



# Toolholders, Boring Bars, and Cartridges

<b>Toolholders</b> .....	<b>C2-C71</b>
Toolholder Selection Guide .....	C2-C3
Kenclamp .....	C6-C15
Kenlever .....	C16-C22
Fix-Perfect .....	C23
Kenloc .....	C24-C33
Wedgelock .....	C34
Kendex .....	C36-C39
Screw-On .....	C40-C55
V-Bottom .....	C56
MTS .....	C58-C71
<b>Boring Bars</b> .....	<b>C72-C115</b>
Boring Bar Selection Guide .....	C72-C73
Kenclamp .....	C76-C79
Kenloc .....	C80-C82
Kendex .....	C83-C84
Screw-On .....	C85-C102
Kenlever .....	C103-C104
MTS .....	C105-C107
Boring Heads .....	C108-C115
<b>Cartridges</b> .....	<b>C116-C147</b>
Kenloc .....	C120-C129
Kenlever .....	C130-C131
Kendex .....	C132-C136
Screw-On .....	C137-C147

tool path	insert shape	clamping style	turning	profiling	facing	plunging	chamfering	page(s)
<b>117,5° Lead Angle</b>								
		Kenloc™	•	•				C33
		Kenclamp	•		•			C14
<b>107,5° Lead Angle</b>								
		Screw-On	•	•				C47
		MTS	•			•		C63
		Screw-On	•	•				C55
<b>97,5° Lead Angle</b>								
		MTS	•		•			C65
<b>95° Lead Angle</b>								
		Kenloc	•	•	•			C24
		Kenclamp	•	•	•			C6
		Kenlever	•	•	•			C16
		Screw-On	•	•	•			C45
		MTS	•	•	•			C62
		Kenloc	•	•	•			C33
		Kenclamp	•	•	•			C15
		Kenlever	•	•	•			C22
		Screw-On	•	•	•			C57
		MTS	•	•	•			C73
WedgeLock™	•	•	•			C34		
<b>93° Lead Angle</b>								
		Kenloc	•	•				C26
		Kenclamp	•	•				C8
		Kenlever	•	•				C18
		Screw-On	•	•				C48
	MTS	•	•				C64	
	Kenloc	•	•				C32	
	Kenclamp	•	•				C13	
	Screw-On	•	•				C56	
	WedgeLock	•	•				C34	

tool path	insert shape	clamping style	turning	profiling	facing	plunging	chamfering	page(s)
<b>90° Lead Angle</b>								
		Screw-On	•		•			C44
		Screw-On	•	•				C47
		Screw-On	•	•				C55
		Kenloc	•	•		•		C32
		Kenclamp	•		•			C13
		Kenlever™	•		•			C21
		Kendex™	•		•			C41
		Screw-On	•		•			C54
MTS	•		•				C72	
<b>85° Lead Angle</b>								
		MTS	•		•			C71
<b>75° Lead Angle</b>								
		Kenloc	•		•			C26
		Kenclamp	•		•			C6
		Kenlever	•		•			C15
		Kendex	•					C38
		Screw-On	•		•			C46
		MTS	•					C63
				Kenloc	•		•	
Kenclamp	•				•			C11
Kenlever	•				•			C20
Screw-On	•				•			C52
MTS	•				•			C68-C69
<b>72,5° Lead Angle</b>								
		Kenloc	•	•				C33
		Kenclamp			•			C14
		Screw-On	•	•				C57

tool path	insert shape	clamping style	turning	profiling	facing	plunging	chamfering	page(s)
<b>70° Lead Angle</b> 	E	MTS	•					–
<b>63° Lead Angle</b> 	D	Kenclamp	•	•				C9
<b>62,5° Lead Angle</b> 	D	Kenloc	•	•				C27
		Kenlever	•	•				C18
		Screw-On	•	•				C49
<b>60° Lead Angle</b> 	T	Kenloc	•	•				C31
		Kendex	•					–
		Screw-On	•	•	•			–

tool path	insert shape	clamping style	turning	profiling	facing	plunging	chamfering	page(s)
<b>50° Lead Angle</b> 	C	Kenloc™	•	•				C25
<b>45° Lead Angle</b> 	C	Kenclamp™	•	•	•			C8
		Kenlever™	•	•	•			C17
		Screw-On	•	•	•			C47
	S	Kenloc	•	•	•			C29
		Kenclamp	•	•	•			C12
		Kenlever	•	•	•			C19
		Kendex™	•	•	•			C39
		Screw-On	•	•	•			C52–C53
		MTS	•	•	•			C70
	T	Kendex	•	•	•			C40
			R	Kenloc	•	•	•	
Kenclamp	•			•	•		C9	
Fix-Perfect™	•			•	•		C23	
Screw-On	•			•	•		C50–C51	
MTS	•			•	•		C66	

