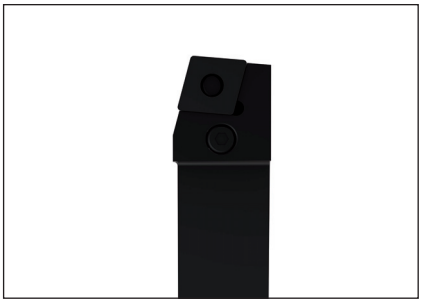
	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	PCLNR2020K12	20	20	125	25,0	26	-6	-6	0,4	CN..1204..
	PCLNR2525M12	25	25	150	32,0	26	-6	-6	0,8	CN..1204..
	PCLNR3225P12	32	25	170	32,0	26	-6	-6	1,1	CN..1204..
	PCLNL2020K12	20	20	125	25,0	26	-6	-6	0,4	CN..1204..
	PCLNL2525M12	25	25	150	32,0	26	-6	-6	0,8	CN..1204..
	PCLNL3225P12	32	25	170	32,0	26	-6	-6	1,1	CN..1204..
16	PCLNR2525M16	25	25	150	32,0	33	-6	-6	0,8	CN..1606..
	PCLNR3232P16	32	32	170	40,0	33	-6	-6	1,4	CN..1606..
	PCLNL2525M16	25	25	150	32,0	33	-6	-6	0,8	CN..1606..
	PCLNL3232P16	32	32	170	40,0	33	-6	-6	1,4	CN..1606..
19	PCLNR3232P19	32	32	170	40,0	37	-6	-6	0,1	CN..1906..
	PCLNR4040S19	40	40	250	50,0	38	-6	-6	1,5	CN..1906..
	PCLNL3232P19	32	32	170	40,0	37	-6	-6	0,1	CN..1906..
	PCLNL4040S19	40	40	250	50,0	38	-6	-6	3,1	CN..1906..
25	PCLNR4040S25	40	40	250	50,2	48	-6	-6	3,1	CN..2509..
	PCLNL4040S25	40	40	250	50,2	48	-6	-6	3,1	CN..2509..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
...16	PP6017	PCN160412	3SMS795	LS0820	MP1519	RP8286
...19	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PCN250620	5SMS795	LS1236	MP25	RP1312

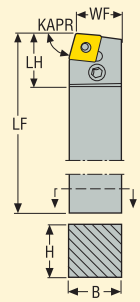
Please check availability in current price and stock-list

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



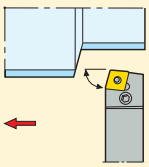
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PCBNR/L



Right-hand version shown
KAPR = 75°

PCBNR/L
75 °



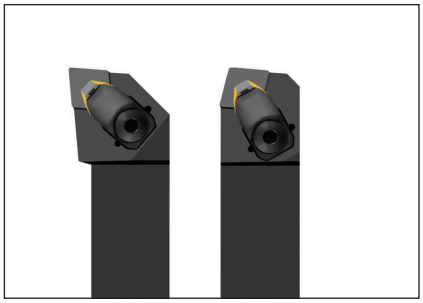
	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**PCBNR2525M12**	25	25	150	22,0	26	-6	-6	0,7	CN..1204..
	PCBNL2525M12	25	25	150	22,0	26	-6	-6	0,7	CN..1204..
19	**PCBNR3232P19**	32	32	170	27,0	37	-6	-6	1,3	CN..1906..
	PCBNR4040S19	40	40	250	35,0	38	-6	-6	3,1	CN..1906..
	PCBNL3232P19	32	32	170	27,0	37	-6	-6	1,3	CN..1906..
	PCBNL4040S19	40	40	250	35,0	38	-6	-6	3,0	CN..1906..

Spare Parts, Parts included in delivery

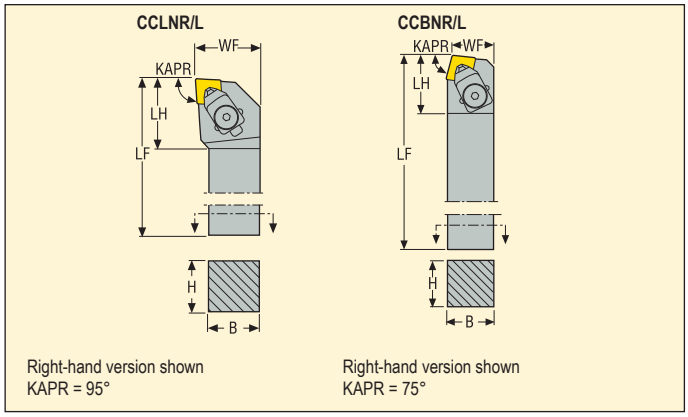
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PCN190416	4SMS795	LS1027	MP1519	RP9811

Please check availability in current price and stock-list

Toolholders for PCBN inserts CNGN and CNMN

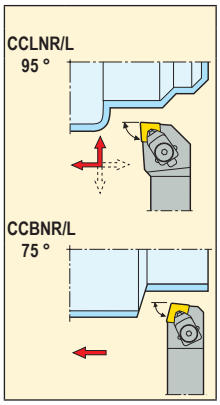


- For inserts programme, see page(s) 442, 473
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 95°

Right-hand version shown
KAPR = 75°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
09	CCLNR2525M09	25	25	150	32,0	27	-6	-6	0,8	CN.N0903..
	CCLNR3225P09	32	25	170	32,0	27	-6	-6	1,1	CN.N0903..
	CCLNL2525M09	25	25	150	32,0	27	-6	-6	0,8	CN.N0903..
	CCLNL3225P09	32	25	170	32,0	27	-6	-6	1,1	CN.N0903..
12	CCLNR2525M12	25	25	150	32,0	34	-6	-6	0,8	CN.N1204..
	CCLNR3225P12	32	25	170	32,0	34	-6	-6	1,1	CN.N1204..
	CCLNL2525M12	25	25	150	32,0	34	-6	-6	0,8	CN.N1204..
	CCLNL3225P12	32	25	170	32,0	34	-6	-6	1,1	CN.N1204..
09	CCBNR2525M09	25	25	150	22,0	30	-6	-6	0,8	CN.N0903..
	CCBNL2525M09	25	25	150	22,0	30	-6	-6	0,8	CN.N0903..
12	CCBNR2525M12	25	25	150	22,0	34	-6	-6	0,8	CN.N1204..
	CCBNR3225P12	32	25	170	22,0	34	-6	-6	1,1	CN.N1204..
	CCBNL2525M12	25	25	150	22,0	34	-6	-6	0,8	CN.N1204..

Spare Parts, Parts included in delivery

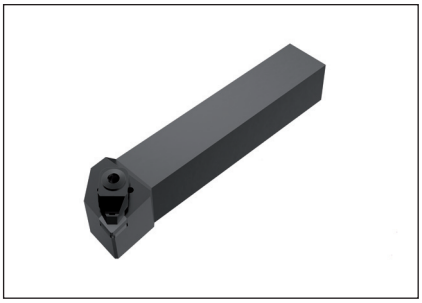
Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...09	CC17P-09	4SMS795	CCN090412	P1311-09	174.10-652-T07P	T07P-2
...12	CC17P	4SMS795	CCN120312	P1311	F94009-T09P	T09P-2

Please check availability in current price and stock-list

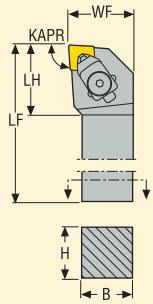
* To be ordered separately

Toolholders for ceramic inserts CNGN



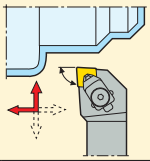
- For inserts programme, see page(s) 473
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CCLNR/L-.C



Right-hand version shown
KAPR = 95°

CCLNR/L-.C
95 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
12	CCLNR2525M12-4C	25	25	150	32,4	32	-6	-6	0,7	CNGN1207..
	CCLNL2525M12-4C	25	25	150	32,4	32	-6	-6	0,7	CNGN1207..

Spare Parts, Parts included in delivery

For size	Clamp kit	Insert shim	Shim key	Shim screw
..-4C	CC12P-D12	DCN120316	T15P-2D	C04008-T15P

Accessories, to be ordered separately

Insert shim
DCN120616

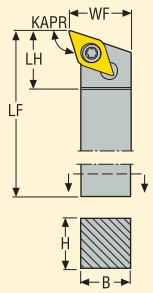
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



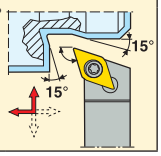
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SDHCR/L



Right-hand version shown
KAPR = 107,5°

SDHCR/L
107,5 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
07	SDHCR1010M07	10	10	150	12,0	14	0	0	0,2	DC..0702..
	SDHCL1010M07	10	10	150	12,0	14	0	0	0,2	DC..0702..
11	SDHCR1212M11	12	12	150	16,0	21	0	0	0,2	DC..11T3..
	SDHCR1616H11	16	16	100	20,0	20	0	0	0,2	DC..11T3..
	SDHCR2020K11	20	20	125	25,0	20	0	0	0,4	DC..11T3..
	SDHCR2525M11	25	25	150	32,0	20	0	0	0,8	DC..11T3..
	SDHCL1212M11	12	12	150	16,0	21	0	0	0,2	DC..11T3..
	SDHCL1616H11	16	16	100	20,0	20	0	0	0,2	DC..11T3..
	SDHCL2020K11	20	20	125	25,0	20	0	0	0,4	DC..11T3..
	SDHCL2525M11	25	25	150	32,0	20	0	0	0,8	DC..11T3..
15	SDHCR2525M15	25	25	150	32,0	25	0	0	0,7	DC..1504..
	SDHCL2525M15	25	25	150	32,0	25	0	0	0,7	DC..1504..

Spare Parts, Parts included in delivery

Accessories, to be ordered separately

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...07	T07P-2	C02506-T07P	–	–	–
..1212.11/..1616.11	T15P-2	C04008-T15P	–	–	–
..2020.11/..2525.11	T15P-2	C03510-T15P	126.19-620	CA3510	9/64SMS875
...15	T15P-2	C04518-T15P	126.19-621	CA4512	5SMS795

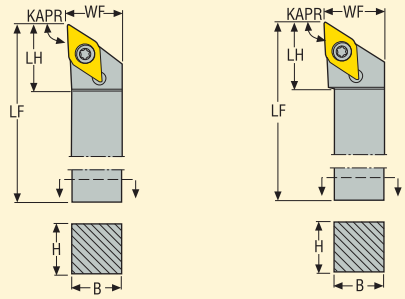
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX

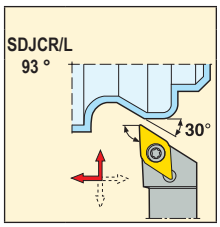


- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SDJCR/L..07, 1212M11, 1616H11 **SDJCR/L**



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
07	SDJCR0808K07	8	8	125	8,5	13	0	0	0,1	DC..0702..
	SDJCR1010M07	10	10	150	10,5	14	0	0	0,2	DC..0702..
	SDJCR1212M07	12	12	150	12,5	13	0	0	0,2	DC..0702..
	SDJCL0808K07	8	8	125	8,5	13	0	0	0,1	DC..0702..
	SDJCL1010M07	10	10	150	10,5	14	0	0	0,2	DC..0702..
	SDJCL1212M07	12	12	150	12,5	13	0	0	0,2	DC..0702..
11	SDJCR1212M11	12	12	150	12,5	20	0	0	0,2	DC..11T3..
	SDJCR1616H11	16	16	100	16,5	20	0	0	0,2	DC..11T3..
	SDJCR2020K11	20	20	125	25,0	20	0	0	0,4	DC..11T3..
	SDJCR2525M11	25	25	150	32,0	25	0	0	0,7	DC..11T3..
	SDJCL1212M11	12	12	150	12,5	20	0	0	0,2	DC..11T3..
	SDJCL1616H11	16	16	100	16,5	20	0	0	0,2	DC..11T3..
	SDJCL2020K11	20	20	125	25,0	20	0	0	0,4	DC..11T3..
	SDJCL2525M11	25	25	150	32,0	25	0	0	0,7	DC..11T3..
15	SDJCR2525M15	25	25	150	32,0	28	0	0	0,7	DC..1504..
	SDJCR3225P15	32	25	170	32,0	28	0	0	1,1	DC..1504..
	SDJCL2525M15	25	25	150	32,0	28	0	0	0,7	DC..1504..
	SDJCL3225P15	32	25	170	32,0	28	0	0	1,1	DC..1504..

Spare Parts, Parts included in delivery

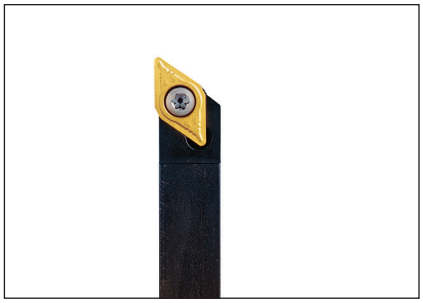
For size	Insert key	Insert screw	Insert shim	Shim screw
...07	T07P-2	C02506-T07P	–	–
..1212.11/..1616.11	T15P-2	C04008-T15P	–	–
..2020.11/..2525.11	T15P-2	C03510-T15P	126.19-620	CA3510
...15	T15P-2	C04518-T15P	126.19-621	CA4512

Accessories, to be ordered separately

Shim key
–
–
9/64SMS875
5SMS795

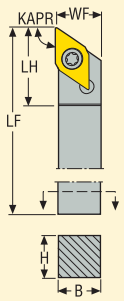
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT and DCMW



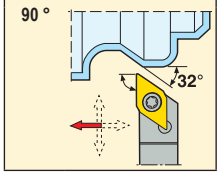
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SDACR/L



Right-hand version shown
KAPR = 90°

SDACR/L
90 °



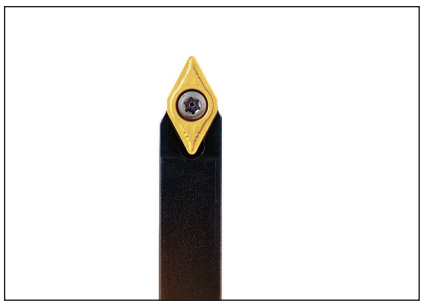
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
07	SDACR0808K07	8	8	125	8,7	13	0	0	0,1	DC..0702..
	SDACR1010M07	10	10	150	10,7	13	0	0	0,2	DC..0702..
	SDACR1212M07	12	12	150	12,7	13	0	0	0,2	DC..0702..
	SDACL0808K07	8	8	125	8,7	13	0	0	0,1	DC..0702..
	SDACL1010M07	10	10	150	10,7	13	0	0	0,2	DC..0702..
	SDACL1212M07	12	12	150	12,7	13	0	0	0,2	DC..0702..
11	SDACR1212M11	12	12	150	12,7	20	0	0	0,2	DC..11T3..
	SDACR1414M11	14	14	150	14,7	20	0	0	0,3	DC..11T3..
	SDACR1616H11	16	16	100	16,7	21	0	0	0,2	DC..11T3..
	SDACL1212M11	12	12	150	12,7	20	0	0	0,2	DC..11T3..
	SDACL1616H11	16	16	100	16,7	21	0	0	0,2	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...07	T07P-2	C02506-T07P
...11	T15P-2	C04008-T15P

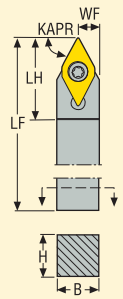
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT and DCMW

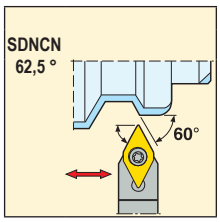


- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SDNCN



Neutral version shown
KAPR = 62,5°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
07	SDNCN0808K07	8	8	125	4,2	16	0	0	0,1	DC..0702..
	SDNCN1010M07	10	10	150	5,2	21	0	0	0,2	DC..0702..
	SDNCN1212M07	12	12	150	6,2	20	0	0	0,2	DC..0702..
11	SDNCN1212M11	12	12	150	6,2	23	0	0	0,2	DC..11T3..
	SDNCN1414M11	14	14	150	7,2	23	0	0	0,3	DC..11T3..
	SDNCN1616H11	16	16	100	8,2	22	0	0	0,2	DC..11T3..
	SDNCN2020K11	20	20	125	10,2	22	0	0	0,4	DC..11T3..
	SDNCN2525M11	25	25	150	12,7	23	0	0	0,7	DC..11T3..
15	SDNCN2020K15	20	20	125	10,2	29	0	0	0,4	DC..1504..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...07	T07P-2	C02506-T07P	–	–	–
.12M11/.14M11/16H11	T15P-2	C04008-T15P	–	–	–
.20K11/.25M11	T15P-2	C03510-T15P	126.19-620	CA3510	9/64SMS875
...15	T15P-2	C04512-T15P	126.19-621	CA4508	5SMS795

Please check availability in current price and stock-list

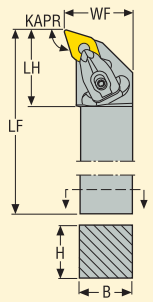
* To be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX

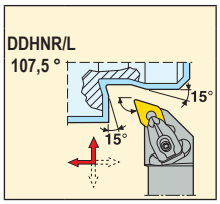


- For inserts programme, see page(s) 399-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DDHNR/L



Right-hand version shown
KAPR = 107,5°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	DDHNR1616H11	16	16	100	20,0	26	-6	-6	0,2	DN..1104..
	DDHNR2020K11	20	20	125	25,0	26	-6	-6	0,4	DN..1104..
	DDHNR2525M11	25	25	150	32,0	26	-6	-6	0,8	DN..1104..
	DDHNL1616H11	16	16	100	20,0	26	-6	-6	0,2	DN..1104..
	DDHNL2020K11	20	20	125	25,0	26	-6	-6	0,4	DN..1104..
	DDHNL2525M11	25	25	150	32,0	26	-6	-6	0,8	DN..1104..
15	DDHNR2020K15	20	20	125	25,0	32	-6	-6	0,4	DN..1506..
	DDHNR2525M15	25	25	150	32,0	36	-6	-6	0,8	DN..1506..
	DDHNR3232P15	32	32	170	40,0	33	-6	-6	1,3	DN..1506..
	DDHNL2020K15	20	20	125	25,0	32	-6	-6	0,4	DN..1506..
	DDHNL2525M15	25	25	150	32,0	36	-6	-6	0,8	DN..1506..
	DDHNL3232P15	32	32	170	40,0	33	-6	-6	1,3	DN..1506..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...11	FP1508	L84017-T09P	CD09-S	DDN110310	T09P-2	C03007-T09P	S5608
...15	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912

Accessories*

Clamp kit
CD09-S09
CD12-S12

Please check availability in current price and stock-list

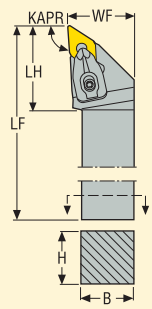
* To be ordered separately
Shim DDN150616 for insert DN..1504.., to be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



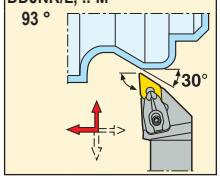
- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DDJNR/L, ..-M



Right-hand version shown
KAPR = 93°

DDJNR/L, ..-M
93 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	DDJNR1616H11	16	16	100	20,0	31	-6	-6	0,2	DN.. 1104..
	DDJNR2020K11	20	20	125	25,0	31	-6	-6	0,4	DN.. 1104..
	DDJNR2525M11	25	25	150	32,0	31	-6	-6	0,7	DN.. 1104..
	DDJNR3225P11	32	25	170	32,0	31	-6	-6	1,1	DN.. 1104..
	DDJNL1616H11	16	16	100	20,0	31	-6	-6	0,2	DN.. 1104..
	DDJNL2020K11	20	20	125	25,0	31	-6	-6	0,4	DN.. 1104..
	DDJNL2525M11	25	25	150	32,0	31	-6	-6	0,7	DN.. 1104..
	DDJNL3225P11	32	25	170	32,0	31	-6	-6	1,1	DN.. 1104..
15	DDJNR2020K15-M	20	20	125	25,0	42	-6	-6	0,4	DN.. 1506..
	DDJNR2525M15-M	25	25	150	32,0	42	-6	-6	0,8	DN.. 1506..
	DDJNR3225P15-M	32	25	170	32,0	42	-6	-6	1,1	DN.. 1506..
	DDJNR3232P15-M	32	32	170	40,0	42	-6	-6	1,4	DN.. 1506..
	DDJNL2020K15-M	20	20	125	25,0	42	-6	-6	0,4	DN.. 1506..
	DDJNL2525M15-M	25	25	150	32,0	42	-6	-6	0,8	DN.. 1506..
	DDJNL3225P15-M	32	25	170	32,0	42	-6	-6	1,1	DN.. 1506..
	DDJNL3232P15-M	32	32	170	40,0	42	-6	-6	1,4	DN.. 1506..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...11	FP1508	L84017-T09P	CD09-S	DDN110310	T09P-2	C03007-T09P	S5608
...15	FP2012	L85021-T15P	CD12-S	DDN150416	T15P-7	C04008-T15P	S6912

Accessories*

Clamp kit
CD09-S09
CD12-S12

Please check availability in current price and stock-list

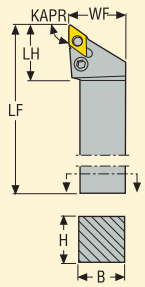
* To be ordered separately
Shim DDN150616 for insert DN..1504.., to be ordered separately

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



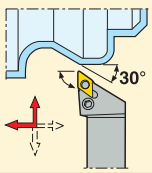
- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PDJNR/L



Right-hand version shown
KAPR = 93°

PDJNR/L
93 °



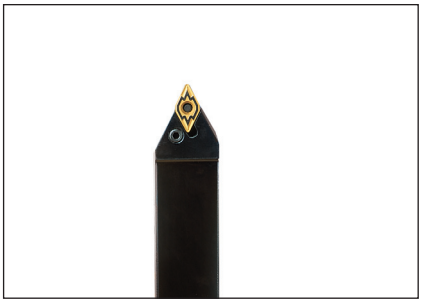
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	**PDJNR1616H11**	16	16	100	20,0	24	-6	-6	0,2	DN..1104..
	PDJNR2020K11	20	20	125	25,0	30	-6	-7	0,5	DN..1104..
	PDJNR2525M11	25	25	150	32,0	30	-6	-7	0,7	DN..1104..
	PDJNR3225P11	32	25	170	32,0	30	-6	-7	1,0	DN..1104..
	PDJNL1616H11	16	16	100	20,0	24	-6	-6	0,2	DN..1104..
	PDJNL2020K11	20	20	125	25,0	30	-6	-7	0,5	DN..1104..
	PDJNL2525M11	25	25	150	32,0	30	-6	-7	0,7	DN..1104..
	PDJNL3225P11	32	25	170	32,0	30	-6	-7	1,0	DN..1104..
15	**PDJNR2020K15**	20	20	125	25,0	36	-6	-7	0,4	DN..1506..
	PDJNR2525M15	25	25	150	32,0	36	-6	-7	0,7	DN..1506..
	PDJNR3225P15	32	25	170	32,0	36	-6	-7	1,1	DN..1506..
	PDJNL2020K15	20	20	125	25,0	36	-6	-7	0,4	DN..1506..
	PDJNL2525M15	25	25	150	32,0	36	-6	-7	0,7	DN..1506..
	PDJNL3225P15	32	25	170	32,0	36	-6	-7	1,1	DN..1506..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

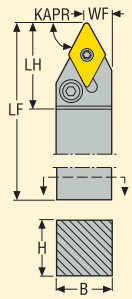
Please check availability in current price and stock-list

Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM and DNMU

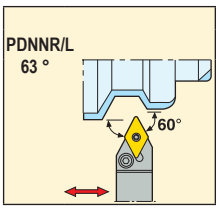


- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PDNNR/L



Right-hand version shown
KAPR = 63°



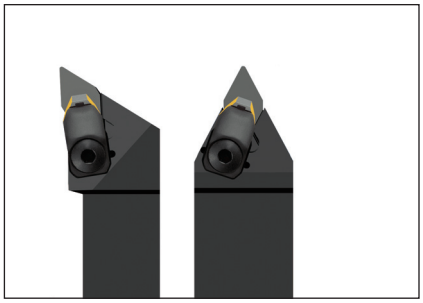
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	**PDNNR1616H11**	16	16	100	8,0	25	-6	-6	0,2	DN..1104..
	PDNNR2020K11	20	20	125	10,0	25	-6	-6	0,4	DN..1104..
	PDNNR2525M11	25	25	150	12,5	30	-6	-6	0,7	DN..1104..
	PDNNL1616H11	16	16	100	8,0	25	-6	-6	0,2	DN..1104..
	PDNNL2020K11	20	20	125	10,0	25	-6	-6	0,4	DN..1104..
	PDNNL2525M11	25	25	150	12,5	30	-6	-6	0,7	DN..1104..
15	**PDNNR2020K15**	20	20	125	10,0	36	-6	-6	0,4	DN..1506..
	PDNNR2525M15	25	25	150	12,5	36	-6	-6	0,7	DN..1506..
	PDNNR3225P15	32	25	170	12,5	36	-6	-6	1,0	DN..1506..
	PDNNL2020K15	20	20	125	10,0	36	-6	-6	0,4	DN..1506..
	PDNNL2525M15	25	25	150	12,5	36	-6	-6	0,7	DN..1506..
	PDNNL3225P15	32	25	170	12,5	36	-6	-6	1,0	DN..1506..

Spare Parts, Parts included in delivery

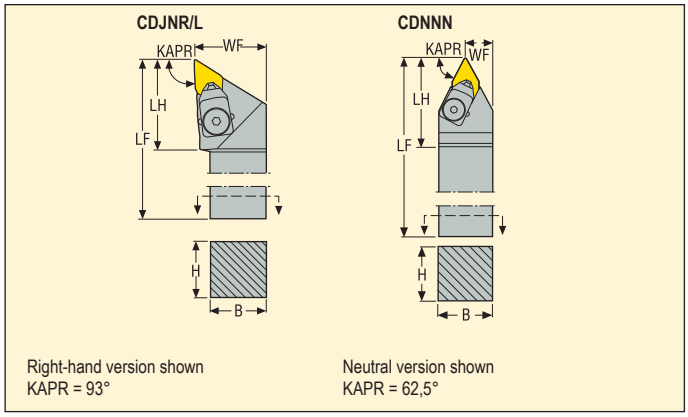
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Please check availability in current price and stock-list

Toolholders for PCBN inserts DNGN and DNMN

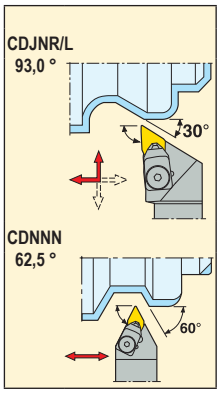


- For inserts programme, see page(s) 445-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 93°

Neutral version shown
KAPR = 62,5°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	CDJNR2525M11	25	25	150	32,0	34	-6	-6	0,8	DN.N1103..
11	CDJNR3225P11	32	25	170	32,0	34	-6	-6	1,1	DN.N1103..
11	CDJNL2525M11	25	25	150	32,0	34	-6	-6	0,8	DN.N1103..
11	CDJNL3225P11	32	25	170	32,0	34	-6	-6	1,1	DN.N1103..
11	CDNNN2525M11	25	25	150	13,2	30	-9	-5	0,7	DN.N1103..
11	CDNNN3225P11	32	25	170	13,2	30	0	-5	1,1	DN.N1103..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...11	CC20P	4SMS795	CDN110412	P1311-09	174.10-652-T07P	T07P-2

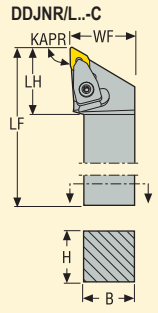
Please check availability in current price and stock-list

* To be ordered separately

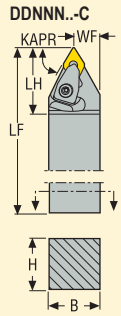
Toolholders for PCBN inserts DNMA



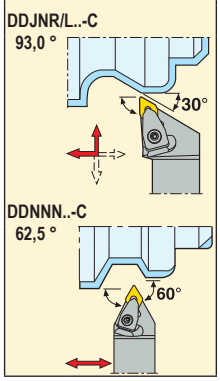
- For inserts programme, see page(s) 445
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 93°



Neutral version shown
KAPR = 62,5°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	DDJNR3225P11-C	32	25	170	32,0	32	-6	-6	1,1	DNMA1104..
11	DDJNL3225P11-C	32	25	170	32,0	32	-6	-6	1,1	DNMA1104..
11	DDNNN3225P11-C	32	25	170	32,0	33	-9	-5	1,0	DNMA1104..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...11	FP1508	L84017-T09P	CC09P-D11	DDN110310	T09P-2	C03007-T09P	S5608

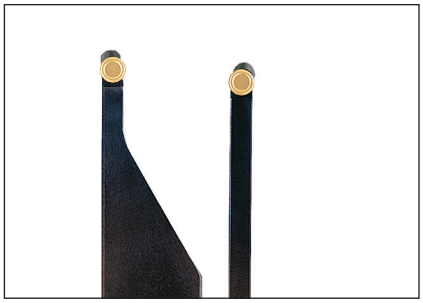
Accessories*

Clamp kit
CC09P-SET

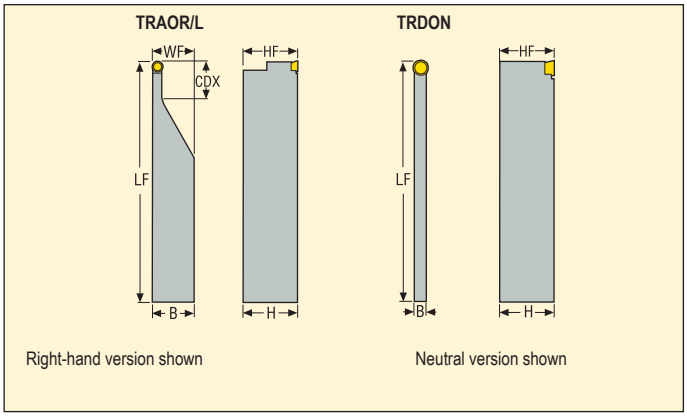
Please check availability in current price and stock-list

* To be ordered separately

Toolholders for inserts RCGS

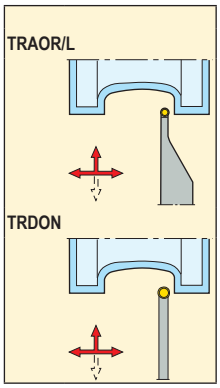


- For inserts programme, see page(s) 407, 447
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown

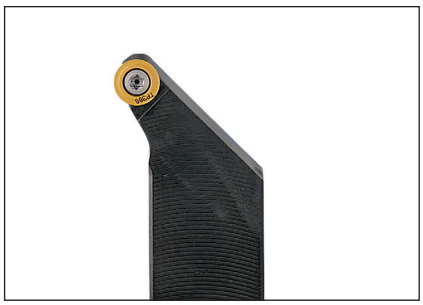
Neutral version shown



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	CDX				
4,76	**TRAOR3225-4.76**	32	25	202	25,4	32	–	0	0	0,8	RCGS4.76
	TRAOL3225-4.76	32	25	201	25,4	32	–	0	0	0,8	RCGS4.76
6,35	**TRAOR3225-6.35**	32	25	150	25,5	32	–	0	0	0,8	RCGS6.35
	TRAOL3225-6.35	32	25	150	25,5	32	–	0	0	0,8	RCGS6.35
9,525	**TRAOR3225-9.525**	32	25	200	25,8	32	–	0	0	1,1	RCGS9.525
4,76	**TRDON2004H4.76**	20	4	100	4,4	20	3,7	0	0	0,1	RCGS4.76
6,35	**TRDON2005H6.35**	20	6	100	5,9	20	4,7	0	0	0,1	RCGS6.35

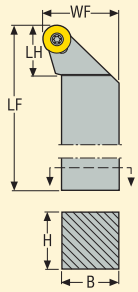
Please check availability in current price and stock-list

Toolholders for inserts RCMT



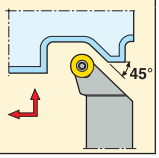
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SRSCR/L



Right-hand version shown

SRSCR/L



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**SRSCR2020K06**	20	20	125	25,0	15	0	0	0,4	RCMT0602..
	SRSCR2525M06	25	25	150	32,0	15	0	0	0,7	RCMT0602..
	SRSCL2020K06	20	20	125	25,0	15	0	0	0,4	RCMT0602..
	SRSCL2525M06	25	25	150	32,0	15	0	0	0,7	RCMT0602..
08	**SRSCR2020K08**	20	20	125	25,0	25	0	0	0,4	RCMT0803..
	SRSCR2525M08	25	25	150	32,0	25	0	0	0,7	RCMT0803..
	SRSCL2525M08	25	25	150	32,0	25	0	0	0,7	RCMT0803..
10	**SRSCR2020K10**	20	20	125	25,0	17	0	0	0,4	RCMT10T3..
	SRSCR2525M10	25	25	150	32,0	20	0	0	0,7	RCMT10T3..
	SRSCL2020K10	20	20	125	25,0	17	0	0	0,4	RCMT10T3..
	SRSCL2525M10	25	25	150	32,0	20	0	0	0,7	RCMT10T3..
12	**SRSCR2525M12**	25	25	150	32,0	23	0	0	0,7	RCMT1204..
	SRSCR3225P12	32	25	170	32,0	23	0	0	1,1	RCMT1204..
	SRSCL2525M12	25	25	150	32,0	23	0	0	0,7	RCMT1204..
	SRSCL3225P12	32	25	170	32,0	23	0	0	1,1	RCMT1204..
16	**SRSCR3225P16**	32	25	170	32,0	25	0	0	1,1	RCMT1606..
	SRSCL3225P16	32	25	170	32,0	25	0	0	1,1	RCMT1606..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...06	T07P-2	C02506-T07P	–	–	–
...08	T09P-2	C03007-T09P	–	–	–
...10	T15P-2	C03510-T15P	111.19-620	CA3510	9/64SMS875
...12	T15P-2	C03512-T15P	111.19-621	CA3510	9/64SMS875
...16	T20P-7L	C05018-T20P	SRN16T3M0	CA5015	5SMS795

Please check availability in current price and stock-list

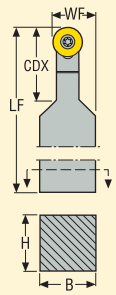
* To be ordered separately

Toolholders for inserts RCMT



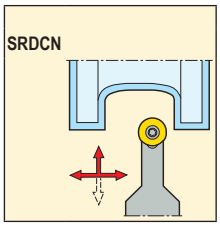
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SRDCN



Neutral version shown

SRDCN



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	CDX				
06	SRDCN1616H06	16	16	100	11,0	16	0	0	0,2	RCMT0602..
	SRDCN2020K06	20	20	125	13,0	16	0	0	0,4	RCMT0602..
	SRDCN2525M06	25	25	150	15,5	16	0	0	0,7	RCMT0602..
08	SRDCN1616H08	16	16	100	12,0	16	0	0	0,2	RCMT0803..
	SRDCN2020K08	20	20	125	14,0	20	0	0	0,4	RCMT0803..
	SRDCN2525M08	25	25	150	16,5	25	0	0	0,7	RCMT0803..
10	SRDCN2020K10	20	20	125	15,0	20	0	0	0,4	RCMT10T3..
	SRDCN2525M10	25	25	150	17,5	25	0	0	0,7	RCMT10T3..
12	SRDCN2525M12	25	25	150	18,5	25	0	0	0,7	RCMT1204..
	SRDCN3225P12	32	25	170	18,5	32	0	0	1,0	RCMT1204..
16	SRDCN3225P16	32	25	170	20,5	32	0	0	1,0	RCMT1606..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...06	T07P-2	C02506-T07P	–	–	–
...08	T09P-2	C03007-T09P	–	–	–
...10	T15P-2	C03510-T15P	111.19-620	CA3510	9/64SMS875
...12	T15P-2	C03512-T15P	111.19-621	CA3510	9/64SMS875
...16	T20P-7L	C05018-T20P	SRN16T3M0	CA5015	5SMS795

Please check availability in current price and stock-list

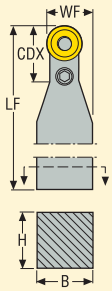
* To be ordered separately

Toolholders for inserts RCMX



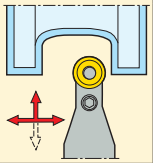
- For inserts programme, see page(s) 409
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PRDCN



Neutral version shown

PRDCN



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	CDX				
20	PRDCN3232P20	32	32	170	26,0	33,5	0	-8	1,2	RCMX200600
25	PRDCN4040S25	40	40	250	32,5	45,0	0	-8	2,8	RCMX250700
32	PRDCN5050T32	50	50	300	40,9	50,0	0	-8	5,3	RCMX320900

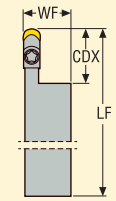
Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...20	PP5620	PRN2004M0	3SMS795	LS0823	MP1519	RP8286
...25	PP6224	PRN2506M0	4SMS795	LS1030	MP1519	RP9811
...32	PP8030	PRN3206M0	5SMS795	LS1236	MP25	RP1312

Please check availability in current price and stock-list

Toolholders for ceramic inserts RCGX and RPGX

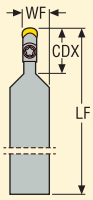
CRDCR/L...C





Right-hand version shown

CRDCN...C

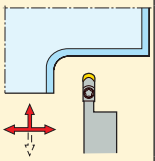




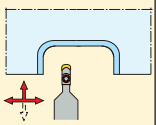
Neutral version shown

- For inserts programme, see page(s) 473-475
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CRDCR/L...C



CRDCN...C



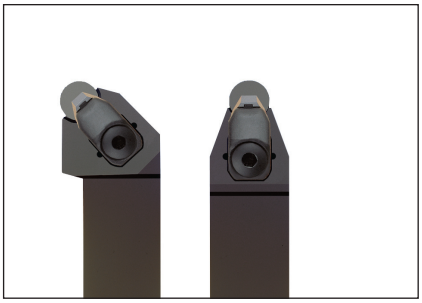
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	CDX				
09	CRDCR3225P09C	32	25	170	26,0	29,5	0	0	0,9	RC../RP..0907
06	CRDCN3225P06C	32	25	170	15,6	19,4	0	0	0,9	RC../RP..0606
09	CRDCN3225P09C	32	25	170	17,2	29,0	0	0	0,9	RC../RP..0907
12	CRDCN3225P12C	32	25	170	18,8	38,5	0	0	0,9	RC../RP..1207

Spare Parts, Parts included in delivery

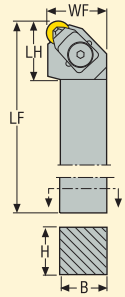
For size	Clamp	Clamp key	Insert shim	Shim key
CRDCR/L..09C	CEN087	–	CN76.206	T10P-2D
..06C	CEN055	T30P-7	CN52.190	2SMS795
CRDCN..09C	CEN087	–	CN76.206	T10P-2D
CRDCN32..12C	CEN120	T30P-7	CN55.222	T25P-7

Please check availability in current price and stock-list

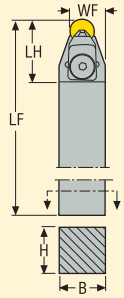
Toolholders for PCBN inserts RNGN and RNMN



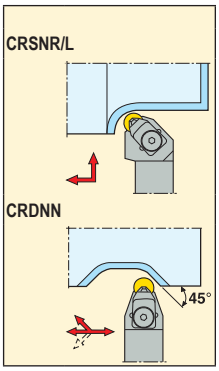
- For inserts programme, see page(s) 447-449, 471, 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown



Neutral version shown



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
06	CRSNR2525M06	25	25	150	32,0	27	-6	-6	0,8	RN.N0603..
	CRSNL2525M06	25	25	150	32,0	27	-6	-6	0,8	RN.N0603..
09	CRSNR2525M09	25	25	150	32,0	29	-6	-6	0,8	RN.N0903..
	CRSNR3225P09	32	25	170	32,0	29	-6	-6	1,1	RN.N0903..
	CRSNR4040R09	40	40	200	50,0	29	-6	-6	2,5	RN.N0903..
	CRSNL2525M09	25	25	150	32,0	29	-6	-6	0,8	RN.N0903..
	CRSNL3225P09	32	25	170	32,0	29	-6	-6	1,1	RN.N0903..
	CRSNL4040R09	40	40	200	50,0	29	-6	-6	2,5	RN.N0903..
12	CRSNR3225P12	32	25	170	32,0	30	-6	-6	1,1	RN.N1203..
	CRSNR4040R12	40	40	200	50,0	30	-6	-6	2,5	RN.N1203..
	CRSNL3225P12	32	25	170	32,0	30	-6	-6	1,1	RN.N1203..
	CRSNL4040R12	40	40	200	50,0	30	-6	-6	2,5	RN.N1203..
06	CRDNN2525M06	25	25	150	15,5	29	0	-8	0,7	RN.N0603..
09	CRDNN3225P09	32	25	170	17,0	31	0	-8	1,0	RN.N0603..
	CRDNN4040R09	40	40	200	24,8	31	0	-8	2,3	RN.N0903..
12	CRDNN3225P12	32	25	170	18,5	36	0	-8	1,1	RN.N1203..
	CRDNN4040R12	40	40	200	26,3	36	0	-8	2,3	RN.N1203..
	CRDNN5040T12	50	40	300	26,3	36	0	-8	4,4	RN.N1203..

Spare Parts, Parts included in delivery

Accessories*

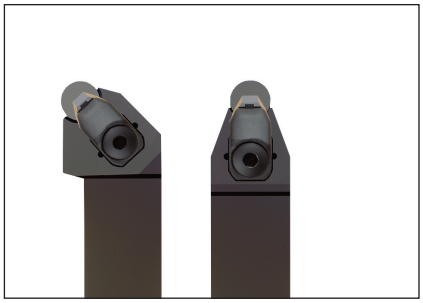
For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...06	CC17P-06	4SMS795	CRN0603M0	P1311-06	CS2507-T07P	T07P-2
...09	CC17P-09	4SMS795	117.10-620	P1311-09	174.10-652-T07P	T07P-2
...12	CC17P	4SMS795	117.10-622	P1311	F94009-T09P	T09P-2

Please check availability in current price and stock-list

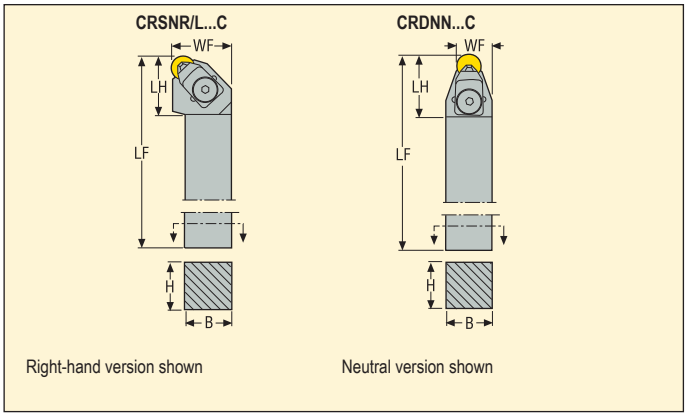
* To be ordered separately

Shim 117.10-621 for insert RN.N1204.., to be ordered separately

Toolholders for ceramic inserts RNGN

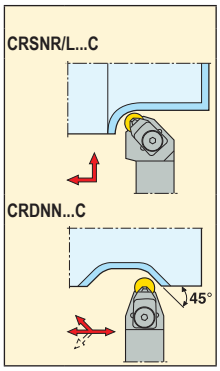


- For inserts programme, see page(s) 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown

Neutral version shown



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
12	CRSNR2525M12C	25	25	150	32,0	28	-6	-6	0,7	RNGN1207..
12	CRSNR3225P12C	32	25	170	32,0	28	-6	-6	1,1	RNGN1207..
12	CRSNL2525M12C	25	25	150	32,0	28	-6	-6	0,7	RNGN1207..
12	CRSNL3225P12C	32	25	170	32,0	28	-6	-6	1,1	RNGN1207..
12	CRDNN2525M12C	25	25	150	18,8	32	0	0	0,7	RNGN1207..

Spare Parts, Parts included in delivery

For size	Clamp	Clamp key	Insert shim	Pressure plate	Shim key	Shim screw
..12C	CC17P	4SMS795	CRN120400	P1311	T20P-2D	L85013-T20P

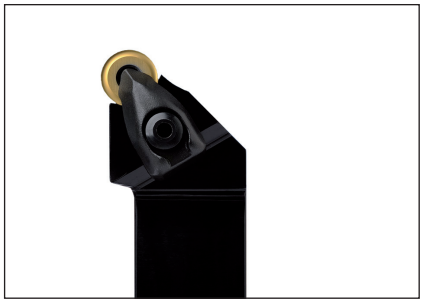
Accessories*

Insert shim
CRN120800

Please check availability in current price and stock-list

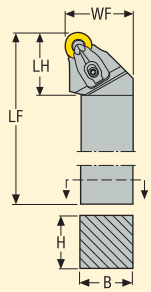
* To be ordered separately

Toolholders for inserts RNMA and RNMG



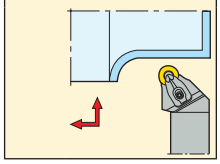
- For inserts programme, see page(s) 410
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DRSNR/L..-M



Right-hand version shown

DRSNR/L..-M



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
12	**DRSNR2525M12-M**	25	25	150	32,0	30	-6	-6	0,8	RN..120400
	DRSNR3225P12-M	32	25	170	32,0	30	-6	-6	1,1	RN..120400
	DRSNL2525M12-M	25	25	150	32,0	30	-6	-6	0,8	RN..120400
	DRSNL3225P12-M	32	25	170	32,0	30	-6	-6	1,1	RN..120400

Spare Parts, Parts included in delivery

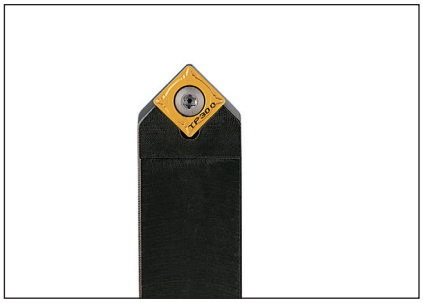
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...12	FP2012	L85021-T15P	CD12-S	DRN120600	T15P-7	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

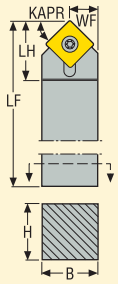
* To be ordered separately

Toolholders for inserts SCGW, SCMT and SCMW



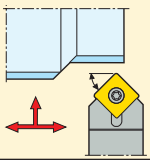
- For inserts programme, see page(s) 411, 450
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SSDCN



Neutral version shown
KAPR = 45°

SSDCN 45 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
09	**SSDCN1212M09**	12	12	150	6,2	23	0	0	0,2	SC..09T3..
	SSDCN1616H09	16	16	100	8,2	26	0	0	0,2	SC..09T3..
	SSDCN2020K09	20	20	125	10,2	22	0	0	0,4	SC..09T3..
	SSDCN2525M09	25	25	150	12,7	23	0	0	0,8	SC..09T3..
12	**SSDCN2020K12**	20	20	125	10,2	22	0	0	0,4	SC..1204..
	SSDCN2525M12	25	25	150	12,7	22	0	0	0,8	SC..1204..

Spare Parts, Parts included in delivery

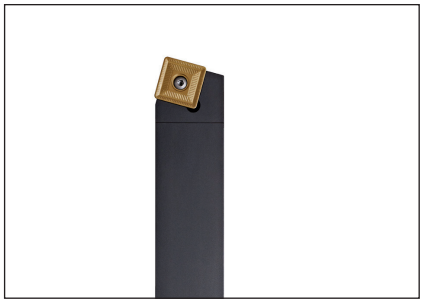
Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
...09	T15P-2	C04008-T15P	–	–	–
...K12	T15P-2	C05012-T15P	110.19-621	CA5008	5SMS795
...M12	T20P-7L	C05018-T20P	110.19-621	CA5015	5SMS795

Please check availability in current price and stock-list

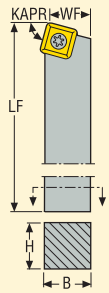
* To be ordered separately

Toolholders for inserts SCMT



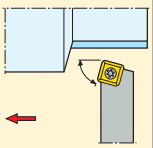
- For inserts programme, see page(s) 411-412
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SSBCR/L



Right-hand version shown
KAPR = 75°

SSBCR/L
75 °



	Designation	Dimensions in mm H	B	LF	WF	GAMO°	LAMS°	KG	
38	**SSBCR5050T38**	50	50	300	43,0	0	0	5,6	SC..3809..
	SSBCR6060V38	60	60	400	53,0	0	0	10,9	SC..3809..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
...38	T30P-7	C08020-T30P	112.19-624	CA8020

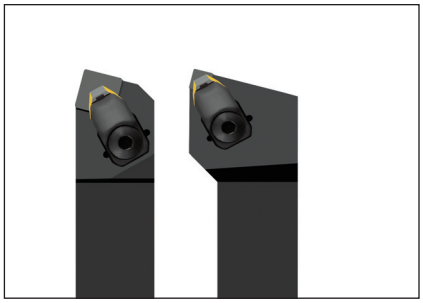
Accessories*

Shim key
5SMS795

Please check availability in current price and stock-list

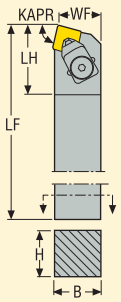
* To be ordered separately

Toolholders for PCBN inserts SNGN, SNMN and SNUN



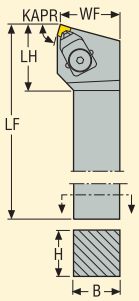
- For inserts programme, see page(s) 453
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CSBNR/L

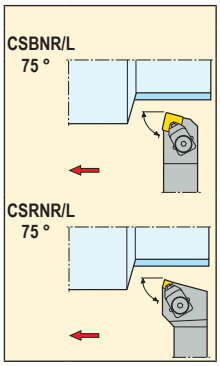


Right-hand version shown
KAPR = 75°

CSRNR/L



Right-hand version shown
KAPR = 75°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
09	CSBNR2525M09	25	25	150	22,0	30	-6	-6	0,8	SN.N0903..
	CSBNR3225P09	32	25	170	22,0	30	-6	-6	1,1	SN.N0903..
	CSBNL2525M09	25	25	150	22,0	30	-6	-6	0,8	SN.N0903..
12	CSBNR3225P12	32	25	170	22,0	35	-6	-6	1,1	SN.N1204..
	CSBNL3225P12	32	25	170	22,0	35	-6	-6	1,1	SN.N1204..
06	CSRNR2525M06	25	25	150	32,0	35	-6	-6	0,8	SN.N0603..
	CSRNL2525M06	25	25	150	32,0	30	-6	-6	0,8	SN.N0603..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw
...06	CC17P-06	4SMS795	CSN060308	P1311-06	CS2507-T07P
...09	CC17P-09	4SMS795	CSN090412	P1311-09	174.10-652-T07P
...P12	CC20P	4SMS795	174.10-621	P1311	F94009-T09P

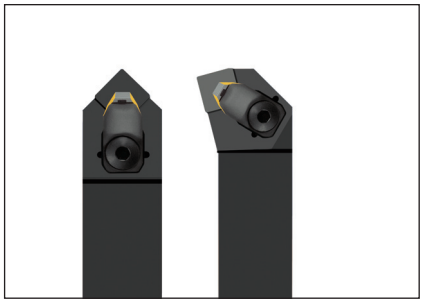
Accessories*

Shim key
T07P-2
T09P-2
T07P-2

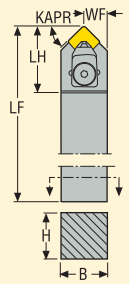
Please check availability in current price and stock-list

* To be ordered separately
Shim 174.10-622 for insert SN.N1203.., to be ordered separately

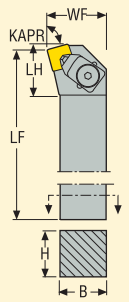
Toolholders for PCBN inserts SNGN, SNMN and SNUN



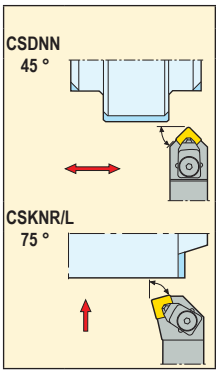
- For inserts programme, see page(s) 453-454
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Neutral version shown
KAPR = 45°



Right-hand version shown
KAPR = 75°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
09	CSDNN3225P09	32	25	170	13,0	33	-6	-6	1,1	SN.N0903..
12	CSDNN3225P12	32	25	170	13,0	40	-6	-6	1,1	SN.N1204..
	CSDNN4040R12	40	40	200	20,3	40	-6	-6	2,4	SN.N1204..
06	CSKNR2525M06	25	25	150	32,0	35	-6	-6	0,8	SN.N0603..
	CSKNL2525M06	25	25	150	32,0	35	-6	-6	0,8	SN.N0603..
12	CSKNR3225P12	32	25	170	32,0	36	-6	-6	1,2	SN.N1204..
	CSKNR4040R12	40	40	200	50,0	36	-6	-6	2,5	SN.N1204..
	CSKNL3225P12	32	25	170	32,0	36	-6	-6	1,2	SN.N1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...06	CC17P-06	4SMS795	CSN060308	P1311-06	CS2507-T07P	T07P-2
...09	CC17P-09	4SMS795	CSN090412	P1311-09	174.10-652-T07P	T09P-2
...12	CC20P	4SMS795	174.10-621	P1311	F94009-T09P	T07P-2

Please check availability in current price and stock-list

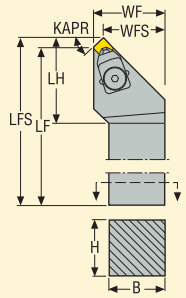
* To be ordered separately
Shim 174.10-622 for insert SN.N1203.., to be ordered separately

Toolholders for PCBN inserts SNGN and SNMN



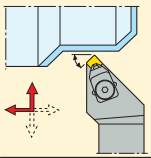
- For inserts programme, see page(s) 453-454
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CSSNR/L



Right-hand version shown
KAPR = 45°

CSSNR/L 45 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		H	B	LF	LFS	WF	WFS	LH				
06	**CSSNR2525M06**	25	25	150	154	32,2	27,8	27	-7	0	0,8	SN.N0603..
	CSSNL2525M06	25	25	150	154	32,2	27,8	27	-7	0	0,8	SN.N0603..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...06	CC17P-06	4SMS795	CSN060308	P1311-06	CS2507-T07P	T07P-2

Please check availability in current price and stock-list

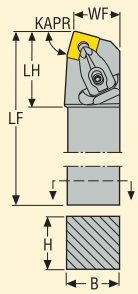
* To be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



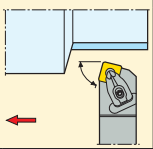
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DSBNR/L..-M



Right-hand version shown
KAPR = 75°

DSBNR/L..-M
75 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**DSBNR2020K12-M**	20	20	125	17,0	37	-6	-6	0,5	SN..1204..
	DSBNR2525M12-M	25	25	150	22,0	36	-6	-6	0,8	SN..1204..
	DSBNL2020K12-M	20	20	125	17,0	37	-6	-6	0,5	SN..1204..
	DSBNL2525M12-M	25	25	150	22,0	36	-6	-6	0,8	SN..1204..
15	**DSBNR2525M15-M**	25	25	150	22,0	41	-6	-6	0,8	SN..1506..
	DSBNR3232P15-M	32	32	170	27,0	42	-6	-6	1,4	SN..1506..
	DSBNL2525M15-M	25	25	150	22,0	41	-6	-6	0,8	SN..1506..
	DSBNL3232P15-M	32	32	170	27,0	42	-6	-6	1,4	SN..1506..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912
...15	FP2012	L86026-T20P	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010

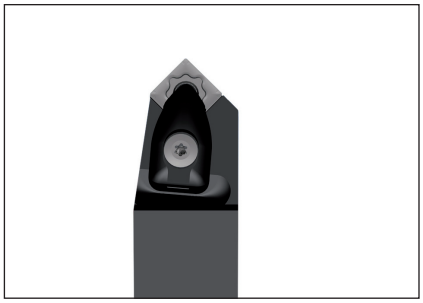
Accessories*

Clamp kit
CD12-S12
CD16-S16

Please check availability in current price and stock-list

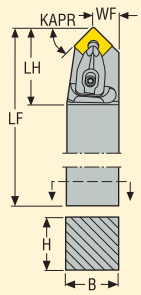
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



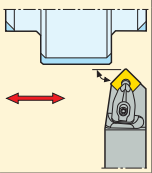
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DSDNN..-M



Neutral version shown
KAPR = 45°

DSDNN..-M
45 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**DSDNN2020K12-M**	20	20	125	10,3	37	-6	-6	0,4	SN..1204..
	DSDNN2525M12-M	25	25	150	12,8	36	-6	-6	0,7	SN..1204..
	DSDNN3232P12-M	32	32	170	16,3	36	-6	-6	1,3	SN..1204..

Spare Parts, Parts included in delivery

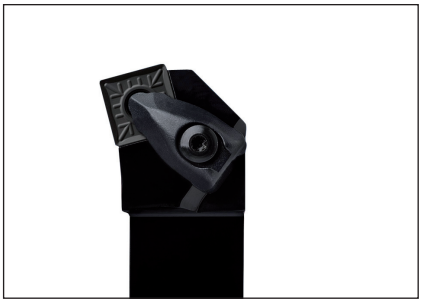
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

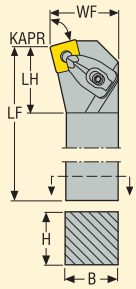
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



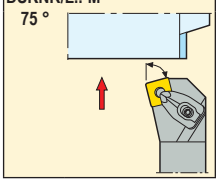
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DSKNR/L..-M



Right-hand version shown
KAPR = 75°

DSKNR/L..-M
75 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**DSKNR2020K12-M**	20	20	125	25,0	33	-6	-6	0,5	SN..1204..
	DSKNR2525M12-M	25	25	150	32,0	33	-6	-6	0,8	SN..1204..
	DSKNR3225P12-M	32	25	170	32,0	35	-6	-6	1,1	SN..1204..
	DSKNL2020K12-M	20	20	125	25,0	33	-6	-6	0,5	SN..1204..
	DSKNL2525M12-M	25	25	150	32,0	33	-6	-6	0,8	SN..1204..
	DSKNL3225P12-M	32	25	170	32,0	35	-6	-6	1,1	SN..1204..
19	**DSKNR3232P19-M**	32	32	170	40,0	37	-6	-6	1,5	SN..1906..
	DSKNL3232P19-M	32	32	170	40,0	37	-6	-6	1,5	SN..1906..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912	CD12-S12
...19	FP2012	L86026-T20P	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

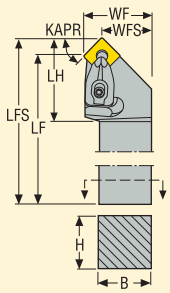
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately
Shim DSN190640 for insert SNMM190624W-R7, to be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



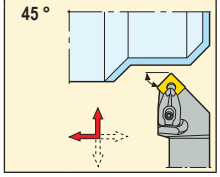
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DSSNR/L..-M



Right-hand version shown
KAPR = 45°

DSSNR/L..-M
45 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		H	B	LF	LFS	WF	WFS	LH				
09	DSSNR1616H09-M	16	16	101	107,1	20,0	14,1	32	-8	0	0,3	SN..0903..
	DSSNR2020K09-M	20	20	125	132,1	25,0	19,1	32	-8	0	0,5	SN..0903..
	DSSNR2525M09-M	25	25	150	157,1	32,0	26,1	32	-8	0	0,8	SN..0903..
	DSSNL1616H09-M	16	16	101	107,1	20,0	14,1	32	-8	0	0,3	SN..0903..
	DSSNL2525M09-M	25	25	150	157,1	32,0	26,1	32	-8	0	0,8	SN..0903..
12	DSSNR2020K12-M	20	20	125	134,3	25,0	16,9	39	-8	0	0,5	SN..1204..
	DSSNR2525M12-M	25	25	150	159,3	32,0	23,9	39	-8	0	0,8	SN..1204..
	DSSNR3225P12-M	32	25	170	179,3	32,0	23,9	39	-8	0	1,2	SN..1204..
	DSSNL2020K12-M	20	20	125	134,3	25,0	16,9	39	-8	0	0,5	SN..1204..
	DSSNL2525M12-M	25	25	150	159,3	32,0	23,9	39	-8	0	0,8	SN..1204..
	DSSNL3225P12-M	32	25	170	179,3	32,0	23,9	39	-8	0	1,2	SN..1204..
15	DSSNR2525M15-M	25	25	150	161,2	32,0	22,0	41	-8	0	0,9	SN..1506..
	DSSNR3232P15-M	32	32	171	181,2	40,0	29,6	42	-8	0	1,5	SN..1506..
	DSSNL2525M15-M	25	25	150	161,2	32,0	22,0	41	-8	0	0,9	SN..1506..
	DSSNL3232P15-M	32	32	171	181,2	40,0	29,6	42	-8	0	1,5	SN..1506..
19	DSSNR3232P19-M	32	32	171	181,2	40,0	30,0	46	-8	0	1,5	SN..1906..
	DSSNR4040R19-M	40	40	201	213,5	50,0	31,7	46	-8	0	2,6	SN..1906..
	DSSNL3232P19-M	32	32	171	181,2	40,0	30,0	46	-8	0	1,5	SN..1906..
	DSSNL4040R19-M	40	40	201	213,5	50,0	31,7	46	-8	0	2,6	SN..1906..

Spare Parts, Parts included in delivery

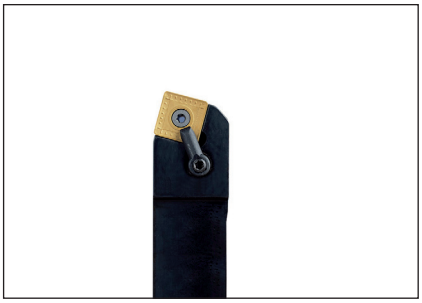
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...09	FP1508	L84017-T09P	CD09-S	DSN090310	T09P-2	C03007-T09P	S5608	CD09-S09
...12	FP2012	L85021-T15P	CD12-S	DSN120616	T15P-7	C04008-T15P	S6912	CD12-S12
...15	FP2012	L86026-T20P	CD16-S	DSN150624	T20P-7L	C05010-T20P	S7010	CD16-S16
...19	FP2012	L86026-T20P	CD19-S	DSN190624	T20P-7L	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

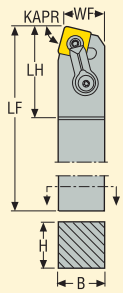
* To be ordered separately
Shim DSN120416 for insert SN..1206.., to be ordered separately
Shim DSN190640 for insert SNMM190624W-R7, to be ordered separately

Toolholders for inserts SNMA, SNMG and SNMM



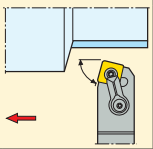
- For inserts programme, see page(s) 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

MSBNR/L



Right-hand version shown
KAPR = 75°

MSBNR/L
75 °



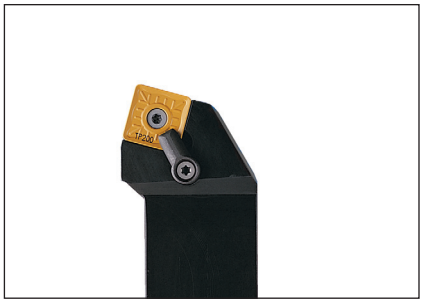
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
19	**MSBNR3232P19**	32	32	170	27,0	45	-6	-6	1,4	SN..1906..
	MSBNR4040R19	40	40	200	35,0	45	-6	-6	2,4	SN..1906..
	MSBNL3232P19	32	32	170	27,0	45	-6	-6	1,4	SN..1906..
	MSBNL4040R19	40	40	200	35,0	45	-6	-6	2,4	SN..1906..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
...19	MC22	LD6024-T20P	SSN190412	T20P-7L	MN1920-T20P

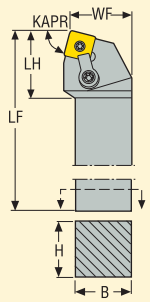
Please check availability in current price and stock-list

Toolholders for inserts SNMG and SNMM



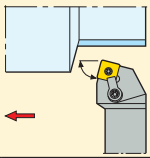
- For inserts programme, see page(s) 415-417
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

MSRNR



Right-hand version shown
KAPR = 75°

MSRNR
75 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
25	**MSRNR5050T25**	50	50	300	53,2	49	-6	-6	5,7	SN..2507..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp	Clamp screw	Insert shim	Key	Pin	Shim screw
...25	MC24	LD1035-T25P	SSN250716	T25P-7	MN2525-T25P	CS1216

Please check availability in current price and stock-list

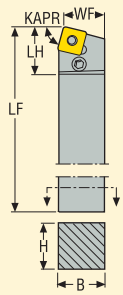
* To be ordered separately
Shim SSN250616 for insert SN..2509.., to be ordered separately

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



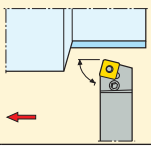
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PSBNR/L



Right-hand version shown
KAPR = 75°

PSBNR/L
75 °



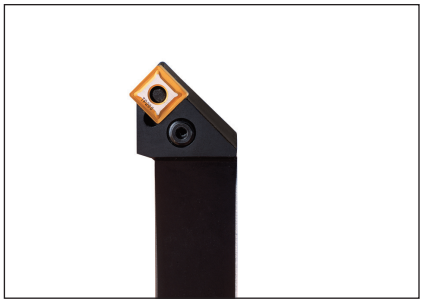
	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
12	**PSBNR2020K12**	20	20	125	20,3	26	-6	-6	0,4	SN..1204..
	PSBNR2525M12	25	25	150	25,3	26	-6	-6	0,8	SN..1204..
	PSBNR3225P12	32	25	170	25,3	26	-6	-6	1,1	SN..1204..
	PSBNL2020K12	20	20	125	20,3	26	-6	-6	0,4	SN..1204..
	PSBNL2525M12	25	25	150	25,3	26	-6	-6	0,8	SN..1204..
	PSBNL3225P12	32	25	170	25,3	26	-6	-6	1,1	SN..1204..
19	**PSBNR3232P19**	32	32	170	27,0	37	-6	-6	1,3	SN..1906..
	PSBNR4040S19	40	40	250	35,0	38	-6	-6	3,0	SN..1906..
	PSBNL3232P19	32	32	170	27,0	37	-6	-6	1,5	SN..1906..
	PSBNL4040S19	40	40	250	35,0	38	-6	-6	3,0	SN..1906..
25	**PSBNR4040S25**	40	40	250	35,2	48	-6	-6	3,1	SN..2507..
	PSBNR5050S25	50	50	250	43,2	48	-6	-6	4,7	SN..2507..
	PSBNL4040S25	40	40	250	35,2	48	-6	-6	3,1	SN..2507..
	PSBNL5050S25	50	50	250	43,2	48	-6	-6	4,7	SN..2507..
	PSBNR4040S2509	40	40	250	35,2	48	-6	-6	3,0	SN..2509..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312
...2509	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

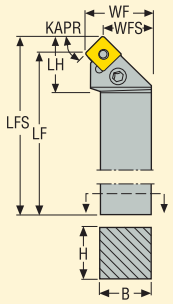
Please check availability in current price and stock-list

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



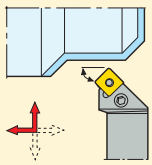
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PSSNR/L



Right-hand version shown
KAPR = 45°

PSSNR/L
45 °



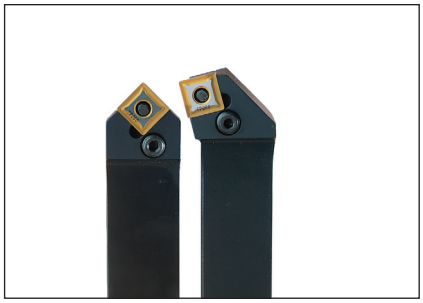
	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		H	B	LF	LFS	WF	WFS	LH				
12	**PSSNR2020K12**	20	20	125	133,3	25,0	16,7	28	-8	0	0,4	SN..1204..
	PSSNR2525M12	25	25	150	158,7	32,0	23,7	28	-8	0	0,8	SN..1204..
	PSSNR3225P12	32	25	170	178,7	32,0	23,7	29	-8	0	1,1	SN..1204..
	PSSNL2020K12	20	20	125	133,3	25,0	16,7	28	-8	0	0,4	SN..1204..
	PSSNL2525M12	25	25	150	158,7	32,0	23,7	28	-8	0	0,8	SN..1204..
	PSSNL3225P12	32	25	170	178,3	32,0	23,7	29	-8	0	1,1	SN..1204..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757

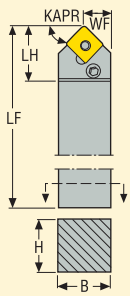
Please check availability in current price and stock-list

Toolholders for inserts SNGA, SNMA, SNMG and SNMM



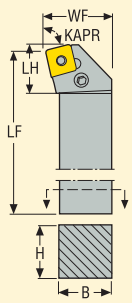
- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PSDNN



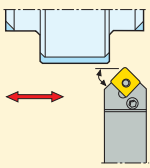
Neutral version shown
KAPR = 45°

PSKNR/L

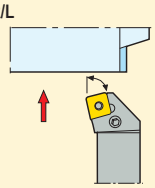


Right-hand version shown
KAPR = 75°

PSDNN
45 °



PSKNR/L
75 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
12	**PSDNN2020K12**	20	20	125	10,0	26	-7	-7	0,4	SN..1204..
	PSDNN2525M12	25	25	150	12,5	26	-7	-7	0,7	SN..1204..
	PSDNN3225P12	32	25	170	12,5	28	-7	-7	1,0	SN..1204..
19	**PSDNN3232P19**	32	32	170	16,0	40	-6	-6	1,3	SN..1906..
25	**PSDNN4040S25**	40	40	250	20,2	48	-6	-6	3,0	SN..2507..
12	**PSKNR2020K12**	20	20	125	25,0	23	-6	-6	0,4	SN..1204..
	PSKNR2525M12	25	25	150	32,0	23	-6	-6	0,8	SN..1204..
	PSKNL2020K12	20	20	125	25,0	23	-6	-6	0,4	SN..1204..
	PSKNL2525M12	25	25	150	32,0	23	-6	-6	0,8	SN..1204..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
...12	PP4713	PSN120312	3SMS795	LS0818	MP0912	RP6757
...19	PP7521	PSN190412	4SMS795	LS1027	MP1519	RP9811
...25	PP1325	PSN250624	5SMS795	LS1236	MP25	RP1312

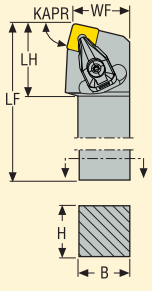
Please check availability in current price and stock-list

Toolholders for PCBN inserts SNGA



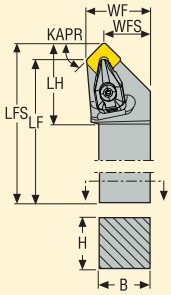
- For inserts programme, see page(s) 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DSBNR/L..-C



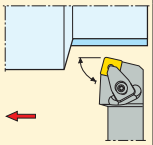
Right-hand version shown
KAPR = 75°

DSSNR/L..-C

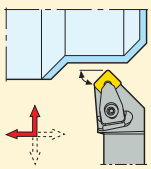


Right-hand version shown
KAPR = 45°

DSBNR/L..-C
75 °



DSSNR/L..-C
45 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		H	B	LF	LFS	WF	WFS	LH				
12	**DSBNR3225P12-C**	32	25	170	–	32,0	–	35	-6	-6	1,1	SN.A1204..
	DSBNL3225P12-C	32	25	170	–	32,0	–	35	-6	-6	1,1	SN.A1204..
12	**DSSNR3225P12-C**	32	25	170	179,1	32,0	23,9	39	-8	0	1,1	SN.A1204..
	DSSNL3225P12-C	32	25	170	179,1	32,0	23,9	39	-8	0	1,1	SN.A1204..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...12	FP2012	L85021-T15P	CC12P-S12	DSN120616	T15P-2	C04008-T15P	S6912	CC12P-SET

Please check availability in current price and stock-list

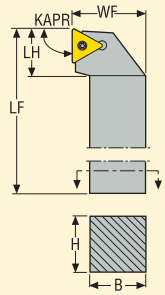
* To be ordered separately

Toolholders for inserts TCGT, TCGW, TCMT and TCMW



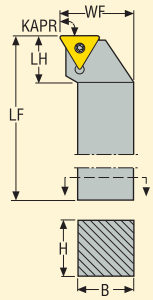
- For inserts programme, see page(s) 419-421, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

STGCR/L



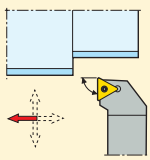
Right-hand version shown
KAPR = 90°

STFCR/L

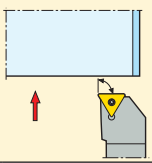


Right-hand version shown
KAPR = 90°

STGCR/L
90 °



STFCR/L
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	STGCR1212F11	12	12	80	16,0	17	0	0	0,1	TC..1102..
	STGCR1616H11	16	16	100	20,0	17	0	0	0,2	TC..1102..
	STGCL1212F11	12	12	80	16,0	17	0	0	0,1	TC..1102..
	STGCL1616H11	16	16	100	20,0	17	0	0	0,2	TC..1102..
16	STGCR1616H16	16	16	100	20,0	25	0	0	0,2	TC..16T3..
	STGCR2020K16	20	20	125	25,0	26	0	0	0,4	TC..16T3..
	STGCR2525M16	25	25	150	32,0	27	0	0	0,8	TC..16T3..
	STGCL1616H16	16	16	100	20,0	25	0	0	0,2	TC..16T3..
	STGCL2020K16	20	20	125	25,0	26	0	0	0,4	TC..16T3..
	STGCL2525M16	25	25	150	32,0	27	0	0	0,8	TC..16T3..
11	STFCR1212F11	12	12	80	16,0	16	0	0	0,1	TC..1102..
	STFCR1616H11	16	16	100	20,0	16	0	0	0,2	TC..1102..
	STFCL1212F11	12	12	80	16,0	16	0	0	0,1	TC..1102..
	STFCL1616H11	16	16	100	20,0	16	0	0	0,2	TC..1102..
16	STFCR1616H16	16	16	100	20,0	22	0	0	0,3	TC..16T3..
	STFCR2020K16	20	20	125	25,0	22	0	0	0,4	TC..16T3..
	STFCR2525M16	25	25	150	32,0	24	0	0	0,8	TC..16T3..
	STFCL1616H16	16	16	100	20,0	22	0	0	0,3	TC..16T3..
	STFCL2020K16	20	20	125	25,0	22	0	0	0,4	TC..16T3..
	STFCL2525M16	25	25	150	32,0	24	0	0	0,8	TC..16T3..

Spare Parts, Parts included in delivery

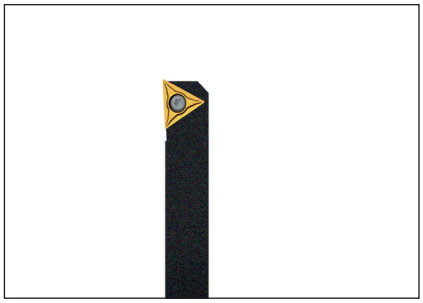
For size	Insert key	Insert screw	Insert shim	Shim screw
...11	T07P-2	C02506-T07P	–	–
...16	T15P-2	C03509-T15P	STN160312	CA3510

Accessories, to be ordered separately

Shim key
–
9/64SMS875

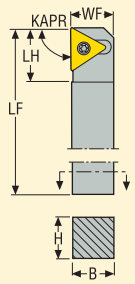
Please check availability in current price and stock-list

Toolholders for inserts TCGT, TCGW, TCMT and TCMW



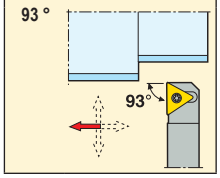
- For inserts programme, see page(s) 419-422, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

STJCR/L



Right-hand version shown
KAPR = 93°

STJCR/L
93 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	STJCR1010M11	10	10	150	10,0	13	0	0	0,2	TC..1102..
	STJCR1212M11	12	12	150	12,0	13	0	0	0,2	TC..1102..
	STJCR1616H11	16	16	100	16,0	13	0	0	0,2	TC..1102..
	STJCL1010M11	10	10	150	10,0	13	0	0	0,2	TC..1102..
	STJCL1212M11	12	12	150	12,0	13	0	0	0,2	TC..1102..
	STJCL1616H11	16	16	100	16,0	13	0	0	0,2	TC..1102..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...11	T07P-2	C02506-T07P

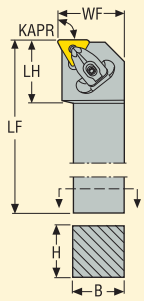
Please check availability in current price and stock-list

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



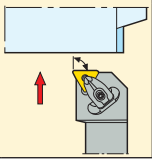
- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DTFNR/L..-M



Right-hand version shown
KAPR = 90°

DTFNR/L..-M
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	DTFNR2020K16-M	20	20	125	25,0	29	-6	-6	0,4	TN..1604..
	DTFNR2525M16-M	25	25	150	32,0	30	-6	-6	0,8	TN..1604..
	DTFNR3225P16-M	32	25	170	32,0	30	-6	-6	1,1	TN..1604..
	DTFNL2020K16-M	20	20	125	25,0	30	-6	-6	0,4	TN..1604..
	DTFNL2525M16-M	25	25	150	32,0	30	-6	-6	0,8	TN..1604..
	DTFNL3225P16-M	32	25	170	32,0	30	-6	-6	1,1	TN..1604..
22	DTFNR2525M22-M	25	25	150	32,0	30	-6	-6	0,8	TN..2204..
	DTFNR3232P22-M	32	32	170	40,0	32	-6	-6	1,4	TN..2204..
	DTFNL2525M22-M	25	25	150	32,0	30	-6	-6	0,8	TN..2204..
	DTFNL3232P22-M	32	32	170	40,0	32	-6	-6	1,4	TN..2204..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...16	FP1508	L84017-T09P	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608
...22	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912

Accessories*

Clamp kit
CD09-S09
CD12-S12

Please check availability in current price and stock-list

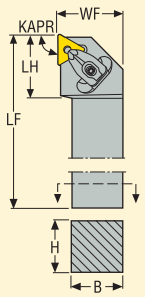
* To be ordered separately
Shim DTN220640 for insert TN..220432.., to be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



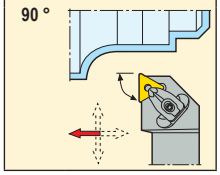
- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DTGNR/L..-M



Right-hand version shown
KAPR = 90°

DTGNR/L..-M
90 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	**DTGNR2020K16-M**	20	20	125	25,0	29	-6	-6	0,5	TN..1604..
	DTGNR2525M16-M	25	25	150	32,0	30	-6	-6	0,8	TN..1604..
	DTGNL2020K16-M	20	20	125	25,0	29	-6	-6	0,5	TN..1604..
	DTGNL2525M16-M	25	25	150	32,0	30	-6	-6	0,8	TN..1604..
22	**DTGNR2525M22-M**	25	25	150	32,0	31	-6	-6	0,8	TN..2204..
	DTGNR3232P22-M	32	32	170	40,0	32	-6	-6	1,4	TN..2204..
	DTGNL2525M22-M	25	25	150	32,0	31	-6	-6	0,8	TN..2204..
	DTGNL3232P22-M	32	32	170	40,0	32	-6	-6	1,4	TN..2204..

Spare Parts, Parts included in delivery

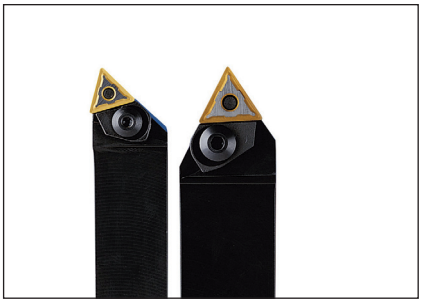
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...16	FP1508	L84017-T09P	CD09-S	DTN160616	T09P-2	C03007-T09P	S5608	CD09-S09
...22	FP2012	L85021-T15P	CD12-S	DTN220616	T15P-7	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

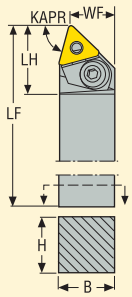
* To be ordered separately
Shim DTN220640 for insert TN..220432.., to be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



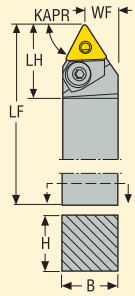
- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PTBNR/L



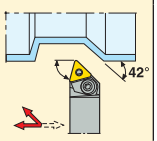
Right-hand version shown
KAPR = 75°

PTNNR/L

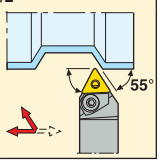


Right-hand version shown
KAPR = 63°

PTBNR/L
75 °



PTNNR/L
63 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	**PTBNR2525M16**	25	25	150	22,0	26	-5	-6	0,7	TN..1604..
	PTBNL2525M16	25	25	150	22,0	26	-5	-6	0,7	TN..1604..
16	**PTNNR3225P16**	32	25	170	13,0	28	-6	-5	1,0	TN..1604..
	PTNNL3225P16	32	25	170	13,0	28	-6	-5	1,0	TN..1604..
22	**PTNNR3225P22**	32	25	170	13,0	34	-6	-5	1,0	TN..2204..
	PTNNR5032M22	50	32	150	16,5	34	-6	-5	1,7	TN..2204..
	PTNNL3225P22	32	25	170	13,0	34	-6	-5	1,0	TN..2204..
	PTNNL5032M22	50	32	150	16,5	34	-6	-5	1,7	TN..2204..

Spare Parts, Parts included in delivery

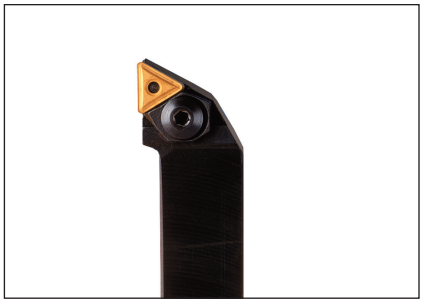
Accessories*

For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
R...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1	T09P-2
L...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1	T09P-2
R...22	170.26-624	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655	T15P-2
L...22	170.26-624	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655	T15P-2

Please check availability in current price and stock-list

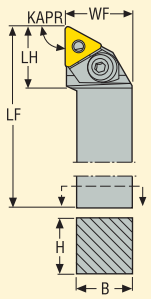
* To be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



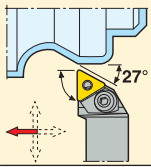
- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PTGNR/L, -..A



Right-hand version shown
KAPR = 90°

PTGNR/L, -..A
90 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	PTGNR1616-11A	16	16	100	20,0	16	-5	-6	0,2	TN..1103..
	PTGNL1616-11A	16	16	100	20,0	16	-5	-6	0,2	TN..1103..
16	PTGNR2020K16	20	20	125	25,0	23	-5	-6	0,4	TN..1604..
	PTGNR2525M16	25	25	150	32,0	23	-5	-6	0,7	TN..1604..
	PTGNR3225P16	32	25	170	32,0	23	-5	-6	1,1	TN..1604..
	PTGNL2020K16	20	20	125	25,0	23	-5	-6	0,4	TN..1604..
	PTGNL2525M16	25	25	150	32,0	23	-5	-6	0,8	TN..1604..
	PTGNL3225P16	32	25	170	32,0	23	-5	-6	1,1	TN..1604..
22	PTGNR2525M22	25	25	150	32,0	29	-5	-6	0,8	TN..2204..
	PTGNR3232P22	32	32	170	40,0	29	-5	-6	1,3	TN..2204..
	PTGNL2525M22	25	25	150	32,0	29	-5	-6	0,8	TN..2204..
	PTGNL3232P22	32	32	170	40,0	29	-5	-6	1,3	TN..2204..
27	PTGNR4040T27	40	40	300	50,0	38	-5	-6	3,6	TN..2706..
	PTGNL4040T27	40	40	300	50,0	38	-5	-6	3,6	TN..2706..

Spare Parts, Parts included in delivery

For size	Insert shim	Locking screw	Nut	Punch	Shim pin	Wedge clamp	Wedge key	Wedge screw
R...11	117.26-620	136.26-654	–	–	117.26-654	110.26-639	2.5SMS795	117.26-657
L...11	117.26-620	136.26-654	–	–	117.26-654	110.26-638	2.5SMS795	117.26-657
R...16	117.26-622	–	–	–	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L...16	117.26-622	–	–	–	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1
R...22	170.26-624	–	–	–	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655
L...22	170.26-624	–	–	–	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655
R...27	117.26-628	–	170.26-651	117.26-687	126.26-650	110.26-645	5SMS795	110.26-655
L...27	117.26-628	–	170.26-651	117.26-687	126.26-650	110.26-644	5SMS795	110.26-655

Accessories*

Shim key
2SMS795
2SMS795
T09P-2
T09P-2
T15P-2
T15P-2
4SMS795
4SMS795

Please check availability in current price and stock-list

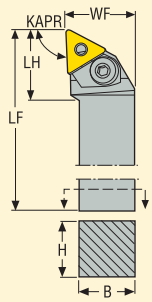
* To be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG, TNMM and TNMX



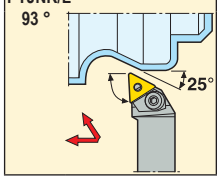
- For inserts programme, see page(s) 424-429, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PTJNR/L



Right-hand version shown
KAPR = 93°

PTJNR/L
93 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	**PTJNR2020K16**	20	20	125	25,0	23	-5	-6	0,4	TN..1604..
	PTJNR2525M16	25	25	150	32,0	23	-5	-6	0,7	TN..1604..
	PTJNR3232P16	32	32	170	40,0	23	-5	-6	1,3	TN..1604..
	PTJNL2020K16	20	20	125	25,0	23	-5	-6	0,4	TN..1604..
	PTJNL2525M16	25	25	150	32,0	23	-5	-6	0,7	TN..1604..
	PTJNL3232P16	32	32	170	40,0	23	-5	-6	1,3	TN..1604..
22	**PTJNR2525M22**	25	25	150	32,0	29	-5	-6	0,8	TN..2204..
	PTJNR3232P22	32	32	170	40,0	29	-5	-6	1,3	TN..2204..
	PTJNR4032R22	40	32	200	40,0	29	-5	-6	2,0	TN..2204..
	PTJNL2525M22	25	25	150	32,0	29	-5	-6	0,8	TN..2204..
	PTJNL3232P22	32	32	170	40,0	29	-5	-6	1,3	TN..2204..
	PTJNL4032R22	40	32	200	40,0	29	-5	-6	2,0	TN..2204..

Spare Parts, Parts included in delivery

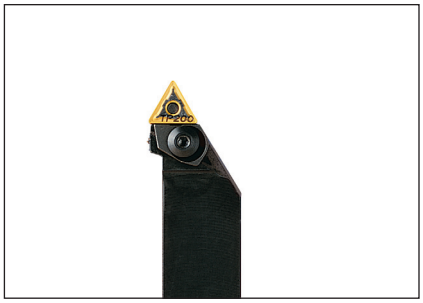
Accessories*

For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
R...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1	T09P-2
L...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1	T09P-2
R...22	170.26-624	PP2015-1-T15P	110.26-643.1	4SMS795	170.26-655	T15P-2
L...22	170.26-624	PP2015-1-T15P	110.26-642.1	4SMS795	170.26-655	T15P-2

Please check availability in current price and stock-list

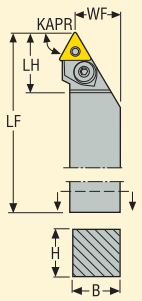
* To be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM



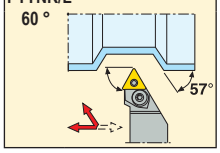
- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

PTTNR/L



Right-hand version shown
KAPR = 60°

PTTNR/L
60 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	**PTTNR2020K16**	20	20	125	17,0	28	-6	-5	0,4	TN..1604..
	PTTNR2525M16	25	25	150	22,0	28	-6	-5	0,8	TN..1604..
	PTTNL2020K16	20	20	125	17,0	28	-6	-5	0,4	TN..1604..
	PTTNL2525M16	25	25	150	22,0	28	-6	-5	0,8	TN..1604..

Spare Parts, Parts included in delivery

For size	Insert shim	Shim pin	Wedge clamp	Wedge key	Wedge screw
R...16	117.26-622	PP2009-T09P	110.26-641.1	3SMS795	117.26-655.1
L...16	117.26-622	PP2009-T09P	110.26-640.1	3SMS795	117.26-655.1

Accessories*

Shim key
T09P-2
T09P-2

Please check availability in current price and stock-list

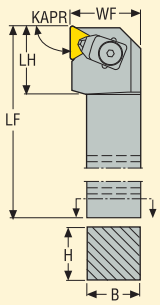
* To be ordered separately

Toolholders for PCBN inserts TNGN and TNMN



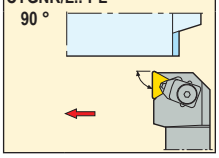
- For inserts programme, see page(s) 458-459, 461
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CTGNR/L..-PL



Right-hand version shown
KAPR = 90°

CTGNR/L..-PL
90 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	**CTGNR3225P11-PL**	32	25	170	32,2	31	-8	0	1,1	TN.N11..
	CTGNL3225P11-PL	32	25	170	32,2	31	-8	0	1,1	TN.N11..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Setting screw	Shim screw
...11	CC17P-06	4SMS795	CTN110308	P1311-06	179.17-686	CS2507-T07P

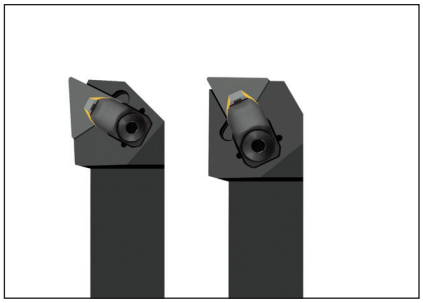
Accessories*

Shim key
T07P-2

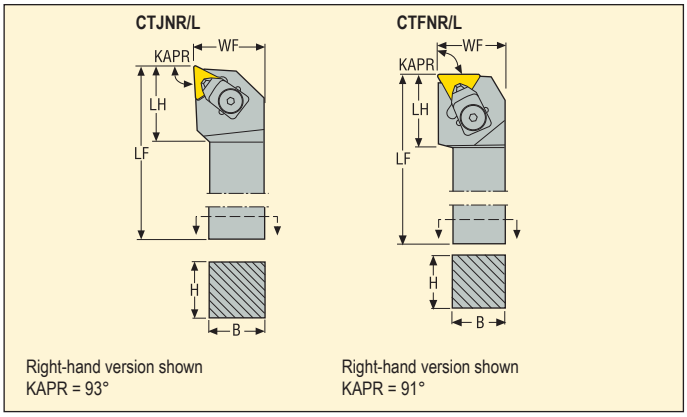
Please check availability in current price and stock-list

* To be ordered separately

Toolholders for PCBN inserts TNGN, TNGX, TNMN and TNMX

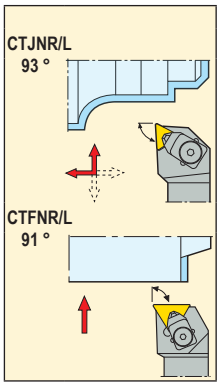


- For inserts programme, see page(s) 458-462
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 93°

Right-hand version shown
KAPR = 91°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	CTJNR2525M11	25	25	150	32,2	23	-6	-6	0,8	TN.N/TN.X1103..
	CTJNL2525M11	25	25	150	32,2	23	-6	-6	0,8	TN.N/TN.X1103..
16	CTJNR2525M16	25	25	150	32,2	35	-6	-6	0,8	TN.N1604..
	CTJNL2525M16	25	25	150	32,2	35	-6	-6	0,8	TN.N1604..
11	CTFNR2525M11	25	25	150	32,2	29	-6	-6	0,8	TN.N/TN.X1103..
	CTFNL2525M11	25	25	150	32,2	29	-6	-6	0,8	TN.N/TN.X1103..
16	CTFNR2525M16	25	25	150	32,2	35	-6	-6	0,8	TN.N1604..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
...11	CC17P-06	4SMS795	CTN110308	P1311-06	CS2507-T07P	T07P-2
...16	CC17P-09	4SMS795	175.10-621	P1311-09	F94009-T09P	T09P-2

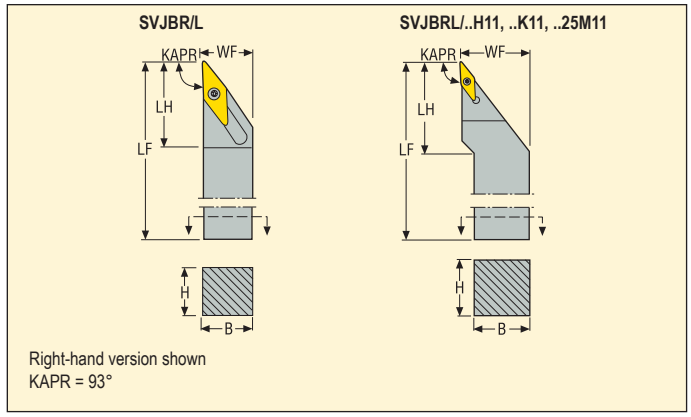
Please check availability in current price and stock-list

* To be ordered separately
Shim CTN110312 for insert TN.N110312 and TNMX110308S-WZ, to be ordered separately
Shim 175.10-622 for insert TNGN1603.., to be ordered separately

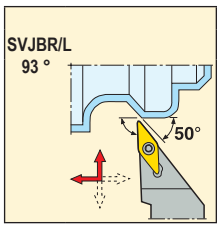
Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



- For inserts programme, see page(s) 430-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
11	**SVJBR1010M11**	10	10	150	10,0	20	0	0	0,2	VB..1102..
	SVJBR1212M11	12	12	150	12,0	20	0	0	0,2	VB..1102..
	SVJBR1616H11	16	16	100	20,0	27	0	0	0,2	VB..1102..
	SVJBR2020K11	20	20	125	25,0	27	0	0	0,4	VB..1102..
	SVJBR2525M11	25	25	150	32,0	42	0	0	0,7	VB..1102..
	SVJBL1010M11	10	10	150	10,0	20	0	0	0,2	VB..1102..
	SVJBL1212M11	12	12	150	12,0	20	0	0	0,2	VB..1102..
	SVJBL1616H11	16	16	100	20,0	27	0	0	0,2	VB..1102..
	SVJBL2020K11	20	20	125	25,0	27	0	0	0,4	VB..1102..
	SVJBL2525M11	25	25	150	32,0	42	0	0	0,7	VB..1102..
16	**SVJBR1212M16**	12	12	150	12,5	30	0	0	0,2	VB../VC..1604..
	SVJBR1616H16	16	16	100	16,5	30	0	0	0,2	VB../VC..1604..
	SVJBL1212M16	12	12	150	12,0	30	0	0	0,2	VB../VC..1604..
	SVJBL1616H16	16	16	100	16,0	30	0	0	0,2	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...11	T07P-2	C02506-T07P
...16	T15P-2	C03512-T15P

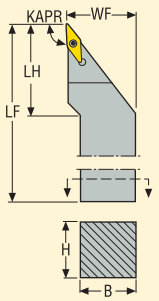
Please check availability in current price and stock-list

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



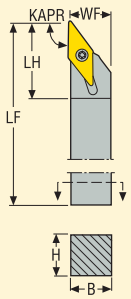
- For inserts programme, see page(s) 430-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SVJCR/L

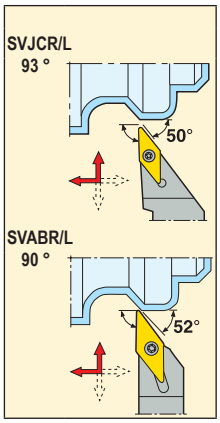


Right-hand version shown
KAPR = 93°

SVABR/L



Right-hand version shown
KAPR = 90°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	SVJCR2020K11	20	20	125	25,0	25	0	0	0,4	VC..1103..
	SVJCL2020K11	20	20	125	25,0	25	0	0	0,4	VC..1103..
11	SVABR1010M11	10	10	150	10,0	20	0	0	0,2	VB..1102..
	SVABR1212M11	12	12	150	12,0	20	0	0	0,2	VB..1102..
	SVABL1010M11	10	10	150	10,0	20	0	0	0,2	VB..1102..
	SVABL1212M11	12	12	150	12,0	20	0	0	0,2	VB..1102..
16	SVABR1212M16	12	12	150	12,0	30	0	0	0,2	VB../VC..1604..
	SVABR1616H16	16	16	100	16,0	30	0	0	0,2	VB../VC..1604..
	SVABL1212M16	12	12	150	12,0	30	0	0	0,2	VB../VC..1604..
	SVABL1616H16	16	16	100	16,0	30	0	0	0,2	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...11	T07P-2	C02506-T07P
...16	T15P-2	C03510-T15P

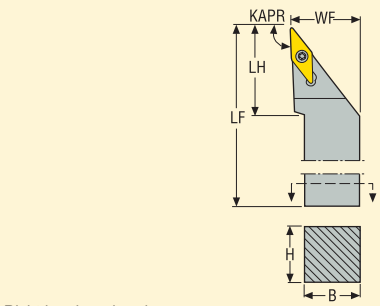
Please check availability in current price and stock-list

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



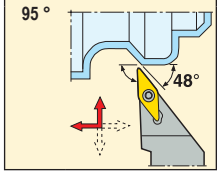
- For inserts programme, see page(s) 430-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SVLBR/L



Right-hand version shown
KAPR = 95°

SVLBR/L
95 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	SVLBR2020K16	20	20	125	25,0	40	0	0	0,4	VB/VC..1604..
	SVLBR2525M16	25	25	150	32,0	40	0	0	0,7	VB/VC..1604..
	SVLBR3225P16	32	25	170	32,0	40	0	0	1,0	VB/VC..1604..
	SVLBL2020K16	20	20	125	25,0	40	0	0	0,4	VB/VC..1604..
	SVLBL2525M16	25	25	150	32,0	40	0	0	0,7	VB/VC..1604..
	SVLBL3225P16	32	25	170	32,0	40	0	0	1,0	VB/VC..1604..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
...16	T15P-2	C03512-T15P	171.19-620	CA3510

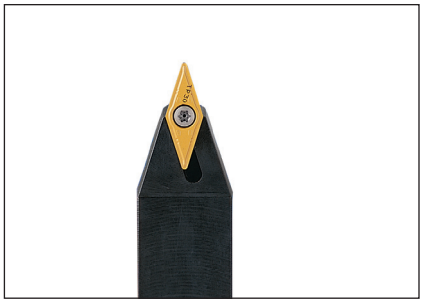
Accessories*

Shim key
9/64SMS875

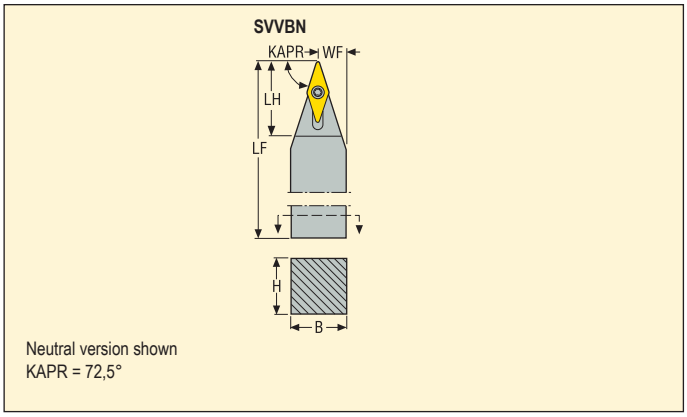
Please check availability in current price and stock-list

* To be ordered separately

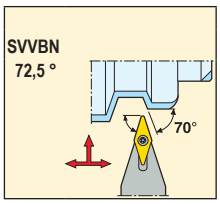
Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



- For inserts programme, see page(s) 430-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Neutral version shown
KAPR = 72,5°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
11	SVVBN1010M11	10	10	150	5,3	25	0	0	0,2	VB..1102..
	SVVBN1212M11	12	12	150	6,3	25	0	0	0,2	VB..1102..
	SVVBN1616H11	16	16	100	8,3	26	0	0	0,2	VB..1102..
	SVVBN2020K11	20	20	125	10,3	26	0	0	0,4	VB..1102..
	SVVBN2525M11	25	25	150	12,8	26	0	0	0,7	VB..1102..
16	SVVBN1212M16	12	12	150	6,3	30	0	0	0,2	VB../VC..1604..
	SVVBN1616H16	16	16	100	8,3	30	0	0	0,2	VB../VC..1604..
	SVVBN2020K16	20	20	125	10,6	35	0	0	0,4	VB../VC..1604..
	SVVBN2525M16	25	25	150	13,1	35	0	0	0,7	VB../VC..1604..
	SVVBN3225P16	32	25	170	13,1	35	0	0	1,0	VB../VC..1604..

Spare Parts, Parts included in delivery

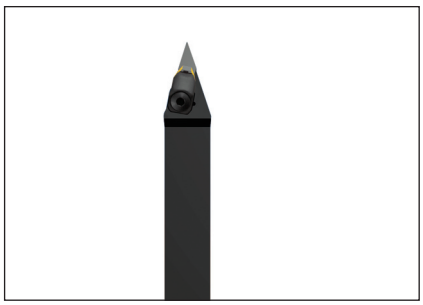
For size	Insert key	Insert screw	Insert shim	Shim screw
...11	T07P-2	C02506-T07P	–	–
.1212M16/.1616H16	T15P-2	C03510-T15P	–	–
...16	T15P-2	C03512-T15P	171.19-620	CA3510

Accessories, to be ordered separately

Shim key
–
–
9/64SMS875

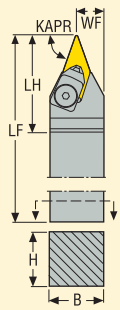
Please check availability in current price and stock-list

Toolholders for PCBN inserts VNGA and VNMA



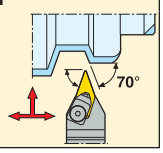
- For inserts programme, see page(s) 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

CVVNN



Neutral version shown
KAPR = 72,5°

CVVNN
72,5 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	CVVNN3225P16	32	25	170	13,1	42	-15	-5	1,0	VN.A1604..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim pin
...16	CC20P	4SMS795	VSN160316	P1311-09	MN0909L-T09P

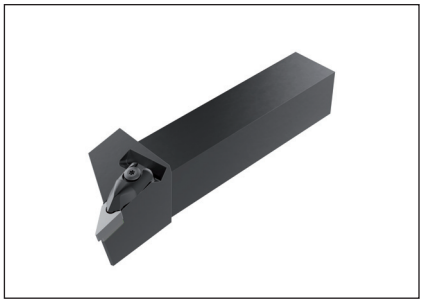
Accessories*

Shim key
T09P-2

Please check availability in current price and stock-list

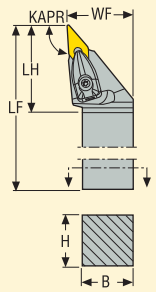
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG and VNMU



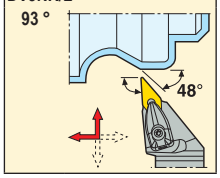
- For inserts programme, see page(s) 432-434, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DVJNR/L



Right-hand version shown
KAPR = 93°

DVJNR/L
93 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
13	DVJNR1616H13	16	16	100	20,0	42	-4,5	-13,5	0,2	VN..1304..
	DVJNR2020K13	20	20	125	25,0	42	-4,5	-13,5	0,4	VN..1304..
	DVJNR2525M13	25	25	150	32,0	42	-4,5	-13,5	0,7	VN..1304..
	DVJNL1616H13	16	16	100	20,2	42	-4,5	-13,5	0,2	VN..1304..
	DVJNL2020K13	20	20	125	25,0	42	-4,5	-13,5	0,4	VN..1304..
	DVJNL2525M13	25	25	150	32,0	42	-4,5	-13,5	0,7	VN..1304..
16	DVJNR2020K16	20	20	125	25,0	41	-4,5	-13,5	0,4	VN..1604..
	DVJNR2525M16	25	25	150	32,0	41	-4,5	-13,5	0,7	VN..1604..
	DVJNR3225P16	32	25	170	32,0	41	-4,5	-13,5	1,0	VN..1604..
	DVJNL2020K16	20	20	125	25,0	41	-4,5	-13,5	0,4	VN..1604..
	DVJNL2525M16	25	25	150	32,0	41	-4,5	-13,5	0,7	VN..1604..
	DVJNL3225P16	32	25	170	32,0	41	-4,5	-13,5	1,0	VN..1604..

Spare Parts, Parts included in delivery

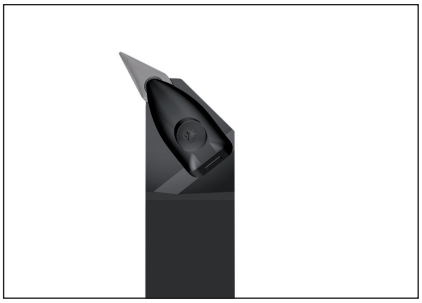
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...13	FP1508	L84017-T09P	CD08-S	PVN130308	T09P-2	CS5008-T09P	S5608	CD08-V13
...16	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912	CD19-V16

Please check availability in current price and stock-list

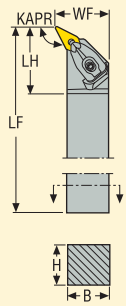
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM, VNMA and VNMG



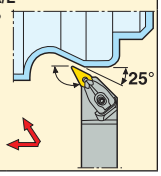
- For inserts programme, see page(s) 432-434, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DVPNR/L



Right-hand version shown
KAPR = 117,5°

DVPNR/L
117,5 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
16	DVPNR2020K16	20	20	125	25,0	42	-4,5	-13,5	0,5	VN..1604..
	DVPNR2525M16	25	25	150	32,0	41	-4,5	-13,5	0,8	VN..1604..
	DVPNR3232P16	32	32	170	40,0	41	-4,5	-13,5	1,4	VN..1604..
	DVPNL2020K16	20	20	125	25,0	42	-4,5	-13,5	0,5	VN..1604..
	DVPNL2525M16	25	25	150	32,0	41	-4,5	-13,5	0,8	VN..1604..
	DVPNL3232P16	32	32	170	40,0	41	-4,5	-13,5	1,4	VN..1604..

Spare Parts, Parts included in delivery

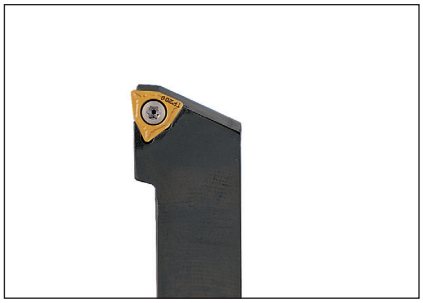
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...16	FP2012	L85021-T15P	CD19-S-V16	DVN160310	T15P-7	C03508-T15P	S6912	CD19-V16

Please check availability in current price and stock-list

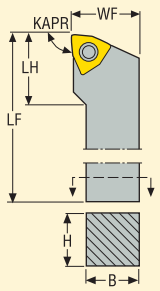
* To be ordered separately

Toolholders for inserts WCMT



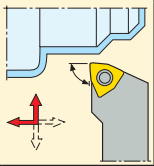
- For inserts programme, see page(s) 435
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SWLCR/L



Right-hand version shown
KAPR = 95°

SWLCR/L
95 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**SWLCR1616H06**	16	16	100	20,0	20	0	0	0,2	WCMT06T3..
	SWLCR2020K06	20	20	125	25,0	21	0	0	0,4	WCMT06T3..
	SWLCL1616H06	16	16	100	20,0	20	0	0	0,2	WCMT06T3..
	SWLCL2020K06	20	20	125	25,0	21	0	0	0,4	WCMT06T3..

Spare Parts, Parts included in delivery

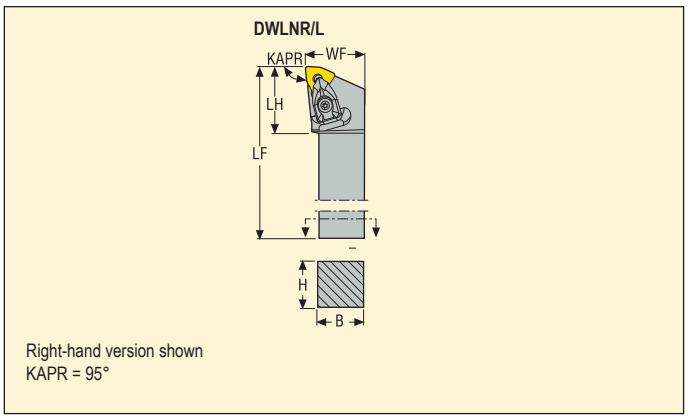
For size	Insert key	Insert screw
...06	T15P-2	C03510-T15P

Please check availability in current price and stock-list

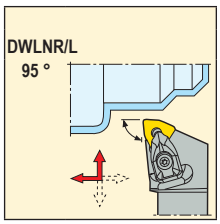
Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



- For inserts programme, see page(s) 435-439, 466
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**DWLNR1616H06**	16	16	100	20,0	31	-6	-6	0,3	WN..0604..
	DWLNR2020K06	20	20	125	25,0	31	-6	-6	0,4	WN..0604..
	DWLNR2525M06	25	25	150	32,0	30	-6	-6	0,8	WN..0604..
	DWLNR3232P06	32	32	170	40,0	32	-6	-6	1,4	WN..0604..
	DWLNL1616H06	16	16	100	20,0	31	-6	-6	0,3	WN..0604..
	DWLNL2020K06	20	20	125	25,0	31	-6	-6	0,4	WN..0604..
	DWLNL2525M06	25	25	150	32,0	30	-6	-6	0,8	WN..0604..
	DWLNL3232P06	32	32	170	40,0	32	-6	-6	1,4	WN..0604..
08	**DWLNR2020K08**	20	20	125	25,0	31	-6	-6	0,4	WN..0804..
	DWLNR2525M08	25	25	150	32,0	35	-6	-6	0,8	WN..0804..
	DWLNR3232P08	32	32	170	40,0	35	-6	-6	1,4	WN..0804..
	DWLNL2020K08	20	20	125	25,0	31	-6	-6	0,4	WN..0804..
	DWLNL2525M08	25	25	150	32,0	35	-6	-6	0,8	WN..0804..
	DWLNL3232P08	32	32	170	40,0	35	-6	-6	1,4	WN..0804..

Spare Parts, Parts included in delivery

Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...06	FP1508	L84017-T09P	CD09-S	DWN060310	T09P-2	C03007-T09P	S5608	CD09-S09
...08	FP2012	L85021-T15P	CD12-S	DWN080416	T15P-7	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

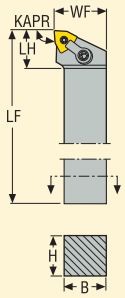
* To be ordered separately
Shim DWN080316 for insert WN..0806.., to be ordered separately

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



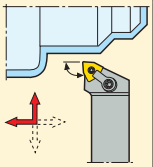
- For inserts programme, see page(s) 435-439, 466
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

MWLNR/L



Right-hand version shown
KAPR = 95°

MWLNR/L
95 °



	Designation	Dimensions in mm H	B	LF	WF	LH	GAMO°	LAMS°	KG	
08	MWLNR2020K08	20	20	125	25,0	31	-6	-6	0,5	WN..0804..
	MWLNR2525M08	25	25	150	32,0	31	-6	-6	0,8	WN..0804..
	MWLNR3232P08	32	32	170	40,0	31	-6	-6	1,4	WN..0804..
	MWLNL2020K08	20	20	125	25,0	31	-6	-6	0,5	WN..0804..
	MWLNL2525M08	25	25	150	32,0	31	-6	-6	0,8	WN..0804..
	MWLNL3232P08	32	32	170	40,0	31	-6	-6	1,4	WN..0804..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
...08	MC21	LD6025-T15P	MWN080412	T15P-2	MN1215T-T15P

Accessories*

Plug
P3

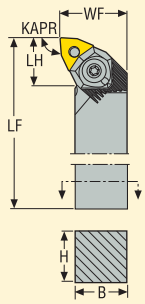
Please check availability in current price and stock-list

* To be ordered separately
Shim MWN080312 for insert WN..0806.., to be ordered separately

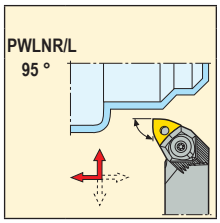
Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



- For inserts programme, see page(s) 435-439, 466
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	**PWLNR1616H06**	16	16	100	20,0	21	-6	-6	0,2	WN..0604..
	PWLNR2020K06	20	20	125	25,0	21	-6	-6	0,4	WN..0604..
	PWLNR2525M06	25	25	150	32,0	21	-6	-6	0,7	WN..0604..
	PWLNR3232P06	32	32	170	40,0	21	-6	-6	1,4	WN..0604..
	PWLNL1616H06	16	16	100	20,0	21	-6	-6	0,2	WN..0604..
	PWLNL2020K06	20	20	125	25,0	21	-6	-6	0,4	WN..0604..
	PWLNL2525M06	25	25	150	32,0	21	-6	-6	0,7	WN..0604..
	PWLNL3232P06	32	32	170	40,0	21	-6	-6	1,4	WN..0604..
08	**PWLNR2020K08**	20	20	125	25,0	27	-6	-6	0,4	WN..0804..
	PWLNR2525M08	25	25	150	32,0	27	-6	-6	0,8	WN..0804..
	PWLNR3232P08	32	32	170	40,0	27	-6	-6	1,3	WN..0804..
	PWLNL2020K08	20	20	125	25,0	27	-6	-6	0,4	WN..0804..
	PWLNL2525M08	25	25	150	32,0	27	-6	-6	0,8	WN..0804..
	PWLNL3232P08	32	32	170	40,0	27	-6	-6	1,3	WN..0804..

Spare Parts, Parts included in delivery

For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
...H06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
...06	WAE060312	L82511-T07P	PP2109-T09P	WNW06HD	T20P-7	WS1920-T20P
...08	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P

Accessories*

Shim key
T09P-2
T09P-2
T15P-2

Please check availability in current price and stock-list

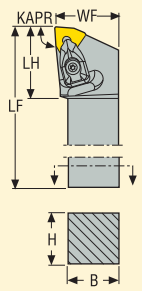
* To be ordered separately
Shim WAE080312 for insert WNM.0806.., to be ordered separately
Wedge WNW08 for insert WNMM08.., to be ordered separately

Toolholders for PCBN inserts WNGA and WNMA



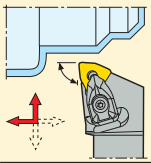
- For inserts programme, see page(s) 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

DWLNR/L..-C



Right-hand version shown
KAPR = 95°

DWLNR/L..-C
95 °



	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		H	B	LF	WF	LH				
06	DWLNR3225P06-C	32	25	170	32,0	32	-6	-6	1,1	WN.A0604..
08	DWLNR3225P08-C	32	25	170	32,0	35	-6	-6	1,1	WN.A0804..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...06	FP1508	L84017-T09P	CC09P-D11	DWN060310	T09P-2	C03007-T09P	S5608
...08	FP2012	L85021-T15P	CC12P-S12	DWN080416	T15P-2	C04008-T15P	S6912

Accessories*

Clamp kit
CC09P-SET
CC12P-SET

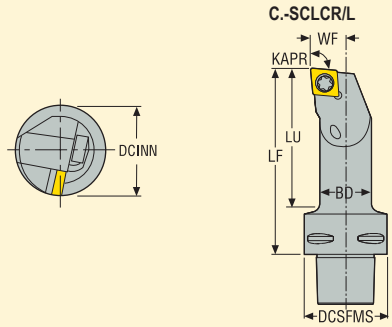
Please check availability in current price and stock-list

* To be ordered separately

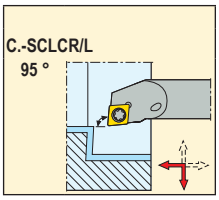
Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW



- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 95°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C3												
	09	C3-SCLCR-11065-09	16	32	11,0	65	48	20	0	-12	0,2	CC..09T3..
		C3-SCLCL-11065-09	16	32	11,0	65	48	20	0	-12	0,2	CC..09T3..
C4												
	09	C4-SCLCR-11070-09	16	40	11,0	70	47	20	0	-12	0,4	CC..09T3..
		C4-SCLCR-13080-09	20	40	13,0	80	57	25	0	-8	0,4	CC..09T3..
		C4-SCLCR-17090-09	25	40	17,0	90	68	32	0	-6	0,5	CC..09T3..
		C4-SCLCL-11070-09	16	40	11,0	70	47	20	0	-12	0,4	CC..09T3..
		C4-SCLCL-13080-09	20	40	13,0	80	57	25	0	-8	0,4	CC..09T3..
		C4-SCLCL-17090-09	25	40	17,0	90	68	32	0	-6	0,5	CC..09T3..
	12	C4-SCLCR-22110-12	32	40	22,0	110	89	40	0	-10	0,8	CC..1204..
C5												
	09	C5-SCLCR-11070-09	16	50	11,0	70	46	20	0	-12	0,5	CC..09T3..
		C5-SCLCR-13080-09	20	50	13,0	80	56	25	0	-8	0,6	CC..09T3..
		C5-SCLCR-17090-09	25	50	17,0	90	67	32	0	-6	0,7	CC..09T3..
		C5-SCLCL-11070-09	16	50	11,0	70	46	20	0	-12	0,5	CC..09T3..
		C5-SCLCL-13080-09	20	50	13,0	80	56	25	0	-8	0,6	CC..09T3..
		C5-SCLCL-17090-09	25	50	17,0	90	67	32	0	-6	0,7	CC..09T3..
	12	C5-SCLCR-27140-12	40	50	27,0	140	119	50	0	-8	1,5	CC..1204..
		C5-SCLCL-27140-12	40	50	27,0	140	119	50	0	-8	1,5	CC..1204..

Spare Parts, Parts included in delivery

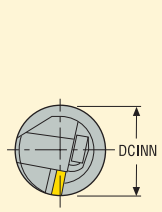
For size	Insert key	Insert screw	Insert shim	Shim screw
11065-09	T15P-2	C03508-T15P	–	–
11070-09	T15P-2	C03508-T15P	–	–
13080-09	T15P-2	C03508-T15P	–	–
17090-09	T15P-2	C03510-T15P	–	–
22110-12	T15P-2	C04014-T15P	SCN12T308	CA4010
27140-12	T15P-2	C04014-T15P	SCN12T308	CA4010

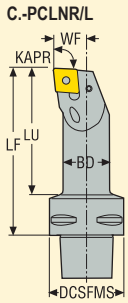
Please check availability in current price and stock-list

Toolholders for inserts CNGG, CNGM, CNMA, CNMG and CNMM

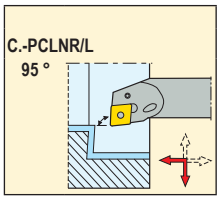


- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13





Right-hand version shown
KAPR = 95°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	12	C4-PCLNR-17090-12	25	40	17,0	90	69	32	-6	-11	0,5	CN..1204..
		C4-PCLNR-22110-12	32	40	22,0	110	89	40	-6	-11	0,8	CN..1204..
		C4-PCLNR-27080-12	40	40	27,0	80	60	50	-6	-10	0,7	CN..1204..
		C4-PCLNR-27120-12	40	40	27,0	120	100	50	-6	-11	1,1	CN..1204..
		C4-PCLNL-17090-12	25	40	17,0	90	69	32	-6	-11	0,5	CN..1204..
		C4-PCLNL-22110-12	32	40	22,0	110	89	40	-6	-11	0,8	CN..1204..
		C4-PCLNL-27080-12	40	40	27,0	80	60	50	-6	-10	0,7	CN..1204..
		C4-PCLNL-27120-12	40	40	27,0	120	100	50	-6	-11	1,1	CN..1204..
C5												
	12	C5-PCLNR-17090-12	25	50	17,0	90	67	32	-6	-11	0,7	CN..1204..
		C5-PCLNR-22110-12	32	50	22,0	110	88	40	-6	-11	1,0	CN..1204..
		C5-PCLNR-27140-12	40	50	27,0	140	119	50	-6	-10	1,5	CN..1204..
		C5-PCLNR-35100-12	50	50	35,0	100	81	50	-6	-7	1,4	CN..1204..
		C5-PCLNL-17090-12	25	50	17,0	90	67	32	-6	-11	0,7	CN..1204..
		C5-PCLNL-22110-12	32	50	22,0	110	88	40	-6	-11	0,8	CN..1204..
		C5-PCLNL-27140-12	40	50	27,0	140	119	50	-6	-10	1,5	CN..1204..
		C5-PCLNL-35100-12	50	50	35,0	100	81	50	-6	-7	1,4	CN..1204..
	16	C5-PCLNR-35150-16	50	50	35,0	150	131	63	-6	-11	2,1	CN..1606..
		C5-PCLNL-35150-16	50	50	35,0	150	131	63	-6	-11	2,1	CN..1606..

Spare Parts, Parts included in delivery

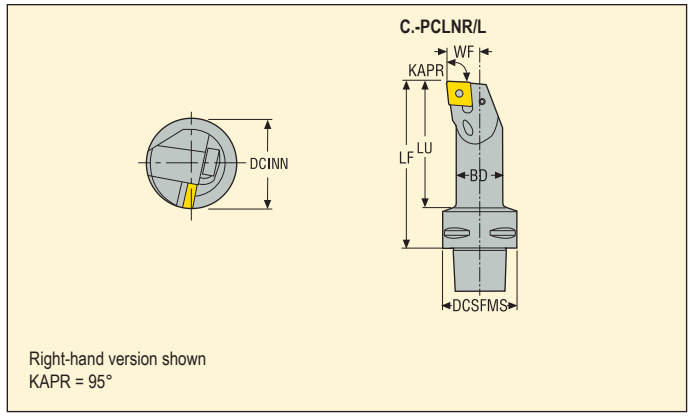
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
17090-12	PP4613	–	2.5SMS795	LS0613	–	–
-12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
-16	PP7818	PCN160408	3SMS795	LS0820	MP0912	RP8286

Please check availability in current price and stock-list

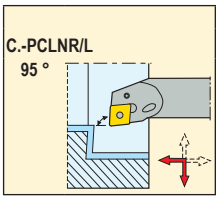
Toolholders for inserts CNGG, CNGM, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 95°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C6												
	12	C6-PCLNR-17100-12	25	63	17,0	100	74	32	-6	-11	1,1	CN..1204..
		C6-PCLNR-22110-12	32	63	22,0	110	84	40	-6	-11	1,3	CN..1204..
		C6-PCLNL-17100-12	25	63	17,0	100	74	32	-6	-11	1,1	CN..1204..
		C6-PCLNL-22110-12	32	63	22,0	110	84	40	-6	-11	1,3	CN..1204..
	16	C6-PCLNR-27140-16	40	63	27,0	140	115	50	-6	-11	1,8	CN..1606..
		C6-PCLNR-35175-16	50	63	35,0	175	152	63	-6	-11	2,8	CN..1606..
		C6-PCLNL-27140-16	40	63	27,0	140	115	50	-6	-11	1,8	CN..1606..
		C6-PCLNL-35175-16	50	63	35,0	175	152	63	-6	-11	2,8	CN..1606..

Spare Parts, Parts included in delivery

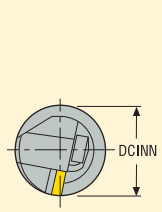
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
-17100-12	PP4613	–	2.5SMS795	LS0613	–	–
-22110-12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757
-16	PP7818	PCN160408	3SMS795	LS0820	MP0912	RP8286

Please check availability in current price and stock-list

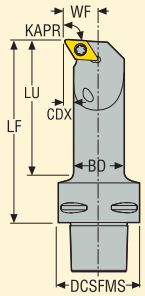
Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

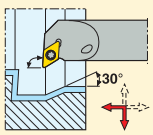


C.-SDUCR/L



Right-hand version shown
KAPR = 93°

C.-SDUCR/L
93 °



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C4													
	07	C4-SDUCR-11070-07	16	40	11,0	70	47	2,5	20	0	-8	0,4	DC..0702..
		C4-SDUCL-11070-07	16	40	11,0	70	47	2,5	20	0	-8	0,4	DC..0702..
	11	C4-SDUCR-13080-11	20	40	13,0	80	57	2,5	25	0	-8	0,4	DC..11T3..
		C4-SDUCR-17090-11	25	40	17,0	90	68	4,0	32	0	-6	0,5	DC..11T3..
		C4-SDUCR-22110-11	32	40	22,0	110	89	5,0	40	0	-6	0,8	DC..11T3..
		C4-SDUCR-27080-11	40	40	27,0	80	60	6,0	50	0	-6	0,7	DC..11T3..
		C4-SDUCL-13080-11	20	40	13,0	80	57	2,5	25	0	-8	0,4	DC..11T3..
		C4-SDUCL-17090-11	25	40	17,0	90	68	4,0	32	0	-6	0,5	DC..11T3..
		C4-SDUCL-22110-11	32	40	22,0	110	89	5,0	40	0	-6	0,8	DC..11T3..
		C4-SDUCL-27080-11	40	40	27,0	80	60	6,0	50	0	-6	0,7	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
-07	T07P-2	C02506-T07P	–	–
-13...-11	T15P-2	C03508-T15P	–	–
-17...-11	T15P-2	C03510-T15P	–	–
-2...-11	T15P-2	C03512-T15P	126.19-620	CA3507

Accessories*

Shim key
–
–
–
9/64SMS875

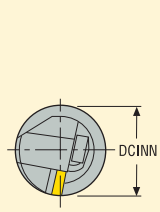
Please check availability in current price and stock-list

* To be ordered separately

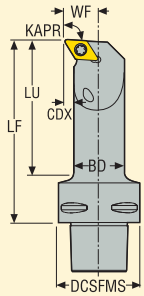
Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

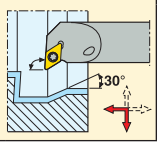


C.-SDUCR/L



Right-hand version shown
KAPR = 93°

C.-SDUCR/L
93 °



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C5													
	07	C5-SDUCR-11070-07	16	50	11,0	70	46	2,5	20	0	-8	0,5	DC..0702..
		C5-SDUCL-11070-07	16	50	11,0	70	46	2,5	20	0	-8	0,5	DC..0702..
	11	C5-SDUCR-13080-11	20	50	13,0	80	56	2,5	25	0	-8	0,6	DC..11T3..
		C5-SDUCR-17090-11	25	50	17,0	90	67	4,0	32	0	-6	0,7	DC..11T3..
		C5-SDUCR-22110-11	32	50	22,0	110	88	5,0	40	0	-6	0,9	DC..11T3..
		C5-SDUCR-35100-11	50	50	35,0	100	80	6,0	63	0	-4	1,4	DC..11T3..
		C5-SDUCL-13080-11	20	50	13,0	80	56	2,5	25	0	-8	0,6	DC..11T3..
		C5-SDUCL-17090-11	25	50	17,0	90	67	4,0	32	0	-6	0,7	DC..11T3..
		C5-SDUCL-22110-11	32	50	22,0	110	88	5,0	40	0	-6	0,9	DC..11T3..
		C5-SDUCL-35100-11	50	50	35,0	100	80	6,0	63	0	-4	1,4	DC..11T3..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
-07	T07P-2	C02506-T07P	–	–	–
-13...-11	T15P-2	C03508-T15P	–	–	–
-17...-11	T15P-2	C03510-T15P	–	–	–
-22/35...-11	T15P-2	C03512-T15P	126.19-620	CA3507	9/64SMS875

Please check availability in current price and stock-list

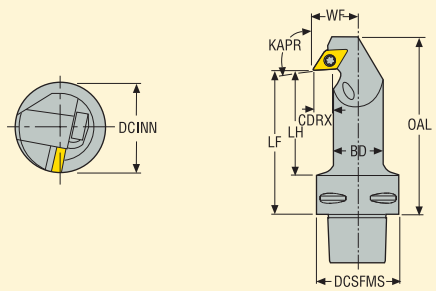
* To be ordered separately

Toolholders for inserts DCGT, DCGW, DCMT and DCMW



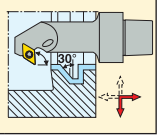
- For inserts programme, see page(s) 395-396, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

C.-SDUCR/L-..X



Right-hand version shown
KAPR = 93°

C.-SDUCR/L-..X
93 °



Capto size		Designation	Dimensions in mm								GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LH	CDRX	OAL	DCINN				
C4														
	07	C4-SDUCR-13070-07X	16	40	13,0	70	47	4,0	81	22	0	-6	0,4	DC..0702..
		C4-SDUCL-13070-07X	16	40	13,0	70	47	4,0	81	22	0	-6	0,4	DC..0702..

Spare Parts, Parts included in delivery

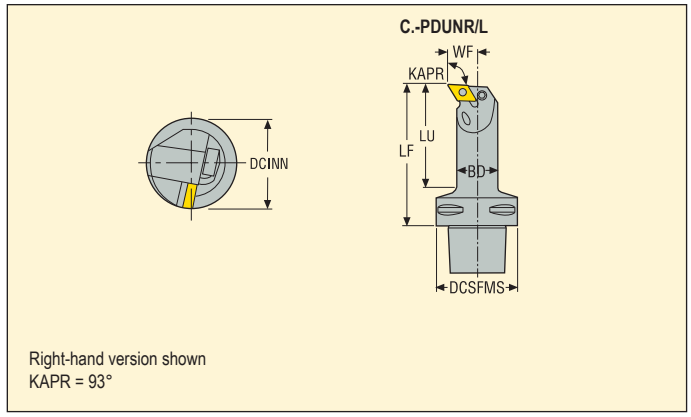
For size	Insert key	Insert screw
-07X	T07P-2	C02506-T07P

Please check availability in current price and stock-list

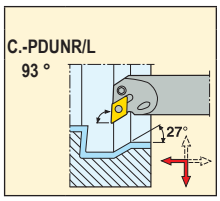
Toolholders for inserts DNGA, DNGM, DNMA, DNMG, DNMM and DNMX



- For inserts programme, see page(s) 399-404, 444
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	15	C4-PDUNR-27080-15	40	40	27,0	80	60	50	-6	-11	0,7	DN..1506..
		C4-PDUNR-27120-15	40	40	27,0	120	100	50	-6	-11	1,1	DN..1506..
		C4-PDUNL-27080-15	40	40	27,0	80	60	50	-6	-11	0,7	DN..1506..
		C4-PDUNL-27120-15	40	40	27,0	120	100	50	-6	-11	1,1	DN..1506..
C5												
	15	C5-PDUNR-27140-15	40	50	27,0	140	119	50	-6	-11	1,5	DN..1506..
		C5-PDUNR-35100-15	50	50	35,0	100	81	63	-6	-10	1,4	DN..1506..
		C5-PDUNR-35150-15	50	50	35,0	150	131	63	-6	-10	2,1	DN..1506..
		C5-PDUNL-27140-15	40	50	27,0	140	119	50	-6	-11	1,5	DN..1506..
		C5-PDUNL-35100-15	50	50	35,0	100	81	63	-6	-10	1,4	DN..1506..
		C5-PDUNL-35150-15	50	50	35,0	150	131	63	-6	-10	2,1	DN..1506..
C6												
	15	C6-PDUNR-22110-15	32	63	22,0	110	84	40	-6	-12	1,3	DN..1506..
		C6-PDUNR-27140-15	40	63	27,0	140	115	50	-6	-11	1,8	DN..1506..
		C6-PDUNR-35175-15	50	63	35,0	175	152	63	-6	-10	2,8	DN..1506..
		C6-PDUNL-22110-15	32	63	22,0	110	84	40	-6	-12	1,3	DN..1506..
		C6-PDUNL-27140-15	40	63	27,0	140	115	50	-6	-11	1,8	DN..1506..
		C6-PDUNL-35175-15	50	63	35,0	175	152	63	-6	-10	2,8	DN..1506..

Spare Parts, Parts included in delivery

For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
-15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Accessories*

Insert shim
PDN150408

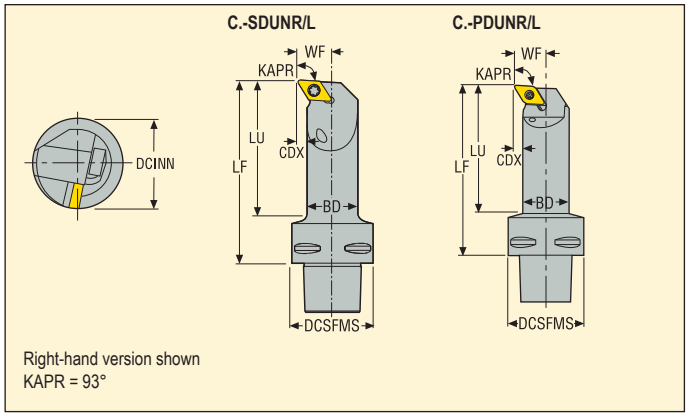
Please check availability in current price and stock-list

* To be ordered separately
Shim PDN150412 for insert DN..1504.., to be ordered separately

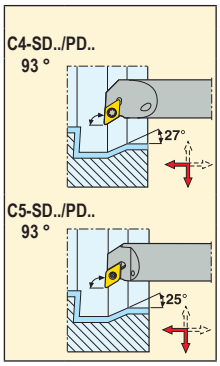
Toolholders for inserts DNMA, DNMU and DNMX



- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C4													
	11	C4-SDUNR-11065-11	16	40	11,0	65	41	2,5	20	-5	-17	0,3	DNMU/DNMX1104..
		C4-SDUNR-13080-11	20	40	13,0	80	56	2,5	25	-5	-14	0,4	DNMU/DNMX1104..
		C4-SDUNL-11065-11	16	40	11,0	65	41	2,5	20	-5	-17	0,3	DNMU/DNMX1104..
		C4-SDUNL-13080-11	20	40	13,0	80	56	2,5	25	-5	-14	0,4	DNMU/DNMX1104..
	11	C4-PDUNR-17090-11	25	40	17,0	90	68	4,0	32	-5	-13	0,5	DN..1104..
		C4-PDUNR-22110-11	32	40	22,0	110	89	5,0	40	-5	-11	0,7	DN..1104..
		C4-PDUNL-17090-11	25	40	17,0	90	68	4,0	32	-5	-13	0,5	DN..1104..
		C4-PDUNL-22110-11	32	40	22,0	110	89	5,0	40	-5	-11	0,7	DN..1104..
C5													
	11	C5-SDUNR-13080-11	20	50	13,0	80	56	2,5	25	-5	-14	0,6	DNMU/DNMX1104..
		C5-SDUNL-13080-11	20	50	13,0	80	56	2,5	25	-5	-14	0,6	DNMU/DNMX1104..
	11	C5-PDUNR-17090-11	25	50	17,0	90	67	4,0	32	-5	-13	0,7	DN..1104..
		C5-PDUNR-22110-11	32	50	22,0	110	89	5,0	40	-5	-11	0,9	DN..1104..
		C5-PDUNL-17090-11	25	50	17,0	90	67	4,0	32	-5	-13	0,7	DN..1104..
		C5-PDUNL-22110-11	32	50	22,0	110	89	5,0	40	-5	-11	0,9	DN..1104..