**Clamping Styles**

**Kenclamp Style**

- Uses Kenloc inserts.
- Unique clamp design provides rigid clamping.
- Ensures insert repeatability and seating.
- Reduced chatter and improved tool life.

**MTS Style Modular Tooling System**

- Proven superior system in holding ceramic inserts rigidly in turning and profiling operations.
- Uses standard insert sizes — 80°, 75°, 55°, square, and trigon.
- This system offers the added versatility of using optional hardware to hold standard Kendex and Kenloc inserts.

**Screw-On Style**

- Top clamping by screw for Screw-On inserts.

**Kenloc Style**

- Uses Kenloc inserts.
- Lock pin and top clamp provide rigid clamping.
- Wide variety of insert styles may be used.
- Tools may be used with or without clamp.

**Kendex Style**

- Uses Kendex inserts.
- Chipbreaker option available for ceramic inserts.
- Wide variety of insert styles may be used.

**Wedglock™ Style**

- Top and hole clamping for inserts with hole.

## How Do Catalogue Numbers Work?

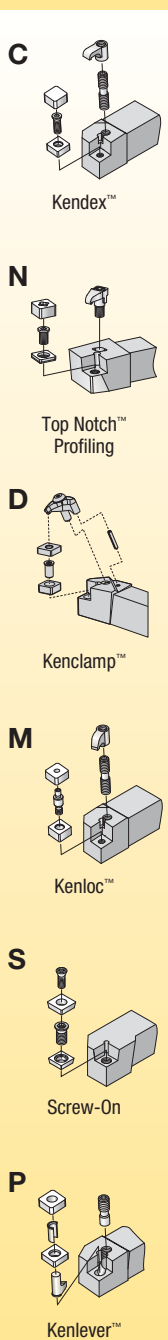
Each character in our catalogue number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