Spare Parts, Parts included in delivery

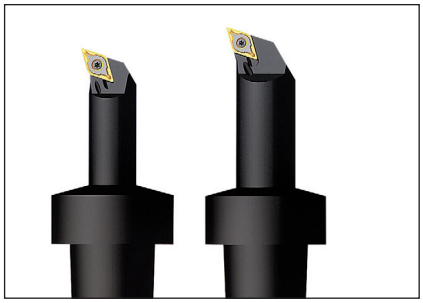
Accessories*

For size	Coolant nozzle	Insert key	Insert pin	Insert screw	Insert shim	Shim screw	Shim key
-11...-11	–	T09P-2	–	C03511-T09P	–	–	–
-13...-11	–	T09P-2	–	C03511-T09P	DAI110212	CA3507	9/64SMS875
-17/22...-11	CN6	T09P-2	PL1403-T09P	–	DAE110312	–	–

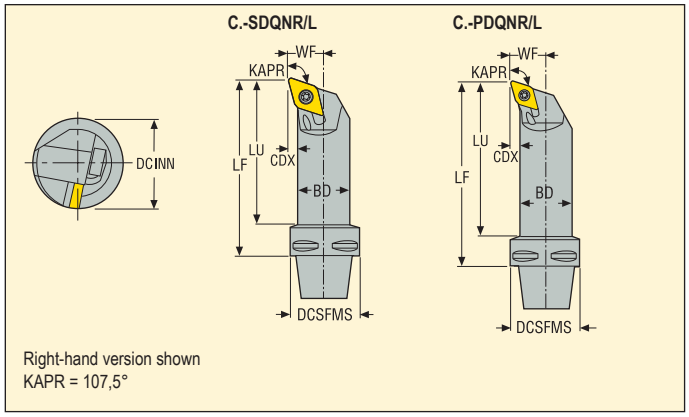
Please check availability in current price and stock-list

* To be ordered separately

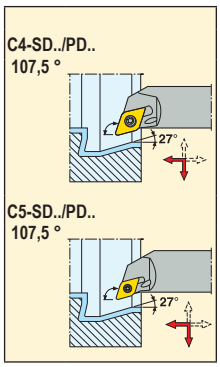
Toolholders for inserts DNMA and DNMU



- For inserts programme, see page(s) 403, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 107,5°



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C4													
	11	C4-SDQNR-11065-11	16	40	11,0	65	41	2,5	20	-5	-17	0,4	DNMU1104..
		C4-SDQNR-13080-11	20	40	13,0	80	56	2,5	25	-5	-17	0,4	DNMU1104..
		C4-SDQNL-11065-11	16	40	11,0	65	41	2,5	20	-5	-17	0,4	DNMU1104..
		C4-SDQNL-13080-11	20	40	13,0	80	56	2,5	25	-5	-17	0,4	DNMU1104..
	11	C4-PDQNR-22110-11	32	40	22,0	110	89	5,0	40	-5	-14	0,7	DN..1104..
		C4-PDQNL-22110-11	32	40	22,0	110	89	5,0	40	-5	-14	0,7	DN..1104..
C5													
	11	C5-SDQNR-13080-11	20	50	13,0	80	56	2,5	25	-5	-18	0,6	DNMU1104..
		C5-SDQNL-13080-11	20	50	13,0	80	56	2,5	25	-5	-18	0,6	DNMU1104..
	11	C5-PDQNR-22110-11	32	50	22,0	110	89	5,0	40	-5	-14	0,9	DN..1104..
		C5-PDQNL-22110-11	32	50	22,0	110	89	5,0	40	-5	-14	0,9	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
-11...-11	T09P-2	–	C03511-T09P	–	–
-13...-11	T09P-2	–	C03511-T09P	DAI110212	CA3507
-17/22...-11	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories*

Shim key
–
9/64SMS875
–

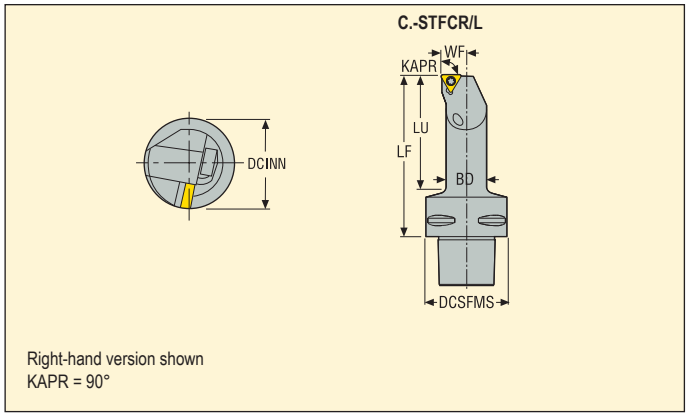
Please check availability in current price and stock-list

* To be ordered separately

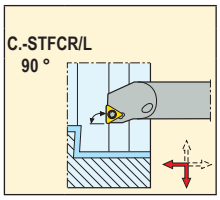
Toolholders for inserts TCGT, TCMT and TCMW



- For inserts programme, see page(s) 419-422, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 90°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	11	C4-STFCR-11070-11	16	40	11,0	70	47	20	0	-4	0,4	TC..1102..
		C4-STFCL-11070-11	16	40	11,0	70	47	20	0	-4	0,4	TC..1102..
		C4-STFCL-13080-11	20	40	13,0	80	57	25	0	-3	0,4	TC..1102..
	16	C4-STFCR-17090-16	25	40	17,0	90	68	32	0	-6	0,5	TC..16T3..
C5												
	11	C5-STFCR-11070-11	16	50	11,0	70	46	40	0	-4	0,6	TC..1102..

Spare Parts, Parts included in delivery

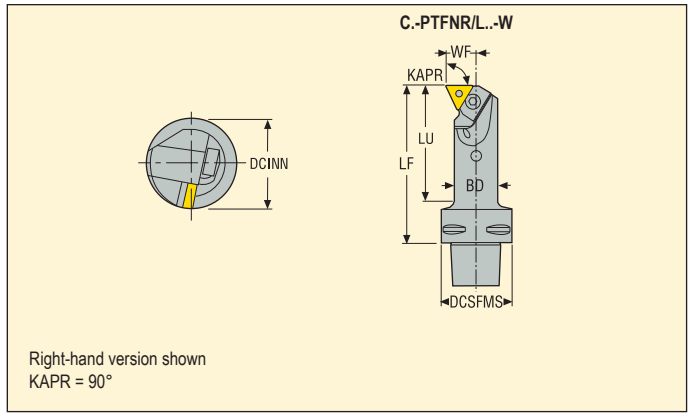
For size	Insert key	Insert screw
-11	T07P-2	C02506-T07P
-16	T15P-2	C03509-T15P

Please check availability in current price and stock-list

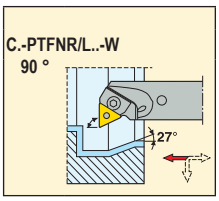
Toolholders for inserts TNGA, TNMA, TNMG and TNMM



- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 90°



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	16	C4-PTFNR-17090-16-W	25	40	17,0	90	69	32	-6	-13	0,5	TN..1604..
		C4-PTFNR-27120-16-W	40	40	27,0	120	100	50	-6	-11	1,1	TN..1604..
		C4-PTFNL-17090-16-W	25	40	17,0	90	69	32	-6	-13	0,5	TN..1604..
		C4-PTFNL-27120-16-W	40	40	27,0	120	100	50	-6	-11	1,1	TN..1604..
C5												
	16	C5-PTFNR-22110-16-W	32	50	22,0	110	88	40	-6	-12	0,9	TN..1604..
		C5-PTFNR-27140-16-W	40	50	27,0	140	119	50	-6	-11	1,5	TN..1604..
		C5-PTFNL-22110-16-W	32	50	22,0	110	88	40	-6	-12	0,9	TN..1604..
		C5-PTFNL-27140-16-W	40	50	27,0	140	119	50	-6	-11	1,5	TN..1604..
C6												
	16	C6-PTFNR-27140-16-W	40	63	27,0	140	115	50	-6	-11	1,8	TN..1604..
		C6-PTFNL-27140-16-W	40	63	27,0	140	115	50	-6	-11	1,8	TN..1604..

Spare Parts, Parts included in delivery

For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key
-17...-16	–	F83060-T09P	PL1003	CP16-H31	3SMS795
-22/27...-16	PTN160308	F83060-T09P	PL1203	CP16-H3	3SMS795

Accessories*

Shim key
T09P-2
T09P-2

Please check availability in current price and stock-list

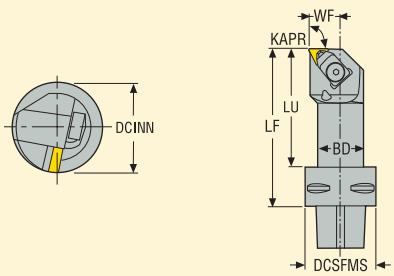
* To be ordered separately

Toolholders for PCBN inserts TNGN, TNGX, TNMN and TNMX



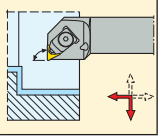
- For inserts programme, see page(s) 458-462
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

C.-CTUNR/L



Right-hand version shown
KAPR = 93°

C.-CTUNR/L
93 °



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	11	C4-CTUNL-17090-11	25	40	17,0	90	68	32	-6	-12	0,6	TN..1103..
C5												
	11	C5-CTUNL-22110-11	32	50	22,0	110	89	40	-6	-12	1,0	TN..1103..
C6												
	11	C6-CTUNR-22110-11	32	63	22,0	110	89	40	-6	-12	1,3	TN..1103..
		C6-CTUNL-22110-11	32	63	22,0	110	89	40	-6	-12	1,3	TN..1103..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Coolant nozzle	Insert shim	Shim screw	Shim key
-11	CC14	4SMS795	CN6	CTN110308	CS2507-T07P	T07P-2

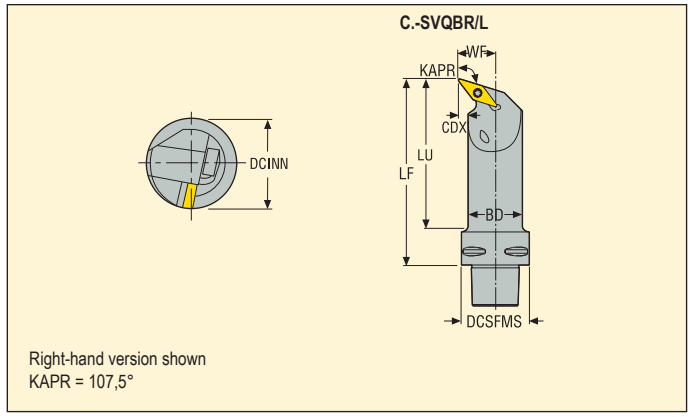
Please check availability in current price and stock-list

* To be ordered separately

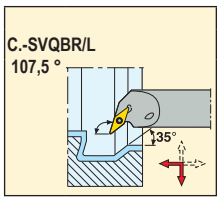
Toolholders for inserts VBGW, VBMT, VBMW and VCGT



- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 107,5°



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C3													
	11	C3-SVQBR-13070-11	16	32	13,0	70	53	4,0	22	0	-7	0,2	VB..1102..
		C3-SVQBL-13070-11	16	32	13,0	70	53	4,0	22	0	-7	0,2	VB..1102..
C4													
	11	C4-SVQBR-13070-11	16	40	13,0	70	47	4,0	25	0	-7	0,3	VB..1102..
		C4-SVQBL-13070-11	16	40	13,0	70	47	4,0	25	0	-7	0,3	VB..1102..
	16	C4-SVQBR-18090-16	25	40	18,0	90	68	4,5	33	0	-6	0,5	VB../VC..1604..
		C4-SVQBL-18090-16	25	40	18,0	90	68	4,5	33	0	-6	0,5	VB../VC..1604..
C5													
	16	C5-SVQBR-22110-16	32	50	22,0	110	88	5,0	40	0	-8	0,9	VB../VC..1604..
		C5-SVQBR-27140-16	40	50	27,0	140	119	6,0	50	0	-8	1,4	VB../VC..1604..
		C5-SVQBL-18090-16	25	50	18,0	90	67	4,5	33	0	-6	0,7	VB../VC..1604..
		C5-SVQBL-22110-16	32	50	22,0	110	88	5,0	40	0	-8	0,9	VB../VC..1604..
		C5-SVQBL-27140-16	40	50	27,0	140	119	6,0	50	0	-8	1,4	VB../VC..1604..
C6													
	16	C6-SVQBR-22120-16	32	63	22,0	120	94	5,0	40	0	-8	1,3	VB../VC..1604..
		C6-SVQBR-35175-16	50	63	35,0	175	152	9,0	63	0	-8	2,7	VB../VC..1604..
		C6-SVQBL-22120-16	32	63	22,0	120	94	5,0	40	0	-8	1,3	VB../VC..1604..
		C6-SVQBL-35175-16	50	63	35,0	175	152	9,0	63	0	-8	2,7	VB../VC..1604..

Spare Parts, Parts included in delivery

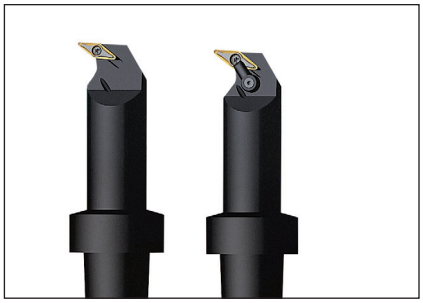
Accessories*

For size	Insert key	Insert screw	Insert shim	Shim screw	Shim key
C3	T07P-2	C02506-T07P	–	–	–
C4-..13..-11	T07P-2	C02506-T07P	–	–	–
C4-..18..-16	T15P-2	C03510-T15P	–	–	–
C5-..-18..-16	T15P-2	C03510-T15P	–	–	–
C5-..-22..-16	T15P-2	C03512-T15P	171.19-620	CA3507	9/64SMS875
C5-..-27..-16	T15P-2	C03512-T15P	171.19-620	CA3507	9/64SMS875
C6	T15P-2	C03512-T15P	171.19-620	CA3507	9/64SMS875

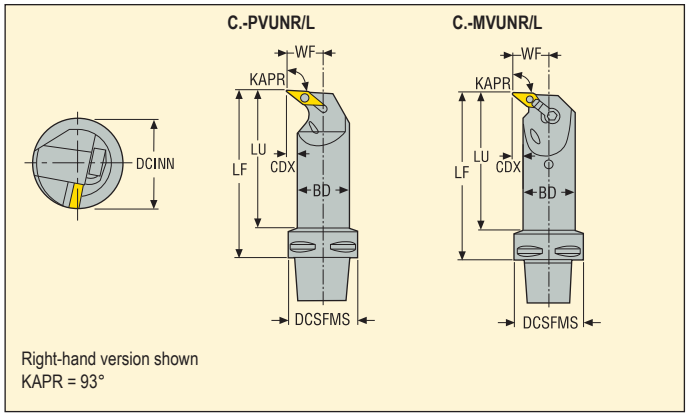
Please check availability in current price and stock-list

* To be ordered separately

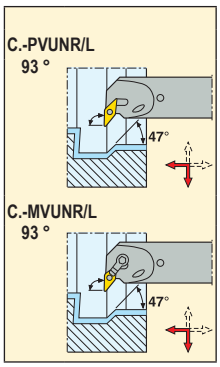
Toolholders for inserts VNGA, VNGG, VNGM, VNMA, VNMG and VNMU



- For inserts programme, see page(s) 432-434, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13



Right-hand version shown
KAPR = 93°



Capto size		Designation	Dimensions in mm							GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	CDX	DCINN				
C4													
	13	C4-PVUNR-17090-13	25	40	17,0	90	68	4,0	32	-5	-14	0,5	VN..1304..
		C4-PVUNL-17090-13	25	40	17,0	90	68	4,0	32	-5	-14	0,5	VN..1304..
	16	C4-MVUNR-22110-16	32	40	22,0	110	90	5,0	40	-5	-12	0,7	VN..1604..
		C4-MVUNR-27120-16	40	40	27,0	120	100	6,0	50	-5	-10	1,1	VN..1604..
		C4-MVUNL-22110-16	32	40	22,0	110	90	5,0	40	-5	-12	0,7	VN..1604..
		C4-MVUNL-27120-16	40	40	27,0	120	100	6,0	50	-5	-10	1,1	VN..1604..
C5													
	16	C5-MVUNR-22110-16	32	50	22,0	110	89	5,0	40	-5	-12	0,9	VN..1604..
		C5-MVUNR-27140-16	40	50	27,0	140	119	6,0	50	-5	-10	1,4	VN..1604..
		C5-MVUNL-22110-16	32	50	22,0	110	89	5,0	40	-5	-12	0,9	VN..1604..
		C5-MVUNL-27140-16	40	50	27,0	140	119	6,0	50	-5	-10	1,4	VN..1604..
C6													
	16	C6-MVUNR-22120-16	32	63	22,0	120	88	5,0	40	-5	-12	1,3	VN..1604..
		C6-MVUNR-27145-16	40	63	27,0	145	120	6,0	50	-5	-10	1,8	VN..1604..
		C6-MVUNL-22120-16	32	63	22,0	120	89	5,0	40	-5	-12	1,3	VN..1604..
		C6-MVUNL-27145-16	40	63	27,0	145	120	6,0	50	-5	-10	1,8	VN..1604..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp screw	Coolant nozzle	Insert key	Insert pin	Insert shim	Shim/clamp key	Shim pin
-13	–	–	CN6	T09P-2	PL1403-T09P	PVN130308	–	–
-16	MC20	LD6021-T09P	CN6	–	–	VSN160316	T09P-2	MN0909L-T09P

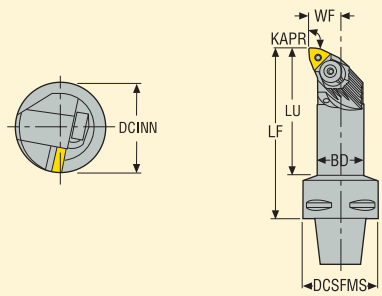
Please check availability in current price and stock-list

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



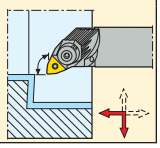
- For inserts programme, see page(s) 435-439, 467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

C.-PWLNR/L



Right-hand version shown
KAPR = 95°

C.-PWLNR/L
95 °



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C4												
	06	C4-PWLNR-13080-06	20	40	13,0	80	57	25	-5	-11	0,4	WN..0604..
		C4-PWLNR-17090-06	25	40	17,0	90	68	32	-5	-12	0,5	WN..0604..
		C4-PWLNR-22110-06	32	40	22,0	110	89	40	-5	-12	0,7	WN..0604..
		C4-PWLNL-13080-06	20	40	13,0	80	57	25	-5	-11	0,4	WN..0604..
		C4-PWLNL-17090-06	25	40	17,0	90	68	32	-5	-12	0,5	WN..0604..
	08	C4-PWLNR-22110-08	32	40	22,0	110	89	40	-5	-11	0,7	WN..0804..
		C4-PWLNR-27120-08	40	40	27,0	120	100	50	-5	-8	1,0	WN..0804..
		C4-PWLNL-22110-08	32	40	22,0	110	89	40	-5	-11	0,7	WN..0804..
		C4-PWLNL-27120-08	40	40	27,0	120	100	50	-5	-8	1,0	WN..0804..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
-13/17...-06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
-22...-06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
-08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2

Please check availability in current price and stock-list

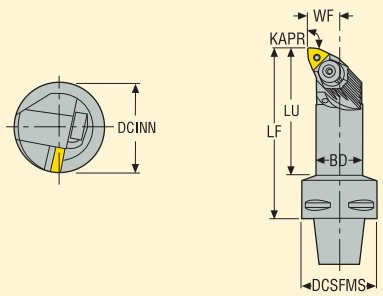
* To be ordered separately

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



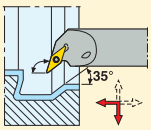
- For inserts programme, see page(s) 435-439, 467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13

C.-PWLNR/L



Right-hand version shown
KAPR = 95°

C.-PWLNR/L
95 °



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			BD	DCSFMS	WF	LF	LU	DCINN				
C5												
	06	C5-PWLNR-13080-06	20	50	13,0	80	56	25	-5	-11	0,6	WN..0604..
		C5-PWLNR-17090-06	25	50	17,0	90	67	32	-5	-12	0,7	WN..0604..
		C5-PWLNR-22110-06	32	50	22,0	110	88	40	-5	-12	0,9	WN..0604..
		C5-PWLNL-13080-06	20	50	13,0	80	56	25	-5	-11	0,6	WN..0604..
		C5-PWLNL-17090-06	25	50	17,0	90	67	32	-5	-12	0,7	WN..0604..
		C5-PWLNL-22110-06	32	50	22,0	110	88	40	-5	-12	0,9	WN..0604..
	08	C5-PWLNR-22110-08	32	50	22,0	110	88	40	-5	-11	0,9	WN..0804..
		C5-PWLNR-27140-08	40	50	27,0	140	119	50	-5	-11	1,4	WN..0804..
		C5-PWLNL-22110-08	32	50	22,0	110	88	40	-5	-11	0,9	WN..0804..
		C5-PWLNL-27140-08	40	50	27,0	140	119	50	-5	-11	1,4	WN..0804..
C6												
	08	C6-PWLNR-27140-08	40	63	27,0	140	115	50	-5	-8	1,7	WN..0804..
		C6-PWLNR-35175-08	50	63	35,0	175	152	63	-5	-10	2,6	WN..0804..
		C6-PWLNL-27140-08	40	63	27,0	140	115	50	-5	-8	1,7	WN..0804..
		C6-PWLNL-35175-08	50	63	35,0	175	152	63	-5	10	2,6	WN..0804..

Spare Parts, Parts included in delivery

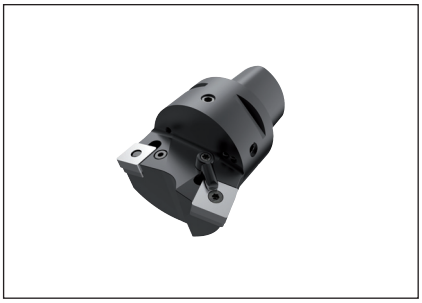
Accessories*

For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
-1...-06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
-2...-06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P	T09P-2
-08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2

Please check availability in current price and stock-list

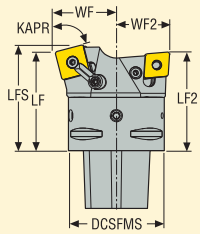
* To be ordered separately

Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM



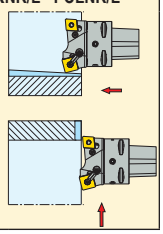
- For inserts programme, see page(s) 388-394, 413-417
- GAMO° = Rake angle, LAMS° = Inclination angle

C.-MSKNR/L - PCLNR/L



Right-hand version shown
KAPR = 75°

C.-MSKNR/L - PCLNR/L
75 °



Capto size		Designation	Dimensions in mm						GAMO°	LAMS°	KG	
			DCSFMS	LF	LF2	LFS	WF	WF2				
C6												
	19/16	C6-MSKNR4006519-PCLNL3506516	63	65	65	69,8	40	35	-5	-10	0,7	SN..1906.. CN..1606..
		C6-MSKNL4006519-PCLNR3506516C	63	65	65	69,8	40	35	-5	-10	1,5	SN..1906.. CN..1606..
C8												
	19/16	C8-MSKNR4508019-PCLNL4508016	80	80	80	85,0	45	45	-5	-10	3,3	SN..1906.. CN..1606..
		C8-MSKNL4508019-PCLNR4508016C	80	80	80	85,0	45	45	-5	-10	3,3	SN..1906.. CN..1606..

Spare Parts, Parts included in delivery

For size	Clamp	Coolant nozzle	Insert shim	Lever pin	Lever screw	Pin	Screw	Shim pin
C6/C8	MC22	CN6	SSN190412	PP6017	LS0820	MN1920-T20P	LD6024-T20P	RP8286

Accessories*

Key	Lever key
T20P-7L	3SMS795

Please check availability in current price and stock-list

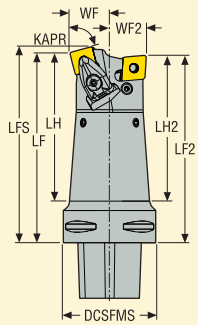
* To be ordered separately

Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM



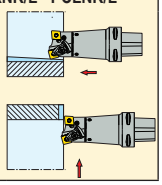
- For inserts programme, see page(s) 388-394, 413-416
- GAMO° = Rake angle, LAMS° = Inclination angle

C.-DSKNR/L - PCLNR/L



Right-hand version shown
KAPR = 75°

C.-DSKNR/L - PCLNR/L
75 °



Capto size		Designation	Dimensions in mm								GAMO°	LAMS°	KG	
			DCSFMS	LF	LF2	LFS	LH	LH2	WF	WF2				
C6														
	15/16	C6-DSKNR2713015-PCLNL2512816	63	130	128	134	101,5	99,5	27	25	-5	-10	0,9	SN..1506.. CN..1606..
		C6-DSKNL2713015-PCLNR2512816C	63	130	128	134	101,5	99,5	27	25	-5	-10	2,3	SN..1506.. CN..1606..

Spare Parts, Parts included in delivery

For size	Clamp	Clamp pin	Clamp screw	Insert shim	Lever pin	Lever screw	Shim pin	Shim screw	Spring
C6	CD16-S	FP2012	L86026-T20P	PCN160412	PP6017	LS0820	RP8286	C05010-T20P	S7010

Accessories*

Clamp kit	Key	Lever key
CD16-S16	T20P-7L	3SMS795

Please check availability in current price and stock-list

* To be ordered separately

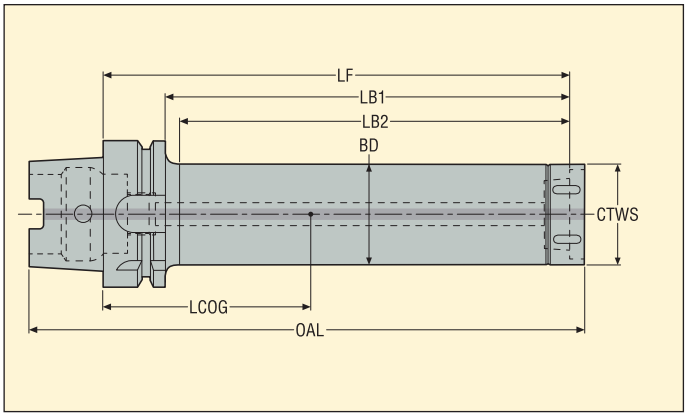


Turning – Steadyline®, damping holders for GL-heads

EPB GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm

HSK-T/A





- With dynamic damping, ready to use
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

Machine side Taper	Workpiece side GL size CTWS	Designation	Dimensions in mm LF	LB1	LB2	BD	OAL	LCOG	Max. RPM*	RFID hole	Balancing	KG
HSK-T/A63												
	GL25	**HSKTA63-GL25-130-K**	130,0	104,0	101,0	25,0	166,5	37,0	10000	1	PB	1,10
	GL25	**HSKTA63-GL25-180-K**	180,0	154,0	151,0	25,0	216,5	57,7	8000	1	PB	1,30
	GL25	**HSKTA63-GL25-230-K**	230,0	204,0	201,0	25,0	266,5	80,3	6000	1	PB	1,50
	GL32	**E9374-D32-160-GL32**	160,0	134,0	128,0	32,0	197,4	58,9	10000	1	PB	1,60
	GL32	**E9374-D32-224-GL32**	224,0	198,0	192,0	32,0	261,4	90,2	8000	1	PB	2,00
	GL40	**E9374-D40-208-GL40**	208,0	182,0	176,0	40,0	246,4	92,8	8000	1	PB	2,70
	GL40	**E9374-D40-288-GL40**	288,0	262,0	256,0	40,0	326,4	134,4	6000	1	PB	3,50
	GL50	**E9374-D50-268-GL50**	268,0	242,0	240,5	50,0	307,4	131,8	6000	1	PB	4,80
	GL50	**E9374-D50-368-GL50**	368,0	342,0	340,5	50,0	407,4	184,8	4000	1	PB	6,40
HSK-T/A100												
	GL32	**E9376-D32-160-GL32**	160,0	131,0	125,0	32,0	215,4	32,9	10000	1	PB	3,00
	GL32	**E9376-D32-224-GL32**	224,0	195,0	189,0	32,0	279,4	55,0	8000	1	PB	3,40
	GL32	**E9376-D32-288-GL32**	288,0	259,0	253,0	32,0	343,4	80,5	6000	1	PB	3,80
	GL40	**E9376-D40-208-GL40**	208,0	179,0	173,0	40,0	264,4	62,8	8000	1	PB	4,10
	GL40	**E9376-D40-288-GL40**	288,0	259,0	253,0	40,0	344,4	98,3	6000	1	PB	4,90
	GL40	**E9376-D40-368-GL40**	368,0	339,0	333,0	40,0	424,4	139,8	5000	1	PB	5,80
	GL50	**E9376-D50-268-GL50**	268,0	239,0	234,0	50,0	325,4	104,3	6000	1	PB	6,20
	GL50	**E9376-D50-368-GL50**	368,0	339,0	334,0	50,0	425,4	154,3	4000	1	PB	7,80
	GL50	**E9376-D50-468-GL50**	468,0	439,0	434,0	50,0	525,4	211,6	2500	1	PB	9,70

* Max. RPM only when used in rotating boring

Accessories

For	Replaceable end	Torque key
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts

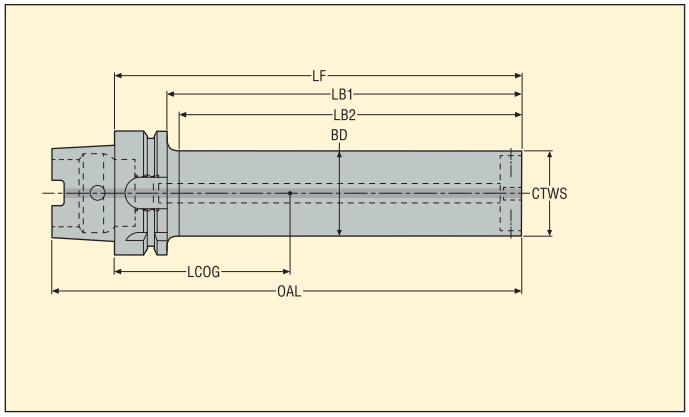
For	Locking key
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list

EPB BA – Steadyline®, BA holders, body diameters 60 and 80 mm

HSK-T/A





- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

Machine side Taper	Workpiece side BA size CTWS	Designation	Dimensions in mm LF	BD	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	KG
HSK-T/A100												
	BA060	**E9376-D60-301-BA060**	301,0	60,0	272,0	267,0	351,0	133,1	4000	1	PB	8,90
	BA060	**E9376-D60-421-BA060**	421,0	60,0	392,0	387,0	471,0	197,2	3000	1	PB	11,80
	BA060	**E9376-D60-541-BA060**	541,0	60,0	512,0	507,0	591,0	260,6	2000	1	PB	14,50
	BA080	**E9376-D80-421-BA080**	421,0	80,0	392,0	387,0	471,0	209,7	3000	1	PB	19,40
	BA080	**E9376-D80-581-BA080**	581,0	80,0	552,0	547,0	631,0	295,5	2000	1	PB	26,20

* Max. RPM only when used in rotating boring

Accessories

For	Locking key
BA060	03H04
BA080	03H05

Spare Parts

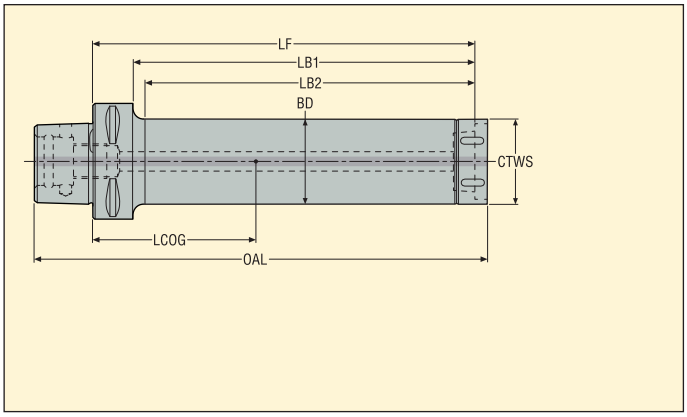
For	Locking screw
BA060	90FQ4
BA080	90FQ52

Please check availability in current price and stock-list

EPB GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm

Seco-Capto™



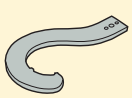
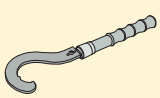


- With dynamic damping, ready to use
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

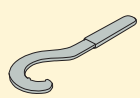
Machine side Seco-Capto™ shank size	Workpiece side GL size CTWS	Designation	Dimensions in mm LF	LB1	LB2	BD	OAL	LCOG	Max. RPM*	RFID hole	Balan-cing	KG
C4												
	GL25	**C4-D25-130-GL25**	130,0	110,0	107,0	25,0	158,5	51,8	10000	0	PB	0,80
	GL25	**C4-D25-180-GL25**	180,0	160,0	157,0	25,0	208,5	77,2	8000	0	PB	1,00
	GL32	**C4-D32-160-GL32**	160,0	140,0	137,0	32,0	189,4	74,7	10000	0	PB	1,20
	GL32	**C4-D32-224-GL32**	224,0	204,0	201,0	32,0	253,4	109,2	8000	0	PB	1,70
C5												
	GL25	**C5-D25-130-GL25**	130,0	110,0	107,0	25,0	164,5	41,8	10000	1	PB	0,90
	GL25	**C5-D25-180-GL25**	180,0	160,0	157,0	25,0	214,5	65,1	8000	1	PB	1,10
	GL25	**C5-D25-230-GL25**	230,0	210,0	207,0	25,0	264,5	89,8	6000	1	PB	1,30
	GL32	**C5-D32-160-GL32**	160,0	140,0	136,0	32,0	195,4	65,2	10000	1	PB	1,40
	GL32	**C5-D32-224-GL32**	224,0	204,0	200,0	32,0	259,4	98,5	8000	1	PB	1,80
	GL32	**C5-D32-288-GL32**	288,0	268,0	264,0	32,0	323,4	133,6	6000	1	PB	2,20
	GL40	**C5-D40-208-GL40**	208,0	188,0	184,0	40,0	244,4	98,3	8000	1	PB	2,50
	GL40	**C5-D40-288-GL40**	288,0	268,0	264,0	40,0	324,4	140,9	6000	1	PB	3,30
	GL40	**C5-D40-368-GL40**	368,0	348,0	344,0	40,0	404,4	187,4	5000	1	PB	4,30

* Max. RPM only when used in rotating boring

Accessories

For	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350

Spare Parts

For	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40

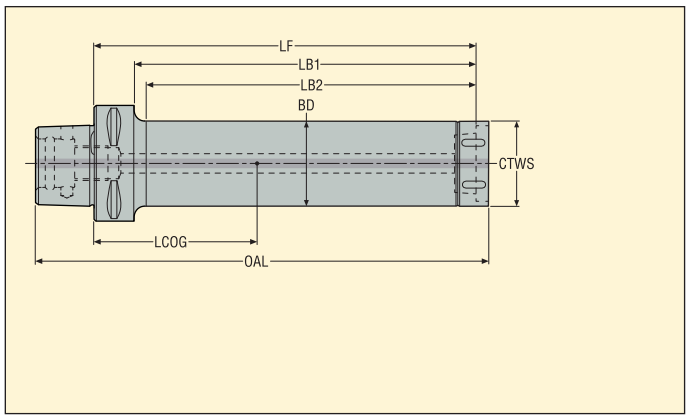
Please check availability in current price and stock-list

Turning – Steadyline®, damping holders for GL-heads

EPB GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm

Seco-Capto™



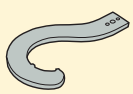
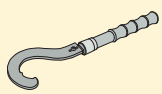


- With dynamic damping, ready to use
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

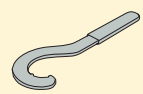
Machine side Seco-Capto™ shank size	Workpiece side GL size CTWS	Designation	Dimensions in mm LF	LB1	LB2	BD	OAL	LCOG	Max. RPM*	RFID hole	Balancing	KG
C6												
	GL25	**C6-D25-130-GL25**	130,0	105,0	102,0	25,0	172,5	30,4	10000	1	PB	1,30
	GL25	**C6-D25-180-GL25**	180,0	155,0	152,0	25,0	222,5	49,3	8000	1	PB	1,50
	GL25	**C6-D25-230-GL25**	230,0	205,0	202,0	25,0	272,5	70,2	6000	1	PB	1,70
	GL32	**C6-D32-160-GL32**	160,0	135,0	129,0	32,0	203,4	52,1	10000	1	PB	1,80
	GL32	**C6-D32-224-GL32**	224,0	199,0	193,0	32,0	267,4	82,2	8000	1	PB	2,20
	GL32	**C6-D32-288-GL32**	288,0	263,0	257,0	32,0	331,4	114,9	6000	1	PB	2,60
	GL40	**C6-D40-208-GL40**	208,0	183,0	177,0	40,0	252,4	86,4	8000	1	PB	2,90
	GL40	**C6-D40-288-GL40**	288,0	263,0	257,0	40,0	332,4	127,5	6000	1	PB	3,70
	GL40	**C6-D40-368-GL40**	368,0	343,0	337,0	40,0	412,4	173,1	5000	1	PB	4,60
	GL50	**C6-D50-268-GL50**	268,0	243,0	238,0	50,0	313,4	126,6	6000	1	PB	5,00
	GL50	**C6-D50-368-GL50**	368,0	343,0	338,0	50,0	413,4	179,4	4000	1	PB	6,60
	GL50	**C6-D50-468-GL50**	468,0	443,0	438,0	50,0	513,4	238,5	2500	1	PB	8,50
C8												
	GL32	**C8-D32-224-GL32**	224,0	191,0	181,0	32,0	277,5	58,2	8000	1	PB	3,20
	GL32	**C8-D32-288-GL32**	288,0	255,0	245,0	32,0	341,5	84,7	6000	1	PB	3,60
	GL40	**C8-D40-288-GL40**	288,0	255,0	245,0	40,0	341,5	102,1	6000	1	PB	4,70
	GL40	**C8-D40-368-GL40**	368,0	335,0	325,0	40,0	422,5	144,0	5000	1	PB	5,60
	GL50	**C8-D50-268-GL50**	268,0	235,0	225,0	50,0	323,4	107,6	6000	1	PB	5,90
	GL50	**C8-D50-368-GL50**	368,0	335,0	325,0	50,0	423,4	158,1	4000	1	PB	7,50
	GL50	**C8-D50-468-GL50**	468,0	435,0	425,0	50,0	523,4	215,6	2500	1	PB	9,40

* Max. RPM only when used in rotating boring

Accessories

For	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts

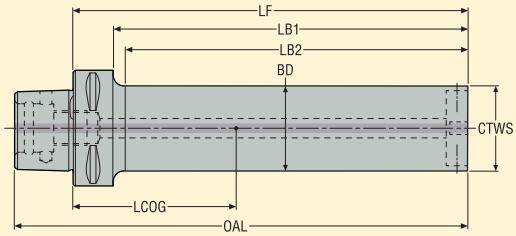
For	Locking key
	
GL25	SL25
GL32	SL32
GL40	SL40
GL50	SL50

Please check availability in current price and stock-list

EPB BA – Steadyline®, BA holders, body diameters 60 and 80 mm

Seco-Capto™





- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

Machine side Seco-Capto™ shank size	Workpiece side BA size CTWS	Designation	Dimensions in mm LF	BD	LB1	LB2	OAL	LCOG	Max. RPM*	RFID hole	Balancing	KG
C6												
	BA060	**C6-D60-301-BA060**	301,0	60,0	276,0	273,0	339,0	151,7	4000	1	PB	7,80
	BA060	**C6-D60-421-BA060**	421,0	60,0	396,0	393,0	459,0	218,6	3000	1	PB	10,60
C8												
	BA060	**C8-D60-301-BA060**	301,0	60,0	268,0	263,0	349,0	137,0	4000	1	PB	8,60
	BA060	**C8-D60-421-BA060**	421,0	60,0	388,0	383,0	469,0	202,5	3000	1	PB	11,40
	BA060	**C8-D60-541-BA060**	541,0	60,0	508,0	503,0	589,0	266,8	2000	1	PB	14,00
	BA080	**C8-D80-421-BA080**	421,0	80,0	388,0	383,0	469,0	213,9	3000	1	PB	18,80
	BA080	**C8-D80-581-BA080**	581,0	80,0	548,0	543,0	629,0	300,4	2000	1	PB	25,10

* Max. RPM only when used in rotating boring

Accessories

For	Locking key
BA060	03H04
BA080	03H05

Spare Parts

For	Locking screw
BA060	90FQ4
BA080	90FQ52

Please check availability in current price and stock-list

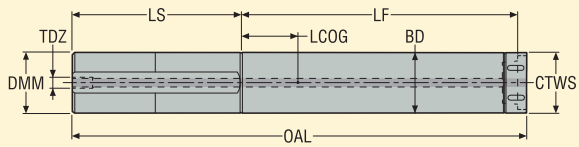
EPB GL – Steadyline®, GL holders, body diameters 25, 32, 40 and 50 mm, steel or carbide

Cylindrical

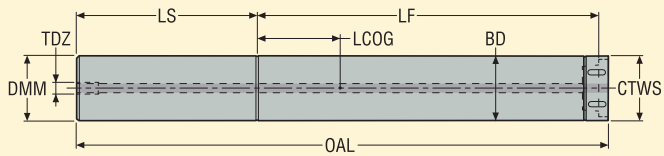


- With dynamic damping, ready to use
- With through coolant channel and coolant supply connecting thread
- For GL heads programme, see page(s) 285-312, 610-613

Design 1



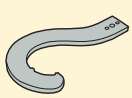
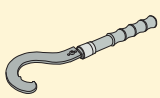
Design 2, without flat



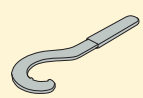
Machine side DMM mm	Workpiece side GL size CTWS	Designation	*	Dimensions in mm LS	LF	BD	OAL	LCOG	TDZ	Design	RFID hole	KG
25												
	GL25	**D25-130-GL25**		100,0	130,0	25,0	234,5	25,5	G 1/4	1	0	0,90
	GL25	**D25-180-GL25**		100,0	180,0	25,0	284,5	52,8	G 1/4	2	0	1,10
	GL25	**D25-230-GL25-CR**	*	75,0	230,0	25,0	309,5	70,2	M8x1	2	0	1,70
32												
	GL32	**D32-160-GL32**		128,0	160,0	32,0	293,4	25,3	G 1/4	1	0	1,80
	GL32	**D32-224-GL32**		128,0	224,0	32,0	357,4	60,2	G 1/4	1	0	2,30
	GL32	**D32-288-GL32**		128,0	288,0	32,0	421,4	95,7	G 1/4	2	0	2,70
40												
	GL40	**D40-208-GL40**		160,0	208,0	40,0	374,4	35,6	G 1/4	1	0	3,80
	GL40	**D40-288-GL40**		160,0	288,0	40,0	454,4	78,3	G 1/4	1	0	4,60
	GL40	**D40-368-GL40**		160,0	368,0	40,0	534,4	124,3	G 1/4	2	0	5,50
50												
	GL50	**D50-268-GL50**		200,0	268,0	50,0	475,4	46,4	G 1/4	1	0	7,50
	GL50	**D50-368-GL50**		200,0	368,0	50,0	575,4	99,0	G 1/4	1	0	9,10
	GL50	**D50-468-GL50**		200,0	468,0	50,0	675,4	158,1	G 1/4	2	0	11,00

* D25...-CR holders feature carbide-reinforced bodies to increase the rigidity of small diameter bars with 10xD overhang

Accessories

For	Replaceable end	Torque key
		
GL25	–	–
GL32	SL00-32	SL00-32.250
GL40	SL00-40	SL00-40.350
GL50	SL00-50	SL00-50.550

Spare Parts

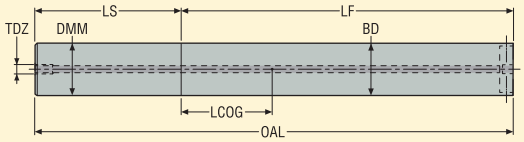
For	Coolant adapter	Locking key
		
GL25	–	SL25
GL25	904JET08G1/4L	SL25
GL32	–	SL32
GL40	–	SL40
GL50	–	SL50

Please check availability in current price and stock-list

EPB BA – Steadyline®, BA holders, body diameters 60, 80 and 100 mm

Cylindrical





- With dynamic damping, ready to use
- To hold BA to GL adapters with GL turning heads
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

Machine side DMM mm	Workpiece side BA size CTWS	Designation	Dimensions in mm LF	BD	LS	OAL	LCOG	RFID hole	KG
60									
	BA060	**D60-301-BA060**	301,0	60,0	240,0	541,0	50,1	0	12,50
	BA060	**D60-541-BA060**	541,0	60,0	240,0	781,0	179,1	0	18,10
80									
	BA080	**D80-421-BA080**	421,0	80,0	320,0	741,0	71,0	0	30,20
	BA080	**D80-741-BA080**	741,0	80,0	320,0	1061,0	241,6	0	43,40
100									
	BA100	**D100-939-BA100**	939,0	100,0	500,0	1439,0	271,9	0	84,70

Accessories

For	Locking key
BA060	03H04
BA080	03H05
BA100	03H06

Spare Parts

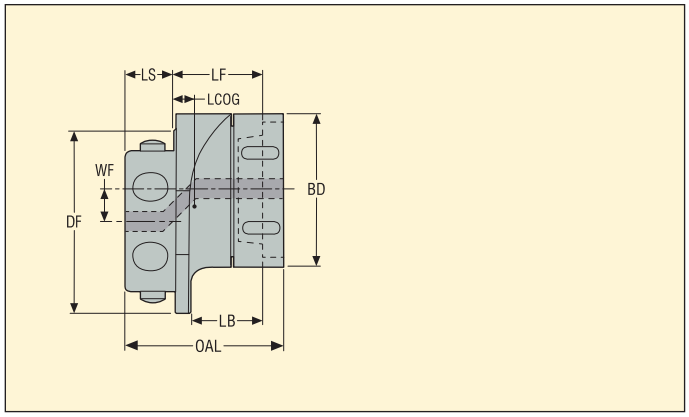
For	Locking screw
BA060	90FQ4
BA080	90FQ52
BA100	90FQ6

Please check availability in current price and stock-list

EPB BA – BA-to-GL adapters

BA

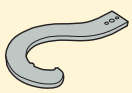
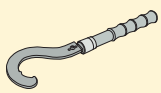




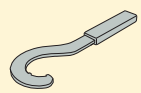
- To hold GL50 turning heads on Steadyline® BA holders
- Each adapter size available with 2 radial offset sizes WF: when possible, preferably use the widest offset
- With through coolant
- For GL heads programme, see page(s) 285-312, 610-613

Machine side	Workpiece side		Dimensions in mm								RFID hole	KG
	GL size	Designation	WF	LF	DF	BD	LB	LS	OAL	LCOG		
BA060												
	GL50	**BA060-05-27-GL50**	5,0	27,0	60,0	50,0	21,5	16,0	50,4	5,8	0	0,60
	GL50	**BA060-10-27-GL50**	10,0	27,0	60,0	50,0	21,5	16,0	50,4	5,8	0	0,60
BA080												
	GL50	**BA080-15-27-GL50**	15,0	27,0	80,0	50,0	21,5	22,0	56,4	1,4	0	0,90
	GL50	**BA080-23-27-GL50**	23,0	27,0	80,0	50,0	21,5	22,0	56,4	1,4	0	0,90
BA100												
	GL50	**BA100-28-29-GL50**	28,0	29,0	100,0	50,0	21,5	25,0	61,4	-1,3	0	1,50
	GL50	**BA100-38-29-GL50**	38,0	29,0	100,0	50,0	21,5	25,0	61,4	-1,2	0	1,50

Accessories

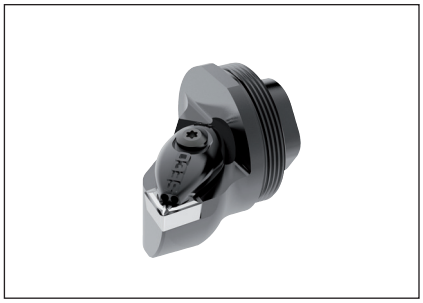
For	Replaceable end	Torque key
		
GL50	SL00-50	SL00-50.550

Spare Parts

For	Locking key
	
GL50	SL50

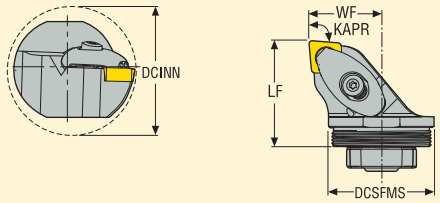
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



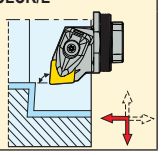
- For inserts programme, see page(s) 382-386, 440, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284

GL..-DCLCR/L



Right-hand version shown
KAPR = 95°

GL..-DCLCR/L
95 °



Size		Designation	Dimensions in mm				CP*	GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN					
GL32											
	09	GL32-DCLCR-22032-09JET	32	32	22	40	200	0	-2	0,2	CC..09T3..
		GL32-DCLCL-22032-09JET	32	32	22	40	200	0	-2	0,2	CC..09T3..
GL40											
	09	GL40-DCLCR-27032-09JET	40	32	27	50	200	0	-2	0,2	CC..09T3..
		GL40-DCLCL-27032-09JET	40	32	27	50	200	0	-2	0,2	CC..09T3..
GL50											
	09	GL50-DCLCR-32032-09JET	50	32	32	63	200	0	-2	0,3	CC..09T3..
		GL50-DCLCL-32032-09JET	50	32	32	63	200	0	-2	0,3	CC..09T3..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Key (T-handle)	O-ring	Spring	Clamp kit
GL32	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET
GL40	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET
GL50	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	DOUBLE-T	O-RING-5.0X1.2	S5608	CP14U00S-2-SET

Please check availability in current price and stock-list

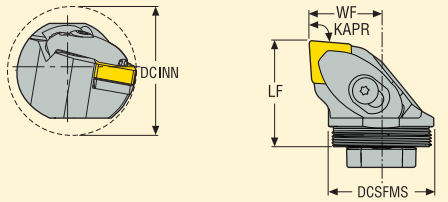
* To be ordered separately

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



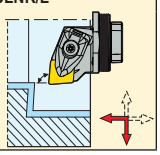
- For inserts programme, see page(s) 387-394, 441-442, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284

GL..-DCLNR/L



Right-hand version shown
KAPR = 95°

GL..-DCLNR/L
95 °



Size		Designation	Dimensions in mm				CP*	GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN					
GL32											
	12	**GL32-DCLNR-22032-12JET**	32	32	22	40	200	-6	-10	0,2	CN..1204..
		GL32-DCLNL-22032-12JET	32	32	22	40	200	-6	-10	0,2	CN..1204..
GL40											
	12	**GL40-DCLNR-27032-12JET**	40	32	27	50	200	-6	-10	0,2	CN..1204..
		GL40-DCLNL-27032-12JET	40	32	27	50	200	-6	-10	0,2	CN..1204..
GL50											
	12	**GL50-DCLNR-32032-12JET**	50	32	32	63	200	-6	-8	0,3	CN..1204..
		GL50-DCLNL-32032-12JET	50	32	32	63	200	-6	-8	0,3	CN..1204..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

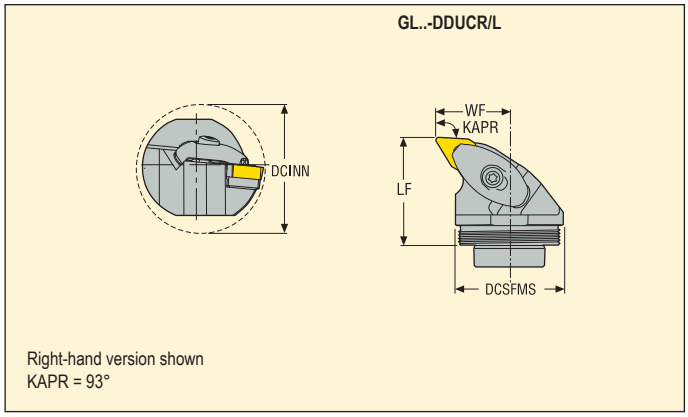
For	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim screw	Spring	Clamp kit
GL32	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET
GL40	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET
GL50	L85021-T15P	CN17U00S-2	930RD13	DCO120310	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C04008-T15P	S6912	CN17U00S-2-SET

Please check availability in current price and stock-list

* To be ordered separately

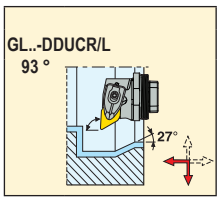
Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX





Right-hand version shown
KAPR = 93°

- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284



Size		Designation	Dimensions in mm DCSFMS	LF	WF	DCINN	CP*	GAMO°	LAMS°	KG	
GL32											
	11	GL32-DDUCR-22032-11JET	32	32	22	40	200	0	-5	0,2	DC..11T3..
		GL32-DDUCL-22032-11JET	32	32	22	40	200	0	-5	0,2	DC..11T3..
GL40											
	11	GL40-DDUCR-27032-11JET	40	32	27	50	200	0	-5	0,2	DC..11T3..
		GL40-DDUCL-27032-11JET	40	32	27	50	200	0	-5	0,2	DC..11T3..
GL50											
	11	GL50-DDUCR-32032-11JET	50	32	32	63	200	0	-5	0,3	DC..11T3..
		GL50-DDUCL-32032-11JET	50	32	32	63	200	0	-5	0,3	DC..11T3..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim key	Shim screw	Spring	Clamp kit
GL32	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET
GL40	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET
GL50	H4B-T09P	L84017-T09P	CP14U00S-2	930RD13	126.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U00S-2-SET

Please check availability in current price and stock-list

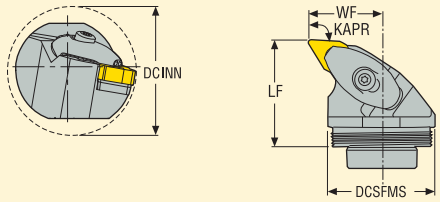
* To be ordered separately

Toolholders for inserts DNGG, DNGN, DNMA, DNMG, DNMM, DNMU and DNMX



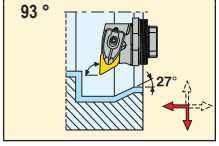
- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284

GL..-DDUNR/L



Right-hand version shown
KAPR = 93°

GL..-DDUNR/L
93 °



Size		Designation	Dimensions in mm DCSFMS	LF	WF	DCINN	CP*	GAMO°	LAMS°	KG	
GL32											
	11	GL32-DDUNR-22032-11JET	32	32	22	40	200	-6	-10	0,2	DN..1104..
		GL32-DDUNL-22032-11JET	32	32	22	40	200	-6	-10	0,2	DN..1104..
	15	GL32-DDUNR-22032-15JET	32	32	22	40	200	-6	-14	0,2	DN..1506..
		GL32-DDUNL-22032-15JET	32	32	22	40	200	-6	-14	0,2	DN..1506..
GL40											
	11	GL40-DDUNR-27032-11JET	32	32	27	50	200	-5	-10	0,2	DN..1104..
		GL40-DDUNL-27032-11JET	32	32	27	50	200	-5	-10	0,2	DN..1104..
	15	GL40-DDUNR-27032-15JET	40	32	27	50	200	-6	-14	0,2	DN..1506..
		GL40-DDUNL-27032-15JET	40	32	27	50	200	-6	-14	0,2	DN..1506..
GL50											
	15	GL50-DDUNR-32032-15JET	50	32	32	63	200	-6	-14	0,4	DN..1506..
		GL50-DDUNL-32032-15JET	50	32	32	63	200	-6	-14	0,4	DN..1506..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim key	Shim screw	Spring	Clamp kit
32-11	–	L84017-T09P	CN14U00S-2	930RD13	DDN110310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	–	C03007-T09P	S5608	CN14U00S-2-SET
32R-15	H4B-T09P	L84017-T09P	CN14U10S-2R	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	–	H4B-T15P	C04008-T15P	S5608	CN14U10S-2R-SET
32L-15	H4B-T09P	L84017-T09P	CN14U10S-2L	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	–	H4B-T15P	C04008-T15P	S5608	CN14U10S-2L-SET
40-11	–	L84017-T09P	CN14U00S-2	930RD13	DDN110310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	–	C03007-T09P	S5608	CN14U00S-2-SET
40-15	–	L85021-T15P	CN17U00S-2	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	–	C04008-T15P	S6912	CN17U00S-2-SET
50-15	–	L85021-T15P	CN17U00S-2	930RD13	DDN150416	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	–	C04008-T15P	S6912	CN17U00S-2-SET

Please check availability in current price and stock-list

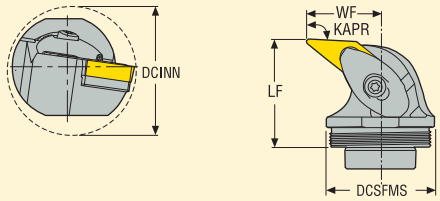
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT and VBMW



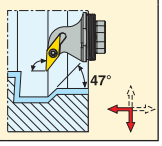
- For inserts programme, see page(s) 429-430, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284

GL..-DVUBR/L



Right-hand version shown
KAPR = 93°

GL..-DVUBR/L
93 °



Size		Designation	Dimensions in mm				CP*	GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN					
GL32											
	16	GL32-DVUBR-22032-16JET	32	32	22	40	200	0	-8	0,2	VB..1604..
		GL32-DVUBL-22032-16JET	32	32	22	40	200	0	-8	0,2	VB..1604..
GL40											
	16	GL40-DVUBR-27032-16JET	40	32	27	50	200	0	-8	0,2	VB..1604..
		GL40-DVUBL-27032-16JET	40	32	27	50	200	0	-8	0,2	VB..1604..
GL50											
	16	GL50-DVUBR-32032-16JET	50	32	32	63	200	0	-8	0,3	VB..1604..
		GL50-DVUBL-32032-16JET	50	32	32	63	200	0	-8	0,3	VB..1604..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

For	Clamp key	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim key	Shim screw	Spring	Clamp kit
GL32..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL32..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET
GL40..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL40..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET
GL50..R	H4B-T09P	L84017-T09P	CP14U20S-2R	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2R-SET
GL50..L	H4B-T09P	L84017-T09P	CP14U20S-2L	930RD13	171.19-620	DOUBLE-T	O-RING-5.0X1.2	H4B-T15P	C94006-T15P	S5608	CP14U20S-2L-SET

Please check availability in current price and stock-list

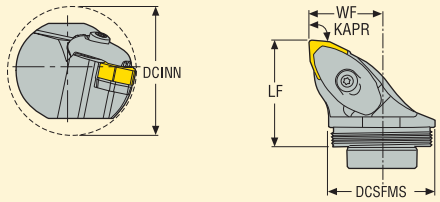
* To be ordered separately

Toolholders for inserts WNGG, WNMA, WNMG and WNMM



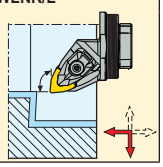
- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For coolant clamps code key, see page(s) 21
- For damping holders programme, see page(s) 277-284

GL..-DWLNR/L



Right-hand version shown
KAPR = 95°

GL..-DWLNR/L
95 °



Size		Designation	Dimensions in mm				CP*	GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN					
GL32											
	06	**GL32-DWLNR-22032-06JET**	32	32	22	32	200	-5	-12	0,2	WN..0604..
		GL32-DWLNL-22032-06JET	32	32	22	32	200	-5	-12	0,2	WN..0604..
GL40											
	06	**GL40-DWLNR-27032-06JET**	40	32	27	48	200	-5	-12	0,2	WN..0604..
		GL40-DWLNL-27032-06JET	40	32	27	48	200	-5	-12	0,2	WN..0604..
GL50											
	06	**GL50-DWLNR-32032-06JET**	50	32	32	63	200	-5	-12	0,3	WN..0604..
		GL50-DWLNL-32032-06JET	50	32	32	63	200	-5	-12	0,3	WN..0604..

* Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

Accessories*

For	Clamp screw	Coolant clamp	Coolant seal	Insert shim	Key (T-handle)	O-ring	Shim/clamp key	Shim screw	Spring	Clamp kit
GL32	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET
GL40	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET
GL50	L84017-T09P	CN14U00S-2	930RD13	DWN060310	DOUBLE-T	O-RING-5.0X1.2	H4B-T09P	C03007-T09P	S5608	CN14U00S-2-SET

Please check availability in current price and stock-list

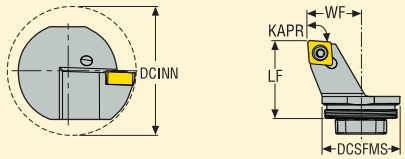
* To be ordered separately

Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW



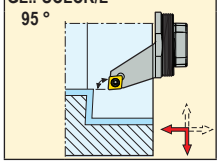
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SCLCR/L



Right-hand version shown
KAPR = 95°

GL..-SCLCR/L
95 °



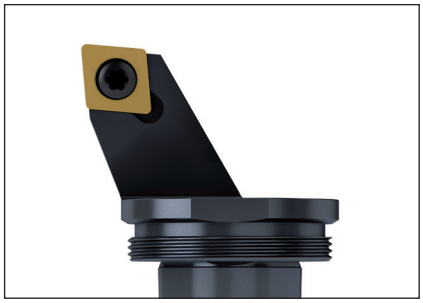
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	09	GL25-SCLCR-17020-09	25	20	17,0	32	0	-3	0,3	CC..09T3..
		GL25-SCLCL-17020-09	25	20	17,0	32	0	-3	0,5	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-09	H4B-T15P	C04008-T15P	DOUBLE-T

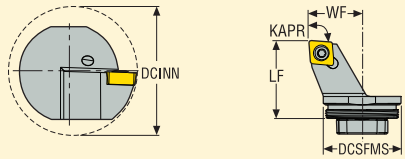
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCGX and CCMT



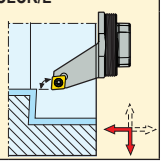
- For inserts programme, see page(s) 382-386, 440, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SCLCR/L



Right-hand version shown
KAPR = 95°

GL..-SCLCR/L
95 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	06	GL32-SCLCR-22032-06	32	32	22,0	40	0	-2	0,1	CC..0602..
		GL32-SCLCL-22032-06	32	32	22,0	40	0	-2	0,1	CC..0602..
	09	GL32-SCLCR-22032-09	32	32	22,0	40	0	-2	0,1	CC..09T3..
		GL32-SCLCL-22032-09	32	32	22,0	40	0	-2	0,1	CC..09T3..
	12	GL32-SCLCR-22032-12	32	32	22,0	40	0	-8	0,1	CC..1204..
		GL32-SCLCL-22032-12	32	32	22,0	40	0	-8	0,1	CC..1204..
GL40										
	06	GL40-SCLCR-27032-06	40	32	27,0	50	0	-2	0,2	CC..0602..
		GL40-SCLCL-27032-06	40	32	27,0	50	0	-2	0,2	CC..0602..
	09	GL40-SCLCR-27032-09	40	32	27,0	50	0	-2	0,2	CC..09T3..
		GL40-SCLCL-27032-09	40	32	27,0	50	0	-2	0,2	CC..09T3..
	12	GL40-SCLCR-27032-12	40	32	27,0	50	0	-8	0,2	CC..1204..
		GL40-SCLCL-27032-12	40	32	27,0	50	0	-8	0,2	CC..1204..
GL50										
	06	GL50-SCLCR-32032-06	50	32	32,0	63	0	-2	0,3	CC..0602..
		GL50-SCLCL-32032-06	50	32	32,0	63	0	-2	0,3	CC..0602..
	09	GL50-SCLCR-32032-09	50	32	32,0	63	0	-2	0,3	CC..09T3..
		GL50-SCLCL-32032-09	50	32	32,0	63	0	-2	0,3	CC..09T3..
	12	GL50-SCLCR-32032-12	50	32	32,0	63	0	-5	0,3	CC..1204..
		GL50-SCLCL-32032-12	50	32	32,0	63	0	-5	0,3	CC..1204..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Key (T-handle)	Shim screw
..-06	H4B-T07P	C02506-T07P	–	DOUBLE-T	–
..-09	H4B-T15P	C04008-T15P	–	DOUBLE-T	–
..-12	H4B-T15P	C05012-T15P	123.19-621	DOUBLE-T	CA5008

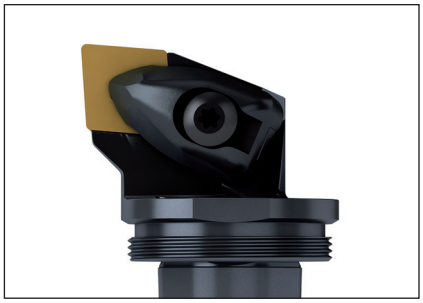
Accessories*

Shim key
–
–
5SMS795

Please check availability in current price and stock-list

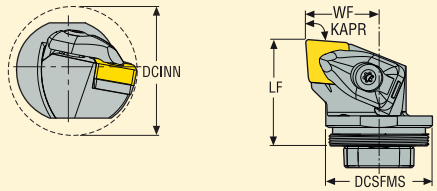
* To be ordered separately

Toolholders for inserts CNGG, CNMA, CNMG and CNMM



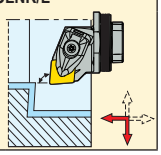
- For inserts programme, see page(s) 387-394, 441-442, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-DCLNR/L



Right-hand version shown
KAPR = 95°

GL..-DCLNR/L
95 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	12	GL32-DCLNR-22032-12	32	32	22,0	40	-6	-10	0,2	CN..1204..
		GL32-DCLNL-22032-12	32	32	22,0	40	-6	-10	0,2	CN..1204..
GL40										
	12	GL40-DCLNR-27032-12	40	32	27,0	50	-6	-10	0,2	CN..1204..
		GL40-DCLNL-27032-12	40	32	27,0	50	-6	-10	0,2	CN..1204..
GL50										
	12	GL50-DCLNR-32032-12	50	32	32,0	63	-6	-8	0,3	CN..1204..
		GL50-DCLNL-32032-12	50	32	32,0	63	-6	-8	0,3	CN..1204..
	16	GL50-DCLNR-32037-16	50	37	32,0	63	-5	-14	0,4	CN..1606..
		GL50-DCLNL-32037-16	50	37	32,0	63	-5	-14	0,4	CN..1606..
	19	GL50-DCLNR-32040-19	50	40	32,0	63	-5	-14	0,4	CN..1906..
		GL50-DCLNL-32040-19	50	40	32,0	63	-5	-14	0,4	CN..1906..

Spare Parts, Parts included in delivery

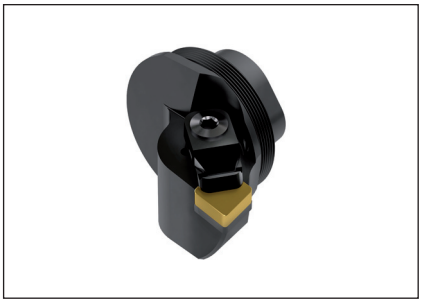
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Key (T-handle)	Shim/clamp key	Shim screw	Spring	Clamp kit
..-12	FP2012	L85021-T15P	CD12-S	DCO120310	DOUBLE-T	H4B-T15P	C04008-T15P	S6912	CD12-S12
..-16	FP2012	L86026-T20P	CD16-S	DCN160616	DOUBLE-T	H6B-T20P	C05010-T20P	S7010	CD16-S16
..-19	FP2012	L86026-T20P	CD19-S	DCN190416	DOUBLE-T	H6B-T20P	C05010-T20P	S7010	CD19-S19

Please check availability in current price and stock-list

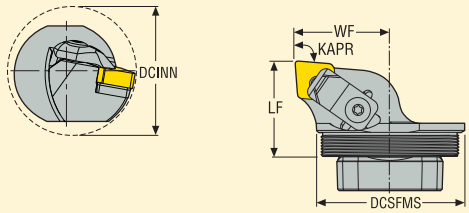
* To be ordered separately

Toolholders for PCBN inserts CNMN



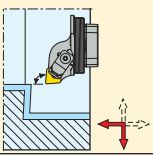
- For inserts programme, see page(s) 442
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-CCLNR/L



Right-hand version shown
KAPR = 95°

GL..-CCLNR/L
95 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL50										
	12	GL50-CCLNR-32032-12	50	32	31,9	63	-6	-6	0,4	CNMN1204..
		GL50-CCLNL-32032-12	50	32	31,9	63	-6	-6	0,4	CNMN1204..

Spare Parts, Parts included in delivery

For size	Clamp	Insert key	Insert shim	Key (T-handle)	Pressure plate	Shim screw
..-12	CC17P	H4B-T09P	CCN120312	DOUBLE-T	P1311	F94009-T09P

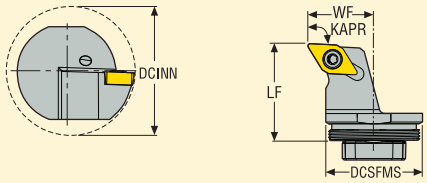
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



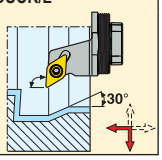
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUCR/L



Right-hand version shown
KAPR = 93°

GL..-SDUCR/L
93 °



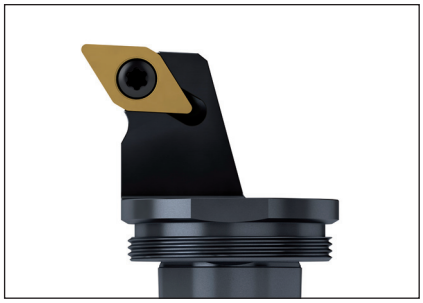
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	07	GL25-SDUCR-17020-07	25	20	17	32	0	-6	0,3	DC..0702..
		GL25-SDUCL-17020-07	25	20	17	32	0	-6	0,3	DC..0702..
	11	GL25-SDUCR-17020-11	25	20	17	32	0	-6	0,3	DC..11T3..
		GL25-SDUCL-17020-11	25	20	17	32	0	-6	0,3	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-07	H4B-T07P	C02506-T07P	DOUBLE-T
-11	H4B-T15P	C04008-T15P	DOUBLE-T

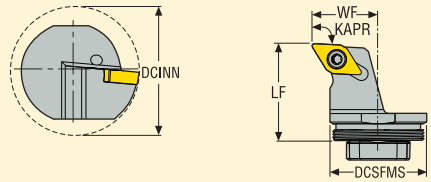
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT and DCMX



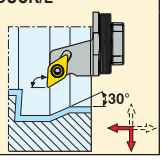
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUCR/L



Right-hand version shown
KAPR = 93°

GL..-SDUCR/L
93 °



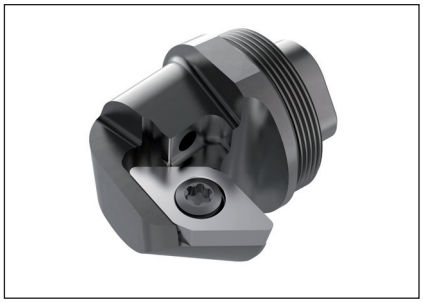
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-SDUCR-22032-11	32	32	22,0	40	0	-5	0,1	DC..11T3..
		GL32-SDUCL-22032-11	32	32	22,0	40	0	-5	0,1	DC..11T3..
GL40										
	11	GL40-SDUCR-27032-11	40	32	27,0	50	0	-5	0,2	DC..11T3..
		GL40-SDUCL-27032-11	40	32	27,0	50	0	-5	0,2	DC..11T3..
GL50										
	11	GL50-SDUCR-32032-11	50	32	32,0	63	0	-5	0,3	DC..11T3..
		GL50-SDUCL-32032-11	50	32	32,0	63	0	-5	0,3	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
..-11	H4B-T15P	C04008-T15P	DOUBLE-T

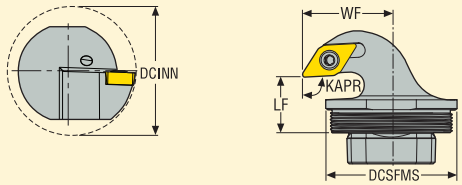
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



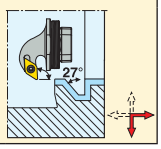
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUCR/L-..X



Right-hand version shown
KAPR = 93°

GL..-SDUCR/L-..X
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	11	GL25-SDUCR-17012-11X	25	12	17	32	0	-6	0,2	DC..11T3..
		GL25-SDUCL-17012-11X	25	12	17	32	0	-6	0,2	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-11X	H4B-T15P	C04008-T15P	DOUBLE-T

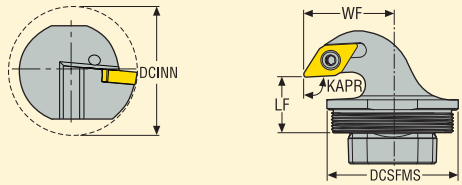
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



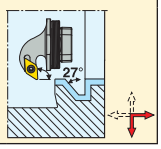
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUCR/L-..X



Right-hand version shown
KAPR = 93°

GL..-SDUCR/L-..X
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-SDUCR-22018-11X	32	18	21,9	40	0	-5	0,2	DC..11T3..
		GL32-SDUCL-22018-11X	32	18	21,9	40	0	-5	0,2	DC..11T3..
GL40										
	11	GL40-SDUCR-27017-11X	40	17	26,9	50	0	-5	0,2	DC..11T3..
		GL40-SDUCL-27017-11X	40	17	26,9	50	0	-5	0,2	DC..11T3..
GL50										
	11	GL50-SDUCR-32017-11X	50	17	32,0	63	0	-5	0,3	DC..11T3..
		GL50-SDUCL-32017-11X	50	17	32,0	63	0	-5	0,3	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
..-11	H4B-T15P	C04008-T15P	DOUBLE-T

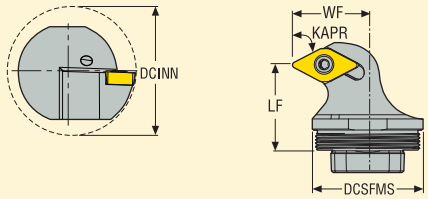
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



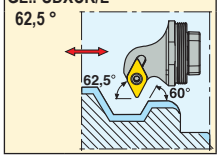
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDXCR/L



Right-hand version shown
KAPR = 62,5°

GL..-SDXCR/L
62,5 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	11	GL25-SDXCR-17018-11	25	18	17	32	0	-6	0,2	DC..11T3..
		GL25-SDXCL-17018-11	25	18	17	32	0	-6	0,3	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-11	H4B-T15P	C04008-T15P	DOUBLE-T

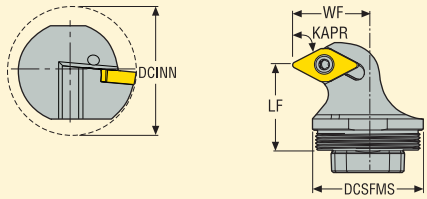
Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCGW, DCMT, DCMW and DCMX



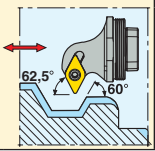
- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDXCR/L



Right-hand version shown
KAPR = 62,5°

GL..-SDXCR/L
62,5 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-SDXCR-22025-11	32	25	21,9	40	0	-5	0,2	DC..11T3..
		GL32-SDXCL-22025-11	32	25	21,9	40	0	-5	0,2	DC..11T3..
GL40										
	11	GL40-SDXCR-27025-11	40	25	26,9	50	0	-5	0,2	DC..11T3..
		GL40-SDXCL-27025-11	40	25	26,9	50	0	-5	0,2	DC..11T3..
GL50										
	11	GL50-SDXCR-32025-11	50	25	31,9	63	0	-5	0,3	DC..11T3..
		GL50-SDXCL-32025-11	50	25	31,9	63	0	-5	0,3	DC..11T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
..-11	H4B-T15P	C04008-T15P	DOUBLE-T

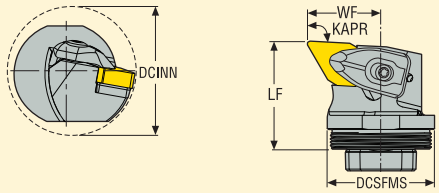
Please check availability in current price and stock-list

Toolholders for inserts DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



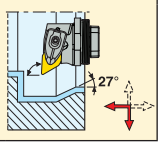
- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-DDUNR/L



Right-hand version shown
KAPR = 93°

GL..-DDUNR/L
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-DDUNR-22032-11	32	32	22,0	40	-6	-10	0,2	DN..1104..
		GL32-DDUNL-22032-11	32	32	22,0	40	-6	-10	0,2	DN..1104..
GL40										
	11	GL40-DDUNR-27032-11	40	32	27,0	50	-5	-10	0,2	DN..1104..
		GL40-DDUNL-27032-11	40	32	27,0	50	-5	-10	0,2	DN..1104..
GL32										
	15	GL32-DDUNR-22032-15	32	32	21,9	40	-6	-14	0,2	DN..1506..
		GL32-DDUNL-22032-15	32	32	21,9	40	-6	-14	0,2	DN..1506..
GL40										
	15	GL40-DDUNR-27032-15	40	32	27,0	50	-6	-12	0,2	DN..1506..
		GL40-DDUNL-27032-15	40	32	27,0	50	-6	-12	0,2	DN..1506..
GL50										
	15	GL50-DDUNR-32032-15	50	32	27,0	63	-6	-12	0,3	DN..1506..
		GL50-DDUNL-32032-15	50	32	27,0	63	-6	-12	0,3	DN..1506..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Key (T-handle)	Shim/clamp key	Shim screw	Spring
..-11	FP1508	L84017-T09P	CD09-S	DDN110310	DOUBLE-T	H4B-T09P	C03007-T09P	S5608
GL32-..-15	FP2012	L85021-T15P	CD12-S	DDN150416	DOUBLE-T	H4B-T15P	C04008-T15P	S6912
GL40/50-..-15	FP2012	L85021-T15P	CD12-S	DDN150416	DOUBLE-T	H4B-T15P	C04008-T15P	S6912

Accessories*

Clamp kit
CD09-S09
CD12-S12
CD12-S12

Please check availability in current price and stock-list

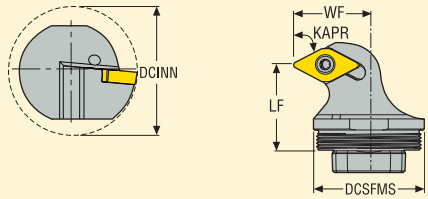
* To be ordered separately

Toolholders for inserts DNMA, DNMU and DNMX



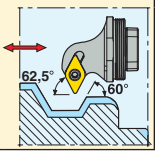
- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDXNR/L



Right-hand version shown
KAPR = 62,5°

GL..-SDXNR/L
62,5 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-SDXNR-22025-11	32	25	21,9	40	0	-10	0,2	DN..1104..
		GL32-SDXNL-22025-11	32	25	21,9	40	0	-10	0,2	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
..-11	H4B-T09P	C03511-T09P	DOUBLE-T

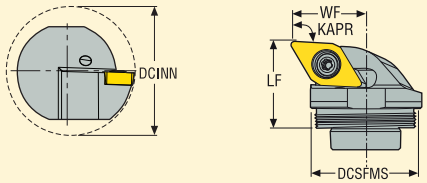
Please check availability in current price and stock-list

Toolholders for inserts DNMA, DNMU and DNMX



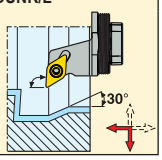
- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUNR/L



Right-hand version shown
KAPR = 93°

GL..-SDUNR/L
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	11	GL25-SDUNR-17020-11	25	20	17	32	-5	-13	0,3	DN..1104..
		GL25-SDUNL-17020-11	25	20	17	32	-5	-13	0,3	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-11	H4B-T09P	C03511-T09P	DOUBLE-T

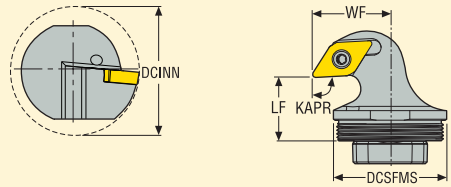
Please check availability in current price and stock-list

Toolholders for inserts DNMU and DNMX



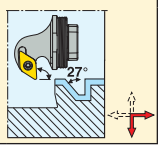
- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SDUNR/L-..X



Right-hand version shown
KAPR = 93°

GL..-SDUNR/L-..X
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-SDUNR-22018-11X	32	18	21,9	40	-6	-10	0,2	DN..1104..
		GL32-SDUNL-22018-11X	32	18	21,9	40	-6	-10	0,2	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
..-11	H4B-T09P	C03511-T09P	DOUBLE-T

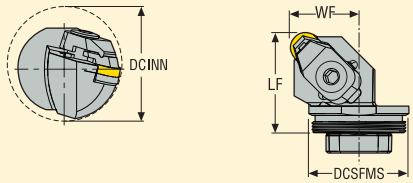
Please check availability in current price and stock-list

Toolholders for PCBN inserts RNGN-LF, RNGN and RNMN



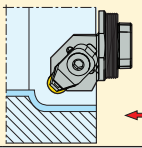
- For inserts programme, see page(s) 447-449, 471, 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-CRSNR/L



Right-hand version shown

GL..-CRSNR/L



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	09	GL32-CRSNR-22032-09	32	32	22,0	40	-6	-12	0,2	RN.N0903..
		GL32-CRSNL-22032-09	32	32	22,0	40	-6	-12	0,2	RN.N0903..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
..-09	CC17P-09	4SMS795	117.10-620	P1311-09	174.10-652-T07P	T07P-2

Please check availability in current price and stock-list

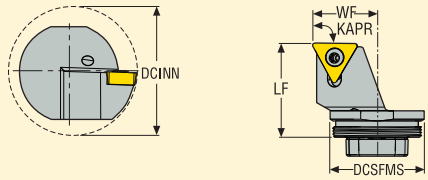
* To be ordered separately

Toolholders for inserts TCGT, TCGW, TCMT and TCMW



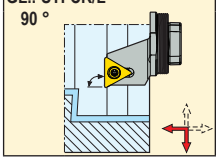
- For inserts programme, see page(s) 419, 421, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-STFCR/L



Right-hand version shown
KAPR = 90°

GL..-STFCR/L
90 °



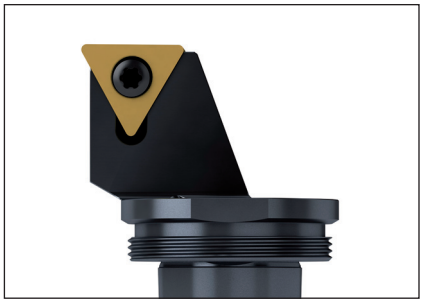
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	11	GL25-STFCR-17020-11	25	20	17,0	32	0	-3	0,3	TC..1102..
		GL25-STFCL-17020-11	25	20	17,0	32	0	-3	0,3	TC..1102..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-11	H4B-T07P	C02506-T07P	DOUBLE-T

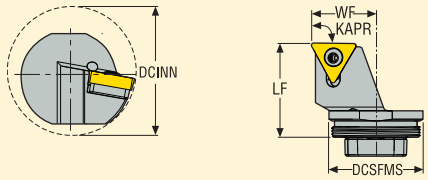
Please check availability in current price and stock-list

Toolholders for inserts TCGT, TCGX, TCMT, TCMW and TCMX



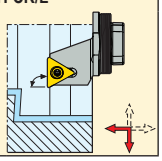
- For inserts programme, see page(s) 419-422, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-STFCR/L



Right-hand version shown
KAPR = 90°

GL..-STFCR/L
90 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	16	GL32-STFCR-22032-16	32	32	22,0	40	0	-10	0,2	TC..16T3..
		GL32-STFCL-22032-16	32	32	22,0	40	0	-10	0,2	TC..16T3..
GL40										
	16	GL40-STFCR-27032-16	40	32	27,0	50	0	-8	0,2	TC..16T3..
		GL40-STFCL-27032-16	40	32	27,0	50	0	-8	0,2	TC..16T3..
GL50										
	16	GL50-STFCR-32032-16	50	32	32,0	63	0	-8	0,3	TC..16T3..
		GL50-STFCL-32032-16	50	32	32,0	63	0	-8	0,3	TC..16T3..

Spare Parts, Parts included in delivery

Accessories*

For size	Insert key	Insert screw	Insert shim	Key (T-handle)	Shim screw	Shim key
..-16	H4B-T15P	C03509-T15P	STN160312	DOUBLE-T	CA3510	9/64SMS875

Please check availability in current price and stock-list

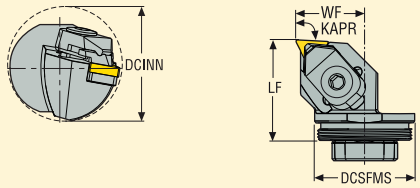
* To be ordered separately

Toolholders for PCBN inserts TNGN-LF, TNGN, TNGX, TNMN and TNMX



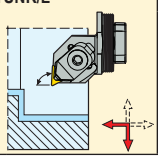
- For inserts programme, see page(s) 458-462
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-CTUNR/L



Right-hand version shown
KAPR = 93°

GL..-CTUNR/L
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	11	GL32-CTUNR-22032-11	32	32	22,0	40	-6	-10	0,2	TN..1103..
		GL32-CTUNL-22032-11	32	32	22,0	40	-6	-10	0,2	TN..1103..

Spare Parts, Parts included in delivery

Accessories*

For size	Cantilever clamp	Clamp key	Insert shim	Pressure plate	Shim screw	Shim key
..-11	CC17P-06	4SMS795	CTN110308	P1311-06	CS2507-T07P	T07P-2

Please check availability in current price and stock-list

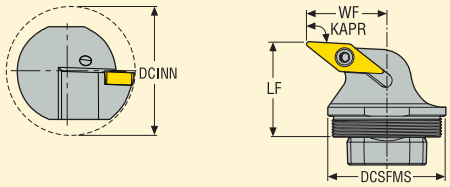
* To be ordered separately

Toolholders for inserts VBGT and VBMT



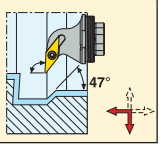
- For inserts programme, see page(s) 429-430
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SVUBR/L



Right-hand version shown
KAPR = 93°

GL..-SVUBR/L
93 °



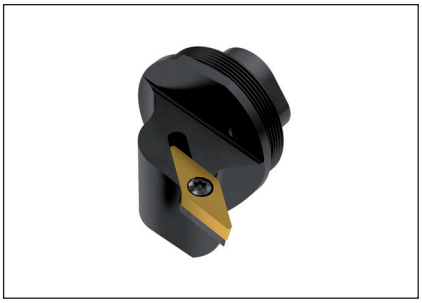
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL25										
	11	GL25-SVUBR-17020-11	25	20	17,0	32	0	-4	0,3	VB..1102..
		GL25-SVUBL-17020-11	25	20	17,0	32	0	-4	0,3	VB..1102..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Key (T-handle)
-11	H4B-T07P	C02506-T07P	DOUBLE-T

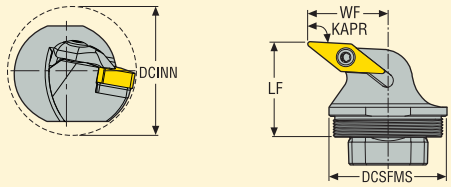
Please check availability in current price and stock-list

Toolholders for inserts VBGT, VBGW, VBMT and VBMW



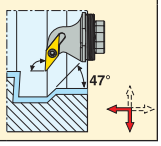
- For inserts programme, see page(s) 429-430, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SVUBR/L



Right-hand version shown
KAPR = 93°

GL..-SVUBR/L
93 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	16	GL32-SVUBR-22032-16	32	32	22,0	40	0	-3	0,2	VBMT1604..
		GL32-SVUBL-22032-16	32	32	22,0	40	0	-3	0,2	VBMT1604..
GL40										
	16	GL40-SVUBR-27032-16	32	32	26,9	40	0	-3	0,2	VBMT1604..
		GL40-SVUBL-27032-16	32	32	26,9	40	0	-3	0,2	VBMT1604..
GL50										
	16	GL50-SVUBR-32032-16	50	32	31,9	63	0	-3	0,3	VBMT1604..
		GL50-SVUBL-32032-16	50	32	31,9	63	0	-3	0,3	VBMT1604..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Key (T-handle)	Shim screw
..-16	H4B-T15P	C03510-T15P	171.19-620	DOUBLE-T	CA3507

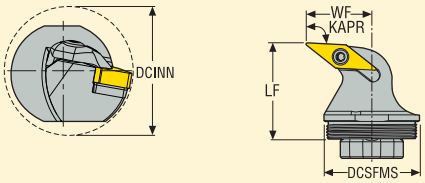
Please check availability in current price and stock-list

Toolholders for inserts VNMU



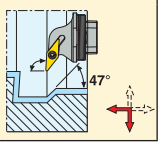
- For inserts programme, see page(s) 434
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-SVUNR/L



Right-hand version shown
KAPR = 93°

GL..-SVUNR/L
93 °



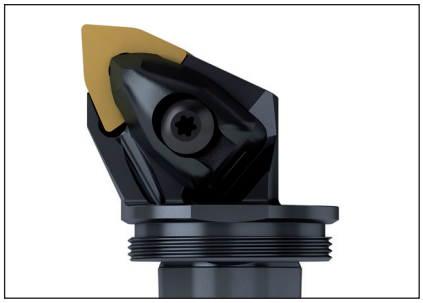
Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	13	GL32-SVUNR-22032-13	32	32	21,9	40	-5	-12	0,2	VN..1304..
		GL32-SVUNL-22032-13	32	32	21,9	40	-5	-12	0,2	VN..1304..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Key (T-handle)	Shim screw
..-13	H4B-T09P	C03511-T09P	PVN130308	DOUBLE-T	CA3507
..-13	H4B-T15P	C03512-T15P	PVN130308	DOUBLE-T	CA3507

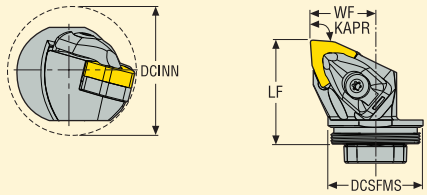
Please check availability in current price and stock-list

Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



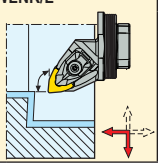
- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 12-13
- For damping holders programme, see page(s) 277-284

GL..-DWLNR/L



Right-hand version shown
KAPR = 95°

GL..-DWLNR/L
95 °



Size		Designation	Dimensions in mm				GAMO°	LAMS°	KG	
			DCSFMS	LF	WF	DCINN				
GL32										
	06	GL32-DWLNR-22032-06	32	32	22,0	40	-5	-12	0,2	WN..0604..
		GL32-DWLNL-22032-06	32	32	22,0	40	-5	-12	0,2	WN..0604..
	08	GL32-DWLNR-22035-08	32	35	22,0	40	-5	-14	0,2	WN..0804..
		GL32-DWLNL-22035-08	32	35	22,0	40	-5	-14	0,2	WN..0804..
GL40										
	06	GL40-DWLNR-27032-06	40	32	27,0	50	-5	-12	0,2	WN..0604..
		GL40-DWLNL-27032-06	40	32	27,0	50	-5	-12	0,2	WN..0604..
	08	GL40-DWLNR-27037-08	40	37	27,0	50	-5	-12	0,2	WN..0804..
		GL40-DWLNL-27037-08	40	37	27,0	50	-5	-12	0,2	WN..0804..
GL50										
	06	GL50-DWLNR-32032-06	50	32	32,0	63	-5	-12	0,3	WN..0604..
		GL50-DWLNL-32032-06	50	32	32,0	63	-5	-12	0,3	WN..0604..
	08	GL50-DWLNR-32038-08	50	38	32,0	63	-5	-12	0,3	WN..0804..
		GL50-DWLNL-32038-08	50	38	32,0	63	-5	-12	0,3	WN..0804..

Spare Parts, Parts included in delivery

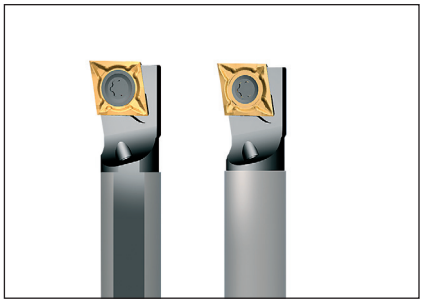
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Key (T-handle)	Shim/clamp key	Shim screw	Spring	Clamp kit
..-06	FP1508	L84017-T09P	CD09-S	DWN060310	DOUBLE-T	H4B-T09P	C03007-T09P	S5608	CD09-S09
..-08	FP2012	L85021-T15P	CD12-S	DWN080416	DOUBLE-T	H4B-T15P	C04008-T15P	S6912	CD12-S12

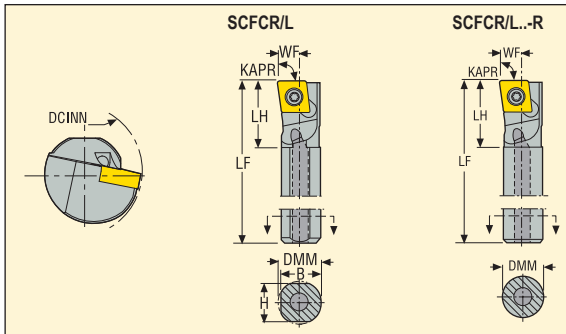
Please check availability in current price and stock-list

* To be ordered separately

Toolholders for inserts CCGT, CCGW, CCMT and CCMW

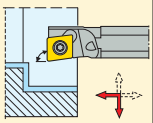


- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°

SCFCR/L, ..-R
90 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A08K-SCFCR06	8	7	7,5	125	5	12	10	0	-11	0,1	CC..0602..
	A08K-SCFCR06-R	8	–	–	125	5	12	10	0	-11	0,1	CC..0602..
	A10L-SCFCR06	10	9	9,5	140	7	18	13	0	-11	0,1	CC..0602..
	A10L-SCFCR06-R	10	–	–	140	7	18	13	0	-11	0,1	CC..0602..
	A08K-SCFCL06	8	7	7,5	125	5	12	10	0	-11	0,1	CC..0602..
	A08K-SCFCL06-R	8	–	–	125	5	12	10	0	-11	0,1	CC..0602..
	A10L-SCFCL06	10	9	9,5	140	7	18	13	0	-11	0,1	CC..0602..
	A10L-SCFCL06-R	10	–	–	140	7	18	13	0	-11	0,1	CC..0602..
09	A12N-SCFCR09	12	11	11,5	160	9	20	17	0	-11	0,2	CC..09T3..
	A12N-SCFCR09-R	12	–	–	160	9	20	17	0	-11	0,2	CC..09T3..
	A16Q-SCFCR09	16	15	15,5	180	11	22	22	0	-5	0,3	CC..09T3..
	A16Q-SCFCR09-R	16	–	–	180	11	22	22	0	-5	0,3	CC..09T3..
	A20R-SCFCR09	20	18	19,0	200	13	32	25	0	-5	0,4	CC..09T3..
	A20R-SCFCR09-R	20	–	–	200	13	32	25	0	-5	0,4	CC..09T3..
	A12N-SCFCL09	12	11	11,5	160	9	20	17	0	-11	0,2	CC..09T3..
	A12N-SCFCL09-R	12	–	–	160	9	20	17	0	-11	0,2	CC..09T3..
	A16Q-SCFCL09	16	15	15,5	180	11	22	22	0	-5	0,3	CC..09T3..
	A16Q-SCFCL09-R	16	–	–	180	11	22	22	0	-5	0,3	CC..09T3..
	A20R-SCFCL09	20	18	19,0	200	13	32	25	0	-5	0,4	CC..09T3..
	A20R-SCFCL09-R	20	–	–	200	13	32	25	0	-5	0,4	CC..09T3..

Spare Parts, Parts included in delivery

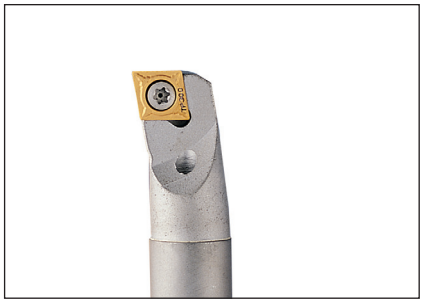
For size	Insert key	Insert screw
A08K-...06/R	T07P-2	C02505-T07P
A10L-...06/R	T07P-2	C02506-T07P
A12N-...09/R	T15P-2	C04008-T15P
A16Q-...09/R	T15P-2	C04008-T15P
A20R-...09/R	T15P-2	C04008-T15P

Accessories, to be ordered separately

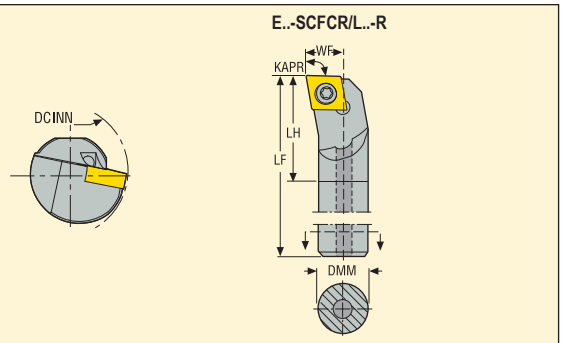
Coolant adapter
–
–
–
SEAL16
SEAL20

Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW

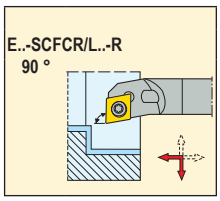


- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°

E = Solid carbide shank



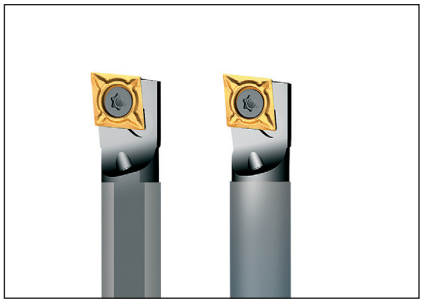
	Designation	Dimensions in mm					GAMO°	LAMS°	KG	
		DMM	LF	WF	LH	DCINN				
06	E08K-SCFCR06-R	8	125	5	21	10	0	-11	0,1	CC..0602..
	E10M-SCFCR06-R	10	150	7	27	13	0	-11	0,2	CC..0602..
	E08K-SCFCL06-R	8	125	5	21	10	0	-11	0,1	CC..0602..
	E10M-SCFCL06-R	10	150	7	27	13	0	-11	0,2	CC..0602..
09	E12R-SCFCR09-R	12	200	9	27	17	0	-11	0,3	CC..09T3..
	E16X-SCFCR09-R	16	230	11	34	22	0	-5	0,6	CC..09T3..
	E12R-SCFCL09-R	12	200	9	27	17	0	-11	0,3	CC..09T3..
	E16X-SCFCL09-R	16	230	11	34	22	0	-5	0,6	CC..09T3..

Spare Parts, Parts included in delivery

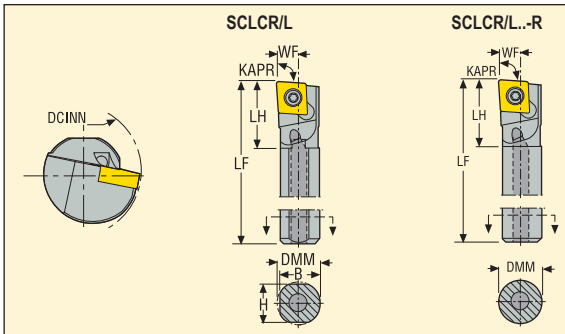
For size	Insert key	Insert screw
E08K-...06-R	T07P-2	C02505-T07P
E10M-...06-R	T07P-2	C02506-T07P
-...09-R	T15P-2	C04008-T15P

Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW

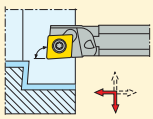


- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°

SCLCR/L, .-R
95 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A08K-SCLCR06	8	7	7,5	125	5	12	10	0	-11	0,1	CC..06..
	A08K-SCLCR06-R	8	–	–	125	5	12	10	0	-11	0,1	CC..06..
	A10L-SCLCR06	10	9	9,5	140	7	18	13	0	-11	0,1	CC..06..
	A10L-SCLCR06-R	10	–	–	140	7	18	13	0	-11	0,1	CC..06..
	A12N-SCLCR06	12	11	11,5	160	9	20	17	0	-11	0,1	CC..06..
	A16Q-SCLCR06	16	15	15,5	180	11	22	22	0	-5	0,2	CC..06..
	A08K-SCLCL06	8	7	7,5	125	5	12	10	0	-11	0,1	CC..06..
	A08K-SCLCL06-R	8	–	–	125	5	12	10	0	-11	0,1	CC..06..
	A10L-SCLCL06	10	9	9,5	140	7	18	13	0	-11	0,1	CC..06..
	A10L-SCLCL06-R	10	–	–	140	7	18	13	0	-11	0,1	CC..06..
	A12N-SCLCL06	12	11	11,5	160	9	20	17	0	-11	0,1	CC..06..
	A16Q-SCLCL06	16	15	15,5	180	11	22	22	0	-5	0,2	CC..06..

Spare Parts, Parts included in delivery

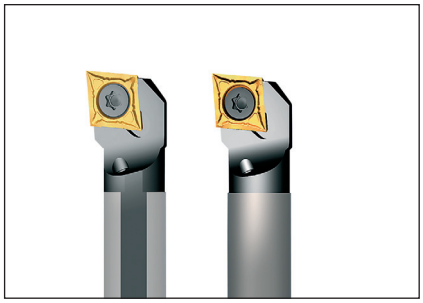
For size	Insert key	Insert screw
A08K-..	T07P-2	C02505-T07P
A10L-..	T07P-2	C02505-T07P
A12N-..	T07P-2	C02506-T07P
A16Q-..	T07P-2	C02506-T07P

Accessories, to be ordered separately

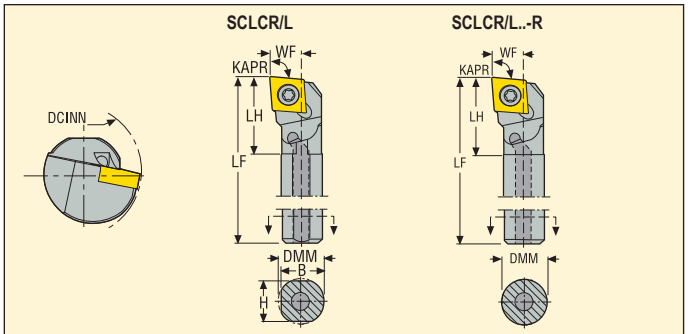
Coolant adapter
–
–
–
SEAL16

Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW

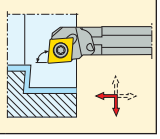


- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°

SCLCR/L, .-R
95 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
09	A12N-SCLCR09	12	11	11,5	160	9	20	17	0	-11	0,2	CC..09T3..
	A12N-SCLCR09-R	12	–	–	160	9	20	17	0	-11	0,2	CC..09T3..
	A16Q-SCLCR09	16	15	15,5	180	11	22	22	0	-5	0,2	CC..09T3..
	A16Q-SCLCR09-R	16	–	–	180	11	22	22	0	-5	0,3	CC..09T3..
	A20R-SCLCR09	20	18	19,0	200	13	32	25	0	-5	0,4	CC..09T3..
	A20R-SCLCR09-R	20	–	–	200	13	32	25	0	-5	0,4	CC..09T3..
	A12N-SCLCL09	12	11	11,5	160	9	20	17	0	-11	0,2	CC..09T3..
	A12N-SCLCL09-R	12	–	–	160	9	20	17	0	-11	0,2	CC..09T3..
	A16Q-SCLCL09	16	15	15,5	180	11	22	22	0	-5	0,2	CC..09T3..
	A16Q-SCLCL09-R	16	–	–	180	11	22	22	0	-5	0,3	CC..09T3..
	A20R-SCLCL09	20	18	19,0	200	13	32	25	0	-5	0,4	CC..09T3..
	A20R-SCLCL09-R	20	–	–	200	13	32	25	0	-5	0,4	CC..09T3..

Spare Parts, Parts included in delivery

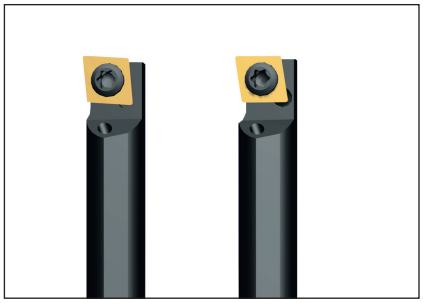
For size	Insert key	Insert screw
A12N-..	T15P-2	C04008-T15P
A16Q-..	T15P-2	C04008-T15P
A20R-..	T15P-2	C04008-T15P

Accessories, to be ordered separately

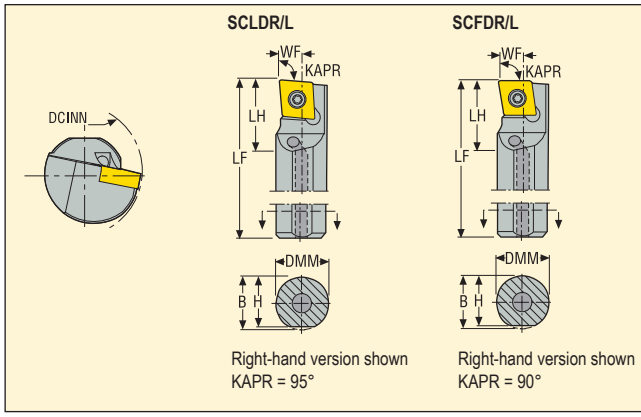
Coolant adapter
–
SEAL16
SEAL20

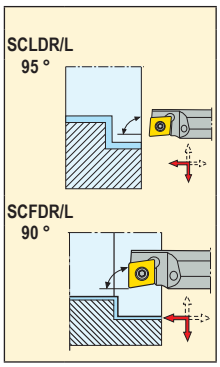
Please check availability in current price and stock-list

Toolholders for inserts CDCB



- For inserts programme, see page(s) 387
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17





	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
04	A05D-SCLDR04	5	4,70	5	60	3,0	9,7	5,5	0	-12	0,1	CD..04..
	A06E-SCLDR04	6	5,65	6	70	3,5	10,2	6,5	0	-12	0,1	CD..04..
	A08F-SCLDR04	8	7,55	8	80	4,5	11,2	8,5	0	-8	0,1	CD..04..
	A05D-SCLDL04	5	4,70	5	60	3,0	9,7	5,5	0	-12	0,1	CD..04..
	A06E-SCLDL04	6	5,65	6	70	3,5	10,2	6,5	0	-12	0,1	CD..04..
	A08F-SCLDL04	8	7,55	8	80	4,5	11,2	8,5	0	-8	0,1	CD..04..
04	A05D-SCFDR04	5	4,70	5	60	3,0	9,7	5,5	0	-12	0,1	CD..04..
	A06E-SCFDR04	6	5,65	6	70	3,5	10,2	6,5	0	-12	0,1	CD..04..
	A05D-SCFDL04	5	4,70	5	60	3,0	9,7	5,5	0	-12	0,1	CD..04..
	A06E-SCFDL04	6	5,65	6	70	3,5	10,2	6,5	0	-12	0,1	CD..04..

Spare Parts, Parts included in delivery

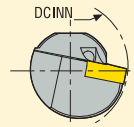
For size	Insert key	Insert screw
..04	T06P-2	C11804-T06P

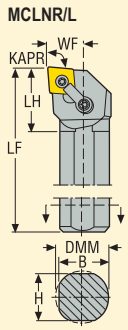
Please check availability in current price and stock-list

Toolholders for inserts CNGA, CNGG, CNMA, CNMG, CNMM and CNMN

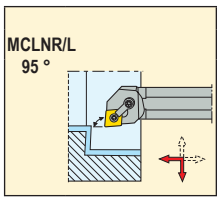


- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17





Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
12	S25S-MCLNR12	25	23	24,0	250	17	40	32	-5	-14	0,9	CN..1204..
	S32T-MCLNR12	32	30	31,0	300	22	50	40	-5	-14	1,8	CN..1204..
	S40U-MCLNR12	40	37	38,5	350	27	50	50	-5	-14	3,3	CN..1204..
	S25S-MCLNL12	25	23	24,0	250	17	40	32	-5	-14	0,9	CN..1204..
	S32T-MCLNL12	32	30	31,0	300	22	50	40	-5	-14	1,8	CN..1204..
	S40U-MCLNL12	40	37	38,5	350	27	50	50	-5	-14	3,3	CN..1204..
16	S50V-MCLNR16	50	47	48,5	400	35	70	63	-5	-14	5,9	CN..1606..
	S50V-MCLNL16	50	47	48,5	400	35	70	63	-5	-14	5,9	CN..1606..
19	S50V-MCLNR19	50	47	48,5	400	35	70	63	-5	-14	5,9	CN..1906..
	S50V-MCLNL19	50	47	48,5	400	35	70	63	-5	-14	5,8	CN..1906..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp screw	Insert/Clamp key	Insert pin	Insert shim	Shim/clamp key	Shim pin
S25S-...12	MC20	LD6020-T15P	T15P-2	MN1215S-T15P	–	–	–
S32T-...12	MC20	LD6020-T15P	–	–	CSN120412	T15P-2	MN1215R-T15P
S40U-...12	MC20	LD6020-T15P	–	–	CSN120412	T15P-2	MN1215R-T15P
-...16	MC12	LD8030-T25P	–	–	CSN160412	T25P-7	MN1515-T15P
-...19	MC12	LD8030-T25P	–	–	CSN190412	T25P-7	MN1925-T25P

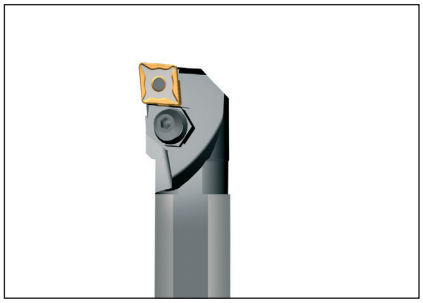
Accessories*

Plug	Shim key	Shim screw
P3	–	–
P3	–	CS6313-T15P
P3	–	CS6313-T15P
P4	T15P-2	CS8016-T15P
P4	T15P-2	–

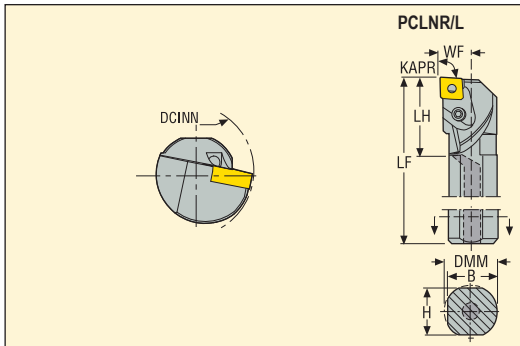
Please check availability in current price and stock-list

* To be ordered separately

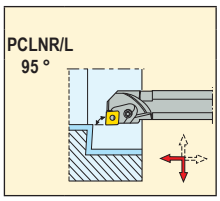
Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
09	**A20R-PCLNR09**	20	18	19,0	200	13	30	25	-6	-12	0,4	CN..0903..
	A25S-PCLNR09	25	23	24,0	250	17	35	32	-6	-11	0,8	CN..0903..
	A20R-PCLNL09	20	18	19,0	200	13	30	25	-6	-12	0,4	CN..0903..
	A25S-PCLNL09	25	23	24,0	250	17	35	32	-6	-11	0,8	CN..0903..
12	**A32T-PCLNR12**	32	30	31,0	300	22	50	40	-6	-12	1,6	CN..1204..
	A40U-PCLNR12	40	37	38,5	350	27	60	50	-6	-8	2,9	CN..1204..
	A32T-PCLNL12	32	30	31,0	300	22	50	40	-6	-12	1,6	CN..1204..
	A40U-PCLNL12	40	37	38,5	350	27	60	50	-6	-8	2,9	CN..1204..

Spare Parts, Parts included in delivery

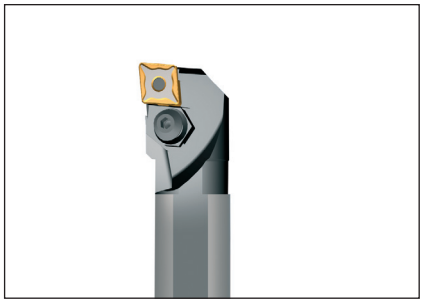
For size	Insert pin	Insert shim	Locking screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
A20R-..R09	110.26-653	–	–	–	110.26-639	2.5SMS795	117.26-657
A25S-..R09	110.26-653	–	–	–	110.26-639	2.5SMS795	117.26-657
A20R-..L09	110.26-653	–	–	–	110.26-638	2.5SMS795	117.26-657
A25S-..L09	110.26-653	–	–	–	110.26-638	2.5SMS795	117.26-657
A32T-..R12	–	123.26-621	136.26-651	131.26-652	110.26-641	T20P-7	WS1620-T20P
A40U-..R12	–	123.26-621	136.26-651	131.26-652	110.26-641	3SMS795	117.26-655
A32T-..L12	–	123.26-621	136.26-651	131.26-652	110.26-640	T20P-7	WS1620-T20P
A40U-..L12	–	123.26-621	136.26-651	131.26-652	110.26-640	3SMS795	117.26-655

Accessories, to be ordered separately

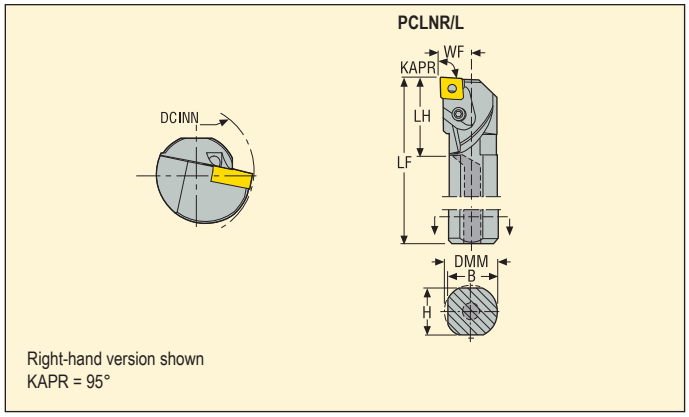
Coolant adapter	Insert key	Locking key	Punch
SEAL20	2SMS795	–	–
SEAL25	2SMS795	–	–
SEAL20	2SMS795	–	–
SEAL25	2SMS795	–	–
SEAL32	–	3SMS795	117.26-687
SEAL40	–	–	117.26-687
SEAL32	–	3SMS795	117.26-687
SEAL40	–	–	117.26-687

Please check availability in current price and stock-list

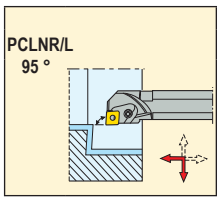
Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



- For inserts programme, see page(s) 388-394
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
16	A40U-PCLNR16	40	37	38,5	350	27	60	50	-6	-12	3,0	CN..1606..
	A50V-PCLNR16	50	47	48,5	400	35	70	63	-6	-10	5,4	CN..1606..
	A40U-PCLNL16	40	37	38,5	350	27	60	50	-6	-12	3,0	CN..1606..
	A50V-PCLNL16	50	47	48,5	400	35	70	63	-6	-10	5,4	CN..1606..
19	A50V-PCLNR19	50	47	48,5	400	35	70	63	-6	-8	5,4	CN..1906..
	A50V-PCLNL19	50	47	48,5	400	35	70	63	-6	-8	5,4	CN..1906..

Spare Parts, Parts included in delivery

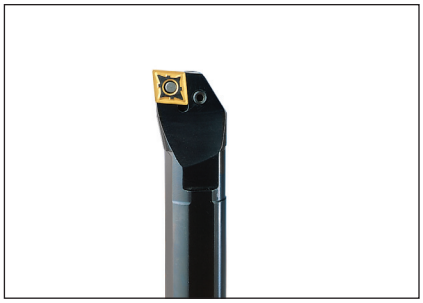
For size	Insert shim	Locking screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
A40U-..R16	123.26-625	136.26-651	123.26-650	110.26-643.5	T25P-7	WS2325-T25P
A50V-..R16	123.26-625	136.26-651	123.26-650	110.26-643.5	T25P-7	WS2325-T25P
A40U-..L16	123.26-625	136.26-651	123.26-650	110.26-642.5	T25P-7	WS2325-T25P
A50V-..L16	123.26-625	136.26-651	123.26-650	110.26-642.5	T25P-7	WS2325-T25P
A50V-..R19	123.26-627	131.26-651	131.26-653	110.26-643	4SMS795	170.26-655
A50V-..L19	123.26-627	131.26-651	131.26-653	110.26-642	4SMS795	170.26-655

Accessories, to be ordered separately

Coolant adapter	Locking key	Punch
SEAL40	3SMS795	117.26-687
SEAL50	3SMS795	117.26-687
SEAL40	3SMS795	117.26-687
SEAL50	3SMS795	117.26-687
SEAL50	–	117.26-687
SEAL50	–	117.26-687

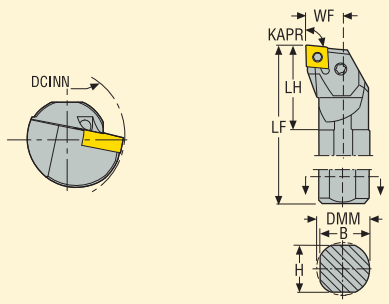
Please check availability in current price and stock-list

Toolholders for inserts CNGA, CNGG, CNGM, CNMA, CNMG and CNMM



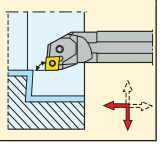
- For inserts programme, see page(s) 387-394, 441, 468
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17

PCLNR/L



Right-hand version shown
KAPR = 95°

PCLNR/L
95 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
12	S25T-PCLNR12	25	23	23,0	300	17	40	32	-6	-10	1,1	CN..1204..
	S32U-PCLNR12	32	30	30,0	350	22	50	40	-6	-10	2,1	CN..1204..
	S40V-PCLNR12	40	37	37,5	400	27	60	50	-6	-10	3,7	CN..1204..
	S25T-PCLNL12	25	23	23,0	300	17	40	32	-6	-10	1,1	CN..1204..
	S32U-PCLNL12	32	30	30,0	350	22	50	40	-6	-10	2,1	CN..1204..
	S40V-PCLNL12	40	37	37,5	400	27	60	50	-6	-10	3,7	CN..1204..

Spare Parts, Parts included in delivery

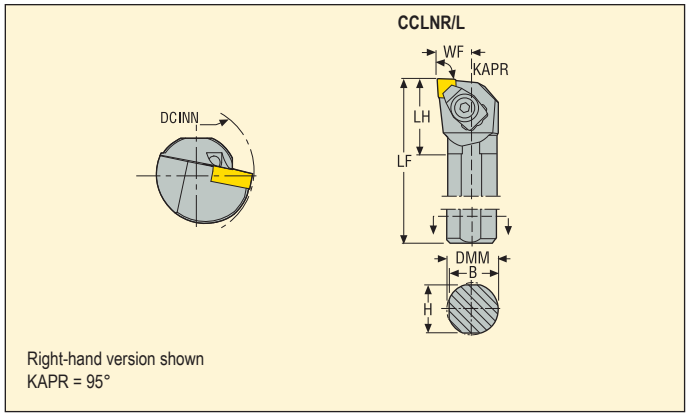
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
S25T-..12	PP4613	–	2.5SMS795	LS0613	–	–
S..U/V-..12	PP4713	PCN120308	3SMS795	LS0818	MP0912	RP6757

Please check availability in current price and stock-list

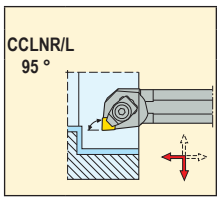
Toolholders for PCBN inserts CNMN



- For inserts programme, see page(s) 442
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
09	S25R-CCLNR09	25	23	24,0	200	17	40	32	-6	-12	0,8	CN.N0903..
09	S32S-CCLNR09	32	30	31,0	250	22	44	40	-6	-12	1,5	CN.N0903..
09	S25R-CCLNL09	25	23	24,0	200	17	40	32	-6	-12	0,8	CN.N0903..
09	S32S-CCLNL09	32	30	31,0	250	22	44	40	-6	-12	1,5	CN.N0903..

Spare Parts, Parts included in delivery

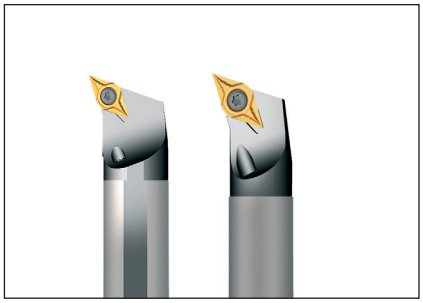
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
...09	CC14	4SMS795	CCN090316	174.10-652-T07P

Accessories, to be ordered separately

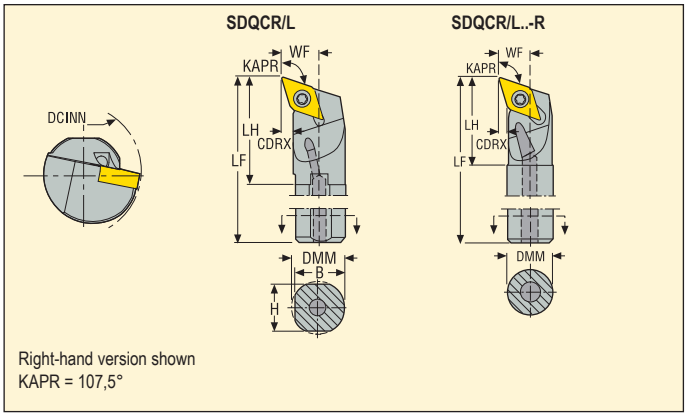
Shim key
T07P-2

Please check availability in current price and stock-list

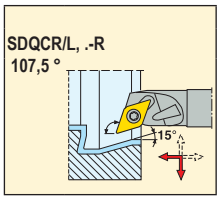
Toolholders for inserts DCGT, DCMT and DCMW



- For inserts programme, see page(s) 395-397, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 107,5°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
07	A10L-SDQCR07-R	10	–	–	140	7	18	1,5	13	0	-11	0,1	DC..0702..
	A12N-SDQCR07-R	12	–	–	160	9	20	2,5	17	0	-11	0,1	DC..0702..
	A16Q-SDQCR07	16	15	15,5	180	11	22	2,5	22	0	-5	0,3	DC..0702..
	A10L-SDQCL07-R	10	–	–	140	7	18	1,5	13	0	-11	0,1	DC..0702..
	A12N-SDQCL07-R	12	–	–	160	9	20	2,5	17	0	-11	0,1	DC..0702..
	A16Q-SDQCL07-R	16	–	–	180	11	22	2,5	22	0	-5	0,3	DC..0702..
11	A20R-SDQCR11	20	18	19,0	200	13	32	2,5	25	0	-5	0,4	DC..11T3..
	A20R-SDQCL11-R	20	–	–	200	13	32	2,5	25	0	-5	0,4	DC..11T3..
15	A25S-SDQCR15	25	23	24,0	250	17	40	4,0	32	0	-5	0,8	DC..1504..
	A25S-SDQCL15	25	23	24,0	250	17	40	4,0	32	0	-5	0,8	DC..1504..

Spare Parts, Parts included in delivery

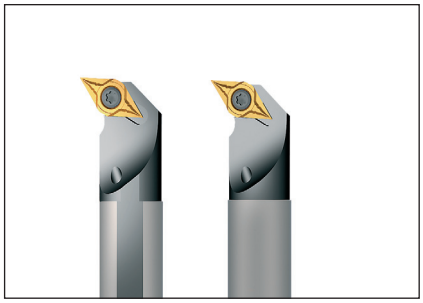
For size	Insert key	Insert screw
A10L-...07	T07P-2	C02506-T07P
A12N-...07/R	T07P-2	C02506-T07P
A16Q-...07/R	T07P-2	C02506-T07P
...11	T15P-2	C04008-T15P
...15	T15P-2	C04512-T15P

Accessories, to be ordered separately

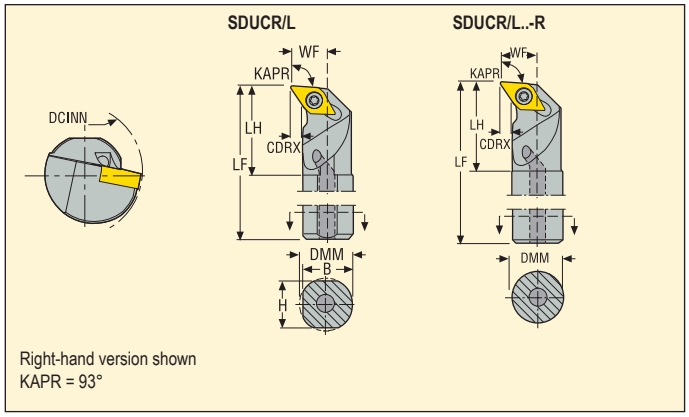
Coolant adapter
–
–
SEAL16
SEAL20
SEAL25

Please check availability in current price and stock-list

Toolholders for inserts DCGT, DCMT, DCMW and DCMX

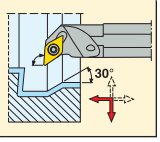


- For inserts programme, see page(s) 395-398, 443, 470
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°

SDUCR/L, .-R
93 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
07	A12N-SDUCR07	12	11	11,5	160	9	20	3,5	17	0	-11	0,2	DC..0702..
	A12N-SDUCR07-R	12	–	–	160	9	20	2,5	17	0	-11	0,2	DC..0702..
	A16Q-SDUCR07	16	15	15,5	180	11	22	2,5	22	0	-5	0,3	DC..0702..
	A16Q-SDUCR07-R	16	–	–	180	11	22	2,5	22	0	-5	0,3	DC..0702..
	A12N-SDUCL07	12	11	11,5	160	9	20	3,5	17	0	-11	0,2	DC..0702..
	A12N-SDUCL07-R	12	–	–	160	9	20	2,5	17	0	-11	0,2	DC..0702..
	A16Q-SDUCL07	16	15	15,5	180	11	22	2,5	22	0	-5	0,3	DC..0702..
	A16Q-SDUCL07-R	16	–	–	180	11	22	2,5	22	0	-5	0,3	DC..0702..
11	A20R-SDUCR11	20	18	19,0	200	13	30	2,5	25	0	-5	0,4	DC..11T3..
	A20R-SDUCR11-R	20	–	–	200	13	30	2,5	25	0	-5	0,4	DC..11T3..
	A25S-SDUCR11	25	23	24,0	250	17	40	4,0	32	0	-5	0,8	DC..11T3..
	A25S-SDUCR11-R	25	–	–	250	17	40	4,0	32	0	-5	0,9	DC..11T3..
	A20R-SDUCL11	20	18	19,0	200	13	30	2,5	25	0	-5	0,4	DC..11T3..
	A20R-SDUCL11-R	20	–	–	200	13	30	2,5	25	0	-5	0,4	DC..11T3..
	A25S-SDUCL11	25	23	24,0	250	17	40	4,0	32	0	-5	0,8	DC..11T3..
	A25S-SDUCL11-R	25	–	–	250	17	40	4,0	32	0	-5	0,9	DC..11T3..
15	A32T-SDUCR15	32	30	31,0	300	22	50	5,0	40	0	-5	1,6	DC..1504..
	A32T-SDUCL15	32	30	31,0	300	22	50	5,0	40	0	-5	1,6	DC..1504..

Spare Parts, Parts included in delivery

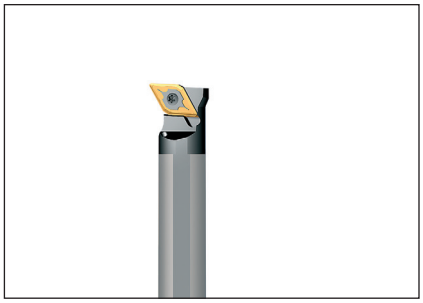
For size	Insert key	Insert screw
A12N-...07/R	T07P-2	C02506-T07P
A16Q-...07/R	T07P-2	C02506-T07P
A20R-...11/R	T15P-2	C04008-T15P
A25S-...11/R	T15P-2	C04008-T15P
A32T-...15/R	T15P-2	C04512-T15P

Accessories, to be ordered separately

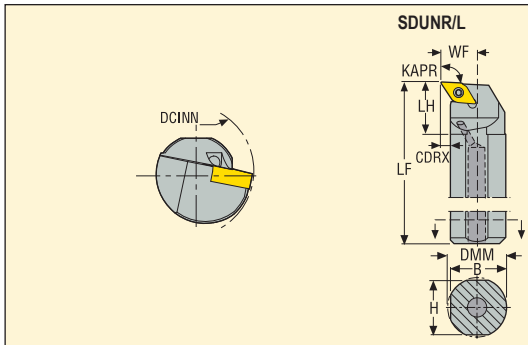
Coolant adapter
–
SEAL16
SEAL20
SEAL25
SEAL32

Please check availability in current price and stock-list

Toolholders for inserts DNMA, DNMU and DNMX

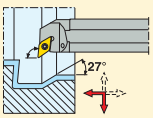


- For inserts programme, see page(s) 403-404, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°

SDUNR/L
93 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	**A16M-SDUNR11**	16	15	15,5	150	11	20	2,5	20	-5	-17	0,3	DN..1104..
	A20Q-SDUNR11	20	18	19,0	180	13	30	2,5	25	-5	-14	0,3	DN..1104..
	A16M-SDUNL11	16	15	15,5	150	11	20	2,5	20	-5	-17	0,3	DN..1104..
	A20Q-SDUNL11	20	18	19,0	180	13	30	2,5	25	-5	-14	0,3	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
A16M-11	T09P-2	C03511-T09P	–	–
A20Q-11	T09P-2	C03511-T09P	DAI110212	CA3507

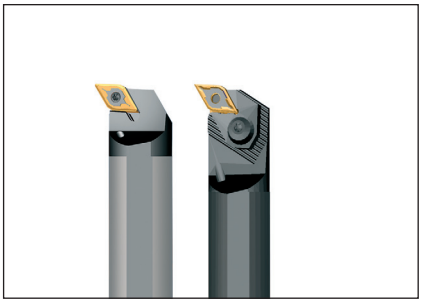
Accessories*

Coolant adapter	Shim key
SEAL16	–
SEAL20	9/64SMS875

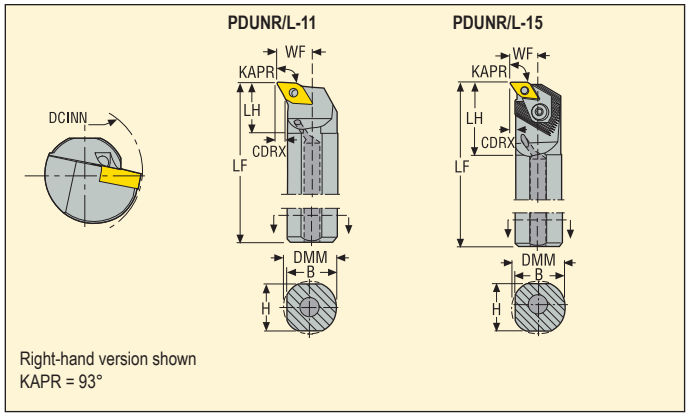
Please check availability in current price and stock-list

* To be ordered separately

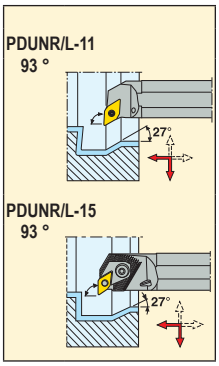
Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	A25R-PDUNR11	25	23	24,0	200	17	35	4,0	32	-5	-13	0,7	DN..1104..
	A32S-PDUNR11	32	30	31,0	250	22	37	6,0	40	-5	-11	1,4	DN..1104..
	A25R-PDUNL11	25	23	24,0	200	17	35	4,0	32	-5	-13	0,7	DN..1104..
	A32S-PDUNL11	32	30	31,0	250	22	37	6,0	40	-5	-11	1,4	DN..1104..
15	A32T-PDUNR15	32	30	31,0	300	22	50	5,0	40	-6	-15	1,6	DN..1506..
	A40U-PDUNR15	40	37	38,5	350	27	60	5,0	50	-6	-14	2,9	DN..1506..
	A50V-PDUNR15	50	47	48,5	400	35	70	5,0	63	-6	-11	5,3	DN..1506..
	A32T-PDUNL15	32	30	31,0	300	22	50	5,0	40	-6	-15	1,6	DN..1506..
	A40U-PDUNL15	40	37	38,5	350	27	60	5,0	50	-6	-14	2,9	DN..1506..
	A50V-PDUNL15	50	47	48,5	400	35	70	5,0	63	-6	-11	5,3	DN..1506..

Spare Parts, Parts included in delivery

For size	Insert key	Insert pin	Insert shim	Locking screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
A25R-11	T09P-2	PL1403-T09P	DAE110312	–	–	–	–	–
A32S-11	T09P-2	PL1403-T09P	DAE110312	–	–	–	–	–
A32T-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	T25P-7	WS2325-T25P
A40U-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	T25P-7	WS2325-T25P
A50V-R15	–	–	PDD150312	136.26-651	131.26-652	171.66-641	4SMS795	170.26-655
A32T-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	T25P-7	WS2325-T25P
A40U-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	T25P-7	WS2325-T25P
A50V-L15	–	–	PDD150312	136.26-651	131.26-652	171.66-640	4SMS795	170.26-655

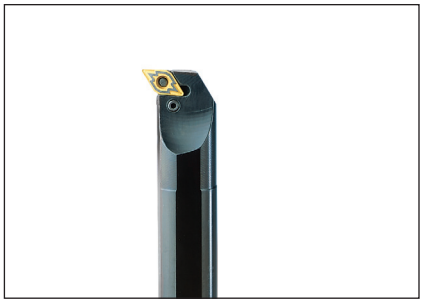
Accessories*

Coolant adapter	Locking key	Punch
SEAL25	–	–
SEAL32	–	–
SEAL32	3SMS795	117.26-687
SEAL40	3SMS795	117.26-687
SEAL50	3SMS795	117.26-687
SEAL32	3SMS795	117.26-687
SEAL40	3SMS795	117.26-687
SEAL50	3SMS795	117.26-687

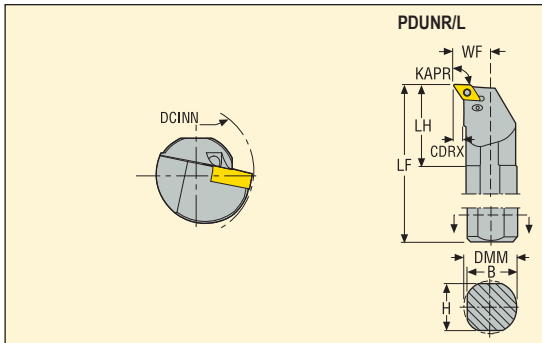
Please check availability in current price and stock-list

* To be ordered separately
Shim PDD150412 for insert DN..1504.., to be ordered separately

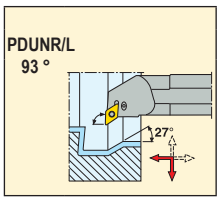
Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM, DNMU and DNMX



- For inserts programme, see page(s) 398-404, 444-446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	**S25T-PDUNR11**	25	23	23,0	300	17	45	4,5	32	-6	-13	1,1	DN..1104..
	S32U-PDUNR11	32	30	30,0	350	22	50	6,0	40	-6	-11	2,1	DN..1104..
	S25T-PDUNL11	25	23	23,0	300	17	45	4,5	32	-6	-13	1,1	DN..1104..
	S32U-PDUNL11	32	30	30,0	350	22	50	6,0	40	-6	-11	2,1	DN..1104..
15	**S32U-PDUNR15**	32	30	30,0	350	22	50	6,0	40	-6	-13	2,1	DN..1506..
	S40V-PDUNR15	40	38	38,0	400	27	55	7,0	48	-6	-10	3,7	DN..1506..
	S50W-PDUNR15	50	47	48,5	450	35	70	10,0	61	-6	-10	6,4	DN..1506..
	S32U-PDUNL15	32	30	30,0	350	22	50	6,0	40	-6	-13	2,1	DN..1506..
	S40V-PDUNL15	40	38	38,0	400	27	55	7,0	48	-6	-10	3,7	DN..1506..
	S50W-PDUNL15	50	47	48,5	450	35	70	10,0	61	-6	-10	6,4	DN..1506..

Spare Parts, Parts included in delivery

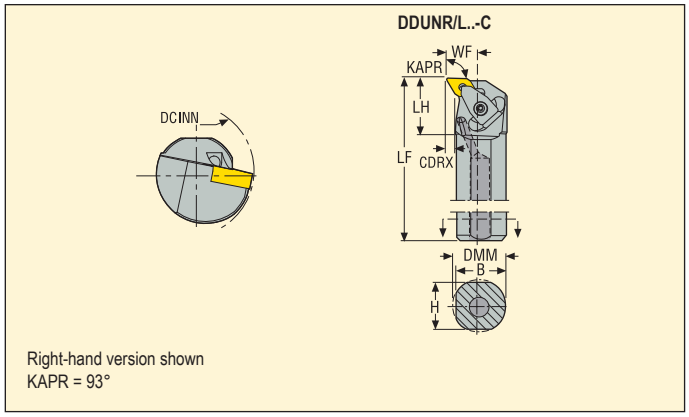
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
S25T-...11	PP3611	–	2SMS795	LS0512	–	–
S32U-...11	PP3512	PDN110308	2.5SMS795	LS0616	MP0912	RP5153
...15	PP4716	PDN150308	3SMS795	LS0822	MP0912	RP6757

Please check availability in current price and stock-list

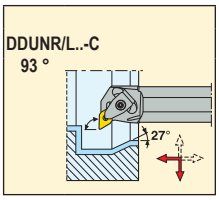
Toolholders for PCBN inserts DNMA



- For inserts programme, see page(s) 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	A25R-DDUNR11-C	25	23	24,0	200	17	27	4,0	32	-6	-13	0,7	DNMA1104..
11	A25R-DDUNL11-C	25	23	24,0	200	17	27	4,0	32	-6	-13	0,7	DNMA1104..
11	A32S-DDUNL11-C	32	30	31,0	250	22	31	6,0	40	-5	-11	1,4	DNMA1104..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...11	FP1508	L84017-T09P	CC09P-D11	DDN110310	T09P-2	C03007-T09P	S5608

Accessories*

Clamp kit
CC09P-SET

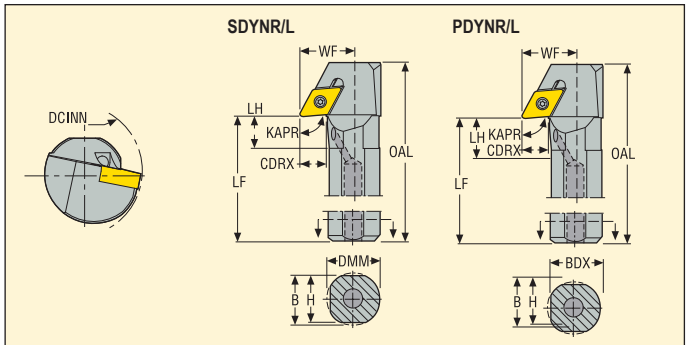
Please check availability in current price and stock-list

* To be ordered separately

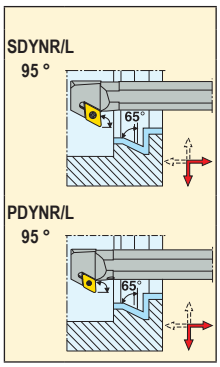
Toolholders for inserts DNMA and DNMU



- For inserts programme, see page(s) 403, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	A20Q-SDYNR11	20	18	19	180	20,0	15	10,0	40	-5	-14	0,4	DNMU1104..
	A20Q-SDYNL11	20	18	19	180	20,0	15	10,0	40	-5	-14	0,4	DNMU1104..
11	A25R-PDYNR11	25	23	24	200	22,5	13	10,0	45	-5	-13	0,8	DN..1104..
	A32S-PDYNR11	32	30	31	250	25,5	23	9,5	51	-5	-11	1,5	DN..1104..
	A25R-PDYNL11	25	23	24	200	22,5	13	10,0	45	-5	-13	0,8	DN..1104..
	A32S-PDYNL11	32	30	31	250	25,5	23	9,5	51	-5	-11	1,5	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
A20Q-...11	T09P-2	–	C03511-T09P	DAI110212	CA3507
A25R-...11	T09P-2	PL1403-T09P	–	DAE110312	–
A32S-...11	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories*

Coolant adapter	Shim key
SEAL20	9/64SMS875
SEAL25	–
SEAL32	–

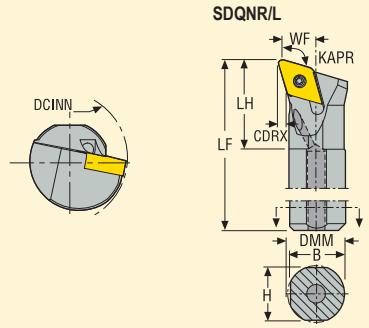
Please check availability in current price and stock-list

* To be ordered separately

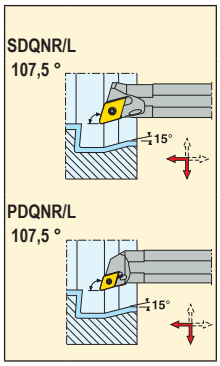
Toolholders for inserts DNMA and DNMU



- For inserts programme, see page(s) 403, 446
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 107,5°



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDRX	DCINN				
11	A16M-SDQNR11	16	15	15,5	150	11	20	2,5	20	-5	-20	0,2	DNMU1104..
11	A20Q-SDQNR11	20	18	19,0	180	13	30	2,5	25	-5	-18	0,3	DNMU1104..
11	A16M-SDQNL11	16	15	15,5	150	11	20	2,5	20	-5	-20	0,2	DNMU1104..
11	A20Q-SDQNL11	20	18	19,0	180	13	30	2,5	25	-5	-18	0,3	DNMU1104..
11	A25R-PDQNR11	25	23	24,0	200	17	35	4,0	32	-5	-16	0,7	DN..1104..
11	A32S-PDQNR11	32	30	31,0	250	22	32	5,5	40	-5	-14	1,3	DN..1104..
11	A25R-PDQNL11	25	23	24,0	200	17	35	4,0	32	-5	-16	0,7	DN..1104..
11	A32S-PDQNL11	32	30	31,0	250	22	32	5,5	40	-5	-14	1,3	DN..1104..

Spare Parts, Parts included in delivery

For size	Insert key	Insert pin	Insert screw	Insert shim	Shim screw
A16M-...11	T09P-2	–	C03511-T09P	–	–
A20Q-...11	T09P-2	–	C03511-T09P	DAI110212	CA3507
A25R-...11	T09P-2	PL1403-T09P	–	DAE110312	–
A32S-...11	T09P-2	PL1403-T09P	–	DAE110312	–

Accessories*

Coolant adapter	Shim key
SEAL16	–
SEAL20	9/64SMS875
SEAL25	–
SEAL32	–

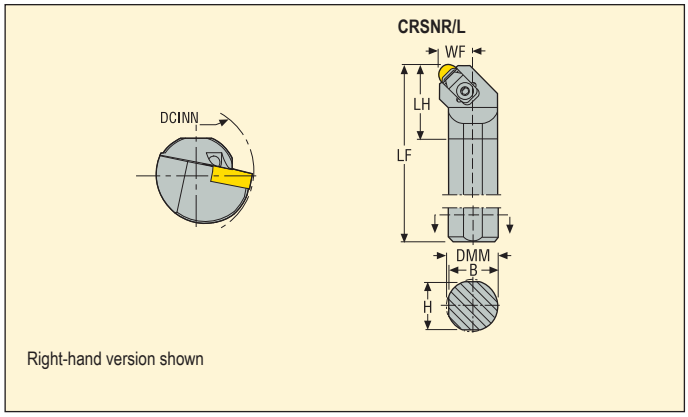
Please check availability in current price and stock-list

* To be ordered separately

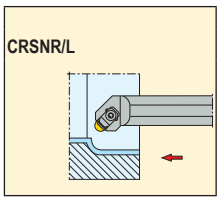
Toolholders for PCBN inserts RNGN and RNMN



- For inserts programme, see page(s) 447-449, 471, 474
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	S25R-CRSNR06	25	23	24,0	200	17	37	32	-6	-12	0,8	RN.N0603..
	S32S-CRSNR06	32	30	31,0	250	22	40	40	-6	-12	1,6	RN.N0603..
	S40T-CRSNR06	40	37	38,5	300	27	40	50	-6	-12	2,8	RN.N0603..
	S25R-CRSNL06	25	23	24,0	200	17	37	32	-6	-12	0,8	RN.N0603..
	S32S-CRSNL06	32	30	31,0	250	22	40	40	-6	-12	1,6	RN.N0603..
	S40T-CRSNL06	40	37	38,5	300	27	40	50	-6	-12	2,8	RN.N0603..
09	S32S-CRSNR09	32	30	31,0	250	22	40	40	-6	-12	1,5	RN.N0903..
	S40T-CRSNR09	40	37	38,5	300	27	43	50	-6	-12	2,8	RN.N0903..
	S32S-CRSNL09	32	30	31,0	250	22	40	40	-6	-12	1,6	RN.N0903..
	S40T-CRSNL09	40	37	38,5	300	27	43	50	-6	-12	2,8	RN.N0903..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
...06	CC14	4SMS795	CRN0603M0	CS2507-T07P
...09	CC16	4SMS795	117.10-620	174.10-652-T07P

Accessories, to be ordered separately

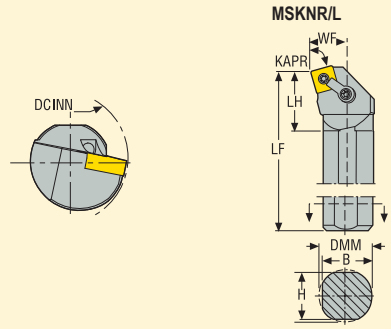
Shim key
T07P-2
T07P-2

Please check availability in current price and stock-list

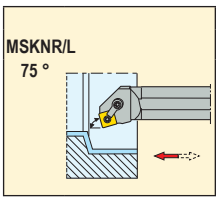
Toolholders for inserts SNGA, SNGN, SNMA, SNMG and SNMM



- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 75°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
12	S32T-MSKNR12	32	30	31,0	300	22	50	40	-5	-13	1,8	SN..1204..
	S40U-MSKNR12	40	37	38,5	350	27	60	50	-5	-12	3,3	SN..1204..
	S32T-MSKNL12	32	30	31,0	300	22	50	40	-5	-13	1,8	SN..1204..
	S40U-MSKNL12	40	37	38,5	350	27	60	50	-5	-12	3,3	SN..1204..
15	S50V-MSKNR15	50	47	48,5	400	35	55	63	-5	-12	5,9	SN..1506..
	S50V-MSKNL15	50	47	48,5	400	35	55	63	-5	-12	5,9	SN..1506..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Clamp screw	Insert shim	Shim/clamp key	Shim pin
...12	MC20	–	LD6020-T15P	SSN120412	T15P-2	MN1215R-T15P
...15	MC12	T25P-7	LD8025-T25P	SSN150412	–	MN1515-T15P

Accessories*

Plug	Shim key	Shim screw
P3	–	CS6313-T15P
P4	T15P-2	CS8016-T15P

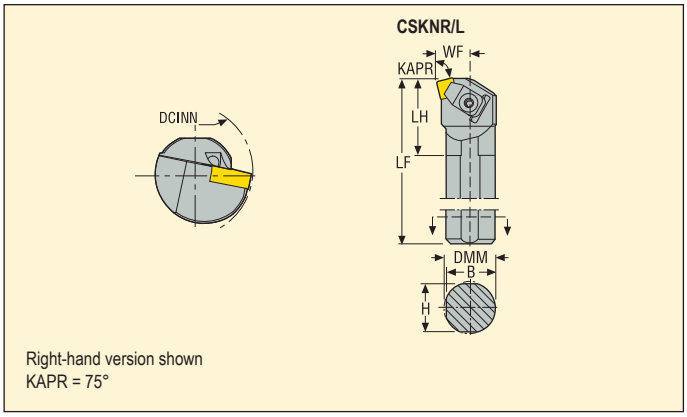
Please check availability in current price and stock-list

* To be ordered separately

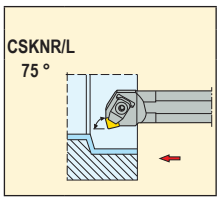
Toolholders for PCBN inserts SNGF, SNGN and SNMN



- For inserts programme, see page(s) 452-454
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 75°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
09	S25R-CSKNR09	25	23	24,0	200	17	35	32	-6	-12	0,8	SN.N0903..

Spare Parts, Parts included in delivery

For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
S25R-...09	CC14	4SMS795	174.10-620	174.10-652-T07P

Accessories, to be ordered separately

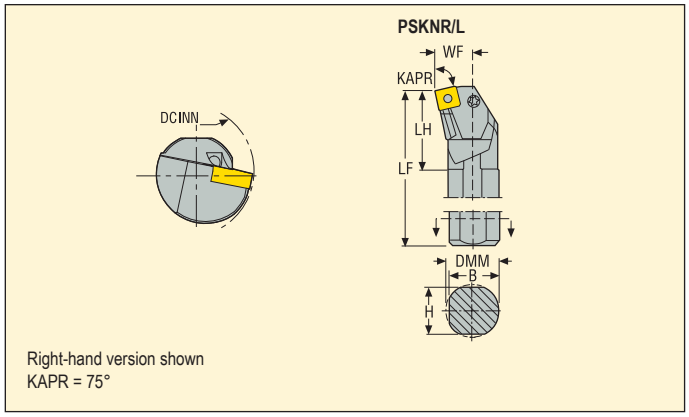
Shim key
T07P-2

Please check availability in current price and stock-list

Toolholders for inserts SNGA, SNMA, SNMG and SNMM

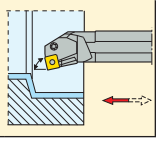


- For inserts programme, see page(s) 413-417, 451
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 75°

PSKNR/L
75 °



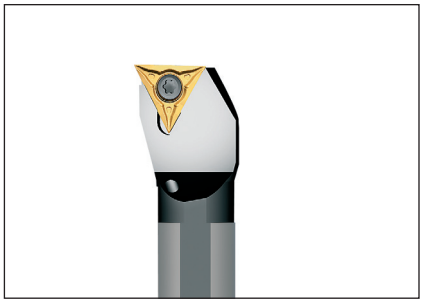
	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
12	S25T-PSKNR12	25	23	24,5	300	17	43	30	-6	-10	1,1	SN..1204..
	S32U-PSKNR12	32	30	30,0	350	22	52	40	-6	-10	2,1	SN..1204..
	S40V-PSKNR12	40	38	38,0	400	27	58	48	-6	-10	3,8	SN..1204..
	S25T-PSKNL12	25	23	24,5	300	17	43	30	-6	-10	1,1	SN..1204..
	S32U-PSKNL12	32	30	30,0	350	22	52	40	-6	-10	2,1	SN..1204..
	S40V-PSKNL12	40	38	38,0	400	27	58	48	-6	-10	3,8	SN..1204..

Spare Parts, Parts included in delivery

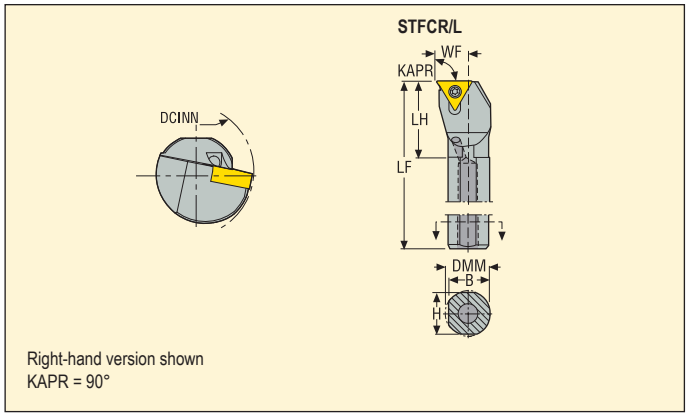
For size	Insert lever	Insert shim	Lever key	Lever screw	Punch	Shim pin
S25T-...12	PP4613	–	2.5SMS795	LS0613	–	–
S32U-...12	PP4713	PSN120312	3SMS795	LS0816	MP0912	RP6757
S40V-...12	PP4713	PSN120312	3SMS795	LS0816	MP0912	RP6757

Please check availability in current price and stock-list

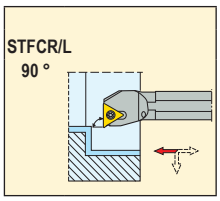
Toolholders for inserts TCGT, TCMT and TCMW



- For inserts programme, see page(s) 419-422, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
11	A12M-STFCR11	12	11	11,5	150	9	21	16	0	-10	0,2	TC..1102..
	A16R-STFCR11	16	15	15,0	200	11	25	20	0	-6	0,3	TC..1102..
	A20S-STFCR11	20	18	18,5	250	13	25	25	0	-3	0,5	TC..1102..
	A12M-STFCL11	12	11	11,5	150	9	21	16	0	-10	0,2	TC..1102..
	A16R-STFCL11	16	15	15,0	200	11	25	20	0	-6	0,3	TC..1102..
	A20S-STFCL11	20	18	18,5	250	13	25	25	0	-3	0,5	TC..1102..
16	A25R-STFCR16	25	23	24,0	200	17	36	32	0	-6	0,7	TC..16T3..
	A32S-STFCR16	32	30	31,0	250	22	42	40	0	-10	1,3	TC..16T3..
	A40T-STFCR16	40	37	38,5	300	27	50	50	0	-8	2,6	TC..16T3..
	A25R-STFCL16	25	23	24,0	200	17	36	32	0	-6	0,7	TC..16T3..
	A32S-STFCL16	32	30	31,0	250	22	42	40	0	-10	1,3	TC..16T3..
	A40T-STFCL16	40	37	38,5	300	27	50	50	0	-8	2,6	TC..16T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
A12M-...11	T07P-2	C02506-T07P	–	–
A16R-...11	T07P-2	C02506-T07P	–	–
A20S-...11	T07P-2	C02506-T07P	–	–
A25R-...16	T15P-2	C03509-T15P	–	–
A32S-...16	T15P-2	C03509-T15P	STN160312	CA3510
A40T-...16	T15P-2	C03509-T15P	STN160312	CA3510

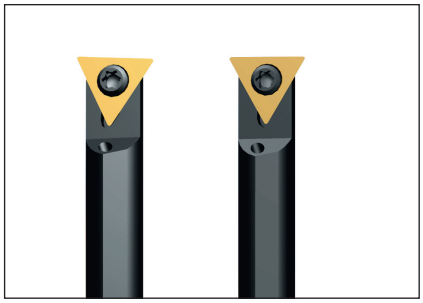
Accessories*

Coolant adapter	Shim key
–	–
SEAL16	–
SEAL20	–
SEAL25	–
SEAL32	9/64SMS875
SEAL40	9/64SMS875

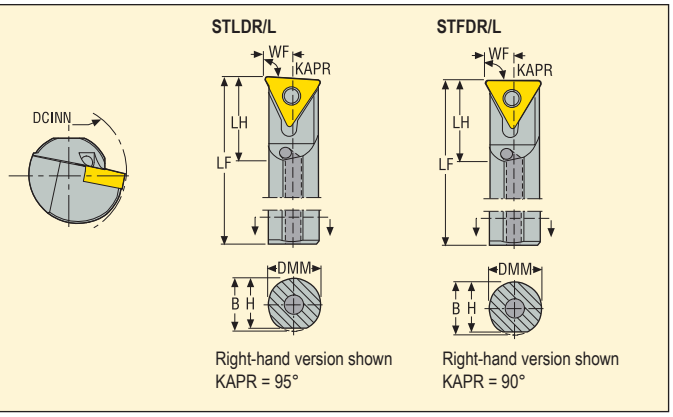
Please check availability in current price and stock-list

* To be ordered separately

Toolholders for inserts TDAB and TDCH

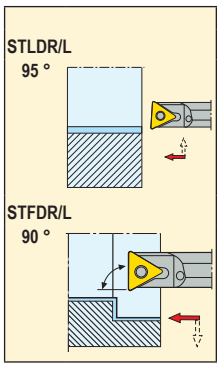


- For inserts programme, see page(s) 422-423
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°

Right-hand version shown
KAPR = 90°



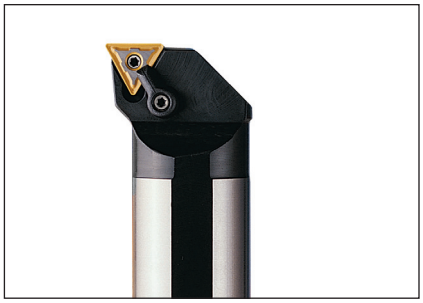
	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A05D-STLDR06	5	4,70	5	60	3,0	9,7	6,8	0	-12	0,1	TD..06..
	A06E-STLDR06	6	5,65	6	70	3,5	10,2	7,2	0	-12	0,1	TD..06..
	A08F-STLDR06	8	7,55	8	80	4,5	11,2	8,8	0	-8	0,1	TD..06..
	A05D-STLDL06	5	4,70	5	60	3,0	9,7	6,8	0	-12	0,1	TD..06..
	A06E-STLDL06	6	5,65	6	70	3,5	10,2	7,2	0	-12	0,1	TD..06..
	A08F-STLDL06	8	7,55	8	80	4,5	11,2	8,8	0	-8	0,1	TD..06..
06	A05D-STFDR06	5	4,70	5	60	3,0	9,7	6,8	0	-12	0,1	TD..06..
	A06E-STFDR06	6	5,65	6	70	3,5	10,2	7,2	0	-12	0,1	TD..06..
	A08F-STFDR06	8	7,55	8	80	4,5	11,2	8,8	0	-8	0,1	TD..06..
	A05D-STFDL06	5	4,70	5	60	3,0	9,7	6,8	0	-12	0,1	TD..06..
	A06E-STFDL06	6	5,65	6	70	3,5	10,2	7,2	0	-12	0,1	TD..06..
	A08F-STFDL06	8	7,55	8	80	4,5	11,2	8,8	0	-8	0,1	TD..06..

Spare Parts, Parts included in delivery

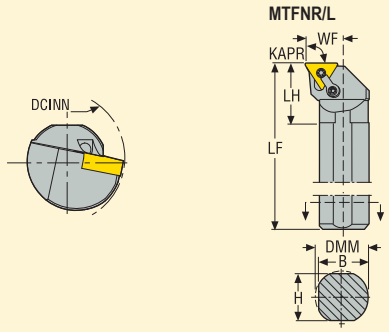
For size	Insert key	Insert screw
...06	T06P-2	C82204-T06P

Please check availability in current price and stock-list

Toolholders for inserts TNGA, TNMA, TNMG and TNMM

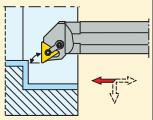


- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°

MTFNR/L
90 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
16	S32T-MTFNR16	32	30	31,0	300	22	50	40	-5	-14	1,9	TN..1604..
	S32T-MTFNL16	32	30	31,0	300	22	50	40	-5	-14	1,9	TN..1604..

Spare Parts, Parts included in delivery

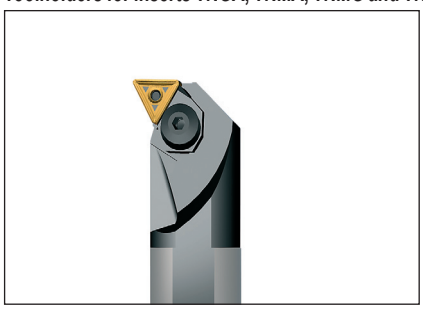
Accessories*

For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin	Shim screw
...16	MC06	LD5020-T09P	TSN160312	T09P-2	MN0909L-T09P	CS5008-T09P

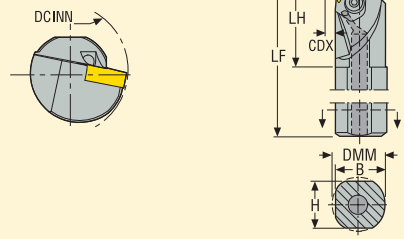
Please check availability in current price and stock-list

* To be ordered separately
Shim TSN160412 for insert TN..1603.., to be ordered separately

Toolholders for inserts TNGA, TNMA, TNMG and TNMM

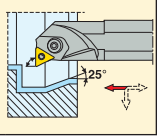


- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°

PTFNR/L
90 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDX	DCINN				
11	A20R-PTFNR11	20	18	19,0	200	13	32	2,5	25	-6	-12	0,4	TN..1103..
	A20R-PTFNL11	20	18	19,0	200	13	32	2,5	25	-6	-12	0,4	TN..1103..
16	A20R-PTFNR16	20	18	19,0	200	13	30	2,5	25	-6	-15	0,4	TN..1604..
	A25S-PTFNR16	25	23	24,0	250	17	35	4,0	32	-6	-13	0,8	TN..1604..
	A20R-PTFNL16	20	18	19,0	200	13	30	2,5	25	-6	-15	0,4	TN..1604..
	A25S-PTFNL16	25	23	24,0	250	17	35	4,0	32	-6	-13	0,7	TN..1604..

Spare Parts, Parts included in delivery

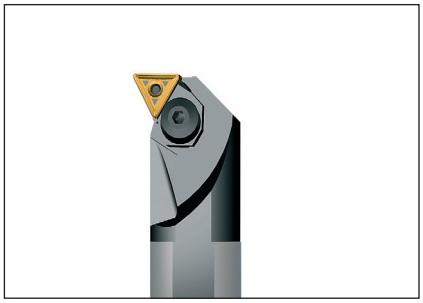
For size	Insert pin	Wedge clamp	Wedge key	Wedge screw
...R11	118.26-650	110.26-638	2.5SMS795	117.26-657
...L11	118.26-650	110.26-639	2.5SMS795	117.26-657
A20R-...R16	136.26-653	110.26-640.1	T20P-7	WS1920-T20P
A25S-...R16	136.26-653	110.26-640.1	T20P-7	WS1920-T20P
A20R-...L16	136.26-653	110.26-641.1	T20P-7	WS1920-T20P
A25S-...L16	136.26-653	110.26-641.1	T20P-7	WS1920-T20P

Accessories, to be ordered separately

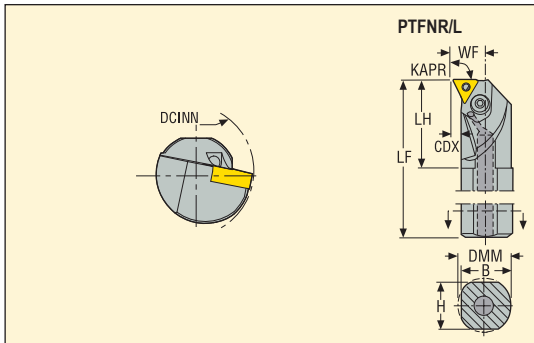
Coolant adapter	Insert key
SEAL20	2SMS795
SEAL20	2SMS795
SEAL20	2.5SMS795
SEAL25	2.5SMS795
SEAL20	2.5SMS795
SEAL25	2.5SMS795

Please check availability in current price and stock-list

Toolholders for inserts TNGA, TNMA, TNMG and TNMM

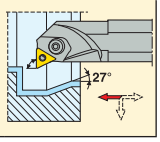


- For inserts programme, see page(s) 424-428, 457
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 90°

PTFNR/L
90 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDX	DCINN				
16	A32T-PTFNR16	32	30	31,0	300	22	50	3,5	40	-6	-10	1,6	TN..1604..
	A40U-PTFNR16	40	37	38,5	350	27	60	5,0	50	-6	-10	2,9	TN..1604..
	A32T-PTFNL16	32	30	31,0	300	22	50	3,5	40	-6	-10	1,6	TN..1604..
	A40U-PTFNL16	40	37	38,5	350	27	60	5,0	50	-6	-10	2,9	TN..1604..
22	A40U-PTFNR22	40	37	38,5	350	27	60	5,0	50	-6	-10	2,9	TN..2204..
	A50V-PTFNR22	50	47	48,5	400	35	70	7,0	63	-6	-8	5,3	TN..2204..
	A40U-PTFNL22	40	37	38,5	350	27	60	5,0	50	-6	-10	2,9	TN..2204..
	A50V-PTFNL22	50	47	48,5	400	35	70	7,0	63	-6	-8	5,3	TN..2204..

Spare Parts, Parts included in delivery

For size	Insert shim	Locking screw	Shim pin	Wedge/locking key	Wedge clamp	Wedge key	Wedge screw
A32T-...R16	136.26-621	136.26-651	136.26-650	3SMS795	110.26-640.1	–	117.26-655.1
A40U-...R16	136.26-621	136.26-651	136.26-650	3SMS795	110.26-640.1	–	117.26-655.1
A32T-...L16	136.26-621	136.26-651	136.26-650	3SMS795	110.26-641.1	–	117.26-655.1
A40U-...L16	136.26-621	136.26-651	136.26-650	3SMS795	110.26-641.1	–	117.26-655.1
A40U-...R22	136.26-624	136.26-651	136.26-652	–	110.26-642.1	4SMS795	170.26-655
A50V-...R22	136.26-624	136.26-651	136.26-652	–	110.26-642.1	4SMS795	170.26-655
A40U-...L22	136.26-624	136.26-651	136.26-652	–	110.26-643.1	4SMS795	170.26-655
A50V-...L22	136.26-624	136.26-651	136.26-652	–	110.26-643.1	4SMS795	170.26-655

Accessories*

Coolant adapter	Punch	Shim key
SEAL32	117.26-686	–
SEAL40	117.26-686	–
SEAL32	117.26-686	–
SEAL40	117.26-686	–
SEAL40	117.26-687	3SMS795
SEAL50	117.26-687	3SMS795
SEAL40	117.26-687	3SMS795
SEAL50	117.26-687	3SMS795

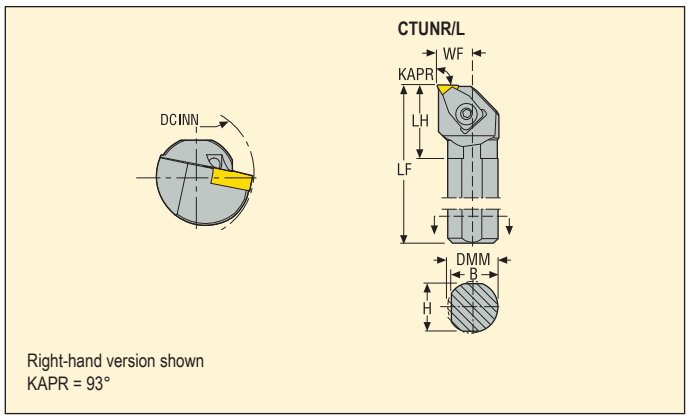
Please check availability in current price and stock-list

* To be ordered separately

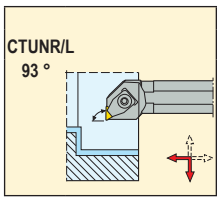
Toolholders for PCBN inserts TNGN, TNGX, TNMN and TNMX



- For inserts programme, see page(s) 458-462
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 93°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
11	S25R-CTUNR11	25	23	24,0	200	17	40	32	-6	-10	0,8	TN.N/TN.X1103..
	S32S-CTUNR11	32	30	31,0	250	22	40	40	-6	-10	1,5	TN.N/TN.X1103..
	S25R-CTUNL11	25	23	24,0	200	17	40	32	-6	-10	0,8	TN.N/TN.X1103..
	S32S-CTUNL11	32	30	31,0	250	22	40	40	-6	-10	1,5	TN.N/TN.X1103..

Spare Parts, Parts included in delivery

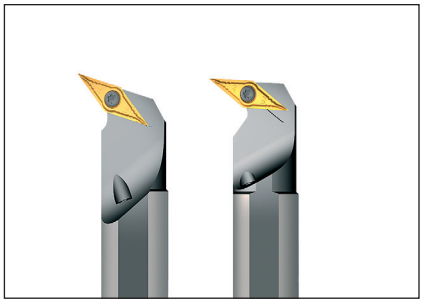
For size	Cantilever clamp	Clamp key	Insert shim	Shim screw
...11	CC14	4SMS795	CTN110308	CS2507-T07P

Accessories, to be ordered separately

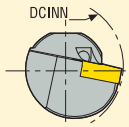
Shim key
T07P-2

Please check availability in current price and stock-list
Shim CTN110312 for insert TN.N110312 and TNMX110308S-WZ, to be ordered separately

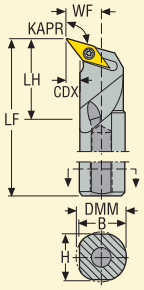
Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT



- For inserts programme, see page(s) 430-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17

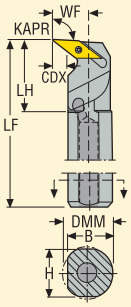


SVQBR/L



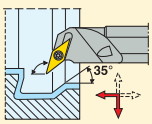
Right-hand version shown
KAPR = 107,5°

SVUBR/L

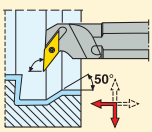


Right-hand version shown
KAPR = 93°

SVQBR/L
107,5 °



SVUBR/L
93,0 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDX	DCINN				
11	A16R-SVQBR11	16	15	15,0	200	13	25	4,5	22	0	-7	0,3	VB..1102..
	A20S-SVQBR11	20	18	18,5	250	15	25	4,5	27	0	-6	0,5	VB..1102..
	A25T-SVQBR11	25	23	22,5	300	18	35	5,0	33	0	-4	1,0	VB..1102..
	A16R-SVQBL11	16	15	15,0	200	13	25	4,5	22	0	-7	0,3	VB..1102..
	A20S-SVQBL11	20	18	18,5	250	15	25	4,5	27	0	-6	0,5	VB..1102..
	A25T-SVQBL11	25	23	22,5	300	18	35	5,0	33	0	-4	1,0	VB..1102..
16	A25S-SVQBR16	25	23	24,0	250	17	65	4,0	32	0	-8	0,8	VB../VC..1604..
	A32T-SVQBR16	32	30	31,0	300	22	70	5,5	40	0	-8	1,6	VB../VC..1604..
	A40U-SVQBR16	40	37	38,5	350	27	80	6,5	50	0	-8	2,9	VB../VC..1604..
	A25S-SVQBL16	25	23	24,0	250	17	65	4,0	32	0	-8	0,8	VB../VC..1604..
	A32T-SVQBL16	32	30	31,0	300	22	70	5,5	40	0	-8	1,5	VB../VC..1604..
	A40U-SVQBL16	40	37	38,5	350	27	80	6,5	50	0	-8	2,9	VB../VC..1604..
11	A16R-SVUBR11	16	15	15,0	200	13	25	4,5	22	0	-7	0,3	VB..1102..
	A20S-SVUBR11	20	18	18,5	250	15	25	4,5	27	0	-5	0,5	VB..1102..
	A25T-SVUBR11	25	23	22,5	300	18	35	5,0	33	0	-3	1,0	VB..1102..
	A16R-SVUBL11	16	15	15,0	200	13	25	4,5	22	0	-7	0,3	VB..1102..
	A20S-SVUBL11	20	18	18,5	250	15	25	4,5	27	0	-5	0,5	VB..1102..
	A25T-SVUBL11	25	23	22,5	300	18	35	5,0	33	0	-3	1,0	VB..1102..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Shim screw
A16R-...11	T07P-2	C02506-T07P	–	–
A20S-...11	T07P-2	C02506-T07P	–	–
A25T-...11	T07P-2	C02506-T07P	–	–
A25S-...16	T15P-2	C03510-T15P	171.19-620	CA3507
A32T-...16	T15P-2	C03510-T15P	171.19-620	CA3507
A40U-...16	T15P-2	C03510-T15P	171.19-620	CA3507

Accessories*

Coolant adapter	Shim key
SEAL16	–
SEAL20	–
SEAL25	–
SEAL25	9/64SMS875
SEAL32	9/64SMS875
SEAL40	9/64SMS875

Please check availability in current price and stock-list

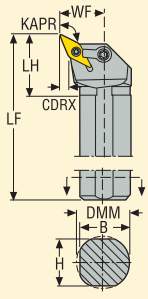
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM, VNMA and VNMG



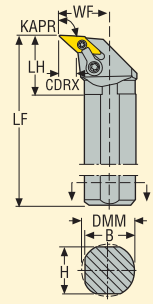
- For inserts programme, see page(s) 432-433, 463
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17

MVPNR/L



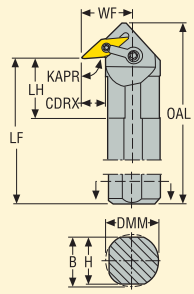
Right-hand version shown
KAPR = 117,5°

MVLNR/L



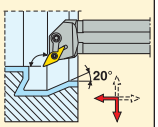
Right-hand version shown
KAPR = 95°

MVYNR/L

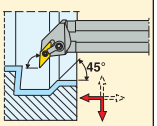


Right-hand version shown
KAPR = 95°

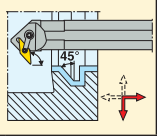
MVPNR/L
117,5 °



MVLNR/L
95,0 °



MVYNR/L
95,0 °



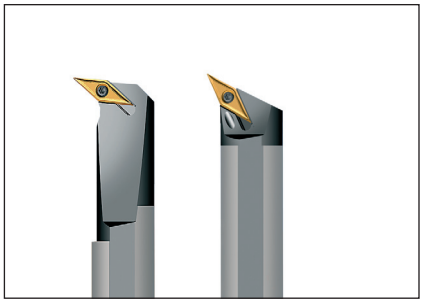
	Designation	Dimensions in mm									GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	OAL	LH	CDRX	DCINN				
16	S32T-MVPNR16	32	30	31	300	27	–	50	10	46	-5	-12	1,8	VN..1604..
	S32T-MVPNL16	32	30	31	300	27	–	50	10	46	-5	-12	1,8	VN..1604..
16	S32T-MVLNR16	32	30	31	300	30	–	50	13	48	-5	-12	1,8	VN..1604..
	S32T-MVLNL16	32	30	31	300	30	–	50	13	48	-5	-12	1,8	VN..1604..
16	S32T-MVYNR16	32	30	31	300	30	320	50	13	48	-5	-12	2,0	VN..1604..
	S32T-MVYNL16	32	30	31	300	30	320	50	13	48	-5	-12	2,0	VN..1604..

Spare Parts, Parts included in delivery

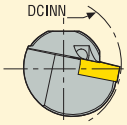
For size	Cantilever clamp	Clamp screw	Insert shim	Shim/clamp key	Shim pin
...16	MC20	LD6021-T09P	VSN160316	T09P-2	MN0909L-T09P

Please check availability in current price and stock-list

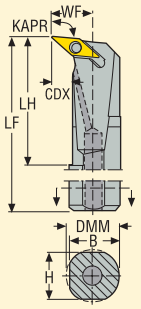
Toolholders for inserts VNMU



- For inserts programme, see page(s) 434
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17

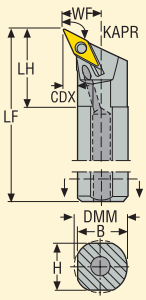


PVLNR/L



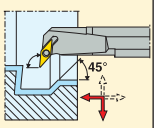
Right-hand version shown
KAPR = 95°

PVPNR/L

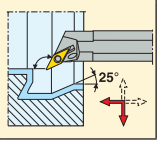


Right-hand version shown
KAPR = 117,5°

PVLNR/L
95,0 °



PVPNR/L
117,5 °



	Designation	Dimensions in mm								GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	CDX	DCINN				
13	A25R-PVLNR13	25	23	24	200	18	57	9,5	32	-5	-14	0,6	VNMU1304..
13	A32S-PVLNR13	32	30	31	250	23	50	6,5	40	-5	-14	1,3	VNMU1304..
13	A25R-PVLNL13	25	23	24	200	18	57	9,5	32	-5	-14	0,6	VNMU1304..
13	A32S-PVLNL13	32	30	31	250	23	50	6,5	40	-5	-14	1,3	VNMU1304..
13	A25R-PVPNR13	25	23	24	200	17	34	4,0	32	-5	-19	0,7	VNMU1304..
13	A32S-PVPNR13	32	30	31	250	22	35	5,5	40	-5	-16	1,3	VNMU1304..
13	A25R-PVPNL13	25	23	24	200	17	34	4,0	32	-5	-19	0,7	VNMU1304..
13	A32S-PVPNL13	32	30	31	250	22	35	5,5	40	-5	-16	1,3	VNMU1304..

Spare Parts, Parts included in delivery

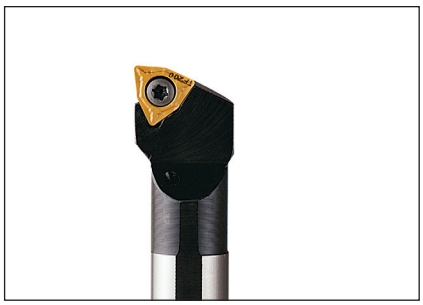
For size	Insert key	Insert pin	Insert shim
A25R-...13	T09P-2	PL1403-T09P	PVN130308
A32S-...13	T09P-2	PL1403-T09P	PVN130308

Accessories, to be ordered separately

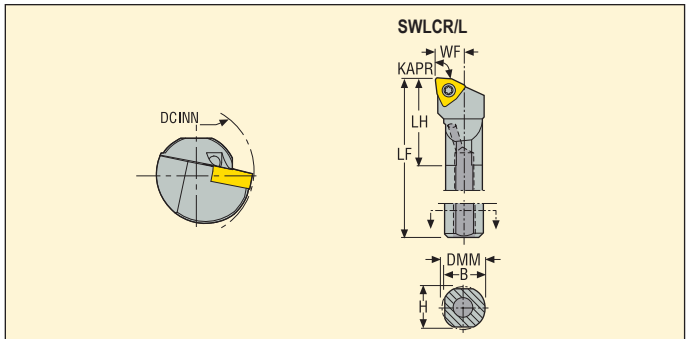
Coolant adapter
SEAL25
SEAL32

Please check availability in current price and stock-list

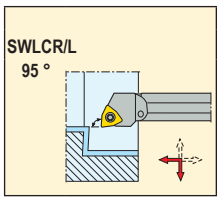
Toolholders for inserts WCMT



- For inserts programme, see page(s) 435
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A16M-SWLCR06	16	15	15,5	150	11	21	20	0	-5	0,2	WCMT06T3..
	A20Q-SWLCR06	20	18	19,0	180	13	37	25	0	-5	0,4	WCMT06T3..
	A16M-SWLCL06	16	15	15,5	150	11	21	20	0	-5	0,2	WCMT06T3..
	A20Q-SWLCL06	20	18	19,0	180	13	37	25	0	-5	0,4	WCMT06T3..

Spare Parts, Parts included in delivery

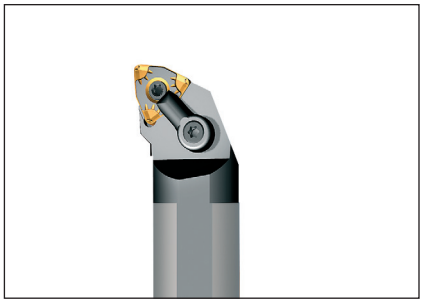
For size	Insert key	Insert screw
A16M-...06	T15P-2	C03508-T15P
A20Q-...06	T15P-2	C03508-T15P

Accessories, to be ordered separately

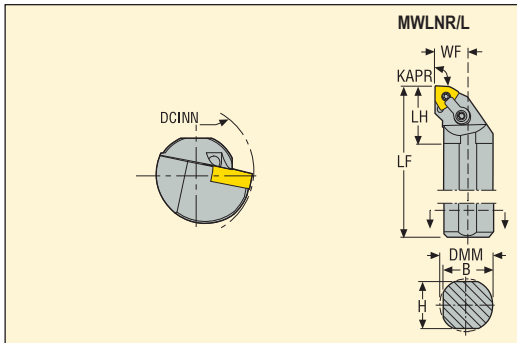
Coolant adapter
SEAL16
SEAL20

Please check availability in current price and stock-list

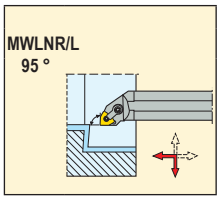
Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



- For inserts programme, see page(s) 435-439, 466
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
08	S25S-MWLNR08	25	23	24,0	250	17	40	32	-5	-11	0,9	WN..0804..
08	S32T-MWLNR08	32	30	31,0	300	22	50	40	-5	-14	1,8	WN..0804..
08	S40U-MWLNR08	40	37	38,5	350	27	50	50	-5	-12	3,2	WN..0804..
08	S25S-MWLNL08	25	23	24,0	250	17	40	32	-5	-11	0,9	WN..0804..
08	S32T-MWLNL08	32	30	31,0	300	22	50	40	-5	-14	1,8	WN..0804..
08	S40U-MWLNL08	40	37	38,5	350	27	50	50	-5	-12	3,2	WN..0804..

Spare Parts, Parts included in delivery

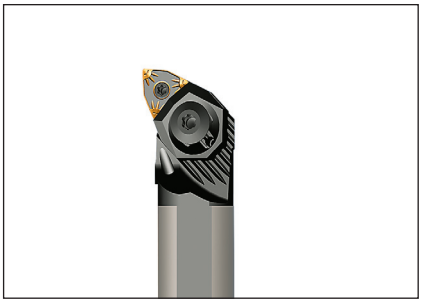
Accessories*

For size	Cantilever clamp	Clamp screw	Insert/Clamp key	Insert pin	Insert shim	Shim/clamp key	Shim pin	Plug
S25S-...08	MC20	LD6020-T15P	T15P-2	MN1215S-T15P	–	–	–	P3
S32T-...08	MC21	LD6025-T15P	–	–	MWN080412	T15P-2	MN1215T-T15P	P3
S40U-...08	MC21	LD6025-T15P	–	–	MWN080412	T15P-2	MN1215T-T15P	P3

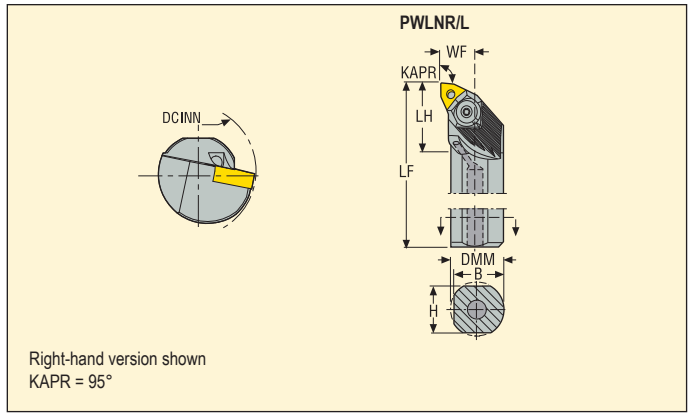
Please check availability in current price and stock-list

* To be ordered separately

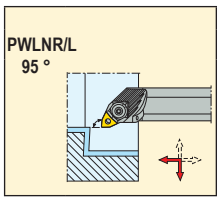
Toolholders for inserts WNGA, WNGG, WNMA, WNMG and WNMM



- For inserts programme, see page(s) 435-439, 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A20Q-PWLNR06	20	18	19,0	180	13	27	25	-5	-14	0,4	WN..0604..
	A25R-PWLNR06	25	23	24,0	200	17	30	32	-5	-12	0,6	WN..0604..
	A32S-PWLNR06	32	30	31,0	250	22	31	40	-5	-12	1,3	WN..0604..
	A40T-PWLNR06	40	37	38,5	300	27	40	50	-5	-12	2,5	WN..0604..
	A20Q-PWLNL06	20	18	19,0	180	13	27	25	-5	-14	0,4	WN..0604..
	A25R-PWLNL06	25	23	24,0	200	17	30	32	-5	-12	0,7	WN..0604..
	A32S-PWLNL06	32	30	31,0	250	22	31	40	-5	-12	1,3	WN..0604..
	A40T-PWLNL06	40	37	38,5	300	27	40	50	-5	-12	2,5	WN..0604..
08	A25R-PWLNR08	25	23	24,0	200	17	30	32	-5	-11	0,7	WN..0804..
	A32S-PWLNR08	32	30	31,0	250	22	31	40	-5	-11	1,3	WN..0804..
	A40T-PWLNR08	40	37	38,5	300	27	35	50	-5	-14	2,5	WN..0804..
	A25R-PWLNL08	25	23	24,0	200	17	30	32	-5	-11	0,7	WN..0804..
	A32S-PWLNL08	32	30	31,0	250	22	31	40	-5	-11	1,3	WN..0804..
	A40T-PWLNL08	40	37	38,5	300	27	35	50	-5	-14	2,5	WN..0804..

Spare Parts, Parts included in delivery

For size	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw
A20Q-...06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1620-T20P
A25R-...06	WAI060212	L82511-T07P	PP1209-T09P	WNW06HD	T20P-7	WS1920-T20P
A32S-...06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
A40T-...06	WAE060312	L82511-T07P	PP1409-T09P	WNW06HD	T20P-7	WS1920-T20P
A25R-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P
A32S-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P
A40T-...08	WAI080312	L82511-T07P	PP1415-T15P	WNW08HD	T25P-7	WS2325-T25P

Accessories*

Coolant adapter	Shim key
SEAL20	T09P-2
SEAL25	T09P-2
SEAL32	T09P-2
SEAL40	T09P-2
SEAL25	T15P-2
SEAL32	T15P-2
SEAL40	T15P-2

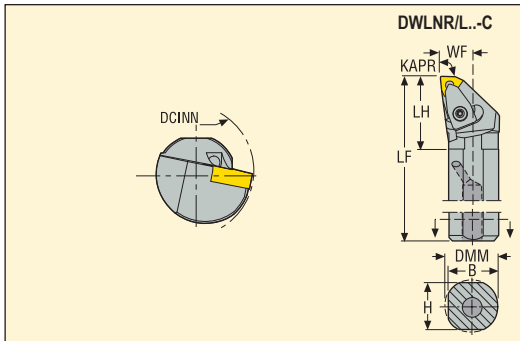
Please check availability in current price and stock-list

* To be ordered separately

Toolholders for PCBN inserts WNGA and WNMA

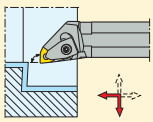


- For inserts programme, see page(s) 466-467
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 16-17



Right-hand version shown
KAPR = 95°

DWLNR/L..-C
95 °



	Designation	Dimensions in mm							GAMO°	LAMS°	KG	
		DMM	H	B	LF	WF	LH	DCINN				
06	A25R-DWLNR06-C	25	23	24,0	200	17	33	32	-5	-12	0,7	WN.A0604..
06	A25R-DWLNL06-C	25	23	24,0	200	17	33	32	-5	-12	0,7	WN.A0604..
06	A32S-DWLNL06-C	32	30	31,0	250	22	38	40	-5	-12	1,3	WN.A0604..
08	A25R-DWLNR08-C	25	23	24,0	200	17	28	32	-5	-11	0,7	WN.A0804..
08	A32S-DWLNR08-C	32	30	31,0	250	22	40	40	-5	-11	1,4	WN.A0804..
08	A25R-DWLNL08-C	25	23	24,0	200	17	28	32	-5	-11	0,7	WN.A0804..
08	A32S-DWLNL08-C	32	30	31,0	250	22	40	40	-5	-11	1,4	WN.A0804..

Spare Parts, Parts included in delivery

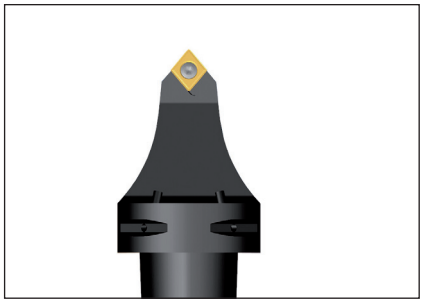
Accessories*

For size	Clamp pin	Clamp screw	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
...06	FP1508	L84017-T09P	CC09P-D11	DWD060210	T09P-2	C03007-T09P	S5608	CC09P-SET
...08	FP2012	L85021-T15P	CC12P-S12	DWD080316	T15P-2	C04008-T15P	S6912	CC12P-SET

Please check availability in current price and stock-list

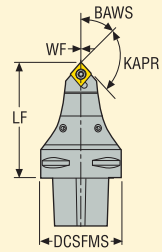
* To be ordered separately

Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW



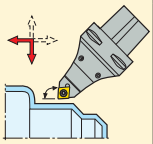
- For inserts programme, see page(s) 382-386, 440, 469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SCMCN



Neutral version shown
KAPR = 95°
BAWS = 45°

C.-SCMCN 95 °



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	12	C6-SCMCN-00090-12	63	0	90	0	0	1,2	CC..1204..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
...-12	CN8	T15P-2	C05012-T15P	123.19-621	CA5008

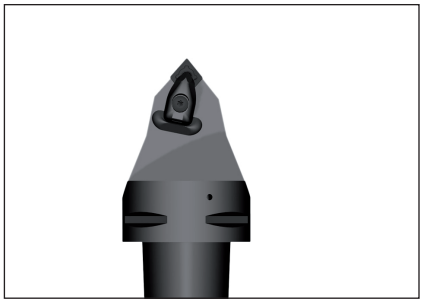
Accessories*

Shim key
5SMS795

Please check availability in current price and stock-list

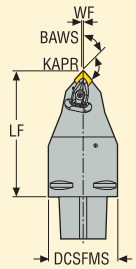
* To be ordered separately

Toolholders for inserts CNGA, CNGG, CNMA, CNMG and CNMM



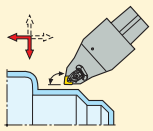
- For inserts programme, see page(s) 387-394, 441
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DCMNN..-M



Neutral version shown
KAPR = 95°
BAWS = 45°

C.-DCMNN..-M
95 °



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	12	C6-DCMNN-00090-12-M	63	0	90	-5,49	-6,47	1,3	CN..1204..
		C6-DCMNN-00115-12-M	63	0	115	-5,49	-6,47	2,1	CN..1204..

Spare Parts, Parts included in delivery

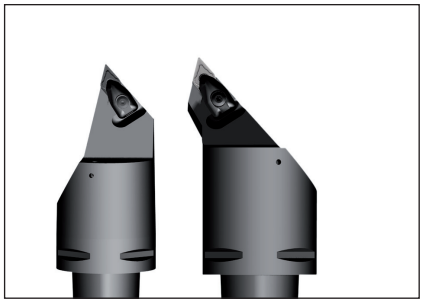
Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
00090-12	FP2012	L85021-T15P	CN6	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12
00115-12	FP2012	L85021-T15P	CN8	CD12-S	DCN120616	T15P-2	C04008-T15P	S6912	CD12-S12

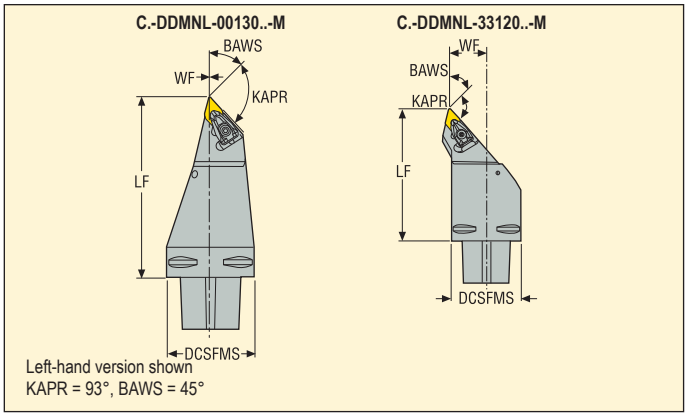
Please check availability in current price and stock-list

* To be ordered separately

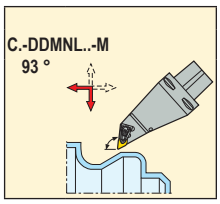
Toolholders for inserts DNGA, DNGG, DNGM, DNMA, DNMG, DNMM and DNMX



- For inserts programme, see page(s) 398-404, 444
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11



Left-hand version shown
KAPR = 93°, BAWS = 45°



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	15	C6-DDMNL-00130-15-M	63	0	130	-6	-6	1,5	DN..1506..
		C6-DDMNL-33120-15-M	63	33	120	-6	-6	2,2	DN..1506..

Spare Parts, Parts included in delivery

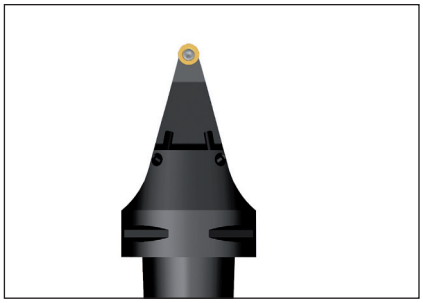
Accessories*

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring	Clamp kit
00130-15	FP2012	L85021-T15P	CN6	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12
33120-15	FP2012	L85021-T15P	CN8	CD12-S	DDN150416	T15P-2	C04008-T15P	S6912	CD12-S12

Please check availability in current price and stock-list

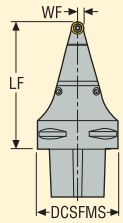
* To be ordered separately
Shim DSN150612 for insert DN..1504.., to be ordered separately

Toolholders for inserts RCMT



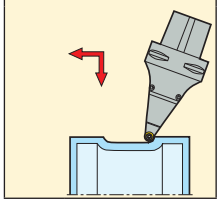
- For inserts programme, see page(s) 408
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SRDCN



Neutral version shown

C.-SRDCN



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	10	C6-SRDCN-00100-10	63	5	100	0	0	1,5	RCMT10T3..
	16	C6-SRDCN-00100-16	63	8	100	0	0	1,5	RCMT1606..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
...-10	CN8	T15P-2	C03510-T15P	111.19-620	CA3510
...-16	CN8	T20P-7L	C05018-T20P	SRN16T3M0	CA5015

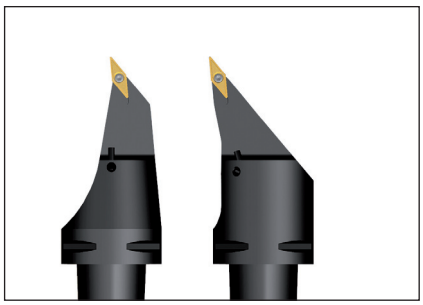
Accessories*

Shim key
9/64SMS875
5SMS795

Please check availability in current price and stock-list

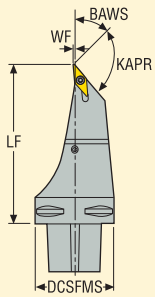
* To be ordered separately

Toolholders for inserts VBGT, VBGW, VBMT, VBMW and VCGT

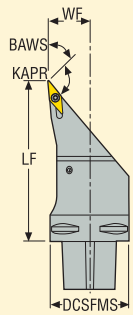


- For inserts programme, see page(s) 429-431, 463, 472
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-SVMBL-00130

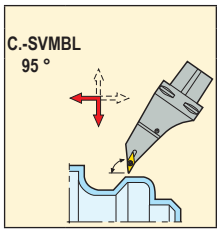


C.-SVMBL-33130



Left-hand version shown
KAPR = 95°, BAWS = 45°

C.-SVMBL 95 °



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	GAMO°	LAMS°	KG	
C6									
	16	C6-SVMBL-00130-16	63	0	130	0	0	1,8	VB../VC..1604..
		C6-SVMBL-33130-16	63	33	130	0	0	2,1	VB../VC..1604..

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Insert key	Insert screw	Insert shim	Shim screw
...-16	CN8	T15P-2	C03512-T15P	171.19-620	CA3510

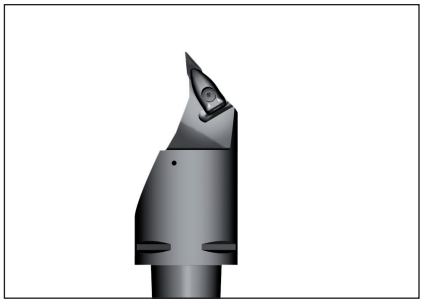
Accessories*

Shim key
9/64SMS875

Please check availability in current price and stock-list

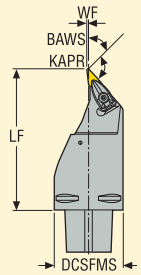
* To be ordered separately

Toolholders for inserts VNGA, VNGG, VNGM, VNMA and VNMG



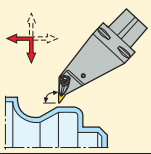
- For inserts programme, see page(s) 432-433, 464-465
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-DVMNL..-M



Left-hand version shown
KAPR = 93°
BAWS = 45°

C.-DVMNL..-M
93 °



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	16	C6-DVMNL-00130-16-M	63	0	130	-4,5	-13,5	2,1	VN..1604..

Spare Parts, Parts included in delivery

For size	Clamp pin	Clamp screw	Coolant nozzle	Floating wedge clamp	Insert shim	Shim/clamp key	Shim screw	Spring
...-16	FP2012	L85021-T15P	CN6	CD19-S-V16	DVN160310	T15P-2	C03508-T15P	S6912

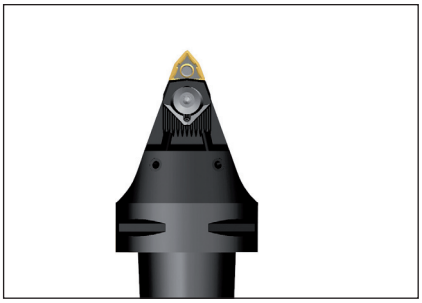
Accessories*

Clamp kit
CD19-V16

Please check availability in current price and stock-list

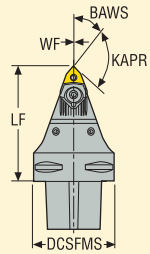
* To be ordered separately

Toolholders for inserts WNGA, WNMA, WNMG and WNMM



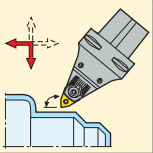
- For inserts programme, see page(s) 436-439, 466
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 10-11

C.-PWLNN



Neutral version shown
KAPR = 95°
BAWS = 45°

C.-PWLNN
95 °



Capto size		Designation	Dimensions in mm			GAMO°	LAMS°	KG	
			DCSFMS	WF	LF				
C6									
	08	C6-PWLNN-00090-08	63	0	90	-5,5	-6,5	1,4	WN..0804..

Spare Parts, Parts included in delivery

Accessories*

For size	Coolant nozzle	Insert shim	Setting screw	Shim pin	Wedge clamp	Wedge key	Wedge screw	Shim key
...-08	CN8	WAE080412	L82511-T07P	PP2015-1-T15P	WNW08HD	T25P-7	WS2325-T25P	T15P-2

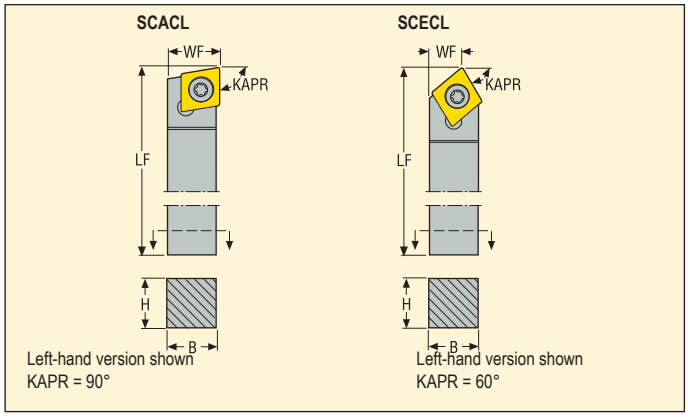
Please check availability in current price and stock-list

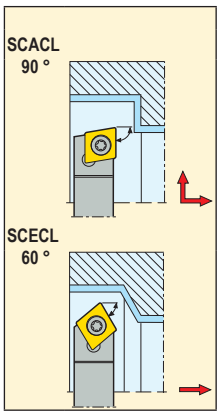
* To be ordered separately
Shim WAE080312 for insert WNM.0806.., to be ordered separately
Wedge WNW08 for insert WNMM08.., to be ordered separately

Toolholders for inserts CCGT, CCGW, CCGX, CCMT and CCMW



- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15





	Designation	Dimensions in mm				GAMO°	LAMS°	KG	
		H	B	LF	WF				
09	SCACL1212D09	12	12	60	13,0	0	0	0,1	CC..09T3..
06	SCECL1010C06	10	10	50	6,2	0	0	0,1	CC..0602..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

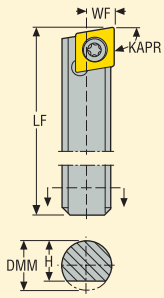
Please check availability in current price and stock-list

Toolholders for inserts CCGT, CCGW, CCMT and CCMW



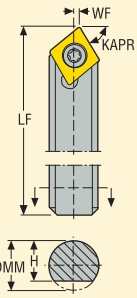
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle
- For holder code key, see page(s) 14-15

SCACL



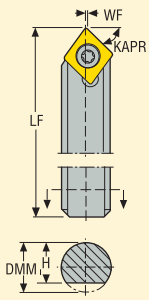
Left-hand version shown
KAPR = 90°

SCECL



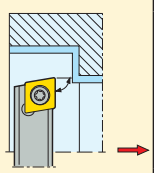
Left-hand version shown
KAPR = 60°

SCDCL

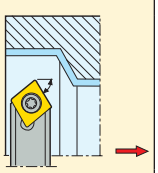


Left-hand version shown
KAPR = 45°

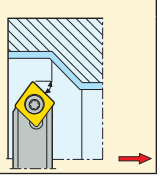
SCACL 90 °



SCECL 60 °



SCDCL 45 °



	Designation	Dimensions in mm				GAMO°	LAMS°	KG	
		DMM	H	LF	WF				
06	**S08A-SCACL06**	8	6,3	32	4,2	0	0	0,1	CC..0602..
	S10C-SCACL06	10	8,3	50	5,2	0	0	0,1	CC..0602..
09	**S12D-SCACL09**	12	10,3	60	6,7	0	0	0,1	CC..0602..
06	**S08A-SCECL06**	8	6,3	32	1,5	0	0	0,1	CC..0602..
	S10C-SCECL06	10	8,3	50	2,4	0	0	0,1	CC..0602..
09	**S12D-SCECL09**	12	10,3	60	2,3	0	0	0,1	CC..09T3..
06	**S08A-SCDCL06**	8	6,3	32	0,3	0	0	0,1	CC..0602..
	S10C-SCDCL06	10	8,3	50	1,2	0	0	0,1	CC..0602..
09	**S12D-SCDCL09**	12	10,3	60	0,5	0	0	0,1	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw
S08A-...06	T07P-2	C02505-T07P
S10C-...06	T07P-2	C02506-T07P
...09	T15P-2	C04008-T15P

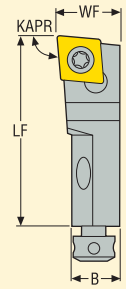
Please check availability in current price and stock-list

Cartridges for inserts CCGT, CCGW, CCGX, CCMT and CCMW



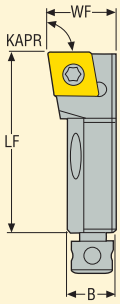
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle

SCLCR/L



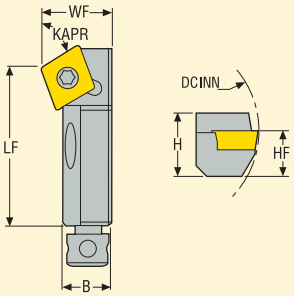
Right-hand version shown
KAPR = 95°

SCFCR/L



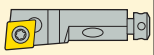
Right-hand version shown
KAPR = 90°

SCWCR/L



Right-hand version shown
KAPR = 60°

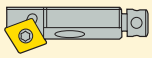
SCLCR/L 95 °



SCFCR/L 90 °



SCWCR/L 60 °



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	DCINN3				
09	SCLCR10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
	SCLCL10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
12	SCLCR12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..
	SCLCL12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..
06	SCFCR08CA-06	11	7	26	10	8	25	0	0	0,1	CC..0602..
	SCFCL08CA-06	11	7	26	10	8	25	0	0	0,1	CC..0602..
09	SCFCR10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
	SCFCL10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
12	SCFCR12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..
	SCFCL12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..
06	SCWCL08CA-06	11	7	28	10	8	25	0	0	0,1	CC..0602..
09	SCWCR10CA-09	15	11	44	14	10	40	0	0	0,1	CC..09T3..
	SCWCL10CA-09	15	11	44	14	10	40	0	0	0,1	CC..09T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687

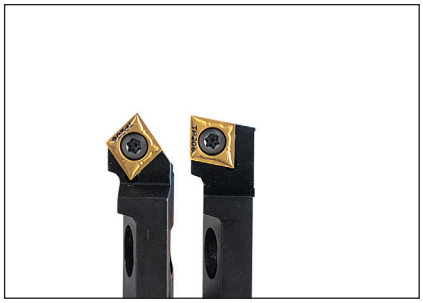
Accessories*

Locking key	Setting key
T25P-7	2SMS795
T25P-7	2SMS795
T09P-2	1.5SMS795

Please check availability in current price and stock-list

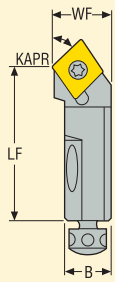
* To be ordered separately

Cartridges for inserts CCGT, CCGW, CCGX, CCMT and CCMW



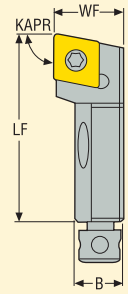
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle

SCSCR/L

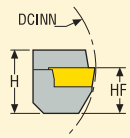


Right-hand version shown
KAPR = 45°

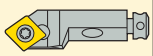
SCGCR/L



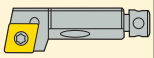
Right-hand version shown
KAPR = 90°



SCSCR/L
45 °



SCGCR/L
90 °



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	DCINN3				
06	SCSCR08CA-06	11	7	28	10	8	25	0	0	0,1	CC..0602..
	SCSCL08CA-06	11	7	28	10	8	25	0	0	0,1	CC..0602..
09	SCSCR10CA-09	15	11	44	14	10	40	0	0	0,1	CC..09T3..
12	SCSCR12CA-12	20	16	47	20	12	50	0	0	0,1	CC..1204..
06	SCGCR08CA-06	11	7	32	10	8	25	0	0	0,1	CC..0602..
	SCGCL08CA-06	11	7	32	10	8	25	0	0	0,1	CC..0602..
09	SCGCR10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
12	SCGCR12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..
	SCGCL12CA-12	20	16	55	20	12	50	0	0	0,1	CC..1204..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687

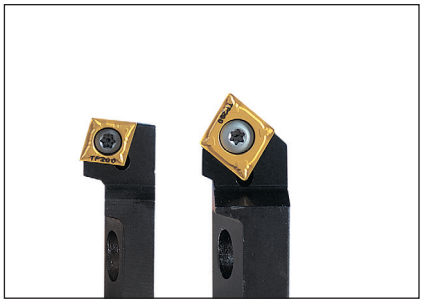
Accessories*

Locking key	Setting key
T09P-2	1.5SMS795
T25P-7	2SMS795
T25P-7	2SMS795

Please check availability in current price and stock-list

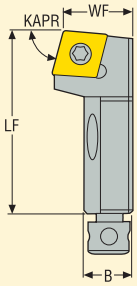
* To be ordered separately

Cartridges for inserts CCGT, CCGW, CCGX, CCMT and CCMW



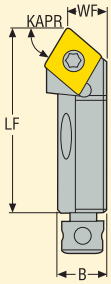
- For inserts programme, see page(s) 382-386, 440, 468-469
- GAMO° = Rake angle, LAMS° = Inclination angle

SCRCR/L

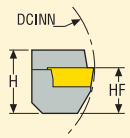


Right-hand version shown
KAPR = 75°

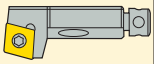
SCTCR/L



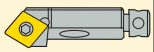
Right-hand version shown
KAPR = 60°



SCRCR/L 75 °



SCTCR/L 60 °



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	DCINN3				
09	SCRCR10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
	SCRCL10CA-09	15	11	50	14	10	40	0	0	0,1	CC..09T3..
06	SCTCR08CA-06	11	7	26	6	8	25	0	0	0,1	CC..0602..
09	SCTCR10CA-09	15	11	50	9	10	40	0	0	0,1	CC..09T3..
	SCTCL10CA-09	15	11	50	9	10	40	0	0	0,1	CC..09T3..
12	SCTCR12CA-12	20	16	55	13	12	50	0	0	0,1	CC..1204..
	SCTCL12CA-12	20	16	55	13	12	50	0	0	0,1	CC..1204..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Locking screw	Setting screw (axial)	Setting screw (radial)
-06	T07P-2	C02505-T07P	179.17-698-T09P	179.17-683	179.17-684
-09	T15P-2	C04008-T15P	179.17-696-T25P	179.17-680	179.17-686
-12	T20P-7	C05010-T20P	179.17-697-T25P	179.17-680	179.17-687

Accessories*

Locking key	Setting key
T25P-7	2SMS795
T09P-2	1.5SMS795
T25P-7	2SMS795

Please check availability in current price and stock-list

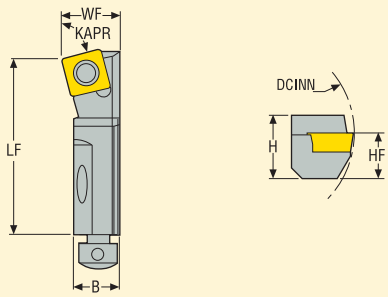
* To be ordered separately

Cartridges for inserts SCGW and SCMT



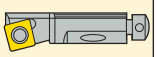
- For inserts programme, see page(s) 411, 450
- GAMO° = Rake angle, LAMS° = Inclination angle

SSKCR/L



Right-hand version shown
KAPR = 75°

SSKCR/L
75 °



	Designation	Dimensions in mm H	B	LF	WF	HF	DCINN3	GAMO°	LAMS°	KG	
09	**SSKCR10CA-09**	15	11	50	14	10	40	0	0	0,1	SC..09T3..
	SSKCL10CA-09	15	11	50	14	10	40	0	0	0,1	SC..09T3..
12	**SSKCR12CA-12**	20	16	55	20	12	50	0	0	0,1	SC..1204..
	SSKCR16CA-12	25	20	63	25	16	60	-4	0	0,2	SC..1204..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
-09	T15P-2	C04008-T15P	–	179.17-696-T25P	179.17-680	179.17-686	–
.12..-12	T20P-7	C05010-T20P	–	179.17-697-T25P	179.17-680	179.17-687	–
.16..-12	T15P-2	C05012-T15P	110.19-621	179.17-693	179.17-680	179.17-685	CA5008

Accessories*

Locking key	Setting key
T25P-7	2SMS795
T25P-7	2SMS795
5SMS795	2.5SMS795

Please check availability in current price and stock-list

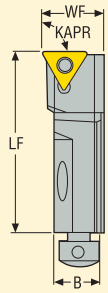
* To be ordered separately

Cartridges for inserts TCGT, TCMT and TCMW



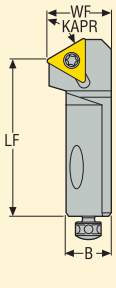
- For inserts programme, see page(s) 419-422, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle

STFCR/L



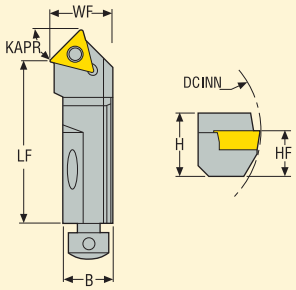
Right-hand version shown
KAPR = 90°

STWCR/L



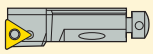
Right-hand version shown
KAPR = 60°

STSCR/L

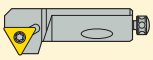


Right-hand version shown
KAPR = 45°

STFCR/L
90 °



STWCR/L
60 °



STSCR/L
45 °



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	DCINN3				
11	STFCR10CA-11	15	11	50	14	10	40	0	0	0,1	TC..1102..
	STFCR12CA-11	20	16	55	20	12	50	0	0	0,1	TC..1102..
	STFCL10CA-11	15	11	50	14	10	40	0	0	0,1	TC..1102..
16	STFCR16CA-16	25	20	63	25	16	60	-2	0	0,2	TC..16T3..
	STFCL16CA-16	25	20	63	15	16	60	-2	0	0,2	TC..16T3..
16	STWCR16CA-16	25	20	53	25	16	60	0	0	0,2	TC..16T3..
	STWCL16CA-16	25	20	53	25	16	60	0	0	0,2	TC..16T3..
11	STSCR10CA-11	15	11	44	14	10	40	0	0	0,1	TC..1102..
	STSCL10CA-11	15	11	44	14	10	40	0	0	0,1	TC..1102..
16	STSCR12CA-16	20	16	47	20	12	50	0	0	0,1	TC..16T3..
	STSCR16CA-16	25	20	53	25	16	60	-6	0	0,2	TC..16T3..
	STSCL12CA-16	20	16	47	20	12	50	0	0	0,1	TC..16T3..
	STSCL16CA-16	25	20	53	25	16	60	-6	0	0,2	TC..16T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
..10..-11	T07P-2	C02506-T07P	–	179.17-696-T25P	179.17-680	179.17-686	–
..12..-11	T07P-2	C02506-T07P	–	179.17-697-T25P	179.17-680	179.17-687	–
..12..-16	T15P-2	C03509-T15P	–	179.17-697-T25P	179.17-680	179.17-687	–
..16..-16	T15P-2	C03509-T15P	STN160312	179.17-693	179.17-680	179.17-685	CA3510

Accessories*

Locking key	Setting key	Shim key
T25P-7	2SMS795	–
T25P-7	2SMS795	–
T25P-7	2SMS795	–
5SMS795	2.5SMS795	9/64SMS875

Please check availability in current price and stock-list

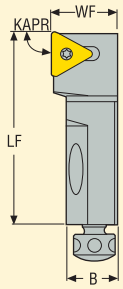
* To be ordered separately

Cartridges for inserts TCGT, TCGW, TCMT and TCMW



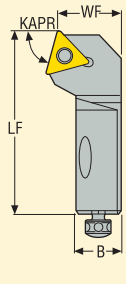
- For inserts programme, see page(s) 419-422, 456, 471
- GAMO° = Rake angle, LAMS° = Inclination angle

STGCR/L



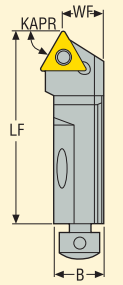
Right-hand version shown
KAPR = 90°

STRCR/L

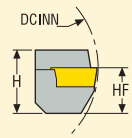


Right-hand version shown
KAPR = 75°

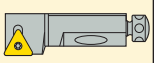
STTCR/L



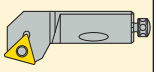
Right-hand version shown
KAPR = 60°



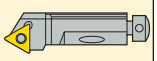
STGCR/L
90 °



STRCR/L
75 °



STTCR/L
60 °



	Designation	Dimensions in mm						GAMO°	LAMS°	KG	
		H	B	LF	WF	HF	DCINN3				
16	STGCR12CA-16	20	16	55	20	12	50	0	0	0,1	TC..16T3..
	STGCR16CA-16	25	20	63	25	16	50	-5	0	0,2	TC..16T3..
	STGCL12CA-16	20	16	55	20	12	50	0	0	0,1	TC..16T3..
	STGCL16CA-16	25	20	63	25	16	50	-5	0	0,2	TC..16T3..
22	STGCL16CA-22	20	18	55	25	16	70	0	0	0,2	TC..2204..
16	STRCR16CA-16	25	20	63	25	16	60	-5	0	0,2	TC..16T3..
	STRCL16CA-16	25	20	63	25	16	60	-5	0	0,2	TC..16T3..
22	STRCL16CA-22	20	18	63	25	16	70	0	0	0,2	TC..2204..
16	STTCR12CA-16	20	16	55	13	12	50	0	0	0,1	TC..16T3..
	STTCR16CA-16	25	20	63	15	16	60	-4	0	0,2	TC..16T3..
	STTCL16CA-16	25	20	63	15	16	60	-4	0	0,2	TC..16T3..

Spare Parts, Parts included in delivery

For size	Insert key	Insert screw	Insert shim	Locking screw	Setting screw (axial)	Setting screw (radial)	Shim screw
..12..-16	T15P-2	C03509-T15P	–	179.17-697-T25P	179.17-680	179.17-687	–
..16..-16	T15P-2	C03509-T15P	STN160312	179.17-693	179.17-680	179.17-685	CA3510
..16..-22	T15P-2	C05012-T15P	–	179.17-693	179.17-680	179.17-690-T15P	–

Accessories*

Locking key	Setting key	Shim key
T25P-7	2SMS795	–
5SMS795	2.5SMS795	9/64SMS875
5SMS795	2SMS795	–

Please check availability in current price and stock-list

* To be ordered separately

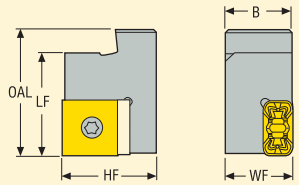
Toolholders for inserts LNMX



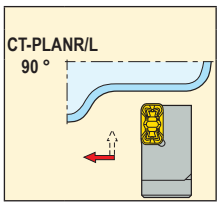
• For inserts programme, see page(s) 405

Cassettes for re-machining operations

CT-PLANR/L



Right-hand version shown



	Designation	Dimensions in mm HF	B	OAL	LF	WF	KG	
19	**CT-PLANR3223-19**	32	22,6	42,2	35	23	0,2	LNMX191940
	CT-PLANL3223-19	32	22,6	42,2	35	23	0,2	LNMX191940
30	**R175.32-3223-30**	32	22,6	42,2	35	23	0,2	LNMX301940
	L175.32-3223-30	32	22,6	42,2	35	23	0,2	LNMX301940

CT-PLANR/L 3223-19 are updated version of R/L175.32-3223-19. They have better manufacturing tolerances. R/L175.32-3223-19 will be deleted from the program in future.

Spare Parts, Parts included in delivery

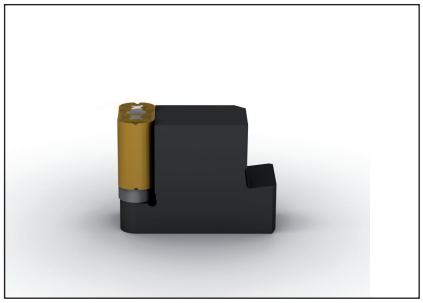
For size	Insert key	Insert screw	Insert shim	Shim screw
...-19	T15P-2	MN1515SL-T15P	LN190450	174.10-650.9-T07P
...-30	T15P-2	MN1515SL-T15P	LN300450	174.10-650.9-T07P

Accessories, to be ordered separately

Shim key
T07P-2
T07P-2

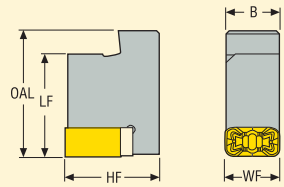
Please check availability in current price and stock-list

Toolholders for inserts LNMX

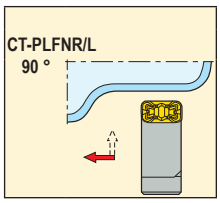


• For inserts programme, see page(s) 405

CT-PLFNR/L



Right-hand version shown



	Designation	Dimensions in mm					KG	
		HF	B	OAL	LF	WF		
19	**CT-PLFNR3219-19**	32	18,3	43	35	19	0,2	LNMX191940
	CT-PLFNL3219-19	32	18,3	43	35	19	0,2	LNMX191940

Spare Parts, Parts included in delivery

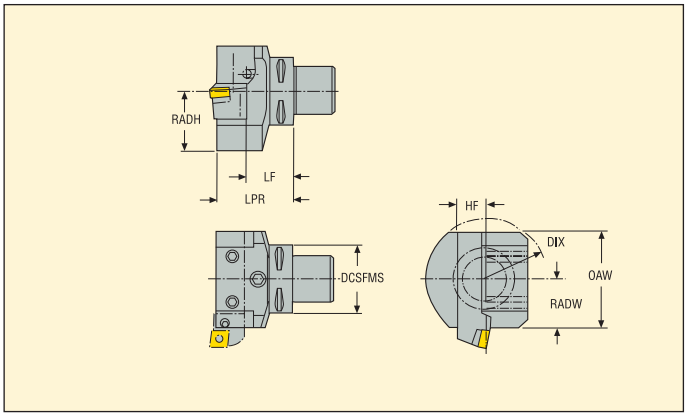
For size	Insert key	Insert screw	Insert shim	Shim screw
...-19	T15P-2	MN1515SL-T15P	LN190450	174.10-650.9-T07P

Accessories, to be ordered separately

Shim key
T07P-2

Please check availability in current price and stock-list





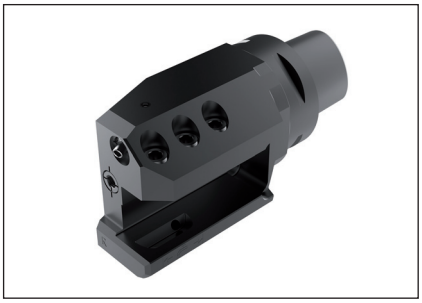
Capto size	Designation	Dimensions in mm								CP*	KG
		DCSFMS	DIX	RADW	OAW	RADH	HF	LF	LPR		
C5											
	C5-ASHA-065-20JETI	50	85	32	64	37	20	45	65	70	1,5
C6											
	C6-ASHA-070-20JETI	63	85	32	64	37	20	50	70	70	1,9
	C6-ASHA-080-25JETI	63	100	38	76	46	25	55	80	70	2,5
C8											
	C8-ASHA-075-25JETI	80	103	38	80	46	25	50	75	70	3,1

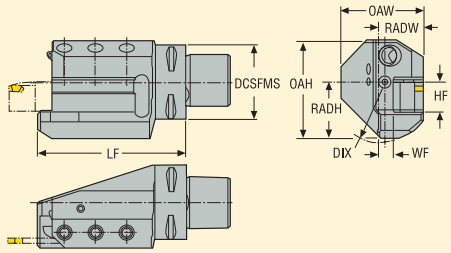
* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant nozzle
		
Cx-ASHA	T6SS12X20	CN8

Please check availability in current price and stock-list





Right-hand version shown

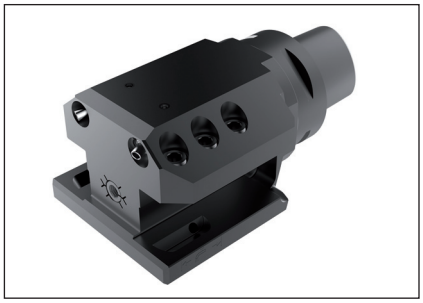
Capto size	Designation	Dimensions in mm									CP*	KG
		DCSFMS	DIX	RADW	OAW	WF	RADH	OAH	HF	LF		
C5												
	C5-ASHR-095-20JETI	50	85	30	55,5	10	37	69	20	95	70	1,7
	C5-ASHL-095-20JETI	50	85	30	55,5	10	37	69	20	95	70	1,7
C6												
	C6-ASHR-105-20JETI	63	85	30	63,5	10	37	69	20	105	70	2,4
	C6-ASHR-122-25JETI	63	100	38	70,0	13	46	78	25	122	70	3,0
	C6-ASHL-105-20JETI	63	85	30	63,5	10	37	69	20	105	70	2,4
	C6-ASHL-122-25JETI	63	100	38	70,0	13	46	78	25	122	70	3,0
C8												
	C8-ASHR-122-25JETI	80	103	40	80,0	15	46	86	25	122	70	3,9
	C8-ASHL-122-25JETI	80	103	40	80,0	15	46	86	25	122	70	3,8

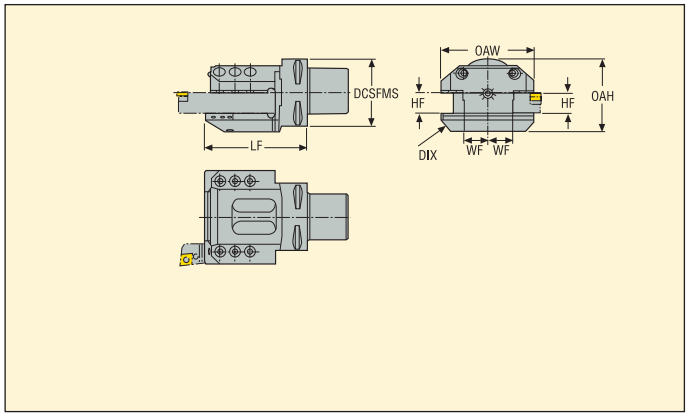
* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant nozzle
...-095, -105	T6SS10X20	CN8
...-122	T6SS12X20	CN8

Please check availability in current price and stock-list





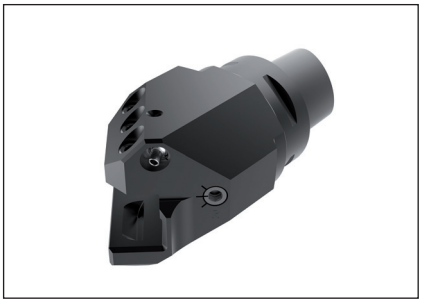
Capto size	Designation	Dimensions in mm								CP*	KG
		DCSFMS	DIX	RADW	OAW	WF	OAH	HF	LF		
C6											
	C6-ASHS-122-25JETI	63	114	45	90	20	78	25	122	70	4,2
C8											
	C8-ASHS-122-25JETI	80	128	55	110	30	78	25	122	70	4,8

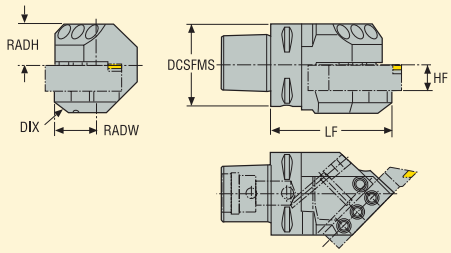
* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant nozzle
		
Cx-ASHS	T6SS12X20	CN8

Please check availability in current price and stock-list





Right-hand version shown

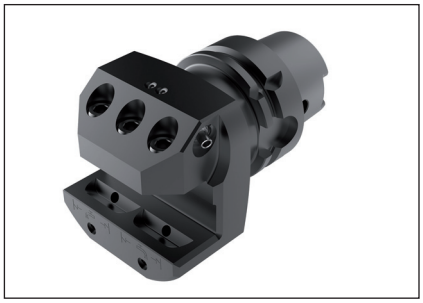
Capto size	Designation	Dimensions in mm							CP*	KG
		DCSFMS	DIX	RADW	WF	RADH	HF	LF		
C5										
	C5-ASHR45-085-20JETI	50	85	32	0	37	20	85	70	1,6
	C5-ASHL45-085-20JETI	50	85	32	0	37	20	85	70	1,6
C6										
	C6-ASHR45-095-20JETI	63	85	32	0	37	20	95	70	2,1
	C6-ASHR45-114-25JETI	63	100	36	0	46	25	114	70	2,9
	C6-ASHL45-095-20JETI	63	85	32	0	37	20	95	70	2,1
	C6-ASHL45-114-25JETI	63	100	36	0	46	25	114	70	2,9

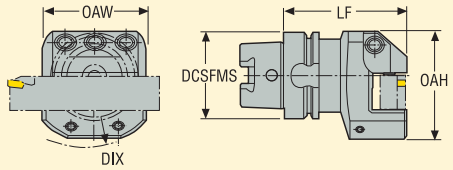
* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant nozzle
...-085, -095	T6SS10X20	CN8
...114	T6SS12X20	CN8

Please check availability in current price and stock-list





Designation	Dimensions in mm					CP*	KG
	DCSFMS	DIX	OAW	OAH	LF		
E9364-ASHA-090-25JETI	63	100	76	–	65	100	2,3

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

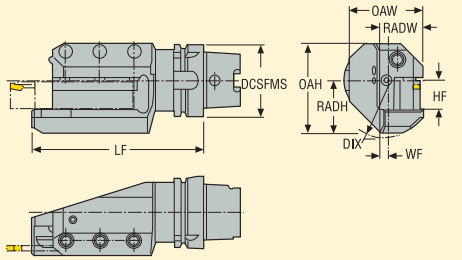
Spare Parts, Parts included in delivery

For size	Clamp screw	Coolant nozzle
E9364-ASHA	T6SS12X20	CN8

Please check availability in current price and stock-list

Turning – Jetstream Tooling®, HSK-T, adapters for shank tools





Right-hand version shown

Designation	Dimensions in mm								CP*	KG
	DCSFMS	DIX	RADW	OAW	WF	RADH	OAH	HF		
E9364-ASHR-132-25JETI	63	100	48	69,5	13	46	78	25	100	2,8
E9364-ASHL-132-25JETI	63	100	48	69,5	13	46	78	25	100	2,8

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

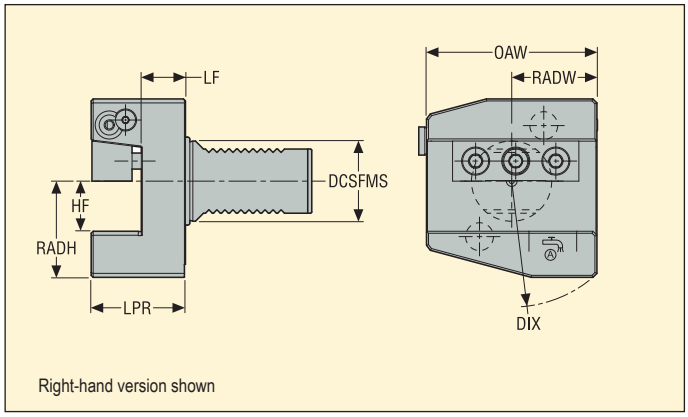
For size	Clamp screw	Coolant nozzle
E9364-ASHR/L	T6SS12X20	CN8

Please check availability in current price and stock-list

Turning – Jetstream Tooling®, VDI, adapters for shank tools



- Face mounting turret position
- Right combined design B1 and B4
- Left combined design B2 and B3
- Double sided VDI shank grinding



Right-hand version shown

VDI size	Designation	Dimensions in mm								CP*	KG
		DCSFMS	DIX	RADW	OAW	RADH	HF	LF	LPR		
VDI30											
	ASHA-R-VDI30-20-JETI	30	103	35	70	38	20	22	42	80	1,6
	ASHA-L-VDI30-20-JETI	30	103	35	70	38	20	22	42	80	1,6
VDI40											
	ASHA-R-VDI40-25-JETI	40	128	43	85	48	25	22	47	80	2,6
	ASHA-L-VDI40-25-JETI	40	128	43	85	48	25	22	47	80	2,6
VDI50											
	ASHA-R-VDI50-25-JETI	50	142	50	100	50	25	30	55	80	4,4
	ASHA-L-VDI50-25-JETI	50	142	50	100	50	25	30	55	80	4,4

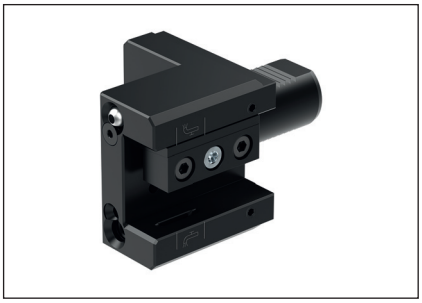
* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

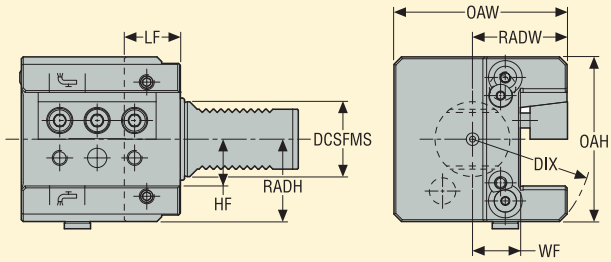
For	Clamp screw	Coolant adapter	Nozzle	O-ring	Screw	Screw 2	Washer	Wedge
VDI30	MC6S6X25	JET-CFP1/8	CN14	5641005-134	MF6S5X12	MC6S6X14	JET-CS1013	5431115-07
VDI40	MC6S8X25	JET-CFP1/8	CN14	5641005-135	MF6S5X12	MC6S8X16	JET-CS1013	5431115-08
VDI50	MC6S8X30	JET-CFP1/8	CN13	5641001-119	MF6S6X12	MC6S8X16	JET-CS1013	5431115-08

Please check availability in current price and stock-list

Turning – Jetstream Tooling®, VDI, adapters for shank tools



- Star mounting turret position
- Neutral combined design C1, C2, C3, C4
- Double sided VDI shank grinding



Neutral version shown

VDI size	Designation	Dimensions in mm									CP*	KG
		DCSFMS	DIX	RADW	OAW	WF	RADH	OAH	HF	LF		
VDI30												
	ASHN-VDI30-20-JETI	30	65	56	86	36	35	70	20	22	80	2,0
VDI40												
	ASHN-VDI40-25-JETI	40	64	51	93	26	44	88	25	30	80	3,5

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

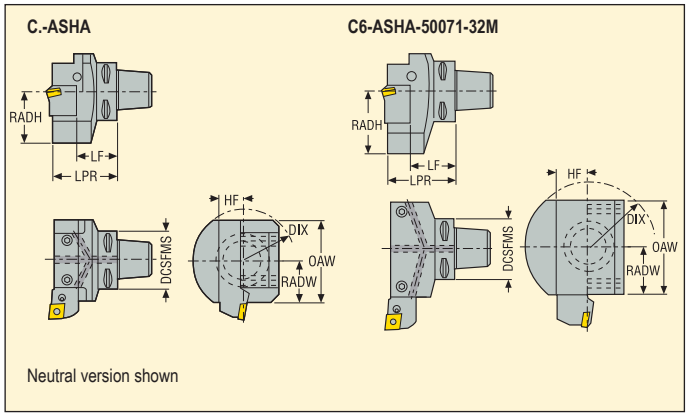
Spare Parts, Parts included in delivery

For	Coolant adapter	Nozzle	O-ring	Screw	Washer	Wedge set
VDI30	JET-CFP1/8	CN14	5641005-134	MF6S5X12	JET-CS1013	5431130-02
VDI40	JET-CFP1/8	CN13	5641005-135	MF6S6X12	JET-CS1013	5431130-03

Please check availability in current price and stock-list

Turning – Seco-Capto™, adapters for shank tools





Capto size	Designation	Dimensions in mm								KG
		DCSFMS	DIX	RADW	OAW	RADH	HF	LF	LPR	
C6										
	C6-ASHA-50071-32M	63	130	50	100	65	32	45	71	3,4

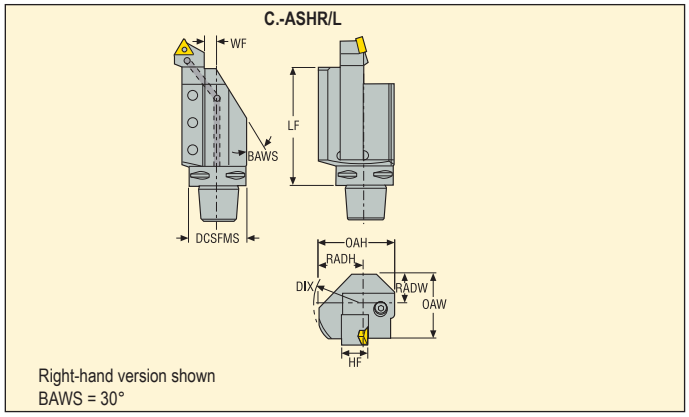
Spare Parts, Parts included in delivery

For size	Bolt	Circlip	Coolant nozzle	O-ring	Screw
C6	VB23	SGH1510	CN9	ORING-9X2	T6SS12X30

Please check availability in current price and stock-list

Turning – Seco-Capto™, adapters for shank tools





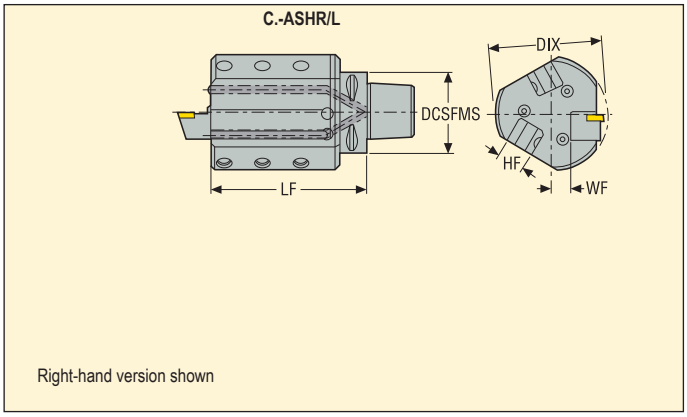
Capto size	Designation	Dimensions in mm									KG
		DCSFMS	DIX	RADW	OAW	WF	RADH	OAH	HF	LF	
C8											
	C8-ASHR-40140-32	80	110	40	80	8	55	85	32	140	5,2
	C8-ASHL-40140-32	80	110	40	80	8	55	85	32	140	5,5

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Screw
C8	CN10	T6SS12X30

Please check availability in current price and stock-list





Right-hand version shown

Capto size	Designation	Dimensions in mm					KG
		DCSFMS	DIX	WF	HF	LF	
C5							
	C5-ASHR3-36123-20	50	90	16	20	123	3,7
C6							
	C6-ASHR3-36125-20	63	90	16	20	125	3,8
	C6-ASHL3-36125-20	63	90	16	20	125	3,8

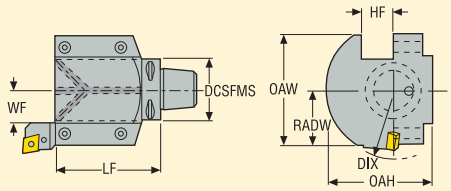
Spare Parts, Parts included in delivery

For size	Coolant nozzle	Screw
C5 / C6	CN2	T6SS12X30

Please check availability in current price and stock-list



C.-ASHS



Neutral version shown

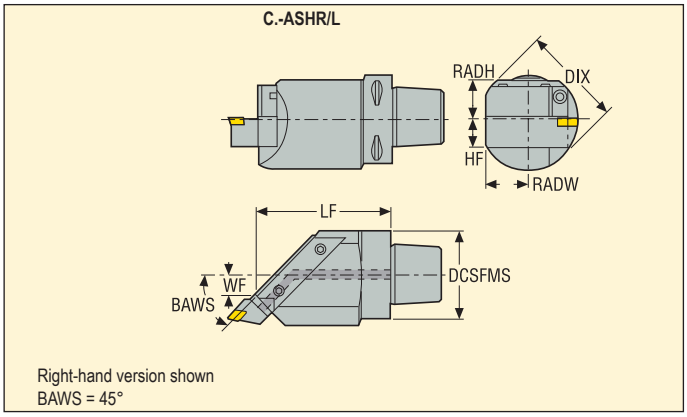
Capto size	Designation	Dimensions in mm								KG
		DCSFMS	DIX	RADW	OAW	WF	OAH	HF	LF	
C6										
	C6-ASHS-58115-32	63	140	58	116	33	110	32	115	7,4

Spare Parts, Parts included in delivery

For size	Coolant nozzle	Screw
C6	CN9	T6SS12X30

Please check availability in current price and stock-list





Right-hand version shown
BAWS = 45°

Capto size	Designation	Dimensions in mm							KG
		DCSFMS	DIX	RADW	WF	RADH	HF	LF	
C8									
	C8-ASHR45-50135-32	80	140	45	17	40	32	115	6,6
	C8-ASHL45-50135-32	80	140	45	17	40	32	135	6,6

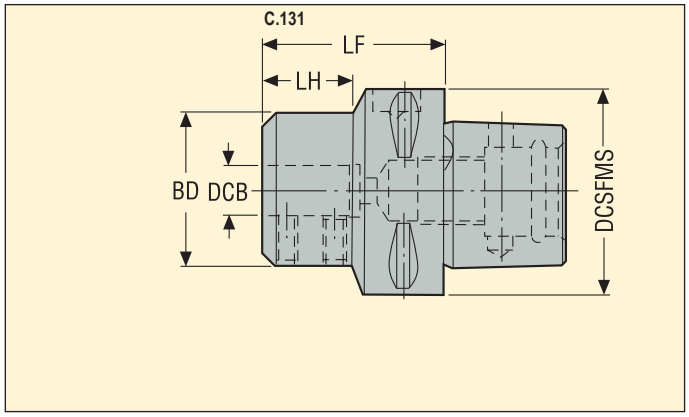
Spare Parts, Parts included in delivery

For size	Coolant nozzle	Screw
C8	CN9	T6SS12X30

Please check availability in current price and stock-list

Turning – Seco-Capto™, adapters for solid boring bars





Capto size	Designation	Dimensions in mm					KG
		DCSFMS	DCB	BD	LH	LF	
C3							
	C3-131-00035-10	32	10	36	20,0	35	0,24
	C3-131-00040-12	32	12	36	24,0	40	0,29
C4							
	C4-131-00040-10	40	10	36	19,0	40	0,39
	C4-131-00045-12	40	12	36	24,0	45	0,42
	C4-131-00050-16	40	16	36	29,0	50	0,43
C5							
	C5-131-00045-10	50	10	36	21,0	45	0,62
	C5-131-00045-12	50	12	36	22,5	45	0,6
	C5-131-00055-16	50	16	36	31,0	55	0,65

Spare Parts, Parts included in delivery

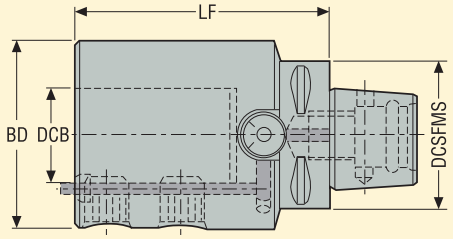
For size	Key	Screw
...-10	3SMS795	951C0610
...-12	3SMS795	951C0610
...-16	4SMS795	951C0810

Please check availability in current price and stock-list



• Sleeves, see page(s) 380

C.131



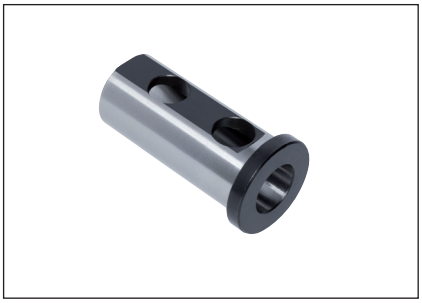
Capto size	Designation	Dimensions in mm				KG
		DCSFMS	DCB	BD	LF	
C5						
	C5-131-00100-25	50	25	63	100	2,1
C6						
	C6-131-00098-25	63	25	63	98	2,0
C8						
	C8-131-00098-25	80	25	63	98	3,4
	C8-131-00112-40	80	40	80	112	4,2

Spare Parts, Parts included in delivery

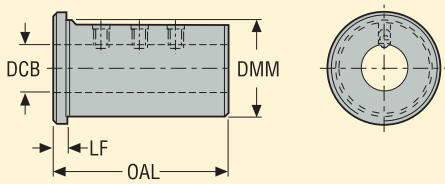
For size	Locking key	Locking screw
C5...-25	8SMS795	LH16020
C6...-25	8SMS795	LH16020
C8...-25	8SMS795	LH16020
C8...-40	10SMS795	LH20020

Please check availability in current price and stock-list

Turning – Seco-Capto™, adapters for solid boring bars



• Holders, see page(s) 379



Designation	Dimensions in mm				KG
	DMM	DCB	OAL	LF	
132N-2506	25,0	6,0	61,0	5,0	0,3
132N-2508	25,0	8,0	61,0	5,0	0,3
132N-2510	25,0	10,0	61,0	5,0	0,3
132N-2512	25,0	12,0	61,0	5,0	0,3
132N-2516	25,0	16,0	61,0	5,0	0,1
132N-2520	25,0	20,0	61,0	5,0	0,1
132N-4020	40,0	20,0	75,0	5,0	0,1
132N-4025	40,0	25,0	75,0	5,0	0,5
132N-4032	40,0	32,0	75,0	5,0	0,3

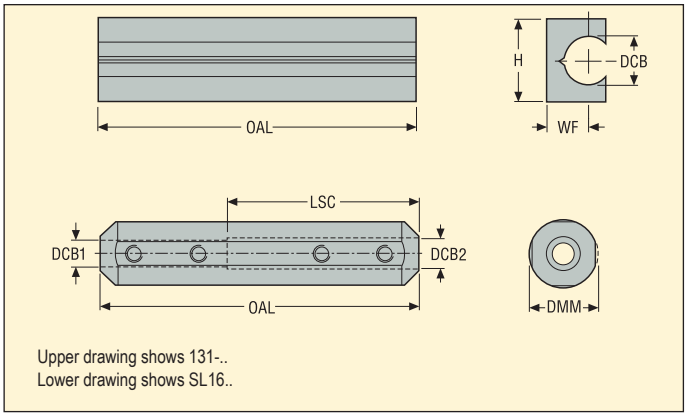
Spare Parts, Parts included in delivery

For size	Key	Screw
-2506	3SMS795	P6SS6X8
-2508	4SMS795	P6SS8X8
-2510	4SMS795	P6SS8X6
-2512	4SMS795	P6SS8X6
-4020	5SMS795	P6SS10X8
-4025	5SMS795	P6SS10X8
-2516/-2520/4032	–	–

Please check availability in current price and stock-list

Holders and sleeves for boring tools





Upper drawing shows 131-..
Lower drawing shows SL16..

Designation	Dimensions in mm								KG
	DMM	DCB	DCB1	DCB2	H	WF	OAL	LSC	
131-408	–	8	–	–	13	8	110	–	0,1
131-410	–	10	–	–	16	9	110	–	0,1
131-412	–	12	–	–	20	10	110	–	0,2
131-416	–	16	–	–	25	12	110	–	0,2
131-420	–	20	–	–	32	15	110	–	0,3
SL160506	16	–	5	6	–	–	75	45	0,1
SL160608	16	–	6	8	–	–	75	45	0,1

Spare Parts, Parts included in delivery

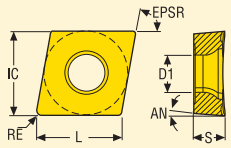
For size	Locking screw
131-	–
SL16..	P6SS4X4

Accessories, to be ordered separately

Locking key
–
2SMS795

Please check availability in current price and stock-list

CCGT

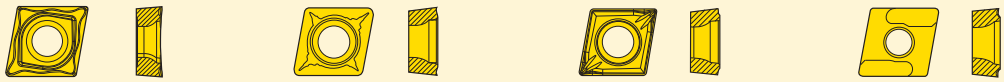


EPSR = 80°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,05
RE = (≥0,2) = ±0,1
RE = (≤0,1) = ±0,025

Size	Dimensions in mm IC	L	S	D1
0602	6,350	6,5	2,38	2,8
09T3	9,525	9,7	3,97	4,4
1204	12,700	12,9	4,76	5,5

CCGT-AL -F1 -MF2 -UX*



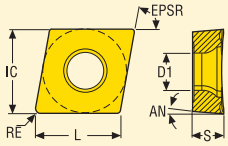
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CCGT-AL																										
	CCGT060202F-AL	0,2																				■				
	CCGT060204F-AL	0,4																				■				
	CCGT09T302F-AL	0,2																				■				
	CCGT09T304F-AL	0,4																				■				
	CCGT09T308F-AL	0,8																				■				
	CCGT120404F-AL	0,4																				■				
	CCGT120408F-AL	0,8																				■				
CCGT-F1																										
	CCGT0602005-F1	0,1																	■							
	CCGT060201-F1	0,1																	■							
	CCGT060204-F1	0,4																							■	
	CCGT09T301-F1	0,1																	■							
	CCGT09T304-F1	0,4																							■	
CCGT-MF2																										
	CCGT060201-MF2	0,1																	■							
	CCGT060204-MF2	0,4																	■							
	CCGT09T304-MF2	0,4																	■							
CCGT-UX																										
	CCGT060204R-UX	0,4																	■							
	CCGT060204L-UX	0,4																	■							
	CCGT09T304R-UX	0,4																	■							
	CCGT09T304L-UX	0,4																	■							
	CCGT120408R-UX	0,8																	■							
	CCGT120408L-UX	0,8																	■							

■ Stock standard

* Right-hand version shown

Subject to change refer to current price- and stock-list

CCGX



EPSR = 80°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,05
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
0602	6,350	6,5	2,38	2,9
09T3	9,525	9,7	3,97	4,5

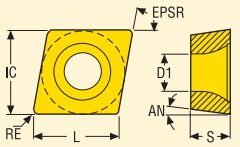
CCGX...W-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CCGX...W-F1																										
	CCGX060202W-F1	0,2			■														■							
	CCGX09T302W-F1	0,2			■														■							

■ Stock standard
Subject to change refer to current price- and stock-list

CCMT



EPSR = 80°
AN = 7°

Tolerances:	Size:
IC = ±0,05	06, 09
IC = ±0,08	12
IC = ±0,10	16
IC = ±0,13	25
S = ±0,05	06, 09
S = ±0,13	12, 16, 25
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
0602	6,35	6,5	2,38	2,9
09T3	9,53	9,7	3,97	4,5
1204	12,70	12,9	4,76	5,6

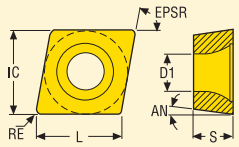
CCMT-FF1 -F1 W-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CCMT-FF1																										
	CCMT060202-FF1	0,2			■																					
	CCMT060204-FF1	0,4			■	■																				
	CCMT09T304-FF1	0,4			■	■																				
CCMT-F1																										
	CCMT060202-F1	0,2		■	■	■		■				■			■			■	■						■	■
	CCMT060204-F1	0,4		■	■	■	■	■	■	■	■	■	■	■	■			■	■	■					■	■
	CCMT060208-F1	0,8			■	■		■				■							■							■
	CCMT09T302-F1	0,2		■	■	■		■				■							■						■	■
	CCMT09T304-F1	0,4		■	■	■	■	■	■	■	■	■	■	■	■			■	■	■					■	■
	CCMT09T308-F1	0,8		■	■	■	■	■	■	■	■	■	■	■	■			■	■							■
	CCMT120404-F1	0,4			■	■									■			■								
	CCMT120408-F1	0,8			■	■								■	■			■								
	CCMT120412-F1	1,2			■																					
CCMT...W-F1																										
	CCMT060204W-F1	0,4			■																				■	■
	CCMT09T304W-F1	0,4		■	■																				■	
	CCMT09T308W-F1	0,8		■	■	■																			■	■
	CCMT120404W-F1	0,4			■																					
	CCMT120408W-F1	0,8			■																					

■ Stock standard
Subject to change refer to current price- and stock-list

CCMT



EPSR = 80°
AN = 7°

Tolerances:	Size:
IC = ±0,05	06, 09
IC = ±0,08	12
IC = ±0,10	16
IC = ±0,13	25
S = ±0,05	06, 09
S = ±0,13	12, 16, 25
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
0602	6,35	6,5	2,38	2,9
0903	9,53	9,7	3,18	4,5
09T3	9,53	9,7	3,97	4,5
1204	12,70	12,9	4,76	5,6
1605	15,88	16,1	5,56	5,6
2509	25,40	25,8	9,52	8,7

CCMT-F2 **-MF2** **W-MF2**



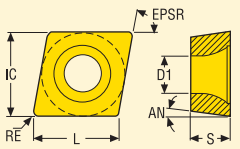
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CCMT-F2*																										
	CCMT060202-F2	0,2					■	■				■									■					
	CCMT060204-F2	0,4					■	■				■									■					
	CCMT060208-F2	0,8					■	■				■									■					
	CCMT090304-F2	0,4																			■					
	CCMT09T302-F2	0,2					■														■					
	CCMT09T304-F2	0,4					■	■				■			■			■			■					
	CCMT09T308-F2	0,8					■	■			■	■									■					
	CCMT120404-F2	0,4					■														■					
	CCMT120408-F2	0,8					■	■			■	■									■					
	CCMT160508-F2	0,8					■					■														
	CCMT160512-F2	1,2					■					■														
	CCMT250924T-F2	2,4					■																			
CCMT-MF2																										
	CCMT060202-MF2	0,2			■	■													■						■	■
	CCMT060204-MF2	0,4	■	■	■	■						■							■	■					■	■
	CCMT060208-MF2	0,8	■	■	■	■													■							
	CCMT09T302-MF2	0,2			■	■													■						■	
	CCMT09T304-MF2	0,4		■	■	■						■							■	■					■	■
	CCMT09T308-MF2	0,8	■	■	■	■						■							■							■
	CCMT120408-MF2	0,8		■	■	■																				
CCMT...W-MF2																										
	CCMT060204W-MF2	0,4			■														■							
	CCMT09T304W-MF2	0,4		■	■	■													■							
	CCMT09T308W-MF2	0,8		■	■							■							■							

■ **Stock standard**

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

CCMT



EPSR = 80°
AN = 7°

Tolerances:	Size:
IC = ±0,05	06, 09
IC = ±0,08	12
IC = ±0,10	16
IC = ±0,13	25
S = ±0,05	06, 09
S = ±0,13	12, 16, 25
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
0602	6,35	6,5	2,38	2,9
0903	9,53	9,7	3,18	4,5
09T3	9,53	9,7	3,97	4,5
1204	12,70	12,9	4,76	5,6
1605	15,88	16,1	5,56	5,6

CCMT-M3 | W-M3 | -M5



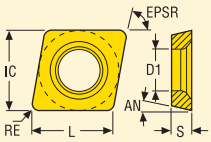
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CCMT-M3*																										
	CCMT060202-M3	0,2		■	■	■																				
	CCMT060204-M3	0,4		■	■	■							■	■												
	CCMT060208-M3	0,8			■	■								■												
	CCMT090304-M3	0,4			■																					
	CCMT09T302-M3	0,2		■	■																					
	CCMT09T304-M3	0,4		■	■	■							■	■												
	CCMT09T308-M3	0,8		■	■	■							■	■												
	CCMT09T312-M3	1,2		■	■	■																				
	CCMT120404-M3	0,4		■	■	■								■												
	CCMT120408-M3	0,8		■	■	■							■	■												
	CCMT120412-M3	1,2		■	■	■							■	■												
	CCMT160508-M3	0,8			■									■												
	CCMT160512-M3	1,2												■												
CCMT...W-M3																										
	CCMT09T308W-M3	0,8		■																						
CCMT-M5																										
	CCMT09T304-M5	0,4	■	■	■	■		■				■		■												
	CCMT09T308-M5	0,8	■	■	■	■		■				■	■	■												
	CCMT120408-M5	0,8	■	■	■	■		■				■	■	■												
	CCMT120412-M5	1,2	■	■	■	■								■												
	CCMT160508-M5	0,8			■	■																				
	CCMT160512-M5	1,2			■	■																				
	CCMT160516-M5	1,6			■	■																				

■ Stock standard

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

CDCB



Tolerances:
IC = ±0,025
S = ±0,025
RE = ±0,025

EPSR = 80°
AN = 15°

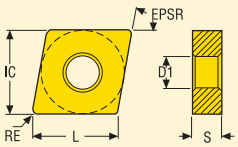
Size	Dimensions in mm IC	L	S	D1
04T0	3,969	4,03	0,966	2,04

CDCB



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
CDCB																										
	CDCB04T0005	0,05																	■				■			
	CDCB04T002	0,20															■		■				■			
	CDCB04T004	0,40															■		■				■			

CNGG



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
1204	12,700	12,9	4,76	5,15

CNGG-MF1



-M1

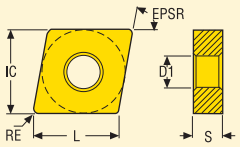


Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
CNGG-MF1																										
	CNGG120401-MF1	0,1													■			■						■		
	CNGG120402-MF1	0,2													■			■	■					■		
	CNGG120404-MF1	0,4													■			■	■					■		
	CNGG120408-MF1	0,8													■			■	■					■		
CNGG-M1																										
	CNGG120402-M1	0,2															■						■			
	CNGG120404-M1	0,4																					■			
	CNGG120408-M1	0,8																					■			

■ Stock standard

Subject to change refer to current price- and stock-list

CNMA, CNMG



EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

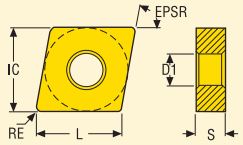
Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMA																										
	CNMA120404	0,4											■													
	CNMA120408	0,8											■	■												
	CNMA120412	1,2											■	■												
	CNMA120416	1,6												■												
	CNMA160608	0,8											■	■												
	CNMA160612	1,2											■	■												
	CNMA160616	1,6											■	■												
	CNMA190612	1,2											■	■												
	CNMA190616	1,6											■	■												
CNMA-MR9																										
	CNMA120408-MR9	0,8											■	■												
	CNMA120412-MR9	1,2											■	■												
	CNMA120416-MR9	1,6											■	■												
	CNMA160612-MR9	1,2											■	■												
	CNMA160616-MR9	1,6											■	■												
CNMG-FF1																										
	CNMG120404-FF1	0,4			■	■																				
CNMG-FF2																										
	CNMG120402-FF2	0,2			■														■							■
	CNMG120404-FF2	0,4			■														■							■
	CNMG120408-FF2	0,8	■	■	■	■																				■
CNMG...W-FF2																										
	CNMG120404W-FF2	0,4			■																					■
	CNMG120408W-FF2	0,8		■	■																					■
CNMG-MF1																										
	CNMG120404-MF1	0,4							■		■	■			■			■	■					■		
	CNMG120408-MF1	0,8							■		■	■			■			■	■					■		

■ Stock standard
Subject to change refer to current price- and stock-list

CNMG



EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

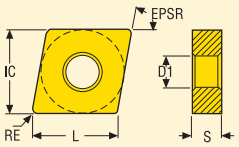
Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
CNMG...W-MF1																										
	CNMG120404W-MF1	0,4																	■							
	CNMG120408W-MF1	0,8																	■							
	CNMG120412W-MF1	1,2																	■							
CNMG-MF2																										
	CNMG120404-MF2	0,4	■		■	■	■							■											■	■
	CNMG120408-MF2	0,8	■	■	■	■	■		■	■			■	■											■	■
	CNMG120412-MF2	1,2	■	■	■		■		■	■			■													
CNMG...W-MF2																										
	CNMG120404W-MF2	0,4		■	■																				■	
	CNMG120408W-MF2	0,8	■	■	■	■								■											■	
	CNMG120412W-MF2	1,2	■																							
CNMG-MF3																										
	CNMG120404-MF3	0,4				■						■														
	CNMG120408-MF3	0,8				■	■	■				■		■												
	CNMG120412-MF3	1,2				■		■																		
CNMG-MF4																										
	CNMG120404-MF4	0,4									■	■			■		■		■							
	CNMG120408-MF4	0,8			■						■	■			■		■		■							
	CNMG120412-MF4	1,2			■						■	■			■		■									
	CNMG120416-MF4	1,6									■	■														
	CNMG160608-MF4	0,8									■	■														
	CNMG160612-MF4	1,2									■	■														
	CNMG190612-MF4	1,2									■	■														
CNMG...W-MF4																										
	CNMG120404W-MF4	0,4										■							■							
	CNMG120408W-MF4	0,8									■	■														
	CNMG120412W-MF4	1,2									■	■														

■ Stock standard
Subject to change refer to current price- and stock-list

CNMG



EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

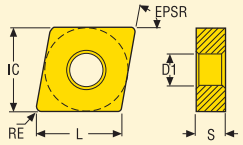
Size	Dimensions in mm IC	L	S	D1
0903	9,53	9,7	3,18	3,81
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMG-MF5																										
	CNMG120408-MF5	0,8	■	■	■				■	■			■		■		■									
	CNMG120412-MF5	1,2	■	■	■				■	■			■		■		■									
	CNMG120416-MF5	1,6		■	■																					
CNMG...W-MF5																										
	CNMG120408W-MF5	0,8		■	■				■	■			■													
CNMG-M1																										
	CNMG120404-M1	0,4													■								■			
	CNMG120408-M1	0,8															■						■			
	CNMG120412-M1	1,2																					■			
	CNMG160608-M1	0,8																					■			
	CNMG160612-M1	1,2																					■			
	CNMG190608-M1	0,8																					■			
	CNMG190612-M1	1,2																					■			
CNMG-M3																										
	CNMG090304-M3	0,4			■																					
	CNMG090308-M3	0,8			■																					
	CNMG120404-M3	0,4			■	■	■	■																		
	CNMG120408-M3	0,8	■	■	■	■	■			■				■												
	CNMG120412-M3	1,2	■	■	■	■	■	■																		
	CNMG120416-M3	1,6		■	■																					
	CNMG160608-M3	0,8		■	■	■																				
	CNMG160612-M3	1,2	■	■	■	■																				
	CNMG160616-M3	1,6		■	■	■																				
	CNMG190608-M3	0,8		■	■	■																				
	CNMG190612-M3	1,2		■	■	■																				
	CNMG190616-M3	1,6		■	■	■																				
CNMG...W-M3																										
	CNMG120408W-M3	0,8	■	■	■									■												
	CNMG120412W-M3	1,2	■	■	■									■												
CNMG-M4																										
	CNMG120408-M4	0,8											■	■												
	CNMG120412-M4	1,2											■	■												

■ Stock standard
Subject to change refer to current price- and stock-list

CNMG

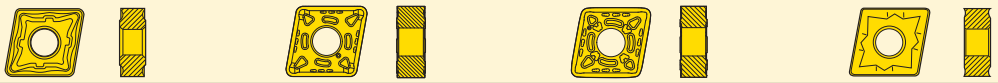


EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92

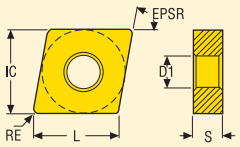
CNMG-M5 **-M6** **W-M6** **-MR3**



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMG-M5																										
	CNMG120404-M5	0,4			■	■								■												
	CNMG120408-M5	0,8	■	■	■	■	■	■	■		■	■	■	■												
	CNMG120412-M5	1,2	■	■	■	■	■	■	■		■	■	■	■												
	CNMG120416-M5	1,6		■	■	■		■																		
	CNMG160608-M5	0,8		■	■	■								■												
	CNMG160612-M5	1,2	■	■	■	■	■	■			■	■		■												
	CNMG160616-M5	1,6	■	■	■	■	■	■				■		■												
	CNMG190608-M5	0,8		■	■	■		■																		
	CNMG190612-M5	1,2		■	■	■	■	■						■												
	CNMG190616-M5	1,6		■	■	■	■	■				■		■												
CNMG-M6																										
	CNMG120408-M6	0,8	■	■	■	■								■												
	CNMG120412-M6	1,2	■	■	■	■								■												
	CNMG120416-M6	1,6		■	■	■																				
	CNMG160608-M6	0,8		■		■								■												
	CNMG160612-M6	1,2	■	■	■	■								■												
	CNMG160616-M6	1,6	■	■	■	■								■												
	CNMG160624-M6	2,4		■	■	■								■												
	CNMG190612-M6	1,2	■	■	■	■																				
	CNMG190616-M6	1,6	■	■	■	■								■												
	CNMG190624-M6	2,4	■	■	■	■								■												
CNMG...W-M6																										
	CNMG120408W-M6	0,8			■	■																				
	CNMG120412W-M6	1,2		■	■	■																				
	CNMG160612W-M6	1,2			■	■																				
	CNMG160616W-M6	1,6		■	■	■																				
CNMG-MR3																										
	CNMG120408-MR3	0,8													■			■	■					■		
	CNMG120412-MR3	1,2													■			■	■					■		

■ Stock standard
Subject to change refer to current price- and stock-list

CNMG

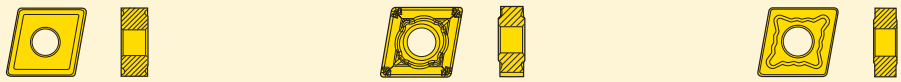


EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92
2509	25,40	25,8	9,52	9,12

CNMG-MR4 **-MR6** **-MR7**

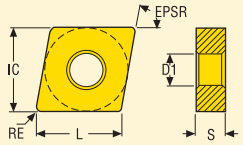


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMG-MR4																										
	CNMG120404-MR4	0,4																					■			
	CNMG120408-MR4	0,8															■						■			
	CNMG120412-MR4	1,2															■						■			
	CNMG120416-MR4	1,6															■						■			
	CNMG160608-MR4	0,8															■						■			
	CNMG160612-MR4	1,2															■						■			
	CNMG190612-MR4	1,2															■						■			
	CNMG190616-MR4	1,6																					■			
	CNMG250924-MR4	2,4				■																				
CNMG-MR6																										
	CNMG120408-MR6	0,8		■	■																					
	CNMG120412-MR6	1,2		■	■																					
CNMG-MR7																										
	CNMG120408-MR7	0,8		■	■	■		■				■	■	■												
	CNMG120412-MR7	1,2	■	■	■	■		■				■	■	■												
	CNMG120416-MR7	1,6		■	■	■		■					■	■												
	CNMG160608-MR7	0,8				■																				
	CNMG160612-MR7	1,2	■	■	■	■		■				■	■	■												
	CNMG160616-MR7	1,6	■	■	■	■		■				■		■												
	CNMG160624-MR7	2,4		■																						
	CNMG190608-MR7	0,8				■		■																		
	CNMG190612-MR7	1,2	■	■	■	■	■	■				■		■												
	CNMG190616-MR7	1,6	■	■	■	■		■				■		■												
	CNMG190624-MR7	2,4		■	■																					
	CNMG250924-MR7	2,4		■	■	■	■																			

■ **Stock standard**

Subject to change refer to current price- and stock-list

CNMM



EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

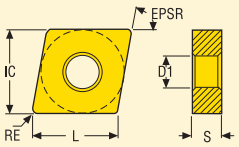
Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMM-MR6																										
	CNMM190616-MR6	1,6		■																						
CNMM-R4																										
	CNMM120408-R4	0,8		■	■	■	■																			
	CNMM120412-R4	1,2	■	■	■	■	■	■																		
	CNMM120416-R4	1,6	■	■	■																					
	CNMM160612-R4	1,2	■	■	■	■	■																			
	CNMM160616-R4	1,6	■	■	■	■																				
	CNMM190612-R4	1,2	■	■	■	■																				
	CNMM190616-R4	1,6	■	■	■	■	■																			
	CNMM190624-R4	2,4	■	■	■	■																				
CNMM...W-R4																										
	CNMM120412W-R4	1,2		■	■																					
CNMM-R5																										
	CNMM160616-R5	1,6	■	■																						
	CNMM190616-R5	1,6	■																							
	CNMM190624-R5	2,4	■																							
CNMM-R6																										
	CNMM120408-R6	0,8			■	■		■																		
	CNMM120412-R6	1,2				■																				
	CNMM160612-R6	1,2				■		■																		
	CNMM190612-R6	1,2				■		■																		
	CNMM190616-R6	1,6						■																		

■ Stock standard
Subject to change refer to current price- and stock-list

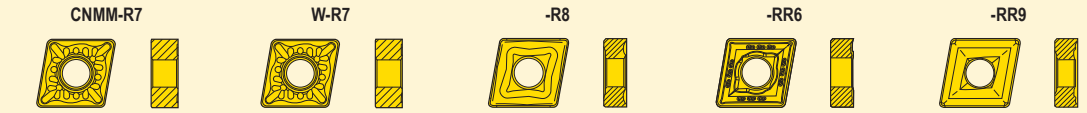
CNMM



EPSR = 80°
AN = 0°

Tolerances:	Size:
IC = ±0,05	09
IC = ±0,08	12
IC = ±0,10	16, 19
IC = ±0,13	25
S = ±0,13	
RE = ±0,1	

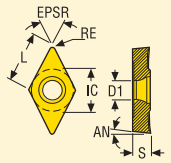
Size	Dimensions in mm IC	L	S	D1
1204	12,70	12,9	4,76	5,15
1606	15,88	16,1	6,35	6,35
1906	19,05	19,3	6,35	7,92



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
CNMM-R7																										
	CNMM160612-R7	1,2				■																				
	CNMM160616-R7	1,6	■		■	■																				
	CNMM160624-R7	2,4	■																							
	CNMM190612-R7	1,2			■	■																				
	CNMM190616-R7	1,6		■	■	■	■																			
	CNMM190624-R7	2,4	■		■	■																				
CNMM...W-R7																										
	CNMM190616W-R7	1,6		■	■	■																				
	CNMM190624W-R7	2,4	■	■	■	■																				
CNMM-R8																										
	CNMM120412-R8	1,2						■																		
	CNMM190616-R8	1,6				■																				
CNMM-RR6																										
	CNMM160612-RR6	1,2			■							■														
	CNMM160616-RR6	1,6		■	■							■														
	CNMM190612-RR6	1,2			■							■														
	CNMM190616-RR6	1,6			■	■						■														
	CNMM190624-RR6	2,4	■		■							■														
CNMM-RR9																										
	CNMM190616-RR9	1,6						■																		

■ Stock standard
Subject to change refer to current price- and stock-list

DCGT

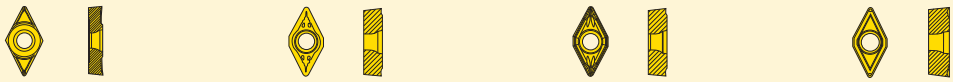


EPSR = 55°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,05
RE (≥0,2) = ±0,1
RE (≤0,1) = ±0,025

Size	Dimensions in mm IC	L	S	D1
0702	6,350	7,8	2,38	2,9
0702-AL	6,350	7,8	2,38	2,8
11T3	9,525	11,6	3,97	4,5
11T3-AL	9,525	11,6	3,97	4,4
1504	12,700	15,5	4,76	5,6

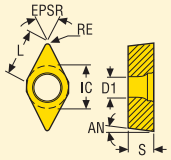
DCGT-AL **-F1** **-MF2** **-M3**



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DCGT-AL																										
	DCGT0702005F-AL	0,05																				■				
	DCGT070201F-AL	0,10																				■				
	DCGT070202F-AL	0,20																				■				
	DCGT070204F-AL	0,40																				■				
	DCGT11T302F-AL	0,20														■						■				
	DCGT11T304F-AL	0,40														■						■				
	DCGT11T308F-AL	0,80																				■				
DCGT-F1																										
	DCGT0702005-F1	0,05																	■							
	DCGT070201-F1	0,10																	■							
	DCGT11T301-F1	0,10																	■							
	DCGT11T304-F1	0,40														■									■	
	DCGT11T308-F1	0,80														■										
DCGT-MF2																										
	DCGT11T304-MF2	0,40																	■							
DCGT-M3																										
	DCGT070202-M3	0,20																			■					
	DCGT070204-M3	0,20																			■					
	DCGT11T302-M3	0,20																			■					
	DCGT11T304-M3	0,40																			■					
	DCGT11T308-M3	0,80																			■					
	DCGT150404-M3	0,40																			■					

■ Stock standard
Subject to change refer to current price- and stock-list

DCMT

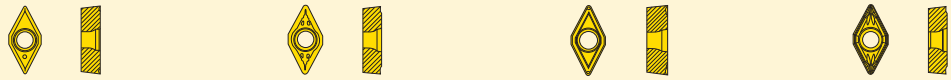


EPSR = 55°
AN = 7°

Tolerances:	Size:
IC = ±0,05	07, 11
IC = ±0,08	15
S = ±0,05	07, 11
S = ±0,13	15
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
0702	6,35	7,8	2,38	2,9
11T3	9,53	11,6	3,97	4,5
1504	12,70	15,5	4,76	5,6

DCMT-FF1 **-F1** **-F2** **-MF2**



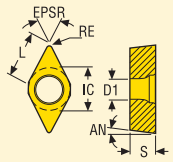
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DCMT-FF1																										
	DCMT11T302-FF1	0,2			■																					
	DCMT11T304-FF1	0,4			■	■																				
	DCMT11T308-FF1	0,8			■	■																				
DCMT-F1																										
	DCMT070202-F1	0,2			■	■									■			■	■							
	DCMT070204-F1	0,4		■	■	■		■			■	■			■			■	■							■
	DCMT070208-F1	0,8		■		■													■							■
	DCMT11T302-F1	0,2			■	■													■						■	■
	DCMT11T304-F1	0,4	■	■	■	■	■	■	■	■	■	■	■	■	■			■	■	■					■	■
	DCMT11T308-F1	0,8	■	■	■	■	■		■			■	■	■	■			■	■						■	■
	DCMT11T312-F1	1,2		■	■																					
DCMT-F2*																										
	DCMT070202-F2	0,2						■				■									■					
	DCMT070204-F2	0,4					■	■			■	■									■					
	DCMT070208-F2	0,8						■			■	■									■					
	DCMT11T302-F2	0,2																			■					
	DCMT11T304-F2	0,4					■	■			■	■			■			■			■					
	DCMT11T308-F2	0,8					■	■			■	■									■					
	DCMT150404-F2	0,4					■														■					
	DCMT150408-F2	0,8					■	■													■					
DCMT-MF2																										
	DCMT070202-MF2	0,2																	■						■	
	DCMT070204-MF2	0,4		■	■	■													■	■					■	
	DCMT070208-MF2	0,8				■																				
	DCMT11T302-MF2	0,2		■	■	■													■	■					■	■
	DCMT11T304-MF2	0,4	■	■	■	■						■							■	■					■	■
	DCMT11T308-MF2	0,8	■	■	■	■						■							■	■					■	■
	DCMT11T312-MF2	1,2			■																					

■ **Stock standard**

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

DCMT

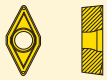


EPSR = 55°
AN = 7°

Tolerances:	Size:
IC = ±0,05	07, 11
IC = ±0,08	15
S = ±0,05	07, 11
S = ±0,13	15
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
0702	6,35	7,8	2,38	2,9
11T3	9,53	11,6	3,97	4,5
1504	12,70	15,5	4,76	5,6

DCMT-M3



-M5



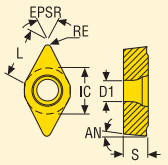
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DCMT-M3*																										
	DCMT070202-M3	0,2		■	■																					
	DCMT070204-M3	0,4		■	■	■																				
	DCMT070208-M3	0,8		■	■	■																				
	DCMT11T302-M3	0,2		■	■																					
	DCMT11T304-M3	0,4	■	■	■	■								■												
	DCMT11T308-M3	0,8		■	■	■								■												
	DCMT150404-M3	0,4		■	■	■																				
	DCMT150408-M3	0,8		■	■	■																				
	DCMT150412-M3	1,2		■	■	■																				
DCMT-M5																										
	DCMT11T308-M5	0,8	■	■	■	■		■				■														
	DCMT11T312-M5	1,2			■	■																				

■ **Stock standard**

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

DCMX



Tolerances:
IC = ±0,05
S = ±0,05
RE = ±0,1

EPSR = 55°
AN = 7°

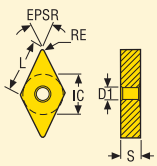
Size	Dimensions in mm IC	L	S	D1
11T3	9,53	11,6	3,97	4,5

DCMX...W-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DCMX...W-F1																										
	DCMX11T304W-F1	0,4		■	■																				■	■
	DCMX11T308W-F1	0,8		■	■																				■	

DNGG, DNGM

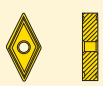


Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 55°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
1504	12,700	15,5	4,76	5,15
1506	12,700	15,5	6,35	5,15

DNGG-M1



DNGM-MF1

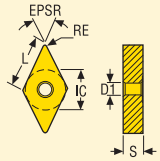


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DNGG-M1																										
	DNGG150402-M1	0,2																					■			
	DNGG150404-M1	0,4																					■			
	DNGG150408-M1	0,8													■								■			
DNGM-MF1																										
	DNGM150408-MF1	0,8													■			■								
	DNGM150608-MF1	0,8													■				■							

■ Stock standard

Subject to change refer to current price- and stock-list

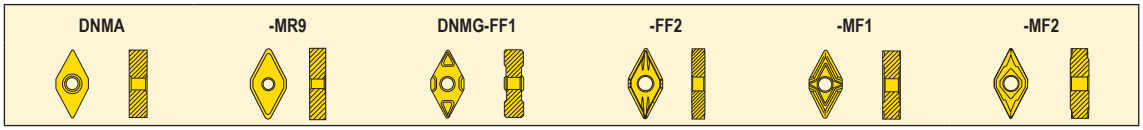
DNMA, DNMG



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,08
S = ±0,13
RE = ±0,1

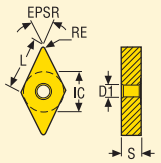
Size	Dimensions in mm IC	L	S	D1
1504	12,70	15,5	4,76	5,15
1506	12,70	15,5	6,35	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DNMA																										
	DNMA150408	0,8											■													
	DNMA150608	0,8											■													
	DNMA150612	1,2											■													
DNMA-MR9																										
	DNMA150412-MR9	1,2											■	■												
	DNMA150612-MR9	1,2											■	■												
DNMG-FF1																										
	DNMG150604-FF1	0,4																								■
DNMG-FF2																										
	DNMG150404-FF2	0,4		■	■																					■
	DNMG150408-FF2	0,8	■	■	■	■																				■
	DNMG150604-FF2	0,4		■	■														■							■
	DNMG150608-FF2	0,8	■	■	■																					■
DNMG-MF1																										
	DNMG150404-MF1	0,4							■						■			■						■		
	DNMG150408-MF1	0,8							■						■			■						■		
	DNMG150604-MF1	0,4							■		■	■			■			■	■					■		
	DNMG150608-MF1	0,8							■		■	■			■			■	■					■		
DNMG-MF2																										
	DNMG150404-MF2	0,4	■	■	■	■																				
	DNMG150408-MF2	0,8	■	■	■	■			■																	
	DNMG150412-MF2	1,2			■																					
	DNMG150604-MF2	0,4		■	■	■	■																		■	■
	DNMG150608-MF2	0,8	■	■	■	■	■		■	■			■	■											■	■
	DNMG150612-MF2	1,2	■	■	■		■		■	■				■												
	DNMG150616-MF2	1,6		■		■																				