O.D./I.D. Tooling

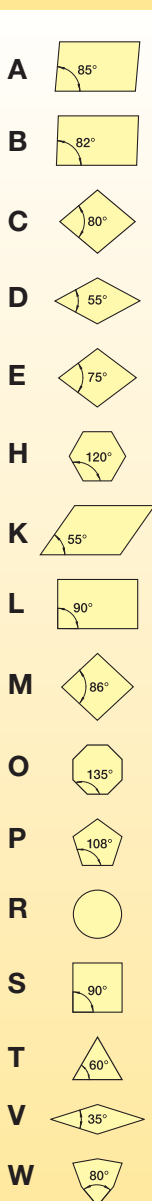
**M**

Insert Holding Method



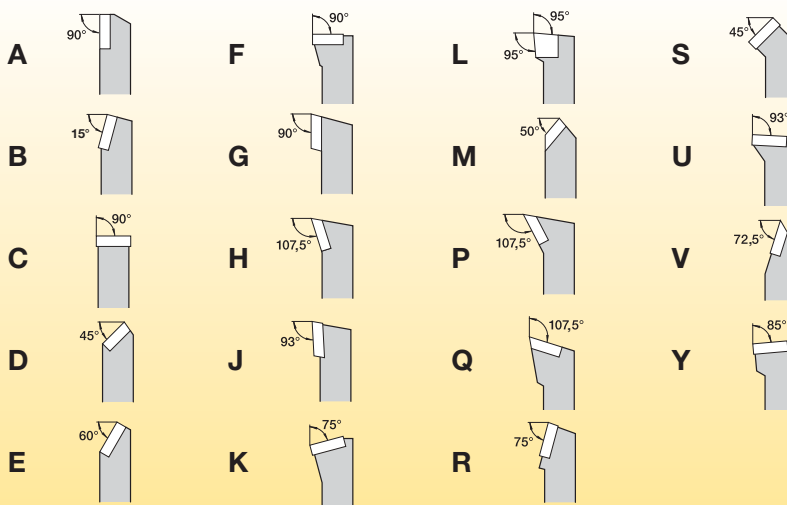
**C**

Insert Shape



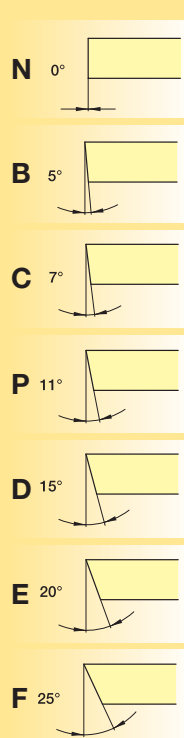
**L**

Tool Style or Lead Angle



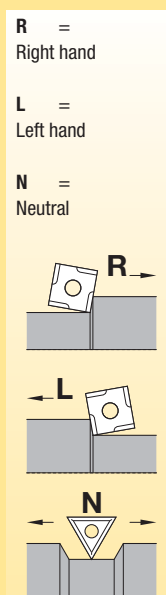
**N**

Insert Clearance Angle



**R**

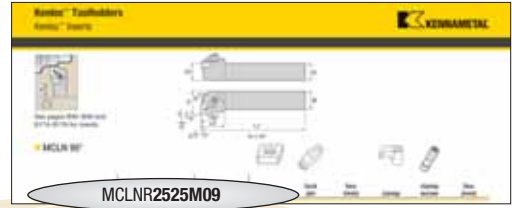
Hand of Tool



Additional Information

**C** = Deep pocket for ceramic insert  
**S** = Single pocket locating wall  
**F** = Straight shank, no offset

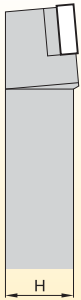
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



MCLNR2525M09

**25**

Shank Dimensions



The 7th and 8th position shall be a significant two-digit number that indicates the holder cross section. If the dimension for the width "B" or the height "H" is represented by a one digit number, a 0 (zero) will be used in front of it. Example: 8mm = 08

**25**

Shank Dimensions



**M**

Tool Length

L1	ISO
32	A
40	B
50	C
60	D
70	E
80	F
90	G
100	H
110	J
125	K
140	L
150	M
160	N
170	P
180	Q
200	R
250	S
300	T
350	U
400	V
450	W
500	Y
Special Design	X

**09**

Insert Size

Additional Information

**KC** =  
Kenclamp™

**H4** =  
Wedgelock™  
clamping system

**M** =  
MTS clamping  
system for ceramic  
and PCBN inserts

Insert Thickness  
(optional)

**04** = 4,76mm  
**06** = 6,35mm

O.D./I.D. Tooling

Cutting Edge Length L10

**H** Hexagon  
120°



**C** Rhomboid  
80°  
**D** 55°  
**E** 75°  
**M** 86°  
**V** 35°



**O** Octagon  
135°



**W** Trigon  
80°  
with enlarged  
corner angles



**P** Pentagon  
108°



**L** Rectangular  
90°



**S** Square  
90°



**A** Parallelogram  
85°  
**B** 82°  
**K** 55°

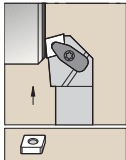


**T** Triangular  
60°

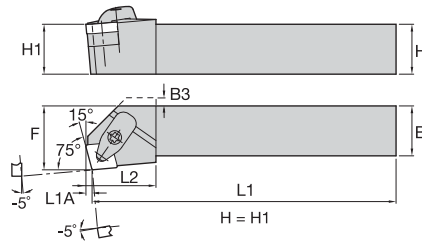


**R** Round  
—





See pages B40–B49 and B174–B176 for inserts.

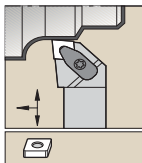


**DCKN-KC 75°**

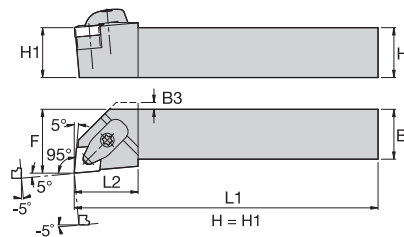


catalogue number	H	B	F	L1	L2	L1A	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>															
DCKNR2020K12KC04	20	20	25,0	125	32,0	3,1	6,0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCKNR2525M12KC04	25	25	32,0	150	32,0	3,1	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCKNR3225P12KC04	32	25	32,0	170	32,0	3,1	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCKNR3232P16KC06	32	32	40,0	170	32,0	3,8	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DCKNR3232P19KC06	32	32	40,0	170	38,0	4,6	—	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
<b>left hand</b>															
DCKNL2020K12KC04	20	20	25,0	125	32,0	3,1	6,0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCKNL2525M12KC04	25	25	32,0	150	32,0	3,1	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCKNL3225P12KC04	32	25	32,0	170	32,0	3,1	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP

O.D./I.D. Tooling



See pages B40–B49 and B174–B176 for inserts.