■ Stock standard
Subject to change refer to current price- and stock-list

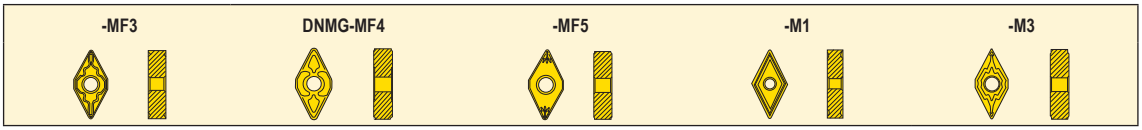
DNMG



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,08
S = ±0,13
RE = ±0,1

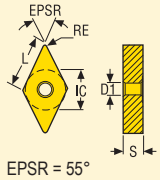
Size	Dimensions in mm IC	L	S	D1
1504	12,70	15,5	4,76	5,15
1506	12,70	15,5	6,35	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DNMG-MF3																										
	DNMG150404-MF3	0,4				■																				
	DNMG150408-MF3	0,8				■	■																			
	DNMG150604-MF3	0,4				■																				
	DNMG150608-MF3	0,8				■																				
DNMG-MF4																										
	DNMG150404-MF4	0,4										■														
	DNMG150408-MF4	0,8									■	■			■		■									
	DNMG150412-MF4	1,2													■		■									
	DNMG150604-MF4	0,4									■	■														
	DNMG150608-MF4	0,8			■						■	■			■		■									
	DNMG150612-MF4	1,2									■	■			■		■									
DNMG-MF5																										
	DNMG150408-MF5	0,8		■	■				■	■			■		■		■									
	DNMG150412-MF5	1,2		■	■										■		■									
	DNMG150608-MF5	0,8	■	■	■				■	■			■		■		■									
	DNMG150612-MF5	1,2	■	■	■				■	■			■		■		■									
	DNMG150616-MF5	1,6			■																					
DNMG-M1																										
	DNMG150404-M1	0,4																					■			
	DNMG150408-M1	0,8																					■			
	DNMG150412-M1	1,2																					■			
DNMG-M3																										
	DNMG150404-M3	0,4		■	■	■								■												
	DNMG150408-M3	0,8	■	■	■	■	■							■												
	DNMG150412-M3	1,2	■	■	■	■								■												
	DNMG150604-M3	0,4		■	■	■	■	■						■												
	DNMG150608-M3	0,8	■	■	■	■	■	■						■												
	DNMG150612-M3	1,2	■	■	■	■		■						■												
	DNMG150616-M3	1,6		■	■	■																				

■ Stock standard
Subject to change refer to current price- and stock-list

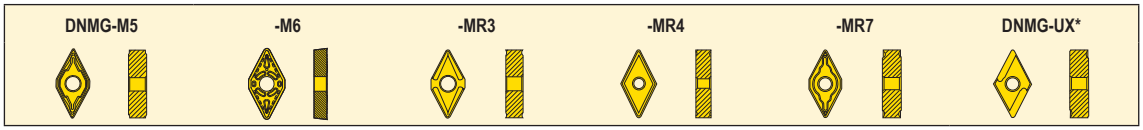
DNMG



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,08
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1504	12,70	15,5	4,76	5,15
1506	12,70	15,5	6,35	5,15
1906	15,88	19,4	6,35	6,35



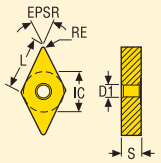
Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
DNMG-M5																										
	DNMG150404-M5	0,4				■																				
	DNMG150408-M5	0,8	■	■	■	■					■			■												
	DNMG150412-M5	1,2		■	■	■					■															
	DNMG150604-M5	0,4			■	■																				
	DNMG150608-M5	0,8	■	■	■	■	■				■	■	■	■												
	DNMG150612-M5	1,2	■	■	■	■	■				■		■	■												
	DNMG150616-M5	1,6	■	■	■	■																				
	DNMG190608-M5	0,8				■	■																			
	DNMG190612-M5	1,2				■																				
DNMG-M6																										
	DNMG150408-M6	0,8		■	■	■																				
	DNMG150412-M6	1,2		■	■	■																				
	DNMG150416-M6	1,6			■	■																				
	DNMG150608-M6	0,8		■	■	■								■												
	DNMG150612-M6	1,2	■	■	■	■								■												
	DNMG150616-M6	1,6		■	■	■																				
DNMG-MR3																										
	DNMG150408-MR3	0,8													■			■	■					■		
	DNMG150412-MR3	1,2													■			■								
	DNMG150608-MR3	0,8													■			■	■					■		
	DNMG150612-MR3	1,2																	■					■		
DNMG-MR4																										
	DNMG150408-MR4	0,8															■						■			
	DNMG150412-MR4	1,2																					■			
DNMG-MR7																										
	DNMG150608-MR7	0,8		■				■																		
	DNMG150612-MR7	1,2	■	■		■								■												
DNMG-UX																										
	DNMG150604R-UX	0,4		■	■												■									
	DNMG150604L-UX	0,4		■	■												■									
	DNMG150608L-UX	0,8		■	■												■									
	DNMG150608R-UX	0,8		■	■												■									

■ **Stock standard**

* Right-hand version shown

Subject to change refer to current price- and stock-list

DNMM



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,08
S = ±0,13
RE = ±0,1

Size	Dimensions in mm			
	IC	L	S	D1
1506	12,70	15,5	6,35	5,15

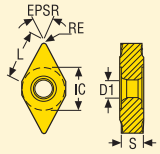
DNMM-R4 -R6



Inserts	Designation	RE	Grades																							
			Coated																		Uncoated				Cermet	
			TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
DNMM-R4																										
	DNMM150608-R4	0,8		■	■	■																				
	DNMM150612-R4	1,2	■	■	■	■																				
	DNMM150616-R4	1,6		■	■																					
DNMM-R6																										
	DNMM150608-R6	0,8						■																		
	DNMM150616-R6	1,6						■																		

■ Stock standard
Subject to change refer to current price- and stock-list

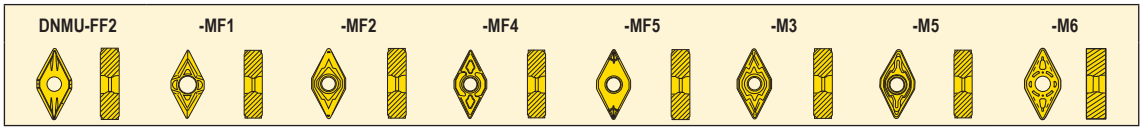
DNMU



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

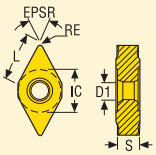
Size	Dimensions in mm IC	L	S	D1
1104	9,53	11,6	4,76	3,81



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DNMU-FF2																										
	DNMU110404-FF2	0,4		■	■	■													■							■
	DNMU110408-FF2	0,8	■	■	■	■													■							■
DNMU-MF1																										
	DNMU110404-MF1	0,4									■	■							■							
	DNMU110408-MF1	0,8									■	■														
DNMU-MF2																										
	DNMU110404-MF2	0,4	■	■	■	■	■		■				■													■
	DNMU110408-MF2	0,8	■	■	■	■	■		■				■	■												■
	DNMU110412-MF2	1,2			■						■															
DNMU-MF4																										
	DNMU110404-MF4	0,4									■	■														
	DNMU110408-MF4	0,8									■	■														
DNMU-MF5																										
	DNMU110404-MF5	0,4			■																					
	DNMU110408-MF5	0,8			■																					
	DNMU110412-MF5	1,2			■																					
DNMU-M3																										
	DNMU110402-M3	0,2		■	■	■																				
	DNMU110404-M3	0,4		■	■	■	■		■	■				■												
	DNMU110408-M3	0,8	■	■	■	■	■		■	■				■												
	DNMU110412-M3	1,2	■	■										■												
DNMU-M5																										
	DNMU110408-M5	0,8		■										■												
	DNMU110412-M5	1,2		■																						
DNMU-M6																										
	DNMU110408-M6	0,8		■	■	■								■												
	DNMU110412-M6	1,2		■	■	■								■												

■ Stock standard
Subject to change refer to current price- and stock-list

DNMX



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
11
15

Size	Dimensions in mm IC	L	S	D1
1104	9,53	11,6	4,76	3,81
1504	12,70	15,5	4,76	5,15
1506	12,70	15,5	6,35	5,15

DNMX...W-MF2



W-MF4



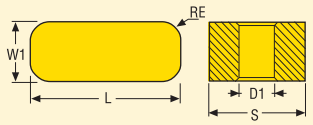
W-M3



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
DNMX...W-MF2																										
	DNMX110404W-MF2	0,4		■	■																					
	DNMX110408W-MF2	0,8		■	■	■																				■
DNMX...W-MF4																										
	DNMX150408W-MF4	0,8									■	■														
	DNMX150608W-MF4	0,8									■	■														
DNMX...W-M3																										
	DNMX150408W-M3	0,8		■																						
	DNMX150412W-M3	1,2		■																						
	DNMX150608W-M3	0,8	■	■																						
	DNMX150612W-M3	1,2	■	■																						

■ **Stock standard**
Subject to change refer to current price- and stock-list

LNMX



Tolerances:
W1 = ±0,13
L = ±0,15
S = ±0,15
RE = ±0,1

Size	Dimensions in mm W1	L	S	D1
1919	10,00	19,05	19,05	6,35
3019	12,00	30,00	19,05	6,35

LNMX-MF **-MR** **-R2** **-RR94** **-RR97**

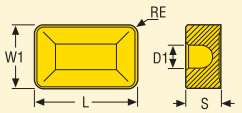


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
LNMX-MF																										
	LNMX191940-MF	4,0		■																						
	LNMX301940-MF	4,0		■	■																					
LNMX-MR																										
	LNMX191940-MR	4,0		■																						
	LNMX301940-MR	4,0		■	■																					
LNMX-R2																										
	LNMX191940-R2	4,0	■	■			■							■												
	LNMX301940-R2	4,0	■	■			■							■												
LNMX-RR94																										
	LNMX191940-RR94	4,0	■	■			■							■												
	LNMX301940-RR94	4,0	■	■			■																			
LNMX-RR97																										
	LNMX301940-RR97	4,0		■			■																			

■ Stock standard

Subject to change refer to current price- and stock-list

LNMX

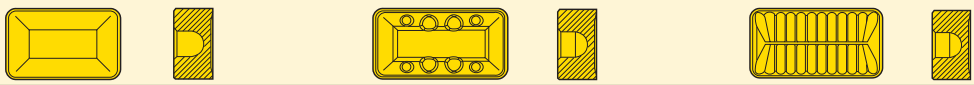


Tolerances:
W1 = ±0,13
L = ±0,15
S = ±0,15
RE = ±0,1

EPSR = 90°
AN = 0°

Size	Dimensions in mm W1	L	S	D1
4014	25,20	40,00	14,00	9,30
5014	25,40	50,80	14,00	9,30
5014..-1	25,40	50,80	14,00	6,35

LNMX-RR93 **-RR96** **-RR97**

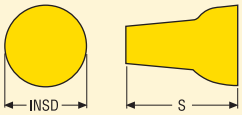


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
LNMX-RR93																										
	LNMX401432-RR93	3,2					■																			
LNMX-RR96																										
	LNMX401432-RR96	3,2		■	■		■																			
	LNMX501432-RR96	3,2		■	■		■																			
LNMX-RR97																										
	LNMX501432-1-RR97	3,2					■	■																		

■ **Stock standard**

Subject to change refer to current price- and stock-list

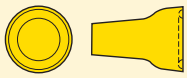
RCGS



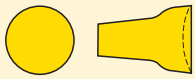
Tolerances:
INSD = ±0,025
S = ±0,25

Size	Dimensions in mm INSD	S
4.76	4,760	6,35
6.35	6,350	9,13
9.52	9,525	13,10
12.7	12,700	16,67

RCGS-46



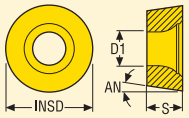
-PS



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
RCGS-46																										
	RCGS4.76-46	–													■		■	■					■	■		
	RCGS6.35-46	–													■		■	■					■	■		
	RCGS9.525-46	–													■		■	■					■	■		
	RCGS12.7-46	–													■		■	■					■	■		
RCGS-PS																										
	RCGS4.76-PS	–													■			■					■			
	RCGS6.35-PS	–													■			■					■	■		
	RCGS9.525-PS	–													■			■					■	■		
	RCGS12.7-PS	–																					■			

■ Stock standard
Subject to change refer to current price- and stock-list

RCMT



AN = 7°

Tolerances:	Size:
INSD = ±0,05	06, 08, 10
INSD = ±0,08	12
INSD = ±0,10	16
S = ±0,05	06, 08, 10
S = ±0,13	12, 16

Size	Dimensions in mm INSD	S	D1
0602	6,00	2,38	2,9
0803	8,00	3,18	3,5
10T3	10,00	3,97	4,5
1204	12,00	4,76	4,5
1606	16,00	6,35	5,6
2006	20,00	6,35	6,6



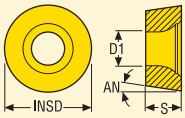
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
RCMT-F1																										
	RCMT0602M0-F1	–			■	■													■							
	RCMT0803M0-F1	–			■	■			■										■							
	RCMT10T3M0-F1	–			■	■			■										■							
	RCMT1204M0-F1	–		■	■	■			■					■					■							
	RCMT1606M0-F1	–	■	■	■	■																				
RCMT-F2*																										
	RCMT0602M0-F2	–					■								■						■					
	RCMT0803M0-F2	–					■								■			■			■					
	RCMT10T3M0-F2	–					■	■							■						■					
	RCMT1204M0-F2	–					■	■							■						■					
	RCMT1606M0-F2	–						■													■					
RCMT-M3*																										
	RCMT0602M0-M3	–			■	■																				
	RCMT0803M0-M3	–		■	■	■								■												
	RCMT10T3M0-M3	–		■	■	■								■												
	RCMT1204M0-M3	–		■	■	■			■				■	■												
	RCMT1606M0-M3	–	■	■	■	■																				
RCMT-R3																										
	RCMT2006M0-R3	–			■										■	■										
RCMT-RR94																										
	RCMT1204M0-RR94	–				■																				

■ Stock standard

Subject to change refer to current price- and stock-list

* Chipbreaker -M3 replacing -F2

RCMX

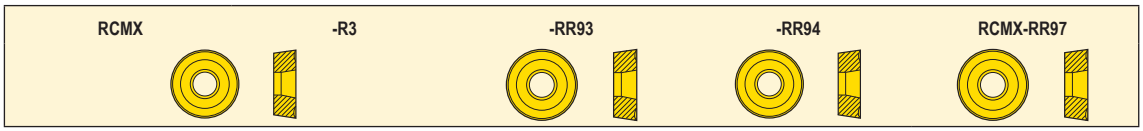


AN = 7°

Tolerances:
INSD = ±0,08
INSD = ±0,10
S = ±0,05
S = ±0,13

Size:
10, 12, 16, 20
25, 32
10
12, 16, 20, 25, 32

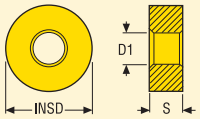
Size	Dimensions in mm INSD	S	D1
1003	10,00	3,18	3,6
1204	12,00	4,76	4,2
1606	16,00	6,35	5,2
2006	20,00	6,35	6,5
2507	25,00	7,94	7,2
3209	32,00	9,52	9,5



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
RCMX	RCMX200600	–					■																			
	RCMX250700	–					■																			
	RCMX320900	–					■																			
RCMX-R3	RCMX200600-R3	–	■	■	■																					
	RCMX250700-R3	–	■	■	■																					
	RCMX320900-R3	–			■																					
RCMX-RR93	RCMX200600-RR93	–	■	■	■																					
	RCMX250700-RR93	–	■	■	■																					
	RCMX320900-RR93	–	■	■	■																					
RCMX-RR94	RCMX100300-RR94	–				■																				
	RCMX120400-RR94	–			■	■																				
	RCMX160600-RR94	–		■	■	■																				
	RCMX200600-RR94	–	■	■	■	■																				
	RCMX250700-RR94	–	■	■	■	■				■				■												
	RCMX320900-RR94	–	■	■	■	■				■				■												
RCMX-RR97	RCMX200600-RR97	–	■		■								■													
	RCMX250700-RR97	–	■		■								■													
	RCMX320900-RR97	–	■		■																					

■ Stock standard
Subject to change refer to current price- and stock-list

RNMA, RNMG



AN = 0°

Tolerances:	Size:
INSD = ±0,08	12
INSD = ±0,10	19
INSD = ±0,13	25
S = ±0,13	

Size	Dimensions in mm INSD	S	D1
1204	12,70	4,76	5,15
1906	19,05	6,35	7,92
2509	25,40	9,52	9,12

RNMA



RNMG-M3



-MR4

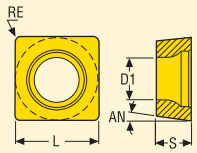


Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
RNMA																										
	RNMA120400	–												■												
RNMG-M3																										
	RNMG120400-M3	–		■	■	■																				
RNMG-MR4																										
	RNMG120400-MR4	–															■						■			
	RNMG190600-MR4	–															■						■			
	RNMG250900-MR4	–															■						■			

■ Stock standard

Subject to change refer to current price- and stock-list

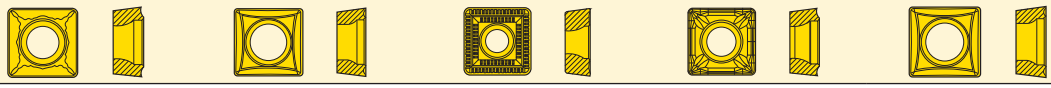
SCMT



EPSR = 90°
AN = 7°

Tolerances:	Size:
L = ±0,05	06, 07, 09
L = ±0,08	12
L = ±0,13	15, 25
L = ±0,15	38
S = ±0,05	06, 07, 09
S = ±0,13	12, 15, 25
S = ±0,15	38
RE = ±0,1	

Size	Dimensions in mm L	S	D1
0602	6,35	2,38	2,9
0703	7,94	3,18	3,5
09T3	9,52	3,97	4,5
1204	12,70	4,76	5,6
1505	15,88	5,56	8,7
2509	25,40	9,52	8,7



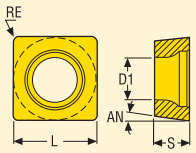
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
SCMT-F1																										
	SCMT09T304-F1	0,4			■	■													■							
	SCMT09T308-F1	0,8			■	■	■							■					■							■
	SCMT09T312-F1	1,2				■																				
	SCMT120408-F1	0,8			■	■													■							
	SCMT120412-F1	1,2		■			■												■							
SCMT-F2*																										
	SCMT060204-F2	0,4					■	■																		
	SCMT070308-F2	0,8						■																		
	SCMT09T304-F2	0,4						■			■	■														
	SCMT09T308-F2	0,8					■	■			■	■														
	SCMT120408-F2	0,8					■	■			■	■														
	SCMT150512-F2	1,2						■																		
	SCMT250924T-F2	2,4					■																			
SCMT-MF2																										
	SCMT09T304-MF2	0,4			■																					
	SCMT09T308-MF2	0,8			■	■													■							■
	SCMT09T312-MF2	1,2				■																				
	SCMT120408-MF2	0,8			■	■																				
SCMT-M3*																										
	SCMT060204-M3	0,4			■	■																				
	SCMT070308-M3	0,8			■	■																				
	SCMT09T304-M3	0,4			■	■																				
	SCMT09T308-M3	0,8		■	■	■							■	■												
	SCMT120408-M3	0,8		■	■	■							■	■												
	SCMT120412-M3	1,2												■												

■ **Stock standard**

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

SCMT

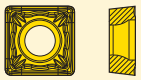


EPSR = 90°
AN = 7°

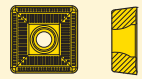
Tolerances:	Size:
L = ±0,05	06, 07, 09
L = ±0,08	12
L = ±0,13	15, 25
L = ±0,15	38
S = ±0,05	06, 07, 09
S = ±0,13	12, 15, 25
S = ±0,15	38
RE = ±0,1	

Size	Dimensions in mm L	S	D1
09T3	9,52	3,97	4,5
1204	12,70	4,76	5,6
2509	25,40	9,52	8,7
3809	38,10	9,40	8,7

SCMT-M5 **-RR96** **-RR97**





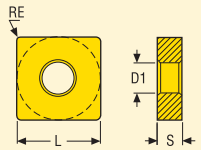


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
SCMT-M5																										
	SCMT09T308-M5	0,8		■	■	■																				
	SCMT09T312-M5	1,2		■		■																				
	SCMT120408-M5	0,8	■	■	■	■		■						■												
SCMT-RR96																										
	SCMT250924-RR96	2,4					■																			
	SCMT380932-RR96	3,2					■																			
SCMT-RR97																										
	SCMT250924-RR97	2,4	■		■																					
	SCMT380932-RR97	3,2	■				■																			

■ **Stock standard**

Subject to change refer to current price- and stock-list

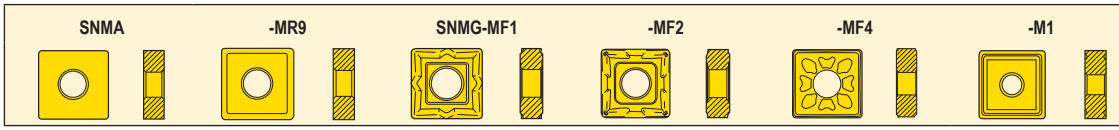
SNMA, SNMG



EPSR = 90°
AN = 0°

Tolerances:	Size:
L = ±0,05	09
L = ±0,08	12
L = ±0,10	15, 19
L = ±0,13	25
S = ±0,13	
RE = ±0,1	

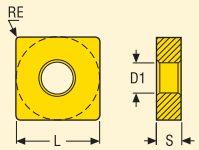
Size	Dimensions in mm L	S	D1
0903	9,53	3,18	3,81
1204	12,70	4,76	5,15
1506	15,88	6,35	6,35
1906	19,05	6,35	7,92



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
SNMA																										
	SNMA090308	0,8											■													
	SNMA120408	0,8											■	■												
	SNMA120412	1,2											■													
	SNMA120416	1,6											■													
	SNMA150612	1,2											■	■												
	SNMA190612	1,2											■													
	SNMA190616	1,6											■	■												
SNMA-MR9																										
	SNMA120408-MR9	0,8											■	■												
	SNMA120412-MR9	1,2											■	■												
	SNMA120416-MR9	1,6											■	■												
	SNMA150616-MR9	1,6											■	■												
SNMG-MF1																										
	SNMG120408-MF1	0,8									■	■			■			■	■					■		
	SNMG120412-MF1	1,2													■			■	■					■		
SNMG-MF2																										
	SNMG090304-MF2	0,4			■																					
	SNMG090308-MF2	0,8			■																					
	SNMG120408-MF2	0,8		■	■	■	■		■																	■
	SNMG120412-MF2	1,2		■	■				■																	■
SNMG-MF4																										
	SNMG120408-MF4	0,8									■	■														
	SNMG120412-MF4	1,2									■	■														
SNMG-M1																										
	SNMG120408-M1	0,8																					■			
	SNMG150612-M1	1,2																					■			
	SNMG190616-M1	1,6																					■			

■ Stock standard
Subject to change refer to current price- and stock-list

SNMG



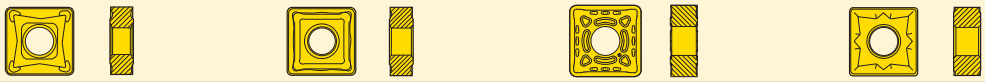
EPSR = 90°
AN = 0°

Tolerances:
L = ±0,05
L = ±0,08
L = ±0,10
L = ±0,13
S = ±0,13
RE = ±0,1

Size:
09
12
15, 19
25

Size	Dimensions in mm L	S	D1
0903	9,53	3,18	3,81
1204	12,70	4,76	5,15
1506	15,88	6,35	6,35
1906	19,05	6,35	7,92

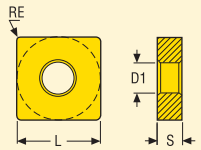
SNMG-M3 **-M5** **-M6** **-MR3**



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
SNMG-M3																										
	SNMG120404-M3	0,4			■	■																				
	SNMG120408-M3	0,8		■	■	■	■	■						■												
	SNMG120412-M3	1,2		■	■	■	■	■																		
	SNMG120416-M3	1,6		■	■	■																				
	SNMG150612-M3	1,2		■	■	■																				
	SNMG190612-M3	1,2			■	■																				
	SNMG190616-M3	1,6			■																					
SNMG-M5																										
	SNMG090308-M5	0,8			■	■																				
	SNMG120408-M5	0,8			■	■	■	■	■		■	■	■	■												
	SNMG120412-M5	1,2		■	■	■		■	■		■	■		■												
	SNMG120416-M5	1,6		■	■	■																				
	SNMG150608-M5	0,8			■																					
	SNMG150612-M5	1,2		■	■	■		■				■														
	SNMG150616-M5	1,6	■	■	■	■		■																		
	SNMG190612-M5	1,2			■	■		■			■	■		■												
	SNMG190616-M5	1,6	■	■	■	■		■				■														
SNMG-M6																										
	SNMG120408-M6	0,8		■	■	■																				
	SNMG120412-M6	1,2		■	■	■																				
	SNMG120416-M6	1,6		■		■																				
	SNMG150612-M6	1,2		■	■	■																				
	SNMG150616-M6	1,6	■	■	■	■																				
	SNMG190612-M6	1,2	■	■	■	■																				
	SNMG190616-M6	1,6	■	■	■	■								■												
	SNMG190624-M6	2,4	■	■	■	■								■												
SNMG-MR3																										
	SNMG120408-MR3	0,8													■			■	■					■		
	SNMG120412-MR3	1,2													■			■	■							
	SNMG190616-MR3	1,6																■	■					■		

■ Stock standard
Subject to change refer to current price- and stock-list

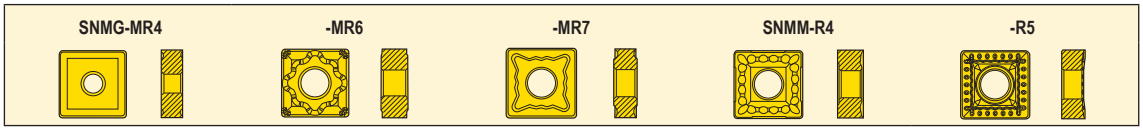
SNMG, SNMM



EPSR = 90°
AN = 0°

Tolerances:	Size:
L = ±0,05	09
L = ±0,08	12
L = ±0,10	15, 19
L = ±0,13	25
S = ±0,13	
RE = ±0,1	

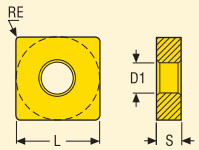
Size	Dimensions in mm L	S	D1
1204	12,70	4,76	5,15
1506	15,88	6,35	6,35
1906	19,05	6,35	7,92
2509	25,40	9,52	9,12



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
SNMG-MR4																										
	SNMG120408-MR4	0,8															■						■			
	SNMG120412-MR4	1,2															■						■			
	SNMG120416-MR4	1,6															■						■			
	SNMG150612-MR4	1,2															■						■			
	SNMG190612-MR4	1,2															■						■			
	SNMG190616-MR4	1,6																					■			
	SNMG250924-MR4	2,4																					■			
SNMG-MR6																										
	SNMG150612-MR6	1,2			■																					
SNMG-MR7																										
	SNMG120408-MR7	0,8		■	■	■		■				■														
	SNMG120412-MR7	1,2			■	■		■				■		■												
	SNMG120416-MR7	1,6			■																					
	SNMG150612-MR7	1,2			■	■		■						■												
	SNMG150616-MR7	1,6			■			■						■												
	SNMG190612-MR7	1,2			■	■		■				■														
	SNMG190616-MR7	1,6	■	■	■	■		■				■														
	SNMG190624-MR7	2,4			■																					
	SNMG250924-MR7	2,4	■		■	■	■																			
SNMM-R4																										
	SNMM120408-R4	0,8				■																				
	SNMM120412-R4	1,2			■	■																				
	SNMM150612-R4	1,2			■	■																				
	SNMM150616-R4	1,6	■		■	■																				
	SNMM190612-R4	1,2			■	■																				
	SNMM190616-R4	1,6	■	■	■	■	■	■																		
	SNMM190624-R4	2,4	■		■	■																				
SNMM-R5																										
	SNMM190616-R5	1,6			■																					
	SNMM190624-R5	2,4			■																					

■ Stock standard
Subject to change refer to current price- and stock-list

SNMM



EPSR = 90°
AN = 0°

Tolerances:
L = ±0,05
L = ±0,08
L = ±0,10
L = ±0,13
S = ±0,13
RE = ±0,1

Size:
09
12
15, 19
25

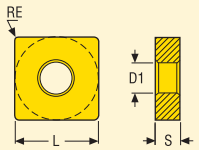
Size	Dimensions in mm L	S	D1
1204	12,70	4,76	5,15
1506	15,88	6,35	6,35
1906	19,05	6,35	7,92
2507	25,40	7,94	9,12
2509	25,40	9,52	9,12



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
SNMM-R6																										
	SNMM120408-R6	0,8						■																		
	SNMM190612-R6	1,2				■		■																		
	SNMM190616-R6	1,6				■																				
SNMM-R7																										
	SNMM150624-R7	2,4			■																					
	SNMM190612-R7	1,2			■																					
	SNMM190616-R7	1,6			■	■	■																			
	SNMM190624-R7	2,4	■		■	■	■																			
	SNMM250724-R7	2,4	■		■	■	■																			
	SNMM250924-R7	2,4	■		■	■	■																			
SNMM...W-R7																										
	SNMM190616W-R7	1,6			■																					
	SNMM190624W-R7	2,4			■																					
SNMM-R8																										
	SNMM120412-R8	1,2						■																		
	SNMM190616-R8	1,6				■		■																		
SNMM-R56																										
	SNMM190616-R56	1,6				■																				
	SNMM250724-R56	2,4			■	■																				
SNMM-R57																										
	SNMM190616-R57	1,6		■	■																					
	SNMM190624-R57	2,4	■			■																				
	SNMM250724-R57	2,4			■	■																				

■ Stock standard
Subject to change refer to current price- and stock-list

SNMM

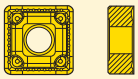


EPSR = 90°
AN = 0°

Tolerances:	Size:
L = ±0,05	09
L = ±0,08	12
L = ±0,10	15, 19
L = ±0,13	25
S = ±0,13	
RE = ±0,1	

Size	Dimensions in mm L	S	D1
1204	12,70	4,76	5,15
1906	19,05	6,35	7,92
2507	25,40	7,94	9,12
2509	25,40	9,52	9,12

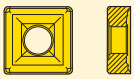
-R68



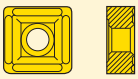
-RR6



-RR9



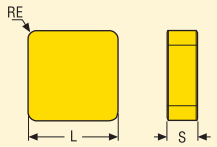
-57



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
SNMM-R68																										
	SNMM250924-R68	2,4	■		■																					
SNMM-RR6																										
	SNMM120408-RR6	0,8										■														
	SNMM190616-RR6	1,6			■	■						■														
	SNMM190624-RR6	2,4			■																					
	SNMM250724-RR6	2,4			■																					
SNMM-RR9																										
	SNMM190616-RR9	1,6						■																		
	SNMM250724-RR9	2,4				■		■																		
SNMM-57																										
	SNMM190616-57	1,6					■																			
	SNMM250724-57	2,4					■																			

■ Stock standard
Subject to change refer to current price- and stock-list

SNUN



Tolerances:
L = ±0,13
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 0°

Size	Dimensions in mm L	S
1204	12,70	4,76

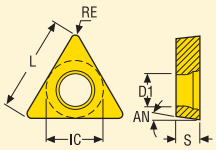
SNUN



Inserts	Designation	RE	Grades																							
			Coated																		Uncoated				Cermet	
			TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
SNUN																										
	SNUN120412	1,2												■												

■ Stock standard
Subject to change refer to current price- and stock-list

TCGT



Tolerances:
IC = ±0,025
S = ±0,05
RE (≥0,2) = ±0,1
RE (≤0,1) = ±0,025

EPSR = 60°
AN = 7°

Size	Dimensions in mm IC	L	S	D1
0902	5,560	9,63	2,38	2,5
1102	6,350	11,00	2,38	2,8
16T3	9,525	16,50	3,97	4,4

TCGT-AL



-F1



-UX*



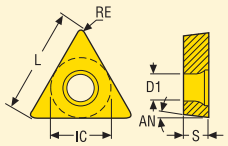
Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
TCGT-AL																										
	TCGT090202F-AL	0,20																				■				
	TCGT090204F-AL	0,40																				■				
	TCGT110202F-AL	0,20																				■				
	TCGT110204F-AL	0,40																				■				
	TCGT110208F-AL	0,80																				■				
	TCGT16T304F-AL	0,40																				■				
	TCGT16T308F-AL	0,80																				■				
TCGT-F1																										
	TCGT110201-F1	0,10																	■							
TCGT-UX																										
	TCGT110202R-UX	0,20																	■							
	TCGT110202L-UX	0,20																	■							
	TCGT110204R-UX	0,40																	■							
	TCGT110204L-UX	0,40																	■							

■ **Stock standard**

* Right-hand version shown

Subject to change refer to current price- and stock-list

TCGX



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 7°

Size	Dimensions in mm IC	L	S	D1
16T3	9,525	16,5	3,97	4,5

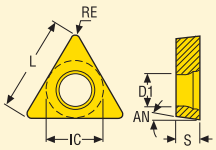
TCGX-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TCGX-F1																										
	TCGX16T302WR-F1	0,2			■														■							
	TCGX16T302WL-F1	0,2			■														■							

■ Stock standard
Subject to change refer to current price- and stock-list

TCMT



EPSR = 60°
AN = 7°

Tolerances:	Size:
IC = ±0,05	11, 16
IC = ±0,08	22
S = ±0,05	11, 16
S = ±0,13	22
RE = ±0,1	

Size	Dimensions in mm IC	L	S	D1
1102	6,35	11,0	2,38	2,9
16T3	9,53	16,5	3,97	4,5
2204	12,70	22,0	4,76	5,6



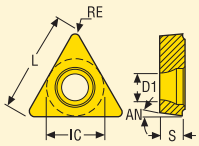
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TCMT-F1																										
	TCMT110202-F1	0,2				■		■				■							■							
	TCMT110204-F1	0,4		■	■	■		■			■	■							■							
	TCMT110208-F1	0,8		■	■	■	■	■			■	■							■							
	TCMT16T302-F1	0,2				■						■														
	TCMT16T304-F1	0,4		■	■	■		■			■	■			■			■								■
	TCMT16T308-F1	0,8		■	■	■	■	■			■	■			■				■							
	TCMT16T312-F1	1,2		■		■						■														
TCMT-F2*																										
	TCMT16T304-F2	0,4					■														■					
	TCMT16T308-F2	0,8					■	■			■	■									■					
	TCMT220404-F2	0,4																			■					
	TCMT220408-F2	0,8					■																			
TCMT-MF2																										
	TCMT110204-MF2	0,4			■	■													■							
	TCMT110208-MF2	0,8			■	■													■							
	TCMT16T304-MF2	0,4			■	■													■							
	TCMT16T308-MF2	0,8			■	■													■							
TCMT-M3*																										
	TCMT16T304-M3	0,4		■	■	■								■												
	TCMT16T308-M3	0,8		■	■	■							■	■												
	TCMT220408-M3	0,8		■	■	■																				
TCMT-M5																										
	TCMT16T308-M5	0,8	■		■	■		■				■		■												
	TCMT16T312-M5	1,2			■	■								■												

■ **Stock standard**

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

TCMX



Tolerances:
IC = ±0,05
S = ±0,05
RE = ±0,1

EPSR = 60°
AN = 7°

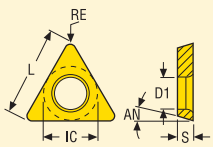
Size	Dimensions in mm IC	L	S	D1
16T3	9,53	16,5	3,97	4,5

TCMX...W-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TCMX...W-F1																										
	TCMX16T308W-F1	0,8		■	■																					

TDAB



Tolerances:
IC = ±0,025
S = ±0,025
RE = ±0,025

EPSR = 60°
AN = 15°

Size	Dimensions in mm IC	L	S	D1
06T0	4,064	6,8	1,194	2,36

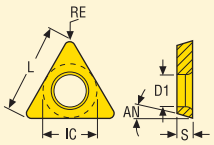
TDAB



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TDAB																										
	TDAB06T0005	0,05																	■				■			
	TDAB06T002	0,20																	■				■			
	TDAB06T004	0,40																	■				■			

■ Stock standard
Subject to change refer to current price- and stock-list

TDCH



Tolerances:
IC = ±0,025
S = ±0,025
RE = ±0,025

EPSR = 60°
AN = 15°

Size	Dimensions in mm IC	L	S	D1
06T0	4,064	6,8	1,194	2,36

TDCH*

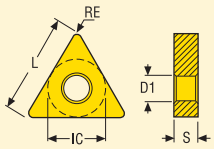


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TDCH																										
	TDCH06T002R	0,20																	■							
	TDCH06T002L	0,20																	■							
	TDCH06T004R	0,40																	■							
	TDCH06T004L	0,40																	■							

■ Stock standard
Subject to change refer to current price- and stock-list

* Right-hand version shown

TNMA, TNMG

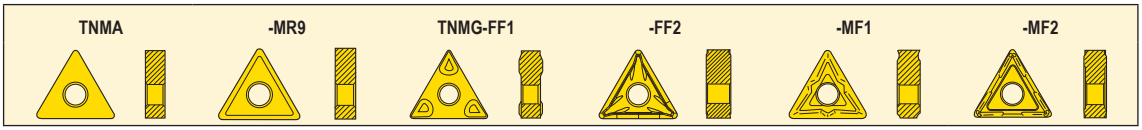


EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
IC = ±0,10
S = ±0,13
RE = ±0,1

Size:
11, 16
22
27, 33

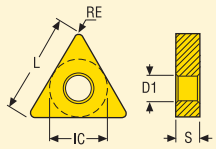
Size	Dimensions in mm IC	L	S	D1
1103	6,35	11,0	3,18	2,26
1604	9,53	16,5	4,76	3,81
2204	12,70	22,0	4,76	5,15



Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
TNMA																										
	TNMA160404	0,4											■													
	TNMA160408	0,8											■	■												
	TNMA160412	1,2											■	■												
	TNMA160416	1,6											■													
	TNMA220408	0,8											■													
	TNMA220412	1,2											■	■												
	TNMA220416	1,6											■													
TNMA-MR9																										
	TNMA160412-MR9	1,2											■	■												
	TNMA160416-MR9	1,6											■	■												
	TNMA220416-MR9	1,6											■	■												
TNMG-FF1																										
	TNMG160404-FF1	0,4																								■
	TNMG160408-FF1	0,8		■	■	■																				
TNMG-FF2																										
	TNMG160404-FF2	0,4		■	■														■							■
	TNMG160408-FF2	0,8		■	■																					■
TNMG-MF1																										
	TNMG160404-MF1	0,4									■	■			■			■								
	TNMG160408-MF1	0,8									■	■			■			■	■					■		
	TNMG160412-MF1	1,2													■			■	■							
TNMG-MF2																										
	TNMG110304-MF2	0,4			■																					
	TNMG160404-MF2	0,4		■	■	■	■																		■	■
	TNMG160408-MF2	0,8	■	■	■	■	■		■																■	■
	TNMG160412-MF2	1,2		■	■				■																	
	TNMG220404-MF2	0,4			■																					
	TNMG220408-MF2	0,8		■	■																					

■ Stock standard
Subject to change refer to current price- and stock-list

TNMG



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
IC = ±0,10
S = ±0,13
RE = ±0,1

Size:
11, 16
22
27, 33

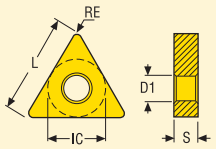
Size	Dimensions in mm IC	L	S	D1
1603	9,53	16,5	3,18	3,81
1604	9,53	16,5	4,76	3,81
2204	12,70	22,0	4,76	5,15
2706	15,88	27,5	6,35	6,35



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TNMG-MF3																										
	TNMG160308-MF3	0,8				■																				
	TNMG160404-MF3	0,4				■																				
	TNMG160408-MF3	0,8				■	■	■																		
	TNMG220404-MF3	0,4				■																				
	TNMG220408-MF3	0,8				■																				
TNMG-MF4																										
	TNMG160404-MF4	0,4									■	■														
	TNMG160408-MF4	0,8									■	■			■		■		■							
	TNMG160412-MF4	1,2									■	■			■		■									
	TNMG220408-MF4	0,8									■	■														
	TNMG220412-MF4	1,2									■	■														
TNMG-MF5																										
	TNMG160404-MF5	0,4							■	■																
	TNMG160408-MF5	0,8		■	■				■	■					■		■									
	TNMG160412-MF5	1,2		■	■										■		■									
TNMG-M1																										
	TNMG160408-M1	0,8																					■			
	TNMG220408-M1	0,8															■						■			
	TNMG220412-M1	1,2																					■			
	TNMG220416-M1	1,6																					■			
TNMG-M3																										
	TNMG160404-M3	0,4		■	■	■	■	■						■												
	TNMG160408-M3	0,8	■	■	■	■	■	■																		
	TNMG160412-M3	1,2		■	■	■		■																		
	TNMG220408-M3	0,8		■	■	■	■																			
	TNMG220412-M3	1,2		■	■	■																				
	TNMG270612-M3	1,2			■	■	■																			
TNMG-M4																										
	TNMG160408-M4	0,8												■												

■ Stock standard
Subject to change refer to current price- and stock-list

TNMG



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
IC = ±0,10
S = ±0,13
RE = ±0,1

Size:
11, 16
22
27, 33

Size	Dimensions in mm IC	L	S	D1
1603	9,53	16,5	3,18	3,81
1604	9,53	16,5	4,76	3,81
2204	12,70	22,0	4,76	5,15
2706	15,88	27,5	6,35	6,35

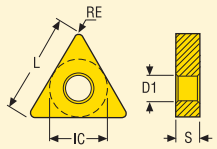
TNMG-M5 **-M6** **-MR3**



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TNMG-M5																										
	TNMG160308-M5	0,8				■		■																		
	TNMG160404-M5	0,4			■	■																				
	TNMG160408-M5	0,8	■	■	■	■	■	■			■	■	■	■												
	TNMG160412-M5	1,2	■	■	■	■								■												
	TNMG160416-M5	1,6												■												
	TNMG220404-M5	0,4			■	■																				
	TNMG220408-M5	0,8	■	■	■	■	■	■			■	■		■												
	TNMG220412-M5	1,2	■	■	■	■																				
	TNMG220416-M5	1,6	■	■	■	■		■																		
	TNMG270608-M5	0,8				■		■																		
	TNMG270612-M5	1,2		■	■	■	■	■																		
	TNMG270616-M5	1,6		■	■	■	■	■																		
TNMG-M6																										
	TNMG160408-M6	0,8		■	■	■																				
	TNMG160412-M6	1,2		■	■	■																				
	TNMG220408-M6	0,8	■	■	■	■								■												
	TNMG220412-M6	1,2	■	■	■	■								■												
	TNMG220416-M6	1,6	■	■	■	■																				
	TNMG270612-M6	1,2		■	■	■																				
	TNMG270616-M6	1,6		■	■	■																				
TNMG-MR3																										
	TNMG160412-MR3	1,2																	■					■		
	TNMG220412-MR3	1,2													■			■	■					■		

■ **Stock standard**
Subject to change refer to current price- and stock-list

TNMG



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
IC = ±0,10
S = ±0,13
RE = ±0,1

Size:
11, 16
22
27, 33

Size	Dimensions in mm IC	L	S	D1
1103	6,35	11,0	3,18	2,26
1603	9,53	16,5	3,18	3,81
1604	9,53	16,5	4,76	3,81
2204	12,70	22,0	4,76	5,15
2706	15,88	27,5	6,35	6,35
3309	19,05	33,0	9,52	7,92

TNMG-MR4 **-MR7** **-UX***



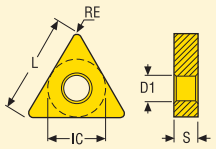
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TNMG-MR4																										
	TNMG110304-MR4	0,4																					■			
	TNMG110308-MR4	0,8																					■			
	TNMG160304-MR4	0,4																					■			
	TNMG160308-MR4	0,8																					■			
	TNMG160408-MR4	0,8															■						■			
	TNMG220404-MR4	0,4																					■			
	TNMG220408-MR4	0,8															■						■			
	TNMG220412-MR4	1,2															■						■			
	TNMG220416-MR4	1,6															■						■			
	TNMG220424-MR4	2,4																					■			
	TNMG220432-MR4	3,2															■						■			
	TNMG270608-MR4	0,8															■						■			
	TNMG270612-MR4	1,2																					■			
	TNMG270616-MR4	1,6																					■			
	TNMG270632-MR4	3,2																					■			
	TNMG330924-MR4	2,4																					■			
TNMG-MR7																										
	TNMG160408-MR7	0,8				■		■																		
	TNMG160412-MR7	1,2		■		■																				
	TNMG220408-MR7	0,8				■		■																		
	TNMG220412-MR7	1,2				■		■																		
	TNMG270612-MR7	1,2			■	■																				
	TNMG270616-MR7	1,6			■	■	■																			
	TNMG330924-MR7	2,4			■	■	■	■																		
TNMG-UX																										
	TNMG160404R-UX	0,4			■												■									
	TNMG160404L-UX	0,4			■												■									
	TNMG160408R-UX	0,8			■												■									
	TNMG160408L-UX	0,8			■												■									

■ **Stock standard**

* Right-hand version shown

Subject to change refer to current price- and stock-list

TNMM



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
IC = ±0,10
S = ±0,13
RE = ±0,1

Size:
11, 16
22
27, 33

Size	Dimensions in mm IC	L	S	D1
1604	9,53	16,5	4,76	3,81
2204	12,70	22,0	4,76	5,15

TNMM-R4



-R6

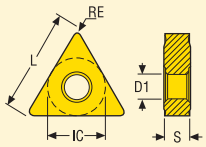


Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TNMM-R4																										
	TNMM160408-R4	0,8			■	■																				
	TNMM160412-R4	1,2			■																					
	TNMM220408-R4	0,8			■	■																				
	TNMM220412-R4	1,2		■	■	■																				
	TNMM220416-R4	1,6		■	■	■																				
TNMM-R6																										
	TNMM160404-R6	0,4				■																				
	TNMM160408-R6	0,8						■																		
	TNMM220408-R6	0,8						■																		
	TNMM220416-R6	1,6				■																				

■ **Stock standard**

Subject to change refer to current price- and stock-list

TNMX



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 0°

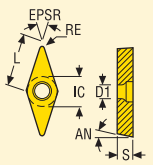
Size	Dimensions in mm IC	L	S	D1
1604	9,53	16,5	4,76	3,81

TNMX...W-M3



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
TNMX...W-M3																										
	TNMX160408W-M3	0,8		■	■																					
	TNMX160412W-M3	1,2		■																						

VBGT



Tolerances:
IC = ±0,025
S = ±0,05
RE = ±0,025

EPSR = 35°
AN = 5°

Size	Dimensions in mm IC	L	S	D1
1102	6,350	11,0	2,38	2,9
1604	9,525	16,6	4,76	4,5

VBGT-F1 -M3

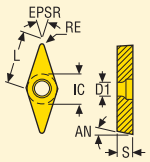




Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
VBGT-F1																										
	VBGT110201-F1	0,1																	■							
	VBGT160401-F1	0,1																	■							
	VBGT160404-F1	0,4														■										
	VBGT160408-F1	0,8														■										
VBGT-M3																										
	VBGT160404-M3	0,4																			■					
	VBGT160408-M3	0,8																			■					

■ Stock standard
Subject to change refer to current price- and stock-list

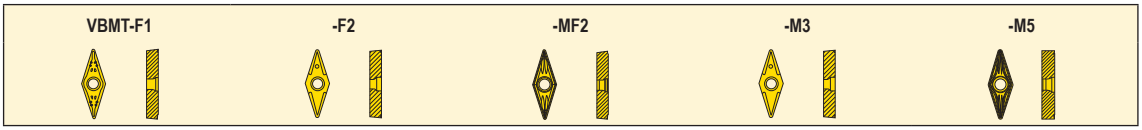
VBMT



EPSR = 35°
AN = 5°

Tolerances:
IC = ±0,05
S = ±0,05
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1102	6,35	11,1	2,38	2,9
1103	6,35	11,1	3,18	2,9
1604	9,53	16,6	4,76	4,5



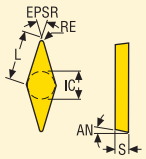
Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
VBMT-F1																										
	VBMT110202-F1	0,2			■	■													■							■
	VBMT110204-F1	0,4			■	■	■												■						■	■
	VBMT110208-F1	0,8			■	■													■							
	VBMT110302-F1	0,2			■	■													■							
	VBMT110304-F1	0,4			■	■													■							
	VBMT110308-F1	0,8			■														■							
	VBMT160402-F1	0,2			■	■													■							
	VBMT160404-F1	0,4		■	■	■	■		■			■			■			■	■						■	■
	VBMT160408-F1	0,8		■	■	■	■			■		■	■	■	■			■	■						■	■
	VBMT160412-F1	1,2		■	■	■			■																	
VBMT-F2*																										
	VBMT160404-F2	0,4					■	■			■	■									■					
	VBMT160408-F2	0,8					■	■			■	■			■			■			■					
	VBMT160412-F2	1,2						■				■														
VBMT-MF2																										
	VBMT110202-MF2	0,2																	■	■					■	
	VBMT110204-MF2	0,4		■	■														■	■					■	
	VBMT160402-MF2	0,2				■													■							
	VBMT160404-MF2	0,4	■	■	■	■						■							■						■	■
	VBMT160408-MF2	0,8	■	■	■	■						■							■						■	■
	VBMT160412-MF2	1,2	■	■	■																					
VBMT-M3*																										
	VBMT160404-M3	0,4		■	■	■							■	■												
	VBMT160408-M3	0,8	■	■	■	■								■												
	VBMT160412-M3	1,2		■	■	■																				
VBMT-M5																										
	VBMT160408-M5	0,8	■	■	■	■		■				■		■												

■ Stock standard

* Chipbreaker -M3 replacing -F2

Subject to change refer to current price- and stock-list

VCGR



Tolerances:
IC = ±0,025
S = ±0,05
RE = ±0,1

EPSR = 35°
AN = 8°

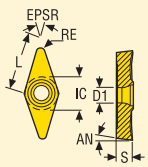
Size	Dimensions in mm IC	L	S
1604	9,525	16,6	4,76

VCGR



Inserts	Designation	RE	Grades																							
			Coated																		Uncoated				Cermet	
			TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
VCGR																										
	VCGR160404	0,4																■						■		
	VCGR160408	0,8																■						■		

VCGT



Tolerances:
IC = ±0,025
S = ±0,05
RE = ±0,1

EPSR = 35°
AN = 7°

Size	Dimensions in mm IC	L	S	D1
1103	6,350	11,1	3,18	2,8
1604	9,525	16,6	4,76	4,4

VCGT-AL

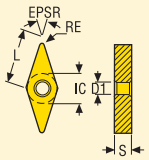


Inserts	Designation	RE	Grades																							
			Coated																		Uncoated				Cermet	
			TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	HX	KX	883	890	TP1020	TP1030
VCGT-AL																										
	VCGT110302F-AL	0,2																				■				
	VCGT110304F-AL	0,4																				■				
	VCGT160402F-AL	0,2														■						■				
	VCGT160404F-AL	0,4														■						■				
	VCGT160408F-AL	0,8																				■				
	VCGT160412F-AL	1,2																				■				

■ Stock standard

Subject to change refer to current price- and stock-list

VNGG, VNGM



EPSR = 35°
AN = 0°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1604	9,525	16,6	4,76	3,81
2204	12,700	22,0	4,76	5,15

VNGG-M1



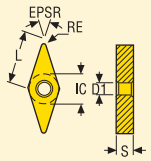
VNGM-MF1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
VNGG-M1																										
	VNGG160402-M1	0,2													■		■						■			
	VNGG160404-M1	0,4													■		■						■			
	VNGG160408-M1	0,8													■		■						■			
	VNGG220408-M1	0,8													■								■			
VNGM-MF1																										
	VNGM160404-MF1	0,4													■			■	■					■		
	VNGM160408-MF1	0,8													■			■	■					■		

■ **Stock standard**
Subject to change refer to current price- and stock-list

VNMA, VNMG

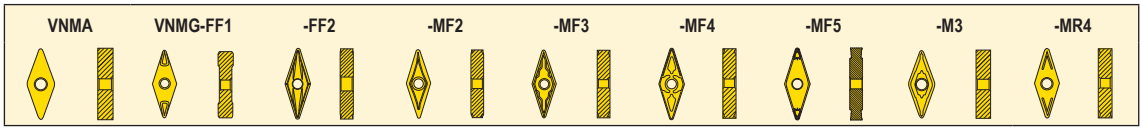


EPSR = 35°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
16
22

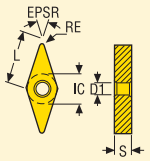
Size	Dimensions in mm IC	L	S	D1
1604	9,53	16,6	4,76	3,81
2204	12,70	22,0	4,76	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
VNMA																										
	VNMA160408	0,8												■												
VNMG-FF1																										
	VNMG160404-FF1	0,4		■																						
VNMG-FF2																										
	VNMG160402-FF2	0,2		■	■														■							■
	VNMG160404-FF2	0,4		■	■	■													■							■
	VNMG160408-FF2	0,8		■	■	■																				■
VNMG-MF2																										
	VNMG160404-MF2	0,4		■	■	■																				
	VNMG160408-MF2	0,8	■	■	■	■																				
	VNMG160412-MF2	1,2		■	■																					
VNMG-MF3																										
	VNMG160404-MF3	0,4				■																				
	VNMG160408-MF3	0,8				■																				
VNMG-MF4																										
	VNMG160404-MF4	0,4									■	■			■		■									
	VNMG160408-MF4	0,8									■	■			■		■									
VNMG-MF5																										
	VNMG160408-MF5	0,8							■																	
VNMG-M3																										
	VNMG160404-M3	0,4		■	■	■	■							■												
	VNMG160408-M3	0,8	■	■	■	■	■							■												
	VNMG160412-M3	1,2	■	■	■	■								■												
VNMG-MR4																										
	VNMG160408-MR4	0,8															■						■			
	VNMG160412-MR4	1,2															■						■			
	VNMG220408-MR4-203	0,8																					■			
	VNMG220412-MR4-203	1,2																					■			

■ Stock standard
Subject to change refer to current price- and stock-list

VNMU



EPSR = 35°
AN = 0°

Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1304	7,94	13,8	4,76	3,81

VNMU-MF2 -M3 -M6

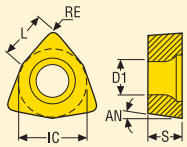




Inserts	Designation	RE	Grades: Coated: TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated: HX	KX	883	890	Cermet: TP1020	TP1030
VNMU-MF2																										
	VNMU130404-MF2	0,4		■	■	■																				
	VNMU130408-MF2	0,8		■	■	■								■												
VNMU-M3																										
	VNMU130404-M3	0,4		■	■	■																				
	VNMU130408-M3	0,8	■	■	■	■									■											
VNMU-M6																										
	VNMU130408-M6	0,8		■	■	■																				

■ Stock standard
Subject to change refer to current price- and stock-list

WCMT



Tolerances:
IC = ±0,05
S = ±0,05
RE = ±0,1

EPSR = 80°
AN = 7°

Size	Dimensions in mm IC	L	S	D1
06T3	9,53	6,5	3,97	4,5
06T3..W	9,53	6,6	3,97	4,5

WCMT-F1

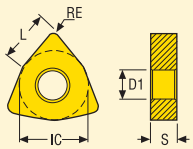


W-F1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WCMT-F1																										
	WCMT06T308-F1	0,8			■	■													■							
WCMT...W-F1																										
	WCMT06T308W-F1	0,8			■														■							

WNGG



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
0604	9,525	6,6	4,76	3,81
0804	12,700	8,7	4,76	5,15

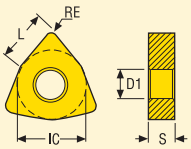
WNGG-MF1



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WNGG-MF1																										
	WNGG060402-MF1	0,2													■			■	■					■		
	WNGG080401-MF1	0,1													■											
	WNGG080402-MF1	0,2													■											
	WNGG080404-MF1	0,4													■											
	WNGG080408-MF1	0,8													■											

■ Stock standard
Subject to change refer to current price- and stock-list

WNMA, WNMG



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
06
08

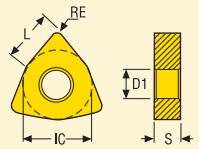
Size	Dimensions in mm IC	L	S	D1
0604	9,53	6,5	4,76	3,81
0804	12,70	8,7	4,76	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WNMA																										
	WNMA060408	0,8											■	■												
	WNMA060412	1,2												■												
	WNMA080408	0,8											■	■												
	WNMA080412	1,2											■	■												
	WNMA080416	1,6											■	■												
WNMA-MR9																										
	WNMA080408-MR9	0,8											■	■												
	WNMA080412-MR9	1,2											■	■												
	WNMA080416-MR9	1,6											■	■												
WNMG-FF2																										
	WNMG060404-FF2	0,4		■	■														■							■
	WNMG060408-FF2	0,8		■	■																					■
	WNMG080404-FF2	0,4		■	■																					
	WNMG080408-FF2	0,8		■	■																					
WNMG...W-FF2																										
	WNMG060404W-FF2	0,4			■																					■
	WNMG060408W-FF2	0,8			■																					■
WNMG-MF1																										
	WNMG060404-MF1	0,4									■	■			■			■	■					■		
	WNMG060408-MF1	0,8									■	■			■			■	■					■		
	WNMG060412-MF1	1,2																	■							
	WNMG080404-MF1	0,4							■		■	■			■			■								
	WNMG080408-MF1	0,8							■		■	■			■			■								
WNMG-MF2																										
	WNMG060404-MF2	0,4		■	■	■	■																		■	■
	WNMG060408-MF2	0,8		■	■	■	■		■																	■
	WNMG060412-MF2	1,2			■																					
	WNMG080404-MF2	0,4		■	■																					
	WNMG080408-MF2	0,8		■	■		■		■	■			■													
	WNMG080412-MF2	1,2		■					■	■			■													

■ Stock standard
Subject to change refer to current price- and stock-list

WNMG



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
06
08

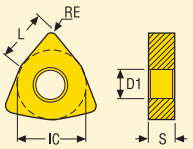
Size	Dimensions in mm IC	L	S	D1
0604	9,53	6,5	4,76	3,81
0804	12,70	8,7	4,76	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WNMG...W-MF2																										
	WNMG060404W-MF2	0,4		■	■																					■
	WNMG060408W-MF2	0,8		■	■																					■
	WNMG080404W-MF2	0,4			■																					
	WNMG080408W-MF2	0,8		■	■																					
WNMG-MF3																										
	WNMG060408-MF3	0,8				■																				
	WNMG080404-MF3	0,4						■																		
	WNMG080408-MF3	0,8				■		■				■														
WNMG-MF4																										
	WNMG060404-MF4	0,4									■	■														
	WNMG060408-MF4	0,8			■						■	■							■							
	WNMG060412-MF4	1,2									■	■														
	WNMG080404-MF4	0,4									■	■														
	WNMG080408-MF4	0,8			■						■	■			■		■		■							
	WNMG080412-MF4	1,2			■						■	■			■		■									
WNMG...W-MF4																										
	WNMG060408W-MF4	0,8									■	■														
	WNMG080408W-MF4	0,8									■	■														
	WNMG080412W-MF4	1,2										■														
WNMG-MF5																										
	WNMG060404-MF5	0,4			■																					
	WNMG060408-MF5	0,8			■																					
	WNMG060412-MF5	1,2		■	■																					
	WNMG080408-MF5	0,8	■	■	■				■	■			■		■		■									
	WNMG080412-MF5	1,2	■	■	■				■	■					■		■									
	WNMG080416-MF5	1,6			■																					
WNMG...W-MF5																										
	WNMG060408W-MF5	0,8		■	■																					
	WNMG080408W-MF5	0,8		■	■																					

■ Stock standard
Subject to change refer to current price- and stock-list

WNMG



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
06
08

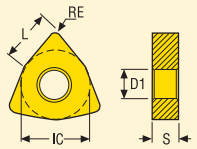
Size	Dimensions in mm IC	L	S	D1
0604	9,53	6,5	4,76	3,81
0804	12,70	8,7	4,76	5,15
0806	12,70	8,7	6,35	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WNMG-M1																										
	WNMG080404-M1	0,4																					■			
	WNMG080408-M1	0,8																					■			
WNMG-M3																										
	WNMG060402-M3	0,2			■																					
	WNMG060404-M3	0,4		■	■	■	■																			
	WNMG060408-M3	0,8	■	■	■	■	■	■						■												
	WNMG060412-M3	1,2	■	■	■	■		■																		
	WNMG080404-M3	0,4		■	■	■	■							■												
	WNMG080408-M3	0,8	■	■	■	■	■	■						■												
	WNMG080412-M3	1,2	■	■	■	■								■												
	WNMG080416-M3	1,6			■																					
WNMG...W-M3																										
	WNMG060408W-M3	0,8		■	■	■								■												
	WNMG060412W-M3	1,2		■	■																					
	WNMG080408W-M3	0,8	■	■	■									■												
	WNMG080412W-M3	1,2	■	■	■									■												
WNMG-M4																										
	WNMG080408-M4	0,8												■												
	WNMG080412-M4	1,2												■												
WNMG-M5																										
	WNMG060408-M5	0,8	■	■	■	■	■						■	■												
	WNMG060412-M5	1,2	■		■	■								■												
	WNMG080408-M5	0,8	■	■	■	■	■	■		■	■	■	■	■												
	WNMG080412-M5	1,2	■	■	■	■	■	■	■	■	■	■	■	■												
	WNMG080416-M5	1,6	■	■	■	■																				
	WNMG080608-M5	0,8				■																				
	WNMG080612-M5	1,2		■	■	■																				
	WNMG080616-M5	1,6		■	■	■																				

■ Stock standard
Subject to change refer to current price- and stock-list

WNMG, WNMM



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
06
08

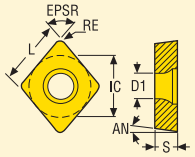
Size	Dimensions in mm IC	L	S	D1
0604	9,53	6,5	4,76	3,81
0804	12,70	8,7	4,76	5,15
0806	12,70	8,7	6,35	5,15



Inserts	Designation	RE	Grades: Coated TP0501	TP1501	TP2501	TP3501	TP200	TP40	TH1000	TH1500	TM2000	TM4000	TK0501	TK1501	TS2000	TS2050	TS2500	CP200	CP500	CP600	Uncoated HX	KX	883	890	Cermet TP1020	TP1030
WNMG-M6																										
	WNMG080408-M6	0,8	■	■	■	■								■												
	WNMG080412-M6	1,2	■	■	■	■								■												
	WNMG080416-M6	1,6	■	■	■	■								■												
	WNMG080612-M6	1,2	■	■	■	■								■												
	WNMG080616-M6	1,6		■										■												
WNMG...W-M6																										
	WNMG080408W-M6	0,8		■	■	■																				
	WNMG080412W-M6	1,2		■	■	■																				
WNMG-MR3																										
	WNMG060408-MR3	0,8													■			■	■					■		
	WNMG060412-MR3	1,2													■			■	■							
WNMG-MR6																										
	WNMG080408-MR6	0,8		■	■																					
	WNMG080412-MR6	1,2		■																						
WNMG-MR7																										
	WNMG080408-MR7	0,8			■	■	■						■	■												
	WNMG080412-MR7	1,2		■	■	■						■	■	■												
	WNMG080416-MR7	1,6		■	■	■																				
WNMM-R6																										
	WNMM080408-R6	0,8				■		■																		
	WNMM080412-R6	1,2						■																		

■ Stock standard
Subject to change refer to current price- and stock-list

CCGW



EPSR = 80°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
0602	6,350	6,5	2,38	2,9
09T3	9,525	9,7	3,97	4,5
1204	12,700	12,9	4,76	5,6

CCGW...-B



CCGW...-LF

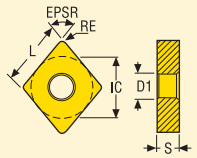


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
CCGW																	
	CCGW060204E-L1-B	0,4		■					■			■				SCLCR/L..06	SCLCR/L06
	CCGW060208E-L1-B	0,8										■				SCGCR/L..06	..-SCFCR/L06
																SCDCR/L..06	SCACL..06
	CCGW060204S-01020-L1-B	0,4							■							SCFCR/L..06	SCECL..06
	CCGW060204S-01525-L1-B	0,4	■	■												SCACR/L..06	..-SCDCL06
	CCGW060208S-01525-L1-B	0,8			■											SCECL..06	
	CCGW060208S-02020-L1-B	0,8				■						■					
	CCGW060202S-01020-LF	0,2										■					
	CCGW060204S-01020-LF	0,4							■			■					
	CCGW060208S-01020-LF	0,8										■					
	CCGW060208S-L1-WZP-B	0,8	■	■												SCLCR/L..06	...-SCLCR/L06
	CCGW09T304E-L1-B	0,4		■					■			■				SCLCR/L..09	SCLCR/L09
	CCGW09T308E-L1-B	0,8							■			■				SCGCR/L..09	..-SCFCR/L09
																SCDCR/L..09	SCACL..09
	CCGW09T304S-01020-L1-B	0,4							■							SCFCR/L..09	SCECL..09
	CCGW09T304S-01525-L1-B	0,4	■	■												SCACR/L..09	..-SCDCL09
	CCGW09T308S-01020-L1-B	0,8							■	■						SCECL..09	
	CCGW09T308S-01525-L1-B	0,8		■	■												
	CCGW09T308S-02020-L1-B	0,8				■						■					
	CCGW09T304S25-02020-L1B	0,4										■					
	CCGW09T308S25-02020-L1B	0,8										■					
	CCGW09T304S-01020-LF	0,4							■			■					
	CCGW09T308S-01020-LF	0,8										■					
		–														SCLCR/L..09	..-SCLCR/L09
	CCGW09T304S-01020-L1WZB	0,4							■								
	CCGW09T304S-01525L1WZB	0,4	■	■													
	CCGW09T308S-01525L1WZB	0,8		■													
	CCGW09T304S-L1-WZP-B	0,4	■	■													
	CCGW09T308S-L1-WZP-B	0,8		■													
	CCGW120404S-01020-L1-B	0,4							■							SCLCR/L..12	***
	CCGW120408S-01020-L1-B	0,8							■								
	CCGW120408S-02020-L1-B	0,8										■					

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

CNGA



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1204	12,700	12,90	4,76	5,15

CNGA...-B



CNGA...-U

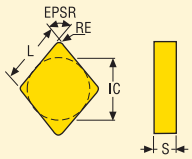


Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
CNGA																	
	CNGA120408E-L1-B	0,8										■				DCLNR/L..12 PCLNR/L..12	..-PCLNR/L12 ..-MCLNR/L12
	CNGA120404S-01020-L1-B	0,4							■								
	CNGA120404S-01525-L1-B	0,4	■														
	CNGA120404S-02020-L1-B	0,4				■											
		–															
	CNGA120408S-01020-L1-B	0,8							■								
	CNGA120408S-01525-L1-B	0,8	■	■	■					■							
	CNGA120408S-02020-L1-B	0,8				■						■					
		–															
	CNGA120412S-01020-L1-B	1,2							■								
	CNGA120412S-01525-L1-B	1,2	■	■	■					■							
	CNGA120412S-02020-L1-B	1,2				■											
	CNGA120408S25-02020-L1B	0,8										■					
	CNGA120408E25-L1-U	0,8									■						
	CNGA120404S-01525-L1-U	0,4		■													
	CNGA120408S-01020-L1-U	0,8							■								
	CNGA120408S-01525-L1-U	0,8		■													
	CNGA120412S-01525-L1-U	1,2	■	■													
	CNGA120404S-02020-L1WZB	0,4				■											
	CNGA120408S-01020-L1WZB	0,8							■								
	CNGA120408S01525L1WLB	0,8		■													
	CNGA120408S01525L1WSB	0,8		■													
	CNGA120408S-01525L1WZB	0,8	■	■	■												
	CNGA120412S-01525L1WZB	1,2			■												
		–															
	CNGA120408S-01020-L1WZU	0,8							■								
	CNGA120408S-01525L1WZU	0,8		■													
	CNGA120412S-01525L1WZU	1,2		■													
	CNGA120408S-L1-WZN-B	0,8		■													
	CNGA120408S-L1-WZN-U	0,8		■													
	CNGA120408S-L1-WZP-B	0,8		■					■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

CNMN



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
09
12

Size	Dimensions in mm IC	L	S
0903	9,53	9,7	3,18
1204	12,70	12,9	4,76

CNMN

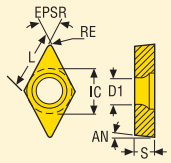


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
CNMN																	
	CNMN090308S	0,8											■			CCLNR/L..09	..-CCLNR/L09
	CNMN090308S-02020	0,8						■						■		CCBNR/L..09	
	CNMN090308S-02020P	0,8													■		
	CNMN090312S	1,2					■						■				
	CNMN090316S	1,6					■						■				
	CNMN090308S-WZ	0,8											■			CCLNR/L..09	
	CNMN120412S	1,2					■						■			CCLNR/L..12	..-MCLNR/L12
	CNMN120412S-02020P	1,2													■	CCBNR/L..12	(without pin)
	CNMN120416S	1,6											■				
	CNMN120416S-02020P	1,6													■		
	CNMN120408S-WZ	0,8											■			CCLNR/L..12	

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

DCGW



EPSR = 55°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
0702	6,350	7,8	2,38	2,9
11T3	9,525	11,6	3,97	4,5

DCGW...-B

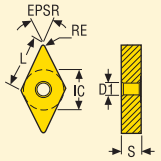


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
DCGW																	
	DCGW070204E-L1-B	0,4							■			■				SDHCR/L..07 SDJCR/L..07 SDACR/L..07 SDNCN..07	..-SDUCR/L07 ..-SDQCR/L07
	DCGW070202S-01020-L1-B	0,2								■							
	DCGW070202S-01525-L1-B	0,2			■												
	DCGW070204S-01020-L1-B	0,4							■	■							
	DCGW070204S-01525-L1-B	0,4			■												
	DCGW070204S-02020-L1-B	0,4										■					
	DCGW070208S-01525-L1-B	0,8			■												
	DCGW070208S-02020-L1-B	0,8										■					
	DCGW070204S25-02020-L1B	0,4										■					
	DCGW11T302E-L1-B	0,2										■				SDHCR/L..11 SDJCR/L..11 SDNCN..11 SDACR/L..11	..-SDUCR/L11 ..-SDQCR/L11
	DCGW11T304E-L1-B	0,4							■								
	DCGW11T308E-L1-B	0,8							■								
	DCGW11T302S-01020-L1-B	0,2							■								
	DCGW11T304S-01020-L1-B	0,4							■								
	DCGW11T304S-01525-L1-B	0,4	■	■	■												
	DCGW11T304S-02020-L1-B	0,4				■						■					
	DCGW11T308S-01020-L1-B	0,8							■								
	DCGW11T308S-01525-L1-B	0,8	■	■	■												
	DCGW11T308S-02020-L1-B	0,8				■						■					
	DCGW11T304S25-02020-L1B	0,4										■					

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

DNGA



EPSR = 55°
AN = 0°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm			
	IC	L	S	D1
1504	12,700	15,0	4,76	5,15
1506	12,700	15,0	6,35	5,15

DNGA...-B



DNGA...-U

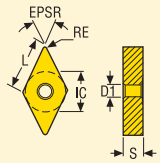


Inserts	Designation	RE	Grades													Toolholders	
			Coated						Uncoated								
			CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	External	Internal
DNGA																	
	DNGA150404S-01020-L1-B	0,4							■							DDJNR/L..15*	A32T-PDUNR/L15**
	DNGA150408S-01020-L1-B	0,8							■							DDHNR/L..15	A40U-PDUNR/L15**
	DNGA150408S-01525-L1-B	0,8	■	■	■					■						PDJNR/L..15	A50V-PDUNR/L15**
	DNGA150408S-02020-L1-B	0,8				■						■				DDJNR/L..15	
	DNGA150412S-01525-L1-B	1,2			■												
	DNGA150412S-02020-L1-B	1,2				■											
	DNGA150408S-01525-L1-U	0,8		■													
	DNGA150408S-01525L1WZB	0,8	■														
	DNGA150604S-01020-L1-B	0,4							■							PDJNR/L..15	A32T-PDUNR/L15
																DDJNR/L..15	A40U-PDUNR/L15
		–															A50V-PDUNR/L15
																	S32U-PDUNR/L15
	DNGA150608S-01020-L1-B	0,8							■								S40V-PDUNR/L15
	DNGA150608S-01525-L1-B	0,8	■	■	■					■							S50W-PDUNR/L15
	DNGA150608S-02020-L1-B	0,8										■					
	DNGA150612S-01020-L1-B	1,2							■								
	DNGA150612S-01525-L1-B	1,2			■												
	DNGA150608E25-L1-U	0,8									■						
	DNGA150604S-01525-L1-U	0,4		■													
	DNGA150608S-01525-L1-U	0,8		■													
	DNGA150612S-01525-L1-U	1,2		■													
	DNGA150608S01020L1WZ93B	0,8							■								
	DNGA150608S01525L1WZ93B	0,8			■												
		–															

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim DDN150616 for insert DN..1504.., to be ordered separately
** Shim PDD150412 for insert DN..1504.., to be ordered separately

DNGM



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 55°
AN = 0°

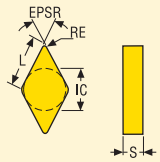
Size	Dimensions in mm IC	L	S	D1
1504	12,700	15,5	4,76	5,15

DNGM...-B



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
DNGM																	
	DNGM150408S-07525-L1-B	0,8			■											DDJNR/L..15* DDHNR/L..15 PDJNR/L..15 DDJNR/L..15	A32T-PDUNR/L15** A40U-PDUNR/L15** A50V-PDUNR/L15**
	DNGM150412S-07525-L1-B	1,2			■												
	DNGM150408S-07525-L1WZB	0,8			■												

DNGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 55°
AN = 0°

Size	Dimensions in mm IC	L	S
1103	9,525	11,6	3,18

DNGN

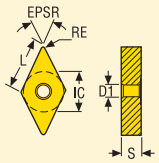


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
DNGN																	
	DNGN110308S-01020	0,8							■							CDJNR/L..11 CDNNN..11	***
	DNGN110312S-01020	1,2							■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim DDN150616 for insert DN..1504.., to be ordered separately
** Shim PDD150412 for insert DN..1504.., to be ordered separately

DNMA



Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,1

Size:
11
15

EPSR = 55°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
1104	9,52	11,6	4,76	3,81
1504	12,70	15,0	4,76	5,15

DNMA

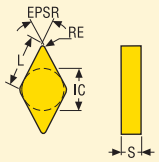


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
DNMA																	
	DNMA110408S	0,8											■			DDJNR/L..11-C DDNNN..11-C	A..-DDUNR/L11-C
	DNMA150416S	1,6											■			DDHNR/L..15* DDJNR/L..15*	A32T-PDUNR/L15** A40U-PDUNR/L15** A50V-PDUNR/L15**

* Shim DDN150616 for insert DN..1504.., to be ordered separately

** Shim PDD150412 for insert DN.A1504.., to be ordered separately

DNMN



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

EPSR = 55°
AN = 0°

Size	Dimensions in mm IC	L	S
1103	9,53	11,6	3,18

DNMN



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
DNMN																	
	DNMN110308S	0,8											■			CDJNR/L..11 CDNNN..11	***

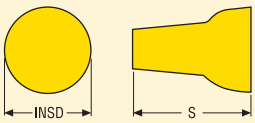
■ **Stock standard**

Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

RCGS



Tolerances:
INSD = ±0,025
S = ±0,13

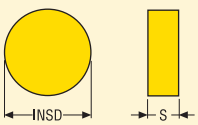
Size	Dimensions in mm INSD	S
6.35	6,350	9,13

RCGS



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
RCGS																	
	RCGS6.35S-02020-LF	–							■							TRAOR/L..6.35 TRDON..6.35	***

RNGN-LF



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 0°

Size	Dimensions in mm INSD	S
0603	6,350	3,18
0903	9,520	3,18
1204	12,700	4,76

RNGN-LF

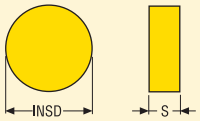


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
RNGN-LF																	
	RNGN060300S-01525-LF	–								■						CRSNR/L..06 CRDNN..06	..-CRSNR/L06
	RNGN060300S-02020-LF	–				■						■					
	RNGN090300S-01525-LF	–								■						CRSNR/L..09 CRDNN..09	..-CRSNR/L09
	RNGN090300S-02020-LF	–				■			■			■					
	RNGN120400S-02020-LF	–										■				CRSNR/L..12* CRDNN..12*	***

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim 117.10-621 for insert RN.N1204.., to be ordered separately

RNGN



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 0°

Size	Dimensions in mm	
	INSD	S
0603	6,35	3,18
0903	9,52	3,18
1203	12,70	3,18

RNGN

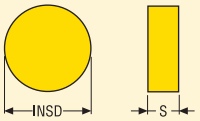


Inserts	Designation	RE	Grades													Toolholders	
			Coated						Uncoated								
			CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	External	Internal
RNGN																	
	RNGN060300E	–							■							CRSNR/L..06 CRDNN..06	..-CRSNR/L06
	RNGN060300S	–										■					
	RNGN060300S-01020	–							■								
	RNGN060300S-01525	–	■	■	■					■							
	RNGN090300E25	–									■					CRSNR/L..09 CRDNN..09	..-CRSNR/L09
	RNGN090300S	–										■					
	RNGN090300S-01020	–							■								
	RNGN090300S-01525	–	■	■	■					■							
	RNGN120300S-01020	–							■							CRSNR/L..12 CRDNN..12	***

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

RNMN



AN = 0°

Tolerances:	Size:
INSD = ±0,05	06, 09
INSD = ±0,08	12
INSD = ±0,10	19
INSD = ±0,13	25
S = ±0,13	

Size	Dimensions in mm INSD	S
0603	6,35	3,18
0903	9,52	3,18
1203	12,70	3,18
1204	12,70	4,76
1904	19,05	4,76

RNMN

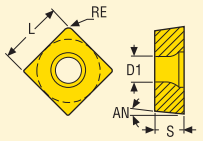


Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
RNMN																	
	RNMN060300S	–					■						■			CRSNR/L..06 CRDNN..06	..-CRSNR/L06
	RNMN060300S-02020P	–													■		
	RNMN090300E	–						■					■			CRSNR/L..09 CRDNN..09	..-CRSNR/L09
	RNMN090300S	–					■						■				
	RNMN090300S-02020	–						■						■			
	RNMN090300S-02020P	–													■		
	RNMN120300E	–											■			CRSNR/L..12* CRDNN..12*	***
	RNMN120300S	–					■						■				
	RNMN120300S-02020	–												■			
	RNMN120300S-02020P	–													■		
	RNMN120400S	–					■						■				
	RNMN120400S-02020	–												■			
	RNMN120400S-02020P	–													■		
	RNMN120400S-04015	–											■	■			
	RNMN120400S-04015P	–													■		
	RNMN120400S25-07015P	–													■		
	RNMN120400X-05015	–												■			
	RNMN190400S-10020	–												■		***	***

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim 117.10-621 for insert RNMN1204.., to be ordered separately

SCGW



Tolerances:
L = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 7°

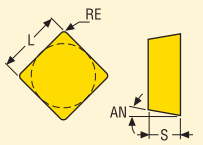
Size	Dimensions in mm L	S
0602	6,350	2,38
09T3	9,525	3,97

SCGW



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
SCGW																	
	SCGW060208S-01020-LF	0,8										■				***	***
	SCGW09T304S-01020-LF	0,4										■				SSDCN..09	SSKCR/L..09
	SCGW09T308S-01020-LF	0,8										■				SSKCR/L..09	

SCMN



Tolerances:
L = ±0,05
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 7°

Size	Dimensions in mm L	S
0904	9,53	4,76

SCMN



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
SCMN																	
	SCMN090408S-WZ-85	0,8											■			***	***

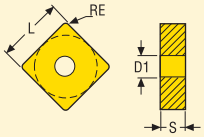
■ **Stock standard**

Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

SNGA



Tolerances:
L = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 0°

Size	Dimensions in mm L	S	D1
1204	12,700	4,76	5,15

SNGA

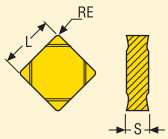


Inserts	Designation	RE	Grades													Toolholders	
			Coated						Uncoated								
			CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	External	Internal
SNGA																	
	SNGA120408S-02020-L1-D	0,8										■				DSBNR/L..12-C DSSNR/L..12-C DSBNR/L..12 DSSNR/L..12 DSDNN..12 DSKNR/L..12 PSBNR/L..12 PSSNR/L..12 PSDNN..12 PSKNR/L..12	..-MSKNR/L12 ..-PSKNR/L12

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

SNGF



Tolerances:
L = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 0°

Size	Dimensions in mm L	S
0903	9,525	3,18

SNGF

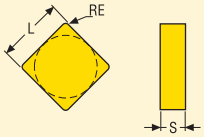


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders External	Internal
SNGF	SNGF090308E	0,8						■								***	***
	SNGF090312E	1,2						■									

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

SNGN



Tolerances:
L = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 0°

Size	Dimensions in mm L	S
0603	6,350	3,18
0903	9,525	3,18

SNGN

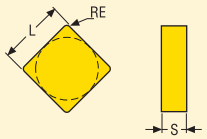


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
SNGN																	
	SNGN060308S-01020	0,8							■							CSSNR/L..06 CSRNR/L..06 CSKNR/L..06	***
	SNGN090308E	0,8										■				CSBNR/L..09 CSDNN..09	..-CSKNR/L09
	SNGN090308S	0,8										■					
	SNGN090308S-01020	0,8							■								
	SNGN090312S	1,2										■					
	SNGN090312S-01020	1,2							■								
	SNGN090316S	1,6										■					

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

SNMN



EPSR = 90°
AN = 0°

Tolerances:
L = ±0,05
L = ±0,08
S = ±0,13
RE = ±0,1

Size:
06, 09
12

Size	Dimensions in mm L	S
0603	6,35	3,18
0903	9,53	3,18
0904	9,53	4,76
1203	12,70	3,18
1204	12,70	4,76

SNMN

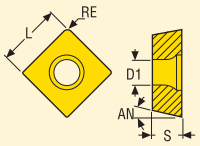


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
SNMN																	
	SNMN060308E	0,8						■								CSSNR/L..06 CSRNR/L..06	***
	SNMN060308S	0,8											■			CSKNR/L..06	
	SNMN090308E	0,8											■			CSBNR/L..09 CSDNN..09	..-CSKNR/L09
	SNMN090312E	1,2											■				
	SNMN090308S	0,8											■				
	SNMN090308S-02020	0,8						■									
	SNMN090312S	1,2					■						■				
	SNMN090312S-02020P	1,2													■		
	SNMN090316S	1,6											■				
	SNMN090308S-WZ	0,8											■			CSBNR/L..09	..-CSKNR/L09
	SNMN090308S-WZ-85	0,8											■			***	***
	SNMN090416S	1,6											■				
	SNMN120312S	1,2											■			CSBNR/L..12* CSRNR/L..12*	..-MSKNR/L12 (SNMM1204..)
	SNMN120412S	1,2											■			CSDNN..12* CSKNR/L..12*	(without pin)
	SNMN120412S-02020	1,2						■									
	SNMN120416S	1,6											■				
	SNMN120416S-02020	1,6												■			
	SNMN120416S-02020P	1,6													■		
	SNMN120416S-04015	1,6											■				
	SNMN120408S-02020-WZ85	0,8						■							■	***	***
	SNMN120408S-WZ-85	0,8											■				

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim 174.10-622 for insert SNMN1203.., to be ordered separately

SPGW



Tolerances:
L = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 90°
AN = 11°

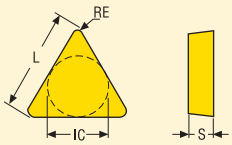
Size	Dimensions in mm L	S
0503	5,560	3,18

SPGW



Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
SPGW																	
	SPGW050302S-01020-LF	0,2										■				***	***

TCGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 7°

Size	Dimensions in mm IC	L	S
0601	3,960	5,50	1,59

TCGN

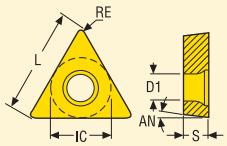


Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TCGN																	
	TCGN060104E-LF	0,4							■							CTLCR/L..06	***

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

TCGW



EPSR = 60°
AN = 7°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
0902	5,560	9,0	2,38	2,6
1102	6,350	11,0	2,38	2,9

TCGW...-C



TCGW...-LF

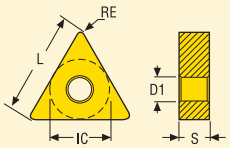


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TCGW																	
	TCGW090204S-01020-LF	0,4							■			■				***	***
	TCGW110204E-L1-C	0,4		■					■							STJCR/L..11 STGCR/L..11 STFCR/L..11	..-STFCR/L11
	TCGW110208E-L1-C	0,8							■								
	TCGW110204S-01020-L1-C	0,4							■								
	TCGW110204S-01525-L1-C	0,4		■													
	TCGW110204S-02020-L1-C	0,4										■					
	TCGW110208S-01020-L1-C	0,8							■								
	TCGW110208S-01525-L1-C	0,8		■	■												
	TCGW110208S-02020-L1-C	0,8										■					
	TCGW110204S-01020-LF	0,4										■					
	TCGW110208S-01020-LF	0,8										■					

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

TNGA



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
1604	9,525	16,5	4,76	3,81

TNGA...-C



TNGA...-V

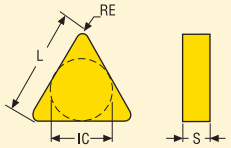


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TNGA																	
	TNGA160404S-01020-L1-C	0,4							■							DTGNR/L..16 DTNNR/L..16 DTTNR/L..16 DTFNR/L..16 PTBNR/L..16 PTGNR/L..16 PTJNR/L..16	..-PTFNR/L16 ..-MTFNR/L16
	TNGA160408S-01020-L1-C	0,8							■								
	TNGA160408S-01525-L1-C	0,8			■					■							
	TNGA160408S-02020-L1-C	0,8										■					
	TNGA160416S-00540-L1-C	1,6				■											
	TNGA160420S-00540-L1-C	2,0				■											
	TNGA160408S-01525-L1-V	0,8		■													

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

TNGN-LF



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S
1103	6,350	11,0	3,18

TNGN

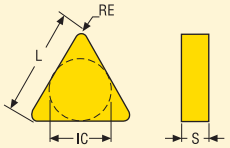


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TNGN																	
	TNGN110308S-01525-LF	0,8								■						CTJNR/L..11 CTFNR/L..11	..-CTUNR/L11
	TNGN110312S-01525-LF	1,2								■							
	TNGN110312S-02020-LF	1,2				■						■					

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

TNGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 0°

Size	Dimensions in mm IC	L	S
1103	6,350	11,0	3,18
1603	9,525	16,5	3,18

TNGN

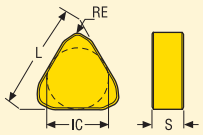


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TNGN																	
		–														CTJNR/L..11 CTFNR/L..11 CTGNR/L..11-PL	..-CTUNR/L11
	TNGN110308E25	0,8									■						
	TNGN110304S-01020	0,4							■								
	TNGN110304S-01525	0,4	■	■													
	TNGN110308S-01020	0,8							■								
	TNGN110308S-01525	0,8	■	■	■					■							
	TNGN110312S-01020	1,2							■								
	TNGN110312S-01525	1,2	■	■	■					■							
	TNGN160304S-01020	0,4							■							CTJNR/L..16* CTFNR/L..16* CTGNR/L..16-PL	***

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* Shim UTN160412 for insert TNGN1603.., to be ordered separately

TNGX



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 0°

Size	Dimensions in mm IC	L	S
1103	6,350	11,0	3,18

TNGX...-WZ



TNGX-...R/L-WZ Crossbill™

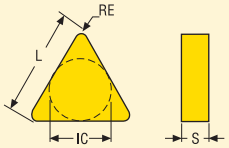


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TNGX...-WZ																	
	TNGX110308S-01020-WZ	0,8							■							CTJNR/L..11*	..-CTUNR/L11*
	TNGX110308S-01525-WZ	0,8	■	■	■					■							
TNGX-...R/L-WZ Crossbill™																	
	TNGX110308S-01020-L-WZ	0,8		■					■								
	TNGX110308S-01020-R-WZ	0,8		■					■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* For inserts with nose radius 08, use shim CTN110312, to be ordered separately

TNMN



EPSR = 60°
AN = 0°

Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S
1103	6,35	11,0	3,18
1604	9,53	16,5	4,76

TNMN

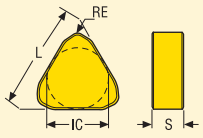


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
TNMN																	
	TNMN110308E	0,8											■			CTJNR/L..11* CTFNR/L..11*	..-CTUNR/L11*
	TNMN110312E	1,2											■				
	TNMN110304S	0,4											■				
	TNMN110308S	0,8					■						■				
	TNMN110312S	1,2											■				
	TNMN160412S	1,2											■			CTJNR/L..16 CTFNR/L..16	..-MTFNR/L16 (without pin)

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
* For inserts with nose radius 0,8 and 1,2, use shim CTN110312, to be ordered separately

TNMX



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 0°

Size	Dimensions in mm IC	L	S
1103	6,35	11,0	3,18

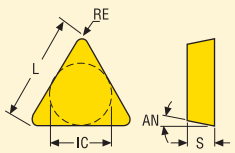
TNMX



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders External	Internal
TNMX																	
	TNMX110308S-WZ	0,8											■			CTJNR/L..11*	CTUNR/L..11*

* Shim CTN110312, to be ordered separately

TPGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 60°
AN = 11°

Size	Dimensions in mm IC	L	S
1103	6,350	11,0	3,18

TPGN

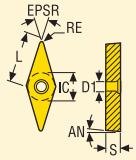


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders External	Internal
TPGN																	
	TPGN110308E	0,8							■							***	***
	TPGN110308S-01020	0,8							■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

VBGW



EPSR = 35°
AN = 5°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1604	9,525	16,0	4,76	4,5

VBGW



VBGW...-B

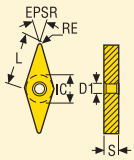


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
VBGW																	
	VBGW160408E-L1-B	0,8		■												SVLBR/L..16 SVJBR/L..16 SVABR/L..16 SVVBN..16	..-SVMBL16 ..-SVQBR/L16 ..-SVUBR/L16
	VBGW160402S-01020-L1-B	0,2							■								
	VBGW160402S-01525-L1-B	0,2			■												
	VBGW160404S-01020-L1-B	0,4							■								
	VBGW160404S-01525-L1-B	0,4	■	■	■					■							
	VBGW160408S-01020-L1-B	0,8							■								
	VBGW160408S-01525-L1-B	0,8		■	■					■							
	VBGW160404S-02020-L2	0,4							■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

VNGA



EPSR = 35°
AN = 0°

Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

Size	Dimensions in mm			
	IC	L	S	D1
1604	9,525	16,0	4,76	3,81





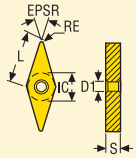


Inserts	Designation	RE	Grades													Toolholders	
			Coated						Uncoated								
			CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	External	Internal
VNGA																	
	VNGA160402S-01020-L1-B	0,2							■							CVVNN..16 DVJNR/L..16 MVJNR/L..16 MVPNR/L..16	..-MVPNR/L16 ..-MVLNR/L16 ..-MVYNR/L16
	VNGA160402S-01525-L1-B	0,2			■												
	VNGA160404S-01020-L1-B	0,4							■								
	VNGA160404S-01525-L1-B	0,4			■					■							
	VNGA160404S-02020-L1-B	0,4										■					
	VNGA160408S-01020-L1-B	0,8							■								
	VNGA160408S-01525-L1-B	0,8			■					■							
	VNGA160408S-02020-L1-B	0,8				■						■					
	VNGA160404S-01525-L1-U	0,4		■													
	VNGA160408S-01525-L1-U	0,8		■													
	VNGA160408S-02020-L2	0,8							■								

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

VNMA



EPSR = 35°
AN = 0°

Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
1604	9,53	16,0	4,76	3,81

VNMA

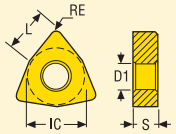


Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
VNMA																	
	VNMA160416S	1,6											■			CVVNN..16 DVJNR/L..16 MVJNR/L..16 MVPNR/L..16	..-MVPNR/L16 ..-MVUNR/L16 ..-MVLNR/L16 ..-MVYNR/L16

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

WNGA



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
0604	9,525	6,6	4,76	3,81
0804	12,700	8,7	4,76	5,15

WNGA



WNGA..-C



WNGA..-V

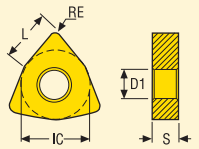


Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
WNGA																	
	WNGA060408S-01525-WZ	0,8		■												DWLNR/L..06-C	A..-DWLNR/L06-C
	WNGA060408S-02020-L1-C	0,8										■				DWLNR/L..06-C DWLNR/L..06 PWLNR/L..06	..-DWLNR/L06 ..-PWLNR/L06
	WNGA080408S-01020-L1-C	0,8							■							DWLNR/L..08-C	..-DWLNR/L08
	WNGA080408S-01525-L1-C	0,8			■											DWLNR/L..08 PWLNR/L..08 MWLNR/L..08	..-PWLNR/L08 ..-MWLNR/L08
	WNGA080408S-01525-L1-V	0,8		■													
	WNGA080412S-01525-L1-V	1,2		■													
	WNGA080408S-01020-L1WZC	0,8							■								
	WNGA080408S-01525L1WZC	0,8			■												
	WNGA080408S-01525L1WZV	0,8		■													
	WNGA080412S-01525L1WZV	1,2		■													

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

WNMA



EPSR = 80°
AN = 0°

Tolerances:
IC = ±0,08
S = ±0,13
RE = ±0,1

Size	Dimensions in mm IC	L	S	D1
0604	9,52	6,6	4,76	3,81

WNMA



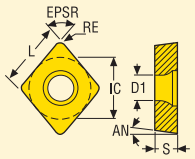
Inserts	Designation	RE	Grades: Coated: CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Grades: Uncoated: CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
WNMA																	
	WNMA060408S	0,8											■			DWLNR/L..06-C	A..-DWLNR/L06-C

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

Secomax – PCBN Inserts with chipbreakers

CCGT



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 7°

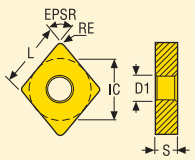
Size	Dimensions in mm IC	L	S	D1
09T3	9,525	9,7	3,97	4,5

CCGT...-B



Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
CCGT																	
	CCGT09T304S-01525-L1-B	0,4		■												SCLCR/L..09 SCGCR/L..09 SCDCR/L..09 SCFCR/L..09 SCACR/L..09 SCECL..09	..-SCLCR/L09 ..-SCFCR/L09 SCACL..09 SCECL..09 ..-SCDCL09
	CCGT09T304S-01525L1WZB	0,4		■												SCLCR/L..09	..-SCLCR/L09
	CCGT09T304S-01525-L1WZB	0,4			■												

CNGM



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 0°

Size	Dimensions in mm IC	L	S	D1
1204	12,700	12,9	4,76	5,15

CNGM...-B



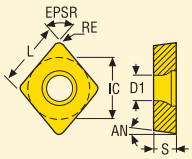
Inserts	Designation	RE	Grades: Coated CH0550	CBN060K	CH2540	CH3515	CBN300P	CBN400C	Uncoated CBN010	CBN150	CBN170	CBN200	CBN300	CBN500	CBN600	Toolholders: External	Internal
CNGM																	
	CNGM120408S-01525-L1-B	0,8		■												DCLNR/L..12 PCLNR/L..12	..-PCLNR/L12 ..-MCLNR/L12
	CNGM120408S-07525-L1-B	0,8			■												
	CNGM120412S-07525-L1-B	1,2			■												
	CNGM120408S-01525L1WZB	0,8		■													
	CNGM120408S-07525-L1WZB	0,8			■												

■ **Stock standard**

Subject to change refer to current price- and stock-list

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78
Cutting data recommendations, see page(s) 79

CCMW



EPSR = 80°
AN = 7°

Tolerances:
IC = ±0,05
IC = ±0,08
S = ±0,13
RE = ±0,05

Size:
06, 09
12

Size	Dimensions in mm IC	L	S	D1
0602	6,35	6,5	2,38	2,9
09T3	9,52	9,7	3,97	4,5
1204	12,70	12,9	4,76	5,6

CCMW

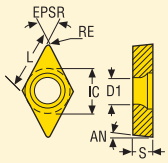


Inserts	Designation	RE	Grades Uncoated PCD20	PCD30	PCD30M	Toolholders External	Internal
CCMW							
	CCMW060202F-L1	0,2	■			SCLCR/L..06 SCGCR/L..06 SCDCR/L..06 SCFCR/L..06 SCACR/L..06 SCECL..06	..-SCLCR/L06 ..-SCFCR/L06 SCACL..06 SCECL..06 ..-SCDCL06
	CCMW060204F-L1	0,4	■	■			
	CCMW060208F-L1	0,8	■				
	CCMW060208F-L1-WZ	0,8	■			SCLCR/L..06	..-SCLCR/L06
	CCMW09T302F-L1	0,2	■			SCLCR/L..09 SCGCR/L..09 SCDCR/L..09 SCFCR/L..09 SCACR/L..09 SCECL..09	..-SCLCR/L09 ..-SCFCR/L09 SCACL..09 SCECL..09 ..-SCDCL09
	CCMW09T304F-L1	0,4	■				
	CCMW09T308F-L1	0,8	■				
	CCMW120404F-L1	0,4	■			SCLCR/L..12	..-SCMCN12
	CCMW120408F-L1	0,8	■				

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

DCMW



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,05

EPSR = 55°
AN = 7°

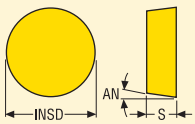
Size	Dimensions in mm			
	IC	L	S	D1
0702	6,35	7,8	2,38	2,9
11T3	9,52	11,6	3,97	4,5

DCMW



Inserts	Designation	RE	Grades			Toolholders	
			Uncoated				
			PCD20	PCD30	PCD30M	External	Internal
DCMW							
	DCMW070202F-L1	0,2	■			SDHCR/L..07 SDJCR/L..07 SDNCN..07 SDACR/L..07	..-SDQCR/L07 ..-SDUCR/L07
	DCMW070204F-L1	0,4	■				
	DCMW11T302F-L1	0,2	■			SDHCR/L..11 SDJCR/L..11 SDNCN..11 SDACR/L..11	..-SDQCR/L11 ..-SDUCR/L11
	DCMW11T304F-L1	0,4	■				

RCGN



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 7°

Size	Dimensions in mm	
	INSD	S
0903	9,52	3,18

RCGN



Inserts	Designation	RE	Grades			Toolholders	
			Uncoated				
			PCD20	PCD30	PCD30M	External	Internal
RCGN							
	RCGN090300F-LF	–	■			***	***

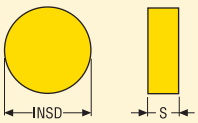
■ **Stock standard**

Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

RNGN



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 0°

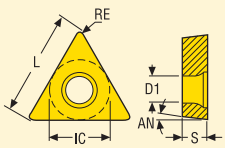
Size	Dimensions in mm INSD	S
0603	6,35	3,18
0903	9,52	3,18
1203	12,70	3,18

RNGN



Inserts	Designation	RE	Grades Uncoated PCD20	PCD30	PCD30M	Toolholders External	Internal
RNGN							
	RNGN060300F-LF	–			■	CRSNR/L..06	..-CRSNR/L06
	RNGN090300F-LF	–	■	■		CRSNR/L..09 CRDNN..09	..-CRSNR/L09
	RNGN120300F-LF	–	■			CRSNR/L..12 CRDNN..12	***

TCMW



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,05

EPSR = 60°
AN = 7°

Size	Dimensions in mm IC	L	S	D1
1102	6,35	11,0	2,38	2,9
16T3	9,52	16,5	3,97	4,5

TCMW

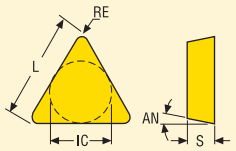


Inserts	Designation	RE	Grades Uncoated PCD20	PCD30	PCD30M	Toolholders External	Internal
TCMW							
	TCMW110204F-L1	0,4	■			STJCR/L..11 STFCR/L..11 STGCR/L..11	..-STFCR/L11
	TCMW16T304F-L1	0,4	■			STFCR/L..16 STGCR/L..16	..-STFCR/L16

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

TPGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,05

EPSR = 60°
AN = 11°

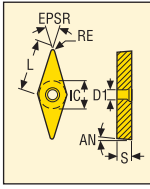
Size	Dimensions in mm IC	L	S
1603	9,525	16,5	3,18

TPGN



Inserts	Designation	RE	Grades Uncoated PCD20	PCD30	PCD30M	Toolholders External	Internal
TPGN	TPGN160302F-L1	0,2	■			***	***
	TPGN160304F-L1	0,4	■				
	TPGN160308F-L1	0,8	■				

VBMW



Tolerances:
IC = ±0,05
S = ±0,13
RE = ±0,05

EPSR = 35°
AN = 5°

Size	Dimensions in mm IC	L	S	D1
1604	9,52	16,0	4,76	4,5

VBMW

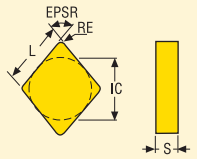


Inserts	Designation	RE	Grades Uncoated PCD20	PCD30	PCD30M	Toolholders External	Internal
VBMW	VBMW160402F-L1	0,2	■			SVLBR/L..16 SVJBR/L..16 SVABR/L..16 SVVBN..16	..-SVQBR/L16 ..-SVUBR/L16 ..-SVMBL16
	VBMW160404F-L1	0,4	■				

■ **Stock standard**
Subject to change refer to current price- and stock-list
*** For information, contact your local Seco office

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

CNGN



Tolerances:
IC = ±0,025
S = ±0,13
RE = ±0,1

EPSR = 80°
AN = 0°

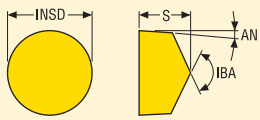
Size	Dimensions in mm IC	L	S
1204	12,700	12,9	4,76
1207	12,700	12,9	7,94

CNGN



Inserts	Designation	RE	Grades Uncoated CS100	Grades Uncoated CS300	Toolholders External	Toolholders Internal
CNGN						
	CNGN120408S-01020	0,8	■		CCBNR/L..12 CCLNR/L..12	..-MCLNR/L12 (without pin)
	CNGN120708S-01020	0,8	■		CCBNR/L..12C CCLNR/L..12C	***
	CNGN120712S-01020	1,2	■			

RCGX



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 7°
IBA = 120°

Size	Dimensions in mm INSD	S
0606	6,350	6,35
0907	9,525	7,94
1207	12,700	7,94

RCGX

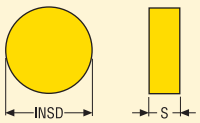


Inserts	Designation	RE	Grades Uncoated CS100	Grades Uncoated CS300	Toolholders External	Toolholders Internal
RCGX						
	RCGX060600T-01020	–	■		CRDCN..06C	***
	RCGX090700T-01020	–	■		CRDCR/L..09C CRDCN..09C	***
	RCGX120700S-01020	–	■		CRDCR/L..12C CRDCN..12C	***
	RCGX120700T-01020	–	■			

■ **Stock standard**
Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office

RNGN



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 0°

Size	Dimensions in mm INSD	S
1204	12,700	4,76
1207	12,700	7,94

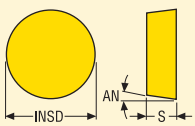
RNGN



Inserts	Designation	RE	Grades Uncoated CS100	Grades Uncoated CS300	Toolholders External	Toolholders Internal
RNGN						
	RNGN120400S-01020	–	■		CRSNR/L..12* CRDNN..12*	***
	RNGN120400T-01020	–	■	■		
	RNGN120700S-01020	–	■		CRSNR/L..12C CRDNN..12C	***
	RNGN120700T-01020	–	■	■		

* Shim 117.10-621, to be ordered separately

RPGN



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 11°

Size	Dimensions in mm INSD	S
1204	12,700	4,76

RPGN

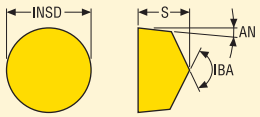


Inserts	Designation	RE	Grades Uncoated CS100	Grades Uncoated CS300	Toolholders External	Toolholders Internal
RPGN						
	RPGN120400T-01020	–		■	***	***

■ Stock standard
Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office

RPGX



Tolerances:
INSD = ±0,025
S = ±0,13

AN = 11°
IBA = 120°

Size	Dimensions in mm	
	INSD	S
0907	9,525	7,94
1207	12,700	7,94

RPGX



Inserts	Designation	RE	Grades		Toolholders	
			Uncoated			
			CS100	CS300	External	Internal
RPGX						
	RPGX090700T-01020	–	■		CRDCR/L..09C CRDCN..09C	***
	RPGX120700S-01020	–	■		CRDCR/L..12C CRDCN..12C	***
	RPGX120700T-01020	–	■			

■ Stock standard
Subject to change refer to current price- and stock-list

*** For information, contact your local Seco office


Jetstream Tooling

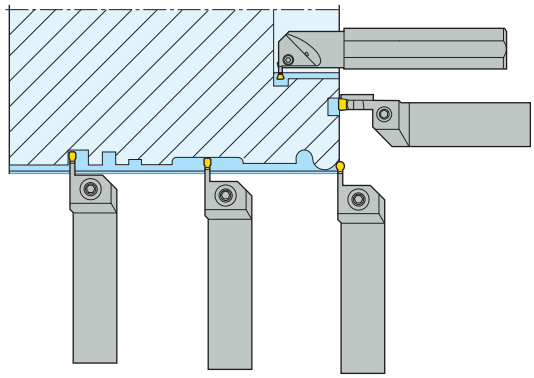
General information

The Seco MDT (Multi Directional Turning) system consists of holders and inserts for external radial, external axial and internal machining.

The system can be used for:

- Turning
- Profiling
- Grooving
- Parting-off
- Threading

Suitable applications are turning of parts with many different diameters, complicated profiles and grooves. For complex parts of this type several standard and special tools can be replaced by one Seco MDT tool. Savings can be achieved through fewer tool changes and reduced tool stock.



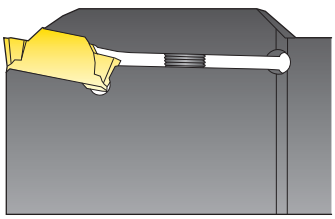
Seco MDT has a unique insert clamping method – Secoloc™.

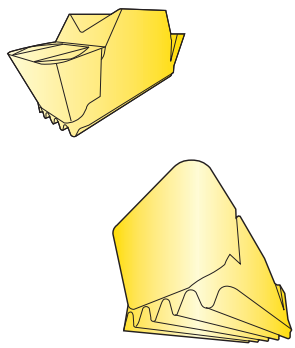
A combination of V-shaped top clamp and serrated contact surfaces between the underside of the insert and the toolholder offers superb stability.

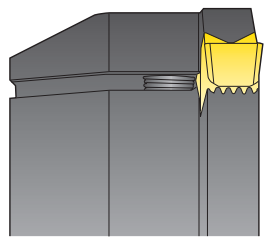
The relatively long insert also increases the stability.

The excellent stability gives a number of benefits

- Improved process safety
- Increased metal removal capacity/productivity
- Improved surface finish
- Reduced vibration risk
- Good repeatability (±0.03 mm)





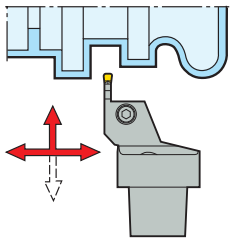


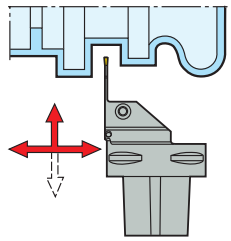
Seco Jetstream Tooling®

Seco Jetstream Tooling® holders feature a rake face coolant jet, that may provide even better chip control and significantly longer tool life. For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746.



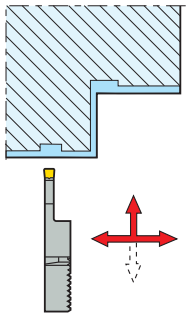
External holders, Seco-Capto™

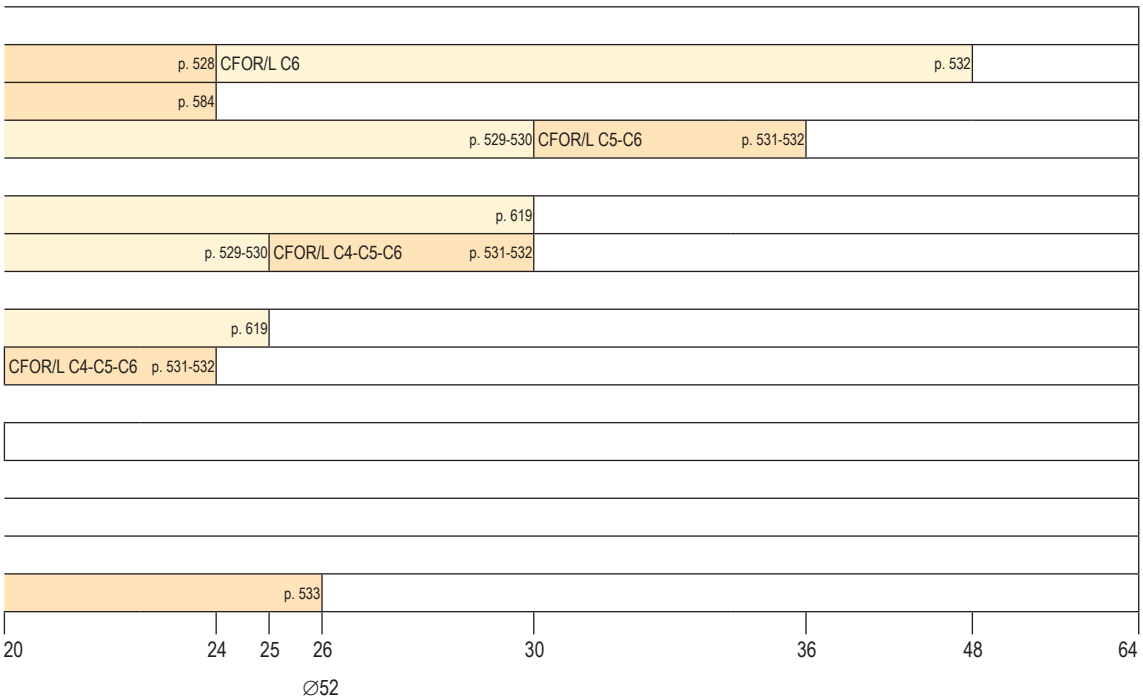




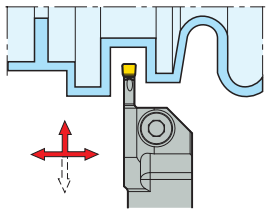
CW																				
8	JET	CFIR/L C6																		
	non JET	CFIR/L C6																		
6	JET	CFIR/L C5-C6															p. 527-528	CFMR/L C5-C6		
	non JET	CFIR/L C5-C6															p. 583-584			
	modular	V21-CIR/L C4-C5-C6															p. 619	V21-CMR/L C4-C5-C6		
5	JET	CFIR/L C4-C5-C6											p. 527-528	CFMR/L C5-C6						
	non JET	CFIR/L C4-C5-C6											p. 583-584							
	modular	V21-CIR/L C4-C5-C6											p. 619	V21-CMR/L C4-C5-C6						
4	JET	CFIR/L C4-C5-C6								p. 527-528	CFMR/L C4-C5-C6								p. 529-530	
	non JET	CFIR/L C4-C5-C6								p. 583-584										
	modular	V21-CIR/L C4-C5-C6								p. 619	V21-CMR/L C4-C5-C6								p. 619	
3	JET	CFIR/L C4-C5-C6	p. 527-528	CFMR/L C4-C5-C6						p. 529-530	CFOR/L C4-C5-C6	p. 531-532								
	non JET	CFIR/L C4-C5-C6	p. 583-584																	
	modular	V21-CIR/L C4-C5-C6	p. 619	V21-CMR/L C4-C5-C6						p. 619										
2	JET	CFZR/L C4-C5-C6 *																		
		CDX = 9		12						15						18				20

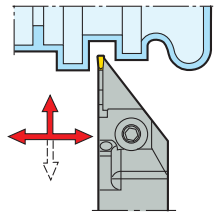
* Due to the design, grooving depth is limited to given ∅



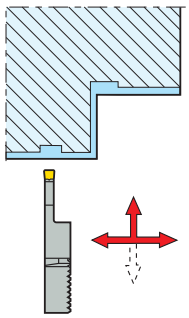

p. 528
CFOR/L C6
p. 532
p. 584
p. 529-530
CFOR/L C5-C6
p. 531-532
p. 619
p. 529-530
CFOR/L C4-C5-C6
p. 531-532
p. 619
CFOR/L C4-C5-C6
p. 531-532
p. 533
20
24
25
26
30
36
48
64
∅52

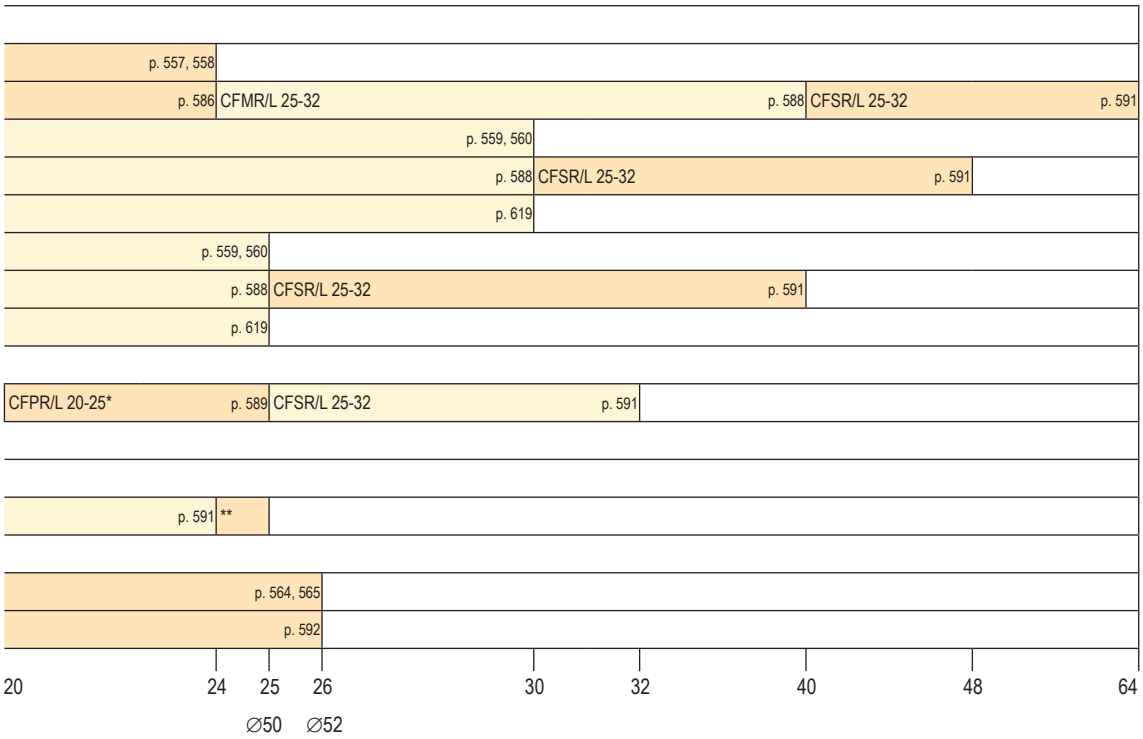
External holders



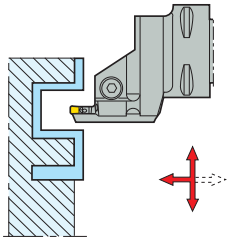


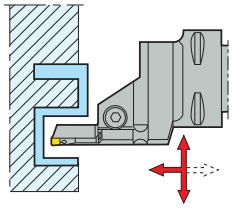
| CW | | |



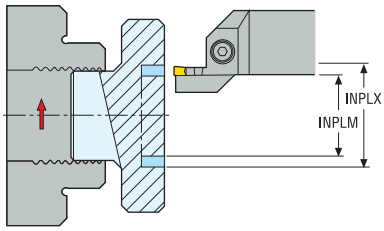

p. 557, 558
p. 586
CFMR/L 25-32
p. 588
CFSR/L 25-32
p. 591
p. 559, 560
p. 588
CFSR/L 25-32
p. 591
p. 619
p. 559, 560
p. 588
CFSR/L 25-32
p. 591
p. 619
CFPR/L 20-25*
p. 589
CFSR/L 25-32
p. 591
p. 591
**
p. 564, 565
p. 592
20
24
25
26
30
32
40
48
64
∅50
∅52

Axial holders, Seco-Capto™





∅ of initial plunge INPLM-INPLX	CW	All Seco-Capto™ axial holders are JET
200-500	8	CFIR/L C6
	6	CFOR/L C5-C6
	5	CFOR/L C4-C5-C6
	4	CFOR/L C4-C5-C6
	3	CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
140-230	8	CFIR/L C6
	6	CFIR/L C5-C6 p. 538, 540
	5	CFIR/L C4-C5-C6 p. 536, 538, 540 CFOR/L C4-C5-C6
	4	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6
	3	CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
110-170	8	CFIR/L C6
	6	CFIR/L C5-C6 p. 538, 540
	5	CFIR/L C4-C5-C6 p. 536, 538, 540 CFOR/L C4-C5-C6
	4	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6
	3	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
90-130	8	CFIR/L C6
	6	CFIR/L C5-C6 p. 538, 540
	5	CFIR/L C4-C5-C6 p. 536, 538, 540 CFOR/L C4-C5-C6
	4	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6
	3	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
70-100	6	CFIR/L C5-C6 p. 538, 540
	5	CFIR/L C4-C5-C6 p. 536, 538, 540 CFOR/L C4-C5-C6
	4	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6
	3	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
55-80	6	CFIR/L C5-C6 p. 538, 540
	5	CFIR/L C4-C5-C6 p. 536, 538, 540 CFOR/L C4-C5-C6
	4	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6
	3	CFIR/L C4-C5-C6 p. 535, 537, 539 CFOR/L C4-C5-C6 p. 542, 544, 546, 549, 551, 553
		CDX = 9 12 15 18



p. 541 CFOR/L C6 p. 548, 555
p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

p. 541 CFOR/L C6 p. 548, 555
CFOR/L C5-C6 p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

p. 541 CFOR/L C6 p. 548, 555
CFOR/L C5-C6 p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

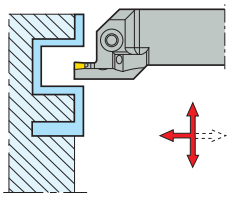
p. 541 CFOR/L C6 p. 548, 555
CFOR/L C5-C6 p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

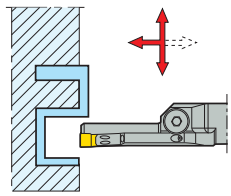
CFOR/L C5-C6 p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

CFOR/L C5-C6 p. 545, 547, 552, 554
p. 543, 545, 547, 550, 552, 554
p. 542, 544, 546, 549, 551, 553

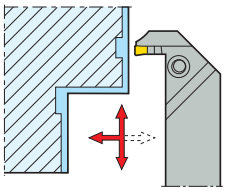
18 24 30 36 48

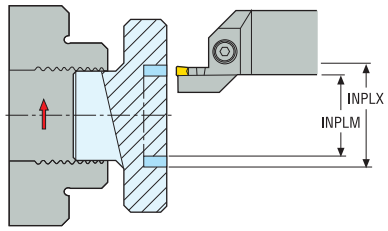
Axial holders





∅ of initial plunge INPLM-INPLX	CW	CDX = 9	12	15	18
200-500	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CFOR/L 25JET			
	5	CFOR/L 25JET			
	4	CFOR/L 25JET			
	3	CFOR/L 25JET			p. 573, 576, 578, 580
140-230	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 569, 572, 594, 597
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 569, 572, 594, 597	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	
	3	CFOR/L 25JET			p. 573, 576, 578, 580
110-170	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 569, 572, 594, 597
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 569, 572, 594, 597	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	p. 573, 576, 578, 580
90-130	8	CF(G)IR/L 32 / CFIR/L 32JET			
	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 569, 572, 594, 597
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 569, 572, 594, 597	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	p. 573, 576, 578, 580
70-100	6	CF(G)IR/L 25 / CFIR/L 25JET			p. 569, 572, 594, 597
	5	CF(G)IR/L 25 / CFIR/L 25JET		p. 569, 572, 594, 597	CFOR/L 25JET
	4	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	
	3	CF(G)IR/L 25 / CFIR/L 25JET	p. 568, 571, 593, 596	CFOR/L 25JET	p. 573, 576, 578, 580
55-80	6	CFIR/L 25JET			p. 566, 567, 569, 572,
	5	CFIR/L 25JET		p. 566, 567, 569, 572,	CFOR/L 25JET
	4	CFIR/L 25JET	p. 566, 567, 568, 571	CFOR/L 25JET	
	3	CFIR/L 25JET	p. 566, 567, 568, 571	CFOR/L 25JET	p. 573, 576, 578, 580





p. 570, 595, 598 CFOR/L 32JET p. 575, 582

p. 574, 577, 579, 581

p. 574, 577, 579, 581

p. 573, 576, 578, 580

p. 570, 595, 598 CFOR/L 32JET p. 575, 582

CFOR/L 25JET p. 574, 577, 579, 581

p. 574, 577, 579, 581

p. 573, 576, 578, 580

p. 570, 595, 598 CFOR/L 32JET p. 575, 582

CFOR/L 25JET p. 574, 577, 579, 581

p. 574, 577, 579, 581

p. 573, 576, 578, 580

p. 570, 595, 598 CFOR/L 32JET p. 575, 582

CFOR/L 25JET p. 574, 577, 579, 581

p. 574, 577, 579, 581

p. 573, 576, 578, 580

CFOR/L 25JET p. 574, 577, 579, 581

p. 574, 577, 579, 581

p. 573, 576, 578, 580

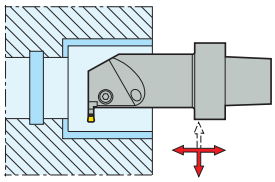
CFOR/L 25JET p. 574, 577, 579, 581

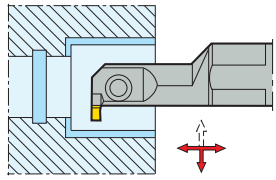
p. 574, 577, 579, 581

p. 573, 576, 578, 580

18 24 30 36 48

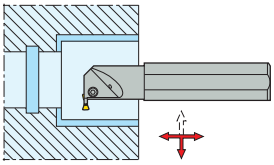
Internal holders

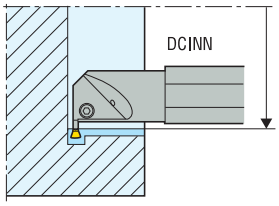




$DCINN_{min}$	CW	Shank type		
45	6	Seco-Capto	CGGR/L C5-C6	
		Bar	CGGR/L ∅40	
	5	Seco-Capto	CGGR/L C4-C5-C6	
		Bar	CGGR/L ∅40	
	4	Seco-Capto	CGGR/L C4-C5-C6	
		Bar	CGGR/L ∅40*	
	3	Seco-Capto	CGGR/L C4-C5-C6	p. 603-604
		Bar	CGGR/L ∅40	p. 608
32	6	Seco-Capto	CGFR/L C5-C6	
		Bar	CGFR/L ∅32	
	5	Seco-Capto	CGFR/L C4-C5-C6	
		Bar	CGFR/L ∅32	
	4	Seco-Capto	CGGR/L C4-C5-C6	
		Bar	CGGR/L ∅32	
	3	Seco-Capto	CGIR/L C4-C5-C6	
		Bar	CGIR/L ∅32	
25	4	Seco-Capto	CGFR/L C5-C6	
		Bar	CGFR/L ∅25	
	3	Seco-Capto	CGHR/L C5-C6	
		Bar	CGHR/L ∅25	
	2	Seco-Capto	CGJR/L C4-C5-C6	
		Bar	CGJR/L ∅25	
20	4	Seco-Capto	CGFR/L C4-C5-C6	p. 599-600
		Bar	CGFR/L ∅20	p. 606
	3	Seco-Capto	CGFR/L C4-C5-C6	p. 599-600
		Bar	CGFR/L ∅20	p. 606
	2	Seco-Capto	CGHR/L C4-C5-C6	p. 605
		Bar	CGHR/L ∅20	p. 609
16	3	Seco-Capto	CGER/L C4-C5-C6	p. 599-600
		Bar	CGER/L ∅16	p. 606

CDX = 3 5,5 6

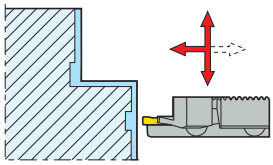


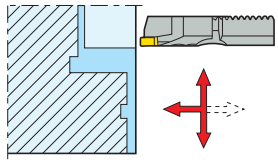


			p. 603-604
			p. 608
		p. 603-604	
		p. 608	
	p. 603-604		
	p. 608		
p. 601-602			
p. 607			
p. 601-602			
p. 607			
p. 601-602	CGHR/L C5-C6	p. 599-600	
p. 607	CGHR/L ∅32	p. 606	
p. 601-602	CGJR/L C5-C6	p. 599-600	
p. 607	CGJR/L ∅32	p. 606	
p. 599-600			
p. 606			
p. 599-600			
p. 606			
p. 605			
p. 609			

6 7,5 8 9 10 10,5 12

Axial modular blades



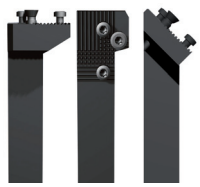


INPLM-INPLX	CW		
17-200	4	V21-CMR/L	p. 621, 623
26-100		V21-CIR/L	p. 621, 623
17-34		V21-CHR/L	p. 621, 623
17-200	3	V21-COR/L	p. 620, 622
33-76		V21-CKR/L	p. 620, 622
17-39		V21-CJR/L	p. 620, 622

CDX = 9,5 | 11 | 18 | 20

Holders for modular blades



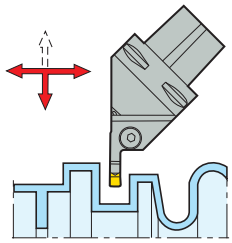






C4-C5-C6	p. 615	20-25-32	p. 616	C4-C5-C6 ∅25-32-40	p. 617-618

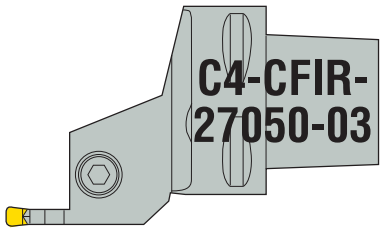
External MTM holders



CW			
8	JET	CDIR/L C6	p. 614
6	JET	CDIR/L C6	p. 614
5	JET	CDIR/L C6	p. 614
4	JET	CDIR/L C6	p. 614
3	JET	CDIR/L C6	p. 614

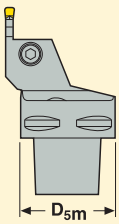
CDX = 9 12 15 18 24

External toolholders



C4	-	C	F	I	R	-	27	050	-	03
1		2	3	4	5		6	7		8

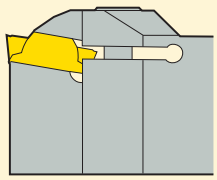
1. Seco-Capto™ size



C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm

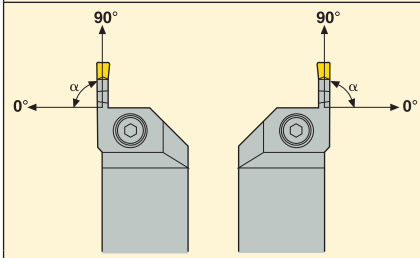
2. Insert clamping

C



Clamp

3. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

4. Maximum grooving/turning depth

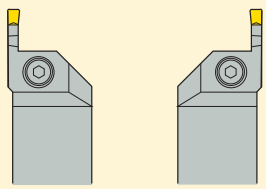


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

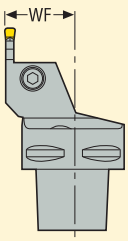
X = Special

5. Version



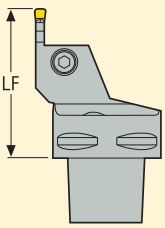
R L

6. WF-dimension



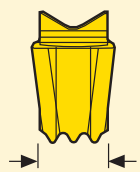
27 = 27 mm
35 = 35 mm
45 = 45 mm
etc.

7. LF-dimension



050 = 50 mm
060 = 60 mm
065 = 65 mm
etc.

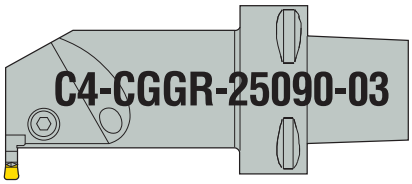
8. Seat size



Seat size

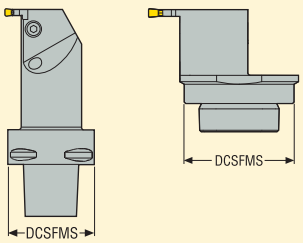
03 = 2,3 mm
04 = 3,1 mm
05 = 4,1 mm
06 = 5,1 mm
08 = 6,8 mm
1902 = 1,6 mm
2802 = 1,6 mm
etc.

Internal toolholders and modular turning heads



C4	-	C	G	G	R	-	25	090	-	03
1		2	3	4	5		6	7		8

1. Seco-Capto™ and GL size

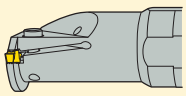


C3 = 32 mm
C4 = 40 mm
C5 = 50 mm
C6 = 63 mm

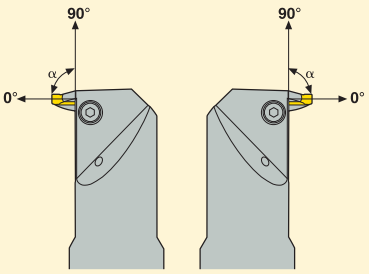
GL25 = 25 mm
GL32 = 32 mm
GL40 = 40 mm
GL50 = 50 mm

2. Insert clamping

C



3. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

4. Maximum grooving/turning depth

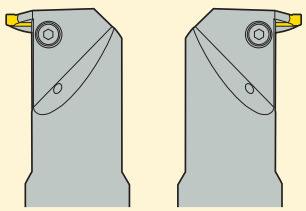


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

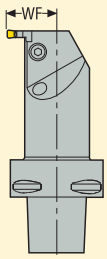
L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

X = Special

5. Version

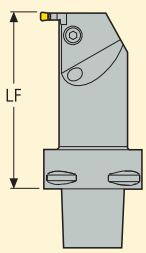


6. WF-dimension



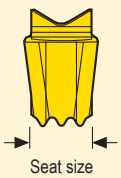
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

7. LF-dimension



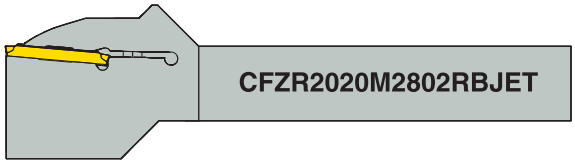
065 = 65 mm
075 = 75 mm
080 = 80 mm
etc.

8. Seat size



1303 = 2,4 mm
1304 = 3,4 mm
03, 1603 = 2,3 mm
04, 1604 = 3,1 mm
05, 1605 = 4,1 mm
06, 1606 = 5,1 mm
1902 = 1,6 mm
etc.

External toolholders

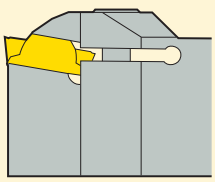


C	F	Z	R	20	20	M	2802	RB	JET
1	2	3	4	5	6	7	8	12	13

C	F	I	R	25	25	M	04	L	100	070
1	2	3	4	5	6	7	8	9	10	11

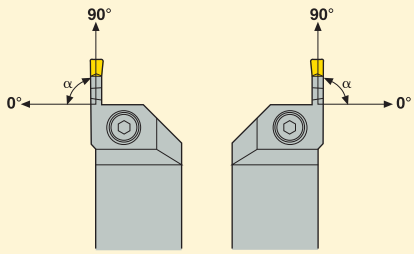
1. Insert clamping

C



Clamp

2. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

3. Maximum grooving/turning depth

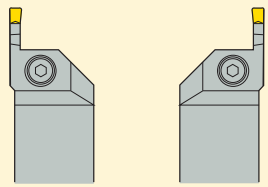


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW
L = 4,5 x CW

M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
P = 6,25 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

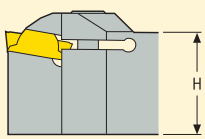
X = Special

4. Version



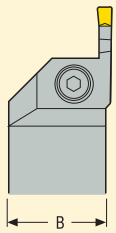
R L

5. Shank height



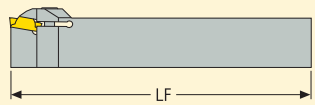
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

6. Shank width



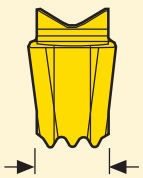
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

7. Tool length



H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

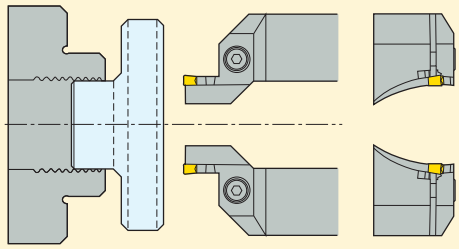
8. Seat size



Seat size

1303 = 2,4 mm
1304 = 3,4 mm
1603 = 2,3 mm
1604 = 3,1 mm
1605 = 4,1 mm
1606 = 5,1 mm
1902 = 1,6 mm
2802 = 1,6 mm
3008 = 6,8 mm
etc.

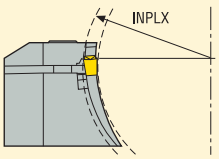
9. Tang curvature direction



Additional information for axial machining

10. Maximum diameter

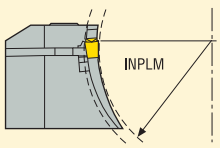
100 = 100 mm (D_1)



Additional information for axial machining

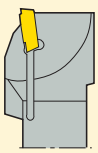
11. Minimum diameter

070 = 70 mm (D_2)



Additional information for axial machining

12. Holder modification



RB = Reinforced blade for specified diameter

13. Cooling system

JET = Jetstream Tooling®
JETI = Jetstream Tooling® integrated coolant inlet

Internal toolholders



A	20	R	-	C	G	F	R	1303
1	2	3		4	5	6	7	8

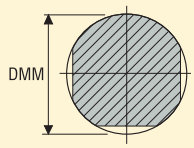
1. Toolholder type

A = Steel with coolant passage

S = Solid steel
E = Solid carbide with brazed* cutting head and coolant passage

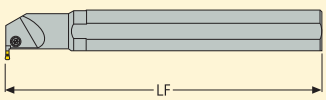
* Brazed or equivalent

2. Shank diameter



12 = 12 mm
20 = 20 mm
25 = 25 mm
etc.

3. Tool length



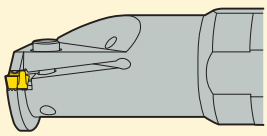
K = 125 mm
L = 140 mm
M = 150 mm
N = 160 mm
P = 170 mm

Q = 180 mm
R = 200 mm
S = 250 mm
T = 300 mm
U = 350 mm

V = 400 mm

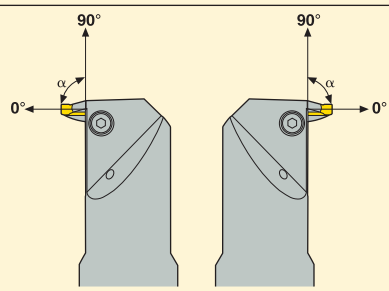
4. Insert clamping

C



Clamp

5. Toolholder setting angle



α
G = 0°
R = 15°
T = 30°
S = 45°
W = 60°
K = 75°
F = 90°
B = 105°
E = 120°
D = 135°

6. Maximum grooving/turning depth

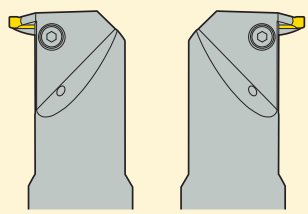


E = 1,0 x CW
F = 1,5 x CW
G = 2,0 x CW
H = 2,5 x CW
I = 3,0 x CW
J = 3,5 x CW
K = 4,0 x CW

L = 4,5 x CW
M = 5,0 x CW
N = 5,5 x CW
O = 6,0 x CW
S = 8,0 x CW
T = 8,5 x CW
Z = 12,5 x CW

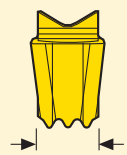
X = Special

7. Version



R L

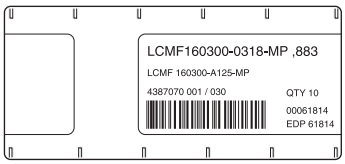
8. Seat size

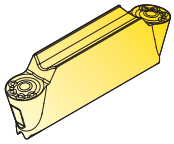


Seat size

1303 = 2,4 mm
1304 = 3,4 mm
1603 = 2,3 mm
1604 = 3,1 mm
1605 = 4,1 mm
1606 = 5,1 mm
1902 = 1,6 mm
2802 = 1,6 mm

Inserts





L	C	M	F	16	03	00	-	0318		-	MP
1	2	3	4	5	6	7		8	9		10

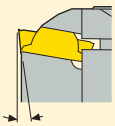
1. Shape

L



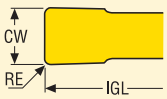
Rectangular

2. Front clearance angle



C = 7°

3. Tolerances



Tolreanceclass	Tolerance ± mm			For insert width, CW mm					
	CW	RE	IGL	2	3	4	5	6	8
G	0,025	0,025	0,040		•	•	•	•	•
M	0,050	0,050	0,080	•	•	•	•	•	•

4. Insert type

R



Single ended with chipbreaker

N



Single ended without chipbreaker

F



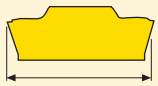
Double ended with chipbreaker

A

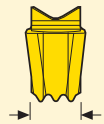


Double ended without chipbreaker

5. Insert gauge length

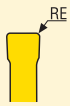


6. Insert gauge width



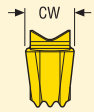
Seat size

7. Corner radius



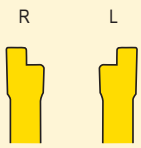
M0,00	= round	-A/G55	= thread profile
01	= 0,1 mm	-A/G60	= thread profile
02	= 0,2 mm	etc.	
04	= 0,4 mm		
08	= 0,8 mm		

8. Insert width



0200 = 2,0 mm
0300 = 3,0 mm
0400 = 4,0 mm
0500 = 5,0 mm
etc.

9. Version

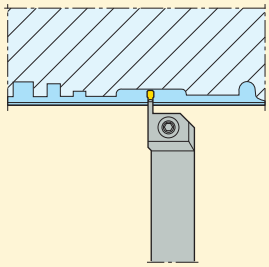


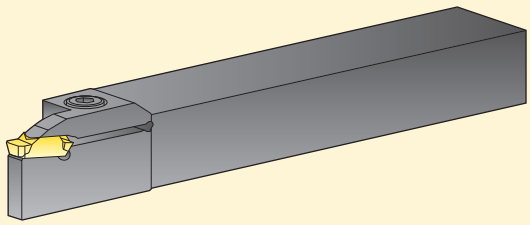
10. Insert type code, for further information please see page(s)) 501-502

FT	= Chipbreaker for fine turning	FG	= For lock rings
FTR/L	= Right or left hand version with a specified setting angle, for parting-off	DY	= For dynamic O-rings
MT	= Chipbreaker for medium turning	ST	= For static O-rings
MG	= Chipbreaker for medium grooving	D76	= For thread undercuts
MC	= Chipbreaker for medium cut-off	R	= For radius
MCR/L	= Right or left hand version with a specified setting angle, for parting-off	A55/A60 G55/G60 ISO	= For threading
GG	= Chipbreaker for medium grooving		
GS	= Chipbreaker for fine grooving		
MP	= Chipbreaker for medium profiling		
RP	= Chipbreaker for fine and medium profiling		

CFIR/L – Basic choice

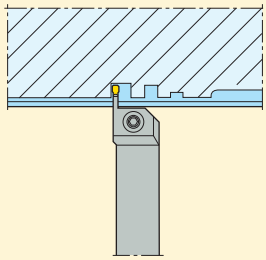
- For external turning, profiling and grooving
- Maximum working depth 3 x the insert width (can be limited by double ended inserts)
- Size 16 – For general machining
- Size 30 – For heavy machining

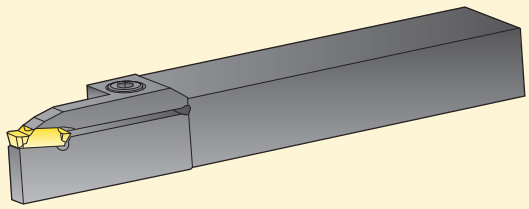




CFMR/L – Long reach

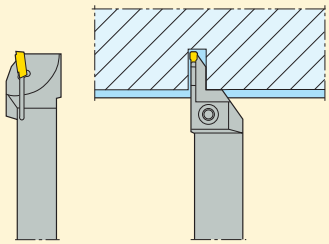
- For external turning, profiling and grooving
- Maximum working depth 5 x the insert width
- Single ended inserts should be used (CFMR/L, CFSR/L)
- Size 16 – For general machining
- Size 28 – For general machining
- Size 30 – For heavy machining

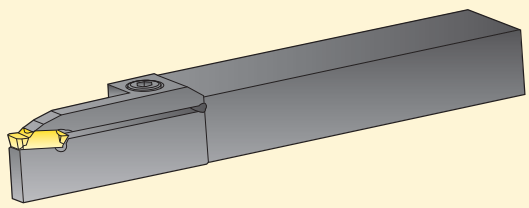




CFOR/L, CFPR/L, CFSR/L, CFTR/L, CFZR/L – Extra long reach, 6 x insert width up to 12,5 x insert width

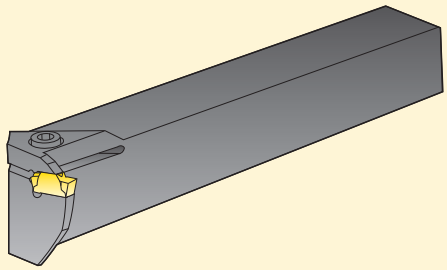
- For grooving and parting-off
- Single ended inserts should be used (CFOR/L, CFPR/L, CFTR/L)
- Size 16 – For general machining
- Size 19 – For small part machining
- Size 28 – For general machining



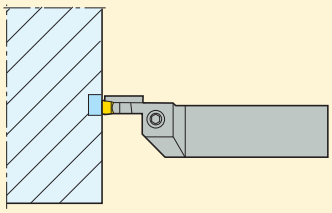


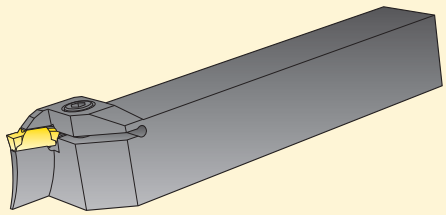
CGIR/L, CFIR/L, CFOR/L – Axial machining

- For axial turning, profiling and grooving
- Maximum working depth 3-6 x the insert width (can be limited by double ended inserts).
- These toolholders demand that the first cut must be made between two specified diameters (see code key)
- Size 16 – For general machining
- Size 30 – For heavy machining



CGIR

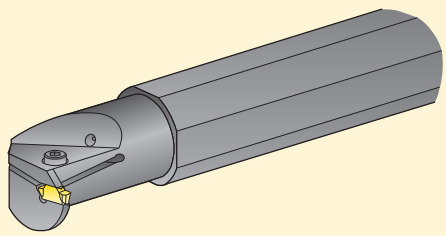




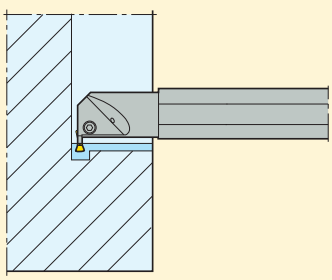
CFIL

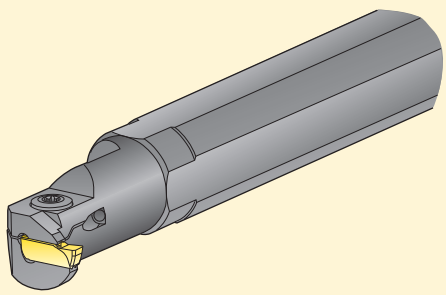
CG.IR/L – Internal machining

- For internal turning, profiling and grooving
- Maximum working depth 1–3,5 x the insert width for size 13
- Maximum working depth 3 x the insert width for size 16
- Maximum working depth 2,5–3,5 x the insert width for size 19
- For through coolant supply
- Size 13 – For machining in small bore sizes
- Size 16 – For general machining
- Size 19 – For machining in small bore size



MDT16

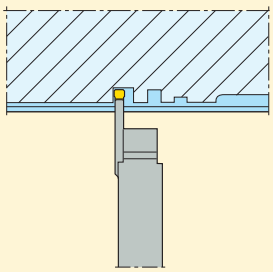


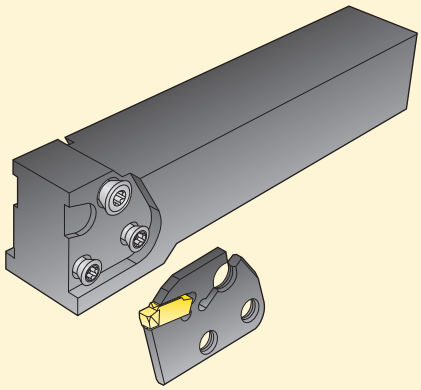


MDT13

Single ended blades

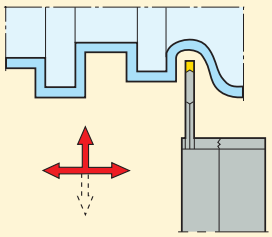
- Holder with both right and left hand blade mounting available
- Size 16 – For general machining

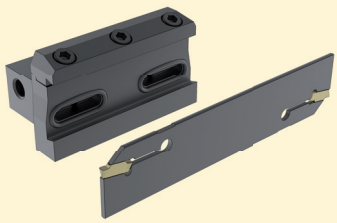




Double ended blades

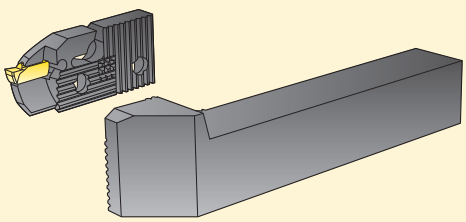
- To be used in standard 150.10 toolblocks
- Size 16 – For parting-off

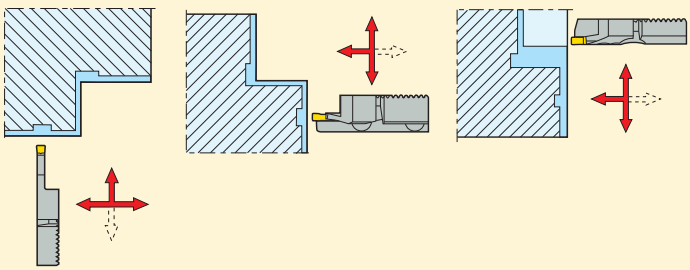




Modular holders, axial/radial

- For axial/radial turning, profiling and grooving
- Maximum working depth up to 6 x the insert width
- Axial toolholders demand that the first cut must be made between two specified diameters (see code key)
- Size 13 – For axia/radial machining at small diameters
- Size 16 – For axial/radial machining

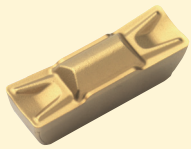




LCMF – Basic choice

- Double ended
- Economy (cutting edges at both ends)
- Size 13 – For machining in small bore sizes and axial machining at small diameters
- Size 16 – For general machining
- Size 19 – For small part machining
- Size 28 – For general machining
- Size 30 – For heavy machining

MDT13



MDT16
MDT30



MDT19
MDT28



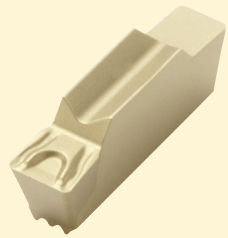
LCMR

- Single ended
- Flexibility
- Reach (full length clearance)
- Size 13 – For machining in small bore sizes and axial machining at small diameters
- Size 16 – For general machining
- Size 30 – For heavy machining

MDT13



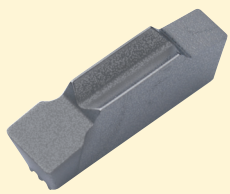
MDT16
MDT30



LCG.

- Special applications
- Standard and (customer specified) tailor made profiles
- Double or single ended
- With or without chipbreaker

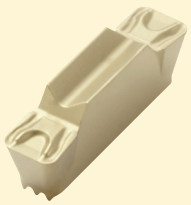
- Size 13 – For machining in small bore sizes and axial machining at small diameters
- Size 16 – For general machining
- Size 30 – For heavy machining



Select narrow inserts if small cutting depths and feed rates are to be used.
Select wide inserts if large cutting depths and feed rates are to be used.

FT (Fine Turning)

- For fine turning
- For deep grooving



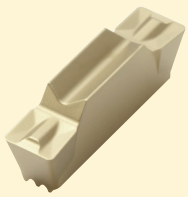
FT 19 and 28 (Fine Turning)

- For fine turning
- For parting-off
- For deep grooving



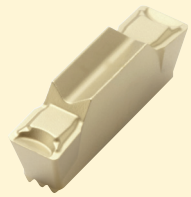
MT (Medium Turning)

- For medium turning
- For shallow grooving



MG (Medium Grooving)

- For medium turning
- For deep grooving
- For parting-off



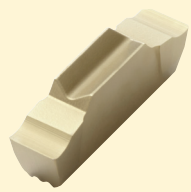
MC (Medium Cut-off)

- For parting-off tubes and small diameter workpieces
- Reduces vibration risk
- For deep grooving



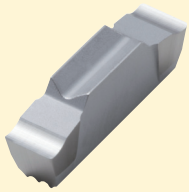
GG (Grooving Ground)

- Ground chipgroove
- For medium grooving, complement to FT for precision grooves



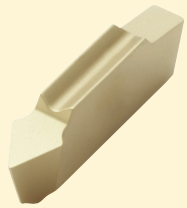
GS (Grooving Sharp)

- Sharp edge
- For fine grooving in non-ferrous materials/superalloys
- Precision grooves



A55/A60, G55/G60, ISO

- For threading applications



Note! The helix angle should not exceed λ +2°.

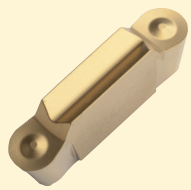
MP (Medium Profiling)

- For medium profiling
- For medium turning
- For medium grooving
- Good accessibility

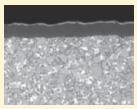
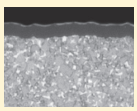
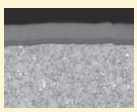
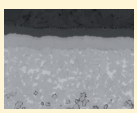
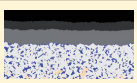
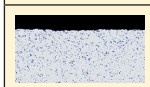
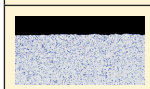


RP (Round Profiling)

- For fine and medium profiling, turning and grooving
- Sharp periphery ground edges
- For superalloys, titanium alloys and non-ferrous materials

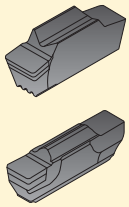
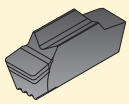
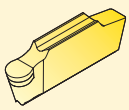
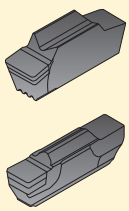


Grades

	**CP200**	PVD-coated, hard micrograin grade with great wear resistance, intended for grooving, parting-off and profiling of superalloys, titanium alloys and hardened steels. A more wear resistant alternative to grade 890. (Ti,Al)N + TiN
	**CP500**	Tough versatile PVD-coated micrograin grade intended for grooving in a variety of workpiece materials. Universal choice. (Ti,Al)N + TiN
	**CP600**	Very tough PVD-coated fine-grain grade intended for deep grooving and parting-off at low to moderate cutting speeds. Well-suited in deep grooving and in interrupted cuts. Tougher alternative to CP500. (Ti,Al)N + TiN
	**TGH1050**	Very hard supermicrograin grade intended for partly hardened steel components as well as generally work-piece materials such as superalloys and cast-iron and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating
	**TGK1500**	Wear-resistant, hard **Duratomic®** CVD-coated grade intended for grooving and profiling of grey cast iron and nodular cast iron. $Ti(C,N) + Al_2O_3$
	**TGP25**	A wear-resistant **Duratomic®** CVD-coated grade intended for grooving, turning and profiling of steels at high cutting speeds. $Ti(C,N) + Al_2O_3$
	**883**	Uncoated, hard grade intended for grooving, parting-off and profiling of superalloys, titanium alloys, hardened steels and non-ferrous materials.
	**890**	Uncoated, very hard micrograin grade intended for grooving and profiling of superalloys, titanium alloys, hardened steels and non-ferrous materials. More wear resistant alternative to grade 883.

Information regarding PCBN grades for MDT, please see page(s) 81.

Grades, PCBN

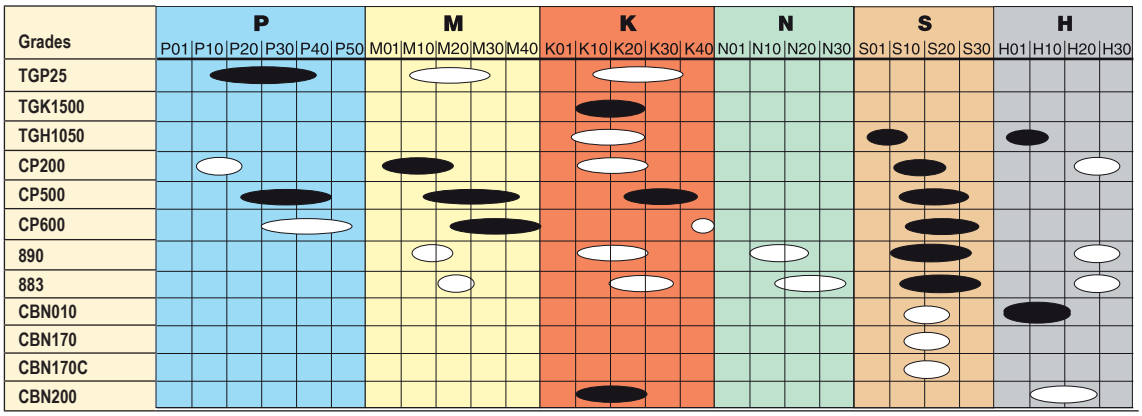
CBN010 	Single-ended inserts with brazed tip, intended for hardened steels and Ni-based superalloys. Composition: 50% cBN content grade with an average grain size of 2 µm and a TiC ceramic binder. Coating: No coating.
CBN170 	Single-ended inserts with brazed tip, intended for Ni-based superalloys. Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: No coating.
CBN170C 	Single-ended inserts with brazed tip, intended for Ni-based superalloys. Composition: 65% cBN content grade with an average grain size of 2 µm and a TiCN+SiCw ceramic binder. Coating: (Ti,Si)N
CBN200 	Single-ended inserts with brazed tip, intended for perlitic cast iron and hardened steels. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.

Grades

The chart below shows application areas for grades available in the MDT system.

The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

ISO classification of the grades

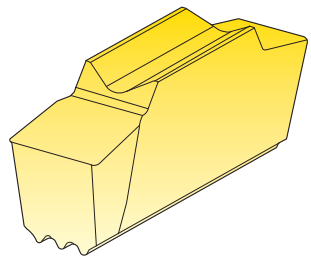


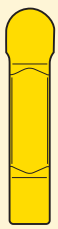
MDT – Secolor



Inserts for standard grooves

Standard programme
- Double-ended LCGA (MDT13)
- Single-ended LCGN (MDT16)



FG – For locking rings 	**DY** – For dynamic O-rings 	**ST** – For static O-rings 
R – For full radius grooving 	**D76** – For thread undercuts 	

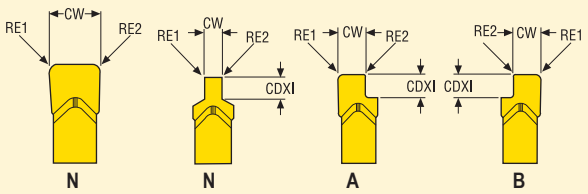
Remember to check the toolholder clearance before using these inserts.

Special applications

- Tailor-made inserts
- LCG.

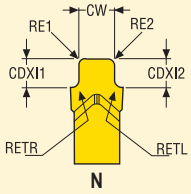
Special inserts can easily be produced in the styles below.
They are made from blanks, single or double ended, with or without chipbreaker.
(Available as Custom Design at your local Seco website or contact your Seco representative for a special order form to define the required insert.)

Style A



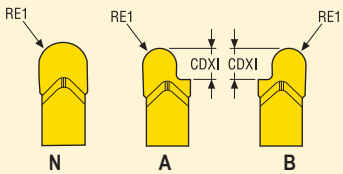
Standard or special widths with corner radii

Style B



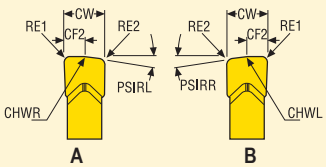
Standard or special widths with corner and crest radii

Style C



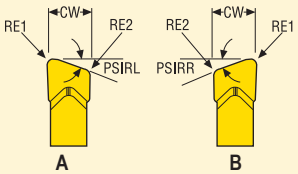
Standard or special widths with full radius

Style D



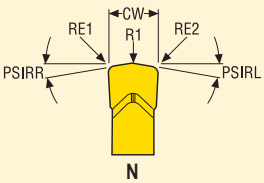
Standard or special widths with front angle and corner radii

Style E



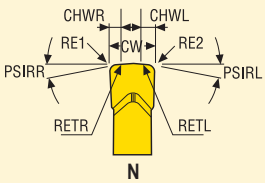
Special widths with front angle and corner radii

Style F



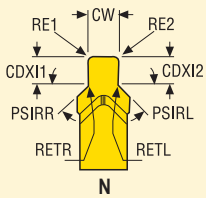
Special widths with double front angles and corner radii

Style G



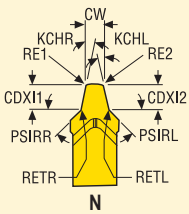
Special widths with double front angles and corner radii

Style J



Special widths with radii and chamfers

Style K



Special widths with radii, chamfers and angles

Remember to check the toolholder clearance before using these inserts.

Principles

During turning the axial forces deflect the tool generating a necessary trailing edge clearance angle.

This angle depends on

– Feed

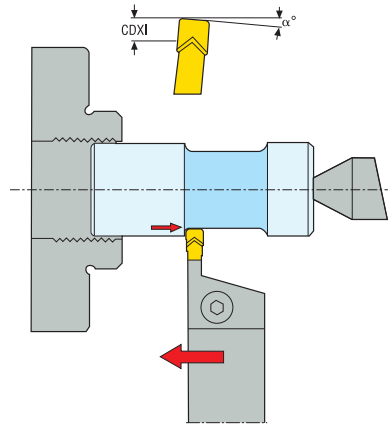
– Depth of cut

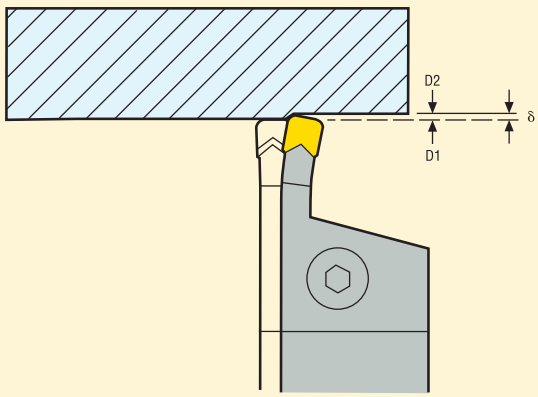
– Tool overhang

– Insert width

– Cutting speed

– Workpiece material





The deflection arising during turning causes a minor change of the actual tool length. This influences the received diameter on the workpiece. The exact amount can be figured by running a test piece. First make a groove and then a turning operation to the same diameter with the selected cutting data. Compare the two different diameters and use the formula to calculate a compensation measure.

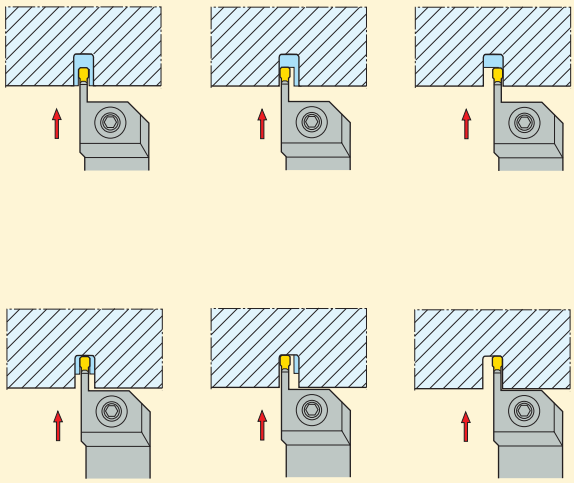
$$\delta = \frac{D1 - D2}{2}$$

Technical tips

Use the following technical tips for a favourable cutting process considering chipbreaking, cutting forces and tool life.

Machining a deep groove

- Make a central groove to half of the total depth.
- Make infeeds at both sides to the same depth.
- Machine a central groove to full depth.
- Make infeeds at both sides to the full depth.
- Always outfeed, do not rapid traverse.



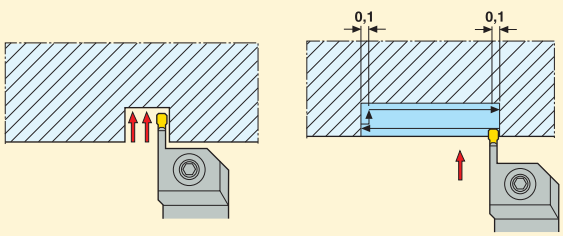
Roughing a recess

If the depth is larger than the width

- Use successive infeeds to required diameter.
- Increment a distance of the insert width – 2 x the insert corner radius to get a flat bottom surface.
- Always outfeed, do not use rapid traverse.

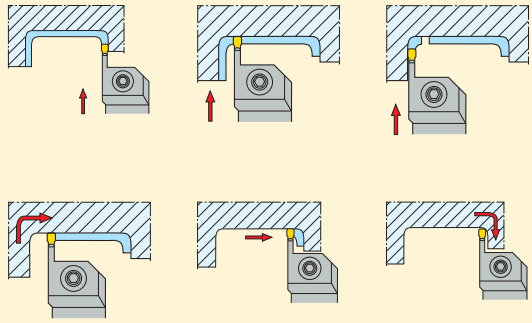
If the width is larger than the depth.

- Start with an infeed at one end.
- Use successive alternating turning with infeeds at the end.
- Release the tool deflection after turning before infeeding (reverse feed and reposition the insert before infeed – 0,1 mm).



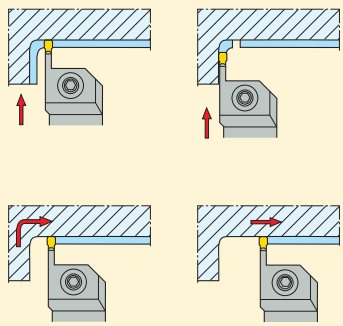
Finishing a recess with corner radius or chamfer

- Machine the face down to the end point of the radius or chamfer.
- Make a groove to the required depth at the end point of the radius or chamfer.
- Machine down to the end point of the radius or chamfer.
- Machine the radius or chamfer.
- Machine the diameter until the end point of the radius or chamfer is reached (remember to compensate for the deflection).
- Machine the radius or chamfer.



Machining a large corner radius or chamfer

- Make a groove to the required depth at the end point of the radius or chamfer.
- Machine the face down to the end point of the radius or chamfer.
- Machine the radius or chamfer.
- Continue with turning starting from the groove (remember to compensate for the deflection).

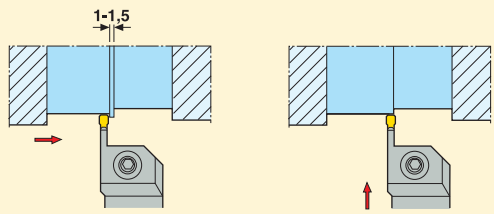


Eliminating a hanging ring

Turning towards the end of a component or towards a recess sometimes produces a hanging ring.

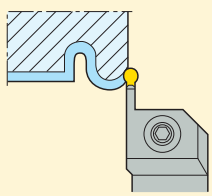
To avoid this

- Stop the turning operation 1,0–1,5 mm before the end of the component or the recess.
- Plunge down to the turned diameter.



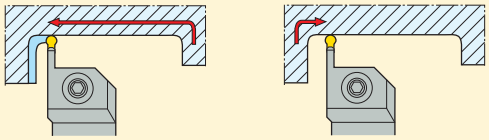
Profiling with round inserts

- The cutting depth should be maximum 0,4 x the insert diameter.
- There is no requirement to generate a trailing edge clearance angle as the geometry will provide that.



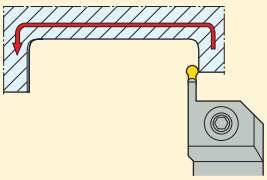
Roughing a recess with round inserts

- Machine the face down to the end point of the radius or chamfer.
- Track around the radius.
- Turn to the end point of the radius or chamfer on the other side.
- Machine down the other side and track around the radius or chamfer.

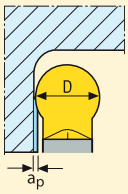


Finishing a recess with round inserts

- Make the cut in one continuous movement.
- Notice the maximum cutting depth allowed during outfeeding (see table).

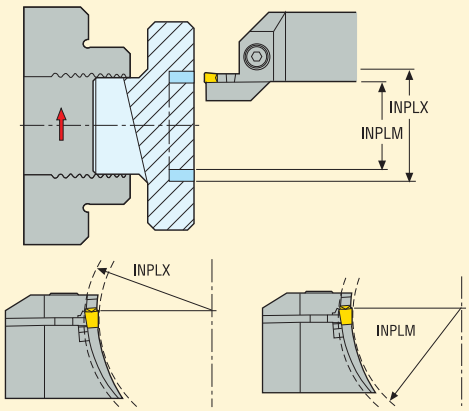


D mm	a_p mm
2	0,12
3	0,15
4	0,20
5	0,22
6	0,25
8, 10	0,40



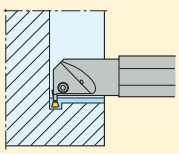
Axial machining

- In axial grooving operations the tool must be adapted to the radius of the groove.
- The toolholder code tells the maximum and minimum diameters that can be handled (see code key).
- The diameter measured on the outside of the blade (INPLX) determines the largest diameter of initial plunge.
- The diameter measured on the inside of the blade (INPLM) determines the smallest diameter of initial plunge.
- This applies to the initial groove only. Changing to turning means no general restrictions besides collision risk if machining towards centre.



Internal machining

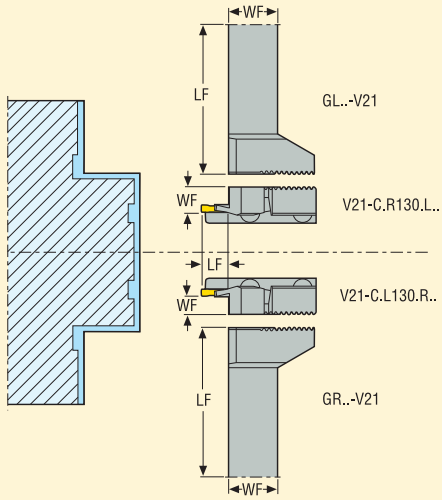
- Generally the same technique as for external machining should be used.
- In blind holes problems can occur with chip evacuation. To avoid that start with making a groove at the inner wall and turn towards the outside.



Modular holders, calculation of dimensions after mounting

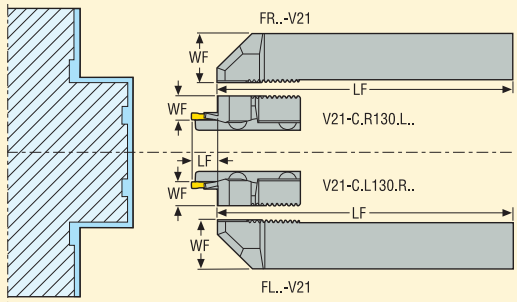
Example, left hand version (L):
• Blade holder G**L** (alternative Seco-Capto™ G**L**).
• Blade type V21-C.**R**130.**L**..
LF = LF holder + WF blade
WF = WF holder + LF blade

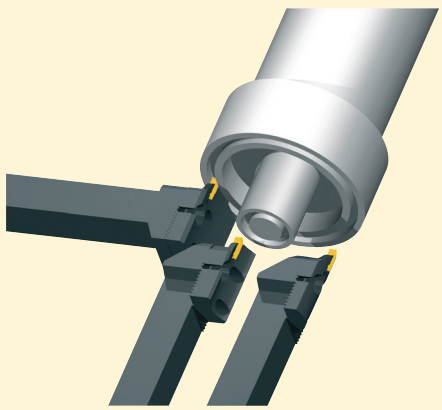
Example, right hand version (R):
• Blade holder G**R** (alternative Seco-Capto™ G**R**).
• Blade type V21-C.**L**130.**R**..
LF = LF holder + WF blade
WF = WF holder + LF blade



Example, right hand version (R):
• Blade holder F**R** (alternative Seco-Capto™ F**R**).
• Blade type V21-C.**R**130.**L**..
LF = LF holder + LF blade
WF = WF holder + WF blade

Example, left hand version (L):
• Blade holder F**L** (alternative Seco-Capto™ F**L**).
• Blade type V21-C.**L**130.**R**..
LF = LF holder + LF blade
WF = WF holder + WF blade

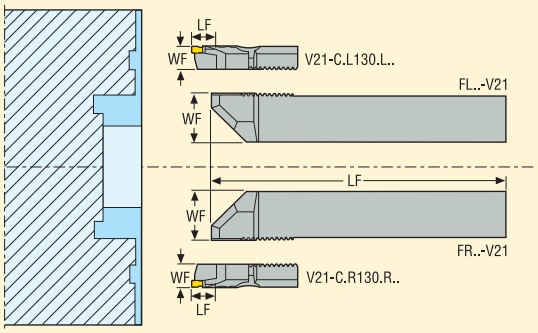




Modular holders, calculation of dimensions after mounting

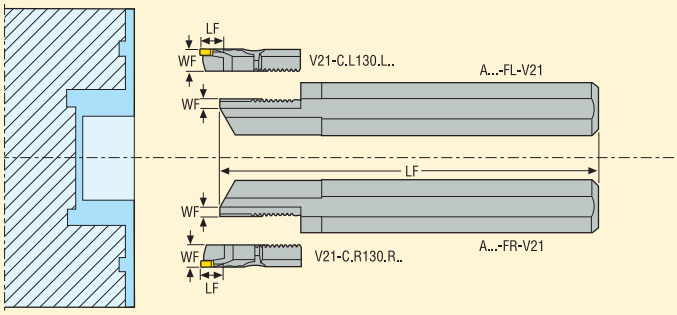
Example, left hand version (L):
• Blade holder F**L** (alternative Seco-Capto™ F**L**).
• Blade type V21-C.**L**130.**L**..
LF = LF holder + LF blade
WF = WF holder + WF blade

Example, right hand version (R):
• Blade holder F**R** (alternative Seco-Capto™ F**R**).
• Blade type V21-C.**R**130.**R**..
LF = LF holder + LF blade
WF = WF holder + WF blade

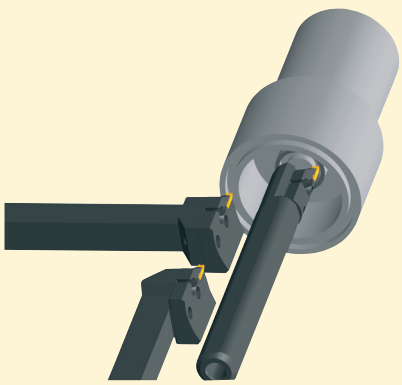


Example, left hand version (L):
• Blade holder A..F**L** (alternative Seco-Capto™ A..F**L**).
• Blade type V21-C.**L**130.**L**..
LF = LF holder + LF blade
WF = WF holder + WF blade

Example, right hand version (R):
• Blade holder A..F**R** (alternative Seco-Capto™ A..F**R**).
• Blade type V21-C.**R**130.**R**..
LF = LF holder + LF blade
WF = WF holder + WF blade

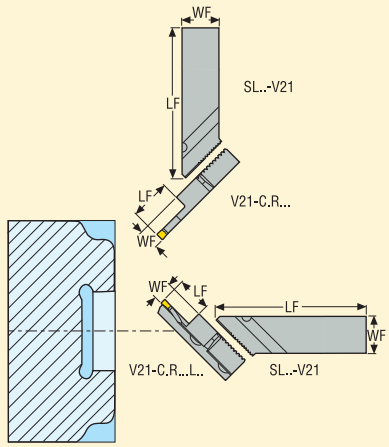


Bars A25R-F... can enter a minimum diameter DCINN ≥ 25 mm.
Bars A32S-F... can enter a minimum diameter DCINN ≥ 32 mm.

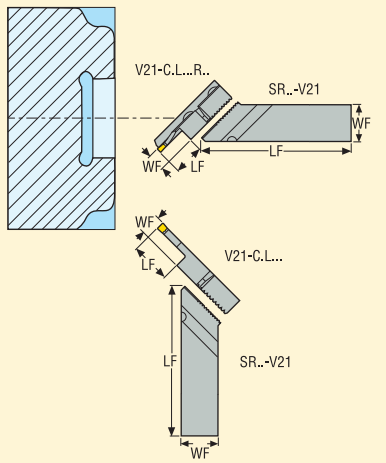


Modular holders, calculation of dimensions after mounting

Example, left hand version (L):
• Blade holder S**L** (alternative Seco-Capto™ S**L**).
• Blade type V21-C.**R**....or V21-C.**R**....**L**..
LF = LF holder + 0,71 x (WF blade + LF blade)
WF = WF holder + 0,71 x (LF blade - WF blade)

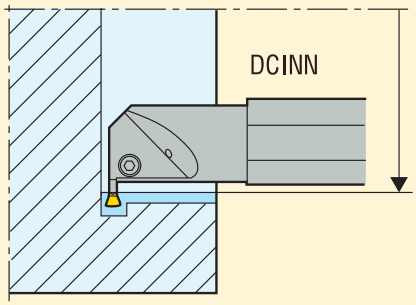


Example, right hand version (R):
• Blade holder S**R** (alternative Seco-Capto™ S**R**).
• Blade type V21-C.**L**....or V21-C.**L**....**R**..
LF = LF holder + 0,7$_1$ x (WF blade + LF blade)
WF = WF holder + 0,71 x (LF blade - WF blade)

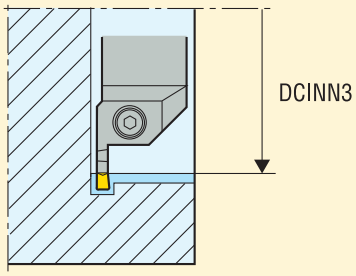


Dimensions relevant for toolholder use

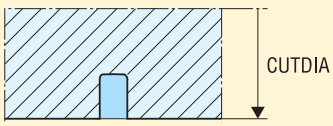
DCINN
(D_m min)



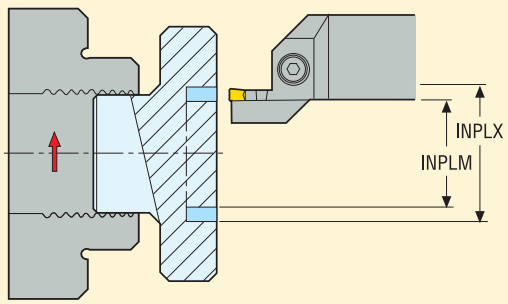
DCINN3
(D_{m2})



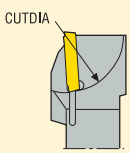
CUTDIA
(D_{max})



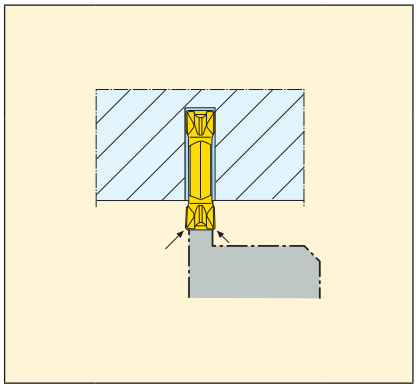
INPLM/INPLX



CUTDIA
..RB



Working depths



These working depths can be limited when using double ended inserts because of their design.

L...13 = CDXI max 11

L...16 = CDXI max 14

L...19 = CDXI max 16

L...28 = CDXI max 26

L...30 = CDXI max 28

Torque values for clamping screws

Screw	Nm
L85011-T15P	5,0
L85012-T15P	5,0
L86015-T20P	6,0
MC6S4..	4,0
MC6S5..	6,0
TCEI04..	3,5
TCEI05..	6,0
TCEI06..	8,0
TCEI08..	10,0
TCEI10..	15,0

Torque keys, please see page(s) 748-749.

General recommendations

- Use medium to high feeds for general grooving.
- Use medium to low feeds for precision grooving.
- Always use reverse feed instead of rapid traverse out of grooves.
- Do not use too low cutting depths and feed rates for finishing and semi-finishing turning operations.
- The appropriate deflection must be achieved. Minimum cutting depths and feed rates are shown in the table below.
- When profiling with round inserts do not use cutting depths over 0,4 x the insert diameter.
- Lower the cutting data when using holders with reach CDX ≥5 x CW because the extra length makes them deflect more.
- Maximum overhang with CGGR/L holders should be 3 x the tool diameter.

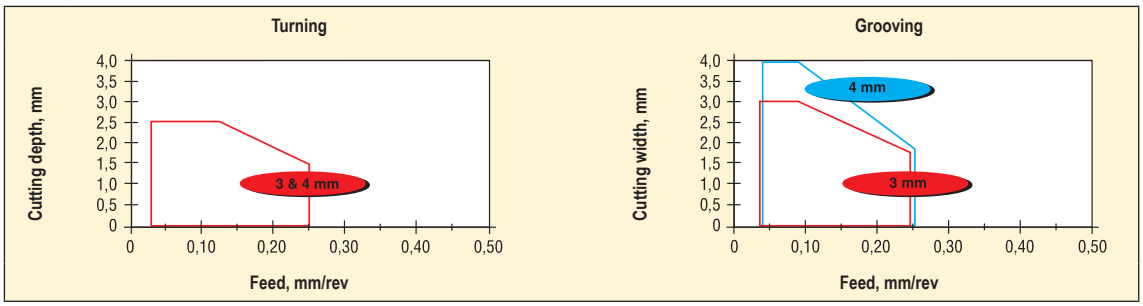
Minimum cutting depth (a_p) and feed rate (f)

Inserts	Min a_p (mm)	Min f (mm)	Inserts	Min a_p (mm)	Min f (mm)
2-FT	0,15	0,04	**5-FT**	0,5	0,09
3-FT	0,3	0,05	**5-MT**	0,5	0,18
3-MT	0,3	0,10	**5-MG**	0,5	0,10
3-MG	0,5	0,05	**5-MC**	0,5	0,05
3-MC	0,5	0,05	**6-FT**	0,6	0,10
4-FT	0,4	0,08	**6-MT**	0,6	0,20
4-MT	0,4	0,15	**6-MG**	0,6	0,10
4-MG	0,5	0,10	**6-MC**	0,5	0,10
4-MC	0,5	0,05	**8-FT**	0,7	0,25

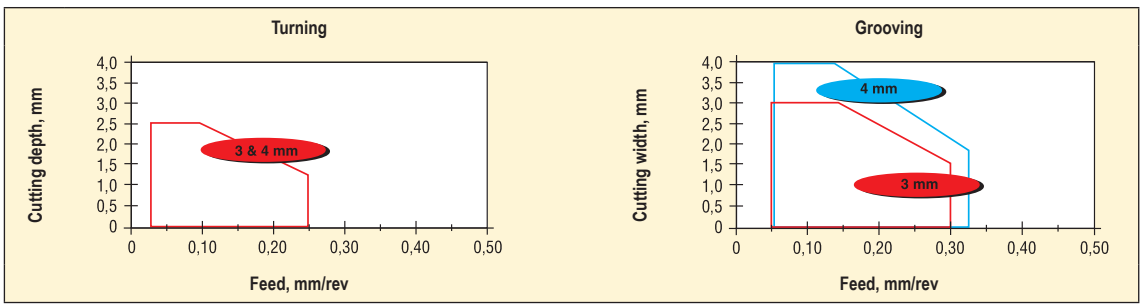
MDT 13 – Cutting depth and feed rate recommendations

Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

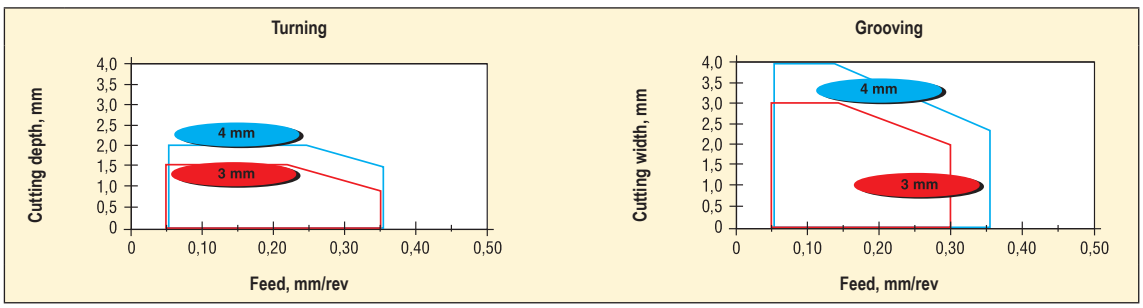
Geometry -FT



Geometry -MC



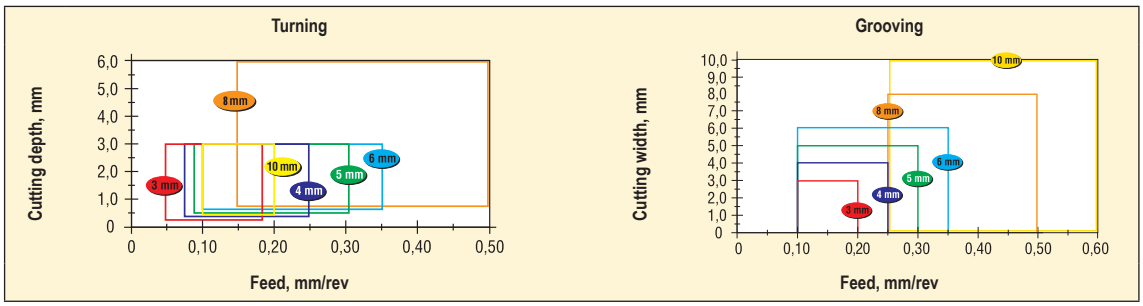
Geometry -MP



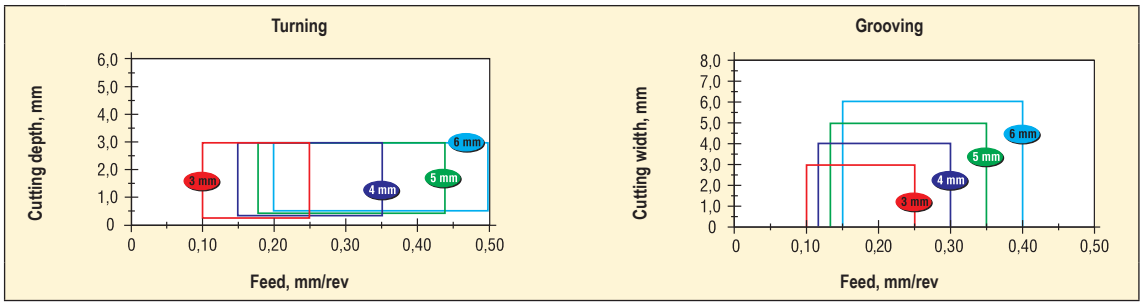
MDT 16 and 30 – Cutting depth and feed rate recommendations

Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

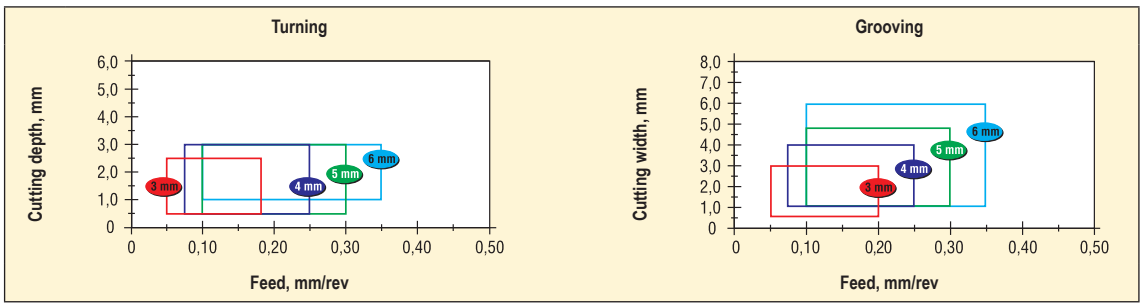
Geometry -FT



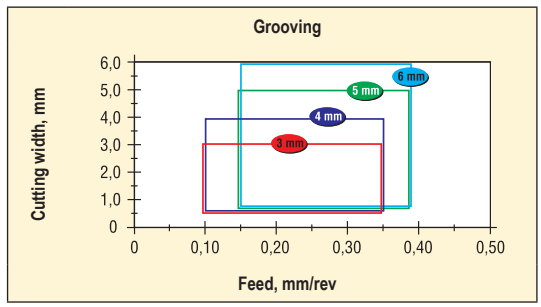
Geometry -MT



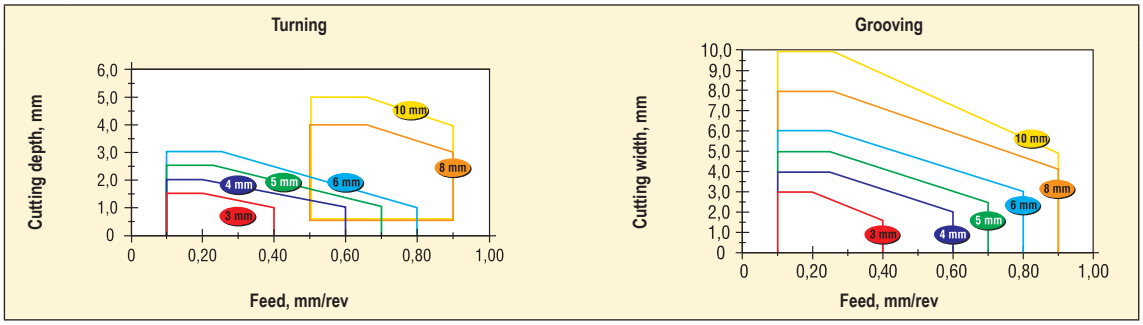
Geometry -MG



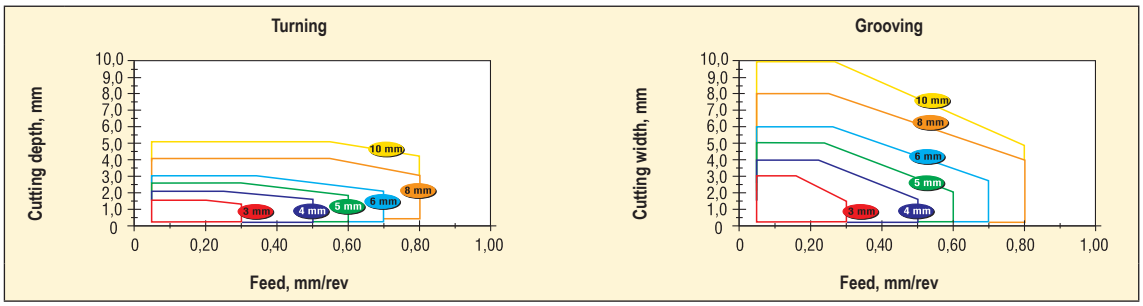
Geometry -MC



Geometry -MP



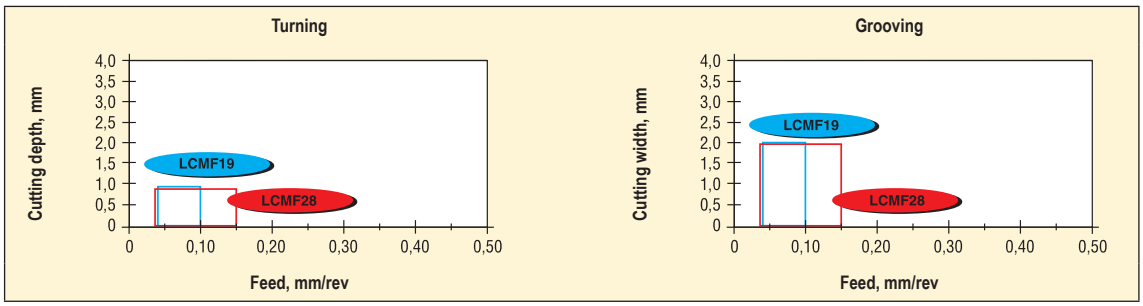
LCGF..-RP



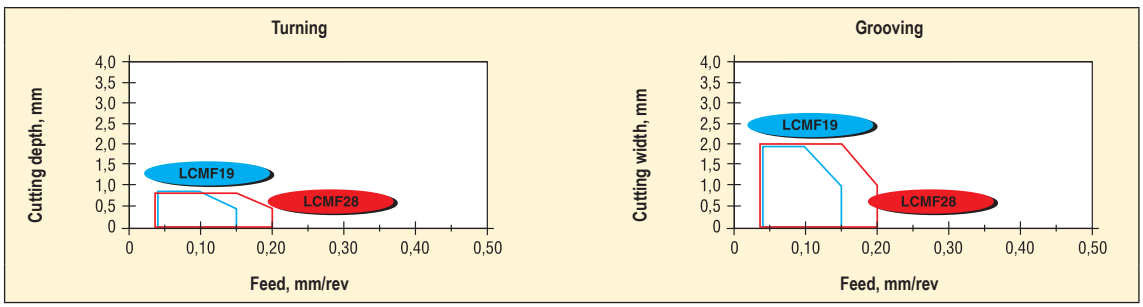
MDT 19 and 28 – Cutting depth and feed rate recommendations

Recommended cutting depths and feed rates for the different insert geometries are found in the charts below.

LCMF..-FT



LCMF..-MP



Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG.

The cutting data tables provide a recommendation of chipbreaker and a start value for feed rate (f) and cutting speed (v_c).

The cutting data tables are based on grooving with full cutting width (CW).

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

CP500

SMG		CW = 2		CW = 3		CW = 4		CW = 5-6		CW =8-10	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-FT CP500	0,085	235	0,16	185	0,19	175	0,26	150	0,36	130
P2	-FT CP500	0,085	230	0,16	180	0,19	170	0,26	145	0,36	125
P3	-FT CP500	0,085	200	0,15	160	0,18	150	0,24	130	0,34	110
P4	-FT CP500	0,080	175	0,15	140	0,18	130	0,24	115	0,34	100
P5	-FT CP500	0,080	170	0,14	140	0,18	125	0,24	110	0,34	95
P6	-FT CP500	0,080	190	0,14	155	0,17	145	0,24	125	0,32	110
P7	-FT CP500	0,080	180	0,14	145	0,17	135	0,24	115	0,32	100
P8	-FT CP500	0,085	165	0,15	135	0,18	125	0,24	110	0,34	95
P11	-FT CP500	0,080	175	0,14	140	0,17	130	0,24	115	0,32	100
P12	-FT CP500	0,055	110	0,095	95	0,12	85	0,16	75	0,22	65
M1	-FT CP500	0,085	265	0,16	200	0,19	170	0,26	125	0,36	80
M2	-FT CP500	0,080	215	0,14	175	0,18	145	0,24	110	0,34	70
M3	-FT CP500	0,065	165	0,12	145	0,14	130	0,19	100	0,26	75
M4	-FT CP500	0,055	120	0,10	115	0,12	105	0,17	85	0,24	60
M5	-FT CP500	0,055	100	0,10	95	0,12	90	0,17	70	0,24	50
K1	-FT CP500	0,085	215	0,16	165	0,19	150	0,26	135	0,36	115
K2	-FT CP500	0,080	190	0,14	145	0,18	125	0,24	105	0,34	85
K3	-FT CP500	0,080	160	0,14	120	0,18	105	0,24	90	0,34	70
K4	-FT CP500	0,080	150	0,14	115	0,18	100	0,24	85	0,34	70
K5	-FT CP500	0,070	95	0,13	70	0,16	65	0,22	55	0,30	44
K6	-FT CP500	0,080	135	0,14	105	0,18	95	0,24	85	0,34	75
K7	-FT CP500	0,070	120	0,13	90	0,16	80	0,22	70	0,30	55
N11	-FT CP500	0,11	140	0,20	110	0,24	100	0,34	85	0,46	75
S1	-FT CP500	0,055	29	0,10	24	0,12	22	0,17	20	0,24	17
S2	-FT CP500	0,055	25	0,10	21	0,12	19	0,17	17	0,24	15
S3	-FT CP500	0,050	22	0,095	18	0,11	17	0,15	15	0,22	13

TGP25

SMG		CW = 3		CW = 4		CW = 5		CW = 6		CW = 8-10	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-FT TGP25	0,16	380	0,19	345	0,24	300	0,26	285	0,36	225
P2	-FT TGP25	0,16	370	0,19	335	0,24	290	0,26	275	0,36	220
P3	-FT TGP25	0,15	270	0,18	245	0,22	225	0,24	215	0,34	185
P4	-FT TGP25	0,15	290	0,18	260	0,22	230	0,24	220	0,34	175
P5	-FT TGP25	0,14	230	0,18	210	0,22	190	0,24	180	0,34	155
P6	-FT TGP25	0,14	320	0,17	290	0,22	250	0,24	235	0,32	190
P7	-FT TGP25	0,14	245	0,17	225	0,22	200	0,24	195	0,32	170
P8	-FT TGP25	0,15	225	0,18	210	0,22	190	0,24	180	0,34	155
P11	-FT TGP25	0,14	235	0,17	220	0,22	195	0,24	190	0,32	165
P12	-FT TGP25	0,095	155	0,12	145	0,14	135	0,16	130	0,22	110
M1	-MC TGP25	0,16	290	0,19	265	0,24	225	0,26	205	0,36	145
M2	-MC TGP25	0,14	240	0,18	220	0,22	190	0,24	180	0,34	125
M3	-MC TGP25	0,12	185	0,14	180	0,17	170	0,19	160	0,26	125
M4	-MC TGP25	0,10	140	0,12	140	0,15	135	0,17	125	0,24	100
K1	-MT TGP25	0,18	260	0,22	230	0,26	210	0,28	200	0,38	160
K2	-MT TGP25	0,16	175	0,19	165	0,24	150	0,26	145	0,34	125
K3	-MT TGP25	0,16	150	0,19	140	0,24	125	0,26	120	0,34	105
K4	-MT TGP25	0,16	140	0,19	135	0,24	120	0,26	115	0,34	105
K5	-MT TGP25	0,15	85	0,18	80	0,20	75	0,22	75	0,30	65
K6	-MT TGP25	0,16	165	0,19	155	0,24	135	0,26	125	0,34	105
K7	-MT TGP25	0,15	110	0,18	105	0,20	100	0,22	95	0,30	85

CP600

SMG		CW = 3		CW = 4		CW = 5		CW = 6	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-MC CP600	0,26	155	0,28	140	0,30	135	0,30	135
P2	-MC CP600	0,26	150	0,28	135	0,30	130	0,32	125
P3	-MC CP600	0,24	135	0,28	115	0,28	115	0,30	110
P4	-MC CP600	0,24	115	0,26	105	0,28	100	0,28	100
P5	-MC CP600	0,24	110	0,26	100	0,28	95	0,28	95
P6	-MC CP600	0,24	125	0,26	115	0,28	110	0,28	110
P7	-MC CP600	0,24	120	0,26	105	0,28	100	0,28	100
P8	-MC CP600	0,24	110	0,28	100	0,28	95	0,30	95
P11	-MC CP600	0,24	115	0,26	105	0,28	100	0,28	100
P12	-MC CP600	0,16	75	0,18	70	0,19	65	0,19	65
M1	-MC CP600	0,26	145	0,28	110	0,30	100	0,32	90
M2	-MC CP600	0,24	125	0,26	95	0,28	85	0,28	85
M3	-MC CP600	0,19	110	0,20	95	0,22	85	0,22	85
M4	-MC CP600	0,16	95	0,18	75	0,19	70	0,20	70
M5	-MC CP600	0,16	75	0,18	65	0,19	60	0,20	55
K1	-MC CP600	0,26	135	0,28	125	0,30	120	0,32	115
K2	-MC CP600	0,24	110	0,26	95	0,28	90	0,28	90
K3	-MC CP600	0,24	95	0,26	80	0,28	75	0,28	75
K4	-MC CP600	0,24	90	0,26	80	0,28	75	0,28	75
K5	-MC CP600	0,22	55	0,24	49	0,24	48	0,26	45
K6	-MC CP600	0,24	85	0,26	80	0,28	75	0,28	75
K7	-MC CP600	0,22	70	0,24	60	0,24	60	0,26	60
N11	-MC CP600	0,32	90	0,36	80	0,38	80	0,40	75
S1	-MC CP600	0,16	20	0,18	18	0,19	18	0,20	17
S2	-MC CP600	0,16	17	0,18	16	0,19	15	0,20	15
S3	-MC CP600	0,15	15	0,17	14	0,18	13	0,18	13

CP600

SMG		CW = 2	
		f	v_c
P1	-FT CP600	0,085	210
P2	-FT CP600	0,090	200
P3	-FT CP600	0,085	175
P4	-FT CP600	0,080	160
P5	-FT CP600	0,080	150
P6	-FT CP600	0,080	170
P7	-FT CP600	0,080	160
P8	-FT CP600	0,085	150
P11	-FT CP600	0,080	155
P12	-FT CP600	0,055	100
M1	-FT CP600	0,090	240
M2	-FT CP600	0,080	195
M3	-FT CP600	0,065	155
M4	-FT CP600	0,055	115
M5	-FT CP600	0,055	95
K1	-FT CP600	0,090	185
K2	-FT CP600	0,080	165
K3	-FT CP600	0,080	140
K4	-FT CP600	0,080	135
K5	-FT CP600	0,070	85
K6	-FT CP600	0,080	120
K7	-FT CP600	0,070	105
N11	-FT CP600	0,11	125
S1	-FT CP600	0,055	26
S2	-FT CP600	0,055	22
S3	-FT CP600	0,055	19

TGK1500

SMG		CW = 2		CW = 3		CW = 4		CW = 5		CW = 6-8	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
K1	-MT, -FT TGK1500	0,10	295	0,18	230	0,22	205	0,26	185	0,30	165
K2	-MT, -FT TGK1500	0,095	180	0,16	155	0,20	145	0,24	135	0,28	125
K3	-MT, -FT TGK1500	0,095	150	0,16	130	0,20	120	0,24	110	0,28	105
K4	-MT, -FT TGK1500	0,095	145	0,16	125	0,20	115	0,24	105	0,28	100
K5	-MT, -FT TGK1500	0,085	90	0,15	75	0,19	70	0,22	65	0,24	65
K6	-MT, -FT TGK1500	0,095	180	0,16	150	0,20	130	0,24	120	0,28	105
K7	-MT, -FT TGK1500	0,085	110	0,15	95	0,19	90	0,22	85	0,24	80

883

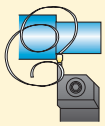
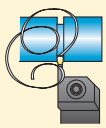
SMG		CW = 3		CW = 4		CW = 5		CW = 6		CW = 8-10	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
K1	-MT 883, 890	0,19	95	0,22	90	0,26	80	0,28	80	0,38	65
K2	-MT 883, 890	0,17	85	0,20	80	0,24	75	0,26	70	0,34	60
K3	-MT 883, 890	0,17	70	0,20	65	0,24	60	0,26	60	0,34	50
K4	-MT 883, 890	0,17	70	0,20	65	0,24	60	0,26	55	0,34	49
K5	-MT 883, 890	0,15	43	0,18	40	0,20	37	0,22	36	0,30	31
K6	-MT 883, 890	0,17	60	0,20	55	0,24	50	0,26	50	0,34	43
K7	-MT 883, 890	0,15	55	0,18	50	0,20	48	0,22	46	0,30	40
N1	-MT 883, 890	0,24	275	0,28	255	0,32	235	0,36	220	0,48	190
N2	-MT 883, 890	0,24	220	0,28	205	0,32	190	0,36	180	0,48	155
N3	-MT 883, 890	0,24	145	0,28	135	0,32	125	0,36	120	0,48	100
N11	-MT 883, 890	0,24	170	0,28	155	0,32	145	0,36	135	0,48	115
S1	-MT 883, 890	0,12	19	0,14	18	0,16	17	0,18	16	0,24	14
S2	-MT 883, 890	0,12	15	0,14	14	0,16	14	0,18	13	0,24	11
S3	-MT 883, 890	0,11	14	0,13	13	0,15	12	0,17	11	0,22	10
S11	-MT 883, 890	0,13	27	0,16	25	0,19	23	0,20	22	0,28	19
S12	-MT 883, 890	0,13	21	0,16	19	0,19	18	0,20	17	0,28	15
S13	-MT 883, 890	0,12	16	0,14	15	0,16	15	0,18	14	0,24	12
H5	-MT 883, 890	0,11	33	0,13	31	0,16	28	0,17	27	0,24	24

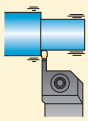
CP200

SMG		CW = 3		CW = 4		CW = 5		CW = 6		CW = 8	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-FT CP200	0,16	210	0,19	180	0,24	145	0,26	130	0,36	85
M2	-FT CP200	0,14	185	0,18	155	0,22	125	0,24	115	0,32	80
M3	-FT CP200	0,12	150	0,14	135	0,17	120	0,19	110	0,26	75
M4	-FT CP200	0,10	120	0,12	110	0,15	95	0,17	90	0,22	70
M5	-FT CP200	0,10	100	0,12	95	0,15	80	0,17	75	0,22	55
S1	-FT CP200	0,10	28	0,12	26	0,15	24	0,17	23	0,22	20
S2	-FT CP200	0,10	22	0,12	21	0,15	19	0,17	18	0,22	16
S3	-FT CP200	0,095	19	0,11	18	0,14	17	0,15	16	0,20	15
S11	-FT CP200	0,12	38	0,14	35	0,17	33	0,19	31	0,26	27
S12	-FT CP200	0,12	29	0,14	27	0,17	25	0,19	24	0,26	21
S13	-FT CP200	0,10	24	0,12	22	0,15	20	0,17	19	0,22	17

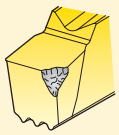
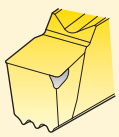
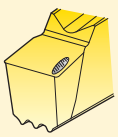
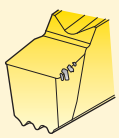
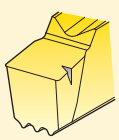
MDT – Troubleshooting

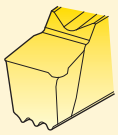
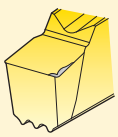
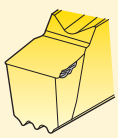
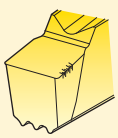
Machining problems

Chipbreaking problems/ turning 	• Increase feed rate or cutting depth. • Use narrower insert with smaller radius.
Chipbreaking problems/ grooving 	• Reduce the cutting speed. • Increase the feed rate. • Use interrupted feed.

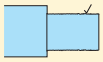
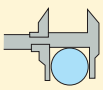
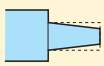
Vibrations 	• Change the cutting speed. • Increase the feed rate. • Reduce the cutting depth. • Improve the stability of the tool and workpiece. • Select an insert with smaller radius.

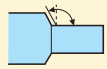
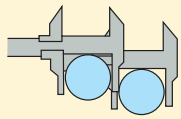
Tool life problems

Breakage 	• Reduce the feed rate. • Reduce the cutting depth. • Select a tougher grade. • Select an insert with larger radius.
Rapid flank wear 	• Reduce the cutting speed.
Rapid crater wear 	• Reduce the cutting speed. • Reduce the feed rate. • Use coolant. • Select a more wear resistant grade.
Chipping 	• Increase the cutting speed. • Reduce the feed rate. • Select a tougher grade.
Notch wear 	• Reduce the cutting speed. • Reduce the feed rate.

Plastic deformation 	• Reduce the cutting speed. • Reduce the feed rate. • Use coolant. • Select a more wear resistant grade. • Select an insert with larger radius.
Built-up edge 	• Increase the cutting speed. • Increase the feed rate. • Do not use coolant.
Chip hammering 	• Change the feed rate. • Change the cutting depth.
Comb cracks 	• Reduce the cutting speed. • Reduce the feed rate. • Use abundant coolant flow or no coolant at all.

Workpiece out of tolerance

Poor surface finish 	• Reduce the feed rate. • Increase the cutting speed. • Reduce the cutting depth. • Use coolant. • Improve the stability of the tool and workpiece.
Diameter out of tolerance 	• Check the tool length compensation measure. • Reduce the cutting speed. • Select a more wear resistant grade.
Diameter variation 	• After grooving the tool must be retracted in accordance with the compensation measurement before proceeding with turning. • Keep machining conditions constant during turning operation.

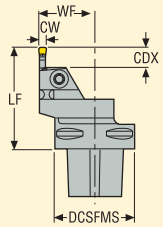
Inaccurate square facing 	• Final facing should be made as radial machining from outside to centre.
Repeatability problems 	• Keep machining conditions constant. • Check the insert wear.

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



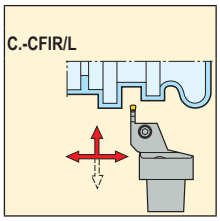
• For inserts programme, see page(s) 633-646, 648-649

C.-CFIR/L...JET



Right-hand version shown
CDX = 3 x CW

C.-CFIR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C4											
	3	C4-CFIR-27060-03JET	40	27,0	60	9	195	70	0,5	3	LC..1603..
		C4-CFIL-27060-03JET	40	27,0	60	9	195	70	0,5	3	LC..1603..
	4	C4-CFIR-27060-04JET	40	27,0	60	12	195	70	0,5	4	LC..1604..
		C4-CFIL-27060-04JET	40	27,0	60	12	195	70	0,5	4	LC..1604..
	5	C4-CFIR-27065-05JET	40	27,0	65	17	195	70	0,5	5	LC..1605..
		C4-CFIL-27065-05JET	40	27,0	65	17	195	70	0,5	5	LC..1605..
C5											
	3	C5-CFIR-35060-03JET	50	35,0	60	9	195	70	0,7	3	LC..1603..
		C5-CFIL-35060-03JET	50	35,0	60	9	195	70	0,7	3	LC..1603..
	4	C5-CFIR-35065-04JET	50	35,0	65	12	195	70	0,7	4	LC..1604..
		C5-CFIL-35065-04JET	50	35,0	65	12	195	70	0,7	4	LC..1604..
	5	C5-CFIR-35065-05JET	50	35,0	65	15	195	70	0,7	5	LC..1605..
		C5-CFIL-35065-05JET	50	35,0	65	15	195	70	0,7	5	LC..1605..
	6	C5-CFIR-35075-06JET	50	35,0	75	18	195	70	0,8	6	LC..1606..
		C5-CFIL-35075-06JET	50	35,0	75	18	195	70	0,8	6	LC..1606..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	6,0
CFIR/L..-04	5SMS795	TCEI0613	8,0
CFIR/L..-05	5SMS795	TCEI0613	8,0
CFIR/L..-06	6SMS795	TCEI0815	10,0

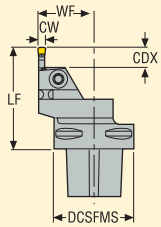
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



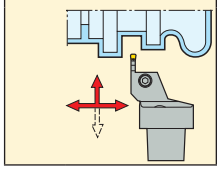
• For inserts programme, see page(s) 633-646, 648-649

C.-CFIR/L...JET



Right-hand version shown
CDX = 3 x CW

C.-CFIR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C6											
	3	C6-CFIR-45065-03JET	63	45,0	65	9	195	70	1,1	3	LC..1603..
		C6-CFIL-45065-03JET	63	45,0	65	9	195	70	1,1	3	LC..1603..
	4	C6-CFIR-45065-04JET	63	45,0	65	12	195	70	1,1	4	LC..1604..
		C6-CFIL-45065-04JET	63	45,0	65	12	195	70	1,1	4	LC..1604..
	5	C6-CFIR-45070-05JET	63	45,0	70	15	195	70	1,1	5	LC..1605..
		C6-CFIL-45070-05JET	63	45,0	70	15	195	70	1,1	5	LC..1605..
	6	C6-CFIR-45075-06JET	63	45,0	75	18	195	70	1,2	6	LC..1606..
		C6-CFIL-45075-06JET	63	45,0	75	18	195	70	1,2	6	LC..1606..
	8	C6-CFIR-45085-08JET	63	45,0	85	24	195	70	1,3	8	LC..3008..
		C6-CFIL-45085-08JET	63	45,0	85	24	195	70	1,3	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	6,0
CFIR/L..-04	5SMS795	TCEI0613	8,0
CFIR/L..-05	5SMS795	TCEI0613	8,0
CFIR/L..-06	6SMS795	TCEI0815	10,0
CFIR/L..-08	6SMS795	TCEI1020	15,0

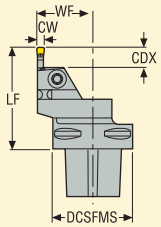
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



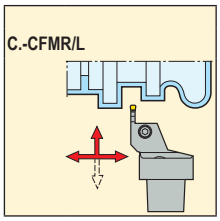
• For inserts programme, see page(s) 633-646, 648-649

C.-CFMR/L...JET



Right-hand version shown
CDX = 5 x CW

C.-CFMR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C4											
	3	C4-CFMR-27070-03JET	40	27,0	70	15	195	70	0,5	3	LC..1603..
		C4-CFML-27070-03JET	40	27,0	70	15	195	70	0,5	3	LC..1603..
	4	C4-CFMR-27070-04JET	40	27,0	70	20	195	70	0,5	4	LC..1604..
		C4-CFML-27070-04JET	40	27,0	70	20	195	70	0,5	4	LC..1604..
C5											
	3	C5-CFMR-35070-03JET	50	35,0	70	15	195	70	0,7	3	LC..1603..
		C5-CFML-35070-03JET	50	35,0	70	15	195	70	0,7	3	LC..1603..
	4	C5-CFMR-35075-04JET	50	35,0	75	20	195	70	0,7	4	LC..1604..
		C5-CFML-35075-04JET	50	35,0	75	20	195	70	0,7	4	LC..1604..
	5	C5-CFMR-35075-05JET	50	35,0	75	25	195	70	0,7	5	LC..1605..
		C5-CFML-35075-05JET	50	35,0	75	25	195	70	0,7	5	LC..1605..
	6	C5-CFMR-35085-06JET	50	35,0	85	30	195	70	0,8	6	LC..1606..
		C5-CFML-35085-06JET	50	35,0	85	30	195	70	0,8	6	LC..1606..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFMR/L..-03	4SMS795	TCEI0513	6,0
CFMR/L..-04	5SMS795	TCEI0613	8,0
CFMR/L..-05	5SMS795	TCEI0613	8,0
CFMR/L..-06	6SMS795	TCEI0815	10,0

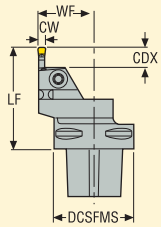
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



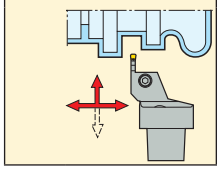
• For inserts programme, see page(s) 633-646, 648-649

C.-CFMR/L...JET



Right-hand version shown
CDX = 5 x CW

C.-CFMR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C6											
	3	C6-CFMR-45080-03JET	63	45,0	80	15	195	70	2,0	3	LC..1603..
		C6-CFML-45080-03JET	63	45,0	80	15	195	70	2,0	3	LC..1603..
	4	C6-CFMR-45080-04JET	63	45,0	80	20	195	70	1,2	4	LC..1604..
		C6-CFML-45080-04JET	63	45,0	80	20	195	70	1,2	4	LC..1604..
	5	C6-CFMR-45080-05JET	63	45,0	80	25	195	70	1,1	5	LC..1605..
		C6-CFML-45080-05JET	63	45,0	80	25	195	70	1,1	5	LC..1605..
	6	C6-CFMR-45085-06JET	63	45,0	85	30	195	70	1,2	6	LC..1606..
		C6-CFML-45085-06JET	63	45,0	85	30	195	70	1,2	6	LC..1606..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

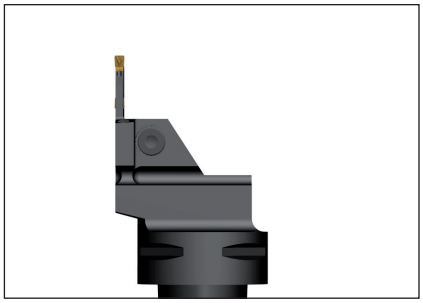
** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFMR/L..-03	4SMS795	TCEI0513	6,0
CFMR/L..-04	5SMS795	TCEI0613	8,0
CFMR/L..-05	5SMS795	TCEI0613	8,0
CFMR/L..-06	6SMS795	TCEI0815	10,0

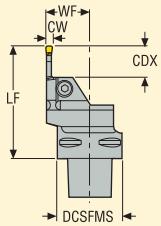
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



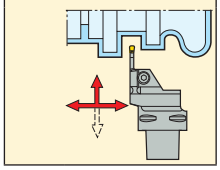
• For inserts programme, see page(s) 633-646, 648-649

C.-CFOR/L...JET



Right-hand version shown
CDX = 6 x CW

C.-CFOR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C4											
	3	C4-CFOR-27070-03-JET	40	27,0	70	20	195	70	0,5	3	LC..1603..
		C4-CFOL-27070-03-JET	40	27,0	70	20	195	70	0,5	3	LC..1603..
	4	C4-CFOR-27080-04-JET	40	27,0	80	24	195	70	0,5	4	LC..1604..
		C4-CFOL-27080-04-JET	40	27,0	80	24	195	70	0,5	4	LC..1604..
	5	C4-CFOR-27085-05-JET	40	27,0	85	30	195	70	0,5	5	LC..1605..
		C4-CFOL-27085-05-JET	40	27,0	85	30	195	70	0,5	5	LC..1605..
C5											
	3	C5-CFOR-35070-03-JET	50	35,0	70	18	195	70	0,7	6	LC..1603..
		C5-CFOL-35070-03-JET	50	35,0	70	18	195	70	0,7	6	LC..1603..
	4	C5-CFOR-35080-04-JET	50	35,0	80	24	195	70	0,8	4	LC..1604..
		C5-CFOL-35080-04-JET	50	35,0	80	24	195	70	0,8	4	LC..1604..
	5	C5-CFOR-35085-05-JET	50	35,0	85	30	195	70	0,8	5	LC..1605..
		C5-CFOL-35085-05-JET	50	35,0	85	30	195	70	0,8	5	LC..1605..
	6	C5-CFOR-35100-06-JET	50	35,0	100	36	195	70	1,0	6	LC..1606..
		C5-CFOL-35100-06-JET	50	35,0	100	36	195	70	1,0	6	LC..1606..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

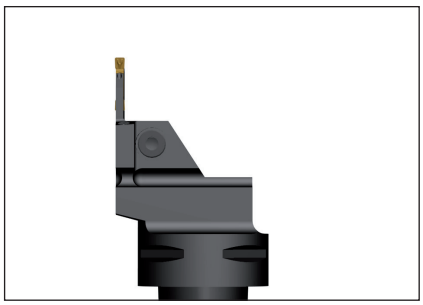
** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0

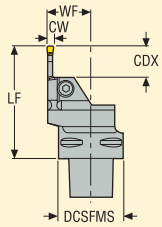
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



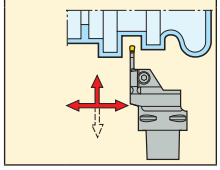
• For inserts programme, see page(s) 633-646, 648-649

C.-CFOR/L...JET



Right-hand version shown
CDX = 6 x CW

C.-CFOR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	CP***	KG	Seat size	
C6											
	3	C6-CFOR-45075-03-JET	63	45,0	75	18	195	70	1,2	3	LC..1603..
		C6-CFOL-45075-03-JET	63	45,0	75	18	195	70	1,2	3	LC..1603..
	4	C6-CFOR-45080-04-JET	63	45,0	80	24	195	70	1,1	4	LC..1604..
		C6-CFOL-45080-04-JET	63	45,0	80	24	195	70	1,1	4	LC..1604..
	5	C6-CFOR-45090-05-JET	63	45,0	90	30	195	70	1,2	5	LC..1605..
		C6-CFOL-45090-05-JET	63	45,0	90	30	195	70	1,2	5	LC..1605..
	6	C6-CFOR-45100-06-JET	63	45,0	100	36	195	70	1,3	6	LC..1606..
		C6-CFOL-45100-06-JET	63	45,0	100	36	195	70	1,3	6	LC..1606..
	8	C6-CFOR-45115-08-JET	63	45,0	115	48	195	70	1,4	8	LC..3008..
		C6-CFOL-45115-08-JET	63	45,0	115	48	195	70	1,4	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28

*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0
CFOR/L..-08	6SMS795	TCEI1020	15,0

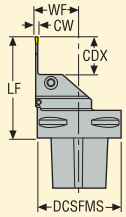
Please check availability in current price and stock-list

Toolholders for inserts LCMF

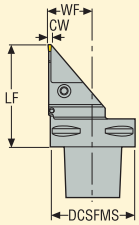


• For inserts programme, see page(s) 632

C.-CZFR/L...JET

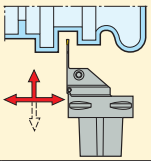


C.-CZFR/L...RBJET



Right-hand version shown
CDX = 12,5 x CW

C.-CFZR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX	CUTDIA*	CP***	KG	Seat size	
C4											
	2	C4-CFZR-22075-2802JET	40	22,0	75	26	–	70	0,5	2	LC..2802..
		C4-CFZL-22075-2802JET	40	22,0	75	26	–	70	0,5	2	LC..2802..
C5											
	2	C5-CFZR-27075-2802JET	50	27,0	75	26	–	70	0,7	2	LC..2802..
		C5-CFZL-27075-2802JET	50	27,0	75	26	–	70	0,7	2	LC..2802..
C6											
	2	C6-CFZR-33075-2802JET	63	33,0	75	26	–	70	1,0	2	LC..2802..
		C6-CFZL-33075-2802JET	63	33,0	75	26	–	70	1,0	2	LC..2802..
C4											
	2	C4-CFZR-22075-2802RBJET	40	22,0	75	–	52	70	0,6	2	LC..2802..
		C4-CFZL-22075-2802RBJET	40	22,0	75	–	52	70	0,6	2	LC..2802..
C5											
	2	C5-CFZR-27075-2802RBJET	50	27,0	75	–	52	70	0,7	2	LC..2802..
		C5-CFZL-27075-2802RBJET	50	27,0	75	–	52	70	0,7	2	LC..2802..
C6											
	2	C6-CFZR-33075-2802RBJET	63	33,0	75	–	52	70	1,1	2	LC..2802..
		C6-CFZL-33075-2802RBJET	63	33,0	75	–	52	70	1,1	2	LC..2802..

* Due to the design, grooving depth is limited, see page(s) 515

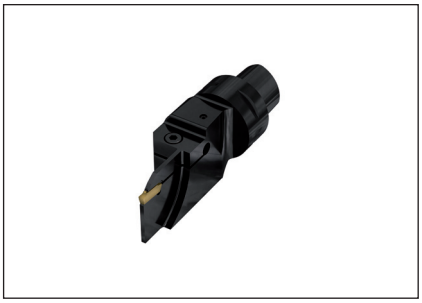
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFZR/L..-02	4SMS795	TCEI0513	6,0

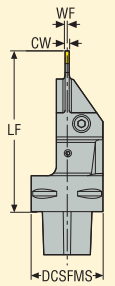
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



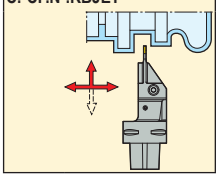
• For inserts programme, see page(s) 632-646, 648-649

C.-CF.N-.RBJET



Right-hand version shown

C.-CF.N-.RBJET



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CUTDIA*	CP***	KG	Seat size	
C4										
	2	C4-CFZN-00075-2802RBJET	40	1,0	75	52	70	0,5	2	LC..2802..
	3	C4-CFXN-00090-03RBJET	40	1,5	90	64	70	0,6	3	LC..1603..

* Due to the design, grooving depth is limited, see page(s) 515

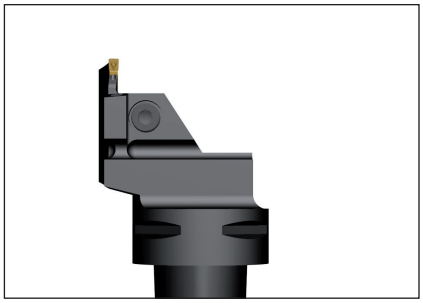
*** Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFZN/CFXN	4SMS795	TCEI0513	6,0

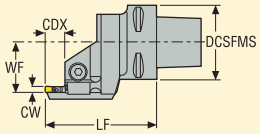
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



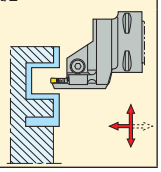
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



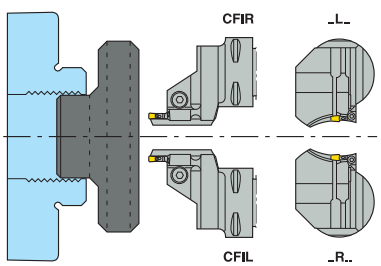
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX	CP***	KG	Seat size	
C4												
	3	C4-CFIR-27060-03L080055-JET	55	80	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIR-27060-03L100070-JET	70	100	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIR-27060-03L130090-JET	90	130	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIR-27060-03L170110-JET	110	170	40	27	60	9	70	0,4	3	LC..1603..
		C4-CFIL-27060-03R080055-JET	55	80	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIL-27060-03R100070-JET	70	100	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIL-27060-03R130090-JET	90	130	40	27	60	9	70	0,5	3	LC..1603..
		C4-CFIL-27060-03R170110-JET	110	170	40	27	60	9	70	0,4	3	LC..1603..
	4	C4-CFIR-27065-04L080055-JET	55	80	40	27	65	12	70	0,5	4	LC..1604..
		C4-CFIR-27065-04L100070-JET	70	100	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIR-27065-04L130090-JET	90	130	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIR-27065-04L170110-JET	110	170	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIR-27065-04L230140-JET	140	230	40	27	65	12	70	0,5	4	LC..1604..
		C4-CFIL-27065-04R080055-JET	55	80	40	27	65	12	70	0,5	4	LC..1604..
		C4-CFIL-27065-04R100070-JET	70	100	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIL-27065-04R130090-JET	90	130	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIL-27065-04R170110-JET	110	170	40	27	65	12	70	0,4	4	LC..1604..
		C4-CFIL-27065-04R230140-JET	140	230	40	27	65	12	70	0,5	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar)

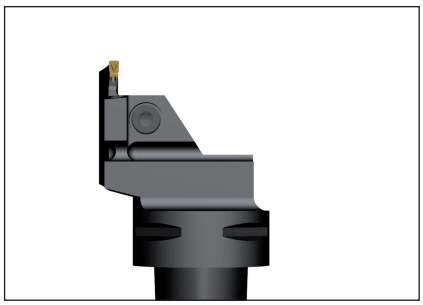
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	6,0
CFIR/L..-04	5SMS795	TCEI0613	8,0



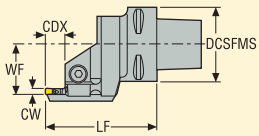
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



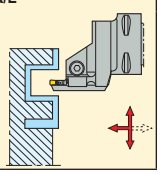
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



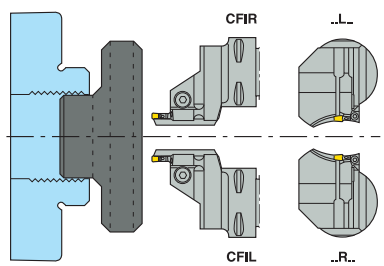
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C4												
	5	C4-CFIR-27065-05L080055-JET	55	80	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIR-27065-05L100070-JET	70	100	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIR-27065-05L130090-JET	90	130	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIR-27065-05L170110-JET	110	170	40	27	65	15	70	0,4	5	LC..1605..
		C4-CFIR-27065-05L230140-JET	140	230	40	27	65	15	70	0,4	5	LC..1605..
		C4-CFIL-27065-05R080055-JET	55	80	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIL-27065-05R100070-JET	70	100	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIL-27065-05R130090-JET	90	130	40	27	65	15	70	0,5	5	LC..1605..
		C4-CFIL-27065-05R170110-JET	110	170	40	27	65	15	70	0,4	5	LC..1605..
		C4-CFIL-27065-05R230140-JET	140	230	40	27	65	15	70	0,4	5	LC..1605..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

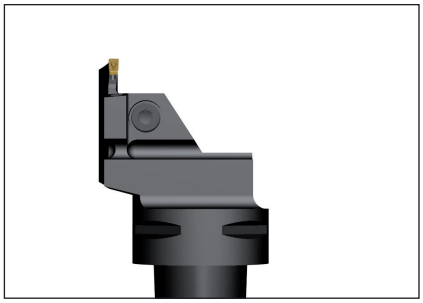
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	8,0



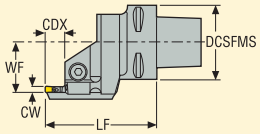
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



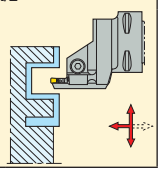
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



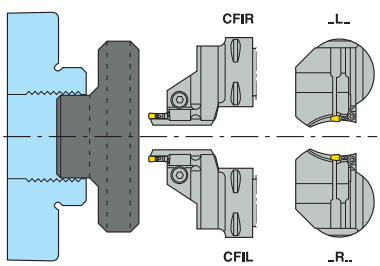
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX	CP***	KG	Seat size	
C5												
	3	C5-CFIR-35060-03L080055-JET	55	80	50	35	60	9	70	0,7	3	LC..1603..
		C5-CFIR-35060-03L100070-JET	70	100	50	35	60	9	70	0,6	3	LC..1603..
		C5-CFIR-35060-03L130090-JET	90	130	50	35	60	9	70	0,7	3	LC..1603..
		C5-CFIR-35060-03L170110-JET	110	170	50	35	60	9	70	0,6	3	LC..1603..
		C5-CFIL-35060-03R080055-JET	55	80	50	35	60	9	70	0,7	3	LC..1603..
		C5-CFIL-35060-03R100070-JET	70	100	50	35	60	9	70	0,6	3	LC..1603..
		C5-CFIL-35060-03R130090-JET	90	130	50	35	60	9	70	0,7	3	LC..1603..
		C5-CFIL-35060-03R170110-JET	110	170	50	35	60	9	70	0,6	3	LC..1603..
	4	C5-CFIR-35065-04L080055-JET	55	80	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIR-35065-04L100070-JET	70	100	50	35	65	12	70	0,6	4	LC..1604..
		C5-CFIR-35065-04L130090-JET	90	130	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIR-35065-04L170110-JET	110	170	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIR-35065-04L230140-JET	140	230	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIL-35065-04R080055-JET	55	80	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIL-35065-04R100070-JET	70	100	50	35	65	12	70	0,6	4	LC..1604..
		C5-CFIL-35065-04R130090-JET	90	130	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIL-35065-04R170110-JET	110	170	50	35	65	12	70	0,7	4	LC..1604..
		C5-CFIL-35065-04R230140-JET	140	230	50	35	65	12	70	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar)

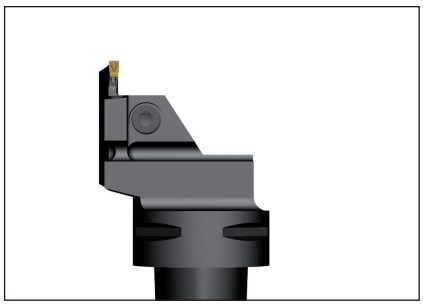
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	6,0
CFIR/L..-04	5SMS795	TCEI0613	8,0



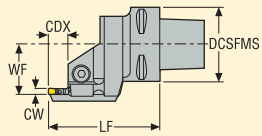
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



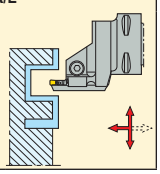
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



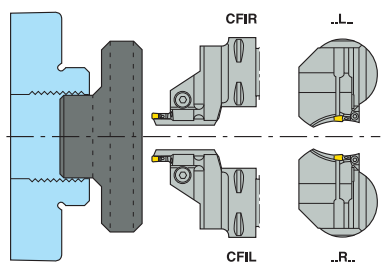
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C5												
	5	C5-CFIR-35065-05L080055-JET	55	80	50	35	65	15	70	0,7	5	LC..1605..
		C5-CFIR-35065-05L100070-JET	70	100	50	35	65	15	70	0,7	5	LC..1605..
		C5-CFIR-35065-05L130090-JET	90	130	50	35	65	15	70	0,6	5	LC..1605..
		C5-CFIR-35065-05L170110-JET	110	170	50	35	65	15	70	0,6	5	LC..1605..
		C5-CFIR-35065-05L230140-JET	140	230	50	35	65	15	70	0,7	5	LC..1605..
		C5-CFIL-35065-05R080055-JET	55	80	50	35	65	15	70	0,7	5	LC..1605..
		C5-CFIL-35065-05R100070-JET	70	100	50	35	65	15	70	0,7	5	LC..1605..
		C5-CFIL-35065-05R130090-JET	90	130	50	35	65	15	70	0,6	5	LC..1605..
		C5-CFIL-35065-05R170110-JET	110	170	50	35	65	15	70	0,6	5	LC..1605..
		C5-CFIL-35065-05R230140-JET	140	230	50	35	65	15	70	0,7	5	LC..1605..
	6	C5-CFIR-35075-06L080055-JET	55	80	50	35	75	18	70	0,8	6	LC..1606..
		C5-CFIR-35075-06L100070-JET	70	100	50	35	75	18	70	0,6	6	LC..1606..
		C5-CFIR-35075-06L130090-JET	90	130	50	35	75	18	70	0,8	6	LC..1606..
		C5-CFIR-35075-06L170110-JET	110	170	50	35	75	18	70	0,6	6	LC..1606..
		C5-CFIR-35075-06L230140-JET	140	230	50	35	75	18	70	0,8	6	LC..1606..
		C5-CFIL-35075-06R080055-JET	55	80	50	35	75	18	70	0,8	6	LC..1606..
		C5-CFIL-35075-06R100070-JET	70	100	50	35	75	18	70	0,6	6	LC..1606..
		C5-CFIL-35075-06R130090-JET	90	130	50	35	75	18	70	0,8	6	LC..1606..
		C5-CFIL-35075-06R170110-JET	110	170	50	35	75	18	70	0,6	6	LC..1606..
		C5-CFIL-35075-06R230140-JET	140	230	50	35	75	18	70	0,8	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

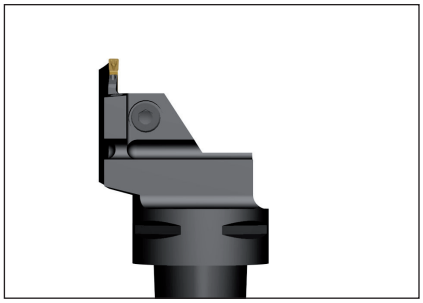
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	8,0
CFIR/L..-06	6SMS795	TCEI0815	10,0



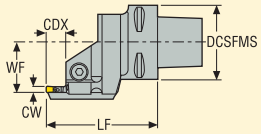
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



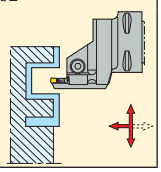
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



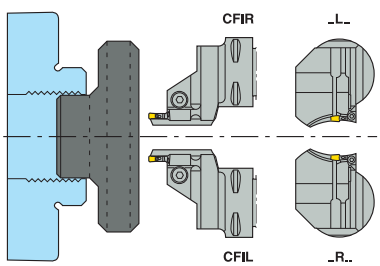
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX	CP***	KG	Seat size	
C6												
	3	C6-CFIR-45065-03L080055-JET	55	80	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIR-45065-03L100070-JET	70	100	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIR-45065-03L130090-JET	90	130	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIR-45065-03L170110-JET	110	170	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIL-45065-03R080055-JET	55	80	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIL-45065-03R100070-JET	70	100	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIL-45065-03R130090-JET	90	130	63	45	65	9	70	1,1	3	LC..1603..
		C6-CFIL-45065-03R170110-JET	110	170	63	45	65	9	70	1,1	3	LC..1603..
	4	C6-CFIR-45065-04L080055-JET	55	80	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIR-45065-04L100070-JET	70	100	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIR-45065-04L130090-JET	90	130	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIR-45065-04L170110-JET	110	170	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIR-45065-04L230140-JET	140	230	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIL-45065-04R080055-JET	55	80	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIL-45065-04R100070-JET	70	100	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIL-45065-04R130090-JET	90	130	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIL-45065-04R170110-JET	110	170	63	45	65	12	70	1,1	4	LC..1604..
		C6-CFIL-45065-04R230140-JET	140	230	63	45	65	12	70	1,1	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar)

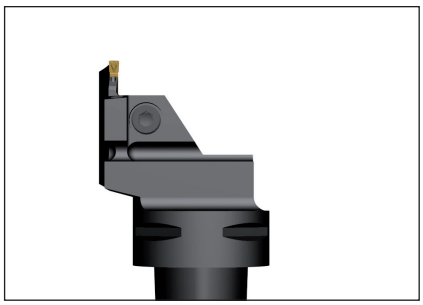
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	6,0
CFIR/L..-04	5SMS795	TCEI0613	8,0



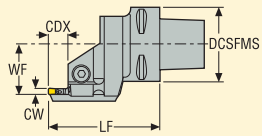
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



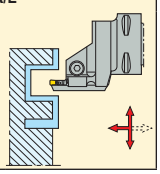
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



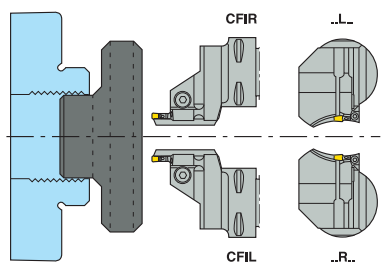
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	5	C6-CFIR-45070-05L080055-JET	55	80	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIR-45070-05L100070-JET	70	100	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIR-45070-05L130090-JET	90	130	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIR-45070-05L170110-JET	110	170	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIR-45070-05L230140-JET	140	230	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIL-45070-05R080055-JET	55	80	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIL-45070-05R100070-JET	70	100	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIL-45070-05R130090-JET	90	130	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIL-45070-05R170110-JET	110	170	63	45	70	15	70	1,1	5	LC..1605..
		C6-CFIL-45070-05R230140-JET	140	230	63	45	70	15	70	1,1	5	LC..1605..
	6	C6-CFIR-45075-06L080055-JET	55	80	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIR-45075-06L100070-JET	70	100	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIR-45075-06L130090-JET	90	130	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIR-45075-06L170110-JET	110	170	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIR-45075-06L230140-JET	140	230	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIL-45075-06R080055-JET	55	80	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIL-45075-06R100070-JET	70	100	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIL-45075-06R130090-JET	90	130	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIL-45075-06R170110-JET	110	170	63	45	75	18	70	1,1	6	LC..1606..
		C6-CFIL-45075-06R230140-JET	140	230	63	45	75	18	70	1,1	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

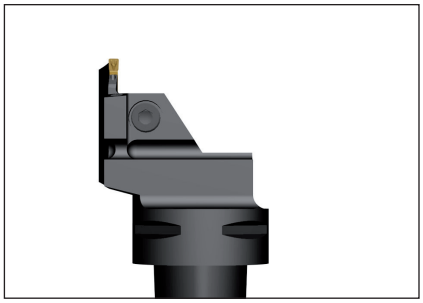
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	8,0
CFIR/L..-06	6SMS795	TCEI0815	10,0



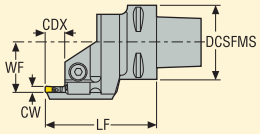
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



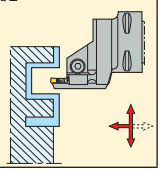
• For inserts programme, see page(s) 633, 636-638

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

C.-CFIR/L



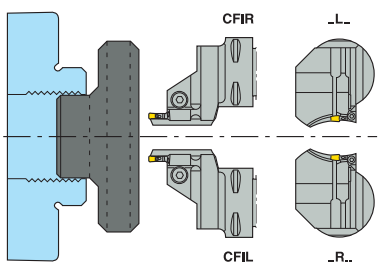
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX	CP***	KG	Seat size	
C6												
	8	C6-CFIR-45085-08L130090-JET	90	130	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIR-45085-08L170110-JET	110	170	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIR-45085-08L230140-JET	140	230	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIR-45085-08L500200-JET	200	500	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIL-45085-08R130090-JET	90	130	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIL-45085-08R170110-JET	110	170	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIL-45085-08R230140-JET	140	230	63	45	85	24	70	1,2	8	LC..3008..
		C6-CFIL-45085-08R500200-JET	200	500	63	45	85	24	70	1,2	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar)

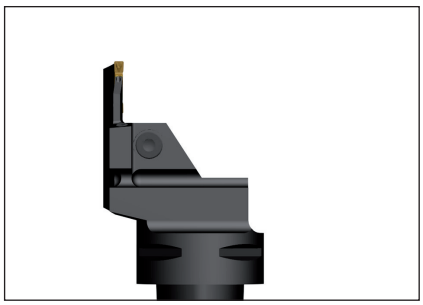
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-08	6SMS795	TCEI1020	15,0



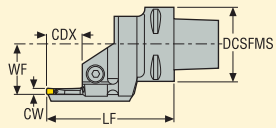
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

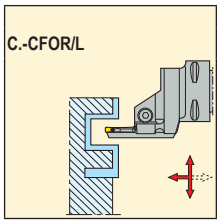


• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW



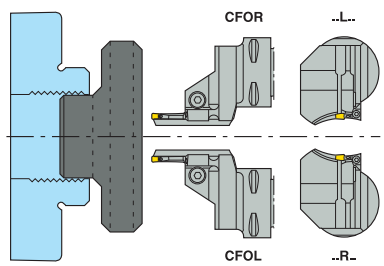
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C4												
	3	C4-CFOR-27070-03L080055-JET	55	80	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03L100070-JET	70	100	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03L130090-JET	90	130	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03L170110-JET	110	170	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03L230140-JET	140	230	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03L500200-JET	200	500	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R080055-JET	55	80	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R100070-JET	70	100	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R130090-JET	90	130	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R170110-JET	110	170	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R230140-JET	140	230	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03R500200-JET	200	500	40	27	70	18	70	0,5	3	LC..1603..
	4	C4-CFOR-27080-04L080055-JET	55	80	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04L100070-JET	70	100	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04L130090-JET	90	130	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04L170110-JET	110	170	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04L230140-JET	140	230	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04L500200-JET	200	500	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R080055-JET	55	80	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R100070-JET	70	100	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R130090-JET	90	130	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R170110-JET	110	170	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R230140-JET	140	230	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04R500200-JET	200	500	40	27	80	24	70	0,5	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

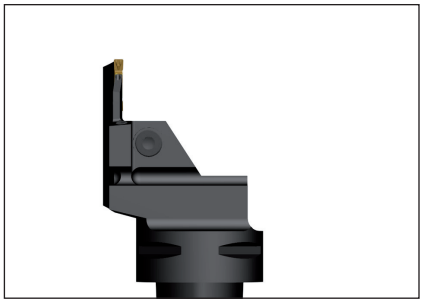
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



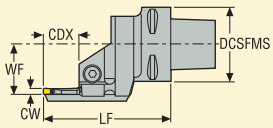
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



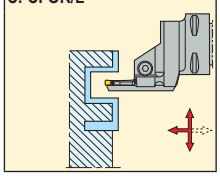
• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

C.-CFOR/L



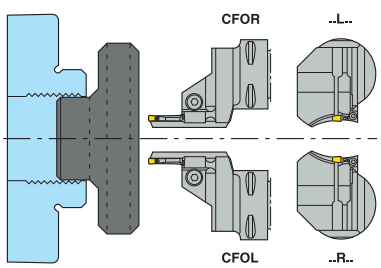
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C4												
	5	C4-CFOR-27085-05L080055-JET	55	80	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05L100070-JET	70	100	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05L130090-JET	90	130	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05L170110-JET	110	170	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05L230140-JET	140	230	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05L500200-JET	200	500	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R080055-JET	55	80	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R100070-JET	70	100	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R130090-JET	90	130	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R170110-JET	110	170	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R230140-JET	140	230	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05R500200-JET	200	500	40	27	85	30	70	0,5	5	LC..1605..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

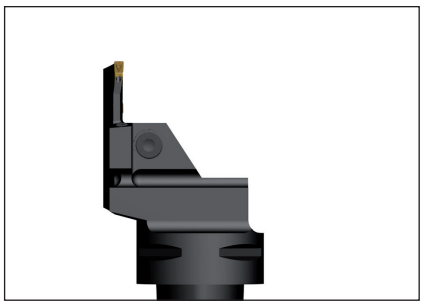
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0



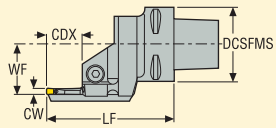
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

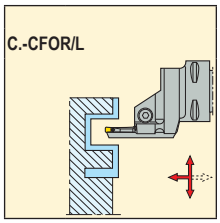


• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW



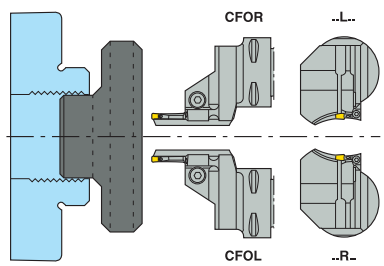
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C5												
	3	C5-CFOR-35070-03L080055-JET	55	80	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03L100070-JET	70	100	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03L130090-JET	90	130	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03L170110-JET	110	170	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03L230140-JET	140	230	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03L500200-JET	200	500	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R080055-JET	55	80	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R100070-JET	70	100	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R130090-JET	90	130	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R170110-JET	110	170	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R230140-JET	140	230	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03R500200-JET	200	500	50	35	70	18	70	0,7	3	LC..1603..
	4	C5-CFOR-35080-04L080055-JET	55	80	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOR-35080-04L100070-JET	70	100	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04L130090-JET	90	130	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOR-35080-04L170110-JET	110	170	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOR-35080-04L230140-JET	140	230	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOR-35080-04L500200-JET	200	500	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOL-35080-04R080055-JET	55	80	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOL-35080-04R100070-JET	70	100	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04R130090-JET	90	130	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOL-35080-04R170110-JET	110	170	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOL-35080-04R230140-JET	140	230	50	35	80	24	70	0,8	4	LC..1604..
		C5-CFOL-35080-04R500200-JET	200	500	50	35	80	24	70	0,8	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

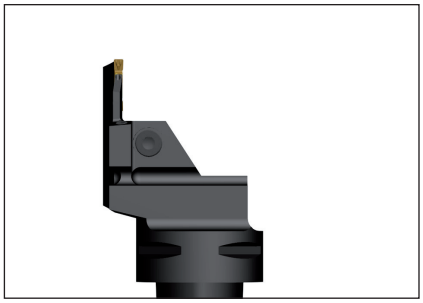
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



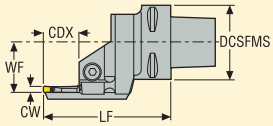
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



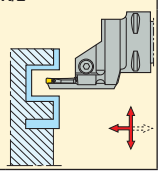
• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

C.-CFOR/L



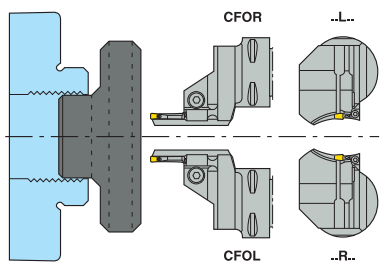
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C5												
	5	C5-CFOR-35085-05L080055-JET	55	80	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOR-35085-05L100070-JET	70	100	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOR-35085-05L130090-JET	90	130	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOR-35085-05L170110-JET	110	170	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOR-35085-05L230140-JET	140	230	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOR-35085-05L500200-JET	200	500	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOL-35085-05R080055-JET	55	80	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOL-35085-05R100070-JET	70	100	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOL-35085-05R130090-JET	90	130	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05R170110-JET	110	170	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOL-35085-05R230140-JET	140	230	50	35	85	30	70	0,8	5	LC..1605..
		C5-CFOL-35085-05R500200-JET	200	500	50	35	85	30	70	0,8	5	LC..1605..
	6	C5-CFOR-35100-06L080055-JET	55	80	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06L100070-JET	70	100	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOR-35100-06L130090-JET	90	130	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOR-35100-06L170110-JET	110	170	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOR-35100-06L230140-JET	140	230	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOR-35100-06L500200-JET	200	500	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOL-35100-06R080055-JET	55	80	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06R100070-JET	70	100	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOL-35100-06R130090-JET	90	130	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOL-35100-06R170110-JET	110	170	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOL-35100-06R230140-JET	140	230	50	35	100	36	70	1,0	6	LC..1606..
		C5-CFOL-35100-06R500200-JET	200	500	50	35	100	36	70	1,0	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

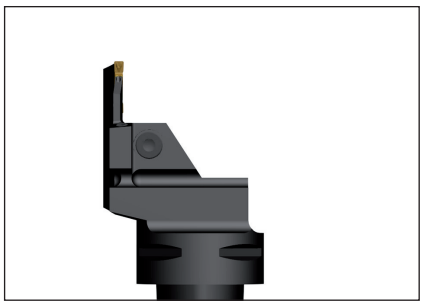
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0



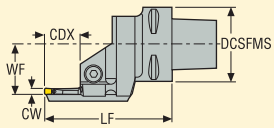
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

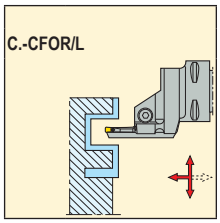


• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW



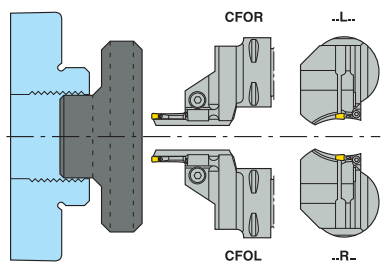
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	3	C6-CFOR-45075-03L080055-JET	55	80	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOR-45075-03L100070-JET	70	100	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03L130090-JET	90	130	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOR-45075-03L170110-JET	110	170	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03L230140-JET	140	230	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOR-45075-03L500200-JET	200	500	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOL-45075-03R080055-JET	55	80	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOL-45075-03R100070-JET	70	100	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03R130090-JET	90	130	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOL-45075-03R170110-JET	110	170	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03R230140-JET	140	230	63	45	75	18	70	1,2	3	LC..1603..
		C6-CFOL-45075-03R500200-JET	200	500	63	45	75	18	70	1,2	3	LC..1603..
	4	C6-CFOR-45080-04L080055-JET	55	80	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOR-45080-04L100070-JET	70	100	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOR-45080-04L130090-JET	90	130	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOR-45080-04L170110-JET	110	170	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOR-45080-04L230140-JET	140	230	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOR-45080-04L500200-JET	200	500	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R080055-JET	55	80	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R100070-JET	70	100	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R130090-JET	90	130	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R170110-JET	110	170	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R230140-JET	140	230	63	45	80	24	70	1,2	4	LC..1604..
		C6-CFOL-45080-04R500200-JET	200	500	63	45	80	24	70	1,2	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

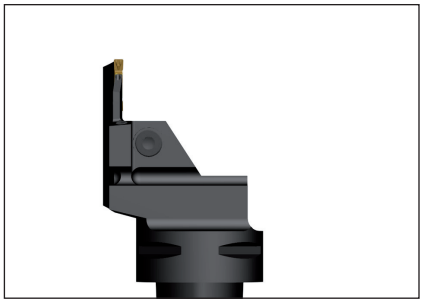
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



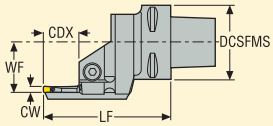
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



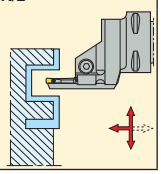
• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

C.-CFOR/L



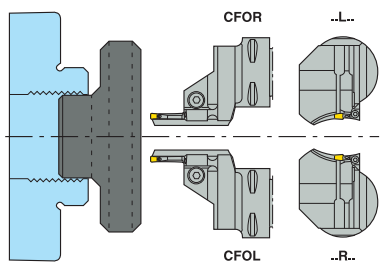
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	5	C6-CFOR-45090-05L080055-JET	55	80	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05L100070-JET	70	100	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05L130090-JET	90	130	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05L170110-JET	110	170	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05L230140-JET	140	230	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05L500200-JET	200	500	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R080055-JET	55	80	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R100070-JET	70	100	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R130090-JET	90	130	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R170110-JET	110	170	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R230140-JET	140	230	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05R500200-JET	200	500	63	45	90	30	70	1,2	5	LC..1605..
	6	C6-CFOR-45100-06L080055-JET	55	80	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOR-45100-06L100070-JET	70	100	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOR-45100-06L130090-JET	90	130	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOR-45100-06L170110-JET	110	170	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOR-45100-06L230140-JET	140	230	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOR-45100-06L500200-JET	200	500	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06R080055-JET	55	80	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOL-45100-06R100070-JET	70	100	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOL-45100-06R130090-JET	90	130	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06R170110-JET	110	170	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06R230140-JET	140	230	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06R500200-JET	200	500	63	45	100	36	70	1,3	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

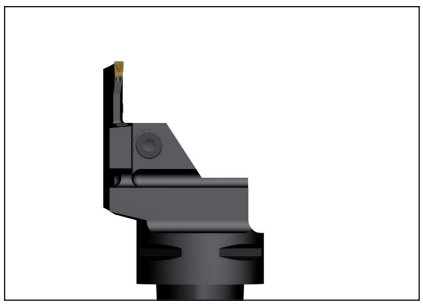
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0



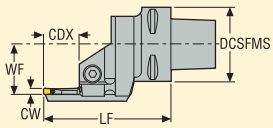
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



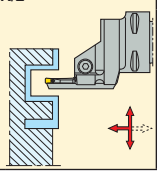
• For inserts programme, see page(s) 633, 636-638

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

C.-CFOR/L



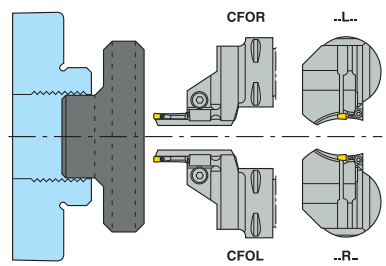
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	8	C6-CFOR-45115-08L130090-JET	90	130	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOR-45115-08L170110-JET	110	170	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOR-45115-08L230140-JET	140	230	63	45	115	48	70	1,4	8	LC..3008..
		C6-CFOR-45115-08L500200-JET	200	500	63	45	115	48	70	1,4	8	LC..3008..
		C6-CFOL-45115-08R130090-JET	90	130	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOL-45115-08R170110-JET	110	170	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOL-45115-08R230140-JET	140	230	63	45	115	48	70	1,4	8	LC..3008..
		C6-CFOL-45115-08R500200-JET	200	500	63	45	115	48	70	1,4	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF30.. = 28 mm
*** Max coolant pressure (bar)

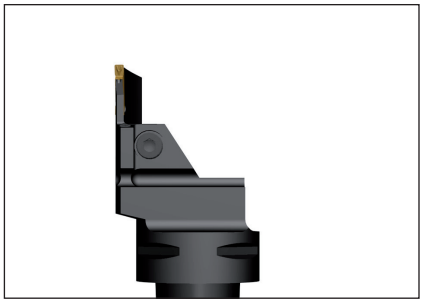
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-08	6SMS795	TCEI1020	15,0



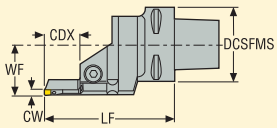
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



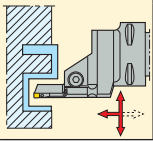
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

C.-CFOR/L



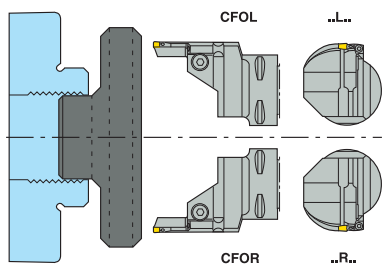
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C4												
	3	C4-CFOR-27070-03R080055-JET	55	80	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03R100070-JET	70	100	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03R130090-JET	90	130	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03R170110-JET	110	170	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03R230140-JET	140	230	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOR-27070-03R500200-JET	200	500	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L080055-JET	55	80	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L100070-JET	70	100	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L130090-JET	90	130	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L170110-JET	110	170	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L230140-JET	140	230	40	27	70	18	70	0,5	3	LC..1603..
		C4-CFOL-27070-03L500200-JET	200	500	40	27	70	18	70	0,5	3	LC..1603..
	4	C4-CFOR-27080-04R080055-JET	55	80	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04R100070-JET	70	100	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04R130090-JET	90	130	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04R170110-JET	110	170	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04R230140-JET	140	230	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOR-27080-04R500200-JET	200	500	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L080055-JET	55	80	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L100070-JET	70	100	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L130090-JET	90	130	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L170110-JET	110	170	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L230140-JET	140	230	40	27	80	24	70	0,5	4	LC..1604..
		C4-CFOL-27080-04L500200-JET	200	500	40	27	80	24	70	0,5	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

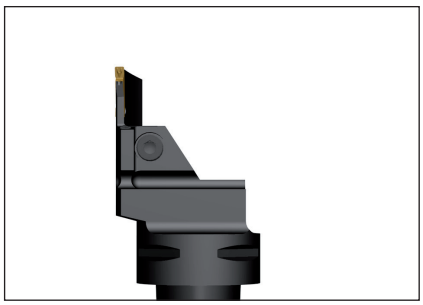
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



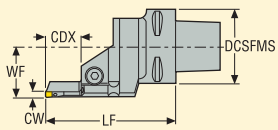
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



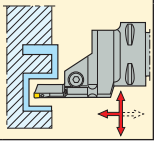
- For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C4												
	5	C4-CFOR-27085-05R080055-JET	55	80	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05R100070-JET	70	100	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05R130090-JET	90	130	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05R170110-JET	110	170	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05R230140-JET	140	230	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOR-27085-05R500200-JET	200	500	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L080055-JET	55	80	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L100070-JET	70	100	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L130090-JET	90	130	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L170110-JET	110	170	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L230140-JET	140	230	40	27	85	30	70	0,5	5	LC..1605..
		C4-CFOL-27085-05L500200-JET	200	500	40	27	85	30	70	0,5	5	LC..1605..

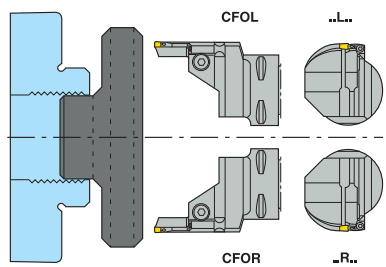
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

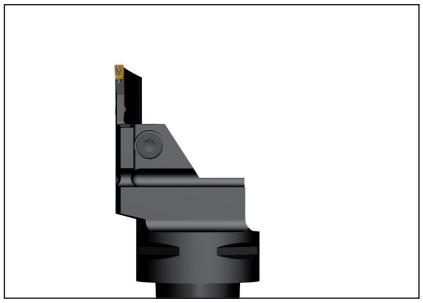
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0

Please check availability in current price and stock-list

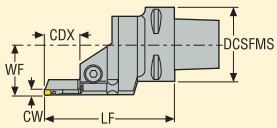


Toolholders for inserts LCGF, LCGN, LCMF and LCMR



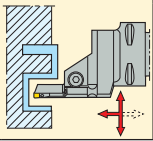
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



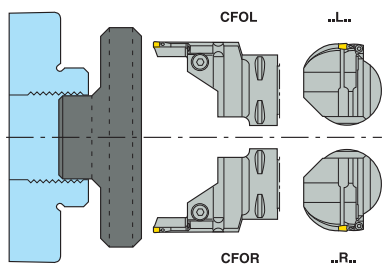
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C5												
	3	C5-CFOR-35070-03R080055-JET	55	80	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03R100070-JET	70	100	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03R130090-JET	90	130	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03R170110-JET	110	170	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03R230140-JET	140	230	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOR-35070-03R500200-JET	200	500	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L080055-JET	55	80	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L100070-JET	70	100	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L130090-JET	90	130	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L170110-JET	110	170	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L230140-JET	140	230	50	35	70	18	70	0,7	3	LC..1603..
		C5-CFOL-35070-03L500200-JET	200	500	50	35	70	18	70	0,7	3	LC..1603..
	4	C5-CFOR-35080-04R080055-JET	55	80	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04R100070-JET	70	100	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04R130090-JET	90	130	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04R170110-JET	110	170	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04R230140-JET	140	230	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOR-35080-04R500200-JET	200	500	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L080055-JET	55	80	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L100070-JET	70	100	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L130090-JET	90	130	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L170110-JET	110	170	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L230140-JET	140	230	50	35	80	24	70	0,7	4	LC..1604..
		C5-CFOL-35080-04L500200-JET	200	500	50	35	80	24	70	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

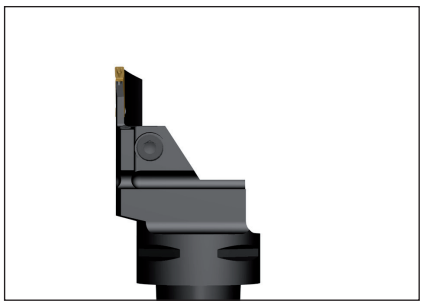
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



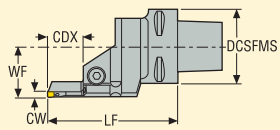
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



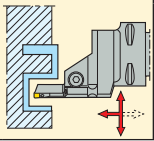
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



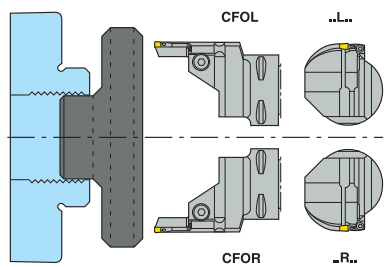
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C5												
	5	C5-CFOR-35085-05R080055-JET	55	80	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOR-35085-05R100070-JET	70	100	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOR-35085-05R130090-JET	90	130	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOR-35085-05R170110-JET	110	170	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOR-35085-05R230140-JET	140	230	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOR-35085-05R500200-JET	200	500	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L080055-JET	55	80	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L100070-JET	70	100	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L130090-JET	90	130	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L170110-JET	110	170	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L230140-JET	140	230	50	35	85	30	70	0,7	5	LC..1605..
		C5-CFOL-35085-05L500200-JET	200	500	50	35	85	30	70	0,7	5	LC..1605..
	6	C5-CFOR-35100-06R080055-JET	55	80	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06R100070-JET	70	100	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06R130090-JET	90	130	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06R170110-JET	110	170	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06R230140-JET	140	230	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOR-35100-06R500200-JET	200	500	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L080055-JET	50	80	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L100070-JET	70	100	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L130090-JET	90	130	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L170110-JET	110	170	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L230140-JET	140	230	50	35	100	36	70	0,9	6	LC..1606..
		C5-CFOL-35100-06L500200-JET	200	500	50	35	100	36	70	0,9	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

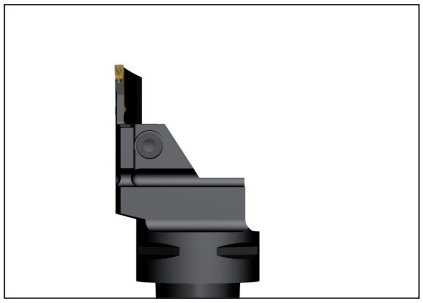
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0



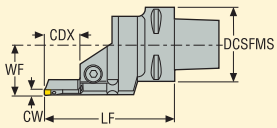
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



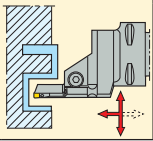
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



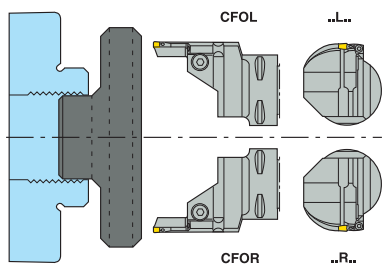
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	3	C6-CFOR-45075-03R080055-JET	55	80	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03R100070-JET	70	100	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03R130090-JET	90	130	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03R170110-JET	110	170	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03R230140-JET	140	230	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOR-45075-03R500200-JET	200	500	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L080055-JET	55	80	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L100070-JET	70	100	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L130090-JET	90	130	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L170110-JET	110	170	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L230140-JET	140	230	63	45	75	18	70	1,1	3	LC..1603..
		C6-CFOL-45075-03L500200-JET	200	500	63	45	75	18	70	1,1	3	LC..1603..
	4	C6-CFOR-45080-04R080055-JET	55	80	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOR-45080-04R100070-JET	70	100	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOR-45080-04R130090-JET	90	130	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOR-45080-04R170110-JET	110	170	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOR-45080-04R230140-JET	140	230	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOR-45080-04R500200-JET	200	500	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L080055-JET	55	80	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L100070-JET	70	100	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L130090-JET	90	130	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L170110-JET	110	170	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L230140-JET	140	230	63	45	80	24	70	1,1	4	LC..1604..
		C6-CFOL-45080-04L500200-JET	200	500	63	45	80	24	70	1,1	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

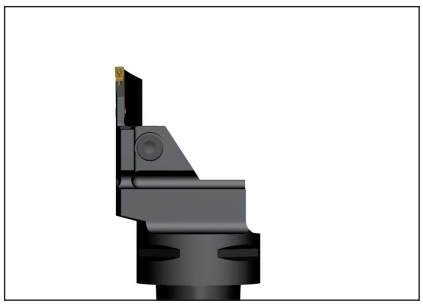
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	6,0
CFOR/L..-04	5SMS795	TCEI0613	8,0



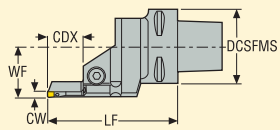
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



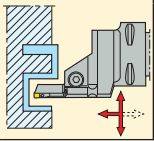
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



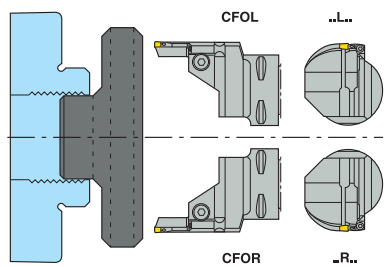
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	5	C6-CFOR-45090-05R080055-JET	55	80	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05R100070-JET	70	100	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05R130090-JET	90	130	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05R170110-JET	110	170	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05R230140-JET	140	230	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOR-45090-05R500200-JET	200	500	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L080055-JET	55	80	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L100070-JET	70	100	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L130090-JET	90	130	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L170110-JET	110	170	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L230140-JET	140	230	63	45	90	30	70	1,2	5	LC..1605..
		C6-CFOL-45090-05L500200-JET	200	500	63	45	90	30	70	1,2	5	LC..1605..
	6	C6-CFOR-45100-06R080055-JET	55	80	63	45	100	36	70	1,2	6	LC..1606..
		C6-CFOR-45100-06R100070-JET	70	100	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOR-45100-06R130090-JET	90	130	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOR-45100-06R170110-JET	110	170	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOR-45100-06R230140-JET	140	230	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOR-45100-06R500200-JET	200	500	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06L080055-JET	55	80	63	45	100	36	70	1,2	6	LC..1606..
		C6-CFOL-45100-06L100070-JET	70	100	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOL-45100-06L130090-JET	90	130	63	45	100	36	70	1,4	6	LC..1606..
		C6-CFOL-45100-06L170110-JET	110	170	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06L230140-JET	140	230	63	45	100	36	70	1,3	6	LC..1606..
		C6-CFOL-45100-06L500200-JET	200	500	63	45	100	36	70	1,3	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar)

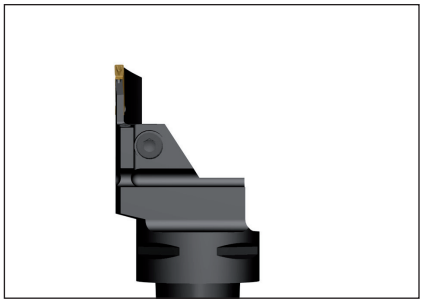
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	8,0
CFOR/L..-06	6SMS795	TCEI0815	10,0



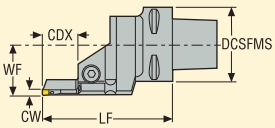
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



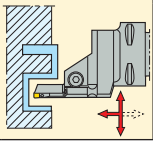
• For inserts programme, see page(s) 633, 636-638

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

C.-CFOR/L



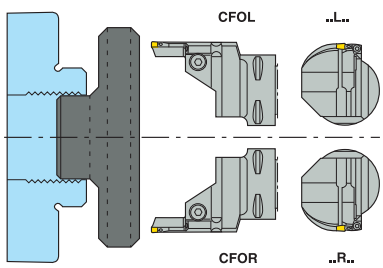
Capto size	CW	Designation	Dimensions in mm INPLM	INPLX	DCSFMS	WF	LF	CDX**	CP***	KG	Seat size	
C6												
	8	C6-CFOR-45115-08R130090-JET	90	130	63	45	115	48	70	1,3	8	LC..3008..
		C6-CFOR-45115-08R170110-JET	110	170	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOR-45115-08R230140-JET	140	230	63	45	115	48	70	1,3	8	LC..3008..
		C6-CFOR-45115-08R500200-JET	200	500	63	45	115	48	70	1,4	8	LC..3008..
		C6-CFOL-45115-08L130090-JET	90	130	63	45	115	48	70	1,3	8	LC..3008..
		C6-CFOL-45115-08L170110-JET	110	170	63	45	115	48	70	1,5	8	LC..3008..
		C6-CFOL-45115-08L230140-JET	140	230	63	45	115	48	70	1,3	8	LC..3008..
		C6-CFOL-45115-08L500200-JET	200	500	63	45	115	48	70	1,4	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF30.. = 28 mm
*** Max coolant pressure (bar)

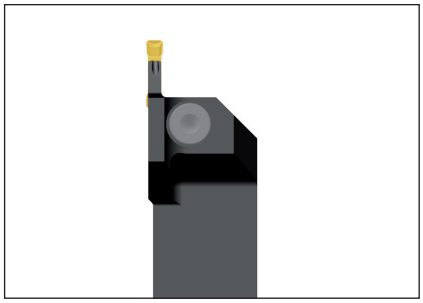
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-08	6SMS795	TCEI1020	15,0



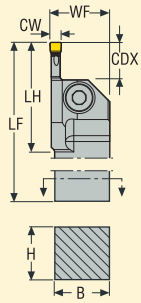
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



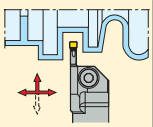
• For inserts programme, see page(s) 633-646, 648-649

CFIR/L...JET



Right-hand version shown
CDX = 3 x CW

CFIR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFIR2020K03JET	20	20	125	21,5	33	9	275	0,4	3	LC..1603..
	CFIR2525M03JET	25	25	150	26,5	33	9	275	0,7	3	LC..1603..
	CFIR3225P03JET	32	25	170	26,5	33	9	275	1,0	3	LC..1603..
	CFIL2020K03JET	20	20	125	21,5	33	9	275	0,4	3	LC..1603..
	CFIL2525M03JET	25	25	150	26,5	33	9	275	0,7	3	LC..1603..
	CFIL3225P03JET	32	25	170	26,5	33	9	275	1,0	3	LC..1603..
4	CFIR2020K04JET	20	20	125	21,5	39	12	275	0,4	4	LC..1604..
	CFIR2525M04JET	25	25	150	26,5	39	12	275	0,7	4	LC..1604..
	CFIR3225P04JET	32	25	170	26,5	39	12	275	1,0	4	LC..1604..
	CFIL2020K04JET	20	20	125	21,5	39	12	275	0,4	4	LC..1604..
	CFIL2525M04JET	25	25	150	26,5	39	12	275	0,7	4	LC..1604..
	CFIL3225P04JET	32	25	170	26,5	39	12	275	1,0	4	LC..1604..
5	CFIR2020K05JET	20	20	125	21,5	40	15	275	0,4	5	LC..1605..
	CFIR2525M05JET	25	25	150	26,5	40	15	275	0,7	5	LC..1605..
	CFIR3225P05JET	32	25	170	26,5	40	15	275	1,0	5	LC..1605..
	CFIL2020K05JET	20	20	125	21,5	40	15	275	0,4	5	LC..1605..
	CFIL2525M05JET	25	25	150	26,5	40	15	275	0,7	5	LC..1605..
	CFIL3225P05JET	32	25	170	26,5	40	15	275	1,0	5	LC..1605..

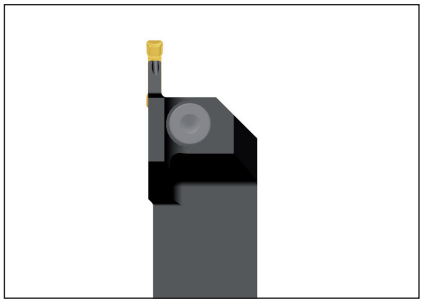
** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0

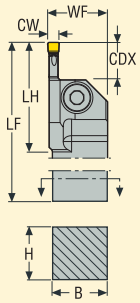
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



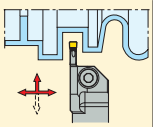
• For inserts programme, see page(s) 633-644, 648-649

CFIR/L...JET



Right-hand version shown
CDX = 3 x CW

CFIR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
6	CFIR2020K06JET	20	20	125	21,5	47	18	275	0,4	6	LC..1606..
	CFIR2525M06JET	25	25	150	26,5	47	18	275	0,7	6	LC..1606..
	CFIR3225P06JET	32	25	170	26,5	47	18	275	1,0	6	LC..1606..
	CFIL2020K06JET	20	20	125	21,5	47	18	275	0,4	6	LC..1606..
	CFIL2525M06JET	25	25	150	26,5	47	18	275	0,7	6	LC..1606..
	CFIL3225P06JET	32	25	170	26,5	47	18	275	1,0	6	LC..1606..
8	CFIR2525M08JET	25	25	150	28,0	57	24	275	0,7	8	LC..3008..
	CFIR3225P08JET	32	25	170	28,0	57	24	275	1,0	8	LC..3008..
	CFIL2525M08JET	25	25	150	28,0	57	24	275	0,7	8	LC..3008..
	CFIL3225P08JET	32	25	170	28,0	57	24	275	1,0	8	LC..3008..

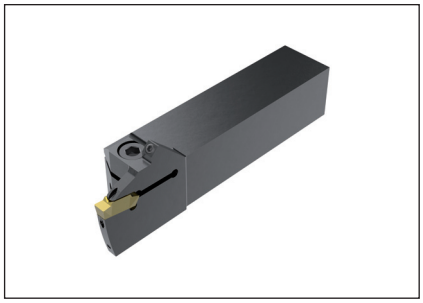
** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L20..-06	5SMS795	TCEI0613	JET-P1/8-5MM	6,0
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	8,0
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	8,0

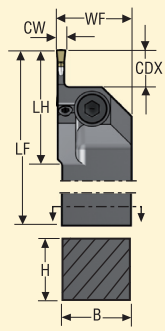
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



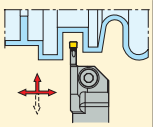
• For inserts programme, see page(s) 633-646, 648-649

CFIR/L...JETI



Right-hand version shown
CDX = 3 x CW

CFIR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFIR2020X03JETI	20	20	97	21,5	33	9	200	0,3	3	LC..1603..
	CFIR2525X03JETI	25	25	117	26,5	33	9	200	0,5	3	LC..1603..
	CFIL2020X03JETI	20	20	97	21,5	33	9	200	0,3	3	LC..1603..
	CFIL2525X03JETI	25	25	117	26,5	33	9	200	0,5	3	LC..1603..
4	CFIR2020X04JETI	20	20	103	21,5	39	12	200	0,3	4	LC..1604..
	CFIR2525X04JETI	25	25	123	26,5	39	12	200	0,5	4	LC..1604..
	CFIL2020X04JETI	20	20	103	21,5	39	12	200	0,3	4	LC..1604..
	CFIL2525X04JETI	25	25	123	26,5	39	12	200	0,5	4	LC..1604..
5	CFIR2020X05JETI	20	20	104	21,5	40	15	200	0,3	5	LC..1605..
	CFIR2525X05JETI	25	25	124	26,5	40	15	200	0,5	5	LC..1605..
	CFIL2020X05JETI	20	20	104	21,5	40	15	200	0,3	5	LC..1605..
	CFIL2525X05JETI	25	25	124	26,5	40	15	200	0,5	5	LC..1605..
6	CFIR2020X06JETI	20	20	111	21,5	47	18	200	0,4	6	LC..1606..
	CFIR2525X06JETI	25	25	131	26,5	47	18	200	0,6	6	LC..1606..
	CFIL2020X06JETI	20	20	111	21,5	47	18	200	0,4	6	LC..1606..
	CFIL2525X06JETI	25	25	131	26,5	47	18	200	0,6	6	LC..1606..
8	CFIR2525X08JETI	25	25	142	28,0	58	24	200	0,7	8	LC..3008..
	CFIL2525X08JETI	25	25	15	28,0	58	24	200	0,7	8	LC..3008..