**DCLN-KC 95°**



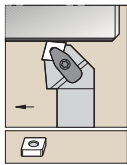
catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
DCLNR1616H09KC03	16	16	20,0	100	30,0	6,0	CN..090308	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DCLNR2020K09KC03	20	20	25,0	125	30,0	2,0	CN..090308	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DCLNR2020K12KC04	20	20	25,0	125	32,0	4,0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP	
DCLNR2525M12KC04	25	25	32,0	150	32,0	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DCLNR2525M16KC06	25	25	32,0	150	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
DCCLNR3225P12KC04	32	25	32,0	170	32,0	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DCCLNR3225P16KC06	32	25	32,0	170	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
DCCLNR3232P16KC06	32	32	40,0	170	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
DCCLNR3232P19KC06	32	32	40,0	170	40,0	—	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP	
DCCLNR4040S19KC06	40	40	50,0	250	40,0	—	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP	
DCCLNR4040S25KC09	40	40	50,0	250	51,0	—	CN..250924	ICSN846	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP	

(continued)

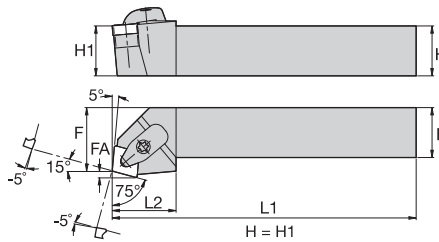
(DCLN-KC 95° continued)

catalogue number	H	B	F	L1	L2	B3	gage insert							
								shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>left hand</b>														
DCLNL1616H09KC03	16	16	20,0	100	30,0	6,0	CN..090308	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DCLNL2020K09KC03	20	20	25,0	125	30,0	2,0	CN..090308	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DCLNL2020K12KC04	20	20	25,0	125	32,0	4,0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCLNL2525M12KC04	25	25	32,0	150	32,0	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCLNL2525M16KC06	25	25	32,0	150	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DCLNL3225P12KC04	32	25	32,0	170	32,0	—	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCLNL3225P16KC06	32	25	32,0	170	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DCLNL3232P16KC06	32	32	40,0	170	33,0	—	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DCLNL3232P19KC06	32	32	40,0	170	40,0	—	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
DCLNL4040S19KC06	40	40	50,0	250	40,0	—	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
DCLNL4040S25KC09	40	40	50,0	250	51,0	—	CN..250924	ICSN846	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP

O.D./I.D. Tooling

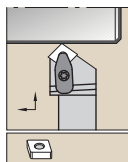


See pages B40–B49 and B174–B176 for inserts.

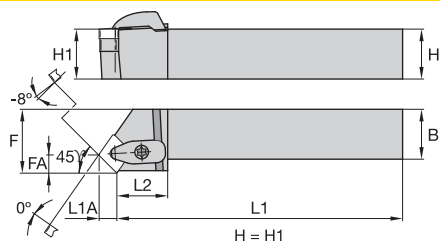

**DCRN-KC 75°**

catalogue number	H	B	F	L1	L2	FA	gage insert							
								shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>														
DCRNR2020K12KC04	20	20	25,0	125	32,0	3,1	CN..120406	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCRNR2525M12KC04	25	25	32,0	150	32,0	3,1	CN..120406	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCRNR3225P12KC04	32	25	32,0	170	32,0	3,1	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCRNR3232P16KC06	32	32	40,0	170	38,0	3,8	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DCRNR3232P19KC06	32	32	40,0	170	38,0	4,6	CN..190612	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
<b>left hand</b>														
DCRNL2020K12KC04	20	20	25,0	125	32,0	3,1	CN..120406	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCRNL2525M12KC04	25	25	32,0	150	32,0	3,1	CN..120406	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCRNL3225P12KC04	32	25	32,0	170	32,0	3,1	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DCRNL3232P16KC06	32	32	40,0	170	38,0	3,8	CN..160612	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP





See pages B40–B49 and B174–B176 for inserts.