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

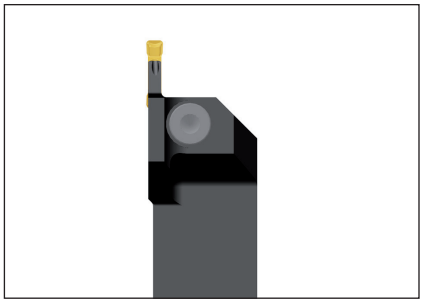
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L20..-06	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L25..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	P6SS6X6	15,0

Please check availability in current price and stock-list

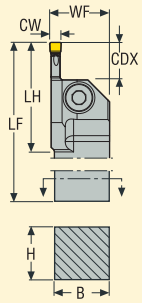
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



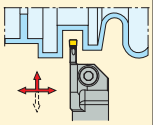
• For inserts programme, see page(s) 633-646, 648-649

CFMR/L...JET



Right-hand version shown
CDX = 5 x CW

CFMR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFMR2020K03JET	20	20	125	21,5	41	15	275	0,4	3	LC..1603..
	CFMR2525M03JET	25	25	150	26,5	41	15	275	0,7	3	LC..1603..
	CFMR3225P03JET	32	25	170	26,5	41	15	275	1,0	3	LC..1603..
	CFML2525M03JET	25	25	150	26,5	41	15	275	0,7	3	LC..1603..
	CFML3225P03JET	32	25	170	26,5	41	15	275	1,0	3	LC..1603..
	CFML2020K03JET	20	20	125	21,5	41	15	275	0,4	3	LC..1603..
4	CFMR2020K04JET	20	20	125	21,5	45	20	275	0,4	4	LC..1604..
	CFMR2525M04JET	25	25	150	26,5	45	20	275	0,7	4	LC..1604..
	CFMR3225P04JET	32	25	170	26,5	45	20	275	1,0	4	LC..1604..
	CFML2020K04JET	20	20	125	21,5	45	20	275	0,4	4	LC..1604..
	CFML2525M04JET	25	25	150	26,5	45	20	275	0,7	4	LC..1604..
	CFML3225P04JET	32	25	170	26,5	45	20	275	1,0	4	LC..1604..
5	CFMR2525M05JET	25	25	150	26,5	56	25	275	0,7	5	LC..1605..
	CFMR3225P05JET	32	25	170	26,5	56	25	275	0,9	5	LC..1605..
	CFML2525M05JET	25	25	150	26,5	56	25	275	0,7	5	LC..1605..
	CFML3225P05JET	32	25	170	26,5	56	25	275	0,9	5	LC..1605..
6	CFMR2525M06JET	25	25	150	26,5	67	30	275	0,7	6	LC..1606..
	CFMR3225P06JET	32	25	170	26,5	67	30	275	0,9	6	LC..1606..
	CFML2525M06JET	25	25	150	26,5	67	30	275	0,7	6	LC..1606..
	CFML3225P06JET	32	25	170	26,5	67	30	275	0,9	6	LC..1606..

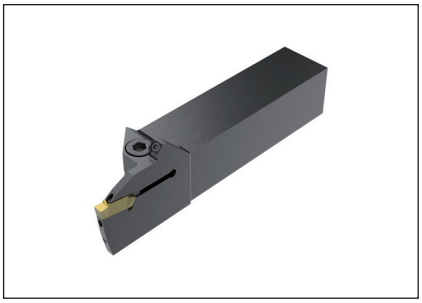
** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFMR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFMR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFMR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFMR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	10,0

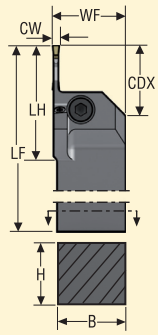
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



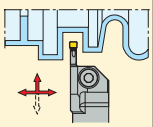
• For inserts programme, see page(s) 633-646, 648-649

CFMR/L...JETI



Right-hand version shown
CDX = 5 x CW

CFMR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFMR2020X03JETI	20	20	105	21,5	41	15	200	0,3	3	LC..1603..
	CFMR2525X03JETI	25	25	125	26,5	41	15	200	0,6	3	LC..1603..
	CFML2020X03JETI	20	20	105	21,5	41	15	200	0,3	3	LC..1603..
	CFML2525X03JETI	25	25	125	26,5	41	15	200	0,6	3	LC..1603..
4	CFMR2020X04JETI	20	20	110	21,5	46	20	200	0,3	4	LC..1604..
	CFMR2525X04JETI	25	25	130	26,5	46	20	200	0,5	4	LC..1604..
	CFML2020X04JETI	20	20	110	21,5	46	20	200	0,3	4	LC..1604..
	CFML2525X04JETI	25	25	130	26,5	46	20	200	0,5	4	LC..1604..
5	CFMR2525X05JETI	25	25	140	26,5	56	25	200	0,6	5	LC..1605..
	CFML2525X05JETI	25	25	140	26,5	56	25	200	0,6	5	LC..1605..
6	CFMR2525X06JETI	25	25	151	26,5	67	30	200	0,6	6	LC..1606..
	CFML2525X06JETI	25	25	151	26,5	67	30	200	0,6	6	LC..1606..

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFMR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFMR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFMR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFMR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0

Please check availability in current price and stock-list

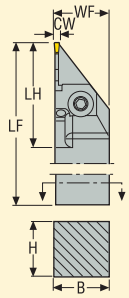
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCMF



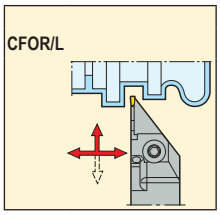
• For inserts programme, see page(s) 632

CFOR/L..RBJET



Right-hand version shown
CDX = 6 x CW

CFOR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CUTDIA*	CP***	KG	Seat size	
2	CFOR1212K1902RBJET	12	12	125	12,0	27,0	25,4	275	0,2	2	LC..1902..
	CFOR1616K1902RBJET	16	16	125	16,0	27,0	25,4	275	0,3	2	LC..1902..
	CFOL1212K1902RBJET	12	12	125	12,0	27,0	25,4	275	0,2	2	LC..1902..
	CFOL1616K1902RBJET	16	16	125	16,0	27,0	25,4	275	0,3	2	LC..1902..

* Due to the design, grooving depth is limited, see page(s) 515

*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..19	T15P-7S	L85012-T15P	5,0

Accessories, to be ordered separately

For holder	Coolant adapter	Washer
CFOR/L..19	JET-ADM6	JET-CS0610

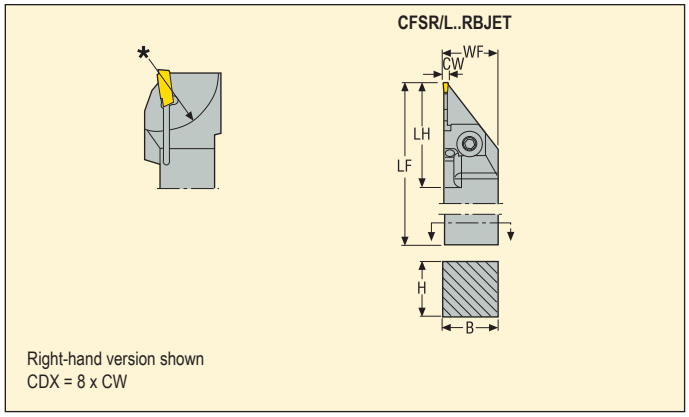
Please check availability in current price and stock-list

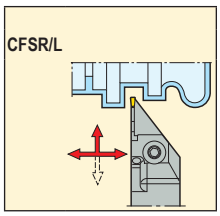
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCMF



- For inserts programme, see page(s) 632





CW	Designation	Dimensions in mm H	B	LF	WF	LH	CUTDIA*	CP***	KG	Seat size	
2	CFSR2020M1902RBJET	20	20	150	20,0	38,2	33,0	275	0,5	02	LC..1902..
	CFSL2020M1902RBJET	20	20	150	20,0	38,2	33,0	275	0,5	02	LC..1902..

* Due to the design, grooving depth is limited, see page(s) 515

*** Max coolant pressure (bar) using hose connection

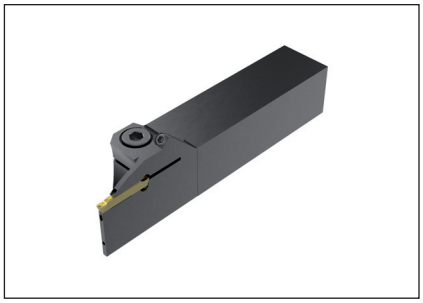
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFSR/L..-19	4SMS795	TCEI0513	JET-P1/8-5MM	6,0

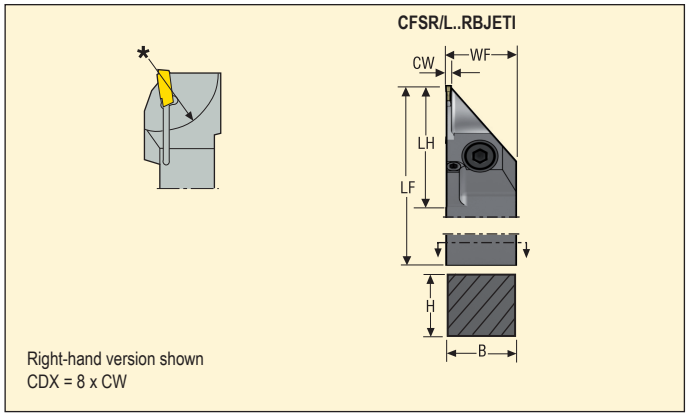
Please check availability in current price and stock-list

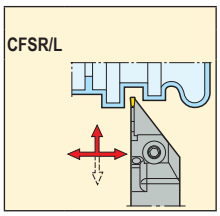
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCMF



• For inserts programme, see page(s) 632





CW	Designation	Dimensions in mm H	B	LF	WF	LH	CUTDIA*	CP***	KG	Seat size	
2	CFSR2020X1902RBJETI	20	20	102	20,0	38,0	33,0	200	0,3	02	LC..1902..
	CFSL2020X1902RBJETI	20	20	102	20,0	38,0	33,0	200	0,3	02	LC..1902..

* Due to the design, grooving depth is limited, see page(s) 515

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFSR/L..-19	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0

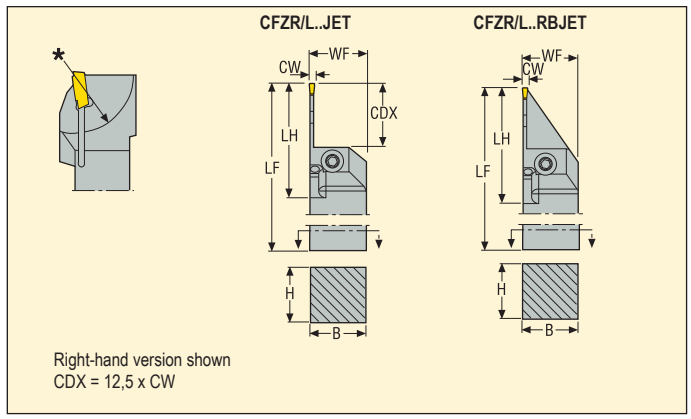
Please check availability in current price and stock-list

For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

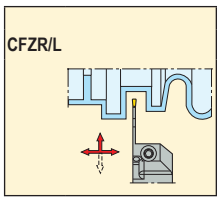
Toolholders for inserts LCMF



• For inserts programme, see page(s) 632



Right-hand version shown
CDX = 12,5 x CW



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX	CUTDIA*	CP***	KG	Seat size	
2	CFZR2020M2802JET	20	20	150	20,0	50,0	26,0	–	275	0,4	02	LC..2802..
	CFZR2525M2802JET	25	25	150	25,0	50,0	26,0	–	275	0,6	02	LC..2802..
	CFZL2020M2802JET	20	20	150	20,0	50,0	26,0	–	275	0,4	02	LC..2802..
	CFZL2525M2802JET	25	25	150	25,0	50,0	26,0	–	275	0,6	02	LC..2802..
2	CFZR2020M2802RBJET	20	20	150	20,0	51,7	–	52,0	275	0,5	02	LC..2802..
	CFZR2525M2802RBJET	25	25	150	25,0	51,7	–	52,0	275	0,7	02	LC..2802..
	CFZL2020M2802RBJET	20	20	150	20,0	51,7	–	52,0	275	0,5	02	LC..2802..
	CFZL2525M2802RBJET	25	25	150	25,0	51,7	–	52,0	275	0,7	02	LC..2802..

* Due to the design, grooving depth is limited, see page(s) 515

*** Max coolant pressure (bar) using hose connection

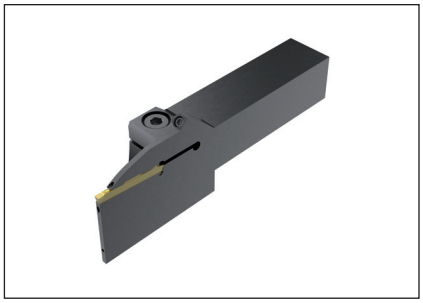
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFSR/L..-28	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFZR/L..-28	4SMS795	TCEI0513	JET-P1/8-5MM	6,0

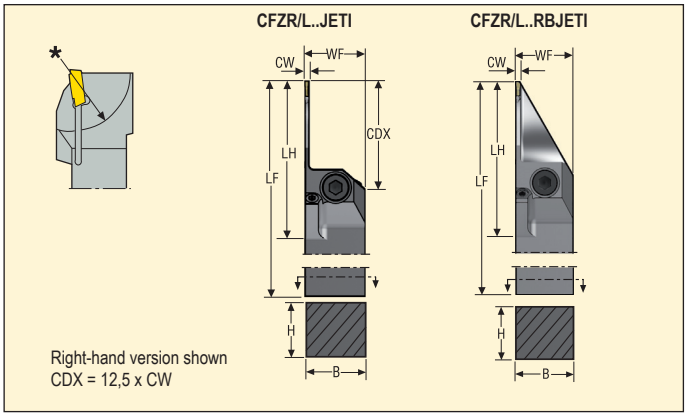
Please check availability in current price and stock-list

For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

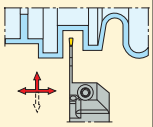
Toolholders for inserts LCMF



• For inserts programme, see page(s) 632



CFZR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX	CUTDIA*	CP***	KG	Seat size	
2	CFZR2020X2802JETI	20	20	115	20,0	51,0	26,0	–	200	0,3	02	LC..2802..
	CFZR2525X2802JETI	25	25	135	25,0	51,0	26,0	56,2	200	0,5	02	LC..2802..
	CFZL2020X2802JETI	20	20	115	20,0	51,0	26,0	–	200	0,3	02	LC..2802..
	CFZL2525X2802JETI	25	25	135	25,0	51,0	26,0	56,2	200	0,5	02	LC..2802..
2	CFZR2020X2802RBJETI	20	20	116	20,0	52,0	–	52,0	200	0,4	02	LC..2802..
	CFZR2525X2802RBJETI	25	25	136	25,0	52,0	–	52,0	200	0,6	02	LC..2802..
	CFZL2020X2802RBJETI	20	20	116	20,0	52,0	–	52,0	200	0,4	02	LC..2802..
	CFZL2525X2802RBJETI	25	25	136	25,0	52,0	–	52,0	200	0,6	02	LC..2802..

* Due to the design, grooving depth is limited, see page(s) 515

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

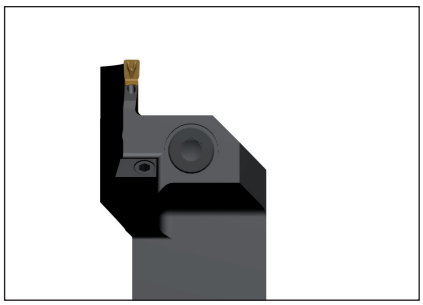
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFZR/L..-28	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0

Please check availability in current price and stock-list

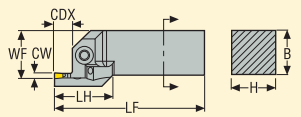
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



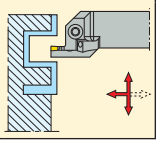
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JET, CFIL...R...JET



Right-hand version with left-hand blade shown
CDX = 3 x CW

CFIR/L



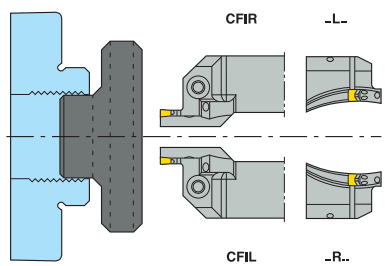
CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFIR2525M03L080055-JET	55	80	25	25	150	26,5	33,0	9	275	0,7	3	LC..1603..
	CFIL2525M03R080055-JET	55	80	25	25	150	26,5	33,0	9	275	0,7	3	LC..1603..
4	CFIR2525M04L080055-JET	55	80	25	25	150	26,5	36,0	12	275	0,7	4	LC..1604..
	CFIL2525M04R080055-JET	55	80	25	25	150	26,5	36,0	12	275	0,7	4	LC..1604..
5	CFIR2525M05L080055-JET	55	80	25	25	150	26,5	40,0	15	275	0,7	5	LC..1605..
	CFIL2525M05R080055-JET	55	80	25	25	150	26,5	40,0	15	275	0,7	5	LC..1605..
6	CFIR2525M06L080055-JET	55	80	25	25	150	26,5	46,0	18	275	0,7	6	LC..1606..
	CFIL2525M06R080055-JET	55	80	25	25	150	26,5	46,0	18	275	0,7	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

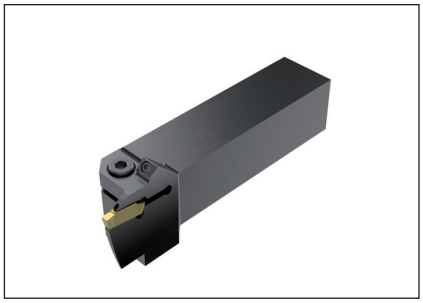
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	10,0



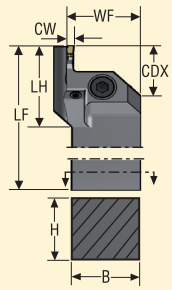
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



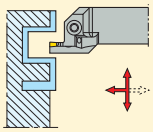
• For inserts programme, see page(s) 633-638, 648-649

CFIR...L...JETI, CFIL...R...JETI



Right-hand version with right-hand blade shown
CDX = 3 x CW

CFIR/L

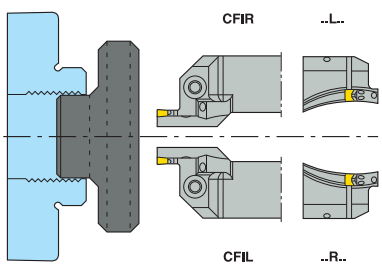


CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX				
3	CFIR2525X03L080055-JETI	55	80	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIL2525X03R080055-JETI	55	80	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
4	CFIL2525X04R080055-JETI	55	80	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIR2525X04L080055-JETI	55	80	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
5	CFIL2525X05R080055-JETI	55	80	25	25	125	26,5	1,5	41	15	200	0,6	5	LC..1605..
	CFIR2525X05L080055-JETI	55	80	25	25	125	26,5	1,5	41	15	200	0,6	5	LC..1605..
6	CFIL2525X06R080055-JETI	55	80	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIR2525X06L080055-JETI	55	80	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515
*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

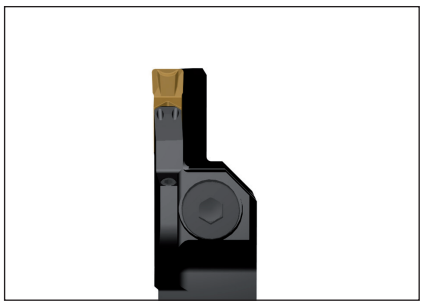
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0



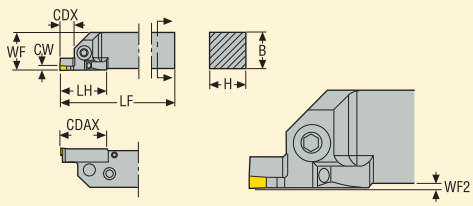
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



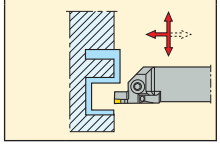
• For inserts programme, see page(s) 633-638, 648-649

CFIR...R...JET, CFIL...L...JET



Right-hand version with right-hand blade shown
CDX = 3 x CW

CFIR/L



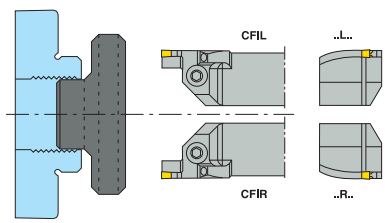
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX				
3	CFIR2525M03R080055-JET	55	80	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIR2525M03R100070-JET	70	100	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIR2525M03R130090-JET	90	130	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIR2525M03R170110-JET	110	170	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIL2525M03L080055-JET	55	80	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIL2525M03L100070-JET	70	100	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIL2525M03L130090-JET	90	130	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
	CFIL2525M03L170110-JET	110	170	25	25	150	26,5	1,5	33	9	275	0,7	3	LC..1603..
4	CFIR2525M04R080055-JET	55	80	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIR2525M04R100070-JET	70	100	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIR2525M04R130090-JET	90	130	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIR2525M04R170110-JET	110	170	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIR2525M04R230140-JET	140	230	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIL2525M04L080055-JET	55	80	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIL2525M04L100070-JET	70	100	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIL2525M04L130090-JET	90	130	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIL2525M04L170110-JET	110	170	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..
	CFIL2525M04L230140-JET	140	230	25	25	150	26,5	1,5	36	12	275	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

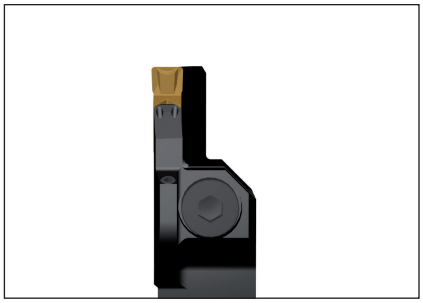
For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0



Please check availability in current price and stock-list

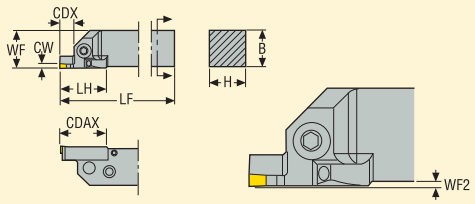
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



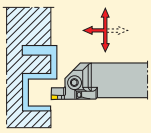
• For inserts programme, see page(s) 633-638, 648-649

CFIR...R...JET, CFIL...L...JET



Right-hand version with right-hand blade shown
CDX = 3 x CW

CFIR/L



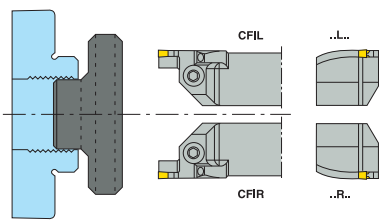
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX**				
5	CFIR2525M05R080055-JET	55	80	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIR2525M05R100070-JET	70	100	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIR2525M05R130090-JET	90	130	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIR2525M05R170110-JET	110	170	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIR2525M05R230140-JET	140	230	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIL2525M05L080055-JET	55	80	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIL2525M05L100070-JET	70	100	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIL2525M05L130090-JET	90	130	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIL2525M05L170110-JET	110	170	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
	CFIL2525M05L230140-JET	140	230	25	25	150	26,5	1,5	40	15	275	0,7	5	LC..1605..
6	CFIR2525M06R080055-JET	55	80	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIR2525M06R100070-JET	70	100	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIR2525M06R130090-JET	90	130	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIR2525M06R170110-JET	110	170	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIR2525M06R230140-JET	140	230	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIL2525M06L080055-JET	55	80	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIL2525M06L100070-JET	70	100	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIL2525M06L130090-JET	90	130	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIL2525M06L170110-JET	110	170	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..
	CFIL2525M06L230140-JET	140	230	25	25	150	26,5	1,5	46	18	275	0,7	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

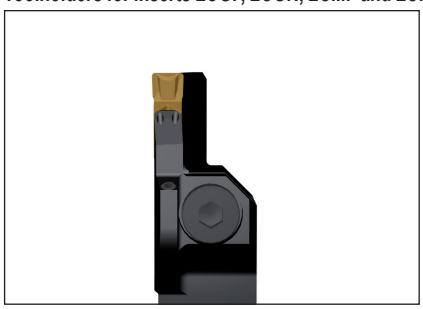
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	10,0



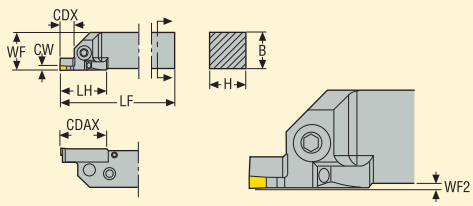
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



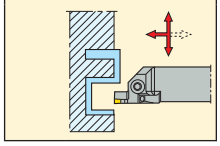
- For inserts programme, see page(s) 633, 636-638

CFIR...R...JET, CFIL...L...JET



Right-hand version with right-hand blade shown
CDX = 3 x CW

CFIR/L



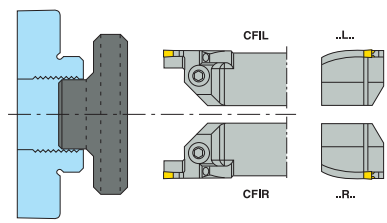
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX				
8	CFIR3225P08R130090-JET	90	130	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIR3225P08R170110-JET	110	170	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIR3225P08R230140-JET	140	230	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIR3225P08R500200-JET	200	500	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIL3225P08L130090-JET	90	130	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIL3225P08L170110-JET	110	170	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIL3225P08L230140-JET	140	230	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..
	CFIL3225P08L500200-JET	200	500	32	25	170	26,5	1,5	56	24	275	1,0	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

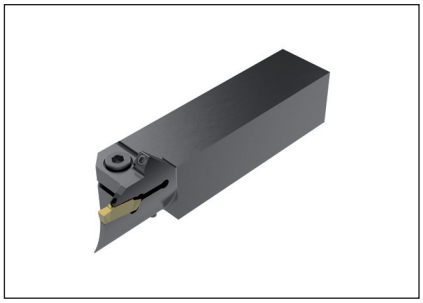
For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFIR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	15,0



Please check availability in current price and stock-list

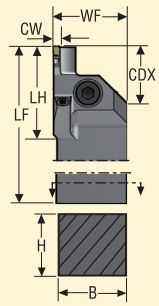
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



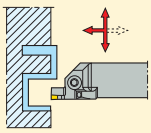
• For inserts programme, see page(s) 633-638, 648-649

CFIR...R...JETI, CFIL...L...JETI



Right-hand version with right-hand blade shown
CDX = 3 x CW

CFIR/L

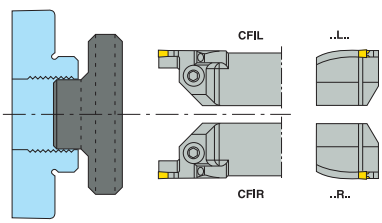


CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX	CP***	KG	Seat size	
3	CFIR2525X03R080055-JETI	55	80	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIR2525X03R100070-JETI	70	100	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIR2525X03R130090-JETI	90	130	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIR2525X03R170110-JETI	110	170	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIL2525X03L080055-JETI	55	80	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIL2525X03L100070-JETI	70	100	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIL2525X03L130090-JETI	90	130	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
	CFIL2525X03L170110-JETI	110	170	25	25	118	26,5	1,5	34	9	200	0,5	3	LC..1603..
4	CFIR2525X04R080055-JETI	55	80	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIR2525X04R100070-JETI	70	100	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIR2525X04R130090-JETI	90	130	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIR2525X04R170110-JETI	110	170	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIR2525X04R230140-JETI	140	230	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIL2525X04L080055-JETI	55	80	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIL2525X04L100070-JETI	70	100	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIL2525X04L130090-JETI	90	130	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIL2525X04L170110-JETI	110	170	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..
	CFIL2525X04L230140-JETI	140	230	25	25	121	26,5	1,5	37	12	200	0,5	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515
*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

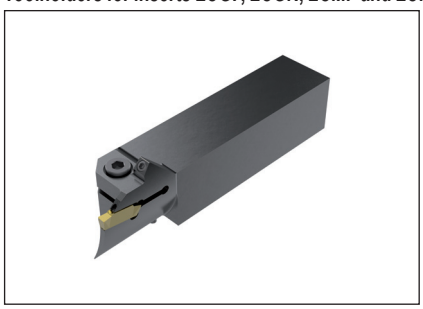
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFIR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFIR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0



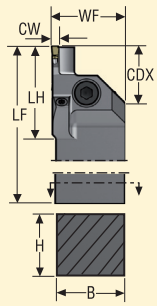
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



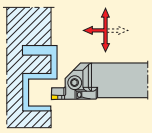
- For inserts programme, see page(s) 633-638, 648-649

CFIR...R...JETI, CFIL...L...JETI



Right-hand version with
right-hand blade shown
CDX = 3 x CW

CFIR/L



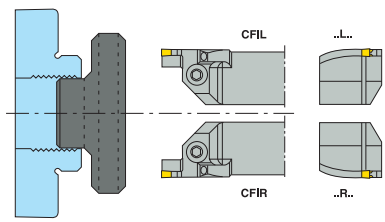
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX				
5	CFIR2525X05R080055-JETI	55	80	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIR2525X05R100070-JETI	70	100	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIR2525X05R130090-JETI	90	130	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIR2525X05R170110-JETI	110	170	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIR2525X05R230140-JETI	140	230	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIL2525X05L080055-JETI	55	80	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIL2525X05L100070-JETI	70	100	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIL2525X05L130090-JETI	90	130	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIL2525X05L170110-JETI	110	170	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
	CFIL2525X05L230140-JETI	140	230	25	25	125	26,5	1,5	41	15	200	0,5	5	LC..1605..
6	CFIR2525X06R080055-JETI	55	80	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIR2525X06R100070-JETI	70	100	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIR2525X06R130090-JETI	90	130	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIR2525X06R170110-JETI	110	170	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIR2525X06R230140-JETI	140	230	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIL2525X06L080055-JETI	55	80	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIL2525X06L100070-JETI	70	100	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIL2525X06L130090-JETI	90	130	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIL2525X06L170110-JETI	110	170	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..
	CFIL2525X06L230140-JETI	140	230	25	25	131	26,5	1,5	47	18	200	0,6	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

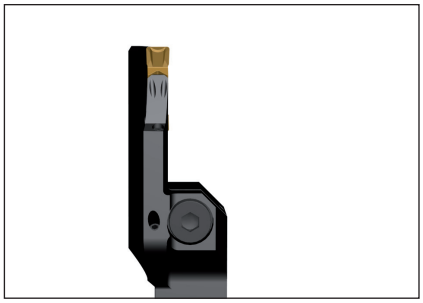
For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFIR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0



Please check availability in current price and stock-list

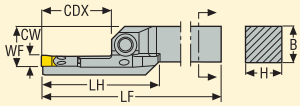
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



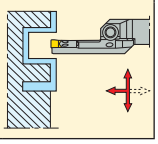
• For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

CFOR/L



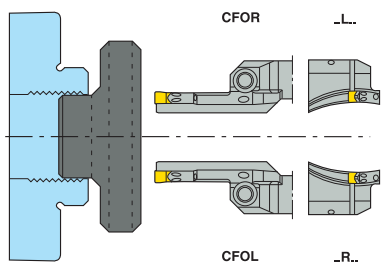
CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFOR2525M03L080055-JET	55	80	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03L100070-JET	70	100	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03L130090-JET	90	130	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03L170110-JET	110	170	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03L230140-JET	140	230	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03L500200-JET	200	500	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R080055-JET	55	80	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R100070-JET	70	100	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R130090-JET	90	130	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R170110-JET	110	170	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R230140-JET	140	230	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03R500200-JET	200	500	25	25	150	26,5	43	18	275	0,7	3	LC..1603..
4	CFOR2525M04L080055-JET	55	80	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04L100070-JET	70	100	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04L130090-JET	90	130	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04L170110-JET	110	170	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04L230140-JET	140	230	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04L500200-JET	200	500	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R080055-JET	55	80	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R100070-JET	70	100	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R130090-JET	90	130	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R170110-JET	110	170	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R230140-JET	140	230	25	25	150	26,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04R500200-JET	200	500	25	25	150	26,5	51	24	275	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

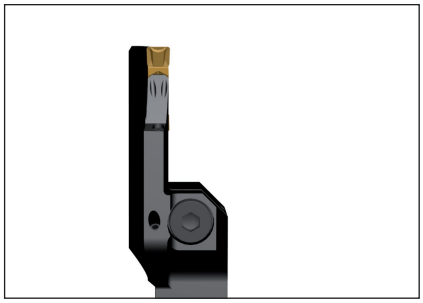
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0



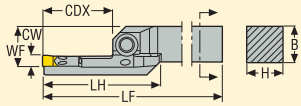
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



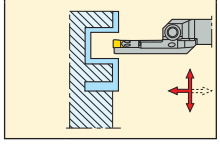
- For inserts programme, see page(s) 633-638, 648-649

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

CFOR/L



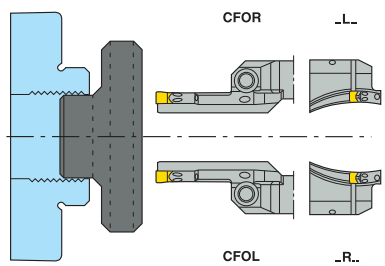
CW	Designation	Dimensions in mm								CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX**				
5	CFOR2525M05L080055-JET	55	80	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05L100070-JET	70	100	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05L130090-JET	90	130	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05L170110-JET	110	170	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05L230140-JET	140	230	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05L500200-JET	200	500	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R080055-JET	55	80	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R100070-JET	70	100	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R130090-JET	90	130	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R170110-JET	110	170	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R230140-JET	140	230	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05R500200-JET	200	500	25	25	150	26,5	59	30	275	0,7	5	LC..1605..
6	CFOR2525M06L080055-JET	55	80	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06L100070-JET	70	100	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06L130090-JET	90	130	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06L170110-JET	110	170	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06L230140-JET	140	230	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06L500200-JET	200	500	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R080055-JET	55	80	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R100070-JET	70	100	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R130090-JET	90	130	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R170110-JET	110	170	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R230140-JET	140	230	25	25	150	26,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06R500200-JET	200	500	25	25	150	26,5	70	36	275	0,7	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

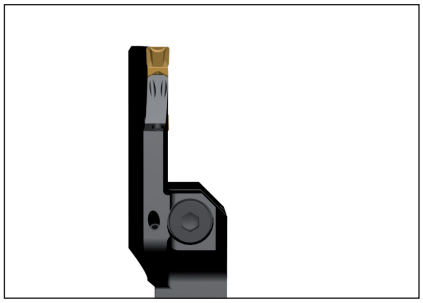
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	10,0



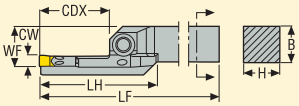
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



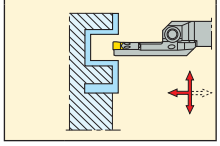
• For inserts programme, see page(s) 633, 636-638

CFOR...L...JET, CFOL...R...JET



Right-hand version with left-hand blade shown
CDX = 6 x CW

CFOR/L



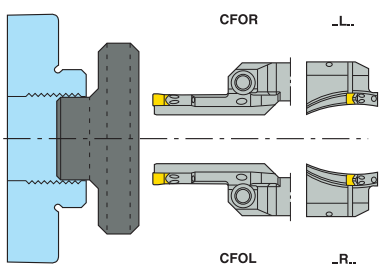
CW	Designation	Dimensions in mm								CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX**				
8	CFOR3225P08L130090-JET	90	130	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOR3225P08L170110-JET	110	170	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOR3225P08L230140-JET	140	230	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOR3225P08L500200-JET	200	500	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOL3225P08R130090-JET	90	130	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOL3225P08R170110-JET	110	170	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOL3225P08R230140-JET	140	230	32	25	170	28,0	83	48	275	0,9	8	LC..3008..
	CFOL3225P08R500200-JET	200	500	32	25	170	28,0	83	48	275	0,9	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF30.. = 28 mm
*** Max coolant pressure (bar) using hose connection

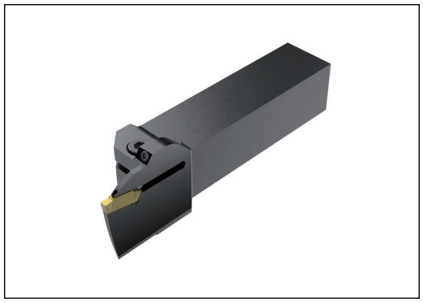
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	15,0



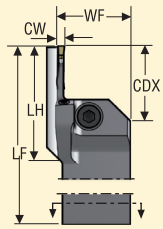
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

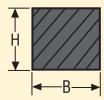


• For inserts programme, see page(s) 633-638, 648-649

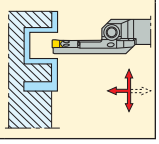
CFOR...L...JETI, CFOL...R...JETI



Right-hand version with
left-hand blade shown
CDX = 6 x CW



CFOR/L



CW	Designation	Dimensions in mm								CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX**				
3	CFOR2525X03L080055-JETI	55	80	25	25	127	26,5	43	18	200	0,6	3	LC..1603..
	CFOR2525X03L100070-JETI	70	100	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03L130090-JETI	90	130	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03L170110-JETI	110	170	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03L230140-JETI	140	230	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03L500200-JETI	200	500	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03R080055-JETI	55	80	25	25	127	26,5	43	18	200	0,6	3	LC..1603..
	CFOL2525X03R100070-JETI	70	100	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03R130090-JETI	90	130	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03R170110-JETI	110	170	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03R230140-JETI	140	230	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03R500200-JETI	200	500	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
4	CFOR2525X04L080055-JETI	55	80	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04L100070-JETI	70	100	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04L130090-JETI	90	130	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04L170110-JETI	110	170	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04L230140-JETI	140	230	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04L500200-JETI	200	500	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R080055-JETI	55	80	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R100070-JETI	70	100	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R130090-JETI	90	130	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R170110-JETI	110	170	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R230140-JETI	140	230	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04R500200-JETI	200	500	25	25	135	26,5	51	24	200	0,6	4	LC..1604..

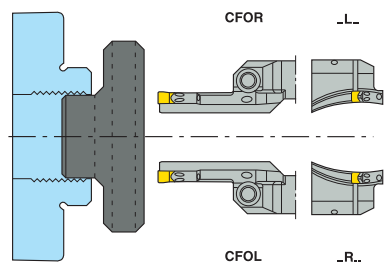
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

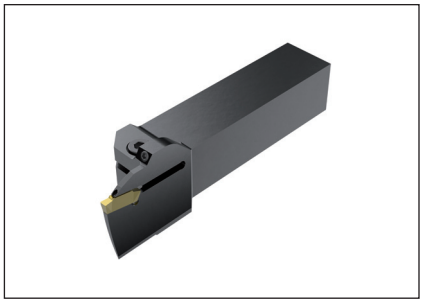
For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0



Please check availability in current price and stock-list

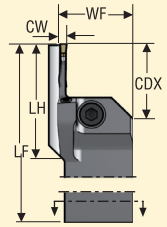
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

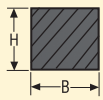


• For inserts programme, see page(s) 633-638, 648-649

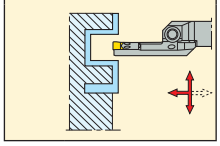
CFOR...L...JETI, CFOL...R...JETI



Right-hand version with
left-hand blade shown
CDX = 6 x CW



CFOR/L



CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
5	CFOR2525X05L080055-JETI	55	80	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05L100070-JETI	70	100	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05L130090-JETI	90	130	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05L170110-JETI	110	170	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05L230140-JETI	140	230	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05L500200-JETI	200	500	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R080055-JETI	55	80	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R100070-JETI	70	100	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R130090-JETI	90	130	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R170110-JETI	110	170	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R230140-JETI	140	230	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05R500200-JETI	200	500	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
6	CFOR2525X06L080055-JETI	55	80	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOR2525X06L100070-JETI	70	100	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOR2525X06L130090-JETI	90	130	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06L170110-JETI	110	170	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06L230140-JETI	140	230	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOR2525X06L500200-JETI	200	500	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06R080055-JETI	55	80	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOL2525X06R100070-JETI	70	100	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOL2525X06R130090-JETI	90	130	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06R170110-JETI	110	170	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06R230140-JETI	140	230	25	25	154	26,5	70	36	200	0,7	6	LC..1606..
	CFOL2525X06R500200-JETI	200	500	25	25	154	26,5	70	36	200	0,6	6	LC..1606..

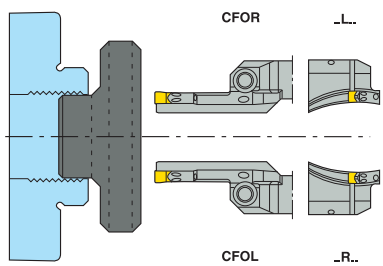
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

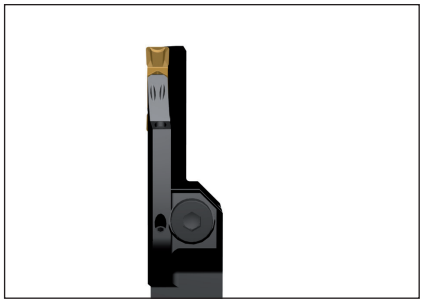
For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0



Please check availability in current price and stock-list

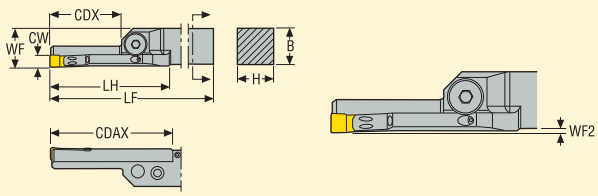
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



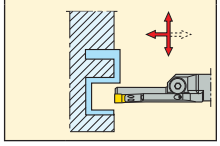
- For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

CFOR/L



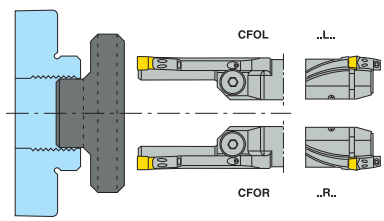
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX**				
3	CFOR2525M03R080055-JET	55	80	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03R100070-JET	70	100	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03R130090-JET	90	130	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03R170110-JET	110	170	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03R230140-JET	140	230	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOR2525M03R500200-JET	200	500	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L080055-JET	55	80	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L100070-JET	70	100	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L130090-JET	90	130	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L170110-JET	110	170	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L230140-JET	140	230	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
	CFOL2525M03L500200-JET	200	500	25	25	150	26,5	1,5	43	18	275	0,7	3	LC..1603..
4	CFOR2525M04R080055-JET	55	80	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04R100070-JET	70	100	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04R130090-JET	90	130	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04R170110-JET	110	170	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04R230140-JET	140	230	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOR2525M04R500200-JET	200	500	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L080055-JET	55	80	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L100070-JET	70	100	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L130090-JET	90	130	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L170110-JET	110	170	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L230140-JET	140	230	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..
	CFOL2525M04L500200-JET	200	500	25	25	150	26,5	1,5	51	24	275	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

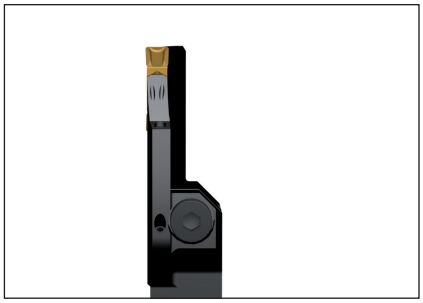
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	6,0
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	8,0



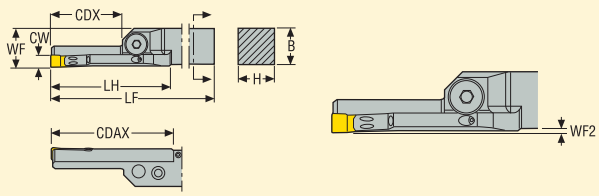
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



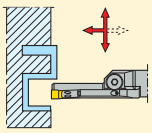
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

CFOR/L



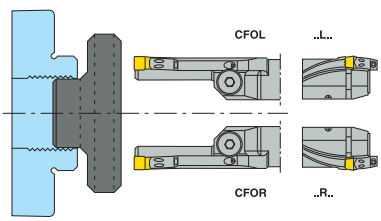
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX**				
5	CFOR2525M05R080055-JET	55	80	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05R100070-JET	70	100	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05R130090-JET	90	130	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05R170110-JET	110	170	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05R230140-JET	140	230	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOR2525M05R500200-JET	200	500	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L080055-JET	55	80	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L100070-JET	70	100	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L130090-JET	90	130	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L170110-JET	110	170	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L230140-JET	140	230	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
	CFOL2525M05L500200-JET	200	500	25	25	150	26,5	1,5	59	30	275	0,7	5	LC..1605..
6	CFOR2525M06R080055-JET	55	80	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06R100070-JET	70	100	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06R130090-JET	90	130	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06R170110-JET	110	170	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06R230140-JET	140	230	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOR2525M06R500200-JET	200	500	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L080055-JET	55	80	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L100070-JET	70	100	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L130090-JET	90	130	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L170110-JET	110	170	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L230140-JET	140	230	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..
	CFOL2525M06L500200-JET	200	500	25	25	150	26,5	1,5	70	36	275	0,7	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

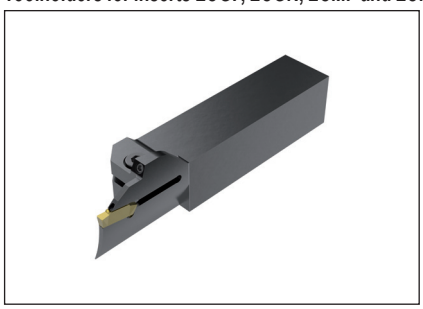
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	8,0
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	10,0



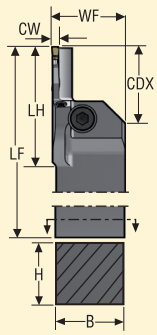
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



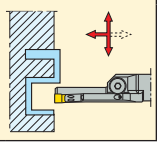
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JETI, CFOL...L...JETI



Right-hand version with
left-hand blade shown
CDX = 6 x CW

CFOR/L



CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
3	CFOR2525X03R080055-JETI	55	80	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03R100070-JETI	70	100	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03R130090-JETI	90	130	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03R170110-JETI	110	170	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03R230140-JETI	140	230	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOR2525X03R500200-JETI	200	500	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L080055-JETI	55	80	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L100070-JETI	70	100	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L130090-JETI	90	130	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L170110-JETI	110	170	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L230140-JETI	140	230	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
	CFOL2525X03L500200-JETI	200	500	25	25	127	26,5	43	18	200	0,5	3	LC..1603..
4	CFOR2525X04R080055-JETI	55	80	25	25	135	26,5	51	24	200	0,5	4	LC..1604..
	CFOR2525X04R100070-JETI	70	100	25	25	135	26,5	51	24	200	0,5	4	LC..1604..
	CFOR2525X04R130090-JETI	90	130	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04R170110-JETI	110	170	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04R230140-JETI	140	230	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOR2525X04R500200-JETI	200	500	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04L080055-JETI	55	80	25	25	135	26,5	51	24	200	0,5	4	LC..1604..
	CFOL2525X04L100070-JETI	70	100	25	25	135	26,5	51	24	200	0,5	4	LC..1604..
	CFOL2525X04L130090-JETI	90	130	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04L170110-JETI	110	170	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04L230140-JETI	140	230	25	25	135	26,5	51	24	200	0,6	4	LC..1604..
	CFOL2525X04L500200-JETI	200	500	25	25	135	26,5	51	24	200	0,6	4	LC..1604..

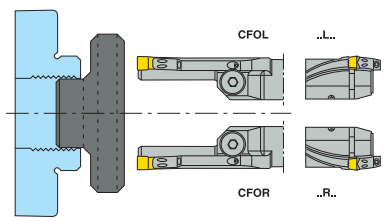
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

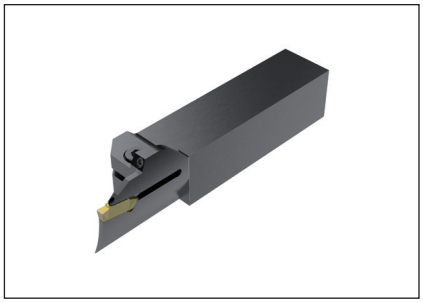
For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFOR/L..-03	4SMS795	TCEI0513	JET-P1/8-5MM	P6SS6X6	6,0
CFOR/L..-04	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0



Please check availability in current price and stock-list

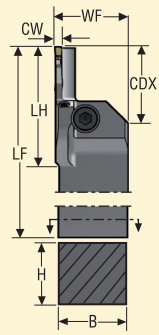
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



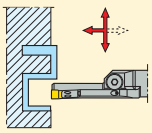
• For inserts programme, see page(s) 633-638, 648-649

CFOR...R...JETI, CFOL...L...JETI



Right-hand version with
left-hand blade shown
CDX = 6 x CW

CFOR/L



CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	CP***	KG	Seat size	
5	CFOR2525X05R080055-JETI	80	55	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05R100070-JETI	70	100	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05R130090-JETI	90	130	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05R170110-JETI	110	170	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05R230140-JETI	140	230	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOR2525X05R500200-JETI	200	500	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L080055-JETI	80	55	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L100070-JETI	70	100	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L130090-JETI	90	130	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L170110-JETI	110	170	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L230140-JETI	140	230	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
	CFOL2525X05L500200-JETI	200	500	25	25	143	26,5	59	30	200	0,6	5	LC..1605..
6	CFOR2525X06R080055-JETI	55	80	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06R100070-JETI	70	100	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06R130090-JETI	90	130	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06R170110-JETI	110	170	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06R230140-JETI	140	230	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOR2525X06R500200-JETI	200	500	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L080055-JETI	55	80	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L100070-JETI	70	100	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L130090-JETI	90	130	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L170110-JETI	110	170	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L230140-JETI	140	230	25	25	154	26,5	70	36	200	0,6	6	LC..1606..
	CFOL2525X06L500200-JETI	200	500	25	25	154	26,5	70	36	200	0,6	6	LC..1606..

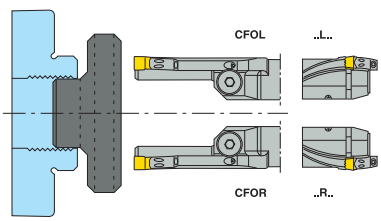
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

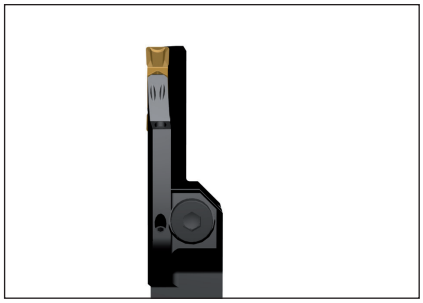
For holder	Clamp key	Clamp screw	Plug	Plug screw	Torque value Nm
CFOR/L..-05	5SMS795	TCEI0613	JET-P1/8-5MM	P6SS6X6	8,0
CFOR/L..-06	6SMS795	TCEI0815	JET-P1/8-5MM	P6SS6X6	10,0



Please check availability in current price and stock-list

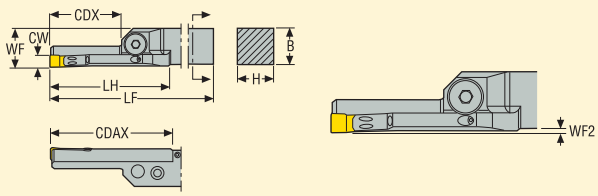
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



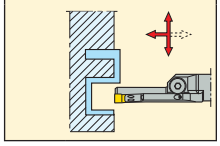
- For inserts programme, see page(s) 633, 636-638

CFOR...R...JET, CFOL...L...JET



Right-hand version with right-hand blade shown
CDX = 6 x CW

CFOR/L



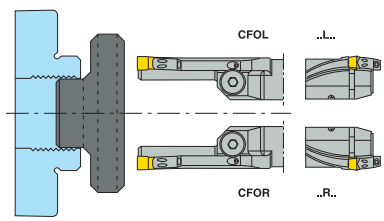
CW	Designation	Dimensions in mm									CP***	KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	WF2	LH	CDX**				
8	CFOR3225P08R130090-JET	90	130	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOR3225P08R170110-JET	110	170	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOR3225P08R230140-JET	140	230	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOR3225P08R500200-JET	200	500	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOL3225P08L130090-JET	90	130	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOL3225P08L170110-JET	110	170	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOL3225P08L230140-JET	140	230	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..
	CFOL3225P08L500200-JET	200	500	32	25	170	26,5	1,5	83	48	275	0,9	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF30.. = 28 mm
*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Torque value Nm
CFOR/L..-08	6SMS795	TCEI1020	JET-P1/8-5MM	15,0



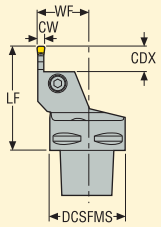
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746

Toolholders for inserts LCGN, LCMF and LCMR



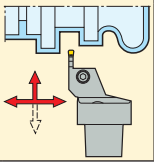
• For inserts programme, see page(s) 633-638, 648-649

C.-CFIR/L



Right-hand version shown
CDX = 3 x CW

C.-CFIR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	KG	Seat size	
C4										
	3	C4-CFIR-27055-03	40	27,0	55	9	195	0,4	3	LC..1603..
		C4-CFIL-27055-03	40	27,0	55	9	195	0,4	3	LC..1603..
	4	C4-CFIR-27055-04	40	27,0	55	12	195	0,4	4	LC..1604..
		C4-CFIL-27055-04	40	27,0	55	12	195	0,4	4	LC..1604..
	5	C4-CFIR-27055-05	40	27,0	55	15	195	0,4	5	LC..1605..
		C4-CFIL-27055-05	40	27,0	55	15	195	0,4	5	LC..1605..
C5										
	3	C5-CFIR-35060-03	50	35,0	60	9	195	0,6	3	LC..1603..
		C5-CFIL-35060-03	50	35,0	60	9	195	0,6	3	LC..1603..
	4	C5-CFIR-35060-04	50	35,0	60	12	195	0,6	4	LC..1604..
		C5-CFIL-35060-04	50	35,0	60	12	195	0,6	4	LC..1604..
	5	C5-CFIR-35060-05	50	35,0	60	15	195	0,6	5	LC..1605..
		C5-CFIL-35060-05	50	35,0	60	15	195	0,6	5	LC..1605..
	6	C5-CFIR-35065-06	50	35,0	65	18	195	0,7	6	LC..1606..
		C5-CFIL-35065-06	50	35,0	65	18	195	0,7	6	LC..1606..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Coolant nozzle	Torque value Nm
C4..-03	3SMS795	MC6S4X18	CN6	3,5
C4..-04	4SMS795	MC6S5X18	CN6	5,0
C4..-05	4SMS795	MC6S5X18	CN6	5,0
C5..-03	3SMS795	MC6S4X18	CN7	3,5
C5..-04	4SMS795	MC6S5X18	CN7	5,0
C5..-05	4SMS795	MC6S5X18	CN7	5,0
C5..-06	6SMS795	TCEI0815	CN7	10,0

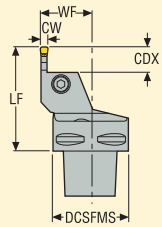
Please check availability in current price and stock-list

Toolholders for inserts LCGN, LCMF and LCMR

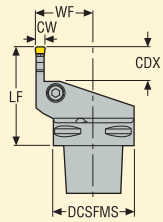


• For inserts programme, see page(s) 633-638, 648-649

C.-CFIR/L

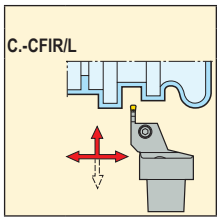


C.-CFIR/L-08



Right-hand version shown
CDX = 3 x CW

C.-CFIR/L



Capto size	CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX**	DCINN3*	KG	Seat size	
C6										
	3	C6-CFIR-45065-03	63	45,0	65	9	195	1,0	3	LC..1603..
		C6-CFIL-45065-03	63	45,0	65	9	195	1,0	3	LC..1603..
	4	C6-CFIR-45065-04	63	45,0	65	12	195	1,0	4	LC..1604..
		C6-CFIL-45065-04	63	45,0	65	12	195	1,0	4	LC..1604..
	5	C6-CFIR-45065-05	63	45,0	65	15	195	1,0	5	LC..1605..
		C6-CFIL-45065-05	63	45,0	65	15	195	1,0	5	LC..1605..
	6	C6-CFIR-45065-06	63	45,0	65	18	195	1,0	6	LC..1606..
		C6-CFIL-45065-06	63	45,0	65	18	195	1,0	6	LC..1606..
	8	C6-CFIR-45075-08	63	45,0	75	24	195	1,2	8	LC..3008..
		C6-CFIL-45075-08	63	45,0	75	24	195	1,2	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

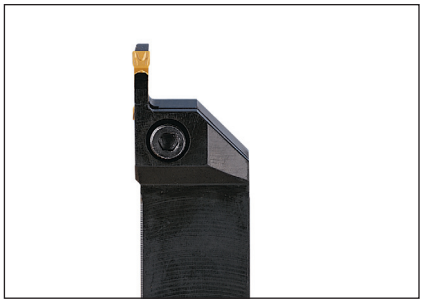
** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

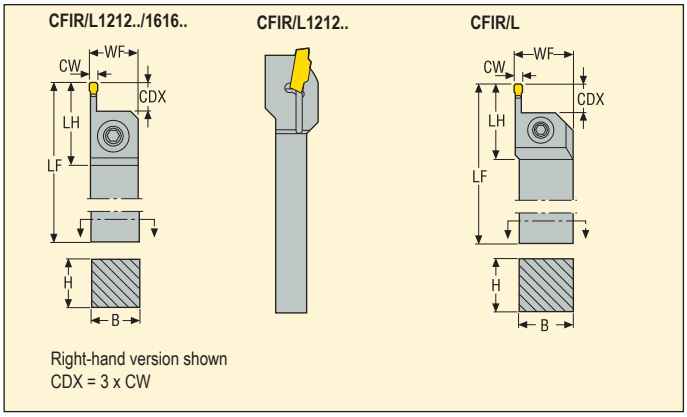
For holder	Clamp key	Clamp screw	Coolant nozzle	Torque value Nm
CFIR/L..-03	3SMS795	MC6S4X18	CN7	3,5
CFIR/L..-04	4SMS795	MC6S5X18	CN7	5,0
CFIR/L..-05	4SMS795	MC6S5X18	CN7	5,0
CFIR/L..-06	6SMS795	TCEI0815	CN7	10,0
CFIR/L..-08	6SMS795	TCEI0825	CN7	10,0

Please check availability in current price and stock-list

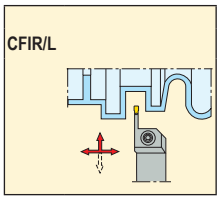
Toolholders for inserts LCGF, LCGN, LCMF and LCMR



• For inserts programme, see page(s) 633-646, 648-649



Right-hand version shown
CDX = 3 x CW



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX	DCINN3*	KG	Seat size	
3	CFIR1212M03	12	12	150	12,0	31,0	9	–	0,2	3	LC..1603..
	CFIR1616H03	16	16	100	16,0	28,0	9	–	0,2	3	LC..1603..
	CFIR2020K03	20	20	125	21,5	28,0	9	–	0,4	3	LC..1603..
	CFIR2525M03	25	25	150	26,5	28,0	9	195	0,7	3	LC..1603..
	CFIR3225P03	32	25	170	26,5	28,0	9	195	1,0	3	LC..1603..
	CFIL1212M03	12	12	150	12,0	31,0	9	–	0,2	3	LC..1603..
	CFIL1616H03	16	16	100	16,0	28,0	9	–	0,2	3	LC..1603..
	CFIL2020K03	20	20	125	21,5	28,0	9	–	0,4	3	LC..1603..
	CFIL2525M03	25	25	150	26,5	28,0	9	195	0,7	3	LC..1603..
	CFIL3225P03	32	25	170	26,5	28,0	9	195	1,0	3	LC..1603..
4	CFIR1212M04	12	12	150	12,0	33,0	12	–	0,2	4	LC..1604..
	CFIR1616H04	16	16	100	16,0	31,0	12	–	0,2	4	LC..1604..
	CFIR2020K04	20	20	125	21,5	31,0	12	–	0,4	4	LC..1604..
	CFIR2525M04	25	25	150	26,5	31,0	12	195	0,7	4	LC..1604..
	CFIR3225P04	32	25	170	26,5	31,0	12	195	1,0	4	LC..1604..
	CFIL1212M04	12	12	150	12,0	33,0	12	–	0,2	4	LC..1604..
	CFIL1616H04	16	16	100	16,0	31,0	12	–	0,2	4	LC..1604..
	CFIL2020K04	20	20	125	21,5	31,0	12	–	0,4	4	LC..1604..
	CFIL2525M04	25	25	150	26,5	31,0	12	195	0,7	4	LC..1604..
	CFIL3225P04	32	25	170	26,5	31,0	12	195	1,0	4	LC..1604..

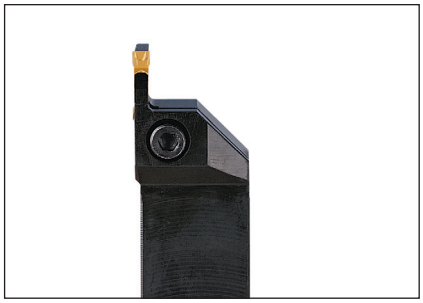
* DCINN3 – minimum bore diameter for internal application, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
..1212M03	3SMS795	TCEI0409	2,5
..1616H03	4SMS795	TCEI0509	6,0
..2020K03	4SMS795	TCEI0513	6,0
..2525M03	4SMS795	TCEI0513	6,0
..3225P03	4SMS795	TCEI0513	6,0
..1212M04	3SMS795	TCEI0409	3,5
..1616H04	5SMS795	TCEI0609	8,0
..2020K04	5SMS795	TCEI0613	8,0
..2525M04	5SMS795	TCEI0613	8,0
..3225P04	5SMS795	TCEI0613	8,0

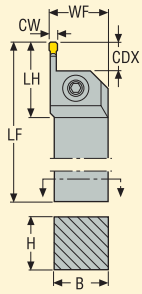
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



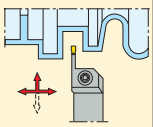
- For inserts programme, see page(s) 633-644, 648-649

CFIR/L



Right-hand version shown
CDX = 3 x CW

CFIR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	DCINN3*	KG	Seat size	
5	**CFIR2020K05**	20	20	125	21,5	35,0	15	–	0,4	5	LC..1605..
	CFIR2525M05	25	25	150	26,5	35,0	15	195	0,7	5	LC..1605..
	CFIR3225P05	32	25	170	26,5	35,0	15	195	1,0	5	LC..1605..
	CFIL2020K05	20	20	125	21,5	35,0	15	–	0,4	5	LC..1605..
	CFIL2525M05	25	25	150	26,5	35,0	15	195	0,7	5	LC..1605..
	CFIL3225P05	32	25	170	26,5	35,0	15	195	1,0	5	LC..1605..
6	**CFIR2020K06**	20	20	125	21,5	42,0	18	–	0,4	6	LC..1606..
	CFIR2525M06	25	25	150	26,5	42,0	18	195	0,7	6	LC..1606..
	CFIR3225P06	32	25	170	26,5	42,0	18	195	1,0	6	LC..1606..
	CFIL2020K06	20	20	125	21,5	42,0	18	–	0,4	6	LC..1606..
	CFIL2525M06	25	25	150	26,5	42,0	18	195	0,7	6	LC..1606..
	CFIL3225P06	32	25	170	26,5	42,0	18	195	1,0	6	LC..1606..
8	**CFIR2525M08**	25	25	150	28,0	55,0	24	195	0,7	8	LC..3008..
	CFIR3225P08	32	25	170	28,0	55,0	24	195	1,0	8	LC..3008..
	CFIL2525M08	25	25	150	28,0	55,0	24	195	0,7	8	LC..3008..
	CFIL3225P08	32	25	170	28,0	55,0	24	195	1,0	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

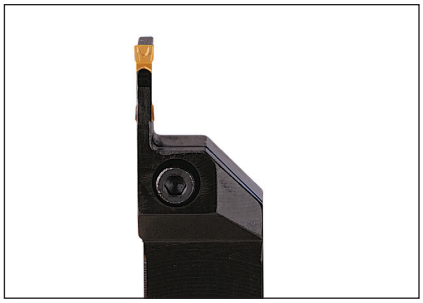
** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..-05	5SMS795	TCEI0613	8,0
CFIR/L..-06	6SMS795	TCEI0815	10,0
CFIR/L..-08	6SMS795	TCEI1020	15,0

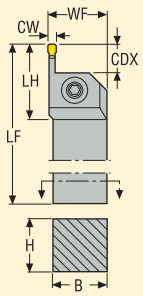
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



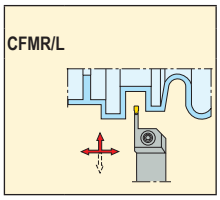
• For inserts programme, see page(s) 633-646, 648-649

CFMR/L



Right-hand version shown
CDX = 5 x CW

CFMR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	DCINN3*	KG	Seat size	
3	CFMR2020K03	20	20	125	21,5	36,0	15	–	0,4	3	LC..1603..
	CFMR2525M03	25	25	150	26,5	36,0	15	195	0,7	3	LC..1603..
	CFMR3225P03	32	25	170	26,5	36,0	15	195	1,0	3	LC..1603..
	CFML2020K03	20	20	125	21,5	36,0	15	–	0,4	3	LC..1603..
	CFML2525M03	25	25	150	26,5	36,0	15	195	0,7	3	LC..1603..
	CFML3225P03	32	25	170	26,5	36,0	15	195	1,0	3	LC..1603..
4	CFMR2020K04	20	20	125	21,5	39,0	20	–	0,4	4	LC..1604..
	CFMR2525M04	25	25	150	26,5	41,0	20	195	0,7	4	LC..1604..
	CFMR3225P04	32	25	170	26,5	41,0	20	195	1,0	4	LC..1604..
	CFML2020K04	20	20	125	21,5	39,0	20	–	0,4	4	LC..1604..
	CFML2525M04	25	25	150	26,5	41,0	20	195	0,7	4	LC..1604..
	CFML3225P04	32	25	170	26,5	41,0	20	195	1,0	4	LC..1604..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

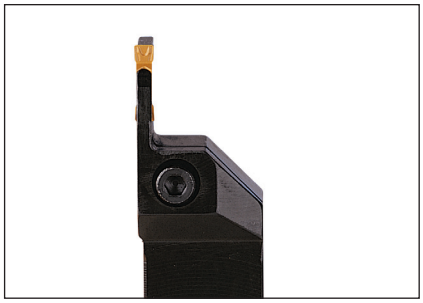
** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFMR/L..-03	4SMS795	TCEI0513	6,0
CFMR/L..-04	5SMS795	TCEI0613	8,0

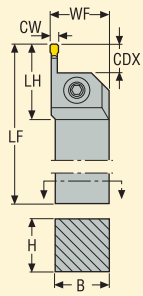
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



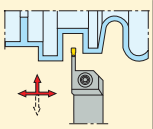
- For inserts programme, see page(s) 633-644, 648-649

CFMR/L



Right-hand version shown
CDX = 5 x CW

CFMR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	DCINN3*	KG	Seat size	
5	CFMR2020K05	20	20	125	21,5	50,0	25	–	0,4	5	LC..1605..
	CFMR2525M05	25	25	150	26,5	50,0	25	195	0,7	5	LC..1605..
	CFMR3225P05	32	25	170	26,5	50,0	25	195	1,0	5	LC..1605..
	CFML2020K05	20	20	125	21,5	50,0	25	–	0,4	5	LC..1605..
	CFML2525M05	25	25	150	26,5	50,0	25	195	0,7	5	LC..1605..
	CFML3225P05	32	25	170	26,5	50,0	25	195	1,0	5	LC..1605..
6	CFMR2020M06	20	20	150	21,5	60,0	30	–	0,5	6	LC..1606..
	CFMR2525M06	25	25	150	26,5	60,0	30	195	0,7	6	LC..1606..
	CFMR3225P06	32	25	170	26,5	60,0	30	195	1,0	6	LC..1606..
	CFML2020M06	20	20	150	21,5	60,0	30	–	0,5	6	LC..1606..
	CFML2525M06	25	25	150	26,5	60,0	30	195	0,7	6	LC..1606..
	CFML3225P06	32	25	170	26,5	60,0	30	195	1,0	6	LC..1606..
8	CFMR2525P08	25	25	170	28,0	74,0	40	195	0,8	8	LC..3008..
	CFMR3225P08	32	25	170	28,0	74,0	40	195	1,0	8	LC..3008..
	CFML2525P08	25	25	170	28,0	74,0	40	195	0,8	8	LC..3008..
	CFML3225P08	32	25	170	28,0	74,0	40	195	0,9	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28

Spare Parts, Parts included in delivery

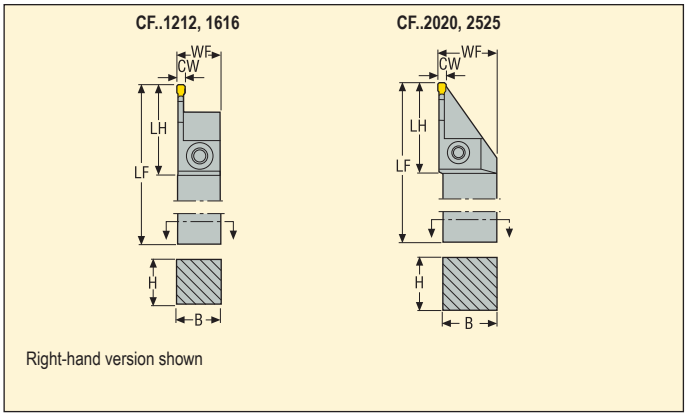
For holder	Clamp key	Clamp screw	Torque value Nm
CFMR/L..-05	5SMS795	TCEI0613	8,0
CFMR/L..-06	6SMS795	TCEI0815	10,0
CFMR/L..-08	6SMS795	TCEI1020	15,0

Please check availability in current price and stock-list

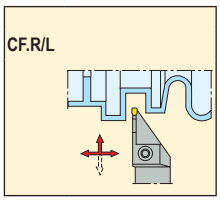
Toolholders for inserts LCGN and LCMR



• For inserts programme, see page(s) 633-646, 648-649



Right-hand version shown



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CUTDIA*	KG	Seat size	
3	CFOR1212M03	12	12	150	12,0	32,1	37,0	0,2	3	LC..1603..
	CFOL1212M03	12	12	150	12,0	32,1	37,0	0,2	3	LC..1603..
3	CFTR1616M03	16	16	150	16,0	42,0	50,0	0,3	3	LC..1603..
	CFTR2020K03	20	20	125	21,5	43,0	50,0	0,4	3	LC..1603..
	CFTR2525M03	25	25	150	26,5	42,5	50,0	0,7	3	LC..1603..
	CFTL1616M03	16	16	150	16,0	42,0	50,0	0,3	3	LC..1603..
	CFTL2020K03	20	20	125	21,5	43,0	50,0	0,4	3	LC..1603..
	CFTL2525M03	25	25	150	26,5	42,5	50,0	0,7	3	LC..1603..
4	CFPR2020K04	20	20	125	21,5	43,0	50,0	0,4	4	LC..1604..
	CFPR2525M04	25	25	150	26,5	43,0	50,0	0,7	4	LC..1604..
	CFPL2020K04	20	20	125	21,5	43,0	50,0	0,4	4	LC..1604..
	CFPL2525M04	25	25	150	26,5	43,0	50,0	0,7	4	LC..1604..

* Due to the design, grooving depth is limited, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..-03	3SMS795	TCEI0409	3,5
CFTR/L..-03	4SMS795	TCEI0513	6,0
CFPR/L..-04	5SMS795	TCEI0613	8,0

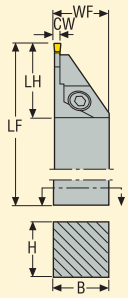
Please check availability in current price and stock-list

Toolholders for inserts LCMF



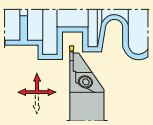
- For inserts programme, see page(s) 632

CF.R/L..RB



Right-hand version shown

CF.R/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CUTDIA*	KG	Seat size	
2	CFOR1212K1902RB	12	12	125	12,0	22,0	25,4	0,2	2	LC..1902..
	CFOR1616K1902RB	16	16	125	16,0	22,0	25,4	0,3	2	LC..1902..
	CFOL1212K1902RB	12	12	125	12,0	22,0	25,4	0,2	2	LC..1902..
	CFOL1616K1902RB	16	16	125	16,0	22,0	25,4	0,3	2	LC..1902..
2	CFSR1212K1902RB	12	12	125	12,0	25,0	33,0	0,2	2	LC..1902..
	CFSR1616K1902RB	16	16	125	16,0	25,0	33,0	0,3	2	LC..1902..
	CFSL1212K1902RB	12	12	125	12,0	25,0	33,0	0,2	2	LC..1902..
	CFSL1616K1902RB	16	16	125	16,0	25,0	33,0	0,3	2	LC..1902..

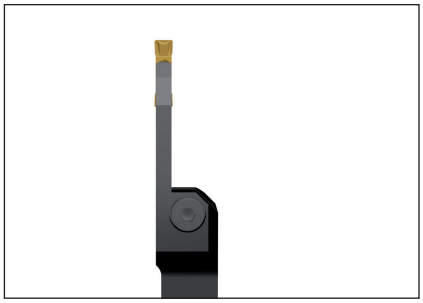
* Due to the design, grooving depth is limited, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFOR/L..19	T15P-7S	L85012-T15P	5,0
CFSR/L..19	T15P-7S	L85012-T15P	5,0

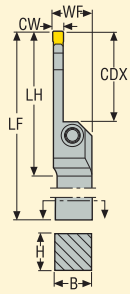
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



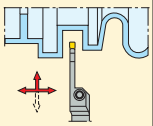
• For inserts programme, see page(s) 633-646, 648-649

CFSR/L



Right-hand version shown
CDX = 8 x CW

CFSR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX**	DCINN3*	KG	Seat size	
3	CFSR2525M03	25	25	150	26,5	46,0	24	195	0,7	3	LC..1603..
	CFSR3225P03	32	25	170	26,1	46,0	24	195	1,0	3	LC..1603..
	CFSL2525M03	25	25	150	26,5	46,0	24	195	0,7	3	LC..1603..
	CFSL3225P03	32	25	170	26,1	46,0	24	195	1,0	3	LC..1603..
4	CFSR2525P04	25	25	170	26,5	55,0	32	195	0,6	4	LC..1604..
	CFSR3225P04	32	25	170	26,5	55,0	32	195	0,9	4	LC..1604..
	CFSL2525P04	25	25	170	26,5	55,0	32	195	0,7	4	LC..1604..
	CFSL3225P04	32	25	170	26,5	55,0	32	195	0,9	4	LC..1604..
5	CFSR2525P05	25	25	170	26,5	66,0	40	195	0,7	5	LC..1605..
	CFSR3225P05	32	25	170	26,5	66,0	40	195	0,9	5	LC..1605..
	CFSL2525P05	25	25	170	26,5	66,0	40	195	0,7	5	LC..1605..
	CFSL3225P05	32	25	170	26,5	66,0	40	195	0,9	5	LC..1605..
6	CFSR2525R06	25	25	200	26,5	81,0	48	195	0,8	6	LC..1606..
	CFSR3225R06	32	25	200	26,5	81,0	48	195	1,1	6	LC..1606..
	CFSL2525R06	25	25	200	26,5	81,0	48	195	0,8	6	LC..1606..
	CFSL3225R06	32	25	200	26,5	81,0	48	195	1,1	6	LC..1606..
8	CFSR3225R08	32	25	200	28,0	104,0	64	195	1,0	8	LC..3008..
	CFSL3225R08	32	25	200	28,0	104,0	64	195	1,0	8	LC..3008..

* DCINN3 – minimum bore diameter for internal application, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFSR/L..03	4SMS795	TCEI0513	6,0
CFSR/L..04	5SMS795	TCEI0613	8,0
CFSR/L..05	5SMS795	TCEI0613	8,0
CFSR/L..06	6SMS795	TCEI0815	10,0
CFSR/L..08	6SMS795	TCEI1020	15,0

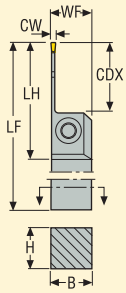
Please check availability in current price and stock-list

Toolholders for inserts LCMF

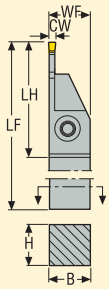


• For inserts programme, see page(s) 632

CFZR/L

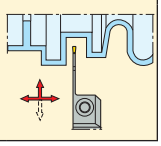


CFZR/L..RB



Right-hand version shown
CDX = 12,5 x CW

CFZR/L



CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX	CUTDIA*	KG	Seat size	
2	CFZR1616M2802	16	16	150	16,0	46,0	26	–	0,3	2	LC..2802..
	CFZL1616M2802	16	16	150	16,0	46,0	26	–	0,3	2	LC..2802..
2	CFZR1616M2802RB	16	16	150	16,0	46,0	–	52	0,3	2	LC..2802..
	CFZL1616M2802RB	16	16	150	16,0	46,0	–	52	0,3	2	LC..2802..

* Due to the design, grooving depth is limited, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFZR/L..02	4SMS795	TCEI0513	6,0

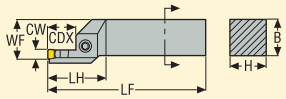
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



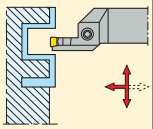
• For inserts programme, see page(s) 633-638, 648-649

CFIR/L



Right-hand version with left-hand blade shown
CDX = 3 x CW

CFIR/L



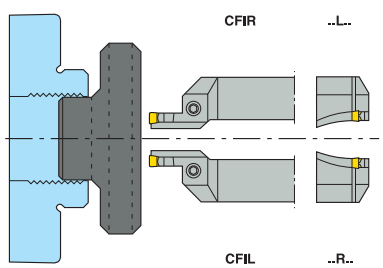
CW	Designation	Dimensions in mm								KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX			
3	CFIR2525M03L100070	70	100	25	25	150	26,5	28	9	0,7	3	LC..1603..
	CFIR2525M03L130090	90	130	25	25	150	26,5	28	9	0,7	3	LC..1603..
	CFIR2525M03L170110	110	170	25	25	150	26,5	28	9	0,7	3	LC..1603..
	CFIL2525M03R100070	70	100	25	25	150	26,5	28	9	0,7	3	LC..1603..
	CFIL2525M03R130090	90	130	25	25	150	26,5	28	9	0,7	3	LC..1603..
	CFIL2525M03R170110	110	170	25	25	150	26,5	28	9	0,7	3	LC..1603..
4	CFIR2525M04L100070	70	100	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIR2525M04L130090	90	130	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIR2525M04L170110	110	170	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIR2525M04L230140	140	230	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIL2525M04R100070	70	100	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIL2525M04R130090	90	130	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIL2525M04R170110	110	170	25	25	150	26,5	31	12	0,7	4	LC..1604..
	CFIL2525M04R230140	140	230	25	25	150	26,5	31	12	0,7	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..03	4SMS795	TCEI0513	6,0
CFIR/L..04	5SMS795	TCEI0613	8,0

Please check availability in current price and stock-list

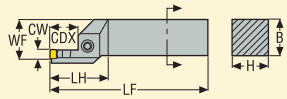


Toolholders for inserts LCGF, LCGN, LCMF and LCMR



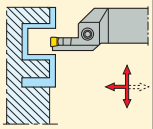
- For inserts programme, see page(s) 633-638, 648-649

CFIR/L



Right-hand version with left-hand blade shown
CDX = 3 x CW

CFIR/L



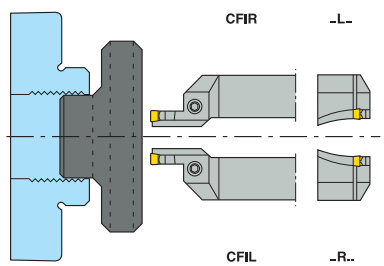
CW	Designation	Dimensions in mm								KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX**			
5	CFIR2525M05L100070	70	100	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIR2525M05L130090	90	130	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIR2525M05L170110	110	170	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIR2525M05L230140	140	230	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIL2525M05R100070	70	100	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIL2525M05R130090	90	130	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIL2525M05R170110	110	170	25	25	150	26,5	35	15	0,7	5	LC..1605..
	CFIL2525M05R230140	140	230	25	25	150	26,5	35	15	0,7	5	LC..1605..
6	CFIR2525M06L100070	70	100	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIR2525M06L130090	90	130	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIR2525M06L170110	110	170	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIR2525M06L230140	140	230	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIL2525M06R100070	70	100	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIL2525M06R130090	90	130	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIL2525M06R170110	110	170	25	25	150	26,5	42	18	0,7	6	LC..1606..
	CFIL2525M06R230140	140	230	25	25	150	26,5	42	18	0,7	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..05	5SMS795	TCEI0613	8,0
CFIR/L..06	6SMS795	TCEI0815	10,0



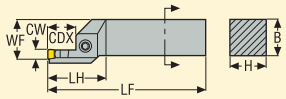
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



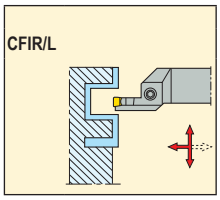
- For inserts programme, see page(s) 633, 636-638

CFIR/L



Right-hand version with left-hand blade shown
CDX = 3 x CW

CFIR/L



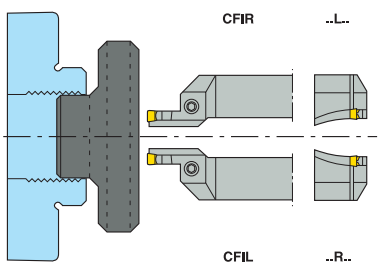
CW	Designation	Dimensions in mm								KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX			
8	CFIR3225P08L130090	90	130	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIR3225P08L170110	110	170	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIR3225P08L230140	140	230	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIR3225P08L500200	200	500	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIL3225P08R130090	90	130	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIL3225P08R170110	110	170	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIL3225P08R230140	140	230	32	25	170	28,0	50	24	1,0	8	LC..3008..
	CFIL3225P08R500200	200	500	32	25	170	28,0	50	24	1,0	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CFIR/L..08	6SMS795	TCEI1020	15,0

Please check availability in current price and stock-list

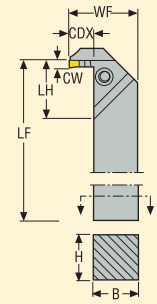


Toolholders for inserts LCGF, LCGN, LCMF and LCMR



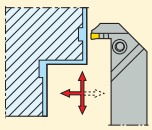
- For inserts programme, see page(s) 633-638, 648-649

CGIR/L



Right-hand version with right-hand blade shown
CDX = 3 x CW

CGIR/L

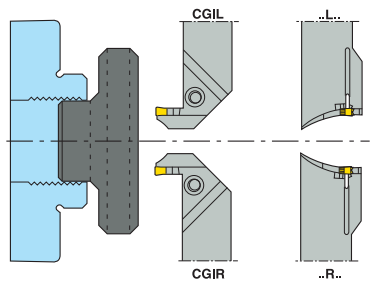


CW	Designation	Dimensions in mm								KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX			
3	CGIR2525M03R100070	70	100	25	25	150	35,4	33	9	0,8	3	LC..1603..
	CGIR2525M03R130090	90	130	25	25	150	35,4	33	9	0,8	3	LC..1603..
	CGIR2525M03R170110	110	170	25	25	150	35,4	33	9	0,8	3	LC..1603..
	CGIL2525M03L100070	70	100	25	25	150	35,4	33	9	0,8	3	LC..1603..
	CGIL2525M03L130090	90	130	25	25	150	35,4	33	9	0,8	3	LC..1603..
	CGIL2525M03L170110	110	170	25	25	150	35,4	33	9	0,8	3	LC..1603..
4	CGIR2525M04R100070	70	100	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIR2525M04R130090	90	130	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIR2525M04R170110	110	170	25	25	150	38,4	33	12	0,9	4	LC..1604..
	CGIR2525M04R230140	140	230	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIL2525M04L100070	70	100	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIL2525M04L130090	90	130	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIL2525M04L170110	110	170	25	25	150	38,4	33	12	0,8	4	LC..1604..
	CGIL2525M04L230140	140	230	25	25	150	38,4	33	12	0,8	4	LC..1604..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CGIR/L..03	4SMS795	TCEI0513	6,0
CGIR/L..04	5SMS795	TCEI0613	8,0



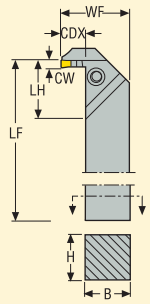
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



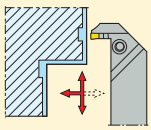
• For inserts programme, see page(s) 633-638, 648-649

CGIR/L



Right-hand version with right-hand blade shown
CDX = 3 x CW

CGIR/L



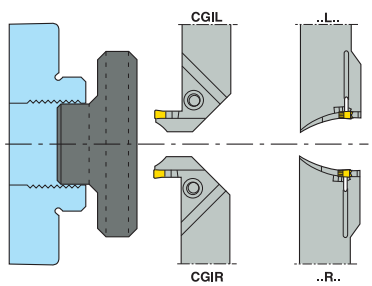
CW	Designation	Dimensions in mm INPLM	INPLX	H	B	LF	WF	LH	CDX**	KG	Seat size	
5	CGIR2525M05R100070	70	100	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIR2525M05R130090	90	130	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIR2525M05R170110	110	170	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIR2525M05R230140	140	230	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIL2525M05L100070	70	100	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIL2525M05L130090	90	130	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIL2525M05L170110	110	170	25	25	150	41,4	33	15	0,8	5	LC..1605..
	CGIL2525M05L230140	140	230	25	25	150	41,4	33	15	0,8	5	LC..1605..
6	CGIR2525M06R100070	70	100	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIR2525M06R130090	90	130	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIR2525M06R170110	110	170	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIR2525M06R230140	140	230	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIL2525M06L100070	70	100	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIL2525M06L130090	90	130	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIL2525M06L170110	110	170	25	25	150	44,4	34	18	0,8	6	LC..1606..
	CGIL2525M06L230140	140	230	25	25	150	44,4	34	18	0,8	6	LC..1606..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CGIR/L..05	5SMS795	TCEI0613	8,0
CGIR/L..06	6SMS795	TCEI0815	10,0



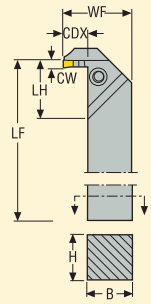
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



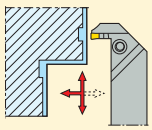
- For inserts programme, see page(s) 633, 636-638

CGIR/L



Right-hand version with
right-hand blade shown
CDX = 3 x CW

CGIR/L



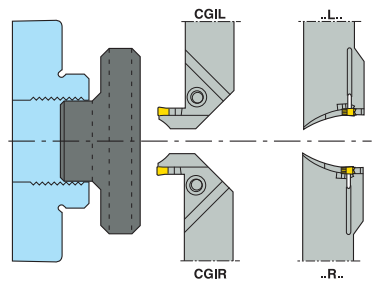
CW	Designation	Dimensions in mm								KG	Seat size	
		INPLM	INPLX	H	B	LF	WF	LH	CDX			
8	CGIR3225P08R130090	90	130	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIR3225P08R170110	110	170	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIR3225P08R230140	140	230	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIR3225P08R500200	200	500	32	25	170	50,4	57	24	1,1	8	LC..3008..
	CGIL3225P08L130090	90	130	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIL3225P08L170110	110	170	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIL3225P08L230140	140	230	32	25	170	50,4	57	24	1,2	8	LC..3008..
	CGIL3225P08L500200	200	500	32	25	170	50,4	57	24	1,1	8	LC..3008..

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

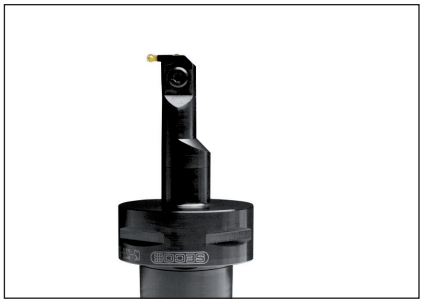
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CGIR/L..08	6SMS795	TCEI1020	15,0

Please check availability in current price and stock-list

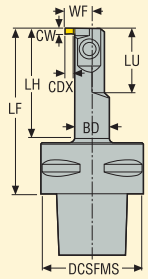


Toolholders for inserts LCGA, LCGF, LCGN, LCMF and LCMR



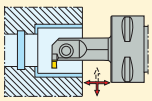
• For inserts programme, see page(s) 628-631, 647

CG.R/L



Right-hand version shown

C.-CG.R/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN*	KG	Seat size	
C4													
	3	C4-CGER-11065-1303	14,0	40	10,2	65	43	25,5	3,0	16	0,3	3	LC..1303..
		C4-CGEL-11065-1303	14,0	40	10,2	65	43	25,5	3,0	16	0,3	3	LC..1303..
		C4-CGFR-15075-1303	18,0	40	14,5	75	53	30,5	5,5	20	0,4	3	LC..1303..
		C4-CGFL-15075-1303	18,0	40	14,5	75	53	30,5	5,5	20	0,4	3	LC..1303..
	4	C4-CGFR-15075-1304	18,0	40	14,5	75	53	30,5	5,5	20	0,4	4	LC..1304..
		C4-CGFL-15075-1304	18,0	40	14,5	75	53	30,5	5,5	20	0,4	4	LC..1304..
C5													
	3	C5-CGER-11065-1303	14,0	50	10,2	65	43	25,5	3,0	16	0,5	3	LC..1303..
		C5-CGEL-11065-1303	14,0	50	10,2	65	43	25,5	3,0	16	0,5	3	LC..1303..
		C5-CGFR-15075-1303	18,0	50	14,5	75	53	30,5	5,5	20	0,5	3	LC..1303..
		C5-CGFL-15075-1303	18,0	50	14,5	75	53	30,5	5,5	20	0,5	3	LC..1303..
		C5-CGHR-19080-1303	23,0	50	19,0	80	58	40,5	7,5	25	0,9	3	LC..1303..
		C5-CGHL-19080-1303	23,0	50	19,0	80	58	40,5	7,5	25	0,9	3	LC..1303..
		C5-CGJR-26110-1303	30,0	50	25,5	110	88	50,5	10,5	32	0,9	3	LC..1303..
		C5-CGJL-26110-1303	30,0	50	25,5	110	88	50,5	10,5	32	0,9	3	LC..1303..
	4	C5-CGFR-15075-1304	18,0	50	14,5	75	53	30,5	5,5	20	0,5	4	LC..1304..
		C5-CGFL-15075-1304	18,0	50	14,5	75	53	30,5	5,5	20	0,5	4	LC..1304..
		C5-CGFR-19080-1304	23,0	50	19,0	80	58	40,5	7,5	25	0,6	4	LC..1304..
		C5-CGFL-19080-1304	23,0	50	19,0	80	58	40,5	7,5	25	0,6	4	LC..1304..
		C5-CGHR-26110-1304	30,0	50	25,5	110	88	50,5	10,5	32	0,9	4	LC..1304..
		C5-CGHL-26110-1304	30,0	50	25,5	110	88	50,5	10,5	32	0,9	4	LC..1304..

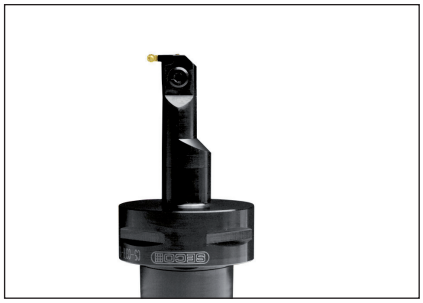
* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-1303	T15P-7	L85011-T15P	5,0
CG.R/L..-1304	T15P-7	L85011-T15P	5,0

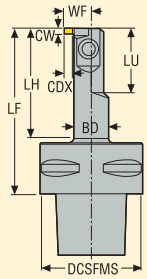
Please check availability in current price and stock-list

Toolholders for inserts LCGA, LCGF, LCGN, LCMF and LCMR



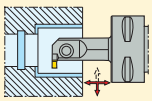
• For inserts programme, see page(s) 628-631, 647

CG.R/L



Right-hand version shown

C.-CG.R/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN*	KG	Seat size	
C6													
	3	C6-CGER-11065-1303	14,0	63	10,2	65	43	25,5	3,0	16	0,8	3	LC..1303..
		C6-CGEL-11065-1303	14,0	63	10,2	65	43	25,5	3,0	16	0,8	3	LC..1303..
		C6-CGFR-15075-1303	18,0	63	14,5	75	53	30,5	5,5	20	0,9	3	LC..1303..
		C6-CGFL-15075-1303	18,0	63	14,5	75	53	30,5	5,5	20	0,9	3	LC..1303..
		C6-CGHR-19080-1303	23,0	63	19,0	80	56	40,5	7,5	25	0,6	3	LC..1303..
		C6-CGHL-19080-1303	23,0	63	19,0	80	58	40,0	7,5	25	0,6	3	LC..1303..
		C6-CGJR-26110-1303	30,0	63	25,5	110	86	50,0	10,5	32	1,1	3	LC..1303..
		C6-CGJL-26110-1303	30,0	63	25,5	110	86	50,0	10,5	32	1,5	3	LC..1303..
	4	C6-CGFR-15075-1304	18,0	63	14,5	75	53	30,5	5,5	20	0,9	4	LC..1304..
		C6-CGFL-15075-1304	18,0	63	14,5	75	53	30,5	5,5	20	0,9	4	LC..1304..
		C6-CGFR-19080-1304	23,0	63	19,0	80	58	40,5	7,5	25	0,9	4	LC..1304..
		C6-CGFL-19080-1304	23,0	63	19,0	80	58	40,5	7,5	25	0,9	4	LC..1304..
		C6-CGHR-26110-1304	30,0	63	25,5	110	86	50,5	10,5	32	1,1	4	LC..1304..
		C6-CGHL-26110-1304	30,0	63	25,5	110	88	50,0	10,5	32	1,1	4	LC..1304..

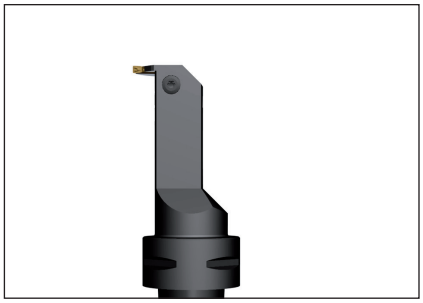
* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-1303	T15P-7	L85011-T15P	5,0
CG.R/L..-1304	T15P-7	L85011-T15P	5,0

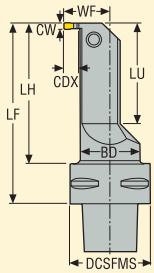
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



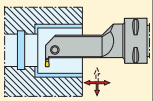
• For inserts programme, see page(s) 633-646, 648-649

CG.R/L



Right-hand version shown

C.-CG.R/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN*	KG	Seat size	
C4													
	3	C4-CGIR-24090-1603	30,0	40	24,0	90	68	50,3	9,0	32	0,5	3	LC..1603..
		C4-CGIL-24090-1603	30,0	40	24,0	90	68	50,3	9,0	32	0,5	3	LC..1603..
	4	C4-CGGR-24090-1604	30,0	40	24,0	90	68	50,3	9,0	32	0,5	4	LC..1604..
		C4-CGGL-24090-1604	30,0	40	24,0	90	68	50,3	9,0	32	0,5	4	LC..1604..
	5	C4-CGFL-24090-1605	30,0	40	24,0	90	68	50,5	9,0	32	0,5	5	LC..1605..
		C4-CGFR-24090-1605	30,0	40	24,0	90	68	50,3	9,0	32	0,5	5	LC..1605..
C5													
	3	C5-CGIR-24090-1603	30,0	50	24,0	90	68	50,3	9,0	32	0,9	3	LC..1603..
		C5-CGIL-24090-1603	30,0	50	24,0	90	68	50,3	9,0	32	0,9	3	LC..1603..
	4	C5-CGGR-24090-1604	30,0	50	24,0	90	68	49,9	9,0	32	0,9	4	LC..1604..
		C5-CGGL-24090-1604	30,0	50	24,0	90	68	49,9	9,0	32	0,9	4	LC..1604..
	5	C5-CGFR-24090-1605	30,0	50	24,0	90	68	49,9	9,0	32	0,9	5	LC..1605..
		C5-CGFL-24090-1605	30,0	50	24,0	90	68	49,9	9,0	32	0,9	5	LC..1605..
	6	C5-CGFR-24090-1606	30,0	50	24,0	90	68	49,9	9,0	32	0,9	6	LC..1606..
		C5-CGFL-24090-1606	30,0	50	24,0	90	68	49,9	9,0	32	0,9	6	LC..1606..

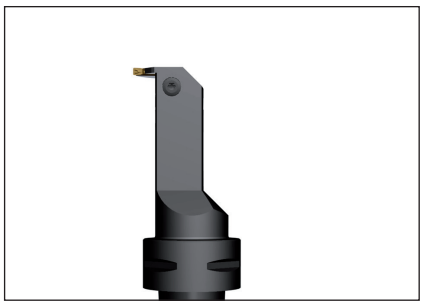
* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-1603	T15P-7	L85011-T15P	5,0
CG.R/L..-1604	T15P-7	L85011-T15P	5,0
CG.R/L..-1605	T20P-7	L86015-T20P	6,0
CG.R/L..-1606	T20P-7	L86015-T20P	6,0

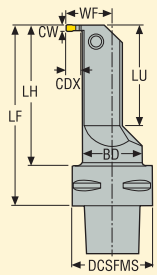
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



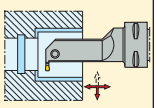
• For inserts programme, see page(s) 633-646, 648-649

CG.R/L



Right-hand version shown

C.-CG.R/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN*	KG	Seat size	
C6													
	3	C6-CGIR-24095-1603	30,0	63	24,0	95	73	50,3	9,0	32	1,5	3	LC..1603..
		C6-CGIL-24095-1603	30,0	63	24,0	95	73	50,3	9,0	32	1,5	3	LC..1603..
	4	C6-CGGR-24095-1604	30,0	63	24,0	95	73	50,3	9,0	32	1,5	4	LC..1604..
		C6-CGGL-24095-1604	30,0	63	24,0	95	73	50,3	9,0	32	1,5	4	LC..1604..
	5	C6-CGFR-24095-1605	30,0	63	24,0	95	73	50,3	9,0	32	1,5	5	LC..1605..
		C6-CGFL-24095-1605	30,0	63	24,0	95	73	50,3	9,0	32	1,5	5	LC..1605..
	6	C6-CGFR-24095-1606	30,0	63	24,0	95	73	50,3	9,0	32	1,5	6	LC..1606..
		C6-CGFL-24095-1606	30,0	63	24,0	95	73	50,3	9,0	32	1,5	6	LC..1606..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-1603	T15P-7	L85011-T15P	5,0
CG.R/L..-1604	T15P-7	L85011-T15P	5,0
CG.R/L..-1605	T20P-7	L86015-T20P	6,0
CG.R/L..-1606	T20P-7	L86015-T20P	6,0

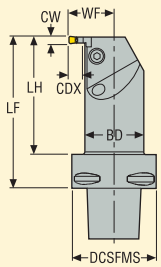
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



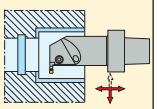
• For inserts programme, see page(s) 633-646, 648-649

CGGR/L



Right-hand version shown
CDX = 2 x CW

C.-CGGR/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	CDX	DCINN*	KG	Seat size	
C4												
	3	C4-CGGR-25090-03	35,0	40	25,0	90	70	6,0	45	0,7	3	LC..1603..
		C4-CGGL-25090-03	35,0	40	25,0	90	70	6,0	45	0,7	3	LC..1603..
	4	C4-CGGR-27090-04	35,0	40	27,0	90	70	8,0	45	0,7	4	LC..1604..
		C4-CGGL-27090-04	35,0	40	27,0	90	70	8,0	45	0,7	4	LC..1604..
	5	C4-CGGR-28090-05	32,5	40	27,7	90	63	10,0	45	0,5	5	LC..1605..
		C4-CGGL-28090-05	32,5	40	27,7	90	63	10,0	45	0,5	5	LC..1605..
C5												
	3	C5-CGGR-25090-03	35,0	50	25,0	90	70	6,0	45	0,9	3	LC..1603..
		C5-CGGL-25090-03	35,0	50	25,0	90	70	6,0	45	0,9	3	LC..1603..
	4	C5-CGGR-27090-04	35,0	50	27,0	90	70	8,0	45	0,9	4	LC..1604..
		C5-CGGL-27090-04	35,0	50	27,0	90	70	8,0	45	0,9	4	LC..1604..
	5	C5-CGGR-28090-05	32,5	50	27,7	90	63	10,0	45	0,9	5	LC..1605..
		C5-CGGL-28090-05	32,5	50	27,7	90	63	10,0	45	0,9	5	LC..1605..
	6	C5-CGGR-29090-06	30,5	50	28,7	90	62	12,0	45	0,9	6	LC..1606..
		C5-CGGL-29090-06	30,5	50	28,7	90	62	12,0	45	0,9	6	LC..1606..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-03	3SMS795	MC6S4X14	3,5
CG.R/L..-04	4SMS795	MC6S5X14	5,0
CG.R/L..-05	4SMS795	MC6S5X14	5,0
CG.R/L..-06	5SMS795	TCEI0614	8,0

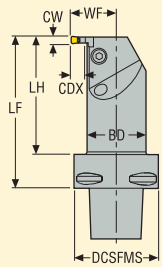
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



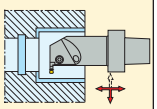
• For inserts programme, see page(s) 633-646, 648-649

CGGR/L



Right-hand version shown
CDX = 2 x CW

C.-CGGR/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	CDX	DCINN*	KG	Seat size	
C6												
	3	C6-CGGR-25095-03	35,0	63	25,0	95	73,0	6,0	45	1,2	3	LC..1603..
		C6-CGGL-25095-03	35,0	63	25,0	95	73,0	6,0	45	1,2	3	LC..1603..
	4	C6-CGGR-27095-04	35,0	63	27,0	95	73,0	8,0	45	1,2	4	LC..1604..
		C6-CGGL-27095-04	35,0	63	27,0	95	73,0	8,0	45	1,2	4	LC..1604..
	5	C6-CGGR-28095-05	32,5	63	27,7	95	68,0	10,0	45	1,3	5	LC..1605..
		C6-CGGL-28095-05	32,5	63	27,7	95	68,0	10,0	45	1,3	5	LC..1605..
	6	C6-CGGR-29095-06	30,5	63	28,7	95	67,0	12,0	45	1,4	6	LC..1606..
		C6-CGGL-29095-06	30,5	63	28,7	95	67,0	12,0	45	1,4	6	LC..1606..

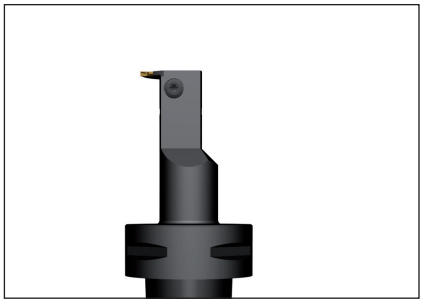
* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-03	3SMS795	MC6S4X14	3,5
CG.R/L..-04	4SMS795	MC6S5X14	5,0
CG.R/L..-05	4SMS795	MC6S5X14	5,0
CG.R/L..-06	5SMS795	TCEI0614	8,0

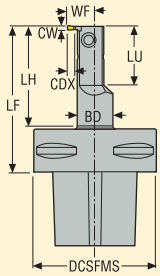
Please check availability in current price and stock-list

Toolholders for inserts LCMF



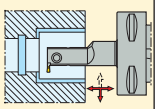
• For inserts programme, see page(s) 632

CG.R/L



Right-hand version shown

C.-CG.R/L



Capto size	CW	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	LU	CDX	DCINN*	KG	Seat size	
C4													
	2	C4-CGHR-15075-1902	18,0	40	14,5	75	53	30,5	5,5	20	0,4	2	LC..1902..
		C4-CGHL-15075-1902	18,0	40	14,5	75	53	30,5	5,5	20	0,4	2	LC..1902..
C5													
	2	C5-CGHR-15075-1902	18,0	50	14,5	75	53	30,5	5,5	20	0,5	2	LC..1902..
		C5-CGHL-15075-1902	18,0	50	14,5	75	53	30,5	5,5	20	0,5	2	LC..1902..
C6													
	2	C6-CGHR-15075-1902	18,0	60	14,5	75	51	30,5	5,5	20	0,9	2	LC..1902..
		C6-CGHL-15075-1902	18,0	60	14,5	75	51	30,5	5,5	20	0,9	2	LC..1902..
C4													
	2	C4-CGJR-19080-1902	23,0	40	19,0	80	58	30,5	7,5	25	0,4	2	LC..1902..
		C4-CGJL-19080-1902	23,0	40	19,0	80	58	30,5	7,5	25	0,4	2	LC..1902..
C5													
	2	C5-CGJR-19080-1902	23,0	50	19,0	80	58	30,5	7,5	25	0,6	2	LC..1902..
		C5-CGJL-19080-1902	23,0	50	19,0	80	58	30,5	7,5	25	0,6	2	LC..1902..
C6													
	2	C6-CGJR-19080-1902	23,0	60	19,0	80	56	30,5	7,5	25	0,9	2	LC..1902..
		C6-CGJL-19080-1902	23,0	60	19,0	80	56	30,5	7,5	25	0,9	2	LC..1902..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..-1902	T15P-7	L85011-T15P	5,0

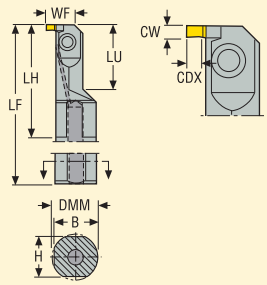
Please check availability in current price and stock-list

Toolholders for inserts LCGA, LCGF, LCGN, LCMF and LCMR



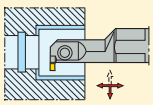
• For inserts programme, see page(s) 628-631, 647

CG.R/L



Right-hand version shown

CG.R/L



CW	Designation	Dimensions in mm DMM	H	B	LF	LH	LU	WF	CDX	DCINN*	KG	Seat size	
3	A16Q-CGER1303	16	15	15,5	180	40	25	10,2	3,0	16	0,3	3	LC..1303..
	A16Q-CGEL1303	16	15	15,5	180	40	25	10,2	3,0	16	0,3	3	LC..1303..
3	A20R-CGFR1303	20	18	19,0	200	52	30	14,5	5,5	20	0,4	3	LC..1303..
	A20R-CGFL1303	20	18	19,0	200	52	30	14,5	5,5	20	0,4	3	LC..1303..
3	A25S-CGHR1303	25	23	24,0	250	64	40	19,0	7,5	25	0,8	3	LC..1303..
	A25S-CGHL1303	25	23	24,0	250	64	40	19,0	7,5	25	0,8	3	LC..1303..
3	A32T-CGJR1303	32	30	31,0	300	77	50	25,5	10,5	32	1,6	3	LC..1303..
	A32T-CGJL1303	32	30	31,0	300	77	50	25,5	10,5	32	1,6	3	LC..1303..
4	A20R-CGFR1304	20	18	19,0	200	52	30	14,5	5,5	20	0,4	4	LC..1304..
	A20R-CGFL1304	20	18	19,0	200	52	30	14,5	5,5	20	0,4	4	LC..1304..
4	A25S-CGFR1304	25	23	24,0	250	64	40	19,0	7,5	25	0,8	4	LC..1304..
	A25S-CGFL1304	25	23	24,0	250	64	40	19,0	7,5	25	0,8	4	LC..1304..
4	A32T-CGHR1304	32	30	31,0	300	77	50	25,5	10,5	32	1,6	4	LC..1304..
	A32T-CGHL1304	32	30	31,0	300	77	50	25,5	10,5	32	1,6	4	LC..1304..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

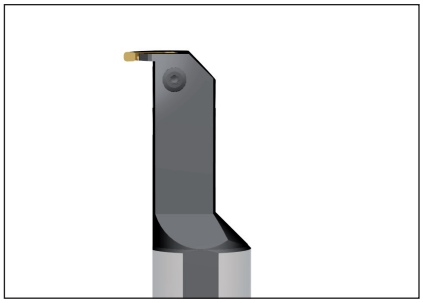
For holder	Clamp key	Clamp screw	Torque value Nm
A16Q-..	T15P-7	L85011-T15P	5,0
A20R-..	T15P-7	L85011-T15P	5,0
A25S-..	T15P-7	L85011-T15P	5,0
A32T-..	T15P-7	L85011-T15P	5,0

Accessories, to be ordered separately

For holder	Coolant adapter
A16Q-..	SEAL16
A20R-..	SEAL20
A25S-..	SEAL25
A32T-..	SEAL32

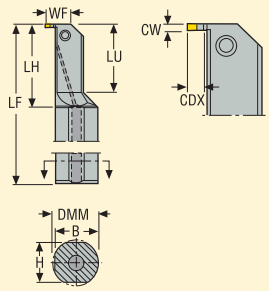
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



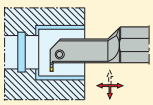
• For inserts programme, see page(s) 633–646, 648–649

CG.R/L



Right-hand version shown

CG.R/L



CW	Designation	Dimensions in mm DMM	H	B	LF	LH	LU	WF	CDX	DCINN*	KG	Seat size	
3	A32T-CGIR1603	32	30	31,0	300	60	50	24,0	9,0	32	1,6	3	LC..1603..
	A32T-CGIL1603	32	30	31,0	300	60	50	24,0	9,0	32	1,6	3	LC..1603..
4	A32T-CGGR1604	32	30	31,0	300	60	50	24,0	9,0	32	1,6	4	LC..1604..
	A32T-CGGL1604	32	30	31,0	300	60	50	24,0	9,0	32	1,6	4	LC..1604..
5	A32T-CGFR1605	32	30	31,0	300	60	50	24,0	9,0	32	1,6	5	LC..1605..
	A32T-CGFL1605	32	30	31,0	300	60	50	24,0	9,0	32	1,6	5	LC..1605..
6	A32T-CGFR1606	32	30	31,0	300	60	50	24,0	9,0	32	1,6	6	LC..1606..
	A32T-CGFL1606	32	30	31,0	300	60	50	24,0	9,0	32	1,6	6	LC..1606..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CG.R/L..03	T15P-7	L85011-T15P	5,0
CG.R/L..04	T15P-7	L85011-T15P	5,0
CG.R/L..05	T20P-7	L86015-T20P	6,0
CG.R/L..06	T20P-7	L86015-T20P	6,0

Accessories, to be ordered separately

For holder	Coolant adapter
CG.R/L..03	SEAL32
CG.R/L..04	SEAL32
CG.R/L..05	SEAL32
CG.R/L..06	SEAL32

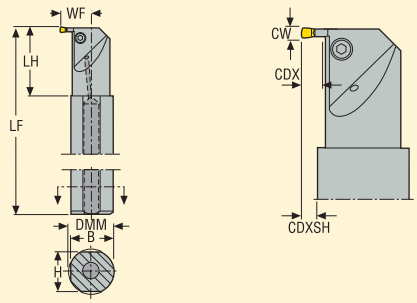
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



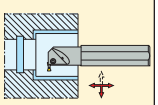
• For inserts programme, see page(s) 633-646, 648-649

CGGR/L



Right-hand version shown
CDX = 2 x CW

CGGR/L



CW	Designation	Dimensions in mm DMM	H	B	LF	LH	WF	CDX	CDXSH**	DCINN*	KG	Seat size	
3	A40T-CGGR03	40	37	38,5	300	60	26	6	5,5	45	2,5	3	LC..1603..
	A40T-CGGL03	40	37	38,5	300	60	26	6	5,5	45	2,5	3	LC..1603..
4	A40T-CGGR04	40	37	38,5	300	60	27	8	6,5	45	2,4	4	LC..1604..
	A40T-CGGL04	40	37	38,5	300	60	27	8	6,5	45	2,4	4	LC..1604..
5	A40T-CGGR05	40	37	38,5	300	60	28	10	7,5	45	2,4	5	LC..1605..
	A40T-CGGL05	40	37	38,5	300	60	28	10	7,5	45	2,4	5	LC..1605..
6	A40T-CGGR06	40	37	38,5	300	60	29	12	8,5	45	2,4	6	LC..1606..
	A40T-CGGL06	40	37	38,5	300	60	29	12	8,5	45	2,4	6	LC..1606..

* DCINN – minimum bore diameter, see page(s) 515

** If toolholder enters bore more than LH

Spare Parts, Parts included in delivery

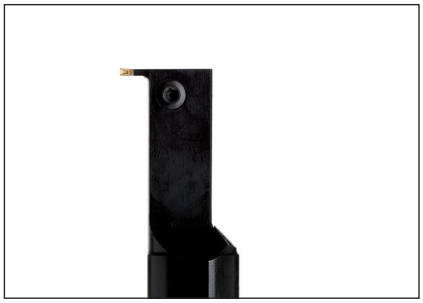
For holder	Clamp key	Clamp screw	Torque value Nm
-..03	3SMS795	MC6S4X14	3,5
-..04	4SMS795	MC6S5X14	5,0
-..05	4SMS795	MC6S5X14	5,0
-..06	5SMS795	TCEI0614	8,0

Accessories, to be ordered separately

For holder	Coolant adapter
-..03	SEAL40
-..04	SEAL40
-..05	SEAL40
-..06	SEAL40

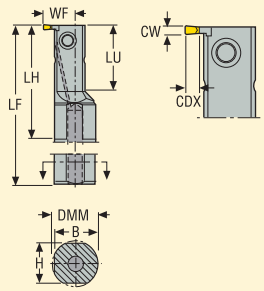
Please check availability in current price and stock-list

Toolholders for inserts LCMF



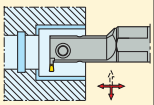
• For inserts programme, see page(s) 632

CG.R/L



Right-hand version shown

CG.R/L



CW	Designation	Dimensions in mm									KG	Seat size	
		DMM	H	B	LF	LH	LU	WF	CDX	DCINN*			
2	**A20R-CGHR1902**	20	18	19,0	200	52	30	14,5	5,5	20	0,4	2	LC..1902..
	A20R-CGHL1902	20	18	19,0	200	52	30	14,5	5,5	20	0,4	2	LC..1902..
2	**A25S-CGJR1902**	25	23	24,0	250	64	40	19,0	7,5	25	0,8	2	LC..1902..
	A25S-CGJL1902	25	23	24,0	250	64	40	19,0	7,5	25	0,8	2	LC..1902..

* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

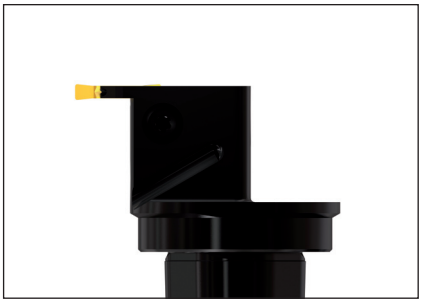
For holder	Clamp key	Clamp screw	Torque value Nm
A20.-..	T15P-7	L85011-T15P	5,0
A25.-..	T15P-7	L85011-T15P	5,0

Accessories, to be ordered separately

For holder	Coolant adapter
A20.-..	SEAL20
A25.-..	SEAL25

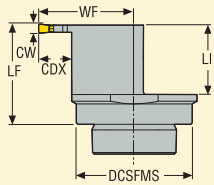
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



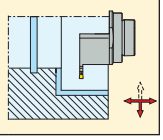
- For inserts programme, see page(s) 633-646, 648-649
- For damping holders programme, see page(s) 277-284

GL.-CGJR/L-..JET



Right-hand version shown

GL.-CGJR/L-..JET



Size	CW	Designation	Dimensions in mm DCSFMS	LF	WF	LH	CDX	DCINN*	CP***	KG	
GL32											
	2	GL32-CGJR-25032-1902JET	32	32	25,0	23,0	7,0	43	200	0,2	LC..1902..
		GL32-CGJL-25032-1902JET	32	32	25,0	23,0	7,0	43	200	0,2	LC..1902..
GL40											
	2	GL40-CGJR-29032-1902JET	40	32	29,0	22,0	7,0	51	200	0,2	LC..1902..
		GL40-CGJL-29032-1902JET	40	32	29,0	22,0	7,0	51	200	0,2	LC..1902..
GL50											
	2	GL50-CGJR-34032-1902JET	50	32	34,0	21,5	7,0	61	200	0,3	LC..1902..
		GL50-CGJL-34032-1902JET	50	32	34,0	21,5	7,0	61	200	0,3	LC..1902..

* DCINN – minimum bore diameter, see page(s) 515
*** Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw	Key (T-handle)	Screw
1902	H4B-T15P	L85011-T15P	DOUBLE-T	P6SS3X5

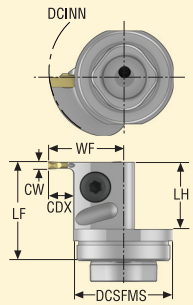
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



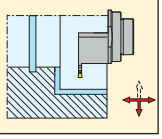
- For inserts programme, see page(s) 633-646, 648-649
- For damping holders programme, see page(s) 277-284

GL.-CGIR/L-..JETI



Right-hand version shown

GL.-CGIR/L-..JET



Size	CW	Designation	Dimensions in mm DCSFMS	LF	WF	LH	CDX	DCINN*	CP***	KG	
GL25											
	2	GL25-CGIR-19025-1902JET	25	25	19,0	23,0	6,0	32	200	0,2	LC..1902..
		GL25-CGIL-19025-1902JET	25	25	19,0	23,0	6,0	32	200	0,2	LC..1902..

* DCINN – minimum bore diameter, see page(s) 515

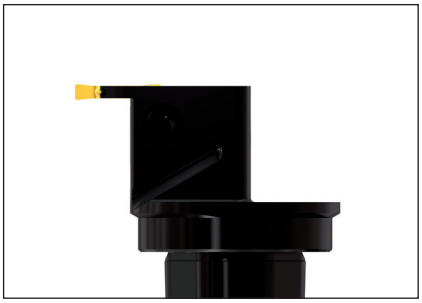
*** Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw
1902	DOUBLE-T	L85011-T15P

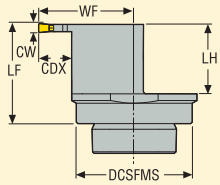
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



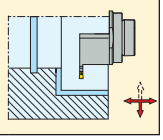
- For inserts programme, see page(s) 633-646, 648-649
- For damping holders programme, see page(s) 277-284

GL.-CGIR/L-..JET



Right-hand version shown

GL.-CGIR/L-..JET



Size	CW	Designation	Dimensions in mm DCSFMS	LF	WF	LH	CDX	DCINN*	CP***	KG	
GL32											
	3	GL32-CGIR-26032-1603JET	32	32	26,5	23,0	9,0	44	200	0,2	LC..1603..
		GL32-CGIL-26032-1603JET	32	32	26,5	23,0	9,0	44	200	0,2	LC..1603..
GL40											
	3	GL40-CGIR-30032-1603JET	40	32	30,5	22,5	9,0	52	200	0,2	LC..1603..
		GL40-CGIL-30032-1603JET	40	32	30,5	22,5	9,0	52	200	0,2	LC..1603..
GL50											
	3	GL50-CGIR-35032-1603JET	50	32	35,5	21,5	9,0	62	200	0,3	LC..1603..
		GL50-CGIL-35032-1603JET	50	32	35,5	21,5	9,0	62	200	0,3	LC..1603..

* DCINN – minimum bore diameter, see page(s) 515

*** Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw	Key (T-handle)
1603	H4B-T15P	L85011-T15P	DOUBLE-T

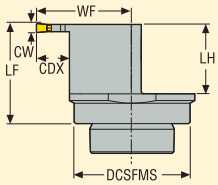
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



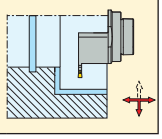
- For inserts programme, see page(s) 633-646, 648-649
- For damping holders programme, see page(s) 277-284

GL.-CGHR/L-..JET



Right-hand version shown

GL.-CGHR/L-..JET



Size	CW	Designation	Dimensions in mm DCSFMS	LF	WF	LH	CDX	DCINN*	CP***	KG	
GL32											
	4	GL32-CGHR-27032-1604JET	32	32	27,5	23,0	10,0	45	200	0,2	LC..1604..
		GL32-CGHL-27032-1604JET	32	32	27,5	23,0	10,0	45	200	0,2	LC..1604..
GL40											
	4	GL40-CGHR-31032-1604JET	40	32	31,5	22,5	10,0	53	200	0,2	LC..1604..
		GL40-CGHL-31032-1604JET	40	32	31,5	22,5	10,0	53	200	0,2	LC..1604..
GL50											
	4	GL50-CGHR-36032-1604JET	50	32	36,5	21,5	10,0	63	200	0,3	LC..1604..
		GL50-CGHL-36032-1604JET	50	32	36,5	21,5	10,0	63	200	0,3	LC..1604..

* DCINN – minimum bore diameter, see page(s) 515

*** Type of Steadyline bar might limit the maximum coolant pressure, please see page(s) 30

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw	Key (T-handle)
1604	H4B-T15P	L85011-T15P	DOUBLE-T

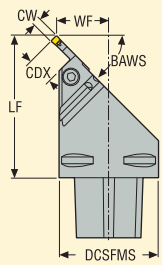
Please check availability in current price and stock-list

Toolholders for inserts LCGN, LCMF and LCMR



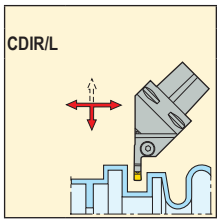
- For inserts programme, see page(s) 633-646, 648-649

CDIR/L



Left-hand version shown
CDX = 3 x CW

CDIR/L



CW	Designation	Dimensions in mm DCSFMS	WF	LF	CDX	CP***	BAWS°	KG	Seat size	
3	C6-CDIR-33090-03JET	63	33	90	9	70	45	1,7	3	LC..1603..
	C6-CDIL-33090-03JET	63	33	90	9	70	45	1,7	3	LC..1603..
4	C6-CDIR-33090-04JET	63	33	90	12	70	45	1,7	4	LC..1604..
	C6-CDIL-33090-04JET	63	33	90	12	70	45	1,7	4	LC..1604..
5	C6-CDIR-33090-05JET	63	33	90	15	70	45	1,7	5	LC..1605..
	C6-CDIL-33090-05JET	63	33	90	15	70	45	1,7	5	LC..1605..
6	C6-CDIR-33090-06JET	63	33	90	18	70	45	1,7	6	LC..1606..
	C6-CDIL-33090-06JET	63	33	90	18	70	45	1,7	6	LC..1606..
8	C6-CDIR-33090-08JET	63	33	90	24	70	45	1,7	8	LC..3008..
	C6-CDIL-33090-08JET	63	33	90	24	70	45	1,7	8	LC..3008..

*** When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

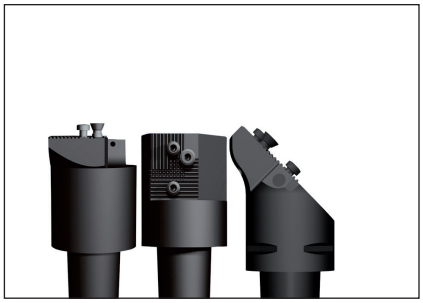
Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Torque value Nm
CDIR/L..-03	4SMS795	TCEI0513	6,0
CDIR/L..-04	5SMS795	TCEI0613	8,0
CDIR/L..-05	5SMS795	TCEI0613	8,0
CDIR/L..-06	6SMS795	TCEI0815	10,0
CDIR/L..-08	6SMS795	TCEI1020	15,0

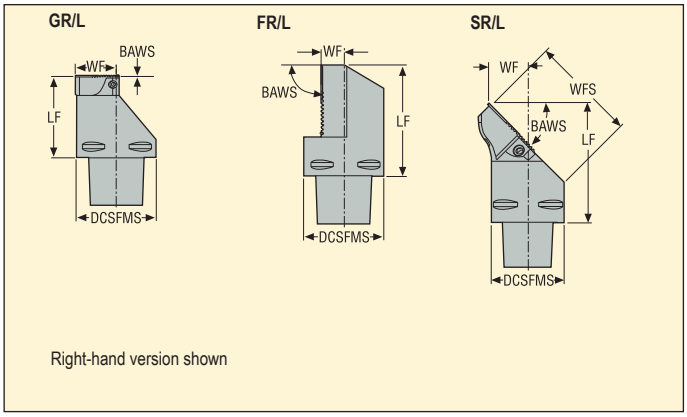
Please check availability in current price and stock-list

MDT – Holders, ext. for modular blades, Seco-Capto™

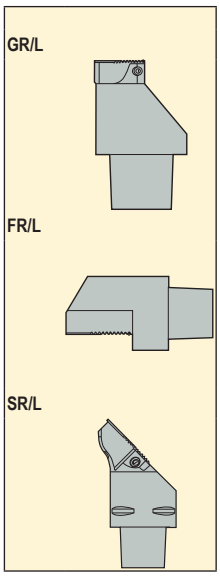
Toolholders



- For blades programme, see page(s) 619-623
- How to assemble, see page(s) 512-514



Right-hand version shown



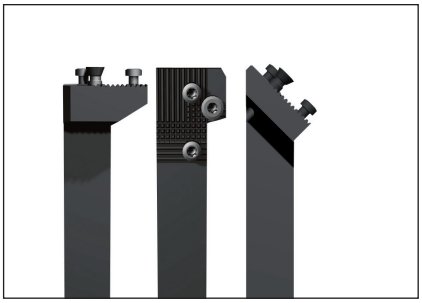
Capto size	Designation	Dimensions in mm				BAWS°	KG
		DCSFMS	WF	WFS	LF		
C4							
	C4-GR-21050-V21	40,0	21,0	–	50	0	0,5
	C4-GL-21050-V21	40,0	21,0	–	50	0	0,5
C5							
	C5-GR-29060-V21	50,0	26,0	–	60	0	0,9
	C5-GL-29060-V21	50,0	26,0	–	60	0	0,9
C6							
	C6-GR-39065-V21	63,0	32,5	–	65	0	1,4
	C6-GL-39065-V21	63,0	32,5	–	65	0	1,4
C4							
	C4-FR-11055-V21	40,0	11,6	–	55	90	0,5
	C4-FL-11055-V21	40,0	11,6	–	55	90	0,5
C5							
	C5-FR-16060-V21	40,0	16,6	–	60	90	0,9
	C5-FL-16060-V21	40,0	16,6	–	60	90	0,9
C6							
	C6-FR-23065-V21	63,0	23,1	–	65	90	1,6
	C6-FL-23065-V21	63,0	23,1	–	65	90	1,6
C4							
	C4-SR-21065-V21	40,0	–	59,3	65	45	0,5
	C4-SL-21065-V21	40,0	–	59,3	65	45	0,5
C5							
	C5-SR-26075-V21	50,0	26,0	73,4	75	45	0,9
	C5-SL-26075-V21	50,0	26,0	73,4	75	45	0,9
C6							
	C6-SR-33085-V21	63,0	–	92,5	85	45	1,5
	C6-SL-33085-V21	63,0	–	92,5	85	45	1,5

Spare Parts, Parts included in delivery

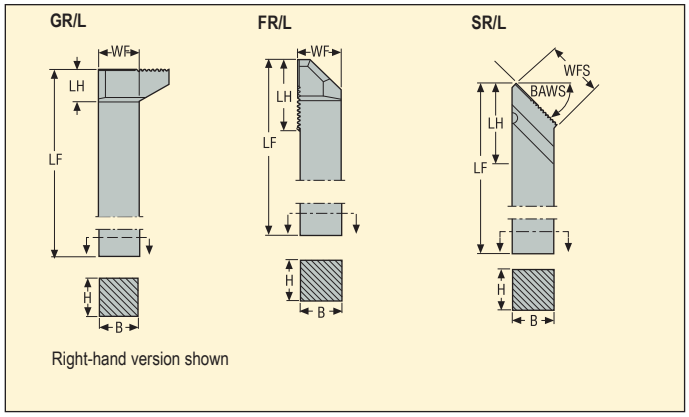
For holder	Coolant nozzle	Key	Locking screw	Screw	Torque value Nm
					
..-V21	CN6	T20P-7L	F85015-T20P	C46017-T20P	6,0

Please check availability in current price and stock-list

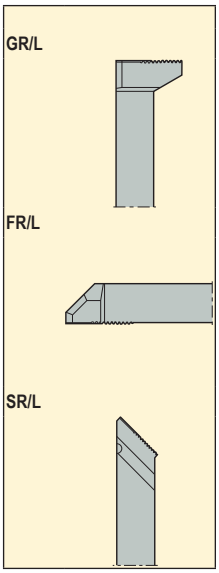
Toolholders



- For blades programme, see page(s) 619-623
- How to assemble, see page(s) 512-514



Right-hand version shown



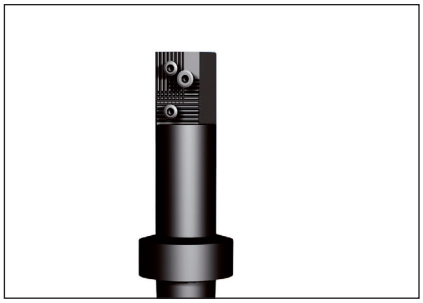
Designation	Dimensions in mm						BAWS°	KG
	H	B	LF	WF	WFS	LH		
GR2020K-V21	20	20	125	19,9	–	16,0	0	0,5
GL2020K-V21	20	20	125	19,9	–	16,0	0	0,5
GR2525M-V21	25	25	150	24,9	–	16,0	0	0,8
GL2525M-V21	25	25	150	24,9	–	16,0	0	0,8
GR3225P-V21	32	25	170	24,9	–	16,0	0	1,2
GL3225P-V21	32	25	170	24,9	–	16,0	0	1,2
FR2020K-V21	20	20	125	20,8	–	33,6	90	0,5
FL2020K-V21	20	20	125	20,8	–	33,6	90	0,4
FR2525M-V21	25	25	150	25,8	–	33,6	90	0,8
FL2525M-V21	25	25	150	25,8	–	33,6	90	0,8
FR3225P-V21	32	25	170	25,8	–	33,6	90	1,1
FL3225P-V21	32	25	170	25,8	–	33,6	90	1,1
SR2020K-V21	20	20	125	–	34,6	43,5	45	0,4
SL2020K-V21	20	20	125	–	34,6	43,5	45	0,4
SR2525M-V21	25	25	150	–	34,6	47,5	45	0,8
SL2525M-V21	25	25	150	–	34,6	47,5	45	0,8
SR3225P-V21	32	25	170	–	34,6	47,5	45	1,1
SL3225P-V21	32	25	170	–	34,6	47,5	45	1,1

Spare Parts, Parts included in delivery

For holder	Key	Locking screw	Screw	Torque value Nm
..-V21	T20P-7L	F85015-T20P	C46017-T20P	6,0

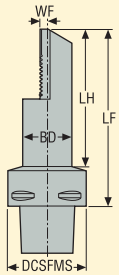
Please check availability in current price and stock-list

Toolholders



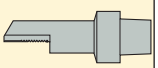
- For blades programme, see page(s) 619-623
- How to assemble, see page(s) 512-513

FR/L



Right-hand version shown

C.-FR/L



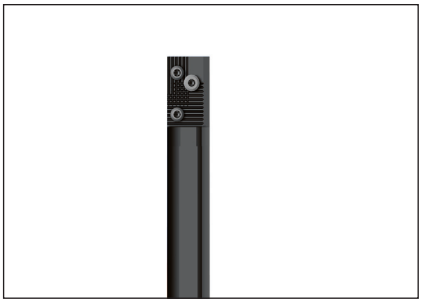
Capto size	Designation	Dimensions in mm BD	DCSFMS	WF	LF	LH	KG
C4							
	C4-FR-04090-V21	25	40	4,0	90	70	0,5
	C4-FL-04090-V21	25	40	4,0	90	70	0,5
	C4-FR-07110-V21	32	40	7,0	110	90	0,7
	C4-FL-07110-V21	32	40	7,0	110	90	0,7
	C4-FR-11140-V21	40	40	11,0	140	120	1,3
	C4-FL-11140-V21	40	40	11,0	140	120	1,3
C5							
	C5-FR-04090-V21	25	50	4,0	90	70	0,7
	C5-FL-04090-V21	25	50	4,0	90	70	0,7
	C5-FR-07110-V21	32	50	7,0	110	90	0,9
	C5-FL-07110-V21	32	50	7,0	110	90	0,9
	C5-FR-11140-V21	40	50	11,0	140	120	1,6
	C5-FL-11140-V21	40	50	11,0	140	120	1,6
C6							
	C6-FR-04090-V21	25	63	3,5	90	68	0,9
	C6-FL-04090-V21	25	63	3,5	90	68	0,9
	C6-FR-07110-V21	32	63	7,0	110	88	1,4
	C6-FL-07110-V21	32	63	7,0	110	88	1,4
	C6-FR-11140-V21	40	63	11,0	140	118	1,8
	C6-FL-11140-V21	40	63	11,0	140	118	1,8

Spare Parts, Parts included in delivery

For holder	Coolant nozzle	Key	Locking screw	Screw	Torque value Nm
					
..-V21	CN6	T20P-7L	F85015-T20P	C46017-T20P	6,0

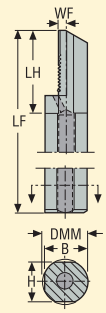
Please check availability in current price and stock-list

Toolholders



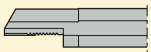
- For blades programme, see page(s) 619-623
- How to assemble, see page(s) 512-513

FR/L



Right-hand version shown

FR/L



Designation	Dimensions in mm						KG
	DMM	H	B	LF	WF	LH	
A25R-FR-V21	25	23	24,0	200	4,1	43	0,6
A25R-FL-V21	25	23	24,0	200	4,1	43	0,7
A32S-FR-V21	32	30	31,0	250	7,6	43	1,4
A32S-FL-V21	32	30	31,0	250	7,6	43	1,4
A40T-FR-V21	40	37	38,5	300	11,6	45	2,6
A40T-FL-V21	40	37	38,5	300	11,6	45	2,6

Spare Parts, Parts included in delivery

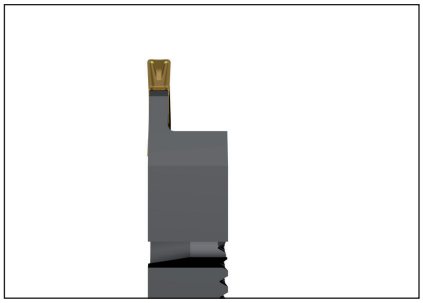
For holder	Key	Locking screw	Screw	Torque value Nm
A25R-	T20P-7L	F85015-T20P	C46017-T20P	6,0
A32S-	T20P-7L	F85015-T20P	C46017-T20P	6,0
A40T-	T20P-7L	F85015-T20P	C46017-T20P	6,0

Accessories, to be ordered separately

For holder	Coolant adapter
A25R-	SEAL25
A32S-	SEAL32
A40T-	SEAL40

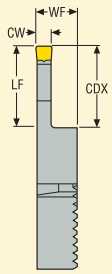
Please check availability in current price and stock-list

Blades for inserts LCGF, LCGN, LCMF and LCMR

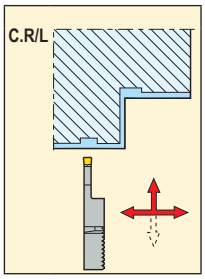


- For holders programme, see page(s) 615-618
- For inserts programme, see page(s) 628-631, 633-649

C.R/L



Right-hand version shown

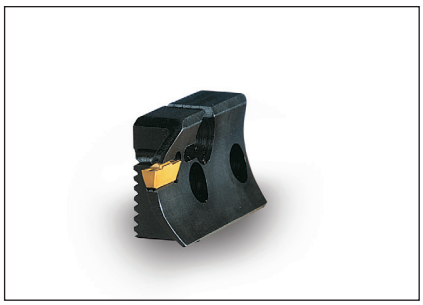


CW	Designation	Dimensions in mm LF	WF	CDX**	KG	
3	V21-CIR1303	10,2	9,2	9	0,1	LC..1303..
	V21-CIL1303	10,2	9,2	9	0,1	LC..1303..
	V21-CMR1303	16,2	9,2	15	0,1	LC..1303..
	V21-CML1303	16,2	9,2	15	0,1	LC..1303..
	V21-CMR1603	16,2	9,2	15	0,1	LC..1603..
	V21-CML1603	16,2	9,2	15	0,1	LC..1603..
4	V21-CIR1304	13,2	9,2	12	0,1	LC..1304..
	V21-CIL1304	13,2	9,2	12	0,1	LC..1304..
	V21-CMR1304	21,2	9,2	20	0,1	LC..1304..
	V21-CML1304	21,2	9,2	20	0,1	LC..1304..
	V21-CMR1604	21,2	9,2	20	0,1	LC..1604..
	V21-CML1604	21,2	9,2	20	0,1	LC..1604..
5	V21-CIR1605	16,2	9,2	15	0,1	LC..1605..
	V21-CIL1605	16,2	9,2	15	0,1	LC..1605..
	V21-CMR1605	26,2	9,2	25	0,1	LC..1605..
	V21-CML1605	26,2	9,2	25	0,1	LC..1605..
6	V21-CIR1606	19,2	9,2	18	0,1	LC..1606..
	V21-CIL1606	19,2	9,2	18	0,1	LC..1606..
	V21-CMR1606	31,2	9,2	30	0,1	LC..1606..
	V21-CML1606	31,2	9,2	30	0,1	LC..1606..

Please check availability in current price and stock-list

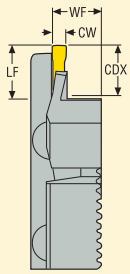
** Max depth of cut for LCGF/LCMF13.. = 11 mm, LCGF/LCMF16.. = 14 mm

Blades for inserts LCGF, LCGN, LCMF and LCMR



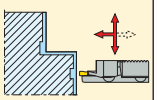
- For holders programme, see page(s) 615-618
- For inserts programme, see page(s) 628-631, 647

C.R/L



Right-hand version with left-hand blade shown

C.R/L



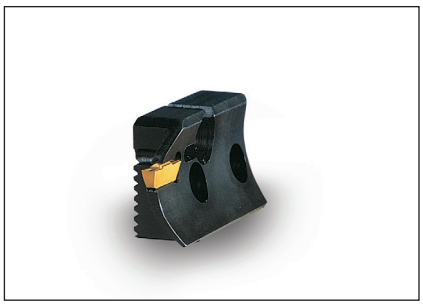
CW	Designation	Dimensions in mm					KG	
		INPLM	INPLX	LF	WF	CDX**		
3	V21-CJR1303L030017	17	30	11,7	9,2	10,5	0,1	LC..1303..
	V21-CJR1303L039024	24	39	11,7	9,2	10,5	0,1	LC..1303..
	V21-CKR1303L050033	33	50	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKR1303L060043	43	60	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKR1303L076053	53	76	13,2	9,2	12,0	0,1	LC..1303..
	V21-COR1303L030017	17	30	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L039024	24	39	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L050033	33	50	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L060043	43	60	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L076053	53	76	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L100070	70	100	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L136094	94	136	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303L200130	130	200	19,2	9,2	18,0	0,1	LC..1303..
	V21-CJL1303R030017	17	30	11,7	9,2	10,5	0,1	LC..1303..
	V21-CJL1303R039024	24	39	11,7	9,2	10,5	0,1	LC..1303..
	V21-CKL1303R050033	33	50	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKL1303R060043	43	60	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKL1303R076053	53	76	13,2	9,2	12,0	0,1	LC..1303..
	V21-COL1303R030017	17	30	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R039024	24	39	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R050033	33	50	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R060043	43	60	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R076053	53	76	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R100070	70	100	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R136094	94	136	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303R200130	130	200	19,2	9,2	18,0	0,1	LC..1303..

Please check availability in current price and stock-list

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

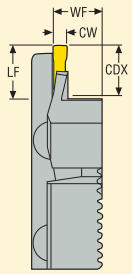
** Max depth of cut for LCGF/LCMF13.. = 11 mm

Blades for inserts LCGF, LCGN, LCMF and LCMR



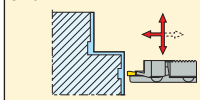
- For holders programme, see page(s) 615-618
- For inserts programme, see page(s) 628-631, 647

C.R/L



Right-hand version with left-hand blade shown

C.R/L

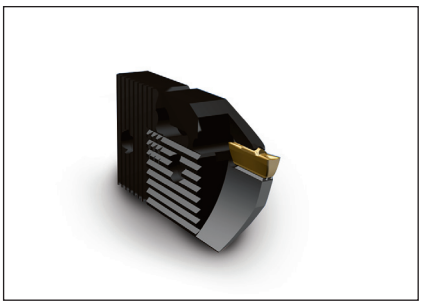


CW	Designation	Dimensions in mm					KG	
		INPLM	INPLX	LF	WF	CDX**		
4	V21-CHR1304L030017	17	30	11,2	9,2	10,0	0,1	LC..1304..
	V21-CHR1304L034021	21	34	11,2	9,2	10,0	0,1	LC..1304..
	V21-CIR1304L040026	26	40	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304L050032	32	50	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304L060042	42	60	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304L075052	52	75	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304L100067	67	100	13,2	9,2	12,0	0,1	LC..1304..
	V21-CMR1304L030017	17	30	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L034021	21	34	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L040026	26	40	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L050032	32	50	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L060042	42	60	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L075052	52	75	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L100067	67	100	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L135092	92	135	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304L200127	127	200	21,2	9,2	20,0	0,1	LC..1304..
	V21-CHL1304R030017	17	30	11,2	9,2	10,0	0,1	LC..1304..
	V21-CHL1304R034021	21	34	11,2	9,2	10,0	0,1	LC..1304..
	V21-CIL1304R040026	26	40	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304R050032	32	50	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304R060042	42	60	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304R075052	52	75	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304R100067	67	100	13,2	9,2	12,0	0,1	LC..1304..
	V21-CML1304R030017	17	30	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R034021	21	34	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R040026	26	40	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R050032	32	50	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R060042	42	60	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R075052	52	75	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R100067	67	100	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R135092	92	135	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304R200127	127	200	21,2	9,2	20,0	0,1	LC..1304..

Please check availability in current price and stock-list
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515
** Max depth of cut for LCGF/LCMF13.. = 11 mm

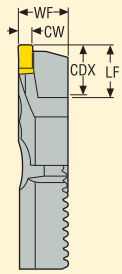
MDT – Blades, modular axial

Blades for inserts LCGF, LCGN, LCMF and LCMR



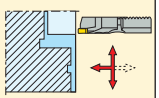
- For holders programme, see page(s) 615-618
- For inserts programme, see page(s) 628-631, 647

C.R/L



Right-hand version with right-hand blade shown

C.R/L



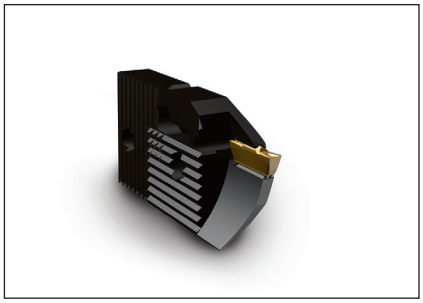
CW	Designation	Dimensions in mm					KG	
		INPLM	INPLX	LF	WF	CDX**		
3	V21-CJR1303R030017	17	30	11,7	9,2	10,5	0,1	LC..1303..
	V21-CJR1303R039024	24	39	11,7	9,2	10,5	0,1	LC..1303..
	V21-CKR1303R050033	33	50	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKR1303R060043	43	60	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKR1303R076053	53	76	13,2	9,2	12,0	0,1	LC..1303..
	V21-COR1303R030017	17	30	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R039024	24	39	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R050033	33	50	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R060043	43	60	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R076053	53	76	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R100070	70	100	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R136094	94	136	19,2	9,2	18,0	0,1	LC..1303..
	V21-COR1303R200130	130	200	19,2	9,2	18,0	0,1	LC..1303..
	V21-CJL1303L030017	17	30	11,7	9,2	10,5	0,1	LC..1303..
	V21-CJL1303L039024	24	39	11,7	9,2	10,5	0,1	LC..1303..
	V21-CKL1303L050033	33	50	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKL1303L060043	43	60	13,2	9,2	12,0	0,1	LC..1303..
	V21-CKL1303L076053	53	76	13,2	9,2	12,0	0,1	LC..1303..
	V21-COL1303L030017	17	30	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L039024	24	39	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L050033	33	50	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L060043	43	60	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L076053	53	76	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L100070	70	100	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L136094	94	136	19,2	9,2	18,0	0,1	LC..1303..
	V21-COL1303L200130	130	200	19,2	9,2	18,0	0,1	LC..1303..

Please check availability in current price and stock-list

Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515

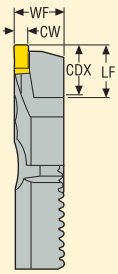
** Max depth of cut for LCGF/LCMF13.. = 11 mm

Blades for inserts LCGF, LCGN, LCMF and LCMR



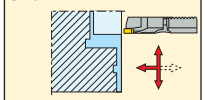
- For holders programme, see page(s) 615-618
- For inserts programme, see page(s) 628-631, 647

C.R/L



Right-hand version with right-hand blade shown

C.R/L



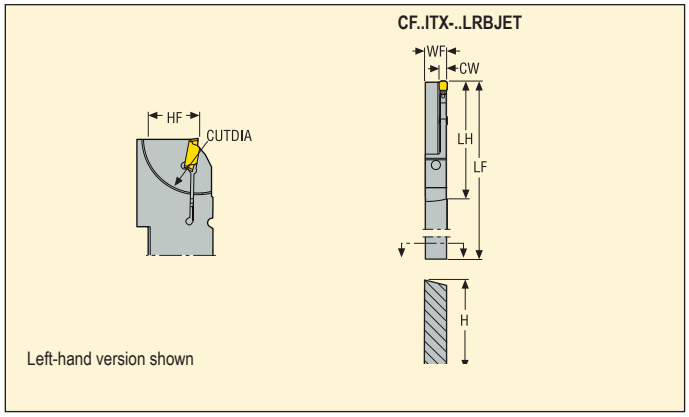
CW	Designation	Dimensions in mm					KG	
		INPLM	INPLX	LF	WF	CDX**		
4	V21-CHR1304R030017	17	30	11,2	9,2	10,0	0,1	LC..1304..
	V21-CHR1304R034021	21	34	11,2	9,2	10,0	0,1	LC..1304..
	V21-CIR1304R040026	26	40	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304R050032	32	50	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304R060042	42	60	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304R075052	52	75	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIR1304R100067	67	100	13,2	9,2	12,0	0,1	LC..1304..
	V21-CMR1304R030017	17	30	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R034021	21	34	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R040026	26	40	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R050032	32	50	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R060042	42	60	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R075052	52	75	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R100067	67	100	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R135092	92	135	21,2	9,2	20,0	0,1	LC..1304..
	V21-CMR1304R200127	127	200	21,2	9,2	20,0	0,1	LC..1304..
	V21-CHL1304L030017	17	30	11,2	9,2	10,0	0,1	LC..1304..
	V21-CHL1304L034021	21	34	11,2	9,2	10,0	0,1	LC..1304..
	V21-CIL1304L040026	26	40	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304L050032	32	50	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304L060042	42	60	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304L075052	52	75	13,2	9,2	12,0	0,1	LC..1304..
	V21-CIL1304L100067	67	100	13,2	9,2	12,0	0,1	LC..1304..
	V21-CML1304L030017	17	30	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L034021	21	34	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L040026	26	40	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L050032	32	50	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L060042	42	60	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L075052	52	75	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L100067	67	100	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L135092	92	135	21,2	9,2	20,0	0,1	LC..1304..
	V21-CML1304L200127	127	200	21,2	9,2	20,0	0,1	LC..1304..

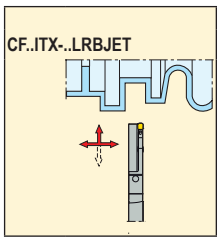
Please check availability in current price and stock-list
Initial plunge (INPLM/INPLX) relates to face groove diameter, see page(s) 515
** Max depth of cut for LCGF/LCMF13.. = 11 mm

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



• For inserts programme, see page(s) 632-646, 648-649





CW	Designation	Dimensions in mm H	B	LF	WF	LH	HF	CUTDIA*	CP***	KG	
3	CFXL26ITX-1603LRBJET	8	26	117,5	8	50,5	21,4	65,0	275,0	0,2	LC..1603..
3	CFXL32ITX-1603LRBJET	32	8	117,5	8	50,5	24,8	65,0	275,0	0,2	LC..1603..
2	CFTL26ITX-1902LRBJET	26	8	110,0	8	43,0	21,4	36,0	275,0	0,2	LC..1902..
2	CFZL32ITX-2802LRBJET	8	32	110,0	8	47,0	24,8	54,0	275,0	0,2	LC..2802..

* Due to the design, grooving depth is limited, see page(s) 515

** Max depth of cut for LCGF/LCMF16.. = 14 mm
*** Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw
26-32	3SMS795	MC6S4X18

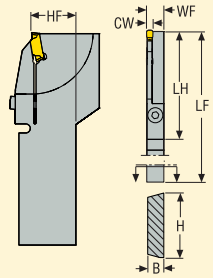
Please check availability in current price and stock-list

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



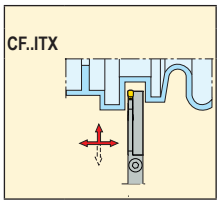
- Blades up to D = 65
- For inserts programme, see page(s) 632-646, 648-649

CF..ITX



Right-hand version shown

CF..ITX



CW	Designation	Dimensions in mm H	B	LF	WF	LH	HF	CUTDIA*	KG	
2	CFTR26ITX1902RRB	26	7,85	110,0	8	44,0	20,9	34	0,2	LCMF1902..
	CFTR32ITX1902RRB	32	7,85	110,0	8	43,0	24,5	34	0,2	LCMF1902..
	CFTR26ITX1902LRB	26	7,85	110,0	8	44,0	20,9	34	0,2	LCMF1902..
	CFTR32ITX1902LRB	32	7,85	110,0	8	43,0	24,5	34	0,2	LCMF1902..
	CFTL26ITX1902RRB	26	7,85	110,0	8	44,0	20,9	34	0,2	LCMF1902..
	CFTL32ITX1902RRB	32	7,85	110,0	8	43,0	24,5	34	0,2	LCMF1902..
	CFTL26ITX1902LRB	26	7,85	110,0	8	44,0	20,9	34	0,2	LCMF1902..
	CFTL32ITX1902LRB	32	7,85	110,0	8	43,0	24,5	34	0,2	LCMF1902..
2	CFZR26ITX2802RRB	26	7,85	119,1	8	51,5	20,9	54	0,2	LCMF2802..
	CFZR32ITX2802RRB	32	7,85	119,1	8	52,0	32,0	54	0,2	LCMF2802..
	CFZR26ITX2802LRB	26	7,85	119,1	8	51,5	20,9	54	0,2	LCMF2802..
	CFZR32ITX2802LRB	32	7,85	119,1	8	52,5	32,0	54	0,2	LCMF2802..
	CFZL32ITX2802RRB	32	7,85	119,5	8	52,0	24,5	54	0,2	LCMF2802..
	CFZL26ITX2802RRB	26	7,85	119,1	8	51,5	20,9	54	0,2	LCMF2802..
	CFZL26ITX2802LRB	26	7,85	119,1	8	51,5	20,9	54	0,2	LCMF2802..
	CFZL32ITX2802LRB	32	7,85	119,1	8	52,0	24,5	54	0,3	LCMF2802..
3	CFXR32ITX1603RRB	32	7,85	117,5	8	50,5	24,5	65	0,3	LCMR1603..
	CFXR32ITX1603LRB	32	7,85	117,5	8	50,5	24,5	65	0,3	LCMR1603..
	CFXL32ITX1603RRB	32	7,85	117,5	8	50,5	24,5	65	0,3	LCMR1603..
	CFXL32ITX1603LRB	32	7,85	117,5	8	50,5	24,5	65	0,3	LCMR1603..

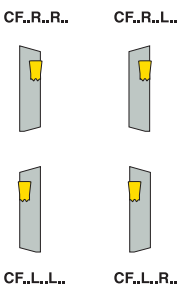
* Due to the design, grooving depth is limited, see page(s) 515

Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw
26-32	3SMS795	TCEI0416

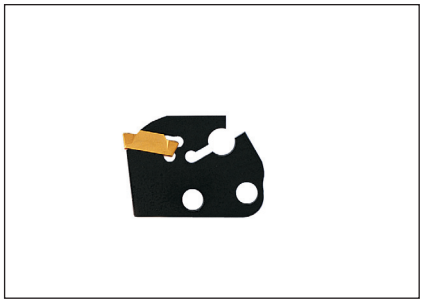
Please check availability in current price and stock-list

Front view



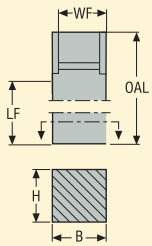
MDT – Holder and blades

Toolholder and blades for inserts LCGN, LCMF and LCMR

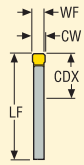


• For inserts programme, see page(s) 633-646, 648-649

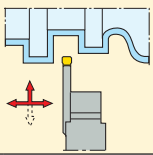
SFN



CF.N



SFN/CF.N



CW	Designation	Dimensions in mm H	B	LF	OAL	WF	CDX**	KG	Seat size	
	SFN2525N	25	25	101,2	134	21,7	–	0,7	–	–
3	**CFLN-03**	–	–	46,4	–	2,6	13	0,1	3	LC..1603..
4	**CFKN-04**	–	–	48,6	–	3,6	15	0,1	4	LC..1604..
	CFNN-04	–	–	55,0	–	3,6	22	0,1	4	LC..1604..
5	**CFIN-05**	–	–	48,6	–	4,6	15	0,1	5	LC..1605..
6	**CFHN-06**	–	–	48,6	–	5,6	15	0,1	6	LC..1606..
	CFJN-06	–	–	55,0	–	5,6	22	0,1	6	LC..1606..

** Max depth of cut for LCGF/LCMF16.. = 14 mm

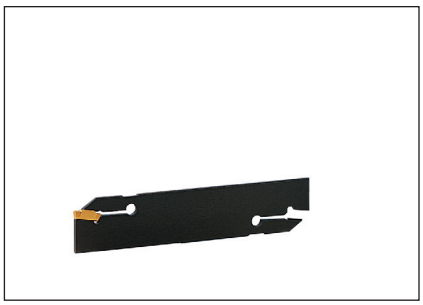
Spare Parts, Parts included in delivery

For holder	Key	Locking screw	Screw
SFN2525N	T20P-7	C46017-T20P	C45013-T20P

Please check availability in current price and stock-list

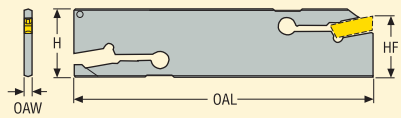
MDT – Blades for holder 150.10

Blades for inserts LCGN, LCMF and LCMR

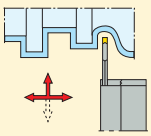


• For inserts programme, see page(s) 633-646, 648-649

CF.N



CF.N



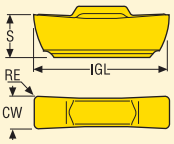
CW	Designation	Dimensions in mm OAW	OAL	HF	H	CUTDIA*	KG	Seat size	
3	CFMN26-03	2,4	110	21,4	26	25	0,1	3	LC..1603..
	CFON32-03	2,4	150	24,8	32	34	0,1	3	LC..1603..
4	CFMN32-04	3,0	150	24,8	32	34	0,1	4	LC..1604..
5	CFMN32-05	4,0	150	24,8	32	48	0,2	5	LC..1605..
6	CFKN32-06	5,0	150	24,8	32	48	0,2	6	LC..1606..

* CUTDIA for LCMF16.. = 28 mm



To be used in standard 150.10 holder
CF..26... to be used in 150.10-...-20JETI
CF..32... to be used in 150.10-...-25JETI

LCMF, LCMR



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

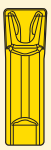
IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1303	3,00	12,35	4,00
1304	4,00	12,35	4,00

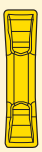
LCMF-FT



LCMR-FT



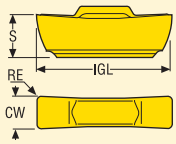
LCMF-MC



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-FT														
	LCMF130302-0300-FT	0,2		■										
	LCMF130304-0300-FT	0,4		■			■	■						
	LCMF130402-0400-FT	0,2		■										
	LCMF130404-0400-FT	0,4		■			■	■						
LCMR-FT														
	LCMR130302-0300-FT	0,2		■										
	LCMR130304-0300-FT	0,4		■										
	LCMR130404-0400-FT	0,4		■										
LCMF-MC														
	LCMF130304-0300-MC	0,4		■				■						
	LCMF130404-0400-MC	0,4		■				■						

■ **Stock standard**
Subject to change refer to current price- and stock-list

LCGF



Tolerances:
CW = ±0,025
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1303	3,00	12,35	3,90
1304	4,00	12,35	3,90

LCGF-GG



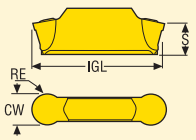
LCGF-GS



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCGF-GG														
	LCGF130302-0300-GG	0,2		■										
	LCGF130402-0400-GG	0,2		■										
LCGF-GS														
	LCGF130302-0300-GS	0,2								■				
	LCGF130402-0400-GS	0,2								■				

■ **Stock standard**
Subject to change refer to current price- and stock-list

LCMF, LCMR



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

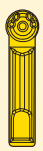
IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1303	3,00	12,35	4,00
1304	4,00	12,35	4,00

LCMF-MP



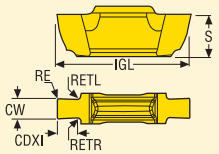
LCMR-MP



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-MP														
	LCMF1303M0-0300-MP	1,5		■			■	■						
	LCMF1304M0-0400-MP	2,0		■			■	■						
LCMR-MP														
	LCMR1303M0-0300-MP	1,5		■										
	LCMR1304M0-0400-MP	2,0		■										

■ **Stock standard**
Subject to change refer to current price- and stock-list

LCGA



Tolerances:
CW = ±0,025
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S	RETR	RETL	CDXI
-0115	1,150	12,350	4,00	0,3	0,3	1,40
-0135	1,350	12,350	4,00	0,3	0,3	1,60
-0165	1,650	12,350	4,00	0,3	0,3	1,90
-0190	1,900	12,350	4,00	0,3	0,3	2,15
-0215	2,150	12,350	4,00	0,3	0,3	2,40
-0265	2,650	12,350	4,00	0,2	0,2	2,90
01-0300	3,000	12,350	4,00	–	–	–
02-0300	3,000	12,350	4,00	–	–	–
-0400	4,000	12,350	4,00	–	–	–

LCGA-FG



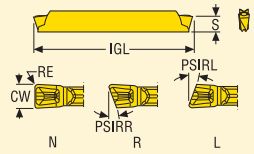
Standard
** =
DIN 471
DIN 472
SMS 1581
SMS 1582

Inserts	For circlip	Designation	RE	Note	Standard	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGA-FG											
	1,00	**LCGA130300-0115-FG**	–	*	**		■				
	1,20	**LCGA130300-0135-FG**	–	*	**		■				
	1,50	**LCGA130301-0165-FG**	0,10	*	**		■				
	1,75	**LCGA130301-0190-FG**	0,10	*	**		■				
	2,00	**LCGA130301-0215-FG**	0,15	*	**		■				
	2,50	**LCGA130302-0265-FG**	0,20		**		■				
	–	**LCGA130301-0300-FG**	0,10		**		■				
	–	**LCGA130302-0300-FG**	0,20		**		■				
	–	**LCGA130402-0400-FG**	0,20		**		■				

■ **Stock standard**
Subject to change refer to current price- and stock-list

* Toolholders have to be modified

LCMF



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1902	2,00	18,50	2,85
2802	2,00	28,00	2,85

LCMF-FT



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-FT														
	LCMF190202-0200-FT	0,2		■	■									
	LCMF190202-0200-FTR6	0,2			■									
	LCMF190202-0200-FTL6	0,2			■									
	LCMF280202-0200-FT	0,2		■	■									
	LCMF280202-0200-FTR6	0,2			■									
	LCMF280202-0200-FTL6	0,2			■									

LCMF



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1902	2,00	18,50	2,85
2802	2,00	28,00	2,85

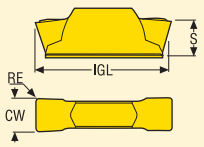
LCMF-MP



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-MP														
	LCMF1902M0-0200-MP	1,0		■			■							
	LCMF2802M0-0200-MP	1,0		■			■							

■ Stock standard
Subject to change refer to current price- and stock-list

LCMF



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05
S = ±0,08

Size:
16
30

IGL = Distance cutting edge-rear support

Size	Inch version	Dimensions in mm CW	IGL	S
1603		3,00	15,90	4,50
1604		4,00	15,90	4,50
1605		5,00	15,90	4,50
1606		6,00	15,90	4,50
3008-08		8,00	29,06	5,57
3008-10		10,00	29,21	5,57
1603	■	3,18	15,90	4,50
1605	■	4,76	15,90	4,50
1606	■	6,35	15,90	4,50

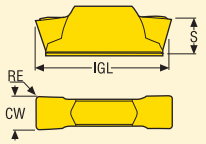
LCMF-FT



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-FT mm-version														
	LCMF160302-0300-FT	0,2	■	■				■						
	LCMF160304-0300-FT	0,4		■		■		■						
	LCMF160402-0400-FT	0,2		■				■						
	LCMF160404-0400-FT	0,4	■	■		■		■						
	LCMF160408-0400-FT	0,8		■				■						
	LCMF160504-0500-FT	0,4	■	■		■		■						
	LCMF160508-0500-FT	0,8		■				■						
	LCMF160604-0600-FT	0,4		■				■						
	LCMF160608-0600-FT	0,8	■	■				■			■			
	LCMF160610-0600-FT	1,0		■				■						
	LCMF300804-0800-FT	0,4		■				■		■				
	LCMF300808-0800-FT	0,8		■			■	■		■				
	LCMF300808-1000-FT	0,8		■				■						
	LCMF300812-0800-FT	1,2		■			■	■		■				
	LCMF300812-1000-FT	1,2		■						■				
LCMF-FT inch-version														
	LCMF160302-0318-FT	0,2	■	■										
	LCMF160505-0476-FT	0,5	■	■										
	LCMF160605-0635-FT	0,5	■	■										

■ Stock standard
Subject to change refer to current price- and stock-list

LCMF



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Inch version	Dimensions in mm CW	IGL	S
1603		3,00	15,90	4,50
1604		4,00	15,90	4,50
1605		5,00	15,90	4,50
1606		6,00	15,90	4,50
1603	■	3,18	15,90	4,50
1605	■	4,76	15,90	4,50
1606	■	6,35	15,90	4,50

LCMF-MT



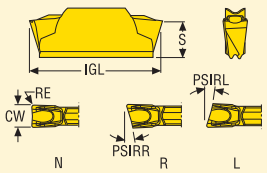
LCMF-MG



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25	Uncoated 883	890
LCMF-MT mm-version	LCMF160302-0300-MT	0,2		■				■		
	LCMF160304-0300-MT	0,4		■			■	■	■	
	LCMF160404-0400-MT	0,4		■			■	■		
	LCMF160408-0400-MT	0,8		■			■	■	■	
	LCMF160504-0500-MT	0,4		■			■	■		
	LCMF160508-0500-MT	0,8		■			■	■	■	
	LCMF160604-0600-MT	0,4		■			■	■		
	LCMF160608-0600-MT	0,8		■			■	■	■	
	LCMF160610-0600-MT	1,0		■				■		
LCMF-MT inch-version	LCMF160302-0318-MT	0,2		■						
	LCMF160505-0476-MT	0,5		■						
	LCMF160605-0635-MT	0,5		■					■	
LCMF-MG	LCMF160304-0300-MG	0,4		■				■		
	LCMF160404-0400-MG	0,4		■				■		
	LCMF160504-0500-MG	0,4		■				■		
	LCMF160608-0600-MG	0,8		■				■		

■ Stock standard
Subject to change refer to current price- and stock-list

LCMF, LCMR



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1603	3,00	15,90	4,50
1604	4,00	15,90	4,50
1605	5,00	15,90	4,50
1606	6,00	15,90	4,50

LCMF-MC



LCMR-MC



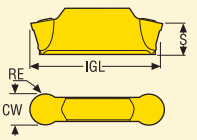
Inserts	Designation	RE	PSIRR°	PSIRL°	Note	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25	
LCMF-MC												
	LCMF160302-0300-MC	0,2	–	–			■	■				
	LCMF160302-0300-MCR6	0,2	6	–	*		■	■				
	LCMF160302-0300-MCL6	0,2	–	6	*		■	■				
	LCMF160302-0300-MCR15	0,2	15	–	*			■				
	LCMF160302-0300-MCL15	0,2	–	15	*			■				
	LCMF160304-0300-MC	0,4	–	–			■	■			■	
	LCMF160402-0400-MC	0,2	–	–			■	■				
	LCMF160402-0400-MCR6	0,2	6	–	*		■	■				
	LCMF160402-0400-MCL6	0,2	–	6	*			■				
	LCMF160402-0400-MCR15	0,2	15	–	*			■				
	LCMF160402-0400-MCL15	0,2	–	15	*			■				
	LCMF160404-0400-MC	0,4	–	–			■	■			■	
	LCMF160504-0500-MC	0,4	–	–			■	■			■	
	LCMF160604-0600-MC	0,4	–	–			■	■			■	
	LCMF160608-0600-MC	0,8	–	–			■				■	
LCMR-MC												
	LCMR160302-0300-MC	0,2	–	–				■				
	LCMR160404-0400-MC	0,4	–	–				■				
	LCMR160504-0500-MC	0,4	–	–				■				
	LCMR160604-0600-MC	0,4	–	–				■				

■ **Stock standard**

* Toolholders have to be modified

Subject to change refer to current price- and stock-list

LCMF



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05
S = ±0,08

Size:
16
30

IGL = Distance cutting edge-rear support

Size	Inch version	Dimensions in mm CW	IGL	S
1603		3,00	16,98	4,30
1604		4,00	17,09	4,25
1605		5,00	17,75	4,17
1606		6,00	17,98	4,12
3008..-08		8,00	30,06	5,42
3008..-10		10,00	30,05	5,49
1603	■	3,18	16,64	4,36
1605	■	4,76	17,67	4,17
1606	■	6,35	17,60	4,19

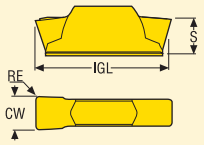
LCMF-MP



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMF-MP mm-version														
	LCMF1603M0-0300-MP	1,5	■	■		■	■	■		■	■			
	LCMF1604M0-0400-MP	2,0	■	■		■	■	■		■	■			
	LCMF1605M0-0500-MP	2,5	■	■		■	■	■		■	■			
	LCMF1606M0-0600-MP	3,0	■	■		■	■	■		■	■			
	LCMF3008M0-0800-MP	4,0		■			■	■		■	■			
	LCMF3008M0-1000-MP	4,0	■	■				■						
LCMF-MP inch-version														
	LCMF160300-0318-MP	1,59	■	■						■				
	LCMF160500-0476-MP	2,38	■	■							■			
	LCMF160600-0635-MP	3,18	■	■						■				

■ Stock standard
Subject to change refer to current price- and stock-list

LCMR



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05 16
S = ±0,08 30

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1603	3,00	15,90	4,50
1604	4,00	15,90	4,50
1605	5,00	15,90	4,50
1606	6,00	15,90	4,50
3008-08	8,00	29,06	5,57
3008-10	10,00	29,21	5,57

LCMR-FT



LCMR-MT

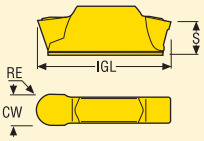


Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMR-FT														
	LCMR160304-0300-FT	0,4	■	■				■						
	LCMR160402-0400-FT	0,2		■										
	LCMR160404-0400-FT	0,4	■	■				■						
	LCMR160504-0500-FT	0,4	■	■				■						
	LCMR160608-0600-FT	0,8	■	■				■						
	LCMR300808-0800-FT	0,8		■				■		■				
	LCMR300808-1000-FT	0,8		■										
	LCMR300812-0800-FT	1,2		■										
	LCMR300812-1000-FT	1,2		■										
LCMR-MT														
	LCMR160304-0300-MT	0,4		■				■		■				
	LCMR160404-0400-MT	0,4		■				■						
	LCMR160408-0400-MT	0,8								■				
	LCMR160504-0500-MT	0,4		■				■						
	LCMR160508-0500-MT	0,8								■				
	LCMR160608-0600-MT	0,8		■				■		■				

■ **Stock standard**

Subject to change refer to current price- and stock-list

LCMR



Tolerances:
CW = ±0,05
IGL = ±0,08
S = ±0,05
S = ±0,08

Size:
16
30

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1603	3,00	16,98	4,30
1604	4,00	17,09	4,25
1605	5,00	17,75	4,17
1606	6,00	17,98	4,12
3008..-08	8,00	30,06	5,42
3008..-10	10,00	30,05	5,49

LCMR-MP

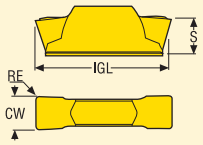


Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCMR-MP														
	LCMR1603M0-0300-MP	1,5	■	■				■		■				
	LCMR1604M0-0400-MP	2,0	■	■				■		■				
	LCMR1605M0-0500-MP	2,5	■	■				■		■				
	LCMR1606M0-0600-MP	3,0	■	■				■		■				
	LCMR3008M0-0800-MP	4,0		■				■		■				
	LCMR3008M0-1000-MP	4,0		■				■						

■ **Stock standard**

Subject to change refer to current price- and stock-list

LCGF



Tolerances:
CW = ±0,025
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S
1603	3,00	16,60	4,25
1604	4,00	16,60	4,25
1605	5,00	17,10	4,15
1606	6,00	17,40	4,20
3008	8,00	29,00	5,55

LCGF-GG



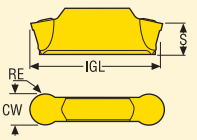
LCGF-GS



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCGF-GG														
	LCGF160302-0300-GG	0,2		■										
	LCGF160402-0400-GG	0,2		■										
	LCGF160502-0500-GG	0,2		■										
	LCGF160604-0600-GG	0,4		■										
	LCGF300804-0800-GG	0,4		■										
LCGF-GS														
	LCGF160302-0300-GS	0,2								■				
	LCGF160402-0400-GS	0,2								■				
	LCGF160502-0500-GS	0,2								■				
	LCGF160604-0600-GS	0,4								■				
	LCGF300804-0800-GS	0,4								■				

■ **Stock standard**
Subject to change refer to current price- and stock-list

LCGF



Tolerances:
CW = ±0,02
IGL = ±0,04
S = ±0,05
S = ±0,08

Size:
16
30

IGL = Distance cutting edge-rear support

Size	Inch version	Dimensions in mm CW	IGL	S
1603		3,00	16,98	4,30
1604		4,00	17,09	4,25
1605		5,00	17,75	4,17
1606		6,00	17,98	4,12
3008..-08		8,00	30,06	5,42
1603	■	3,18	16,64	4,36
1605	■	4,76	17,67	4,17

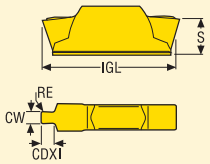
LCGF-RP



Inserts	Designation	RE	Grades: Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25		Uncoated 883	890			
LCGF-RP mm-version	LCGF1603M0-0300-RP	1,5	■							■				
	LCGF1604M0-0400-RP	2,0	■							■				
	LCGF1605M0-0500-RP	2,5	■							■				
	LCGF1606M0-0600-RP	3,0	■							■				
	LCGF3008M0-0800-RP	4,0	■							■				
LCGF-RP inch-version	LCGF160300-0318-RP	1,59	■							■				
	LCGF160500-0476-RP	2,38	■							■				

■ Stock standard
Subject to change refer to current price- and stock-list

LCGN, LCGF – Radial grooves



Tolerances:
CW = ±0,025
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm CW	IGL	S	CDXI
01-0300	3,000	16,600	4,50	–
-0115	1,150	16,600	4,50	1,40
-0135	1,350	16,600	4,50	1,60
-0165	1,650	16,600	4,50	1,85
-0190	1,900	16,600	4,50	2,10
02-0300	3,000	16,600	4,50	–
-0215	2,150	16,600	4,50	2,30
-0265	2,650	16,600	4,50	–
-0320	3,200	16,600	4,50	–
-0340	3,400	16,600	4,50	–
-0400	4,000	16,600	4,50	–
-0420	4,200	16,600	4,50	–
-0440	4,400	16,600	4,50	–
-0500	5,000	17,100	4,50	–
-0520	5,200	17,100	4,50	–
-0600	6,000	17,600	4,50	–
-0635	6,350	17,600	4,50	–

LCGN-FG



LCGF-FG



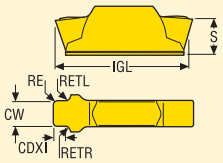
Standard
** =
DIN 471
DIN 472
SMS 1581
SMS 1582

Inserts	For circlip	Designation	RE	Note	Standard	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN-FG											
	1,00	**LCGN160300-0115-FG**	0,0	*	**		■				
	1,20	**LCGN160300-0135-FG**	0,0	*	**		■				
	1,50	**LCGN160301-0165-FG**	0,1	*	**		■				
	1,75	**LCGN160301-0190-FG**	0,1	*	**		■				
	2,00	**LCGN160301-0215-FG**	0,1	*	**		■				
	2,50	**LCGN160302-0265-FG**	0,2		**		■				
	–	**LCGN160302-0300-FG**	0,2		**		■				
	3,00	**LCGN160302-0320-FG**	0,2		**		■				
	–	**LCGN160302-0340-FG**	0,2		**		■				
	–	**LCGN160402-0400-FG**	0,2		**		■				
	4,00	**LCGN160402-0420-FG**	0,2		**		■				
	–	**LCGN160402-0440-FG**	0,2		**		■				
	–	**LCGN160502-0500-FG**	0,2		**		■				
	5,00	**LCGN160502-0520-FG**	0,2		**		■				
	–	**LCGN160602-0600-FG**	0,2		**		■				
	–	**LCGN160602-0635-FG**	0,2		**		■				
LCGF-FG											
	–	**LCGF160301-0300-FG**	0,1				■				

■ **Stock standard**
Subject to change refer to current price- and stock-list

* Toolholders have to be modified

LCGN – O-ring



Tolerances:
CW = ±0,025
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Size	Dimensions in mm					
	CW	IGL	S	RETR	RETL	CDXI
0180-DY	2,400	16,600	4,50	0,3	0,3	1,55
0240-DY	3,300	16,600	4,50	0,3	0,3	2,00
0265-DY	3,600	16,600	4,50	0,3	0,3	2,30
0300-DY	4,100	16,600	4,50	0,3	0,3	2,50
0160-ST	2,400	16,600	4,50	0,3	0,3	1,20
0240-ST	3,200	16,600	4,50	0,3	0,3	1,90
0300-ST	3,800	16,600	4,50	0,3	0,3	2,40
0355-ST	4,800	17,100	4,50	0,3	0,3	2,80

LCGN-DY
O-ring, dynamic



LCGN-ST
O-ring, static



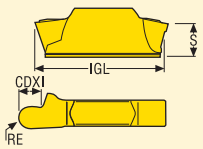
Standard
* =
SMS 1588
BS 4518

** =
ISO 3601
DIN 3771
BS 1806

Inserts	For O-ring mm	For O-ring inch	Standard	Designation	RE	Grades Coated						
						CP200	CP500	CP600	TGH1050	TGK1500	TGP25	
LCGN-DY O-ring, dynamic												
	1,80	0.071	**	LCGN160305-0180-DY	0,50		■					
	2,40	–	*	LCGN160405-0240-DY	0,50		■					
	2,65	0.104	**	LCGN160405-0265-DY	0,50		■					
	3,00	–	*	LCGN160410-0300-DY	1,00		■					
LCGN-ST O-ring, static												
	1,60	–	*	LCGN160305-0160-ST	0,50		■					
	2,40	–	*	LCGN160305-0240-ST	0,50		■					
	3,00	–	*	LCGN160410-0300-ST	1,00		■					
	3,55	0.140	**	LCGN160507-0355-ST	0,75		■					

■ **Stock standard**
Subject to change refer to current price- and stock-list

LCGN – Full radius grooving



Tolerances:
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Right-hand version shown

Size	Dimensions in mm IGL	S	CDXI
-0100	16,600	4,50	2,70
-0120	16,600	4,50	2,70
-0150	16,600	4,50	–
-0200	16,600	4,50	–
-0300	17,600	4,50	–

LCGN-R-R



LCGN-L-R



LCGN-R



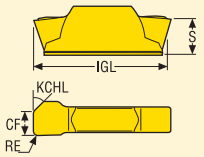
Inserts	For radius mm	Designation	RE	Note	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN-R										
	1,0	LCGN1603M0-0100R-R	1,0	*		■				
	1,2	LCGN1603M0-0120R-R	1,2	*		■				
	1,0	LCGN1603M0-0100L-R	1,0	*		■				
	1,2	LCGN1603M0-0120L-R	1,2	*		■				
	1,5	LCGN1603M0-0150-R	1,5			■				
	2,0	LCGN1604M0-0200-R	2,0			■				
	3,0	LCGN1606M0-0300-R	3,0			■				

■ **Stock standard**

Subject to change refer to current price- and stock-list

* Toolholders have to be modified

LCGN-D76



Tolerances:
IGL = ±0,025
S = ±0,05

IGL = Distance cutting edge-rear support

Right-hand version shown

Size	Dimensions in mm CF	IGL	S
1603	2,2	16,600	4,50
1605	3,2	17,100	4,50
1606	4,6	17,600	4,50

LCGN..R-D76



LCGN..L-D76

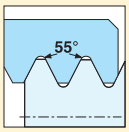


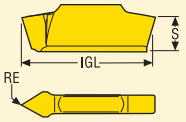
Inserts	For max pitch	Designation	RE	KCHR°	KCHL°	Note	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN-D76												
	1.0	**LCGN160306-0100R-D76**	0,60	0,0	45,0	*		■				
	1.0	**LCGN160306-0100L-D76**	0,60	45,0	0,0	*		■				
	1.5	**LCGN160507-0150R-D76**	0,75	0,0	45,0			■				
	1.5	**LCGN160507-0150L-D76**	0,75	45,0	0,0			■				
	2.0	**LCGN160610-0200R-D76**	1,00	0,0	45,0			■				
	2.0	**LCGN160610-0200L-D76**	1,00	45,0	0,0			■				

■ **Stock standard**
Subject to change refer to current price- and stock-list

* Toolholders have to be modified

LCGN – Partial profile 55°





Tolerances:
IGL = ±0,025
RE = ±0,025

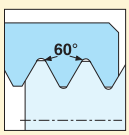
Size	Dimensions in mm IGL	S
-A55	16,600	4,50
-G55	16,600	4,50

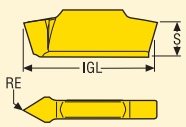
LCGN...-.55



Inserts	Pitch mm	TPI	Designation	RE	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN...-.55										
	0,50-1,50	48-16	LCGN1603-A55	0,08		■				
	1,75-3,00	14-8	LCGN1603-G55	0,18		■				

LCGN – Partial profile 60°





Tolerances:
IGL = ±0,025
RE = ±0,025

Size	Dimensions in mm IGL	S
-A60	16,600	4,50
-G60	16,600	4,50

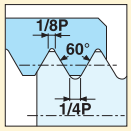
LCGN...-.60

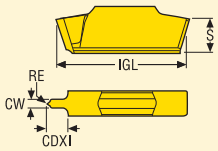


Inserts	Pitch mm	TPI	Designation	RE	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN...-.60										
	0,50-1,50	48-16	LCGN1603-A60	0,08		■				
	1,75-3,00	14-8	LCGN1603-G60	0,18		■				

■ Stock standard
Subject to change refer to current price- and stock-list

LCGN – ISO Metric





Tolerances:
IGL = ±0,025
S = ±0,05

Size	Dimensions in mm CW	IGL	S	CDX
-E0.5	0,75	16,600	4,50	1,90
-E0.8	1,20	16,600	4,50	3,00
-E1.0	1,50	16,600	4,50	3,75
-E1.25	1,88	16,600	4,50	4,20
-E1.5	2,40	16,600	4,50	–

LCGN-ISO

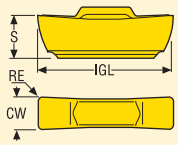


Inserts	Pitch mm	Designation	RE	Note	Grades Coated CP200	CP500	CP600	TGH1050	TGK1500	TGP25
LCGN-ISO										
	0,50	LCGN1603-E0.5ISO	0,07	*		■				
	0,80	LCGN1603-E0.8ISO	0,11	*		■				
	1,00	LCGN1603-E1.0ISO	0,13	*		■				
	1,25	LCGN1603-E1.25ISO	0,17	*		■				
	1,50	LCGN1603-E1.5ISO	0,21			■				

■ Stock standard
Subject to change refer to current price- and stock-list

* Toolholders have to be modified

LCGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

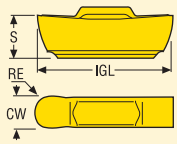
Size	Dimensions in mm CW	IGL	S
1303	3,000	12,33	4,00
1304	4,000	12,33	4,00

LCGN-LF



Inserts	Designation	RE	Grades: Coated CBN170C			Uncoated CBN010	CBN170	CBN200	
LCGN-LF									
	LCGN130304-0300S-LF	0,4						■	
	LCGN1303040300S01025LF	0,4				■			
	LCGN130404-0400S-LF	0,4						■	

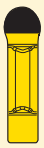
LCGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

Size	Dimensions in mm CW	IGL	S
1303	3,000	12,35	4,00
1304	4,000	12,35	4,00

LCGN... M0-LF

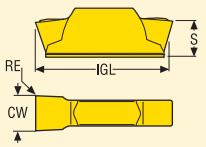


Inserts	Designation	RE	Grades: Coated CBN170C			Uncoated CBN010	CBN170	CBN200	
LCGN...M0-LF									
	LCGN1303M00300S01025LF	1,5				■			
	LCGN1304M00400S01025LF	2,0				■			

■ **Stock standard**
Subject to change refer to current price- and stock-list

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

LCGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

Size	Dimensions in mm CW	IGL	S
1603	3,000	15,90	4,50
1604	4,000	15,90	4,50
1605	5,000	15,90	4,50
1606	6,000	15,90	4,50

LCGN-LF

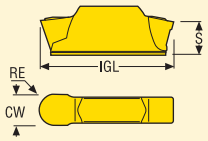


Inserts	Designation	RE	Grades: Coated CBN170C			Uncoated CBN010	CBN170	CBN200	
LCGN-LF									
	LCGN160304-0300E-LF	0,4				■			
	LCGN160304-0300E25-LF	0,4					■		
	LCGN160304-0300S-LF	0,4						■	
	LCGN160304-0300S01025LF	0,4				■			
	LCGN160404-0400E-LF	0,4				■			
	LCGN160404-0400E25-LF	0,4					■		
	LCGN160404-0400S-LF	0,4						■	
	LCGN160404-0400S01025LF	0,4				■			
	LCGN160504-0500S-LF	0,4						■	
	LCGN160504-0500S01025LF	0,4				■			
	LCGN160604-0600S-LF	0,4						■	
	LCGN160604-0600S01025LF	0,4				■			

■ **Stock standard**
Subject to change refer to current price- and stock-list

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

LCGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

Size	Dimensions in mm CW	IGL	S
1603	3,000	16,60	4,40
1603	3,000	16,60	4,39
1604	4,000	16,60	4,35
1605	5,000	17,20	4,30
1606	6,000	17,20	4,20

LCGN...
M0-LF



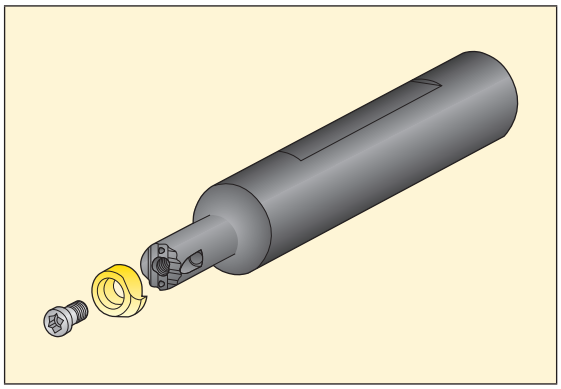
Inserts	Designation	RE	Grades: Coated CBN170C			Uncoated CBN010	CBN170	CBN200	
LCGN...M0-LF									
	LCGN1603M0-0300E25-LF	1,5	■			■	■		
	LCGN1603M0-0300S-LF	1,5						■	
	LCGN1603M0-0300S01025LF	1,5				■			
	LCGN1604M0-0400E25-LF	2,0				■	■		
	LCGN1604M0-0400S-LF	2,0						■	
	LCGN1604M0-0400S01025LF	2,0				■			
	LCGN1605M0-0500E25-LF	2,5	■			■	■		
	LCGN1605M0-0500S-LF	2,5						■	
	LCGN1605M0-0500S01025LF	2,5				■			
	LCGN1606M0-0600E25-LF	3,0				■			
	LCGN1606M0-0600S-LF	3,0						■	
	LCGN1606M0-0600S01025LF	3,0				■			

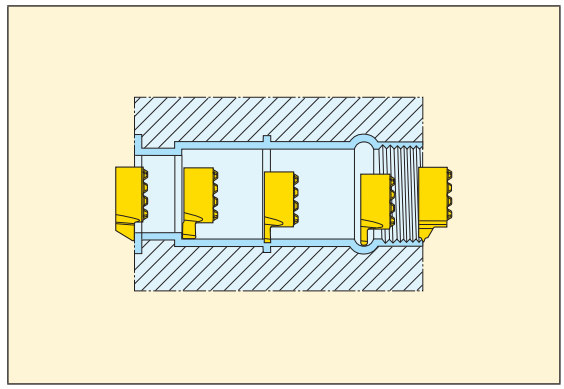
■ **Stock standard**
Subject to change refer to current price- and stock-list

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

General information

Seco Mini-Shaft™ consists of holders and inserts for internal turning, grooving, precision grooving, profiling, backfacing and threading. To be used in holes as small as ∅8 mm (Mini-Shaft™ 08) or 11 mm (Mini-Shaft™ 11).





Seco Mini-Shaft™ features a new type of joint, with a double serration, which makes the connection both stable and secure.
It also gives very good repeatability (±0,02 mm).

All toolholders are used for both R and L -handed inserts, and have through coolant possibility.

Toolholders



A	12	G	-	S	G	X	N	08	-	20	-	R
1	2	3		4	5	6	7	8		9		10

1. Toolholder type

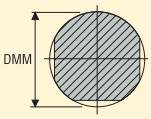
A = Steel with coolant passage

S = Solid steel

E = Solid carbide with brazed* cutting head and coolant passage

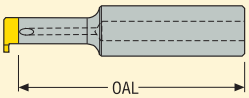
* Brazed or equivalent

2. Shank diameter



12 = 12 mm

3. Tool length

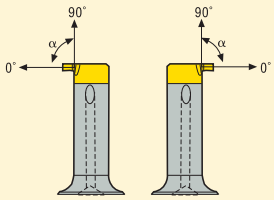


G = 90 mm
H = 100 mm

4. Insert clamping

S = Screw

5. Toolholder setting angle



G = 0°
F = 90°

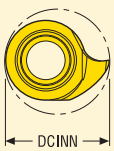
6. Maximum grooving/turning depth

X = Special

7. Version

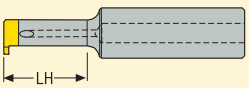
N = Neutral version

8. Insert size



08 = Insert size

9. Extension length

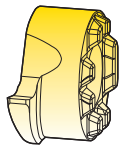


20 = 20 mm

10. Internal designation

R = Round

Inserts, turning and grooving



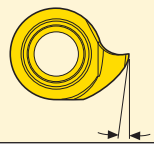
L	C	E	X	08	04	02	-	0150	R	-	FG
1	2	3	4	5	6	7		8	9		10

1. Shape



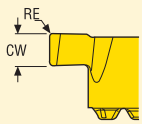
L = Insert shape

2. Front clearance angle



C = 7°

3. Tolerances

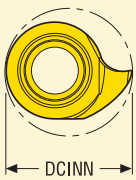


Tolreance-class	Tolerance ± mm	
	CW	RE
E	0,025	0,025

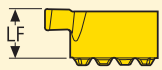
4. Insert type

X = Special

5. Insert size

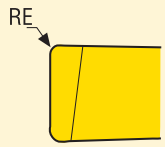


6. Thickness

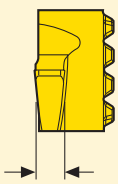


04 = 3,95 mm
05 = 4,85 mm

7. Corner radius



8. Insert width



0075 = 0,75 mm
0080 = 0,80 mm
0090 = 0,90 mm
etc.

9. Version



R

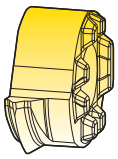


L

10. Insert type code

FG = For lockring
R = Full radius
etc.

Inserts, threading



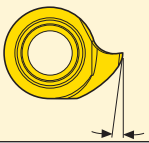
L	C	E	X	11	05	-	1.5	ISO	R
1	2	3	4	5	6		7	8	9

1. Shape



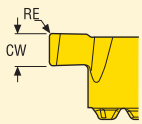
L = Insert shape

2. Front clearance angle



C = 7°

3. Tolerances

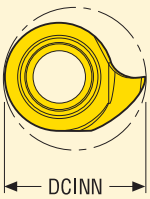


Tolreance-class	Tolerance ± mm	
	CW	RE
E	0,025	0,025

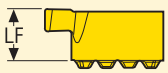
4. Insert type

X = Special

5. Insert size



6. Thickness



04 = 3,95 mm
05 = 4,85 mm

7. Pitch

Full profile (mm)	1.0	1.5	2.0	2.5	3.0
Part profile (mm)	A = 0,50 - 0,75 AG = 0,75 - 1,25 G = 1,25 - 1,75				
Full profile (mm)	14	19			
etc.					

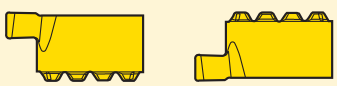
8. Thread profile

Thread =

60 = V profile 60°
ISO = ISO, metric
W = Whitworth, BSW
TR = Trapezoidal, DIN 103

etc.

9. Version



R L

Tool blocks, adapters

Holders should be mounted in standard turrets. Sometimes there is a need for additional set-up devices, such as tool blocks and adapters.

Shown opposite is the Seco solution for bars to be mounted into a turret for standard square shanks 131-.. to be used together with fully cylindrical shanks (-R) and shanks with flats.

Adapters SL16.. to be used with shanks with flats.

Please see page(s) 381.



Collet chucks

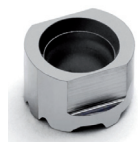
Fully cylindrical shanks (-R) can also be mounted in collet chucks.

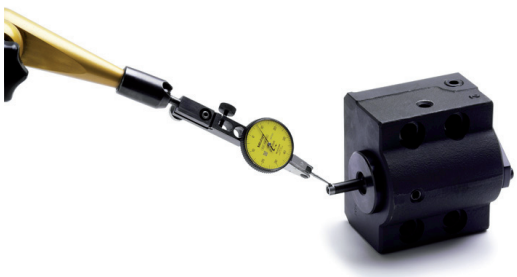
- Use collets or reduction sleeves for hydraulic chucks
- Round shanks combined with collets can prevent vibrations
- Shanks with flats may not be used in collets – as there is a risk of damaging the collet



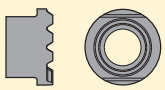
Set-up device for cylindrical shanks

To obtain an accurate centering of the cutting edge use a set-up device.





Accessories

Setting gauge	Part No.	
		
	LCEX 0804-N	■
	1105-N	■

■ Stock standard
Subject to change refer to current price- and stock-list

Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG.

The cutting data tables provide a start value for feed rate (f) and cutting speed (v_c) for the selected cutting width (CW).

The cutting data tables are based on grooving with full cutting width.

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

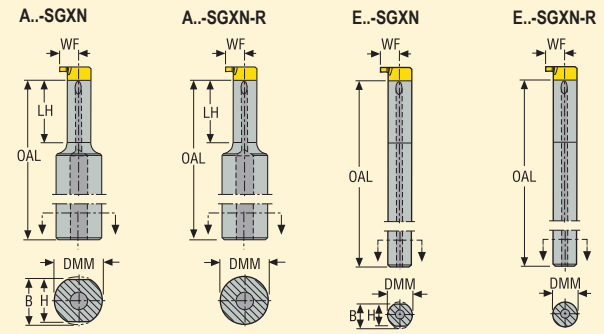
f = feed rate (mm/rev)

SMG		CW = 0,75-3,00	
		f	v_c
P1	CP500	0,022	150
P2	CP500	0,022	150
P3	CP500	0,020	130
P4	CP500	0,020	115
P5	CP500	0,020	110
P6	CP500	0,020	120
P7	CP500	0,020	115
P8	CP500	0,020	110
P11	CP500	0,020	110
P12	CP500	0,014	65
M1	CP500	0,022	90
M2	CP500	0,020	65
M3	CP500	0,016	41
M4	CP500	0,014	27
M5	CP500	0,014	22
K1	CP500	0,022	160
K2	CP500	0,020	130
K3	CP500	0,020	110
K4	CP500	0,020	105
K5	CP500	0,018	65
K6	CP500	0,020	105
K7	CP500	0,018	85
N11	CP500	0,028	95
S1	CP500	0,014	18
S2	CP500	0,014	15
S3	CP500	0,013	13

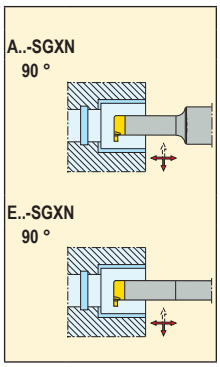
Toolholders for inserts LCEX



• For inserts programme, see page(s) 657-664



Right-hand version shown



	Designation	Dimensions in mm							KG	
		DMM	H	B	OAL	WF	LH	DCINN		
08	A12G-SGXN08-20	12	11,0	11,50	86,5	4,8	16,5	8	0,1	LCEX08..
	A12G-SGXN08-20-R	12	–	–	86,5	4,8	16,5	8	0,1	LCEX08..
11	A16H-SGXN11-25	16	15,0	15,50	96,0	6,7	21,0	11	0,2	LCEX11..
	A16H-SGXN11-25-R	16	–	–	96,0	6,7	21,0	11	0,2	LCEX11..
08	E06G-SGXN08	6	5,5	5,75	86,5	4,8	–	8	0,1	LCEX08..
	E06G-SGXN08-R	6	–	–	86,5	4,8	–	8	0,1	LCEX08..
11	E08H-SGXN11	8	7,3	7,65	96,0	6,7	–	11	0,1	LCEX11..
	E08H-SGXN11-R	8	–	–	96,0	6,7	–	11	0,1	LCEX11..

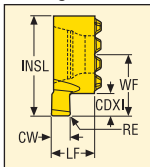
* DCINN – minimum bore diameter, see page(s) 515

Spare Parts, Parts included in delivery

For holder	Insert key	Insert screw
A12G..-	T08P-2	C02506-T08P
A16H-..	T10P-2	C03509-T10P
E06G-..	T08P-2	C02506-T08P
E08H-..	T10P-2	C03509-T10P

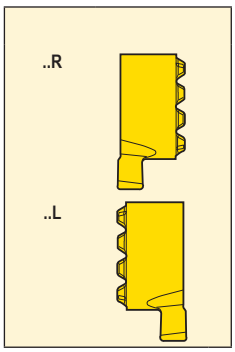
Please check availability in current price and stock-list

Turning



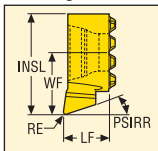
Tolerances:
CW = ±0,02
WF = ±0,01
LF = ±0,02
RE = ±0,02

Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70



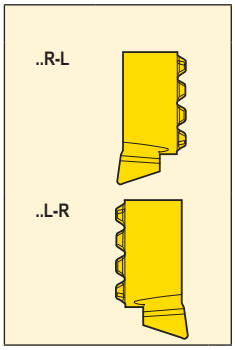
Inserts	Dimensions in mm CW	CDX	LF	RE	Designation	Grades Coated CP500
LCEX						
	2,00	1,70	3,30	0,10	LCEX080401-0200R	■
	2,00	1,70	3,30	0,10	LCEX080401-0200L	■
	1,50	1,70	3,30	0,20	LCEX080402-0150R	■
	1,50	1,70	3,30	0,20	LCEX080402-0150L	■
	2,00	2,60	4,00	0,10	LCEX110501-0200R	■
	2,00	2,60	4,00	0,10	LCEX110501-0200L	■
	1,50	2,60	4,00	0,20	LCEX110502-0150R	■
	1,50	2,60	4,00	0,20	LCEX110502-0150L	■

Profiling



Tolerances:
WF = ±0,01
LF = ±0,02
RE = ±0,02

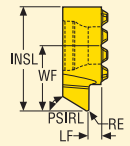
Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70



Inserts	Dimensions in mm LF	RE	PSIRR°	PSIRL°	Designation	Grades Coated CP500
LCEX						
	3,55	0,20	18	0	LCEX080402-0250R-L18	■
	3,55	0,20	0	18	LCEX080402-0250L-R18	■
	3,45	0,20	47	0	LCEX080402-0250R-L47	■
	3,45	0,20	0	47	LCEX080402-0250L-R47	■
	4,25	0,20	18	0	LCEX110502-0270R-L18	■
	4,25	0,20	0	18	LCEX110502-0270L-R18	■
	4,15	0,20	47	0	LCEX110502-0250R-L47	■
	4,15	0,20	0	47	LCEX110502-0250L-R47	■

■ Stock standard
Subject to change refer to current price- and stock-list

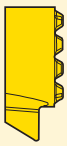
Back facing



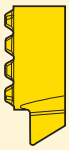
Tolerances:
WF = ±0,01
LF = ±0,02
RE = ±0,02

Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70

..R-R

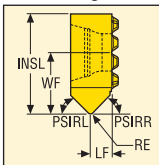


..L-L



Inserts	Dimensions in mm LF	RE	PSIRR°	PSIRL°	Designation	Grades Coated CP500				
LCEX										
	0,75	0,20	0	30	LCEX080402-0250R-R30	■				
	0,75	0,20	30	0	LCEX080402-0250L-L30	■				
	1,25	0,20	0	30	LCEX110502-0270R-R30	■				
	1,25	0,20	30	0	LCEX110502-0270L-L30	■				

Chamfering



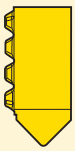
Tolerances:
WF = ±0,01
LF = ±0,05
RE = ±0,02

Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70

..R



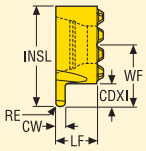
..L



Inserts	Dimensions in mm LF	RE	PSIRR°	PSIRL°	Designation	Grades Coated CP500				
LCEX										
	1,70	0,20	45	45	LCEX080402-0310R-N45	■				
	1,70	0,20	45	45	LCEX080402-0310L-N45	■				
	2,20	0,20	45	45	LCEX110502-0350R-N45	■				
	2,20	0,20	45	45	LCEX110502-0350L-N45	■				

■ Stock standard
Subject to change refer to current price- and stock-list

Full radius grooves



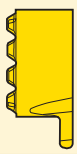
Tolerances:
WF = ±0,01
LF = ±0,02
RE = ±0,02

Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70

..R-R



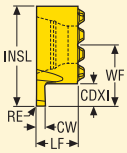
..L-R



Inserts	Dimensions in mm CW	CDX	LF	RE	Designation	Grades Coated CP500
LCEX						
	0,80	1,70	3,30	0,40	LCEX080404-0080R-R	■
	0,80	1,70	3,30	0,40	LCEX080404-0080L-R	■
	1,20	1,70	3,30	0,60	LCEX080406-0120R-R	■
	1,20	1,70	3,30	0,60	LCEX080406-0120L-R	■
	1,80	1,70	3,30	0,90	LCEX080409-0180R-R	■
	1,80	1,70	3,30	0,90	LCEX080409-0180L-R	■
	0,80	2,60	4,00	0,40	LCEX110504-0080R-R	■
	0,80	2,60	4,00	0,40	LCEX110504-0080L-R	■
	1,20	2,60	4,00	0,60	LCEX110506-0120R-R	■
	1,20	2,60	4,00	0,60	LCEX110506-0120L-R	■
	1,80	2,60	4,00	0,90	LCEX110509-0180R-R	■
	1,80	2,60	4,00	0,90	LCEX110509-0180L-R	■
	2,00	2,60	4,00	1,00	LCEX110510-0200R-R	■
	2,00	2,60	4,00	1,00	LCEX110510-0200L-R	■
	3,00	2,60	4,00	1,50	LCEX110515-0300R-R	■
	3,00	2,60	4,00	1,50	LCEX110515-0300L-R	■

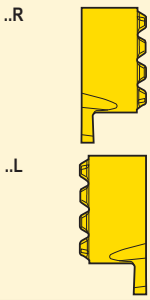
■ Stock standard
Subject to change refer to current price- and stock-list

Circlip grooves



Tolerances:
CW = ±0,02
WF = ±0,01
LF = ±0,02
RE = ±0,02

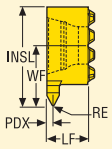
Size	Dimensions in mm INSL	WF
0804	7,78	4,78
1105	10,70	6,70



Inserts	For lock-ring	Dimensions in mm CW	CDX	LF	RE	Designation	Grades Coated CP500
LCEX							
	0,7	0,75	1,70	3,3	0,0	LCEX080400-0075R-FG	■
	0,7	0,75	1,70	3,3	0,0	LCEX080400-0075L-FG	■
	0,8	0,85	1,70	3,3	0,0	LCEX080400-0085R-FG	■
	0,8	0,85	1,70	3,3	0,0	LCEX080400-0085L-FG	■
	0,9	0,95	1,70	3,3	0,0	LCEX080400-0095R-FG	■
	0,9	0,95	1,70	3,3	0,0	LCEX080400-0095L-FG	■
	1,0	1,15	1,70	3,3	0,0	LCEX080400-0115R-FG	■
	1,0	1,15	1,70	3,3	0,0	LCEX080400-0115L-FG	■
	1,2	1,35	1,70	3,3	0,0	LCEX080400-0135R-FG	■
	1,2	1,35	1,70	3,3	0,0	LCEX080400-0135L-FG	■
	1,5	1,65	1,70	3,3	0,1	LCEX080401-0165R-FG	■
	1,5	1,65	1,70	3,3	0,1	LCEX080401-0165L-FG	■
	0,7	0,75	2,60	4,0	0,0	LCEX110500-0075R-FG	■
	0,7	0,75	2,60	4,0	0,0	LCEX110500-0075L-FG	■
	0,8	0,85	2,60	4,0	0,0	LCEX110500-0085R-FG	■
	0,8	0,85	2,60	4,0	0,0	LCEX110500-0085L-FG	■
	0,9	0,95	2,60	4,0	0,0	LCEX110500-0095R-FG	■
	0,9	0,95	2,60	4,0	0,0	LCEX110500-0095L-FG	■
	1,0	1,15	2,60	4,0	0,0	LCEX110500-0115R-FG	■
	1,0	1,15	2,60	4,0	0,0	LCEX110500-0115L-FG	■
	1,2	1,35	2,60	4,0	0,0	LCEX110500-0135R-FG	■
	1,2	1,35	2,60	4,0	0,0	LCEX110500-0135L-FG	■
	1,5	1,65	2,60	4,0	0,1	LCEX110501-0165R-FG	■
	1,5	1,65	2,60	4,0	0,1	LCEX110501-0165L-FG	■

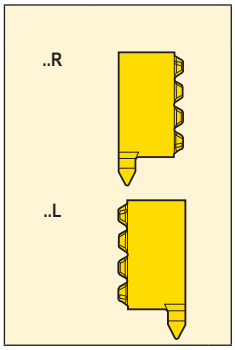
■ Stock standard
Subject to change refer to current price- and stock-list

Threading – Partial profile 60°



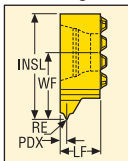
Tolerances:
WF = ±0,01
LF = ±0,05

Size	Dimensions in mm WF	LF	INSL
0804	4,78	3,30	7,78
1105	6,70	4,00	10,70



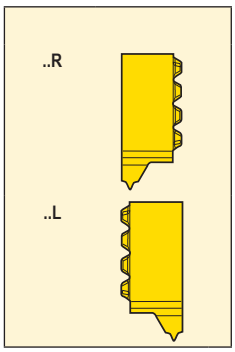
Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500				
LCEX										
	0,50-0,75	36-48	0,48	0,03	LCEX0804-A60R	■				
	0,50-0,75	36-48	0,48	0,03	LCEX0804-A60L	■				
	0,75-1,25	20-36	0,73	0,07	LCEX0804-AG60R	■				
	0,75-1,25	20-36	0,73	0,07	LCEX0804-AG60L	■				
	1,25-1,75	16-20	0,98	0,12	LCEX0804-G60R	■				
	1,25-1,75	16-20	0,98	0,12	LCEX0804-G60L	■				
	0,50-0,75	36-48	0,48	0,03	LCEX1105-A60R	■				
	0,50-0,75	36-48	0,48	0,03	LCEX1105-A60L	■				
	0,75-1,25	20-36	0,73	0,07	LCEX1105-AG60R	■				
	0,75-1,25	20-36	0,73	0,07	LCEX1105-AG60L	■				
	1,25-1,75	20-16	0,98	0,12	LCEX1105-G60R	■				
	1,25-1,75	16-20	0,98	0,12	LCEX1105-G60L	■				

Threading – ISO Metric



Tolerances:
WF = ±0,01
LF = ±0,05

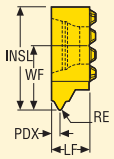
Size	Dimensions in mm WF	LF	INSL
1105	6,70	4,00	10,70



Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500				
LCEX										
	1,0	–	0,60	0,07	LCEX1105-1.0ISOR	■				
	1,0	–	0,60	0,07	LCEX1105-1.0ISOL	■				
	1,5	–	0,80	0,12	LCEX1105-1.5ISOR	■				
	1,5	–	0,80	0,12	LCEX1105-1.5ISOL	■				
	2,0	–	1,10	0,17	LCEX1105-2.0ISOR	■				
	2,0	–	1,10	0,17	LCEX1105-2.0ISOL	■				
	2,5	–	1,35	0,18	LCEX1105-2.5ISOR	■				
	2,5	–	1,35	0,18	LCEX1105-2.5ISOL	■				
	3,0	–	1,60	0,21	LCEX1105-3.0ISOR	■				
	3,0	–	1,60	0,21	LCEX1105-3.0ISOL	■				

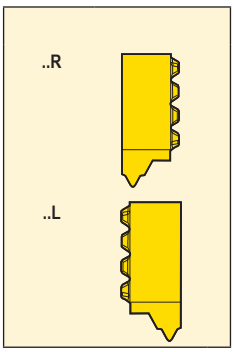
■ Stock standard
Subject to change refer to current price- and stock-list

Threading – Whitworth, BSW



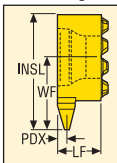
Tolerances:
WF = ±0,01
LF = ±0,05

Size	Dimensions in mm WF	LF	INSL
1105	6,70	4,00	10,70



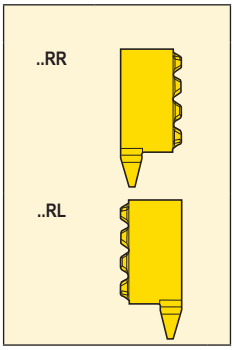
Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500
LCEX						
	–	14	1,00	0,24	LCEX1105-14WR	■
	–	14	1,00	0,24	LCEX1105-14WL	■
	–	19	0,77	0,15	LCEX1105-19WR	■
	–	19	0,77	0,15	LCEX1105-19WL	■

Threading – TR-DIN103



Tolerances:
WF = ±0,01
LF = ±0,05

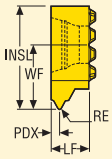
Size	Dimensions in mm WF	LF	INSL
1105	6,70	4,00	10,70



Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500
LCEX						
	1,5	–	0,80	0,10	LCEX1105-1.5TRR	■
	1,5	–	0,80	0,10	LCEX1105-1.5TRL	■
	2,0	–	1,10	0,15	LCEX1105-2.0TRR	■
	2,0	–	1,10	0,15	LCEX1105-2.0TRL	■
	3,0	–	1,60	0,15	LCEX1105-3.0TRR	■
	3,0	–	1,60	0,15	LCEX1105-3.0TRL	■

■ Stock standard
Subject to change refer to current price- and stock-list

Threading – UN



Tolerances:
WF = ±0,01
LF = ±0,05

Size	Dimensions in mm WF	LF	INSL
0804	4,78	3,30	7,78

..R



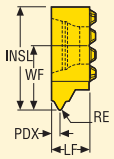
..L



Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500
LCEX	–	32	0,5	0,04	LCEX0804-32UNR	■
	–	32	0,5	0,04	LCEX0804-32UNL	■
	–	24	0,6	0,07	LCEX0804-24UNR	■
	–	24	0,6	0,07	LCEX0804-24UNL	■
	–	20	0,7	0,09	LCEX0804-20UNR	■
	–	20	0,7	0,09	LCEX0804-20UNL	■
	–	16	0,9	0,13	LCEX0804-16UNR	■
	–	16	0,9	0,13	LCEX0804-16UNL	■

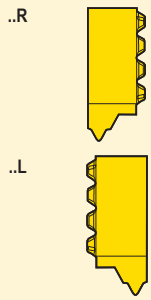
■ Stock standard
Subject to change refer to current price- and stock-list

Threading – NPT



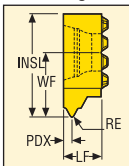
Tolerances:
WF = ±0,01
LF = ±0,05

Size	Dimensions in mm WF	LF	INSL
0804	4,78	3,30	7,78



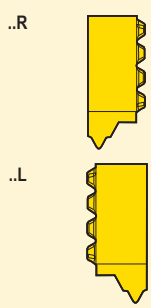
Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500				
LCEX										
	–	27	0,57	0,03	LCEX0804-27NPTR	■				
	–	27	0,57	0,03	LCEX0804-27NPTL	■				

Threading – NPTF



Tolerances:
WF = ±0,01
LF = ±0,05

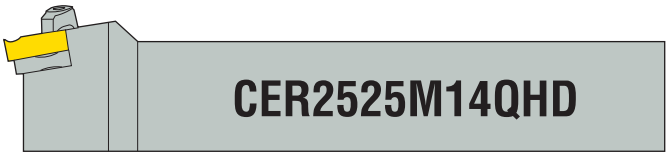
Size	Dimensions in mm WF	LF	INSL
0804	4,78	3,30	7,78



Inserts	Pitch mm	TPI	Dimensions in mm PDX	RE	Designation	Grades Coated CP500				
LCEX										
	–	27	0,57	0,04	LCEX0804-27NPTFR	■				
	–	27	0,57	0,04	LCEX0804-27NPTFL	■				

■ Stock standard
Subject to change refer to current price- and stock-list

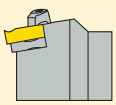
Toolholders



C	E	R	25	25	M	14	Q	HD
1	2	3	4	5	6	7	8	9

1. Insert clamping

C



Clamp

2. External/Internal

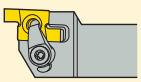
E = External

N = Internal

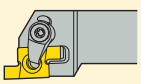
EA = External axial

3. Version

L

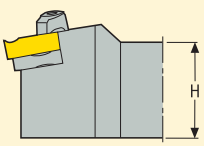


R



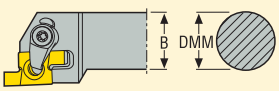
X = Special

4. Shank height



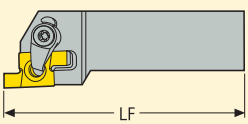
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

5. Shank width/diameter



12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

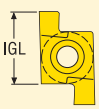
6. Tool length



H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

7. Cutting edge length



If the cutting edge length consists of only one digit, the designation should start with a 0.

Example:

Cutting edge length = 9,525 mm
Symbol = 09

8. Other information

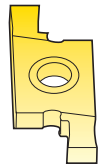
A = Steel with coolant passage
D = Holder for deep grooving
Q = Toolholder/cranked

9. Internal designation

HD = Heavy Duty

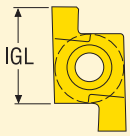
Inserts





14	E	R	3.4	FG
1	2	3	4	5

1. Cutting edge length



If the cutting edge length consists of only one digit, the designation should start with a 0.

Example:

Cutting edge length	= 9,525 mm
Symbol	= 09

2. External/Internal

E = External

N = Internal

EA = External axial

3. Version

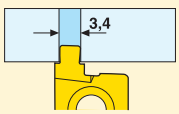
L



R



4. Groove width



Example:
3.4 = 3,4 mm

5. Standard grooves

FG = For radial grooves (CW x 1)

FD = For radial deep grooves (CW x 2)

D76 = For thread undercuts

R = For radius

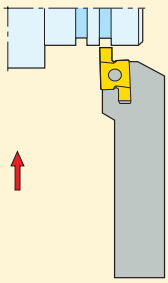
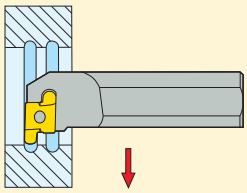
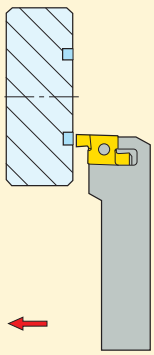
ST = For static O-rings

DY = For dynamic O-rings

AX = For axial O-rings

FA = For axial grooves (CW x 1)

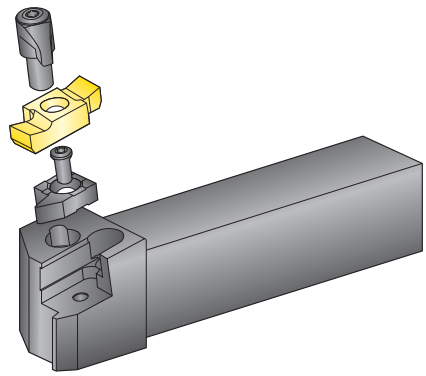
Grooving – Precision grooves, depth/width ratio 1:1 (2:1)

Radial external	Radial internal	Axial
		

Toolholders

The toolholder system is based on the Snap Tap threading system. The toolholders have replaceable shims designed to protect the insert seat.

The system is intended for radial external and internal grooving and for axial grooving. The system enables axial grooves from 16 mm outside diameter and internal radial grooves down to 13 mm diameter to be turned.

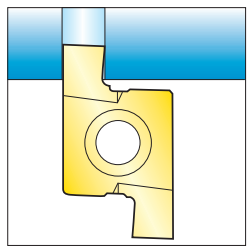


Inserts

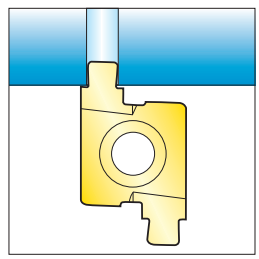
The range of grooving inserts includes inserts for most groove profiles, such as circlip profiles, O-ring profiles, thread undercut and radius grooves. The range of grooving inserts can be used for grooves with a depth/width ratio of up to 1:1.

Inserts with designation FD can be used for grooves with a depth/width ratio of up to 2:1.

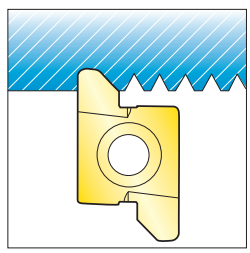
Lockring



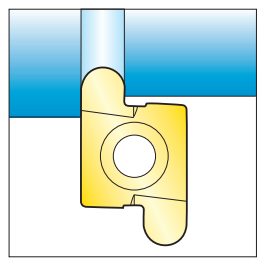
O-ring



Thread undercut



Radius



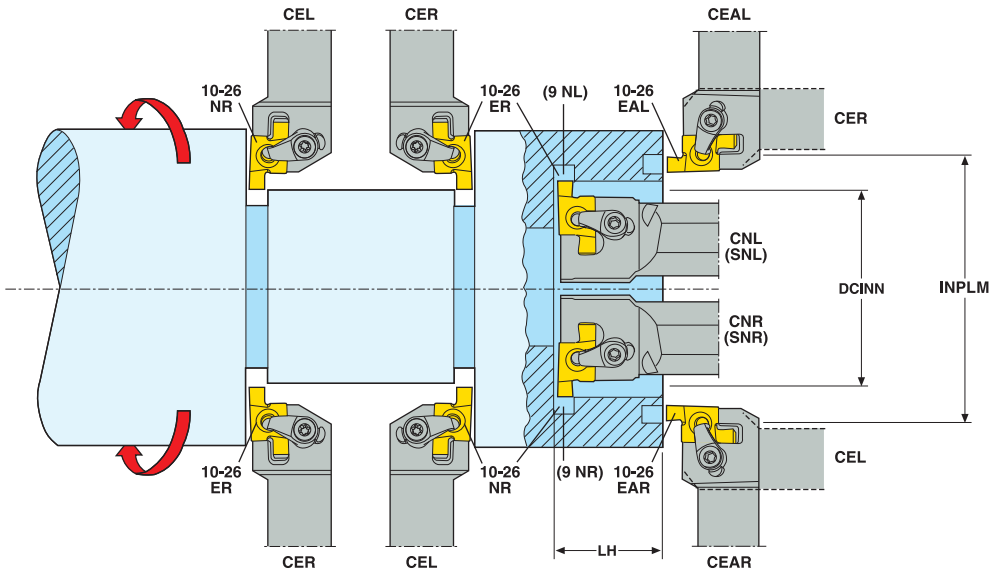
Grades

Grades	P						M					K					N				S				H			
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
CP30																												
CP500																												

CP30
Wear resistant CVD-coated grade intended for grooving in a variety of workpiece materials. Provides good wear resistance and cutting speed capability in steel and cast iron.

CP500
Tough versatile PVD-coated micrograin grade intended for grooving in a variety of workpiece materials. Universal choice.

Ordering specification for custom made K-inserts



Internal grooving:

When considering operation NR and NL illustrated above (holder CNR and CNL), always state the diameter of the hole as well as the axial position of the groove = LH. In the case of small hole diameters, however, use holder SNR and SNL with insert 9NR and 9NL respectively.

Axial grooving:

With operation type EAR and EAL (holder CEAR and CEAL) the outer dimension of the groove (INPLM) must be stated.

Set-up machining recommendations

Set-up

- The mounting should be stable.
- The tool should be securely clamped and the overhang should be as small as possible.
- The centre height should never deviate by more than ±0,1 mm from the workpiece centre.

Internal grooving

- Decisive factors for ensuring vibration-free machining are the relationship between the toolholder overhang and its diameter, and the width of the grooving insert.
- In unfavourable circumstances, the cutting speed and feed rate should be reduced below the recommended values.

Grooving of radius grooves and grooves with trapezoidal cross-section

- In this type of grooving, different forms of chip problems often occur. The feed rate should therefore be reduced to obtain thin chips and avoid chip build-up and insert fracture.

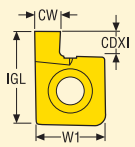
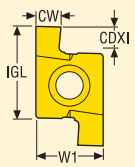
Formulae for cutting data calculation are found in page(s) 57.

Special inserts for precision grooves

- Ground to specification using the insert blanks shown.
- Blanks available for grade CP30 and CP500.
- Please contact your local representative for price and delivery.

Tolerances for different groove profiles:

Tolerances		
CDXI	CW	RE
±0,025	±0,025	±0,03

Inserts	Dimensions				Shim	Inserts
	IGL	W1	CW	CDXI	Standard KX	
	9,0	6,350	2,7	2,70	–	9NR/NL
	9,0	6,350	2,7	2,70	KX10	10ER/NR 10EAR/EAL
	12,0	6,350	2,7	5,65	KX12	12ER/NR 12EAR/EAL
	14,0	9,525	4,2	4,40	KX14	14ER/NR 14EAR/EAL
	20,0	12,700	6,3	7,30	KX20	20ER/NR 20EAR/EAL
	26,0	15,875	10,0	10,10	KX26	26ER/NR 26EAR/EAL

Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG

The cutting data tables provide a start value for feed rate (f) and cutting speed (v_c) for the selected cutting width (CW).

The cutting data tables are based on grooving with full cutting width.

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

CP30

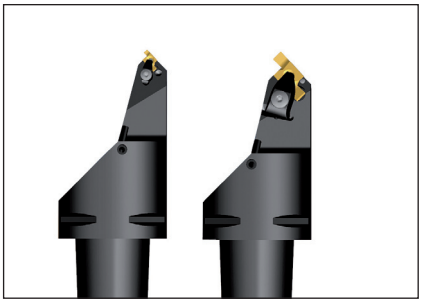
SMG		CW = 0,5-2,0		CW = 2,0-4,0		CW = 4,0-6,0		CW = 6,0-8,0		CW = 8,0-10,0	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	CP30	0,095	195	0,15	165	0,17	160	0,20	150	0,22	140
P2	CP30	0,10	190	0,16	160	0,17	155	0,20	145	0,22	140
P3	CP30	0,095	165	0,15	140	0,17	135	0,19	125	0,20	125
P4	CP30	0,090	145	0,14	125	0,16	120	0,19	110	0,20	110
P5	CP30	0,090	140	0,14	120	0,16	115	0,18	110	0,20	105
P6	CP30	0,090	160	0,14	135	0,16	130	0,18	120	0,20	115
P7	CP30	0,090	150	0,14	125	0,16	120	0,18	115	0,20	110
P8	CP30	0,095	140	0,15	115	0,17	110	0,19	105	0,20	105
P11	CP30	0,090	145	0,14	125	0,16	115	0,18	110	0,20	105
P12	CP30	0,060	95	0,095	85	0,11	80	0,12	75	0,14	70
M1	CP30	0,10	220	0,16	165	0,17	155	0,20	135	0,22	120
M2	CP30	0,090	185	0,14	145	0,16	130	0,18	120	0,20	105
M3	CP30	0,070	150	0,11	130	0,13	115	0,15	105	0,16	100
M4	CP30	0,065	115	0,10	100	0,11	95	0,13	85	0,14	80
M5	CP30	0,065	95	0,10	85	0,11	80	0,13	70	0,14	70

CP500

SMG		CW = 0,5-2,0		CW = 2,0-4,0		CW = 4,0-6,0		CW = 6,0-8,0		CW = 8,0-10,0	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	CP500	0,095	150	0,15	125	0,17	120	0,20	115	0,22	110
P2	CP500	0,10	145	0,16	120	0,17	120	0,20	110	0,22	105
P3	CP500	0,095	125	0,15	105	0,17	100	0,19	95	0,20	95
P4	CP500	0,090	115	0,14	95	0,16	90	0,19	85	0,20	85
P5	CP500	0,090	105	0,14	90	0,16	85	0,18	85	0,20	80
P6	CP500	0,090	120	0,14	105	0,16	100	0,18	95	0,20	90
P7	CP500	0,090	115	0,14	95	0,16	90	0,18	90	0,20	85
P8	CP500	0,095	105	0,15	90	0,17	85	0,19	80	0,20	80
P11	CP500	0,090	110	0,14	95	0,16	90	0,18	85	0,20	80
P12	CP500	0,060	75	0,095	65	0,11	60	0,12	60	0,14	55
M1	CP500	0,10	170	0,16	125	0,17	120	0,20	100	0,22	95
M2	CP500	0,090	140	0,14	110	0,16	100	0,18	90	0,20	80
M3	CP500	0,070	115	0,11	100	0,13	90	0,15	80	0,16	75
M4	CP500	0,065	85	0,10	75	0,11	75	0,13	65	0,14	65
M5	CP500	0,065	70	0,10	65	0,11	60	0,13	55	0,14	50
K1	CP500	0,10	130	0,16	110	0,17	105	0,20	100	0,22	95
K2	CP500	0,090	115	0,14	95	0,16	90	0,18	85	0,20	80
K3	CP500	0,090	100	0,14	80	0,16	75	0,18	70	0,20	65
K4	CP500	0,090	95	0,14	75	0,16	70	0,18	65	0,20	65
K5	CP500	0,080	60	0,13	47	0,14	45	0,16	42	0,18	40
K6	CP500	0,090	85	0,14	70	0,16	65	0,18	65	0,20	60
K7	CP500	0,080	75	0,13	60	0,14	60	0,16	55	0,18	50
N11	CP500	0,13	90	0,20	75	0,22	70	0,26	65	0,28	65
S1	CP500	0,065	18	0,10	16	0,11	15	0,13	15	0,14	14
S2	CP500	0,065	16	0,10	14	0,11	13	0,13	13	0,14	12
S3	CP500	0,060	14	0,090	12	0,10	12	0,12	11	0,13	11

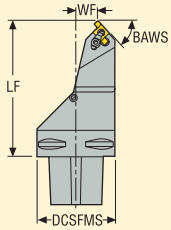
Toolholders for Shallow Grooves

Snap-Tap

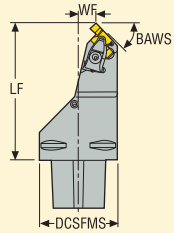


• For inserts programme, see page(s) 681, 683-686, 688

CEL

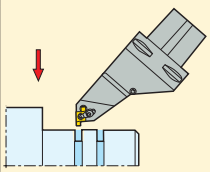


CERL-..HD

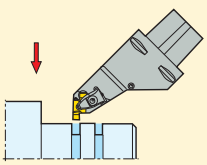


Left-hand version shown
BAWS = 45°

C.-CEL



C.-CEL-HD



Capto size		Designation	Dimensions in mm DCSFMS	WF	LF	KG	
C6							
	10/12	C6-CEL-20110-10	63	20,0	110,0	1,6	10../ 12..
	14	C6-CEL-18110-14	63	18,0	110,0	1,7	14..
	20	C6-CEL-14110-20HD	63	14,0	110,0	1,7	20..
	26	C6-CEL-07110-26HD	63	7,0	110,0	1,7	26..

Spare Parts, Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
-10	–	T15P-2	CSP16-T15P	–	CN8	KX10-2	CS2507-T07P	–
-14	–	T15P-2	CSP16-T15P	–	CN8	KX14-2	CS3507-T09P	–
-20HD	CHD22	T20P-7	–	L86025-T20P	CN8	KX20-2	CS4009-T15P	S7616
-26HD	CHD27	T20P-7	–	L86025-T20P	CN8	KX26-2	C05012-T15P	S7616

Accessories, to be ordered separately

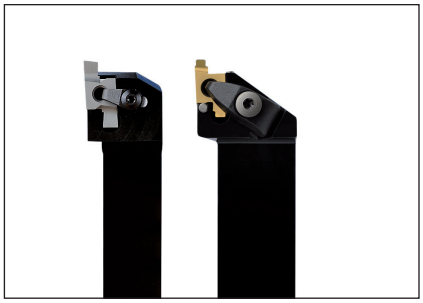
For holder	Shim key	Insert shim (K)						
-10	T07P-2	KX10-0	KX10-1	KX10-3	KX10-4	KX10-5	KX10-99	KX12-2*
-14	T09P-2	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	–	–
-20HD	T15P-2	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	KX20-99	–
-26HD	T15P-2	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	KX26-99	–

Please check availability in current price and stock-list

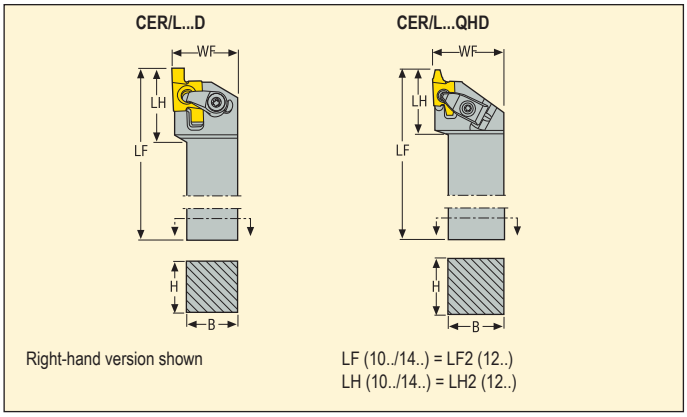
* Shim KX12-2 for insert 12..

Toolholders for Precision Grooves

Snap-Tap



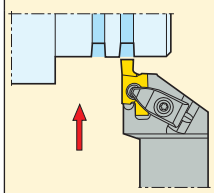
• For inserts programme, see page(s) 681, 683-686, 688



Right-hand version shown

LF (10../14..) = LF2 (12..)
LH (10../14..) = LH2 (12..)

CER/L...D/QHD



	Designation	Dimensions in mm H	B	LF 10../14..	LF2 12..	WF	LH 10../14..	LH2 12..	KG	
10/12	CER1212M10D	12	12	150	153	16	21,5	24,5	0,2	10../ 12..
	CER1616H10D	16	16	100	103	16	21,5	24,5	0,2	10../ 12..
	CER2020K10D	20	20	125	128	25	21,5	24,5	0,4	10../ 12..
	CER2525M10D	25	25	150	153	32	21,5	24,5	0,8	10../ 12..
	CER3225P10D	32	25	170	173	32	22,5	25,5	1,1	10../ 12..
	CEL1212M10D	12	12	150	153	16	21,5	24,5	0,2	10../ 12..
	CEL1616H10D	16	16	100	103	16	21,5	24,5	0,2	10../ 12..
	CEL2020K10D	20	20	125	128	25	21,5	24,5	0,4	10../ 12..
	CEL2525M10D	25	25	150	153	32	21,5	24,5	0,8	10../ 12..
	CEL3225P10D	32	25	170	173	32	22,5	25,5	1,1	10../ 12..
14	CER2525M14QHD	25	25	150	–	32	26,0	–	0,8	14..
	CER3225P14QHD	32	25	170	–	32	26,0	–	1,1	14..
	CER3232P14QHD	32	32	170	–	32	26,0	–	1,4	14..
	CEL2525M14QHD	25	25	150	–	32	26,0	–	0,8	14..

Spare Parts, Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
..10D	–	T15P-2	CSP16-T15P	–	KX10-2	CS2507-T07P	–
..14QHD	CHD16	T15P-2	–	L85020-T15P	KX14-2	CS3507-T09P	S6912

Accessories, to be ordered separately

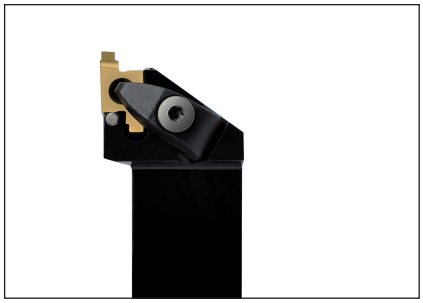
For holder	Shim key	Insert shim (K)				
..10D	T07P-2	KX12-2*	–	–	–	–
..14QHD	T09P-2	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5

Please check availability in current price and stock-list

* Shim KX12-2 for insert 12..

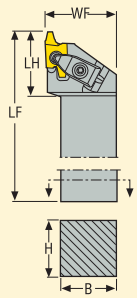
Toolholders for Precision Grooves

Snap-Tap



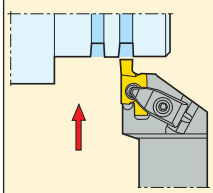
- For inserts programme, see page(s) 681, 683-686, 688

CER/L...QHD



Right-hand version shown

CER/L...QHD



	Designation	Dimensions in mm H	B	LF	WF	LH	KG	
20	CER2525M20QHD	25	25	150	32	34	0,8	20..
	CER3225P20QHD	32	25	170	32	34	1,1	20..
	CER3232P20QHD	32	32	170	40	34	1,4	20..
	CEL2525M20QHD	25	25	150	32	34	0,8	20..
	CEL3225P20QHD	32	25	170	32	34	1,1	20..
	CEL3232P20QHD	32	32	170	40	34	1,4	20..
26	CER2525M26QHD	25	25	150	40	44	0,9	26..
	CER3225P26QHD	32	25	170	40	44	1,2	26..
	CER3232P26QHD	32	32	170	40	44	1,4	26..
	CEL2525M26QHD	25	25	150	40	44	0,9	26..
	CEL3225P26QHD	32	25	170	40	44	1,2	26..
	CEL3232P26QHD	32	32	170	40	44	1,4	26..

Spare Parts, Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
...20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
...26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories, to be ordered separately

For holder	Shim key	Insert shim (K)					
...20	T15P-2	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	KX20-99
...26	T15P-2	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	KX26-99

Please check availability in current price and stock-list

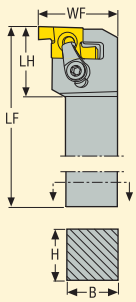
Toolholders for Precision Axial Grooves

Snap-Tap



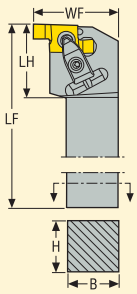
• For inserts programme, see page(s) 682, 687

CEAR/L...D



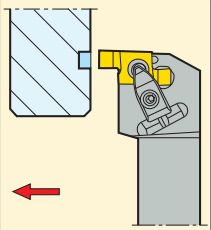
Right-hand version shown

CEAR/L...HD/QHD



WF (10../14../20..) = WF2 (12..)

CEAR/L..D/HD/QHD



d	Designation	Dimensions in mm H	B	LF	WF 10../14../20..	WF2 12..	LH	INPLM* 10../14../20..	INPLM* 12..	KG	
10/12	CEAR2525M10D	25	25	150	35,4	38,4	22	16	18,0	0,8	10../ 12..
	CEAL2525M10D	25	25	150	35,4	38,4	22	16	18,0	0,8	10../ 12..
14	CEAR2525M14HD	25	25	150	36,9	–	31	22	–	0,8	14..
	CEAL2525M14HD	25	25	150	36,9	–	31	22	–	0,8	14..
20	CEAR2525M20QHD	25	25	150	39,4	–	35	28	–	0,9	20..
	CEAL2525M20QHD	25	25	150	39,4	–	35	28	–	0,9	20..

* For INPLM, see page(s) 669

Spare Parts, Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (KL)	Insert shim (KR)	Shim screw	Spring
CEAR..10	–	T15P-2	CSP16-T15P	–	–	AKR10	CS2507-T07P	–
CEAL..10	–	T15P-2	CSP16-T15P	–	AKL10	–	CS2507-T07P	–
CEAR..14	CHD16	T15P-2	–	L85020-T15P	–	AKR14	CS3507-T09P	S6912
CEAL..14	CHD16	T15P-2	–	L85020-T15P	AKL14	–	CS3507-T09P	S6912
CEAR..20	CHD22	T20P-7	–	L86025-T20P	–	AKR20	CS4009-T15P	S7616
CEAL..20	CHD22	T20P-7	–	L86025-T20P	AKL20	–	CS4009-T15P	S7616

Accessories*

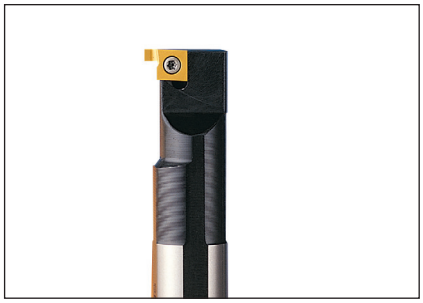
Insert shim	Shim key
KX12-2**	T07P-2
KX12-2**	T07P-2
–	T09P-2
–	T09P-2
–	T15P-2
–	T15P-2

Please check availability in current price and stock-list

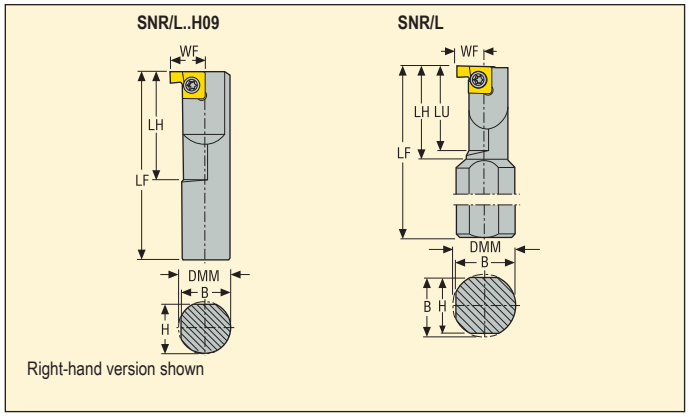
* To be ordered separately
** Shim KX12-2 for insert 12..

Toolholders for Precision Grooves

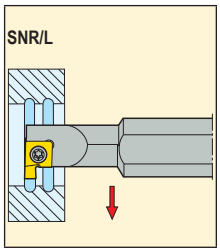
Snap-Tap



- For inserts programme, see page(s) 680



Right-hand version shown



	Designation	Dimensions in mm								KG	
		DMM	H	B	LF	WF	LH	LU	DCINN*		
09	SNR0010H9	10	9,5	9,5	100	7,5	20	–	14	0,1	9..
	SNR0010K9	16	15,5	15,5	125	6,5	25	23	14	0,2	9..
	SNR0013L9	16	15,5	15,5	140	8,0	32	30	17	0,2	9..
	SNR0016M9	16	15,5	15,5	150	9,5	40	38	20	0,3	9..
	SNL0010H9	10	9,5	9,5	100	7,5	20	–	14	0,1	9..
	SNL0010K9	16	15,5	15,5	125	6,5	25	23	14	0,2	9..
	SNL0013L9	16	15,5	15,5	140	8,0	32	30	17	0,2	9..
	SNL0016M9	16	15,5	15,5	150	9,5	40	38	20	0,3	9..

* DCINN – minimum bore diameter, see page(s) 669

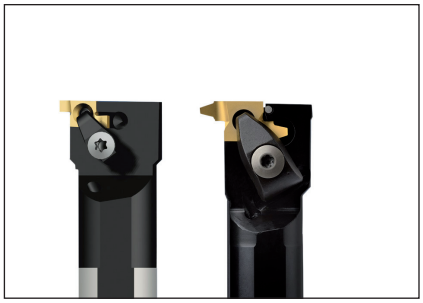
Spare Parts, Parts included in delivery

For holder	Insert key	Insert screw
..09	T07P-2	C02506-T07P

Please check availability in current price and stock-list

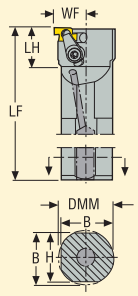
Toolholders for Precision Grooves

Snap-Tap



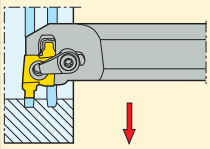
• For inserts programme, see page(s) 681, 683-686, 688

CNR/L...A/DA



Right-hand version shown
WF (10../14../20../26..) = WF2 (12..)

CNR/L...DA/A



d	Designation	Dimensions in mm DMM	H	B	LF	WF	WF2 12..	LH	DCINN*	DCINN2	KG	
10/12	CNR0020P10DA	20	18	19	170	13,5	16,5	26	26	29	0,4	10../12..
	CNR0025R10DA	25	23	24	200	16,0	19,0	28	31	34	0,7	10../12..
	CNR0032S10DA	32	30	31	250	19,5	22,5	31	38	41	1,4	10../12..
	CNL0020P10DA	20	18	19	170	13,5	16,5	26	26	29	0,4	10../12..
	CNL0025R10DA	25	23	24	200	16,0	19,0	28	31	34	0,7	10../12..
	CNL0032S10DA	32	30	31	250	19,5	22,5	31	38	41	1,4	10../12..
14	CNR0020P14A	20	18	19	170	15,0	–	32	30	–	0,4	14..
	CNR0025R14A	25	23	24	200	17,5	–	45	34	–	0,7	14..
	CNR0032S14A	32	30	31	250	21,0	–	48	40	–	1,4	14..
	CNR0040T14A	40	37	39	300	25,0	–	50	48	–	2,6	14..
	CNL0020P14A	20	18	19	170	15,0	–	32	30	–	0,4	14..
	CNL0025R14A	25	23	24	200	17,5	–	45	34	–	0,7	14..
	CNL0032S14A	32	30	31	250	21,0	–	48	40	–	1,4	14..

* DCINN – minimum bore diameter, see page(s) 669

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp kit	Insert shim (K)	Shim screw
..10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

Please check availability in current price and stock-list

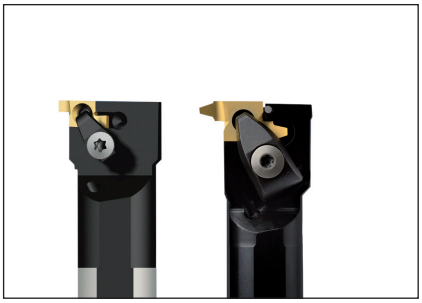
Accessories*

Insert shim	Shim key
KX12-2**	T07P-2
–	T09P-2

* To be ordered separately
** Shim KX12-2 for insert 12..

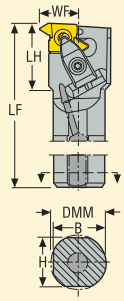
Toolholders for Precision Grooves

Snap-Tap



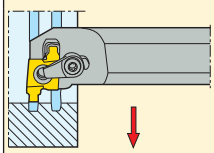
- For inserts programme, see page(s) 681, 683-686, 688

CNR/L...AHD



Right-hand version shown

CNR/L...AHD



	Designation	Dimensions in mm								KG	
		DMM	H	B	LF	WF	LH	DCINN*	DCINN2		
20	CNR0025R20AHD	25	23	24,0	200	20,5	50	38	–	0,7	20..
	CNR0032S20AHD	32	30	31,0	250	24,0	50	44	38	1,5	20..
	CNR0040T20AHD	40	37	38,5	300	28,0	50	51	40	2,6	20..
	CNL0025R20AHD	25	23	24,0	200	20,5	50	38	–	0,7	20..
	CNL0032S20AHD	32	30	31,0	250	24,0	50	44	38	1,4	20..
26	CNR0032S26AHD	32	30	31,0	250	27,0	61	50	50	1,5	26..
	CNR0040T26AHD	40	37	38,5	300	31,0	60	55	50	2,6	26..
	CNR0050U26AHD	50	47	48,5	350	36,0	62	65	–	4,8	26..
	CNR0063V26AHD	63	60	61,5	400	42,5	64	80	63	8,9	26..
	CNL0040T26AHD	40	37	38,5	300	31,0	60	55	50	2,6	26..

* DCINN – minimum bore diameter, see page(s) 669

Spare Parts, Parts included in delivery

For holder	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
...20AHD	CHD22	T20P-7L	L86025-T20P	KX20-2	CS4009-T15P	S7616
...26AHD	CHD27	T20P-7L	L86025-T20P	KX26-2	C05012-T15P	S7616

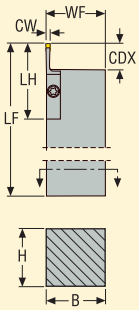
Accessories, to be ordered separately

For holder	Shim key	Insert shim (K)					
..20	T15P-2	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	KX20-99
..32/40/63..26	T15P-2	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	KX26-99
..50..26	T15P-2	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	–

Please check availability in current price and stock-list

Toolholders for ceramic inserts LPGN

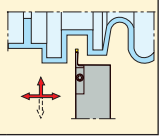
CF.R/L-..C



Right-hand version shown

• For inserts programme, see page(s) 689

CF.R/L-..C



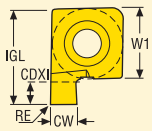
CW	Designation	Dimensions in mm H	B	LF	WF	LH	CDX	KG	Seat size	
3,17	CFOR3244M-0317C	32	44	150	44,2	56,4	19,4	1,5	3,17	LPGN1204..
	CFOL3244M-0317C	32	44	150	44,2	56,4	19,4	1,5	3,17	LPGN1204..
6,35	CFLR3244M-0635C	32	44	150	44,6	66,6	29,1	1,5	6,35	LPGN1906..
	CFLL3244M-0635C	32	44	150	44,6	66,6	29,1	1,5	6,35	LPGN1906..
9,52	CFKR3244M-0952C	32	44	150	45,0	76,8	38,5	1,5	9,52	LPGN2508..
	CFKL3244M-0952C	32	44	150	45,0	76,8	38,5	1,4	9,52	LPGN2508..

Spare Parts, Parts included in delivery

For holder	Clamp	Clamp key
-0317C	CER024	T30P-7
-0317C	CEL024	T30P-7
-0635C	CER055	T30P-7
-0635C	CEL055	T30P-7
-0952C	CER087	T30P-7
-0952C	CEL087	T30P-7

Please check availability in current price and stock-list

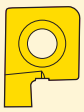
Inserts – Precision Grooves, Radial Grooves



Tolerances:
CW = +0,05/0
Toolholder range, see page(s) 676

Size	Dimensions in mm W1	IGL	RE
9	6,35	9,0	0,0

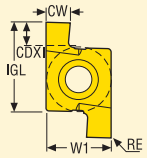
9



For circlip	Pitch TPI	CW mm	CDXI mm	Designation Internal left	Grades Coated CP30	Grades Coated CP500			Designation Internal right	Grades Coated CP30	Grades Coated CP500		
1,00	–	1,15	1,15	9NL1.15FG	■	■			9NR1.15FG	■	■		
1,20	–	1,35	1,35	9NL1.35FG		■			9NR1.35FG	■	■		
1,50	–	1,65	1,65	9NL1.65FG		■			9NR1.65FG	■	■		
1,75	–	1,90	1,90	9NL1.9FG		■			9NR1.9FG	■	■		
2,00	6TPI	2,15	2,15	9NL2.15FG		■			9NR2.15FG	■	■		
2,50	–	2,65	2,65	9NL2.65FG	■	■			9NR2.65FG	■	■		

■ Stock standard
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, Radial Grooves



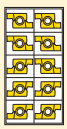
Tolerances:
CW = +0,05/0
Toolholder range, see page(s) 673-674, 677

Size	Dimensions in mm W1	IGL	RE
10	6,350	9	0,0
14	9,525	14	0,0
20	12,700	20	0,0
26	15,875	26	0,0

10/14
20/26



Toolset:
10FG

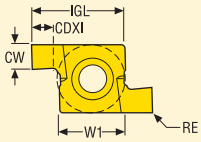


Toolset
10FG, CP500
contents:
1 pce 10ER1.15FG
1 pce 10ER1.35FG
1 pce 10ER1.65FG
1 pce 10ER1.9
1 pce 10ER2.15
1 pce 10NR1.15
1 pce 10NR1.35
1 pce 10NR1.65
1 pce 10NR1.9
1 pce 10NR2.15

For circlip	Pitch TPI	CW mm	CDXI mm	Designation External right Internal left	Grades Coated CP30	Grades Coated CP500			Designation Internal right External left	Grades Coated CP30	Grades Coated CP500		
1,00	–	1,15	1,15	**10ER1.15FG**	■	■			**10NR1.15FG**	■	■		
1,20	–	1,35	1,35	**10ER1.35FG**	■	■			**10NR1.35FG**	■	■		
1,50	–	1,65	1,65	**10ER1.65FG**	■	■			**10NR1.65FG**	■	■		
1,75	–	1,90	1,90	**10ER1.9FG**	■	■			**10NR1.9FG**	■	■		
2,00	6TPI	2,15	2,15	**10ER2.15FG**	■	■			**10NR2.15FG**	■	■		
2,50	–	2,65	2,65	**10ER2.65FG**	■	■			**10NR2.65FG**	■	■		
–	–	3,00	3,00	**14ER3.0FG**	■	■			**14NR3.0FG**	■	■		
3,00	–	3,20	3,20	**14ER3.2FG**		■			**14NR3.2FG**		■		
–	4TPI	3,40	3,40	**14ER3.4FG**		■			**14NR3.4FG**		■		
–	–	4,00	4,00	**14ER4.0FG**	■	■			**14NR4.0FG**	■	■		
4,00	–	4,20	4,20	**14ER4.2FG**		■			**14NR4.2FG**		■		
–	3TPI	4,40	4,40	**20ER4.4FG**		■			**20NR4.4FG**		■		
–	–	5,00	5,00	**20ER5.0FG**		■			**20NR5.0FG**	■	■		
5,00	–	5,20	5,20	**20ER5.2FG**		■			**20NR5.2FG**		■		
–	–	6,00	6,00	**20ER6.0FG**		■			**20NR6.0FG**		■		
–	–	6,35	6,35	**20ER6.35FG**		■			**20NR6.35FG**		■		
–	–	8,00	8,00	**26ER8.0FG**		■			**26NR8.0FG**		■		
–	–	10,00	10,00	**26ER10.0FG**		■			**26NR10.0FG**		■		
–	–	–	–	**10FG**		■							

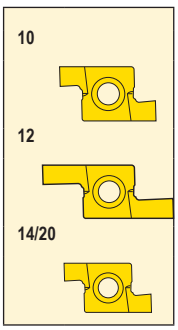
■ **Stock standard**
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, Axial Grooves



Tolerances:
CW = +0,05/0
Toolholder range and INPLM, see page(s) 675

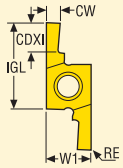
Size	Dimensions in mm				
	CW	W1	IGL	CDXI	RE
10	2,50	6,350	9	2,5	0,0
12	2,50	6,350	12	5,0	0,2
14	4,00	9,525	14	4,0	0,0
20	6,00	12,700	20	6,0	0,0



For width mm	INPLM	Designation External right	Grades Coated CP30	Grades Coated CP500			Designation External left	Grades Coated CP30	Grades Coated CP500		
2,5	16	**10EAR2.5FA**	■	■			**10EAL2.5FA**		■		
2,5	18	**12EAR2.5FD**		■			**12EAL2.5FD**		■		
4,0	22	**14EAR4.0FA**	■	■			**14EAL4.0FA**	■	■		
6,0	28	**20EAR6.0FA**	■	■			**20EAL6.0FA**		■		

■ **Stock standard**
Subject to change refer to current price- and stock-list

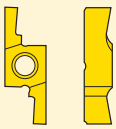
Inserts – Precision Grooves, Deep Radial Grooves



Tolerances:
CW= ±0,025
CDXI = +0,10/0
Toolholder range, see page(s) 673, 677

Size	Dimensions in mm W1	IGL
10	6,35	9
12	6,35	12

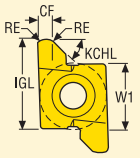
..FD



CW mm	CDXI mm	RE	Designation External right Internal left	Grades Coated CP30	Grades Coated CP500	Designation Internal right External left	Grades Coated CP30	Grades Coated CP500
0,500	1,00	0,00	10ER0.50FD		■	10NR0.50FD		■
0,800	1,60	0,00	10ER0.80FD		■	10NR0.80FD		■
1,000	2,00	0,00	10ER1.00FD		■	10NR1.00FD		■
1,040	2,08	0,00	12ER1.04FD		■	12NR1.04FD		■
1,200	2,40	0,10	12ER1.20FD		■	12NR1.20FD		■
1,400	2,80	0,10	12ER1.40FD		■	12NR1.40FD		■
1,470	2,94	0,10	12ER1.47FD		■	12NR1.47FD		■
1,500	3,00	0,10	12ER1.50FD		■	12NR1.50FD		■
1,570	3,14	0,15	12ER1.57FD		■	12NR1.57FD		■
1,700	3,40	0,15	12ER1.70FD		■	12NR1.70FD		■
1,960	3,92	0,15	12ER1.96FD		■	12NR1.96FD		■
2,000	4,00	0,20	12ER2.00FD		■	12NR2.00FD		■
2,240	4,48	0,20	12ER2.24FD		■	12NR2.24FD		■
2,300	4,60	0,20	12ER2.30FD		■	12NR2.30FD		■
2,390	4,78	0,20	12ER2.39FD		■	12NR2.39FD		■
2,650	5,30	0,20	12ER2.65FD		■	12NR2.65FD		■

■ Stock standard
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, DIN76



Tolerances:
RE = ±0,05
Toolholder range, see page(s) 673-674, 676-677

Size	Dimensions in mm			
	CF	W1	IGL	RE
10	2,0	6,350	9	0,50
14	3,1	9,525	14	0,75
20	4,5	12,700	20	1,00

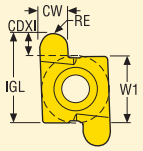
..D76



For max pitch	Designation External right Internal left	KCHR°	KCHL°	Grades Coated CP30	Grades Coated CP500			Designation Internal right External left	KCHR°	KCHL°	Grades Coated CP30	Grades Coated CP500		
1,0	**10ER1.0D76**	0	45		■			**10NR1.0D76**	45	0		■		
1,5	**14ER1.5D76**	0	45	■	■			**14NR1.5D76**	45	0		■		
2,0	**20ER2.0D76**	0	45		■			**20NR2.0D76**	45	0		■		

■ Stock standard
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, Radius



Tolerances:
RE = ±0,05
Toolholder range, see page(s) 673-674, 676-677

Size	Dimensions in mm W	IGL	RE
10..1.0	6,350	9,0	1,00
10..1.2	6,350	9,0	1,20
14..1.5	9,525	14,0	1,50
14..2.0	9,525	14,0	2,00
20..3.0	12,700	20,0	3,00
26..4.0	15,875	26,0	4,00
26..5.0	15,875	26,0	5,00

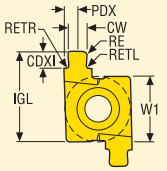
..R



For radius mm	CW mm	CDXI mm	Designation External right Internal left	Grades Coated CP30	CP500			Designation Internal right External left	Grades Coated CP30	CP500		
1,0	2,00	2,40	**10ER1.0R**		■			**10NR1.0R**		■		
1,2	2,40	2,40	**10ER1.2R**		■			**10NR1.2R**	■	■		
1,5	3,00	4,28	**14ER1.5R**	■	■			**14NR1.5R**	■	■		
2,0	4,00	4,28	**14ER2.0R**	■	■			**14NR2.0R**		■		
3,0	6,00	6,90	**20ER3.0R**	■	■			**20NR3.0R**	■	■		
4,0	8,00	9,80	**26ER4.0R**		■			**26NR4.0R**		■		
5,0	10,00	9,80	**26ER5.0R**		■			**26NR5.0R**		■		

■ **Stock standard**
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, O-ring Static



Tolerances:
CW = +0,07/-0,03
RETR/RETL = ±0,05
RE = ±0,15
CDXI = ±0,025
Toolholder range, see page(s) 673-674, 676-677

Size	Dimensions in mm							
	CW	PDX	W1	IGL	RETR	RETL	RE	CDXI
14..1.6	2,40	2,0	9,525	14	0,20	0,20	0,50	1,110
14..2.4	3,20	2,0	9,525	14	0,23	0,23	0,50	1,780
20..3.0	3,80	3,2	12,700	20	0,30	0,30	1,00	2,250
20..3.55	5,10	3,2	12,700	20	0,40	0,40	1,00	3,190
20..4.1	6,50	5,0	15,875	26	0,40	0,40	1,00	4,560
26..5.7	4,80	3,2	12,700	20	0,30	0,30	0,75	2,640

..ST



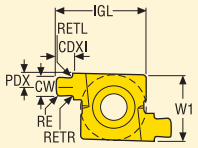
For O-ring				Grades					Grades			
				Coated					Coated			
mm	inch	Standard	Designation External right Internal left	CP30	CP500			Designation Internal right External left	CP30	CP500		
1,60	–	*	**14ER1.6ST**		■			**14NR1.6ST**		■		
2,40	–	*	**14ER2.4ST**		■							
3,00	–	*	**20ER3.0ST**		■			**20NR3.0ST**		■		
4,10	–	*	**20ER4.1ST**		■							
5,70	–	*	**26ER5.7ST**		■			**26NR5.7ST**		■		
3,55	0.140	**	**20ER3.55ST**		■							

Standard
* =
SMS 1588
BS 4518

** =
ISO 3601
DIN 3771
BS 1806

■ **Stock standard**
Subject to change refer to current price- and stock-list

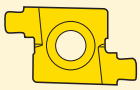
Inserts – Precision Grooves, O-ring Axial



Tolerances:
CW = +0,07/-0,03
RETR/RETL = ±0,05
RE = ±0,15
CDXI = ±0,025
Toolholder range, see page(s) 675

Size	Dimensions in mm							
	CW	PDX	W1	IGL	RETR	RETL	RE	CDXI
14..2.4	3,40	2,0	9,525	14	0,20	0,20	0,50	1,600
14..2.65	3,60	2,1	9,525	14	0,25	0,25	0,50	2,070
20..3.0	4,20	3,2	12,700	20	0,25	0,25	1,00	2,070
20..3.55	4,90	3,2	12,700	20	0,30	0,30	0,75	2,790

..AX



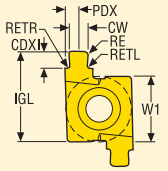
For O-ring				Grades					Grades			
				Coated					Coated			
mm	inch	Standard	Designation External right	CP30	CP500			Designation External left	CP30	CP500		
2,40	–	*	**14EAR2.4AX**		■			**14EAL2.4AX**		■		
3,00	–	*	**20EAR3.0AX**		■							
2,65	0.104	**	**14EAR2.65AX**		■							
3,55	0.140	**	**20EAR3.55AX**		■							

Standard
* =
SMS 1588
BS 4518

** =
ISO 3601
DIN 3771
BS 1806

■ **Stock standard**
Subject to change refer to current price- and stock-list

Inserts – Precision Grooves, O-ring Dynamic



Tolerances:
CW = +0,07/-0,03
RETR/RETL = ±0,05
RE = ±0,15
CDXI = ±0,025
Toolholder range, see page(s) 673-674, 676-677

Size	Dimensions in mm							
	CW	PDX	W1	IGL	RETR	RETL	RE	CDXI
14..1.8	2,40	2,0	9,525	14,0	0,20	0,20	0,50	1,450
14..2.4	3,30	2,0	9,525	14,0	0,25	0,25	0,50	1,870
14..2.65	3,60	2,1	9,525	14,0	0,30	0,30	0,50	2,160
20..3.0	4,10	3,2	12,700	20,0	0,25	0,25	1,00	2,360
20..3.55	4,80	3,2	12,700	20,0	0,30	0,30	0,65	2,970

..DY



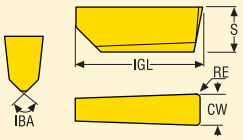
For O-ring				Grades					Grades			
				Coated					Coated			
mm	inch	Standard	Designation External right Internal left	CP30	CP500			Designation Internal right External left	CP30	CP500		
2,40	–	*	**14ER2.4DY**		■			**14NR2.4DY**		■		
3,00	–	*	**20ER3.0DY**		■							
1,80	0.071	**	**14ER1.8DY**		■			**14NR1.8DY**		■		
2,65	0.104	**	**14ER2.65DY**		■							
3,55	0.140	**	**20ER3.55DY**		■							

Standard
* =
SMS 1588
BS 4518

** =
ISO 3601
DIN 3771
BS 1806

■ **Stock standard**
Subject to change refer to current price- and stock-list

LPGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

IBA = 90°

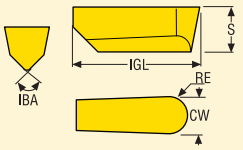
Size	Dimensions in mm CW	IGL	S
1204	3,175	12,70	4,50
1906	6,350	19,05	6,10
2508	7,925	25,40	8,31

LPGN



Inserts	Designation	RE	Grades Uncoated CW100				
LPGN							
	LPGN120404-03175E	0,4	■				
	LPGN190608-0635E	0,4	■				
	LPGN250808-07925E	0,8	■				

LPGN



Tolerances:
CW = ±0,025
IGL = ±0,04
S = ±0,05
RE = ±0,025

IBA = 90°

Size	Dimensions in mm CW	IGL	S
1906	6,350	19,05	6,10

LPGN...M0



Inserts	Designation	RE	Grades Uncoated CW100				
LPGN...M0							
	LPGN1906M0-0635E	3,2	■				

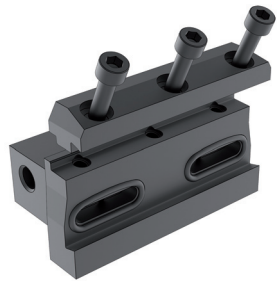
■ **Stock standard**
Subject to change refer to current price- and stock-list

Tip sizes, see page(s) 81
Edge preparation, see page(s) 78

Parting-off

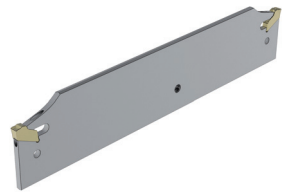
Toolholders

System Designation		Shank width		Jetstream Tooling® integrated coolant inlet
150.10	- 20	20	- 20	JETI
	Shank height		Blade height	



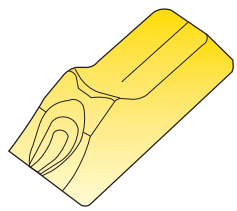
Blades

System Designation		Insert size		Jetstream Tooling® Duo integrated coolant inlet
150.10A	- 20	- 4	R	JETI
	Blade height		R = Right L = Left	



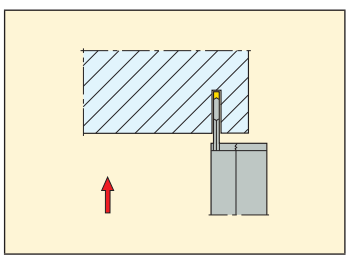
Inserts

System Designation		Neutral version	
150.10	- 4	N	- 14
	Insert size		Chipbreaker



For more information on Jetstream Tooling® and accessories, please see page(s) 30, 746.

Parting-off, up to ∅160 mm



General

- Use the highest blade possible (size 25) for maximum stability.
- Use the shortest overhang possible for maximum stability and low risk of vibrations.
- Make sure that the tool is at 90° to the centre-line of the component to ensure part quality and good tool life.
- Ideally, parting-off is run with a sub-spindle or part-catcher. In this case the cutting edge will be protected by having the second spindle or a fixture picking up the workpiece.
- Parting-off without sub-spindle requires the feed rate to be reduced as the tool approaches centre (by up to 75% about 2 mm before the component centre – depending on workpiece diameter). May also be applied on tubes to reduce burr.
- A well-aimed and sufficient flow of coolant, ideally through the blades 150.10JETI, will give long tool life and good surface finish.
- Smaller inserts reduce the material waste and thus reduce material cost. On the other hand wider inserts allow higher feed rates, which increases productivity. The optimum depends on the customer preference and priority.

Seco Jetstream Tooling® Duo holders, yet another innovation introduced to market, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life.



Toolholders

The Seco 150.10A parting-off system consists of a high speed steel blade which holds the insert and a holder which retains the blade. This provides maximum stability, while the hot strength of the high speed steel ensures that the insert will be securely retained even when the blade is hot.



Type 150.10..-20/25JETI basic holder

Intended for long, reversible high speed steel blades with a depth of cut of up to 160 mm diameter. The same holder is suitable for both right-hand and left-hand versions. JETI functionality with integrated coolant delivery straight to the cutting edge.

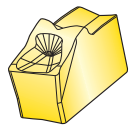
Type 150.10..-15JETI blade holder

Intended for short high speed steel blades for cutting depths up to 38 mm diameter. The high speed steel blade ensures excellent stability and, due to the compact design, is suitable for machines with limited space, such as automatic lathes. JETI functionality with integrated coolant delivery straight to the cutting edge.

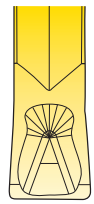


Inserts N-/ R- /L-

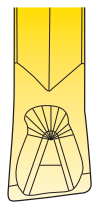
- Inserts in neutral version N are first choice since they normally achieve increased tool life, better chip control, high surface quality and allow higher cutting data compared to the handed (R-/L-) version.
- The R-/L-inserts have a setting angle of 6° in order to eliminate burrs and minimize the parting-off pip left on the workpiece. To reduce pip size with N-inserts, use the smallest width possible. The correct centre height is another major factor to avoid pips (control to ±0.1 mm).
- When using R-/L-inserts, the feed rate should be reduced by approximately 30%.
- Convex or concave surfaces will be avoided, when using right or left hand inserts, by reducing the feed rate.



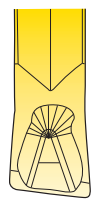
N



R



L



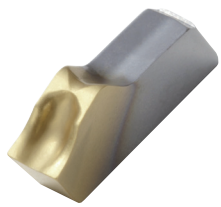
Chipbreakers

-12



- First choice for steel at low feed rates.
- 24° positive cutting rake angle.
- Excellent chipbreaking.

-14



- First choice for stainless steel.
- First choice for steel at medium-high feed rates.
- 15° positive cutting rake angle with sharp edge.

-16



- First choice for steel and cast iron in difficult conditions and/or high feed rates.
- 20° positive cutting rake angle.
- Strong protection chamfer.

Recommended feed rates

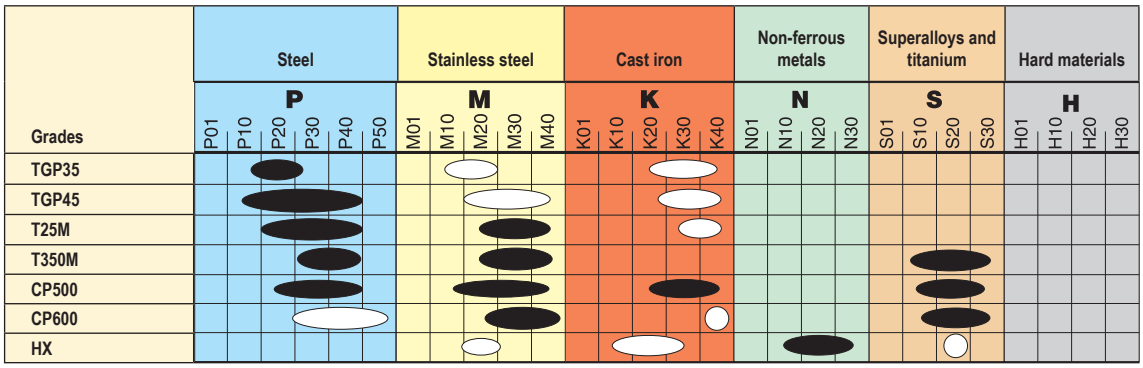
Insert width CW (mm)	Chip-breaker	Radial infeed, f (mm/rev)					
		Type N insert			Type R/L insert		
		Recom. initial value	Recom. limit value		Recom. initial value	Recom. limit value	
			min	max		min	max
1,40	-12	–	–	–	–	–	–
	-14	0,05	0,04	0,12	–	–	–
	-16	0,06	0,04	0,12	–	–	–
2,0	-12	–	–	–	–	–	–
	-14	0,07	0,05	0,14	–	–	–
	-16	0,08	0,05	0,15	–	–	–
2,25	-12	–	–	–	–	–	–
	-14	0,09	0,05	0,16	–	–	–
	-16	0,10	0,05	0,20	–	–	–
2,5	-12	0,09	0,05	0,18	0,06	0,04	0,13
	-14	0,10	0,07	0,20	0,07	0,05	0,14
	-16	0,13	0,10	0,24	0,09	0,07	0,17
3,1	-12	0,10	0,05	0,20	0,07	0,04	0,14
	-14	0,13	0,08	0,24	0,09	0,06	0,17
	-16	0,18	0,12	0,28	0,13	0,08	0,20
4,1	-12	0,13	0,07	0,22	0,09	0,05	0,15
	-14	0,15	0,09	0,26	0,11	0,06	0,18
	-16	0,20	0,14	0,32	0,14	0,10	0,22
5,1	-12	0,15	0,08	0,26	0,11	0,06	0,18
	-14	0,18	0,10	0,34	0,13	0,07	0,24
	-16	0,23	0,16	0,40	0,16	0,11	0,28
6,3	-12	0,17	0,10	0,30	0,12	0,07	0,21
	-14	0,20	0,14	0,38	0,14	0,10	0,27
	-16	0,25	0,18	0,42	0,18	0,13	0,29

Grades

The chart belows shows application areas for grades available in the Parting-off system 150.10.

The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

ISO classification of the grades



TGP35
Wear-resistant **Duratomic**® CVD-coated grade intended for parting-off of steel and cast iron at high cutting speeds.

TGP45
Wear-resistant **Duratomic**® CVD-coated grade intended for parting-off of steel and stainless steel at moderate to high cutting speeds.

T25M
Tough versatile CVD-coated grade intended for parting-off of steel, stainless steel and cast iron at moderate cutting speeds.

T350M
Tough versatile CVD-coated grade intended for parting-off in a variety of workpiece materials at moderate cutting speeds.

CP500
Tough, versatile PVD-coated micrograin grade intended for parting-off of steel, stainless steel, superalloys and titanium at low to moderate cutting speeds. First choice in stainless steel. Provides more wear resistance compared to CP600

CP600
Very tough PVD-coated fine-grain grade intended for parting-off of steel, stainless steel, superalloys and titanium at low cutting speeds. Well-suited in interrupted cuts. Universal choice.

HX
Uncoated wear resistant hard grade intended for parting-off of hardened steels, superalloys, titanium alloys and non-ferrous materials.

Parting-off – Secolor

To centre

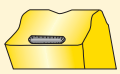
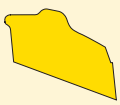
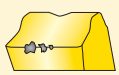
Easy conditions	Difficult conditions
12 CP500	16 CP600
14 CP500	16 CP600
12 TGP35	16 T25M
14 CP500	16 CP600
16 HX	14 CP600
16 HX	16 T350M

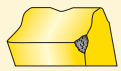
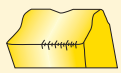
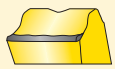
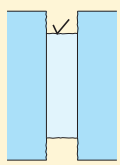
Easy conditions: pre-machined surface, small diameter, thin walls etc.
Difficult conditions: raw surface, large diameter, thick walls etc.

Tube

Easy conditions	Difficult conditions
16 TGP45	16 CP600
14 CP500	16 CP600
12 TGP35	16 TGP45
14 CP500	16 CP600
16 HX	16 CP600
16 HX	16 T350M

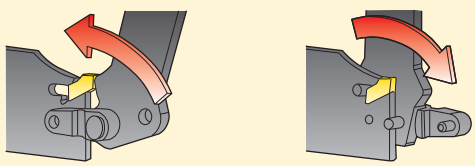
Troubleshooting

Flank wear 	• Reduce the cutting speed. • Select a more wear resistant grade.
Crater wear 	• Use a coolant. • Select a more wear resistant grade. • Reduce the cutting speed. • Reduce the feed rate.
Plastic deformation 	• Use a coolant. • Select a more wear resistant grade. • Reduce the cutting speed. • Reduce the feed rate.
Edge chipping 	• Select a tougher grade. • Check the workpiece mounting. • Check the cutting speed.

Insert fracture 	• Reduce the feed rate. • Select a tougher grade. • Select a stronger chipbreaker.
Comb cracks 	• Reduce the cutting speed. • Reduce the feed rate. • Ensure that the coolant flow is adequate and constant. If not, shut off the coolant.
Built-up edge 	• Increase the cutting speed. • Increase the feed rate. • Do not use coolant.
Poor finish 	• Reduce the feed rate. • Increase the cutting speed. • Use a coolant. • Improve the stability. • Check the alignment of the tool.

Change of insert

Inserts are changed with the aid of key 150.10A-150.



Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG.

The cutting data tables provide a recommendation of chipbreaker and a start value for feed rate (f) and cutting speed (v_c) for selected cutting width (CW).

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

TGP35

SMG		CW = 2.5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 TGP35	0,14	310	0,19	265	0,22	235	0,28	190
P2	-16 TGP35	0,14	305	0,20	250	0,22	230	0,28	185
P3	-16 TGP35	0,14	260	0,19	220	0,22	200	0,26	170
P4	-16 TGP35	0,13	235	0,18	200	0,20	185	0,26	150
P5	-16 TGP35	0,13	225	0,18	190	0,20	180	0,26	140
P6	-16 TGP35	0,13	255	0,18	215	0,20	200	0,26	160
P7	-16 TGP35	0,13	240	0,18	205	0,20	190	0,26	150
P8	-16 TGP35	0,14	220	0,19	185	0,22	165	0,26	140
P11	-16 TGP35	0,13	230	0,18	200	0,20	185	0,26	145
P12	-16 TGP35	0,090	145	0,12	140	0,14	130	0,17	120
M1	-14 TGP35	0,10	180	0,13	160	0,15	145	0,19	120
M2	-14 TGP35	0,090	150	0,12	135	0,13	130	0,18	100
M3	-14 TGP35	0,075	120	0,095	110	0,11	105	0,14	90
M4	-14 TGP35	0,065	90	0,080	85	0,095	85	0,12	75
M5	-14 TGP35	0,065	75	0,080	75	0,095	70	0,12	65

TGP45

SMG		CW = 1.4		CW = 2.0-2.5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 TGP45	0,080	300	0,12	290	0,19	235	0,22	210	0,28	165
P2	-16 TGP45	0,080	290	0,13	275	0,20	220	0,22	205	0,28	165
P3	-16 TGP45	0,075	250	0,12	245	0,19	195	0,22	175	0,26	150
P4	-16 TGP45	0,075	220	0,12	215	0,18	180	0,20	165	0,26	130
P5	-16 TGP45	0,075	210	0,11	210	0,18	170	0,20	160	0,26	125
P6	-16 TGP45	0,070	230	0,11	235	0,18	190	0,20	175	0,26	140
P7	-16 TGP45	0,070	220	0,11	220	0,18	180	0,20	165	0,26	135
P8	-16 TGP45	0,075	210	0,12	205	0,19	165	0,22	145	0,26	125
P11	-16 TGP45	0,070	210	0,11	215	0,18	175	0,20	160	0,26	130
P12	-16 TGP45	0,050	110	0,080	130	0,12	125	0,14	115	0,17	105
M1	-14 TGP45	0,075	170	0,095	165	0,13	140	0,15	130	0,19	105
M2	-14 TGP45	0,065	140	0,085	135	0,12	120	0,13	115	0,18	90
M3	-14 TGP45	0,055	105	0,070	105	0,095	100	0,11	95	0,14	80
M4	-14 TGP45	0,046	75	0,060	80	0,080	75	0,095	75	0,12	65
M5	-14 TGP45	0,046	60	0,060	65	0,080	65	0,095	60	0,12	55

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

T25M

SMG		CW = 2,25-2,5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 T25M	0,14	250	0,19	210	0,22	190	0,28	150
P2	-16 T25M	0,14	245	0,20	200	0,22	185	0,28	145
P3	-16 T25M	0,14	210	0,19	175	0,22	160	0,26	135
P4	-16 T25M	0,13	190	0,18	160	0,20	150	0,26	120
P5	-16 T25M	0,13	180	0,18	155	0,20	140	0,26	115
P6	-16 T25M	0,13	200	0,18	170	0,20	160	0,26	130
P7	-16 T25M	0,13	190	0,18	165	0,20	150	0,26	120
P8	-16 T25M	0,14	175	0,19	150	0,22	135	0,26	115
P11	-16 T25M	0,13	185	0,18	160	0,20	145	0,26	115
P12	-16 T25M	0,090	115	0,12	110	0,14	105	0,17	95
M1	-14 T25M	0,10	145	0,13	125	0,15	115	0,19	95
M2	-14 T25M	0,090	120	0,12	105	0,13	100	0,18	80
M3	-14 T25M	0,075	95	0,095	90	0,11	85	0,14	75
M4	-14 T25M	0,065	70	0,080	70	0,095	65	0,12	60
M5	-14 T25M	0,065	60	0,080	60	0,095	55	0,12	50

T350M

SMG		CW = 2,0-2,25		CW = 2,5		CW = 3		CW = 4	
		f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 T350M	0,12	245	0,14	230	0,19	195	0,22	175
P2	-16 T350M	0,13	230	0,14	225	0,20	185	0,22	170
P3	-16 T350M	0,12	205	0,14	195	0,19	165	0,22	145
P4	-16 T350M	0,12	180	0,13	175	0,18	150	0,20	140
P5	-16 T350M	0,11	175	0,13	165	0,18	145	0,20	130
P6	-16 T350M	0,11	195	0,13	190	0,18	160	0,20	150
P7	-16 T350M	0,11	185	0,13	175	0,18	150	0,20	140
P8	-16 T350M	0,12	170	0,14	165	0,19	140	0,22	125
P11	-16 T350M	0,11	180	0,13	170	0,18	145	0,20	135
P12	-16 T350M	0,080	110	0,090	110	0,12	105	0,14	95
M1	-14 T350M	0,095	135	0,10	135	0,13	120	0,15	110
M2	-14 T350M	0,085	115	0,090	110	0,12	100	0,13	95
M3	-14 T350M	0,070	90	0,075	90	0,095	85	0,11	80
M4	-14 T350M	0,060	65	0,065	65	0,080	65	0,095	60
M5	-14 T350M	0,060	55	0,065	55	0,080	55	0,095	50

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Parting-off 150.10 – Cutting data

CP500

SMG		CW = 1,4		CW = 2,0-2,5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
P1	-16 CP500	0,080	205	0,12	180	0,19	150	0,22	140	0,28	125
P2	-16 CP500	0,080	200	0,13	170	0,20	145	0,22	140	0,28	125
P3	-16 CP500	0,075	175	0,12	150	0,19	125	0,22	120	0,26	110
P4	-16 CP500	0,075	155	0,12	130	0,18	115	0,20	110	0,26	95
P5	-16 CP500	0,075	145	0,11	130	0,18	110	0,20	105	0,26	90
P6	-16 CP500	0,070	170	0,11	145	0,18	120	0,20	115	0,26	105
P7	-16 CP500	0,070	160	0,11	140	0,18	115	0,20	110	0,26	100
P8	-16 CP500	0,075	145	0,12	125	0,19	105	0,22	100	0,26	90
P11	-16 CP500	0,070	155	0,11	135	0,18	110	0,20	105	0,26	95
P12	-16 CP500	0,050	100	0,080	85	0,12	75	0,14	70	0,17	65
M1	-14 CP500	0,075	235	0,095	225	0,13	190	0,15	175	0,19	145
M2	-14 CP500	0,065	190	0,085	185	0,12	160	0,13	155	0,18	120
M3	-14 CP500	0,055	145	0,070	145	0,095	135	0,11	130	0,14	110
M4	-14 CP500	0,046	105	0,060	110	0,080	105	0,095	100	0,12	90
M5	-14 CP500	0,046	90	0,060	90	0,080	90	0,095	85	0,12	75
K1	-16 CP500	0,080	190	0,13	165	0,20	140	0,22	135	0,28	125
K2	-16 CP500	0,075	165	0,11	140	0,18	115	0,20	105	0,26	90
K3	-16 CP500	0,075	140	0,11	120	0,18	95	0,20	90	0,26	80
K4	-16 CP500	0,075	130	0,11	115	0,18	90	0,20	85	0,26	75
K5	-16 CP500	0,065	80	0,10	70	0,16	55	0,18	55	0,22	48
K6	-16 CP500	0,075	120	0,11	105	0,18	90	0,20	85	0,26	80
K7	-16 CP500	0,065	105	0,10	90	0,16	75	0,18	70	0,22	60
N11	-14 CP500	0,095	125	0,12	115	0,16	105	0,19	95	0,24	85
S1	-14 CP500	0,046	26	0,060	24	0,080	22	0,095	21	0,12	19
S2	-14 CP500	0,046	22	0,060	21	0,080	19	0,095	18	0,12	17
S3	-14 CP500	0,044	20	0,055	18	0,075	17	0,085	16	0,12	14

CP600

SMG		CW = 1,4		CW = 2,0-2,5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-14 CP600	0,075	240	0,095	220	0,13	180	0,16	150	0,19	130
M2	-14 CP600	0,065	200	0,085	185	0,12	155	0,15	130	0,18	110
M3	-14 CP600	0,055	155	0,070	150	0,095	135	0,12	115	0,14	105
M4	-14 CP600	0,046	110	0,060	115	0,085	105	0,10	95	0,12	85
M5	-14 CP600	0,046	95	0,060	95	0,085	90	0,10	80	0,12	70

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Parting-off 150.10 – Cutting data

HX

SMG		CW = 1,4		CW = 2,0-2,5		CW = 3		CW = 4		CW = 5-6	
		f	v_c	f	v_c	f	v_c	f	v_c	f	v_c
M1	-14 HX	0,075	140	0,095	125	0,13	115	0,15	110	0,19	100
M2	-14 HX	0,065	115	0,085	105	0,12	95	0,13	90	0,18	80
M3	-14 HX	0,055	90	0,070	85	0,095	75	0,11	75	0,14	65
M4	-14 HX	0,046	70	0,060	65	0,080	60	0,095	60	0,12	55
M5	-14 HX	0,046	60	0,060	55	0,080	50	0,095	48	0,12	44
K1	-16 HX	0,080	140	0,13	115	0,20	100	0,22	95	0,28	85
K2	-16 HX	0,075	120	0,11	105	0,18	90	0,20	85	0,26	75
K3	-16 HX	0,075	105	0,11	90	0,18	75	0,20	70	0,26	65
K4	-16 HX	0,075	100	0,11	85	0,18	70	0,20	70	0,26	60
K5	-16 HX	0,065	60	0,10	55	0,16	45	0,18	43	0,22	39
K6	-16 HX	0,075	85	0,11	75	0,18	65	0,20	60	0,26	55
K7	-16 HX	0,065	75	0,10	70	0,16	55	0,18	55	0,22	50
N1	-14 HX	0,095	410	0,12	380	0,16	340	0,19	315	0,24	285
N2	-14 HX	0,095	330	0,12	305	0,16	275	0,19	255	0,24	230
N3	-14 HX	0,095	220	0,12	205	0,16	180	0,19	170	0,24	155
N11	-14 HX	0,095	255	0,12	230	0,16	210	0,19	195	0,24	175
S1	-14 HX	0,046	27	0,060	25	0,080	23	0,095	22	0,12	20
S2	-14 HX	0,046	22	0,060	20	0,080	19	0,095	18	0,12	16
S3	-14 HX	0,044	19	0,055	18	0,075	16	0,085	16	0,12	14
S11	-14 HX	0,055	38	0,070	35	0,095	32	0,11	30	0,14	28
S12	-14 HX	0,055	29	0,070	27	0,095	25	0,11	23	0,14	21
S13	-14 HX	0,046	23	0,060	22	0,080	20	0,095	19	0,12	18
H5	-16 HX	0,050	45	0,080	39	0,12	34	0,14	32	0,17	30

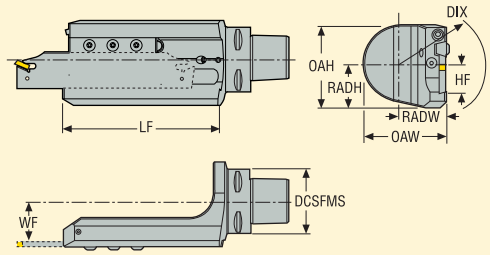
For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Adapters C.-R/L150.10-..20/25JETI for Parting-off – Metric



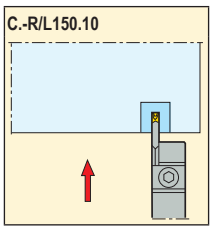
• For inserts programme, see page(s) 710-711

C.-R/L150.10-..20/25JETI



Right-hand version shown

C.-R/L150.10



Capto size	Designation	Dimensions in mm									CP*	KG
		DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF		
C5												
	C5-R150.10-122-20JETI	85	50	56	31,0	32,0	58,5	122	20,0	26,0	70,0	1,4
	C5-L150.10-122-20JETI	85	50	56	31,0	32,0	58,5	122	20,0	26,0	70,0	1,4
C6												
	C6-R150.10-160-25JETI	100	63	70	37,0	37,0	69,0	160	25,0	32,0	70,0	2,5
	C6-L150.10-160-25JETI	100	63	70	37,0	37,0	69,0	160	25,0	32,0	70,0	2,5
C8												
	C8-R150.10-160-25JETI	111	80	86	45,5	37,0	69,0	160	25,0	40,5	70,0	3,4
	C8-L150.10-160-25JETI	111	80	86	45,5	37,0	69,0	160	25,0	40,5	70,0	3,4

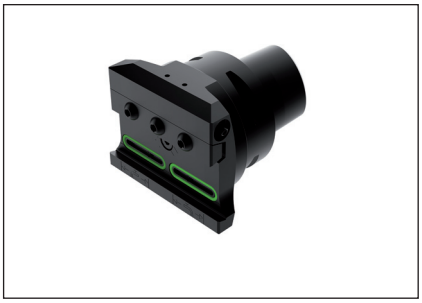
* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
C5	CN6	ORING-20X2	5431080-04	5512031-09
C6 / C8	CN7	5641005-74	5431080-02	5512031-09

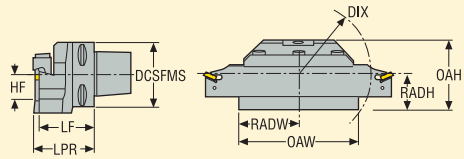
Please check availability in current price and stock-list

Adapters C.-150.10-..20/25JETI for Parting-off – Metric

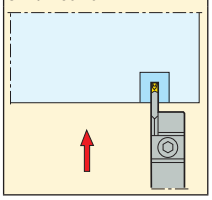


• For inserts programme, see page(s) 710-711

C.-150.10-..20/25JETI



C.-R/L150.10



Capto size	Designation	Dimensions in mm									CP*	KG
		DIX	DCSFMS	OAW	RADW	RADH	OAH	LPR	LF	HF		
C5												
	C5-150.10-040-20JETI	96	50	80	40,0	30,0	80,0	40,0	35	20,0	70,0	0,9
C6												
	C6-150.10-050-25JETI	103	63	82	41,0	37,0	82,0	50,0	45	25,0	70,0	1,6
C8												
	C8-150.10-050-25JETI	103	80	82	41,0	37,0	82,0	50,0	45	25,0	70,0	2,4

* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
C5	CN6	ORING-20X2	5431080-04	5512031-09
C6 / C8	CN7	ORING-20X2	5431080-02	5512031-09

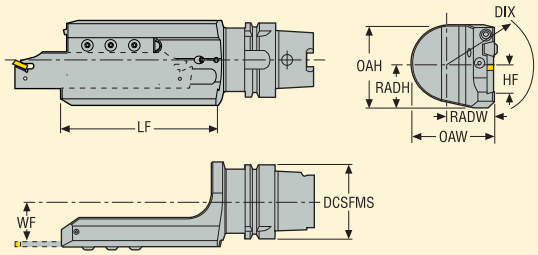
Please check availability in current price and stock-list

Adapters E9364-R/L150.10..-25JETI for Parting-off – Metric



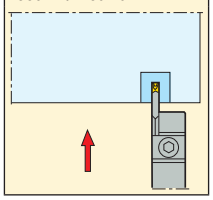
• For inserts programme, see page(s) 710-711

E9364 R/L150.10..-25JETI



Right-hand version shown

E9364 R/L150.10



Designation	Dimensions in mm									CP*	KG
	DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF		
E9364-R150.10-175-25JETI	100	63	70	37,0	37,0	69,0	175,0	25	32,0	70	2,6
E9364-L150.10-175-25JETI	100	63	70	37,0	37,0	69,0	175,0	25	32,0	70	2,5

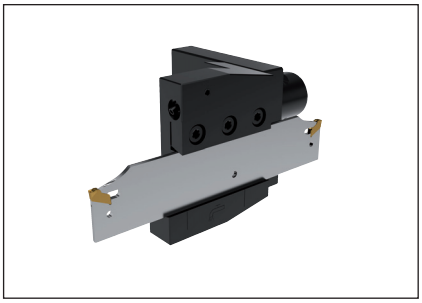
* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For	Coolant nozzle	O-ring	Wedge clamp	Wedge screw
E9364-R/L	CN7	5641005-74	5431080-02	5512031-09

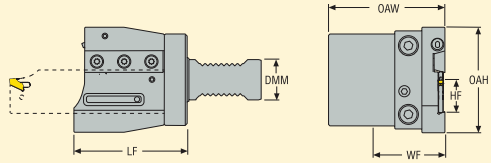
Please check availability in current price and stock-list

Adapters R/L150.10...20/25 for Parting-off



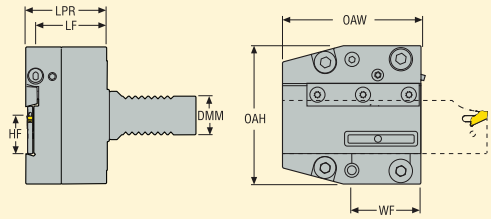
- For inserts programme, see page(s) 710-711
- For blades programme, see page(s) 706-707

R/L150.10-F



Right-hand adapter with **Right**-hand blade shown
Left-hand adapter must be used with **Left**-hand blade

R/L150.10-G



Right-hand adapter with **Left**-hand blade shown
Left-hand adapter must be used with **Right**-hand blade

Designation	Dimensions in mm							CP*	KG
	LF	DMM	LPR	HF	OAH	OAW	WF		
R150.10-F-VDI25-20JETI	83,0	25	–	20	74	73,0	43,0	80	1,4
R150.10-F-VDI30-20JETI	90,0	30	–	20	74	85,0	50,0	80	1,6
R150.10-F-VDI30-25JETI	84,0	30	–	25	78	86,0	51,0	80	1,8
R150.10-F-VDI40-25JETI	80,0	40	–	25	100	118,5	76,0	80	3,0
L150.10-F-VDI25-20JETI	83,0	25	–	20	74	73,0	43,0	80	1,4
L150.10-F-VDI30-20JETI	90,0	30	–	20	74	85,0	50,0	80	1,6
L150.10-F-VDI30-25JETI	84,0	30	–	25	78	86,0	51,0	80	1,8
L150.10-F-VDI40-25JETI	80,0	40	–	25	100	118,5	76,0	80	3,0
R150.10-G-VDI30-20JETI	45,5	30	50,5	20	66	70,0	35,0	80	2,0
R150.10-G-VDI30-25JETI	45,5	30	50,5	25	85	85,0	42,5	80	2,9
R150.10-G-VDI40-25JETI	45,5	40	50,5	25	85	85,0	42,5	80	3,2
R150.10-G-VDI50-25JETI	45,5	50	50,5	25	90	85,0	42,5	80	3,8
L150.10-G-VDI30-20JETI	45,5	30	50,5	20	66	70,0	35,0	80	2,0
L150.10-G-VDI30-25JETI	45,5	30	50,5	25	85	85,0	42,5	80	2,9
L150.10-G-VDI40-25JETI	45,5	40	50,5	25	85	85,0	42,5	80	3,2
L150.10-G-VDI50-25JETI	45,5	50	50,5	25	90	85,0	42,5	80	3,8

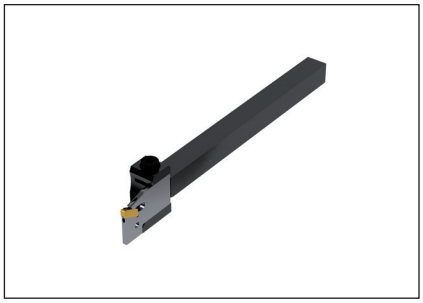
* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For size	Adjusting screw	Coolant nozzle	Coolant ring	Locking screw	Locking screw 2	Nozzle	O-ring	Pin	Wedge clamp	Wedge screw
.-F-..25-20	5333011-01	CN6	5641005-133	MC6S8X16	–	5691034-01	5641005-103	3111020-557	5431115-05	5513015-12
.-F-..30-20	5333011-01	CN6	5641005-133	MC6S8X20	–	5691034-01	5641005-134	3111020-557	5431115-05	5513015-12
.-F-..30-25	5333011-01	CN6	5641005-100	MC6S8X20	–	5691034-01	5641005-134	3111020-557	5431115-05	5513015-12
.-F-..40-25	5333011-01	CN6	5641005-100	MC6S8X25	5512031-10	5691034-01	5641005-135	3111050-609	5431115-09	5513015-12
.-G-..30-20	5333011-01	CN6	5641005-133	MC6S6X20	MC6S6X25	5691034-01	5641005-134	3111050-611	5431115-09	5513015-12
.-G-..30-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5691034-01	5641005-134	3111050-611	5431115-09	5513015-12
.-G-..40-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5691034-01	5641005-135	3111050-611	5431115-09	5513015-12
.-G-..50-25	5333011-01	CN6	5641005-100	MC6S8X25	–	5691034-01	5641001-119	3111050-611	5431115-09	5513015-12

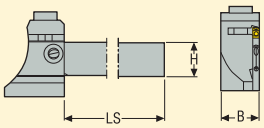
Please check availability in current price and stock-list

Toolblock R/L150.10-..15JETI and HSS-blade 150.10A-..15JETI for Parting-off

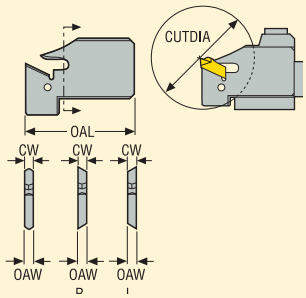


• For inserts programme, see page(s) 710-711

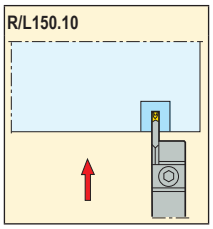
Toolblock R/L 150.10A-15-.JETI



HSS-blade 150.10A-15-.JETI



Right-hand version shown
Right-hand blade must only be used with Right-hand toolblock
Left-hand blade must only be used with Left-hand toolblock



Designation	Dimensions in mm							CP*	KG	
	H	B	LS	CW	OAL	OAW	CUT-DIA			
R150.10-1010-15JETI	10	10	136	–	–	–	–	200	0,2	–
R150.10-1212-15JETI	12	12	136	–	–	–	–	200	0,2	–
R150.10-1616-15JETI	16	16	81	–	–	–	–	200	0,3	–
R150.10-2020X-15JETI	20	20	64	–	86,0	19,9	–	200	0,3	–
R150.10-2525X-15JETI	25	25	84	–	106,0	24,9	–	200	0,5	–
L150.10-1010-15JETI	10	10	136	–	–	–	–	200	0,2	–
L150.10-1212-15JETI	12	12	136	–	–	–	–	200	0,2	–
L150.10-1616-15JETI	16	16	81	–	–	–	–	200	0,2	–
L150.10-2020X-15JETI	20	20	–	–	86,0	19,9	–	200	0,3	–
L150.10-2525X-15JETI	25	25	84	–	106,0	24,9	–	200	0,5	–
150.10A-15-2RJETI	–	–	–	1,4	33,1	1,2	38	200	0,1	150.10-2..
150.10A-15-2LJETI	–	–	–	1,4	33,1	1,8	38	200	0,1	150.10-2..
150.10A-15-2.5RJETI	–	–	–	2,5	33,1	1,2	38	200	0,1	150.10-2.5..
150.10A-15-2.5LJETI	–	–	–	2,5	33,1	2,0	38	200	0,1	150.10-2.5..
150.10A-15-3RJETI	–	–	–	2,0	33,1	1,2	38	200	0,1	150.10-3..
150.10A-15-3LJETI	–	–	–	2,0	33,1	2,4	38	200	0,1	150.10-3..
R150.10A-15-4JETI	–	–	–	3,0	33,1	1,2	38	200	0,1	150.10-4..
L150.10A-15-4JETI	–	–	–	3,0	33,1	3,4	38	200	0,1	150.10-4..

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

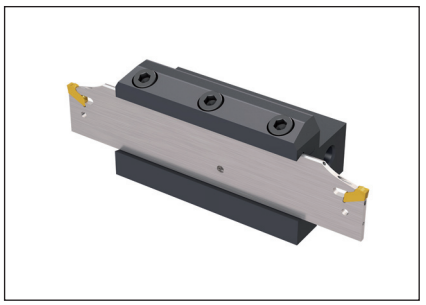
For	Clamp key	Clamp screw	Key	O-ring	Plug	Plug screw	Ring	Screw
R/L150.10-..	–	–	4SMS795	–	–	–	ORING-4X1.5	MC6S5X18
R/L150.10-..X	4SMS795	MC6S5X18	–	ORING-4X1.5	JET-P1/8-5MM	P6SS6X6	–	–
150.10A-..	–	–	–	–	–	–	–	–
R/L150.10A-..	–	–	–	–	–	–	–	–

Accessories

Key
–
–
150.10A-150
150.10A-150

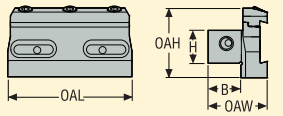
Please check availability in current price and stock-list

Toolblock R/L150.10-..20JETI and HSS-blade 150.10A-..20JETI for Parting-off

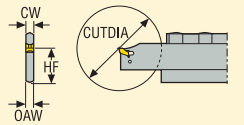


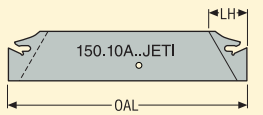
• For inserts programme, see page(s) 710-711

Toolblock 150.10-...-20JETI



HSS-blade





Right-hand version of blade shown

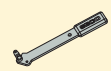
Designation	Dimensions in mm									CP*	KG	
	H	B	OAH	OAL	OAW	CW	HF	LH	CUTDIA			
150.10-1616-20JETI	16	16	32	95	35,90	–	–	–	–	200	0,6	–
150.10-2020-20JETI	20	20	32	95	39,80	–	–	–	–	200	0,7	–
150.10-2520-25JETI	25	20	42	95	39,80	–	–	–	–	200	0,9	–
150.10A-20-2RJETI	–	–	–	120	1,80	2,0	21,4	24	35	200	0,1	150.10-2..
150.10A-20-2.5RJETI	–	–	–	120	2,00	2,5	21,4	24	35	200	0,1	150.10-2.5..
150.10A-20-3RJETI	–	–	–	120	2,40	3,0	21,4	–	92	200	0,1	150.10-3..
150.10A-20-4RJETI	–	–	–	120	3,40	4,0	21,4	–	98	200	0,1	150.10-4..
150.10A-20-5RJETI	–	–	–	120	4,40	5,0	21,4	–	98	200	0,1	150.10-5..
150.10A-20-6RJETI	–	–	–	120	5,65	6,0	21,4	–	98	200	0,2	150.10-6..
150.10A-20-2LJETI	–	–	–	120	1,80	2,0	21,4	24	35	200	0,1	150.10-2..
150.10A-20-2.5LJETI	–	–	–	120	2,00	2,5	21,4	24	35	200	0,1	150.10-2.5..
150.10A-20-3LJETI	–	–	–	120	2,40	3,0	21,4	–	98	200	0,1	150.10-3..
150.10A-20-4LJETI	–	–	–	120	3,40	4,0	21,4	–	98	200	0,1	150.10-4..
150.10A-20-5LJETI	–	–	–	120	4,40	5,0	21,4	–	98	200	0,1	150.10-5..
150.10A-20-6LJETI	–	–	–	120	5,65	6,0	21,4	–	98	200	0,2	150.10-6..

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

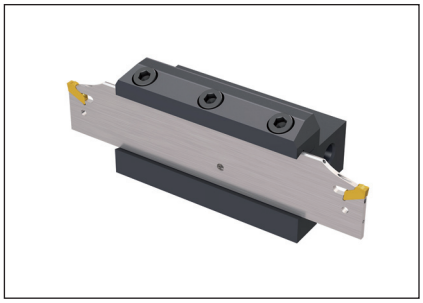
For	Clamp	Key	O-ring	Plug	Screw
					
150.10-..	150.10-260	5SMS795	ORING-20X2	JET-P1/8-5MM	TCEI0620
150.10A-..	–	–	–	–	–

Accessories

Key

150.10A-150

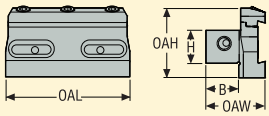
Please check availability in current price and stock-list

Toolblock R/L150.10-..25JETI and HSS-blade 150.10A-..25JETI for Parting-off

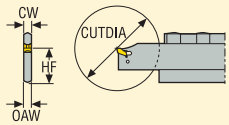


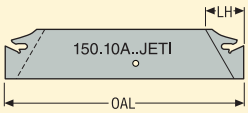
• For inserts programme, see page(s) 710-711

Toolblock 150.10-...-25JETI



HSS-blade





Right-hand version of blade shown

Designation	Dimensions in mm									CP*	KG	
	H	B	OAH	OAL	OAW	CW	HF	LH	CUTDIA			
150.10-2020-25JETI	20	20	39	95	40,80	–	–	–	–	200	0,8	–
150.10-2525-25JETI	25	25	42	95	44,80	–	–	–	–	200	1,0	–
150.10-3232-25JETI	32	32	49	95	51,80	–	–	–	–	200	1,4	–
150.10A-25-2RJETI	–	–	–	150	1,80	2,0	25	25	35	200	0,1	150.10-2..
150.10A-25-2.5RJETI	–	–	–	150	2,00	2,5	25	25	35	200	0,1	150.10-2.5..
150.10A-25-3RJETI	–	–	–	150	2,40	3,0	25	25	122	200	0,1	150.10-3..
150.10A-25-4RJETI	–	–	–	150	3,40	4,0	25	25	122	200	0,1	150.10-4..
150.10A-25-5RJETI	–	–	–	150	4,40	5,0	25	–	122	200	0,2	150.10-5..
150.10A-25-6RJETI	–	–	–	150	5,65	6,0	25	–	122	200	0,2	150.10-6..
150.10A-25-2LJETI	–	–	–	150	1,80	2,0	25	25	35	200	0,1	150.10-2..
150.10A-25-2.5LJETI	–	–	–	150	2,00	2,5	25	25	35	200	0,1	150.10-2.5..
150.10A-25-3LJETI	–	–	–	150	2,40	3,0	25	25	122	200	0,1	150.10-3..
150.10A-25-4LJETI	–	–	–	150	3,40	4,0	25	25	122	200	0,1	150.10-4..
150.10A-25-5LJETI	–	–	–	150	4,40	5,0	25	–	122	200	0,2	150.10-5..
150.10A-25-6LJETI	–	–	–	150	5,65	6,0	25	–	122	200	0,2	150.10-6..

* Max coolant pressure (bar) may need additional spare part otherwise according to machine side limitation

Spare Parts, Parts included in delivery

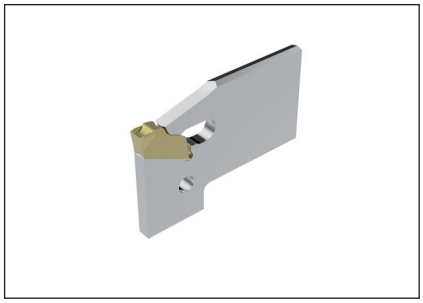
For	Clamp	Key	O-ring	Plug	Screw
150.10-..	150.10-260	5SMS795	ORING-20X2	JET-P1/8-5MM	TCEI0620
150.10A-..	–	–	–	–	–

Accessories

Key
–
150.10A-150

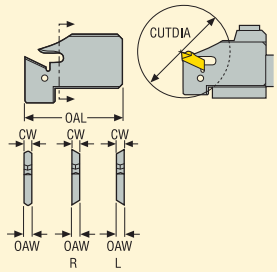
Please check availability in current price and stock-list

HSS-blade 150.10A-15 for Parting-off



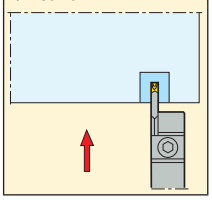
• For inserts programme, see page(s) 710-711

HSS-blade 150.10A-15



Right-hand version shown

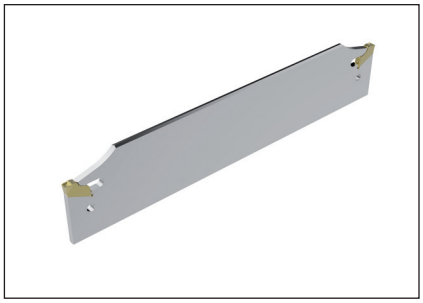
R/L150.10



Designation	Dimensions in mm				KG	
	OAL	OAW	CW	CUTDIA		
150.10A-15-1.4	33	1,2	1,4	38	0,1	150.10-1.4..
150.10A-15-2	33	1,8	2,0	38	0,1	150.10-2..
150.10A-15-2.5	33	2,0	2,5	38	0,1	150.10-2.5..
150.10A-15-3	33	2,4	3,0	38	0,1	150.10-3..
R150.10A-15-4	33	3,4	4,0	38	0,1	150.10-4..
L150.10A-15-4	33	3,4	4,0	38	0,1	150.10-4..

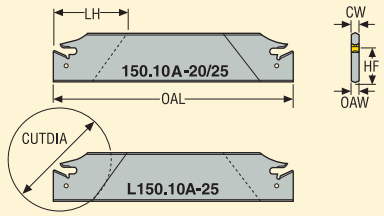
Please check availability in current price and stock-list

HSS-blade 150.10A-20/25 for Parting-off



• For inserts programme, see page(s) 710-711

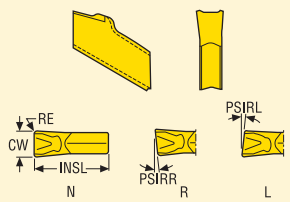
HSS-blade



Designation	Dimensions in mm						KG	
	OAL	OAW	CW	CUTDIA	HF	LH		
150.10A-20-1.4	120	1,20	1,4	35	21,4	24	0,1	150.10-1.4..
150.10A-20-2	120	1,80	2,0	35	21,4	24	0,1	150.10-2..
150.10A-20-2.5	120	2,00	2,5	35	21,4	24	0,1	150.10-2.5..
150.10A-20-3	120	2,40	3,0	90	21,4	–	0,1	150.10-3..
150.10A-20-4	120	3,40	4,0	100	21,4	–	0,1	150.10-4..
150.10A-20-5	120	4,40	5,0	120	21,4	–	0,1	150.10-5..
150.10A-20-6	120	5,65	6,0	120	21,4	–	0,2	150.10-6..
150.10A-25-1.4	150	1,20	1,4	35	25,0	24	0,1	150.10-1.4..
150.10A-25-2	150	1,80	2,0	35	25,0	24	0,1	150.10-2..
150.10A-25-2.5	150	2,00	2,5	35	25,0	24	0,1	150.10-2.5..
150.10A-25-3	150	2,40	3,0	120	25,0	–	0,1	150.10-3..
150.10A-25-4	150	3,40	4,0	140	25,0	–	0,2	150.10-4..
150.10A-25-5	150	4,40	5,0	160	25,0	–	0,2	150.10-5..
150.10A-25-6	150	5,65	6,0	160	25,0	–	0,2	150.10-6..
L150.10A-25-1.4	150	1,20	1,4	35	24,9	24	0,1	150.10-1.4..

Please check availability in current price and stock-list

Inserts – Parting-off, 150.10...-12 and 150.10...-14

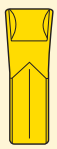


Tolerances: Size:
CW = ±0,05 1.4-2.5
CW = ±0,08 3-6

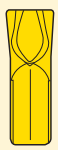
Toolholder range, see page(s) 707-709

Size	Dimensions in mm CW	INSL
1.4	1,40	9,0
2.0	2,00	9,0
2.25	2,25	9,0
2.5	2,50	9,0
3	3,10	9,0
4	4,10	9,0
5	5,10	9,0
6	6,35	9,0

150.10-12



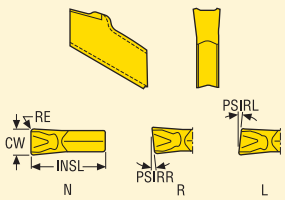
150.10-14



Inserts	Designation	RE	PSIRR°	PSIRL°	Grades: Coated T25M	T350M	CP500	CP600	TGP35	TGP45		Uncoated HX					
150.10-12																	
	150.10-2.5N-12	0,17	–	–	■	■	■	■	■	■							
	150.10-2.5R6-12	0,17	6	–	■			■									
	150.10-2.5L6-12	0,17	–	6	■			■									
	150.10-3N-12	0,19	–	–	■	■	■	■	■	■							
	150.10-3R6-12	0,19	6	–	■			■									
	150.10-3L6-12	0,19	–	6	■			■									
	150.10-4N-12	0,23	–	–	■	■	■	■	■	■							
	150.10-4R6-12	0,23	6	–	■												
	150.10-4L6-12	0,23	–	6	■												
	150.10-5N-12	0,26	–	–	■				■								
	150.10-6N-12	0,30	–	–	■				■								
150.10-14																	
	150.10-1.4N-14	0,15	–	–			■	■				■					
	150.10-2.0N-14	0,15	–	–		■	■	■		■		■					
	150.10-2.25N-14	0,15	–	–		■	■	■		■		■					
	150.10-2.5N-14	0,17	–	–	■		■	■		■		■					
	150.10-2.5R6-14	0,17	6	–	■			■		■							
	150.10-2.5L6-14	0,17	–	6	■			■									
	150.10-3N-14	0,19	–	–	■	■	■	■	■	■		■					
	150.10-3R6-14	0,19	6	–	■		■	■		■							
	150.10-3L6-14	0,19	–	6	■			■		■							
	150.10-4N-14	0,23	–	–	■	■	■	■	■	■		■					
	150.10-4R6-14	0,23	6	–	■												
	150.10-4L6-14	0,23	–	6	■												
	150.10-5N-14	0,26	–	–	■		■	■									
	150.10-6N-14	0,30	–	–	■		■	■									

■ Stock standard
Subject to change refer to current price- and stock-list

Inserts – Parting-off, 150.10...-16

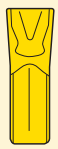


Tolerances: Size:
CW = ±0,05 1.4-2.5
CW = ±0,08 3-6

Toolholder range, see page(s) 707-709

Size	Dimensions in mm CW	INSL
1.4	1,40	9,0
2.0	2,00	9,0
2.25	2,25	9,0
2.5	2,50	9,0
3	3,10	9,0
4	4,10	9,0
5	5,10	9,0
6	6,35	9,0

150.10-16



Inserts	Designation	RE	PSIRR°	PSIRL°	Grades: Coated T25M	T350M	CP500	CP600	TGP35	TGP45	Uncoated HX
150.10-16											
	150.10-1.4N-16	0,15	–	–			■	■		■	
	150.10-2.0N-16	0,15	–	–		■	■	■		■	
	150.10-2.25N-16	0,15	–	–	■	■	■	■		■	■
	150.10-2.5L6-16	0,17	–	6	■			■			
	150.10-2.5N-16	0,17	–	–	■	■	■	■		■	■
	150.10-2.5R6-16	0,17	6	–	■			■		■	■
	150.10-3L6-16	0,19	–	6	■			■		■	
	150.10-3N-16	0,19	–	–	■	■	■	■	■	■	■
	150.10-3R6-16	0,19	6	–	■			■	■	■	
	150.10-4L6-16	0,23	–	6	■						
	150.10-4N-16	0,23	–	–	■	■	■	■	■	■	■
	150.10-4R6-16	0,23	6	–	■					■	■
	150.10-5L6-16	0,26	–	6	■						
	150.10-5N-16	0,26	–	–	■		■	■	■	■	■
	150.10-5R6-16	0,26	6	–	■						
	150.10-6N-16	0,30	–	–	■		■	■	■	■	■

■ Stock standard

Subject to change refer to current price- and stock-list


0150LN
MC
OP600
SECO
X4FL1212K2503
4671987 001
SECO

General information

The Seco X4 system (multi edge solution) comprises toolholders and inserts for external radial machining.

The system can be used for:

- Grooving
- Parting off

Seco X4 comes in combination with the unique Jetstream Tooling® Duo. A high pressure cooling system which provides directed coolant supply to the cutting edge by two streams: the first to the rake surface and the second to the clearance surface.



The X4 system provides several features:

- Four cutting edges
- Ability to pass free along a shoulder down to the centre
- Easy double access clamping system
- Easy indexing without total extraction of the screw
- Integrity safe in case of edge failure. The inserts can still be used with three broken passive edges.
- Good repeatability (±0,025 mm)
- Jetstream Tooling® Duo – improves chip control and tool life of cutting edge



Set-up machining recommendations

The mounting should be stable.
The tool should be securely clamped and the overhang should be as small as possible.
The centre height should never deviate by more than ±0,1 mm from the workpiece centre.

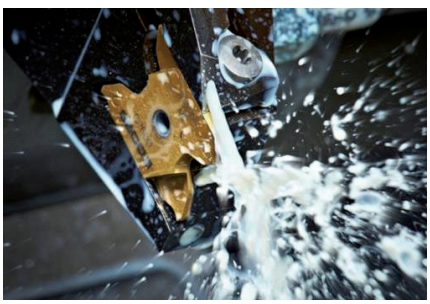
Parting-off

An insert with a neutral edge (N) normally results in a longer useful life of the insert.
The useful life of the insert can be increased by reducing the feed rate or stopping the feed entirely before breakthrough.

Formulae for cutting data calculation can be found in page(s) 57

Seco Jetstream Tooling® Duo

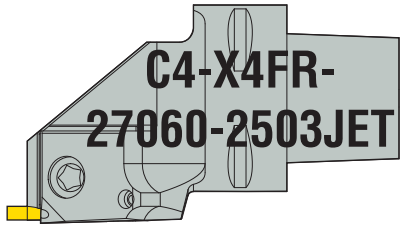
Seco Jetstream Tooling® Duo holders, yet another innovation introduced to market, feature both a rake face and flank face jet, that may provide even better chip control and significantly longer tool life. For more information on Jetstream Tooling® and accessories, please see page(s) 30-33 and 746.



Troubleshooting

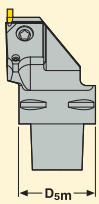
Troubleshooting for X4 inserts, see page(s) 696

X4 – Toolholders, Seco-Capto™



C4	-	X4	F	R	27	060	-	25	03	JET
1		2	3	4	5	6		7	8	9

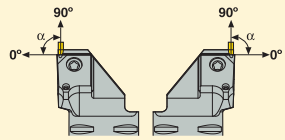
1. Seco-Capto™ size



2. Tool system

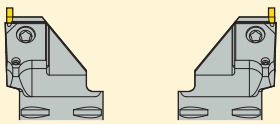
X4

3. Toolholder setting angle



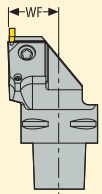
F = 90°
G = 0°

4. Version

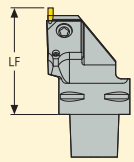


R = Right
L = Left

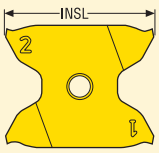
5. WF-dimension



6. LF-dimension



7. Insert length



25 = 25 mm

8. Seat size



03 = 3,1 mm

9. Cooling system

JET = Jetstream Tooling® Duo
JETI = Jetstream Tooling® integrated coolant inlet

X4 – Toolholders

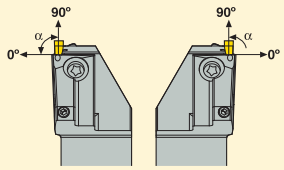


X4	F	R	25	25	M	25	03	JET
1	2	3	4	5	6	7	8	9

1. Tool system

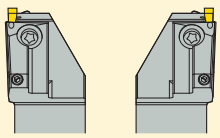
X4

2. Toolholder setting angle



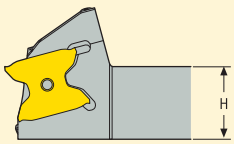
F = 90°
G = 0°

3. Version

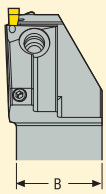


R = Right
L = Left

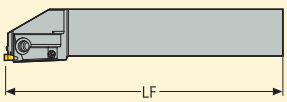
4. Shank height



5. Shank width

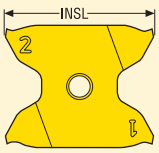


6. Tool length



H = 100 mm
K = 125 mm
M = 150 mm

7. Insert length



25 = 25 mm

8. Seat size

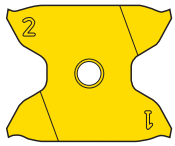


03 = 3,1 mm

9. Cooling system

JET = Jetstream Tooling® Duo

X4 – Inserts

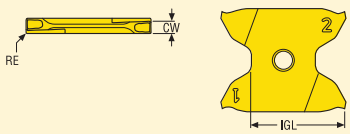


X4	G	K	25	03	010	-	0150	RR15	-	MC
1	2	3	4	5	6		7	8		9

1. Tool system

X4

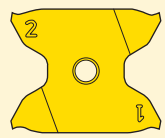
2. Tolerances



Tolerance ± mm

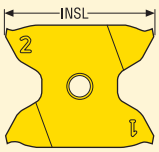
Tolreanceclass	CW	RE	IGL
G	0,025	0,03	0,025

3. Insert type



K = four edges with chipbreaker

4. Insert length



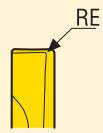
25 = 25 mm

5. Seat size



03 = 3,1 mm

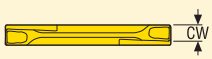
6. Corner radius



005 = 0,05 mm
010 = 0,10 mm
015 = 0,15 mm

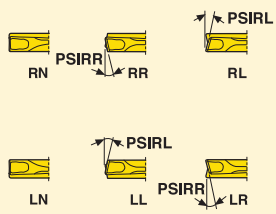
M0 = round

7. Insert width



0050 = 0,5 mm
0300 = 3 mm

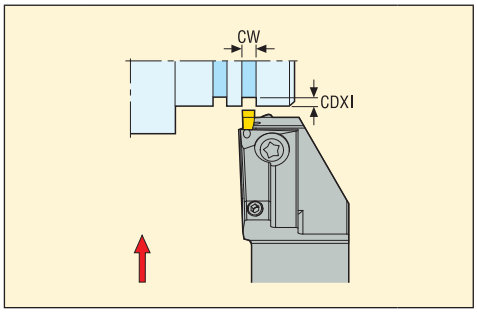
8. Version

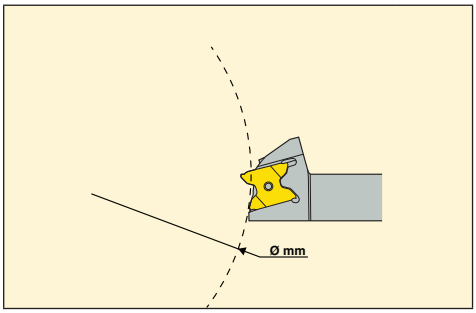


9. Chipbreaker or geometry code

MC = Chipbreaker for medium Parting-off and Grooving
FG = Radial groove
R = Round

Grooving



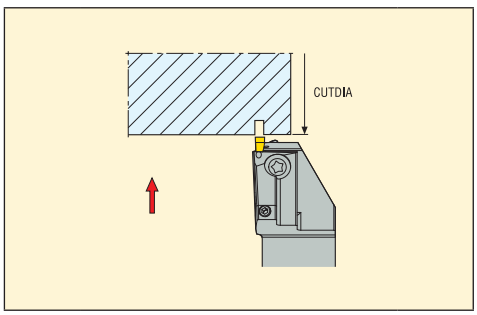


Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder.

Grooving – Cutting depth CDXI

Cutting edge width CW	Workpiece diameter, ∅ mm									
	0-130	130-140	140-160	160-180	180-200	200-250	250-300	300-400	400-500	500-1000
0,5	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6	2,6
1,0	4,3	4,3	4,3	4,3	4,3	4,3	4,3	4,3	4,3	4,0
1,5	6,5	6,4	6,1	5,9	5,5	5,0	5,0	4,5	4,5	4,0
2,0	6,5	6,4	6,1	5,9	5,5	5,0	5,0	4,5	4,5	4,0
2,5	6,5	6,4	6,1	5,9	5,5	5,0	5,0	4,5	4,5	4,0
3,0	6,5	6,4	6,1	5,9	5,5	5,0	5,0	4,5	4,5	4,0

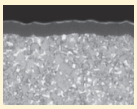
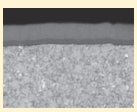
Parting-off



Parting-off – Maximum workpiece diameter, CUTDIA

Cutting edge width CW	Workpiece diameter, CUTDIA
0,5	5,2
1,0	8,6
1,5	13,0
2,0	13,0
2,5	13,0
3,0	13,0

Coated grades

	**CP500**	Tough PVD-coated micrograin grade intended for grooving, profiling and parting-off at moderate cutting speeds. Provides more wear resistance compared to CP600. (Ti,Al)N + TiN
	**CP600**	Very tough PVD-coated fine-grain grade, universal choice intended for grooving and parting-off at low to moderate cutting speeds. Well-suited in stainless steel and in interrupted cuts. Tougher alternative to CP500. (Ti,Al)N + TiN
	**TGH1050**	Very hard supermicrograin grade intended for partly hardened steel components as well as generally work-piece materials such as superalloys and cast-iron and due to remarkable edge toughness it also provides high performance in interrupted cuts and hard-surface removal. Ti-Al-Si-N nanolaminate coating

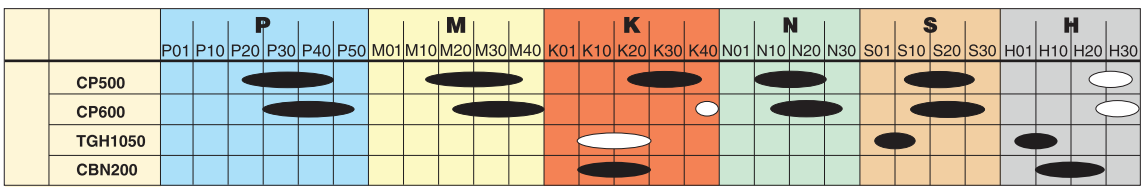
Grades, PCBN

CBN200 	Inserts with brazed tips, intended for hardened steels and pearlitic cast iron. Composition: 90% cBN content grade with an average grain size of 3-6 µm and a Al ceramic binder. Coating: No coating.

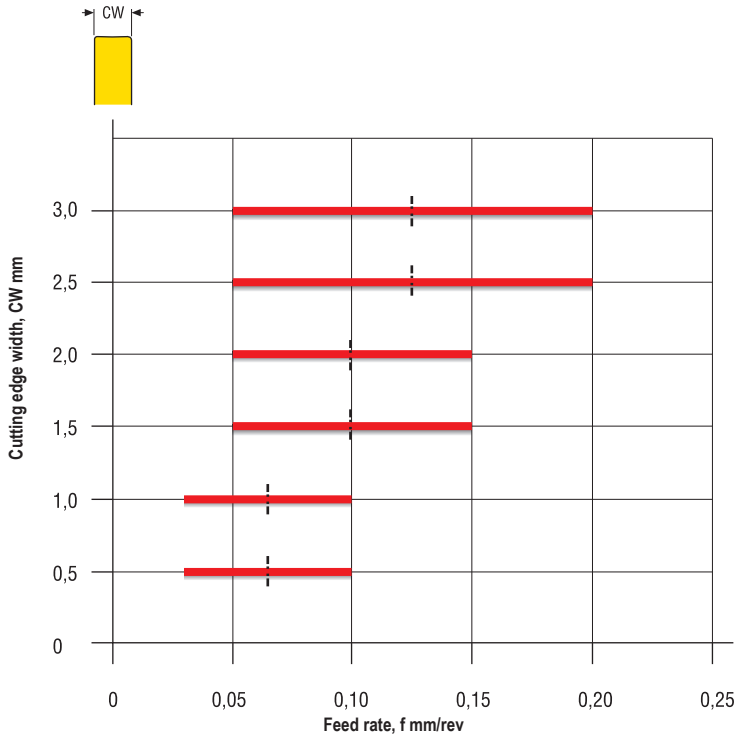
Grades

The application area for each grade is shown in the chart below.

The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.



Feed rate recommendations for each cutting edge width



Dotted line indicates start value.

The feed rate recommendations in this diagram are valid for neutral inserts. For angled inserts, R/L, generally a reduction of 30% in the values is recommended.

Cutting speed, v_c (m/min)

In this section a recommended cutting speed is indicated under specified conditions.

Use the tables beginning on page(s) 750 to classify the workpiece material into a SMG.

The cutting data tables provide a recommendation of chipbreaker and a start value for feed rate (f) and cutting speed (v_c).

The cutting data tables are based on grooving with full cutting width (CW).

The recommended cutting speeds in the tables are calculated for 15 minutes tool life with use of external flood coolant.

In order to increase the accuracy towards the actual cutting conditions and requirements of the applications the recommendation is to use My Pages – Suggest on www.secotools.com

v_c = cutting speed (m/min)

CW = cutting width (mm)

f = feed rate (mm/rev)

CP500

SMG		CW = 0,5-1,0		CW = 1,5-2,0		CW = 2,5-3,0	
		f	v_c	f	v_c	f	v_c
P1	-MC CP500	0,075	185	0,12	155	0,15	140
P2	-MC CP500	0,075	180	0,12	150	0,15	135
P3	-MC CP500	0,075	155	0,11	130	0,14	120
P4	-MC CP500	0,070	135	0,11	115	0,14	105
P5	-MC CP500	0,070	130	0,11	110	0,14	100
P6	-MC CP500	0,070	145	0,11	125	0,13	115
P7	-MC CP500	0,070	140	0,11	120	0,13	110
P8	-MC CP500	0,075	130	0,11	110	0,14	100
P11	-MC CP500	0,070	135	0,11	115	0,13	105
P12	-MC CP500	0,048	85	0,075	75	0,095	70
M1	-MC CP500	0,075	205	0,12	175	0,15	150
M2	-MC CP500	0,070	165	0,11	145	0,14	125
M3	-MC CP500	0,055	125	0,085	120	0,11	110
M4	-MC CP500	0,050	90	0,075	95	0,095	85
M5	-MC CP500	0,050	75	0,075	80	0,095	75
K1	-MC CP500	0,075	170	0,12	145	0,15	130
K2	-MC CP500	0,070	145	0,11	120	0,14	110
K3	-MC CP500	0,070	125	0,11	100	0,14	90
K4	-MC CP500	0,070	115	0,11	100	0,14	85
K5	-MC CP500	0,065	70	0,10	60	0,12	55
K6	-MC CP500	0,070	105	0,11	90	0,14	85
K7	-MC CP500	0,065	90	0,10	75	0,12	70
N11	-MC CP500	0,10	110	0,15	90	0,19	85
S1	-MC CP500	0,050	22	0,075	19	0,095	18
S2	-MC CP500	0,050	19	0,075	17	0,095	16
S3	-MC CP500	0,046	17	0,070	15	0,090	14

For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

CP600

SMG		CW = 0,5-1,0		CW = 1,5-2,0		CW = 2,5-3,0	
		f	v_c	f	v_c	f	v_c
P1	-MC CP600	0,075	170	0,12	145	0,15	130
P2	-MC CP600	0,075	165	0,12	140	0,15	130
P3	-MC CP600	0,075	145	0,11	125	0,14	115
P4	-MC CP600	0,070	130	0,11	110	0,14	100
P5	-MC CP600	0,070	125	0,11	105	0,14	95
P6	-MC CP600	0,070	140	0,11	115	0,13	110
P7	-MC CP600	0,070	130	0,11	110	0,13	105
P8	-MC CP600	0,075	120	0,11	105	0,14	95
P11	-MC CP600	0,070	125	0,11	105	0,13	100
P12	-MC CP600	0,048	80	0,075	70	0,095	65
M1	-MC CP600	0,075	190	0,12	165	0,15	140
M2	-MC CP600	0,070	155	0,11	140	0,14	120
M3	-MC CP600	0,055	115	0,085	115	0,11	105
M4	-MC CP600	0,050	85	0,075	85	0,095	80
M5	-MC CP600	0,050	70	0,075	75	0,095	70
K1	-MC CP600	0,075	160	0,12	135	0,15	125
K2	-MC CP600	0,070	135	0,11	115	0,14	100
K3	-MC CP600	0,070	115	0,11	95	0,14	85
K4	-MC CP600	0,070	110	0,11	90	0,14	80
K5	-MC CP600	0,065	65	0,10	55	0,12	50
K6	-MC CP600	0,070	100	0,11	85	0,14	80
K7	-MC CP600	0,065	85	0,10	70	0,12	65
N11	-MC CP600	0,10	100	0,15	85	0,19	80
S1	-MC CP600	0,050	21	0,075	18	0,095	17
S2	-MC CP600	0,050	18	0,075	16	0,095	15
S3	-MC CP600	0,046	16	0,070	14	0,090	13

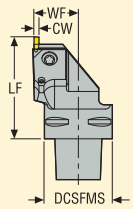
For detailed cutting data the recommendation is to use My Pages – Suggest on www.secotools.com

Toolholders for inserts X4GK



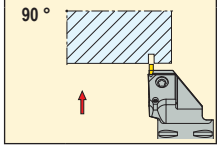
- For inserts programme, see page(s) 727-730

C.-X4FR/L...JET



Right-hand version shown
Right-hand holder must only be used with Right-hand insert (RN/RR/RL)
Left-hand holder must only be used with Left-hand insert (LN/LR/LL)

X4FR/L...JET
90 °



Capto size	Designation	Dimensions in mm DCSFMS	LF	WF	CP*	KG	
C4							
	C4-X4FR-27060-2503JET	40	60	27	70	0,7	X4GK25..RN/RR/RL..
	C4-X4FL-27060-2503JET	40	60	27	70	0,7	X4GK25..LN/LR/LL..
C5							
	C5-X4FR-35060-2503JET	50	60	35	70	0,9	X4GK25..RN/RR/RL..
	C5-X4FL-35060-2503JET	50	60	35	70	0,9	X4GK25..LN/LR/LL...
C6							
	C6-X4FR-45065-2503JET	63	65	45	70	1,2	X4GK25..RN/RR/RL..
	C6-X4FL-45065-2503JET	63	65	45	70	1,2	X4GK25..LN/LR/LL..

For CW and CDXI, see inserts page(s) 717
* Max coolant pressure (bar)

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw
-2503	T15P-7	L85020-T15P

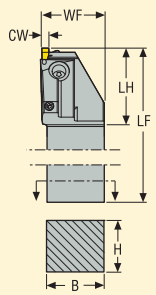
Please check availability in current price and stock-list

Toolholders for inserts X4GK



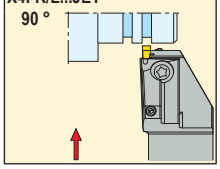
• For inserts programme, see page(s) 727-730

X4FR/L...JET



Right-hand version shown
Right-hand holder must only be used with Right-hand insert (RN/RR/RL)
Left-hand holder must only be used with Left-hand insert (LN/LR/LL)

X4FR/L...JET
90 °



Designation	Dimensions in mm H	B	LF	WF	LH	CP*	KG	
X4FR1616M2503JET	16	16	150	18	36	275	0,4	X4GK25..RN/RR/RL..
X4FR2020M2503JET	20	20	150	22	36	275	0,5	X4GK25..RN/RR/RL..
X4FR2525M2503JET	25	25	150	28	36	275	0,7	X4GK25..RN/RR/RL..
X4FL1616M2503JET	16	16	150	18	36	275	0,4	X4GK25..LN/LR/LL...
X4FL2020M2503JET	20	20	150	22	36	275	0,5	X4GK25..LN/LR/LL...
X4FL2525M2503JET	25	25	150	28	36	275	0,7	X4GK25..LN/LR/LL...

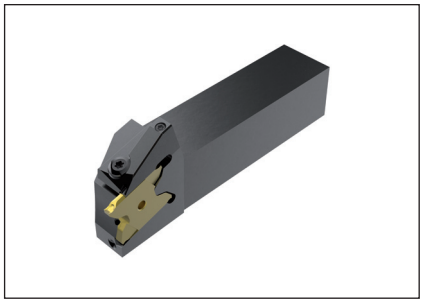
For CW and CDXI, see inserts page(s) 717
* Max coolant pressure (bar) using hose connection

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug
-2503	T15P-7	L85020-T15P	JET-P1/8-5MM

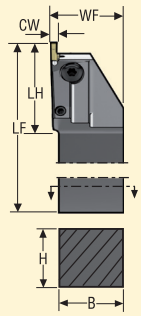
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33, 746.

Toolholders for inserts X4GK



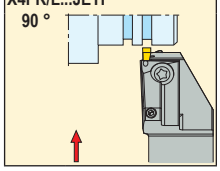
• For inserts programme, see page(s) 727-730

X4FR/L...JETI



Right-hand version shown
Right-hand holder must only be used with Right-hand insert (RN/RR/RL)
Left-hand holder must only be used with Left-hand insert (LN/LR/LL)

X4FR/L...JETI
90 °



Designation	Dimensions in mm					CP*	KG	
	H	B	LF	WF	LH			
X4FR2020X2503JETI	20	20	100	22	36	200	0,6	X4GK25..RN/RR/RL..
X4FR2525X2503JETI	25	25	121	28	37	200	0,6	X4GK25..RN/RR/RL..
X4FL2020X2503JETI	20	20	100	22	36	200	0,6	X4GK25..LN/LR/LL...
X4FL2525X2503JETI	25	25	121	28	37	200	0,6	X4GK25..LN/LR/LL...

For CW and CDXI, see inserts page(s) 717

* When using toolholder together with an adapter the maximum coolant pressure might be limited, please see page(s) 30

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw	Plug	Plug screw
-2503	T15P-7	L85020-T15P	JET-P1/8-5MM	P6SS6X6

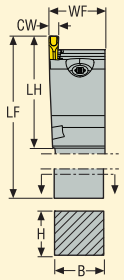
Please check availability in current price and stock-list
For more information on Jetstream Tooling® and accessories, please see page(s) 30-33, 746.

Toolholders for inserts X4GK

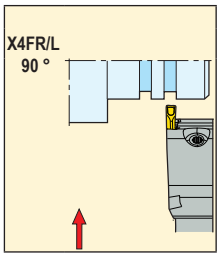


• For inserts programme, see page(s) 727-730

X4FR/L



Right-hand version shown
Right-hand holder must only be used with Right-hand insert (RN/RR/RL)
Left-hand holder must only be used with Left-hand insert (LN/LR/LL)



Designation	Dimensions in mm					KG	
	H	B	LF	WF	LH		
X4FR1212K2503	12	12	125	11,9	36,6	0,2	X4GK25..RN/RR/RL..
X4FR1616K2503	16	16	125	18,0	36,6	0,3	X4GK25..RN/RR/RL..
X4FR2020M2503	20	20	150	22,0	36,0	0,6	X4GK25..RN/RR/RL..
X4FR2525M2503	25	25	150	28,0	36,0	0,8	X4GK25..RN/RR/RL..
X4FL1212K2503	12	12	125	11,9	36,6	0,2	X4GK25..LN/LR/LL...
X4FL1616K2503	16	16	125	18,0	36,6	0,3	X4GK25..LN/LR/LL...
X4FL2020M2503	20	20	150	22,0	36,0	0,6	X4GK25..LN/LR/LL...
X4FL2525M2503	25	25	150	28,0	36,0	0,8	X4GK25..LN/LR/LL...

For CW and CDXI, see inserts page(s) 717

Spare Parts, Parts included in delivery

For holder	Clamp key	Clamp screw
-2503	T15P-7	L85020-T15P

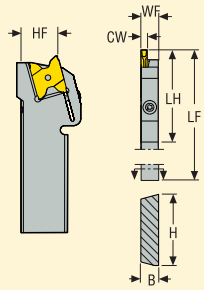
Please check availability in current price and stock-list

Toolholders for inserts X4GK



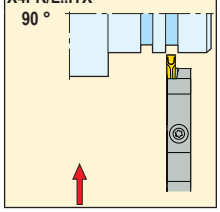
- For inserts programme, see page(s) 727-731

X4FR/L...ITX



Right-hand version shown
Right-hand holder must only be used with Right-hand insert (RN/RR/RL)
Left-hand holder must only be used with Left-hand insert (LN/LR/LL)

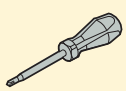
X4FR/L..ITX
90 °



Designation	Dimensions in mm					KG	
	H	B	LF	WF	LH		
X4FR26ITX2503R	26	7,85	119,5	7,85	47	0,2	X4GK25..RN/RR/RL..
X4FR32ITX2503R	32	7,85	119,5	7,85	47	0,3	X4GK25..RN/RR/RL..
X4FL26ITX2503R	26	7,85	119,5	7,85	47	0,2	X4GK25..LN/LR/LL...
X4FL32ITX2503R	32	7,85	119,5	7,85	47	0,3	X4GK25..LN/LR/LL...
X4FR26ITX2503L	26	7,85	119,5	7,85	47	0,2	X4GK25..RN/RR/RL..
X4FR32ITX2503L	32	7,85	119,5	7,85	47	0,3	X4GK25..RN/RR/RL..
X4FL26ITX2503L	26	7,85	119,5	7,85	47	0,2	X4GK25..LN/LR/LL...
X4FL32ITX2503L	32	7,85	119,5	7,85	47	0,3	X4GK25..LN/LR/LL...

For CW and CDXI, see inserts page(s) 717

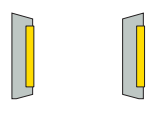
Spare Parts, Parts included in delivery

For size	Clamp key	Clamp screw
		
26-32	T09P-3	L84017-T09P

Please check availability in current price and stock-list

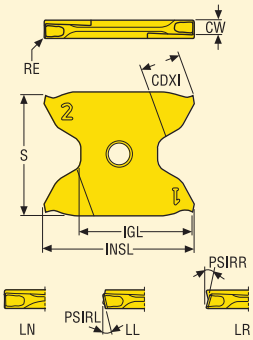
Front view

X4FR..R **X4FR..L**



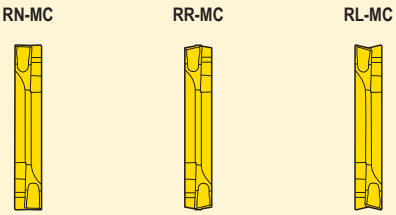
X4FL..L **X4FL..R**

X4GK



Tolerances:
CW = ±0,025
CDXI = ±0,1
S = ±0,025
RE = ±0,03

PSIRR/PSIRL = ±0,25°



Right-hand insert (RN/RR/RL) must only be used with Right-hand holder

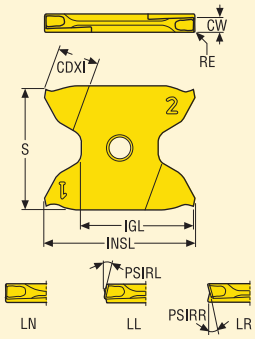
Inserts	Designation	PSIRR°	PSIRL°	Dimensions in mm						Grades				
										Coated				
				CW	CDXI*	IGL	INSL	S	RE	CP500	CP600	TGH1050		
X4GK..RN-MC														
	X4GK2503005-0050RN-MC	0	0	0,50	2,6	19,0	25,44	20,40	0,05		■	■		
	X4GK2503005-0100RN-MC	0	0	1,00	4,3	19,0	25,44	20,40	0,05		■	■		
	X4GK2503010-0150RN-MC	0	0	1,50	6,5	19,0	25,44	20,40	0,10	■	■	■		
	X4GK2503010-0200RN-MC	0	0	2,00	6,5	19,0	25,44	20,40	0,10	■	■	■		
	X4GK2503015-0250RN-MC	0	0	2,50	6,5	19,0	25,43	20,39	0,15	■	■	■		
	X4GK2503015-0300RN-MC	0	0	3,00	6,5	19,0	25,43	20,39	0,15	■	■	■		
	X4GK2503020-0150RN-MC	0	0	1,50	6,5	19,0	25,44	20,40	0,20	■				
	X4GK2503020-0200RN-MC	0	0	2,00	6,5	19,0	25,44	20,40	0,20	■				
	X4GK2503030-0250RN-MC	0	0	2,50	6,5	19,0	25,43	20,39	0,30	■				
	X4GK2503030-0300RN-MC	0	0	3,00	6,5	19,0	25,43	20,39	0,30	■				
X4GK..RR-MC														
	X4GK2503005-0100RR15-MC	15	0	1,00	4,3	19,0	25,40	20,36	0,05		■			
	X4GK2503005-0150RR15-MC	15	0	1,50	6,5	19,0	25,37	20,34	0,05	■				
	X4GK2503010-0150RR15-MC	15	0	1,50	6,5	19,0	25,37	20,34	0,10	■	■			
	X4GK2503010-0200RR15-MC	15	0	2,00	6,5	19,0	25,35	20,32	0,10		■			
	X4GK2503015-0250RR15-MC	15	0	2,50	6,5	18,9	25,32	20,30	0,15		■			
	X4GK2503015-0300RR06-MC	6	0	3,00	6,5	18,9	25,31	20,28	0,15		■			
X4GK..RL-MC														
	X4GK2503005-0100RL15-MC	0	15	1,00	4,3	19,0	25,44	20,40	0,05		■			
	X4GK2503010-0150RL15-MC	0	15	1,50	6,5	19,0	25,43	20,39	0,10	■	■			
	X4GK2503010-0200RL15-MC	0	15	2,00	6,5	19,0	25,43	20,39	0,10		■			
	X4GK2503015-0250RL15-MC	0	15	2,50	6,5	19,0	25,43	20,39	0,15		■			
	X4GK2503015-0300RL06-MC	0	6	3,00	6,5	19,0	25,43	20,39	0,15		■			

■ **Stock standard**

Subject to change refer to current price- and stock-list

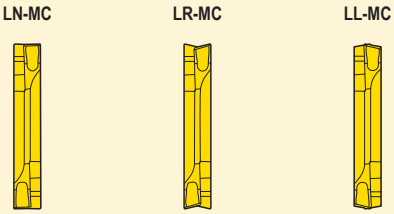
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 717

X4GK



Tolerances:
CW = ±0,025
CDXI = ±0,1
S = ±0,025
RE = ±0,03

PSIRR/PSIRL = ±0,25°



Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

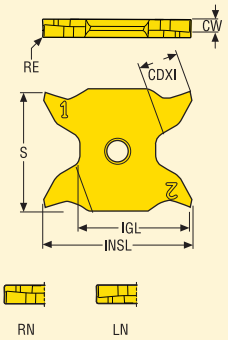
Inserts	Designation	PSIRR°	PSIRL°	Dimensions in mm CW	CDXI*	IGL	INSL	S	RE	Grades Coated CP500	CP600	TGH1050		
X4GK..LN-MC														
	X4GK2503005-0050LN-MC	0	0	0,50	2,6	19,0	25,44	20,40	0,05		■	■		
	X4GK2503005-0100LN-MC	0	0	1,00	4,3	19,0	25,44	20,40	0,05		■	■		
	X4GK2503010-0150LN-MC	0	0	1,50	6,5	19,0	25,44	20,40	0,10	■	■	■		
	X4GK2503010-0200LN-MC	0	0	2,00	6,5	19,0	25,44	20,40	0,10	■	■	■		
	X4GK2503015-0250LN-MC	0	0	2,50	6,5	19,0	25,43	20,39	0,15	■	■	■		
	X4GK2503015-0300LN-MC	0	0	3,00	6,5	19,0	25,43	20,39	0,15	■	■	■		
	X4GK2503020-0150LN-MC	0	0	1,50	6,5	19,0	25,44	20,40	0,20	■				
	X4GK2503020-0200LN-MC	0	0	2,00	6,5	19,0	25,44	20,40	0,20	■				
	X4GK2503030-0250LN-MC	0	0	2,50	6,5	19,0	25,43	20,39	0,30	■				
	X4GK2503030-0300LN-MC	0	0	3,00	6,5	19,0	25,43	20,39	0,30	■				
X4GK..LR-MC														
	X4GK2503005-0100LR15-MC	15	0	1,00	4,3	19,0	25,44	20,40	0,05		■			
	X4GK2503010-0150LR15-MC	15	0	1,50	6,5	19,0	25,43	20,39	0,10	■	■			
	X4GK2503010-0200LR15-MC	15	0	2,00	6,5	19,0	25,43	20,39	0,10		■			
	X4GK2503015-0250LR15-MC	15	0	2,50	6,5	19,0	25,43	20,39	0,15		■			
	X4GK2503015-0300LR06-MC	6	0	3,00	6,5	19,0	25,43	20,39	0,15		■			
X4GK..LL-MC														
	X4GK2503005-0100LL15-MC	0	15	1,00	4,3	19,0	25,40	20,36	0,05		■			
	X4GK2503005-0150LL15-MC	0	15	1,50	6,5	19,0	25,37	20,34	0,05	■				
	X4GK2503010-0150LL15-MC	0	15	1,50	6,5	19,0	25,37	20,34	0,10	■	■			
	X4GK2503010-0200LL15-MC	0	15	2,00	6,5	19,0	25,35	20,32	0,10		■			
	X4GK2503015-0250LL15-MC	0	15	2,50	6,5	18,9	25,32	20,30	0,15		■			
	X4GK2503015-0300LL06-MC	0	6	3,00	6,5	18,9	25,31	20,28	0,15		■			

■ **Stock standard**

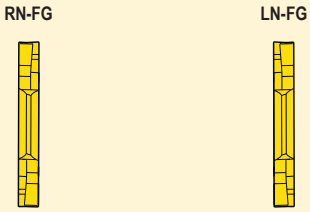
Subject to change refer to current price- and stock-list

* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 717

X4GK



Tolerances:
CW = ±0,025
CDXI = ±0,1
S = ±0,025
RE = ±0,03



Right-hand insert (RN/RR/RL) must only be used with Right-hand holder
Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

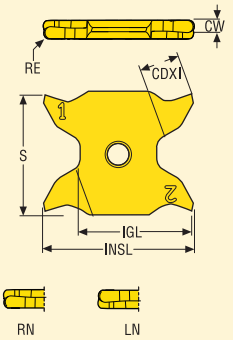
Inserts	Designation	Dimensions in mm						Grades				
								Coated				
		CW	CDXI*	IGL	INSL	S	RE	CP500	CP600	TGH1050		
X4GK..RN-FG for circlip												
	X4GK2503010-0115RN-FG	1,15	4,3	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0135RN-FG	1,35	4,3	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0165RN-FG	1,65	6,5	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0190RN-FG	1,90	6,5	19,0	25,44	20,40	0,10	■				
	X4GK2503015-0215RN-FG	2,15	6,5	19,0	25,43	20,39	0,15	■				
	X4GK2503015-0265RN-FG	2,65	6,5	19,0	25,43	20,39	0,15	■				
X4GK..RN-FG												
	X4GK2503005-0050RN-FG	0,50	2,6	19,0	25,44	20,40	0,05			■		
	X4GK2503005-0100RN-FG	1,00	4,3	19,0	25,44	20,40	0,05			■		
	X4GK2503010-0150RN-FG	1,50	6,5	19,0	25,44	20,40	0,10			■		
	X4GK2503010-0200RN-FG	2,00	6,5	19,0	25,44	20,40	0,10			■		
	X4GK2503015-0250RN-FG	2,50	6,5	19,0	25,44	20,40	0,15			■		
	X4GK2503015-0300RN-FG	3,00	6,5	19,0	25,44	20,40	0,15			■		
X4GK..LN-FG for circlip												
	X4GK2503010-0115LN-FG	1,15	4,3	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0135LN-FG	1,35	4,3	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0165LN-FG	1,65	6,5	19,0	25,44	20,40	0,10	■				
	X4GK2503010-0190LN-FG	1,90	6,5	19,0	25,44	20,40	0,10	■				
	X4GK2503015-0215LN-FG	2,15	6,5	19,0	25,43	20,39	0,15	■				
	X4GK2503015-0265LN-FG	2,65	6,5	19,0	25,43	20,39	0,15	■				
X4GK..RN-FG												
	X4GK2503005-0050LN-FG	0,50	2,6	19,0	25,44	20,40	0,05			■		
	X4GK2503005-0100LN-FG	1,00	4,3	19,0	25,44	20,40	0,05			■		
	X4GK2503010-0150LN-FG	1,50	6,5	19,0	25,44	20,40	0,10			■		
	X4GK2503010-0200LN-FG	2,00	6,5	19,0	25,44	20,40	0,10			■		
	X4GK2503015-0250LN-FG	2,50	6,5	19,0	25,44	20,40	0,15			■		
	X4GK2503015-0300LN-FG	3,00	6,5	19,0	25,44	20,40	0,15			■		

■ **Stock standard**

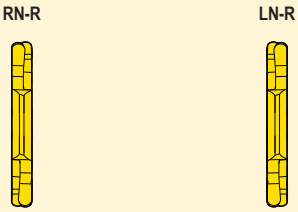
Subject to change refer to current price- and stock-list

* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 717

X4GK



Tolerances:
CW = ±0,025
CDXI = ±0,1
S = ±0,025
RE = ±0,03

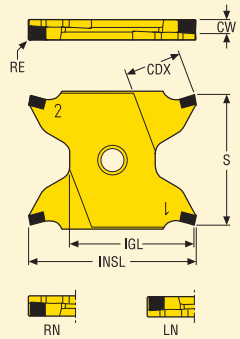


Right-hand insert (RN/RR/RL) must only be used with Right-hand holder
Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

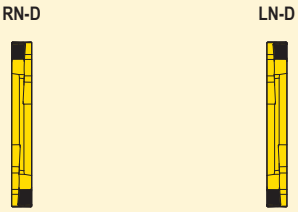
Inserts	Designation	Dimensions in mm						Grades				
								Coated				
		CW	CDXI*	IGL	INSL	S	RE	CP500	CP600	TGH1050		
X4GK..RN-R												
	X4GK2503M0-0100RN-R	1,00	4,3	19,0	25,24	20,38	0,50	■				
	X4GK2503M0-0120RN-R	1,20	4,3	19,0	25,29	20,37	0,60	■				
	X4GK2503M0-0150RN-R	1,50	6,5	19,0	25,36	20,37	0,75	■				
	X4GK2503M0-0200RN-R	2,00	6,5	19,0	25,39	20,36	1,00	■				
	X4GK2503M0-0300RN-R	3,00	6,5	19,0	25,37	20,34	1,50	■				
X4GK..LN-R												
	X4GK2503M0-0100LN-R	1,00	4,3	19,0	25,24	20,38	0,50	■				
	X4GK2503M0-0120LN-R	1,20	4,3	19,0	25,29	20,37	0,60	■				
	X4GK2503M0-0150LN-R	1,50	6,5	19,0	25,36	20,37	0,75	■				
	X4GK2503M0-0200LN-R	2,00	6,5	19,0	25,39	20,36	1,00	■				
	X4GK2503M0-0300LN-R	3,00	6,5	19,0	25,37	20,34	1,50	■				

■ **Stock standard**
Subject to change refer to current price- and stock-list
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 717

X4G



Tolerances:
CW = ±0,025
CDXI = ±0,1
S = ±0,025
RE = ±0,03



Right-hand insert (RN/RR/RL) must only be used with Right-hand holder
Left-hand insert (LN/LR/LL) must only be used with Left-hand holder

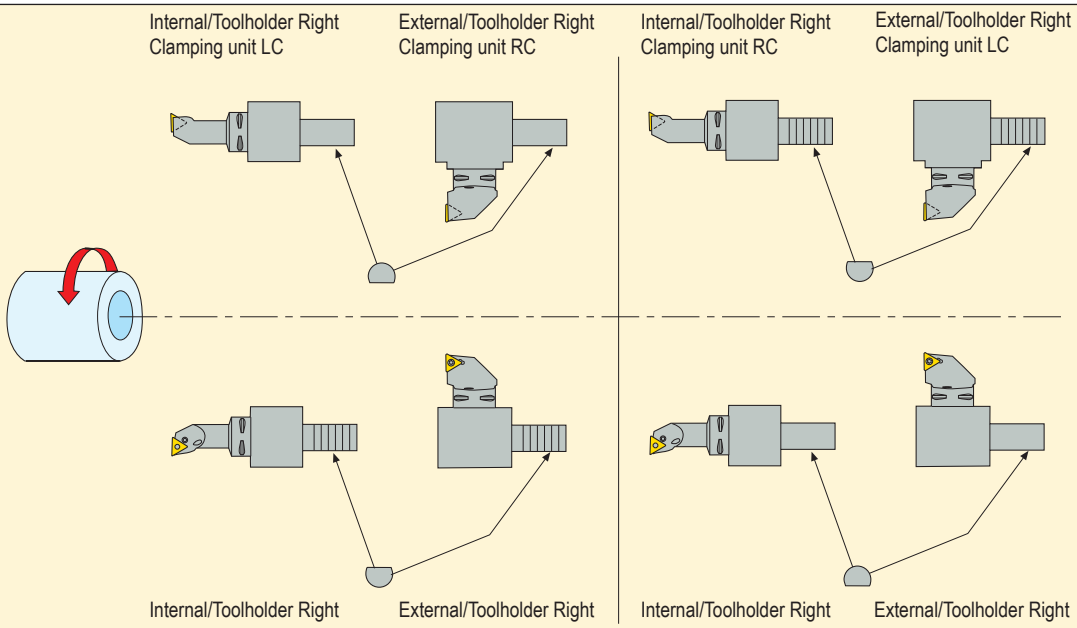
Inserts	Designation	Dimensions in mm						Grades				
								Coated				
		CW	CDXI*	IGL	INSL	S	RE	CBN200				
X4G..RN-D												
	X4G2503015S-0215RN-D	2,15	6,5	19,0	25,0	20,361	0,15	■				
X4G..LN-D												
	X4G2503015S-0215LN-D	2,15	6,5	19,0	25,0	20,361	0,15	■				

■ **Stock standard**

Subject to change refer to current price- and stock-list

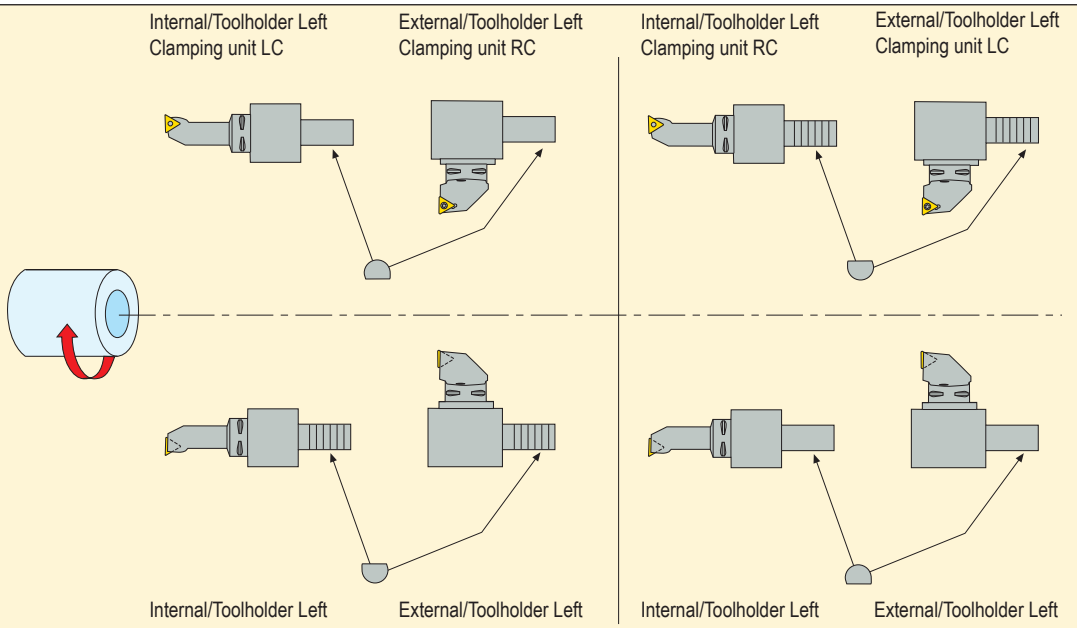
* Maximum cutting depth CDXI is limited relative to workpiece diameter to avoid contact between workpiece and toolholder, see guide page(s) 717

Selection of VDI clamping unit



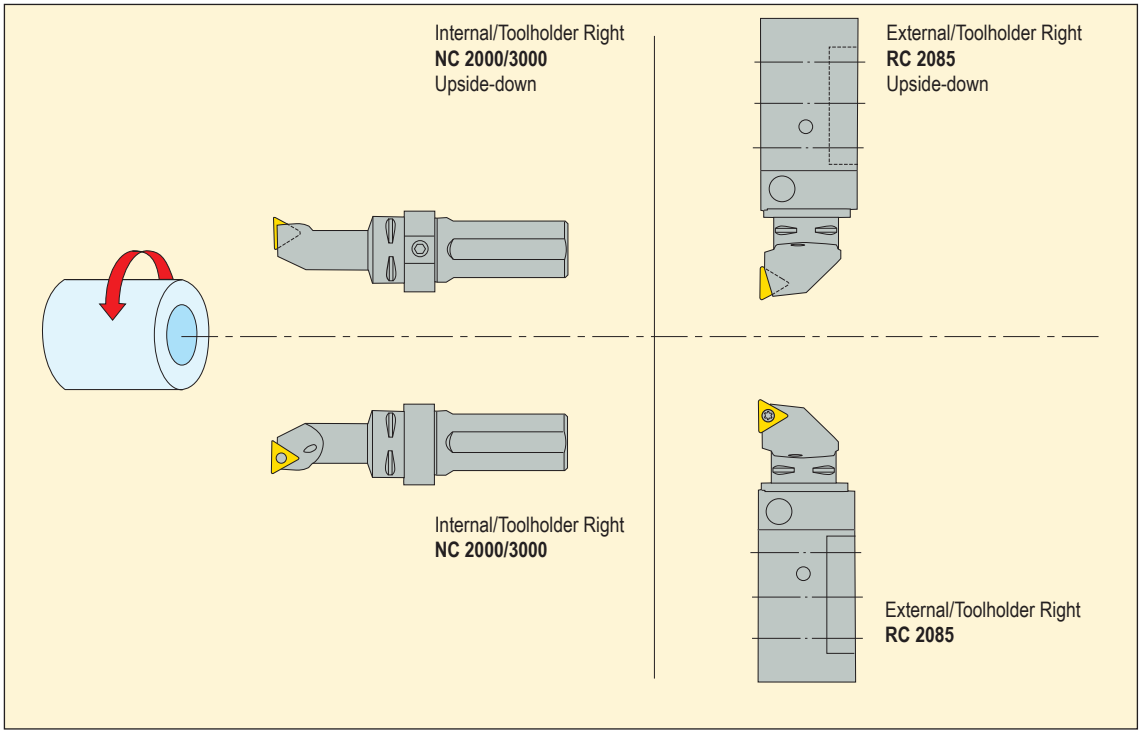
Note: The polygon socket has to be rotated 180°

Selection of VDI clamping unit

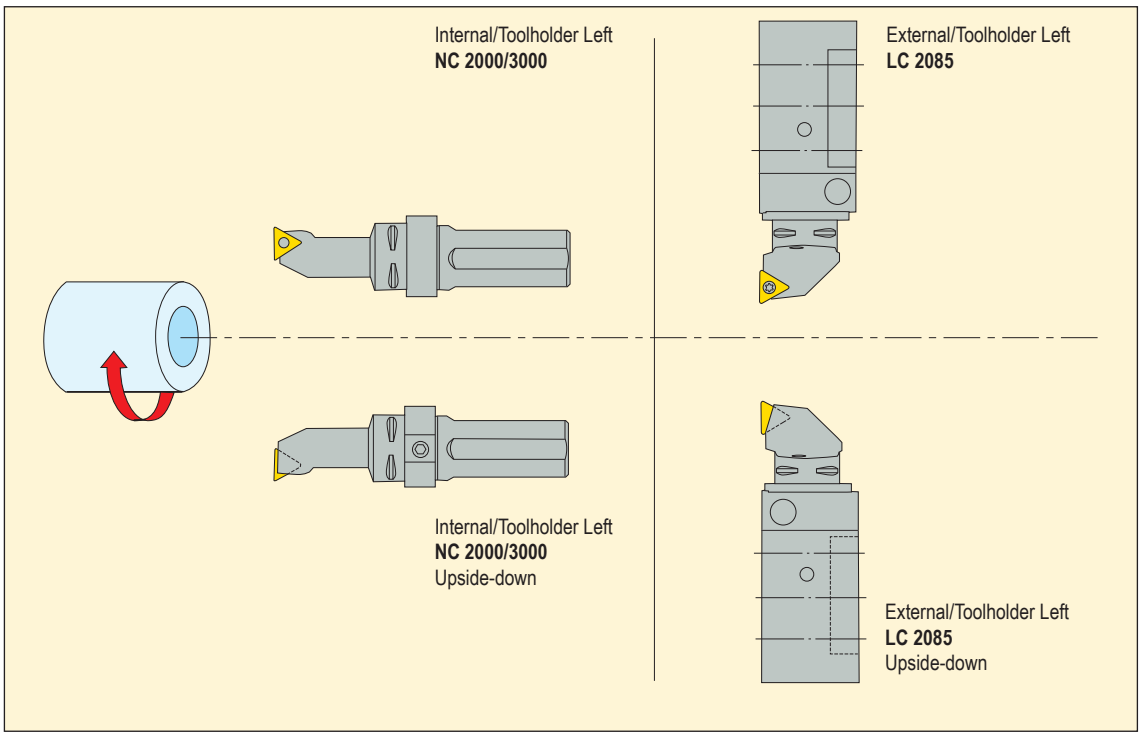


Note: The polygon socket has to be rotated 180°

Selection of clamping unit 2000/3000/2085

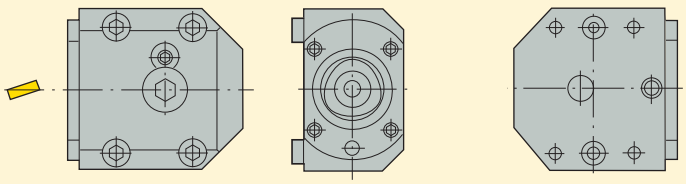


Selection of clamping unit 2000/3000/2085

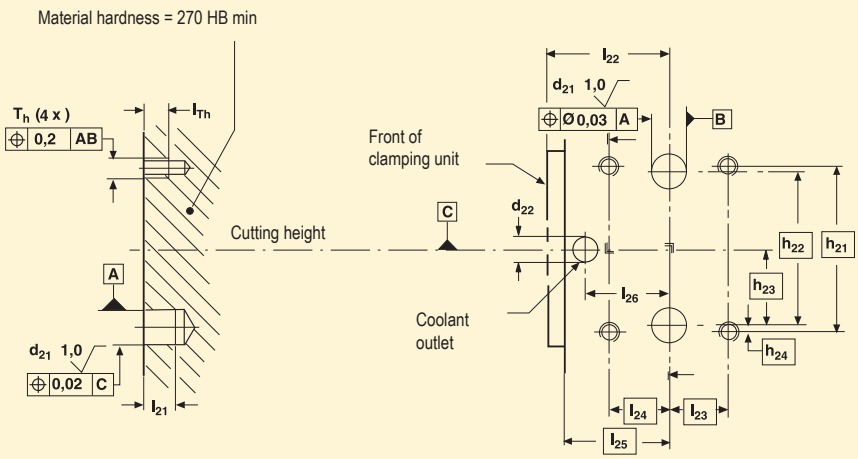


2000 = cylindrical type with drawbar, 3000 = cylindrical type with screw, 2085 = shank type.

Clamping unit 2090 for special applications



Design instruction for application of clamping unit RC/LC 2090



Seco-Capto™ size	Designation	Dimensions in mm													
		d_{21} H7	d_{22}	h_{21}	h_{22}	h_{23}	h_{24}	l_{21} min	l_{22}	l_{23}	l_{24}	l_{25}	l_{26}	l_{Th} min	T_h
C3	C3-R/LC2090-19039M	12	5	42	39	19,5	1,5	8,5	39	19,0	19,0	33,5	28	7,5	M6
C4	C4-R/LC2090-24043A	16	7	60	5	27,5	2,5	11,0	43	19,0	19,0	36,5	30	11,0	M8
C5	C5-R/LC2090-32048A	20	7	70	62	31.0	4,0	12,0	48	21,0	21,0	39,5	33	13,0	M10
C6	C6-R/LC2090-42060	25	10	82	71	35,5	5,5	20,0	60	24,5	24,5	50,0	41	12,0	M10
C8	C8-R/LC2090-50088	32	11	110	92	46,0	9,0	20,0	88	43,0	43,0	76,0	63	14,5	M12

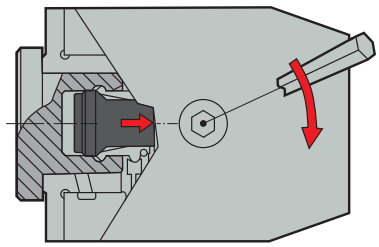
Toolholders

A large range of Seco-Capto™ toolholders is available:
For external and internal turning with negative inserts.
For external and internal turning with positive inserts.
For external and internal turning with MDT inserts.
For external and internal threading.

For selection of toolholder use the guidelines for conventional tools.

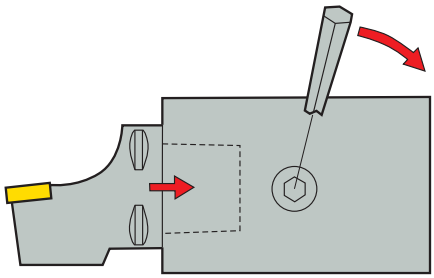
Cover plug

A cover plug should always be used to protect the ground surfaces of the connecting sleeve from dirt or damage to the clamping units when they do not have a cutting unit inserted.



Clamping force

In order to obtain the necessary clamping force (F) the clamping unit should be tightened to the torque value (Mv) as recommended in the table below.



Torque Mv	
Size	**Nm**
C3	35
C4	50
C5	70
C6	90
C8	130

Turning the cutting tool 180°

If the entire clamping unit has to be rotated 180°, the polygon socket should be rotated 180°.

1. Loosen the screws (2).
2. Dismantle the polygon socket. Use the special tool as described on page(s) 747 (ordered separately).
3. Move the guiding pin to the opposite side of the clamping unit.
4. Rotate the polygon socket 180° and reassemble. Tap carefully with a plastic mallet.

Lubrication

All manual clamping units are lubricated with BP Energrease ACS-2 prior to delivery (Alternative MOBIL Temp Shc 32 or STATOIL Beacon 325). The lubrication should be checked every six months. New grease can be applied via the cam.

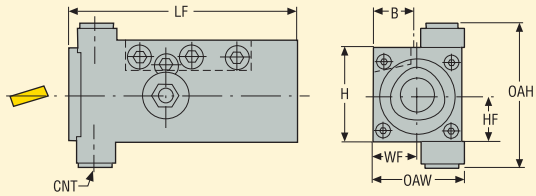
1. Remove the screw (1).
2. Assemble grease nipple 5692 012-01.
3. Pump in grease with grease gun until it begins to seep out around the key handle at the cam.
4. Remove grease nipple.
5. Replace screw (1) into the cam.

Note: Clamping unit must be clamped during lubrication.

Seco-Capto™, Clamping units – Type 2085

Straight shank type





Right-hand version shown

- How to select Clamping unit, see page(s) 733
- Spare Parts, see page(s) 741

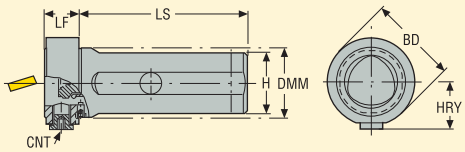
Capto size	Shank	H mm	Designation	Dimensions in mm						CNT	KG
				HF	LF	OAW	WF	B	OAH		
C3											
	2020	40	**C3-LC2085-4038M**	20	95	38	19	20	62	G1/8	1,05
	2020	40	**C3-RC2085-4038M**	20	95	38	19	20	62	G1/8	1,05
C4											
	2525	50	**C4-LC2085-5048**	25	125	48	24	25	58	G1/8	2,1
	2525	50	**C4-RC2085-5048**	25	125	48	24	25	58	G1/8	2,1
C5											
	3232	64	**C5-LC2085-6464**	32	145	64	32	32	72	G1/8	4,3
	3232	64	**C5-RC2085-6464**	32	145	64	32	32	72	G1/8	4,1

Please check availability in current price and stock-list

Cylindrical type



- How to select Clamping unit, see page(s) 733
- Spare Parts, see page(s) 742



Type 2000 locking with drawbar and segment
Type 3000 locking with centre bolt

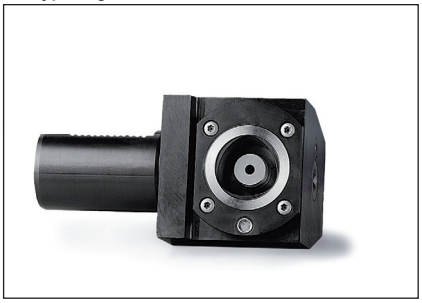
Neutral version shown

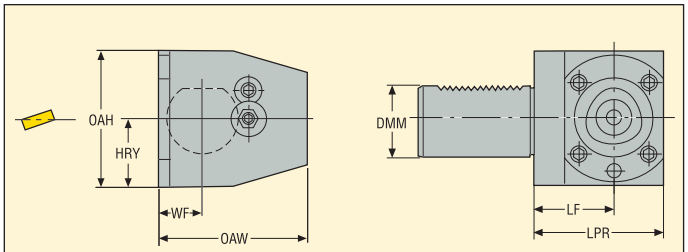
Capto size	DMM mm	Designation	Dimensions in mm BD	LS	LF	HRY	H	CNT	KG
C3									
	32	C3-NC2000-08018-32	45,5	80	18	26	30	G1/8	0,6
C4									
	40	C4-NC2000-10020-40	51,5	100	20	28	37	G1/8	1,1
C5									
	50	C5-NC2000-12024-50	61,5	120	24	33	47	G1/8	2,0
C3									
	32	C3-NC3000-08018-32	45,5	80	18	26	30	G1/8	0,6
	32	C3-NC3000-10018-40	45,5	100	18	26	37	G1/8	1,1
C4									
	40	C4-NC3000-10020-40	51,5	100	20	28	37	G1/8	1,1
C5									
	50	C5-NC3000-12024-50	61,5	120	24	33	47	G1/8	1,8

Please check availability in current price and stock-list

* Maximum length possible to part off

VDI type angled DIN69880





Right-hand version shown

- How to select Clamping unit, see page(s) 732
- Spare Parts, see page(s) 743

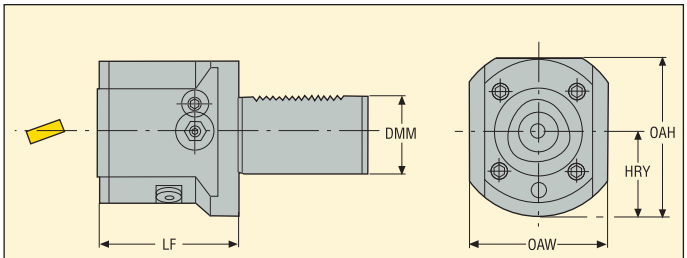
Capto size	VDI DMM	Designation	Dimensions in mm						KG
			LF	LPR	WF	OAW	OAH	HRY	
C3									
	30	C3-RC2030-41020M	41	60	20	74	57	30	1,9
	30	C3-LC2030-41020M	41	60	20	74	57	30	1,9
	30	C3-RC2030-41030M	41	60	30	73	57	30	2,0
	30	C3-LC2030-41030M	41	60	30	73	57	30	2,0
C4									
	40	C4-RC2040-51030M	51	75	30	86	75	38	3,8
	40	C4-LC2040-51030M	51	75	30	86	75	38	3,8
	40	C4-RC2040-51040M	51	75	40	86	75	38	4,0
	40	C4-LC2040-51040M	51	75	40	86	75	38	4,0
C5									
	40	C5-RC2040-53030M	53	85	30	99	82	41	4,9
	40	C5-LC2040-53030M	53	85	30	99	82	41	4,9
	40	C5-RC2040-53040M	53	85	40	99	82	41	5,0
	40	C5-LC2040-53040M	53	85	40	99	82	41	5,0
	50	C5-RC2050-53030M	53	85	30	99	86	43	5,8
	50	C5-LC2050-53030M	53	85	30	99	86	43	5,8
	50	C5-RC2050-53040M	53	85	40	99	86	43	6,0
	50	C5-LC2050-53040M	53	85	40	99	86	43	6,0
	60	C5-RC2060-43040M	43	75	40	99	94	53	6,8
	60	C5-LC2060-43040M	43	75	40	99	94	53	6,8
C6									
	60	C6-RC2060-53040	53	95	40	122	105	53	9,6
	60	C6-LC2060-53040	53	95	40	122	105	53	9,6

Please check availability in current price and stock-list

VDI type straight DIN69880



- How to select Clamping unit, see page(s) 732
- Spare Parts, see page(s) 744



Right-hand version shown

Capto size	VDI DMM	Designation	Dimensions in mm LF	OAW	OAH	HRY	KG
C3							
	30	C3-RC2030-00060M	60	50	61	34	1,1
	30	C3-LC2030-00060M	60	50	61	34	1,1
C4							
	40	C4-RC2040-00075M	75	75	75	41	2,2
	40	C4-LC2040-00075M	75	75	75	41	2,2
C5							
	40	C5-RC2040-00085M	85	75	82	41	3,3
	40	C5-LC2040-00085M	85	75	82	41	3,3
C4							
	50	C4-RC2050-00065M	65	70	83	49	2,6
	50	C4-LC2050-00065M	65	70	83	49	2,6
C5							
	60	C5-RC2060-00075M	75	80	100	58	5,2
	60	C5-LC2060-00075M	75	80	100	58	5,2
	50	C5-RC2050-00085M	85	83	90	49	4,0
	50	C5-LC2050-00085M	85	83	90	49	4,0
C6							
	60	C6-RC2060-00095	95	84	111	58	6,9
	60	C6-LC2060-00095	95	84	111	58	6,9

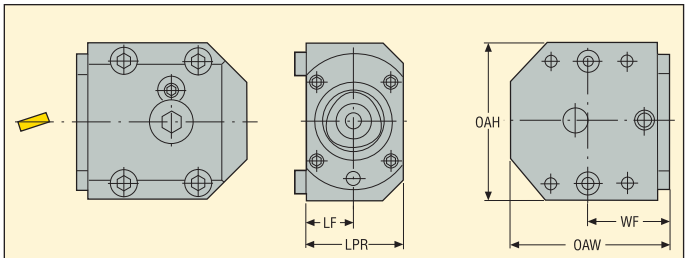
Please check availability in current price and stock-list

Seco-Capto™, Clamping units – Type 2090

For special applications



- Design instruction, see page(s) 734
- Spare Parts, see page(s) 745

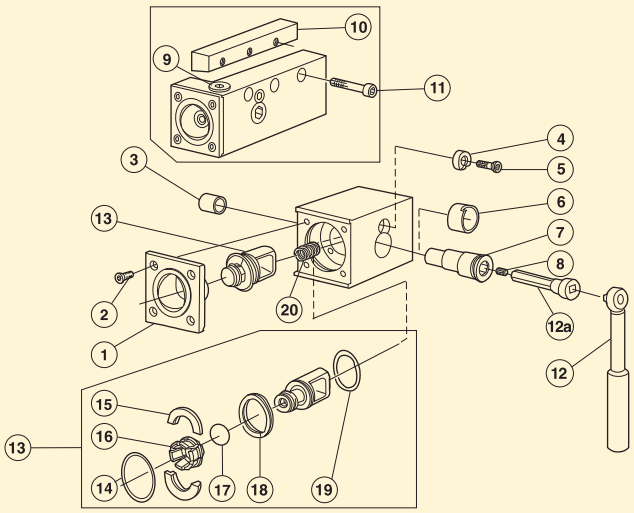


Right-hand version shown

Capto size	Designation	Dimensions in mm					KG
		LPR	LF	OAH	OAW	WF	
C3							
	C3-RC2090-19039M	38	19	54	73	39	1,0
	C3-LC2090-19039M	38	19	54	73	39	1,0
C4							
	C4-RC2090-24043A	48	24	77	86	43	1,9
	C4-LC2090-24043A	48	24	77	86	43	1,9
C5							
	C5-RC2090-32048A	64	32	92	100	48	3,5
	C5-LC2090-32048A	64	32	92	100	48	3,5
C6							
	C6-RC2090-42060	84	42	105	122	60	6,5
	C6-LC2090-42060	84	42	105	122	60	6,5
C8							
	C8-RC2090-50088	100	50	133	146	88	12,4
	C8-LC2090-50088	100	50	133	146	88	12,4

Please check availability in current price and stock-list

Manually operated clamping unit – Type 2085



Size	1 Sleeve	2 Screw (4x)	3 Bushing	4 Locking washer	5 Screw
C3	5252015-01	416.1-834	3823010-101	5541030-01	416.1-834
C4	5252015-02	5513020-26	3823010-122	5541030-02	416.1-834
C5	5252015-03	5513020-14	3823010-162	5541030-03	5513020-14

Size	6 Bushing	7 Cam shaft	8 Screw	9 Plug	10 Metric wedge
C3	5638022-01	5333025-01	3214010-355	3611005-180	5431115-01
C4	5638022-02	5333025-02	3214010-355	3611005-180	5431115-02
C5	5638022-03	5333025-03	3214010-355	3611005-180	5431115-03

Size	11 Screw	12 Torque wrench	12a Adapter	20 Compression spring	
C3	3212010-362	BT-TK-02	5680035-05	5561001-71	
C4	3212010-364	C-TK-01	5680035-06	5561001-41	
C5	3212010-416	C-TK-01	5680035-07	5561001-41	

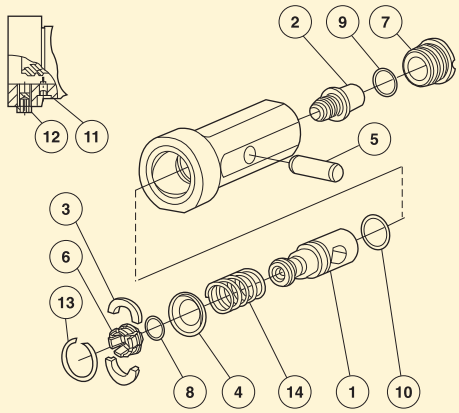
Draw bar set

Size	13 Draw bar set
C3	5461100-101
C4	5461100-111
C5	5461100-121

Parts included in draw bar set

14 Spiral retaining ring	15 Holder ring (set of 2)	16 Segment (set of 6)	17 O-ring	18 Flat wire spring	19 O-ring
5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16

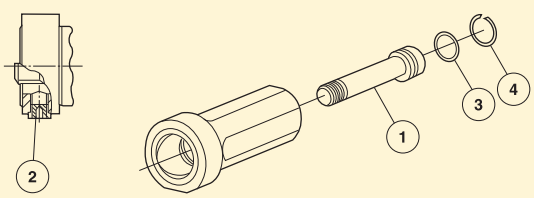
Manually operated clamping unit – Type 2000



Size	1 Drawbar	2 Clamping screw	3 Holder ring (set of 2)	4 Ring	5 Support pin	6 Segment (set of 6)	7 Thread ring	8 O-ring
C3	5461105-01	5519105-01	5546002-01	5541028-01	5552032-01	5549120-08	5512091-03	5641005-01
C4	5461105-02	5519105-02	5546002-02	5541028-02	5552032-02	5549120-06	5512091-01	5641005-05
C5	5461105-03	5519105-03	5546002-03	5541028-03	5552032-03	5549120-07	5512091-02	5641005-06

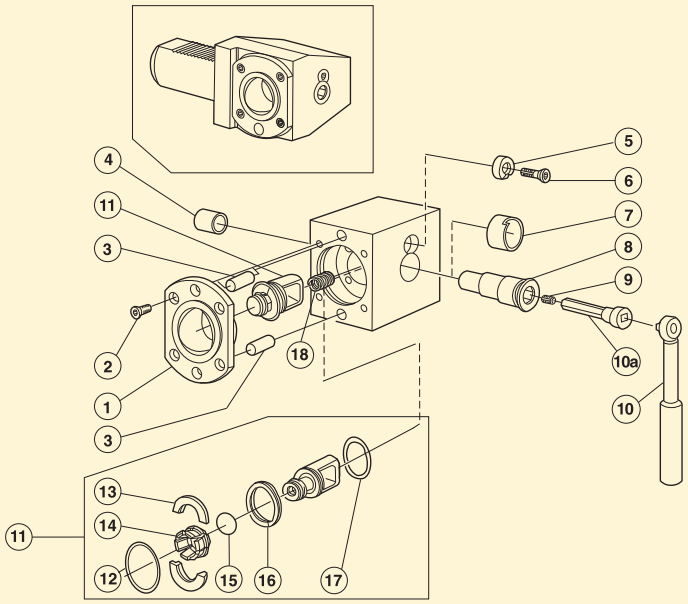
Size	9 Drawbar	10 Clamping screw	11 Holder ring (set of 2)	12 Ring	13 Support pin	14 Segment (set of 6)	Key (size, mm)
C3	3671010-118	3671010-124	3214020-204	3611005-180	5545042-01	5561001-52	3021013-080 (8,0)
C4	3671010-120	3671010-126	3214020-255	3611005-180	3421105-026	5561001-53	5680010-03 (10,0)
C5	3671010-124	3671010-128	3214020-255	3611005-180	3421105-032	5561001-54	12SMS795 (12,0)

Manually operated clamping unit – Type 3000



Size	1 Clamping screw	2 Blind plug	3 O-ring	4 Retaining ring	Key (size, mm)
C3	5512096-01	3611005-180	3671010-020	5545040-03	3021013-080 (8,0)
C4	5512096-02	3611005-180	3671010-022	5545040-05	5680010-03 (10,0)
C5	5512096-03	3611005-180	3671010-024	5545040-06	12SMS795 (12,0)

Manually operated clamping unit – VDI angled design, DIN 69880



Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Locking washer	6 Screw
C3	5252010-01	416.1-834	3111050-558	3823010-101	5541030-01	416.1-834
C4	5252010-02	5513020-26	3111050-610	3823010-122	5541030-02	416.1-834
C5	5252010-03	5513020-14	3111050-661	3823010-162	5541030-03	5513020-14
C6	5252010-04	3213010-410	3111050-715	3823010-183	5541030-04	5513020-14

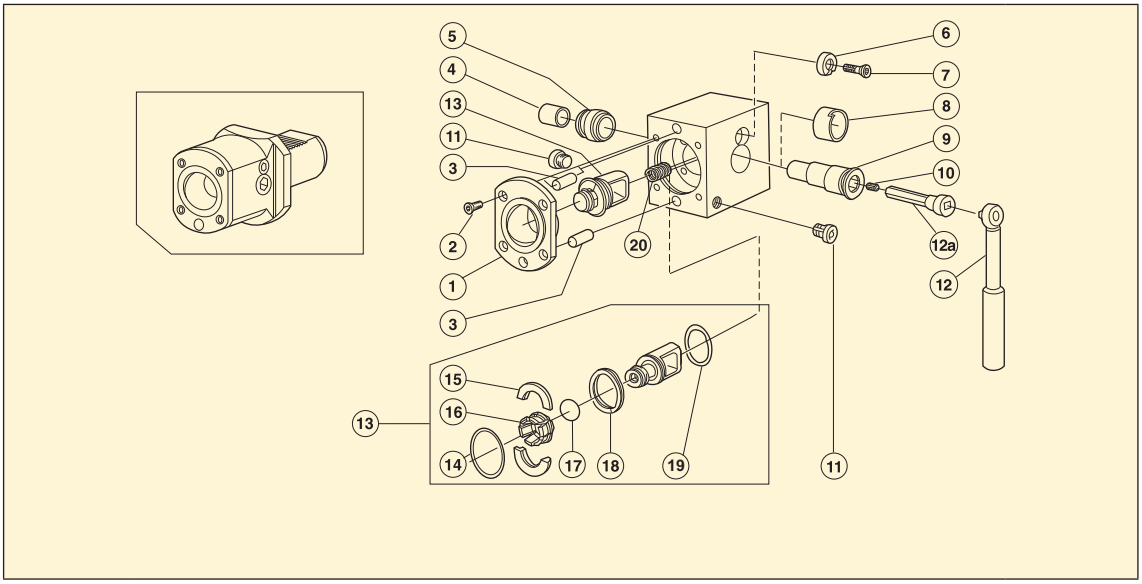
Size	7 Bushing	8 Cam shaft	9 Screw	10 Torque wrench	10a Adapter	18 Compression spring
C3	5638022-01	5333025-01	3214010-355	BT-TK-02	5680035-05	5561001-71
C4	5638022-02	5333025-02	3214010-355	C-TK-01	5680035-06	5561001-41
C5	5638022-03	5333025-03	3214010-355	C-TK-01	5680035-07	5561001-41
C6	5638022-04	5333025-04	3214010-355	C-TK-01	5680035-07	5561001-41

Draw bar set

Parts included in draw bar set

Size	11 Draw bar set	12 Spiral retaining ring	13 Holder ring (set of 2)	14 Segment (set of 6)	15 O-ring	16 Flat wire spring	17 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17

Manually operated clamping unit – VDI straight design, DIN 69880



Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Sleeve
C3	5252010-01	416.1-834	3111050-558	3823010-101	5638024-01
C4	5252010-02	5513020-26	3111050-610	3823010-122	5638024-02
C5	5252010-03	5513020-14	3111050-661	3823010-162	5638024-03
C6	5252010-04	3213010-410	3111050-715	3823010-183	5638024-04

Size	6 Locking washer	7 Screw	8 Bushing	9 Cam shaft	10 Screw
C3	5541030-01	416.1-834	5638022-01	5333025-01	3214010-355
C4	5541030-02	416.1-834	5638022-02	5333025-02	3214010-355
C5	5541030-03	5513020-14	5638022-03	5333025-03	3214010-355
C6	5541030-04	5513020-14	5638022-04	5333025-04	3214010-355

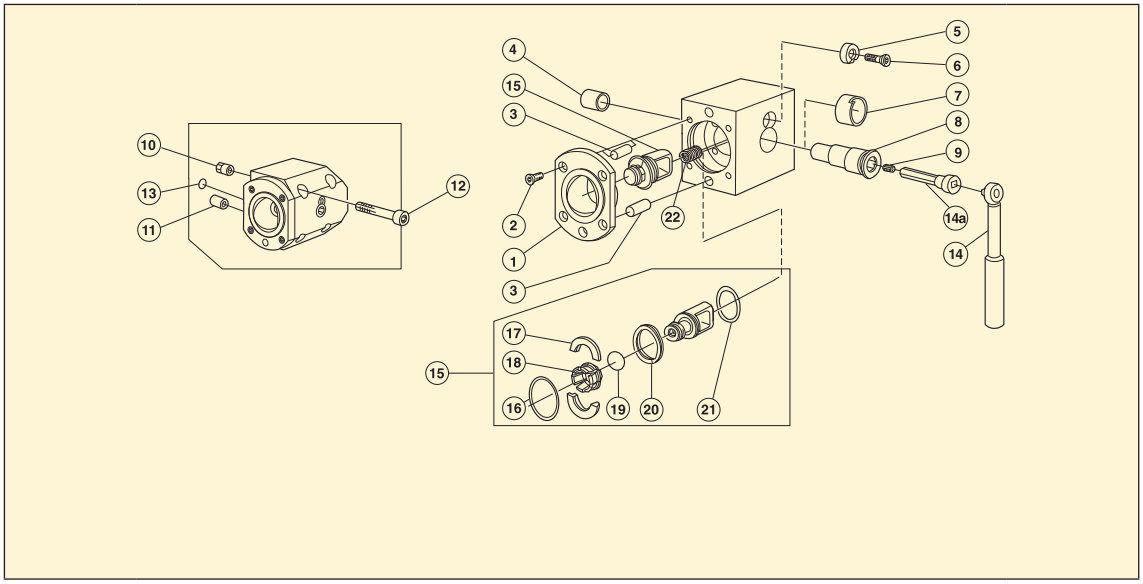
Size	11 Plug	12 Torque wrench	12a Adapter	20 Compression spring	
C3	3611005-180	BT-TK-02	5680035-05	5561001-71	
C4	3611005-180	C-TK-01	5680035-06	5561001-41	
C5	3611005-180	C-TK-01	5680035-07	5561001-41	
C6	3611005-140	C-TK-01	5680035-07	5561001-41	

Draw bar set

Parts included in draw bar set

Size	13 Draw bar set	14 Spiral retaining ring	15 Holder ring (set of 2)	16 Segment (set of 6)	17 O-ring	18 Flat wire spring	19 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17

Manually operated clamping unit – Type 2090



Size	1 Sleeve	2 Screw (4x)	3 Pin	4 Bushing	5 Locking washer	6 Screw
C3	5252010-01	416.1-834	3111050-558	3823010-101	5541030-01	416.1-834
C4	5252010-02	5513020-26	3111050-610	3823010-122	5541030-02	416.1-834
C5	5252010-03	5513020-14	3111050-661	3823010-162	5541030-03	5513020-14
C6	5252010-04	3213010-410	3111050-715	3823010-183	5541030-04	5513020-14
C8	5252010-05	3213010-462	3111050-769	3823010-225	5541030-05	5513020-14

Size	7 Bushing	8 Cam shaft	9 Screw	10 Locating pin	11 Dowel pin	12 Screw
C3	5638022-01	5333025-01	3214010-355	5552063-05	5552061-07	3212010-363
C4	5638022-02	5333025-02	3214010-355	5552063-07	5552061-09	3212010-414
C5	5638022-03	5333025-03	3214010-355	5552063-06	5552061-08	3212010-466
C6	5638022-04	5333025-04	3214010-355	5552063-03	5552061-05	3212010-469
C8	5638022-05	5333025-05	3214010-355	5552063-04	5552061-06	3212010-521

Size	13 O-ring	14 Torque wrench	14a Adapter	22 Compression spring		
C3	5641001-22	BT-TK-02	5680035-05	5561001-71		
C4	3671010-114	C-TK-01	5680035-06	5561001-41		
C5	3671010-114	C-TK-01	5680035-07	5561001-41		
C6	3671010-119	C-TK-01	5680035-07	5561001-41		
C8	3671010-119	C-TK-02	5680035-07	5561001-41		

Draw bar set

Parts included in draw bar set

Size	15 Draw bar set	16 Spiral retaining ring	17 Holder ring (set of 2)	18 Segment (set of 6)	19 O-ring	20 Flat wire spring	21 O-ring
C3	5461100-101	5545039-01	5546001-16	5549120-08	5641005-01	5561015-02	5641005-15
C4	5461100-111	5545039-03	5546001-20	5549120-06	5641005-05	5561015-03	5641005-19
C5	5461100-121	5545039-02	5546001-17	5549120-07	5641005-06	5561015-04	5641005-16
C6	5461100-131	5545039-04	5546001-18	5549120-04	5641005-04	5561015-05	5641005-17
C8	5461100-141	5545039-05	5546001-19	5549120-05	5641005-07	5561015-06	5641005-18

Hoses, Designation ordering code includes spare parts

Connection type	Designation	Length (mm)
Straight fitting 	JET-HOSE150SS	150
	JET-HOSE200SS	200
	JET-HOSE250SS	250
	JET-HOSE300SS	300
Banjo fitting 	JET-HOSE150BS	150
	JET-HOSE200BS	200
	JET-HOSE250BS	250
	JET-HOSE300BS	300
Banjo-to-Banjo fitting 	JET-HOSE150BB	150
	JET-HOSE200BB	200
	JET-HOSE250BB	250
	JET-HOSE300BB	300

All hoses are pressure rated to a maximum of 275 bar (3990 psi)
Please check availability in current price and stock-list

Spare Parts, included in delivery

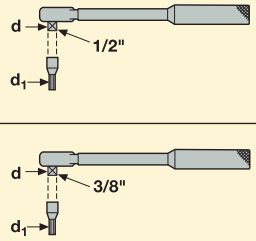
Designation	...SS	...BS	...BB
JET-CFP1/8BSP 	■	■	■
JET-CBP15 	■	■	■
JET-AD1/8BSP 	■	■	
JET-ADM10 	■		
JET-BBM10 		■	■
JET-BB1/8BSP 		■	■
JET-C1/4-1/8BSP 		■	■
JET-P1/8-5mm 	■	■	■
JET-WM10* 	■	■	■
JET-ORING10X1*/** 	■	■	■

Accessories

Designation	
JET-CFP0611	
JET-CFP0613	
JET-CFP0614	
JET-CFP0615	
JET-CLS0608	
JET-CS1115	
JET-CFP1/8BSP14	
JET-CFP1/8BSP12.7	
JET-CFP1/8BSP12	
JET-CFP1/8BSP10	

Pack of 2, except *Pack of 20
**Not suitable for use in inducer
For assembly instructions, see page(s) 33

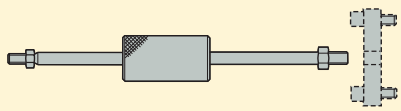
Torque wrench



Size	Nm	Designation	Spare Parts		
			Adapter*	d	d_1
C3	35	BT-TK-02	5680035-05	3/8"	8
C4	50	C-TK-01	5680035-06	1/2"	10
C5	70	C-TK-01	5680035-07	1/2"	12
C6	90	C-TK-01	5680035-07	1/2"	12
C8	130	C-TK-02	5680035-07	1/2"	12

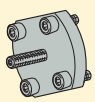
* To be ordered separately

Sliding hammer for dismounting the polygon socket



Size	Designation
C3	CC-ET-01
C4	CC-ET-01
C5	CC-ET-02
C6	CC-ET-02
C8	CC-ET-02

Tool for dismantling the polygon socket on manual clamping unit



Size	Designation	Spare Parts	
		Centre	Peripheral insert
C3	C3-WDT-01M	3214030-463	5512040-03
C4	C4-WDT-02	3214030-464	5512040-04
C5	C5-WDT-02	3214030-516	5512040-05
C6	C6-WDT-02	3214030-516	5512040-06
C8	C8-WDT-02	3214030-516	5512072-01

Grease nipple



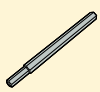
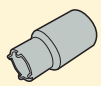
Size	Designation
C3	5692012-01
C4	5692012-01
C5	5692012-01
C6	5692012-01
C8	5692012-01

Cover plug



Size	Designation	
	Type 3000	Other types
C3	C3-CP-11	C3-CP-01
C4	C4-CP-11	C4-CP-01
C5	C5-CP-11	C5-CP-01
C6	–	C6-CP-01
C8	–	C8-CP-01

Key's for changing nozzle

Nozzle key set	Parts included in set			Not included
	Key (T-handle)	Blade	Socket	Use for nozzle
				
NK-CN6	DOUBLE-T	H4B-H5.0	NK07.25-H5.0	CN6
NK-CN7	DOUBLE-T	H4B-H5.0	NK09.25-H5.0	CN7
NK-CN8	DOUBLE-T	H4B-H5.0	NK11.25-H5.0	CN8

Torque values for clamping screws

Torque value for each screw is shown below

Screw designation	Torque Nm	Torque key
110.26-655	10,0	H00T-60100
117.26-655	5,0	H00T-3050
117.26-657	3,0	H00-2530
170.26-655	6,0	H00T-4060
C02205-T07P	0,9	T00-07P09
C02505-T07P	0,9	T00-07P09
C02506-T07P	0,9	T00-07P09
C03007-T09P	2,0	T00-09P20
C03508-T15P	3,0	T00-15P30
C03509-T15P	3,0	T00-15P30
C03510-T15P	3,0	T00-15P30
C03511-T09P	2,0	T00-09P20
C03512-T15P	3,0	T00-15P30
C04008-T15P	3,5	T00-15P35
C04010-T15P	3,5	T00-15P35
C04011-T15P	3,5	T00-15P35
C04014-T15P	3,5	T00-15P35
C04512-T15P	5,0	T00-15P50
C04518-T15P	5,0	T00-15P50
C05010-T20P	5,0	T00-20P50
C05012-T15P	5,0	T00-15P50
C05013-T20P	5,0	T00-20P50
C05018-T20P	5,0	T00-20P50
C11804-T06P	0,5	T00-06P05
C46017-T20P	6,0	T00T-20P60
C82204-T06P	0,5	T00-06P05
CC05	0,9	H00-1509
CC08P-V13	2,0	T00-09P20
CC09P-D11	2,0	T00-09P20
CC12P-S12	3,5	T00-15P35
CC14	6,0	H00T-4060
CC16	10,0	–
CC17P	10,0	–
CC17P-06	10,0	–
CC17P-09	10,0	–
CC20P	10,0	–
CC20P-V13	10,0	–
CD09-S09	2,0	T00-09P20
CD12-S12	3,5	T00-15P35
CD16-S16	5,0	T00-20P50
CD19-S19	5,0	T00-20P50
CD19-V16	5,0	T00-20P50
CSC8015-T20P	5,0	T00-20P50
CSC1015-T20P	5,0	T00-20P50
CSP16-T15P	2,0	T00-15P20
CSP22-T15P	3,0	T00-15P30
CSP27-T25P	6,0	T00T-25P60

Screw designation	Torque Nm	Torque key
L84017-T09P	2,0	T00-09P20
L85011-T15P	5,0	T00-15P50
L85012-T15P	5,0	T00-15P50
L85017-T09P	2,0	T00-09P20
L85020-T15P	3,5	T00-15P35
L85021-T15P	3,5	T00-15P35
L86015-T20P	6,0	T00T-20P60
L86025-T20P	6,0	T00T-20P60
LD1035-T25P	6,0	T00T-25P60
LD5020-T09P	2,0	T00-09P20
LD6020-T15P	3,0	T00-15P30
LD6021-T09P	2,0	T00-09P20
LD6024-T20P	3,0	T00-15P30
LD6025-T15P	3,0	T00-15P30
LD6026-T09P	2,0	T00-09P20
LD8025-T25P	6,0	T00T-25P60
LD8030-T25P	6,0	T00T-25P60
LS0512	2,5	–
LS0613	3,0	H00-2530
LS0616	3,0	H00-2530
LS0818	4,0	–
LS0822	4,0	–
MC6S4X14	3,5	–
MC6S4X18	3,5	–
MC6S5X14	5,0	H00T-4050
MC6S5X18	5,0	H00T-4050
MN0909L-T09P	2,0	T00-09P20
MN1215L-T15P	3,0	T00-15P30
MN1215R-T15P	3,0	T00-15P30
MN1215S-T15P	3,0	T00-15P30
MN1215T-T15P	3,0	T00-15P30
MN1515-T15P	3,0	T00-15P30
MN1515SL-T15P	3,0	T00-15P30
MN1520-T20P	6,0	T00T-20P60
MN1920-T20P	6,0	T00T-20P60
MN1925-T25P	5,0	T00T-25P50
MN2525-T25P	6,0	T00T-25P60
PL1403-T09P	2,5	T00-09P20
TCEI0409	3,5	–
TCEI0509	6,0	H00T-4060
TCEI0513	6,0	H00T-4060
TCEI0609	8,0	H00T-5080
TCEI0613	8,0	H00T-5080
TCEI0614	8,0	H00T-5080
TCEI0620	8,0	H00T-5080
TCEI0815	10,0	H00T-60100
TCEI0825	10,0	H00T-60100
TCEI1020	15,0	–
WS1620-T20P	3,5	T00-20P35
WS1920-T20P	3,5	T00-20P35
WS2325-T25P	5,0	T00T-25P50

For the Seco range of torque keys, please see next page

Torque key range

The range of torque keys with fixed torque values are available, in combinations key grip/torque value for insert locking, for most of the Seco turning products.

By using a torque key you always ensure the correct tightening force when mounting the insert. The torque value is given on page(s) 748 for each screw.

Torque keys are calibrated according to ISO 6789.

Code key: T00-15P35

T00 = Torque screwdriver type for Torx Plus blade
T00T = Torque T-handle type for Torx Plus blade
H00 = Torque screwdriver for hexagonal blade
H00T = Torque T-handle type for hexagonal blade

15P = Torx Plus size
35 = Torque value 3,5 Nm

Torque key* 	Replaceable blade 	Torx Plus size	Torque value
T00-06P05	T00-06P	T06P	0,5 Nm
T00-07P05	T00-07P	T07P	0,5 Nm
T00-07P09	T00-07P	T07P	0,9 Nm
T00-08P12	T00-08P	T08P	1,2 Nm
T00-08P20	T00-08P	T08P	2,0 Nm
T00-09P09	T00-09P	T09P	0,9 Nm
T00-09P12	T00-09P	T09P	1,2 Nm
T00-09P20	T00-09P	T09P	2,0 Nm
T00-10P20	T00-10P	T10P	2,0 Nm
T00-10P30	T00-10P	T10P	3,0 Nm
T00-10P35	T00-10P	T10P	3,5 Nm
T00-15P20	T00-15P	T15P	2,0 Nm
T00-15P30	T00-15P	T15P	3,0 Nm
T00-15P35	T00-15P	T15P	3,5 Nm
T00-15P50	T00-15P	T15P	5,0 Nm
T00-20P35	T00-20P	T20P	3,5 Nm
T00-20P50	T00-20P	T20P	5,0 Nm

*Including blade

Torque key* 	Replaceable blade 	Torx Plus size	Torque value
T00T-15P50	T00T-15P	T15P	5,0 Nm
T00T-20P50	T00T-20P	T20P	5,0 Nm
T00T-20P60	T00T-20P	T20P	6,0 Nm
T00T-20P80	T00T-20P	T20P	8,0 Nm
T00T-25P50	T00T-25P	T25P	5,0 Nm
T00T-25P60	T00T-25P	T25P	6,0 Nm
T00T-25P80	T00T-25P	T25P	8,0 Nm
T00T-30P80	T00T-30P	T30P	8,0 Nm

*Including blade

Torque key* 	Replaceable blade 	Hexagonal size	Torque value
H00-1305	H00-1.3	1,3 mm	0,5 Nm
H00-1505	H00-1.5	1,5 mm	0,5 Nm
H00-1509	H00-1.5	1,5 mm	0,9 Nm
H00-2009	H00-2.0	2,0 mm	0,9 Nm
H00-2016	H00-2.0	2,0 mm	1,6 Nm
H00-2020	H00-2.0	2,0 mm	2,0 Nm
H00-2512	H00-2.5	2,5 mm	1,2 Nm
H00-2530	H00-2.5	2,5 mm	3,0 Nm
H00-2535	H00-2.5	2,5 mm	3,5 Nm
H00-3020	H00-3.0	3,0 mm	2,0 Nm
H00-3030	H00-3.0	3,0 mm	3,0 Nm
H00-4030	H00-4.0	4,0 mm	3,0 Nm

*Including blade

Torque key* 	Replaceable blade 	Hexagonal size	Torque value
H00T-3050	H00T-3.0	3 mm	5,0 Nm
H00T-4050	H00T-4.0	4 mm	5,0 Nm
H00T-4060	H00T-4.0	4 mm	6,0 Nm
H00T-5050	H00T-5.0	5 mm	5,0 Nm
H00T-5080	H00T-5.0	5 mm	8,0 Nm
H00T-50100	H00T-5.0	5 mm	10,0 Nm
H00T-60100	H00T-6.0	6 mm	10,0 Nm

*Including blade

Please observe that the blades are not interchangeable between screwdriver type and T-handle type.
Torx Plus® is a registered trade mark belonging to Camcar-Textron (USA).

SMG – Introduction

The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify which SMG a particular material belongs.

Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see page(s) 59.

As example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	$360 < R_m < 880$	11 SMn30 $R_m = 385$ N/mm^2	1500	0,14
P2	Low-alloy ferritic steels, C < 0.25%wt Low-alloy weldable general structural steels	$320 < R_m < 600$	S235JRG2 $R_m = 420$ N/mm^2	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, C < 0.25%wt Weldable general structural steels Case-hardening steels	$430 < R_m < 610$	16 MnCr 5 $R_m = 550$ N/mm^2	1800	0,14
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	$520 < R_m < 1200$	C 45E $R_m = 660$ N/mm^2	2000	0,15
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	$550 < R_m < 1200$	42 CrMo 4 $R_m = 700$ N/mm^2	2020	0,18
P6	Low-alloy through-hardening steels, C > 0.67%wt Low-alloy spring and bearing steels	$520 < R_m < 1200$	C 100S $R_m = 600$ N/mm^2	2100	0,17
P7	Through-hardening steels, C > 0.67%wt Spring and bearing steels	$600 < R_m < 1200$	100 Cr 6 $R_m = 650$ N/mm^2	2160	0,17
P8	Tool steels High Speed Steels (HSS)	$600 < R_m < 1200$	X 40 CrMoV 5 1 $R_m = 700$ N/mm^2	2400	0,20
P11	Ferritic & martensitic stainless steels	$415 < R_m < 1200$	X 20 Cr 13 $R_m = 675$ N/mm^2	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	$500 < R_m < 1200$	X 5 CrNiCuNb 16 4 $R_m = 1100$ N/mm^2	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4		

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075		
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%		
N3	Aluminium alloys, Si >16%		AlSi17Cu5		
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Discalloy		
S2	Cobalt-based superalloys		Stellite 21		
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti		
S12	Titanium, medium alloyed, (α+β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al		

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R_m < 1650	X 5 CrNiCuNb 16 4 R_m = 1450 N/mm^2	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC		
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC		

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C		
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C		
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.				
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys				
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys				
CC1	Sintered tungsten carbide		G50		

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)		
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...		
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...		
TS4	Thermosetting aramide-fibre composites		Kevlar 49		
TP1	Thermoplastic polymers		Polycarbonate (PC)		
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..		
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E glass or A glass...		
TP4	Thermoplastic aramide-fibre composites				

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500		

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
P1	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
P2			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
			1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
	16 Mo 3	1.5415	1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
P4			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
P5	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 3		
			1.1663	C 125 W	Y2 120		C 120 KU	SK 2		

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	1213				Annealed	
	12 L 13				Annealed	
	1108				Annealed	
	11 L 08				Annealed	
					Annealed	
	1140	40			Annealed	
	1146				Annealed	
	1215				Annealed	
	12 L 14				Annealed	
		16D			Annealed	
	A573 Grade 58	18kp	11 378		Annealed	
	A573 Grade 70	St14kP	11 448		Annealed	
	1010	10			Annealed	
F.1110	1015	15			Annealed	
	1020, 1023	20	12 024		Annealed	
		17G1S	11 523		Annealed	
F.1511	1015	15			Annealed	
F.1120	1025	25			Annealed	
					Annealed	
	A204 Grade A		15 020		Annealed	
	4520				Annealed	
	3310, 9314	20X2H4A	16 420		Annealed	
	4320		16 220		Annealed	
					Annealed	
F.1516	5115	12KHN2	14 220		Annealed	
		18HG			Annealed	
	5120	20KH	14 221		Annealed	
	5120 H	20KH			Annealed	
	A182-F11, A182-F12	12KHM	15 121		Annealed	
	A387 Grade 12 Cl. 2				Annealed	
F.155	A182-F22	12KH8	15 313		Annealed	
F.1130	1035	35	12 040		Annealed	
F.5110	1045	45	12 050		Annealed	
	1040	40	12 041		Annealed	
F.1150	1055	55			Annealed	
	1060	60	12 061		Annealed	
	1039	40G			Annealed	
	1330	30G2			Annealed	
F.1135	1035	35			Annealed	
F.1140	1045	45	12 050		Annealed	
F.1150	1064	60			Annealed	
	1060	60			Annealed	
F.144	9255	55S2			Annealed	
F.1250	4135	35KHM			Annealed	
F.5241	S1	5KHV2S			Annealed	
	L6	5KHNV			Annealed	
	5045				Annealed	
	3135				Quenched & Tempered	
	3435				Annealed	
	9840				Quenched & Tempered	
F.1280	4340	38H2N2MA	16 343		Annealed	
	5132	35KH			Quenched & Tempered	
	5140	40H	14 140		Quenched & Tempered	
F.1251	4130	20KHM	15 130		Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Annealed	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
					Quenched & Tempered	
F.143	6150	50KHFA	15 260		Quenched & Tempered	
F.1740	A355 Cl. A				Annealed	
F.5103	1070	70			Annealed	
F.5117	1095				Annealed	
F.5118	W1	U10A			Annealed	
		U10			Annealed	
	W1	U13			Annealed	

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
P8	X 210 Cr 12	1.2080	1.2080	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCV 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNiMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
M3	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18 .10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCe 21 11 2	1.4835	1.4893	X 9 CrNiSiNCe 21 11 2		310 S 31			2368	S30815
	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
M4	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
K1	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
K2	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
K4	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
										ADI grade 5
	EN-GJS-1000-5			GJS-1000-5						ADI grade 2
K5	EN-GJS-1200-2			GJS-1200-2						ADI grade 3
	EN-GJS-1400-1			GJS-1400-1						ADI grade 4
	EN-GJS-800-8			GJS-800-8						ADI grade 1
	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
K6	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
N1	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
N2	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
N11			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
	A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
	A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
	A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
	A48 50 B	Sc 35				Grey cast iron (GCI)
	G 3500					Grey cast iron (GCI)
	Grade 350					Compacted graphite iron (CGI)
	Grade 400					Compacted graphite iron (CGI)
	Grade 400-15					Compacted graphite iron (CGI)
	Grade 450					Compacted graphite iron (CGI)
	Grade 500					Compacted graphite iron (CGI)
	A220 60004				Tempered	Malleable cast iron (MCI)
						Nodular cast iron (SGI)
FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
	60-40-18	Vc 42-12				Nodular cast iron (SGI)
FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
	1600/1300/-					Austempered ductile iron (ADI)
	1050/700/7					Austempered ductile iron (ADI)
	1200/850/4					Austempered ductile iron (ADI)
	1400/1100/1					Austempered ductile iron (ADI)
	850/550/10					Austempered ductile iron (ADI)
	A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
	A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
	A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
				Nodumag		Austenitic nodular cast iron
	A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
	A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
	A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
	A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
	B26					
	A380					
	AZ61A					
	AZ80A					
	AMS 4442					
	B85					
	A413.2					
	B390.0					
	CA952	BrA9ZH3L				
	CA955	BrA10ZH4N4L				
	CA937					
		BrOF6.5-0.15				
		L90				
		LOMsh70-1-0.05				
		LO60-1				
		LAMsh77-2-0.05				

SMG

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
S3			2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							
										R54620
S12										R56320
	TiAl6V4		3.7164							R56400
S13				TiV10Fe2Al3						
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
H5	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
			1.2550	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
H7			1.2510	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	90 MnCrV 8	1.2842	1.2842	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
	100 Cr 6	1.3505	1.3505	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
	X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2436	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
H8			1.2601	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
			1.2713	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51		T11342
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
H11	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
H12	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5						S15700
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H21	X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
H31	EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

SMG

U.N.E./ I.H.A.	AISI / ASTM	GOST	ČSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
				Hastelloy C		
		KHN65MV		Hastelloy C-276		
				IN 100		
				Inconel 718		
				Inconel X-750	Solution annealed	
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
				Ti	Commercially pure	Ti (α)
	AMS 4919			Ti 6-2-4-2	Annealed	Ti (α)
	AMS 4943			Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
	AMS 4920, Grade 5	VT6		Ti 6Al-4V	Annealed	Ti (α+β)
	AMS 4986			Ti 10V-2Fe-3Al	Annealed	Ti (β)
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

Declaration of conformity

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).
All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.
All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:
Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Declaration of conformity

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:
Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:
Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts.
All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.
This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.
Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.
Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher then norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.
These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:
Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.
All packing material is fully recyclable.

Declaration of conformity

SECO

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■				■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■		■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1020	■	■	■	■	■				■									
MP1500	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■		■		■	
MP2500	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■		■			
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■		■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■									
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■		■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■								
TP1030	■	■	■	■	■				■	■		■	■		■		■	
TP1501	■	■	■	■	■				■	■		■	■	■	■	■		
TP200	■	■	■	■	■				■	■		■	■	■	■	■		
TP2501	■	■	■	■	■	■			■	■		■	■	■	■	■		
TP3501	■	■	■	■	■				■	■		■	■	■	■	■		
TP40	■		■	■	■				■			■		■	■			
TS2000	■				■	■			■			■	■		■			
TS2050	■				■	■			■			■	■		■		■	
TS2500	■		■		■				■			■	■		■			
T250D	■				■	■			■			■	■		■			
T400D	■				■	■			■			■	■		■			
T100R	■		■		■	■			■			■	■		■			
T60M	■	■	■	■	■				■			■	■		■			
883	■		■		■				■									
890	■				■	■			■									

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