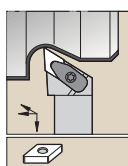


**DCSN-KC 45°**

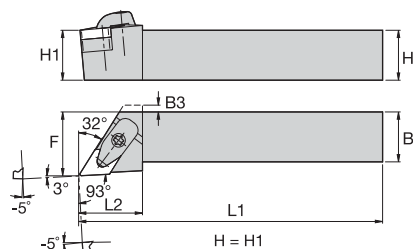


catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>															
DCSNR2020K12KC04	20	20	25,0	125	35,0	8,5	8,5	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCSNR2525M12KC04	25	25	32,0	150	35,0	8,5	8,5	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>left hand</b>															
DCSNL2020K12KC04	20	20	25,0	125	35,0	8,5	8,5	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DCSNL2525M12KC04	25	25	32,0	150	35,0	8,5	8,5	CN..120408	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP

O.D./I.D. Tooling



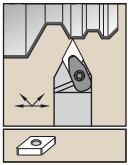
See pages B50–B58 and B176–B178 for inserts.



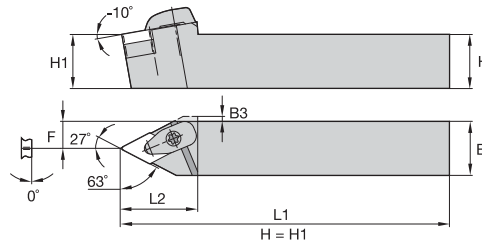
**DDJN-KC 93°**



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
DDJNR2020K11KC04	20	20	25,0	125	30,0	2,0	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DDJNR2020K15KC06	20	20	25,0	125	32,0	4,0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNR2525M11KC04	25	25	32,0	150	30,0	—	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DDJNR2525M15KC06	25	25	32,0	150	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNR3225P15KC06	32	25	32,0	170	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNR3232P15KC06	32	32	40,0	170	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
<b>left hand</b>															
DDJNL2020K11KC04	20	20	25,0	125	30,0	2,0	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DDJNL2020K15KC06	20	20	25,0	125	32,0	4,0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNL2525M11KC04	25	25	32,0	150	30,0	—	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DDJNL2525M15KC06	25	25	32,0	150	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNL3225P15KC06	32	25	32,0	170	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DDJNL3232P15KC06	32	32	40,0	170	32,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	



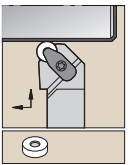
See pages B50–B58 and B176–B178 for inserts.



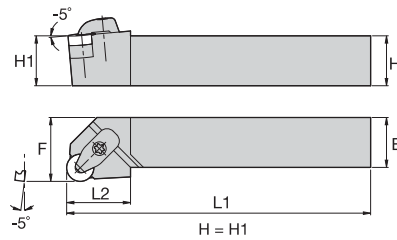
### ■ DDNN-KC 63°



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>														
DDNNR2020K15KC06	20	20	10,0	125	40,0	2,5	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DDNNR2525M15KC06	25	25	12,5	150	40,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>left hand</b>														
DDNNL2020K15KC06	20	20	10,0	125	40,0	2,5	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DDNNL2525M15KC06	25	25	12,5	150	40,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DDNNL3225P15KC06	32	25	12,5	170	40,0	—	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP



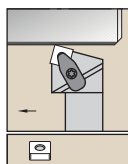
See pages B58–B59 for inserts.



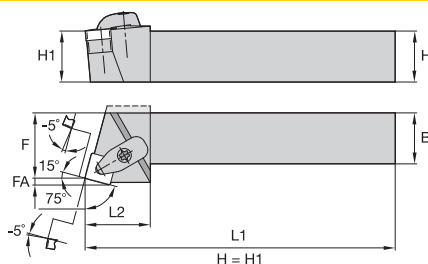
### ■ DRGN-KC



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>														
DRGNR2525M12KC04	25	25	32,0	150	32,0	RN..120400	IRSN44	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DRGNR3225P12KC04	32	25	32,0	170	32,0	RN..120400	IRSN44	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DRGNR4040S25KC09	40	40	50,0	250	48,0	RN..250900	IRSN84	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP	
<b>left hand</b>														
DRGNL3225P12KC04	32	25	32,0	170	32,0	RN..120400	IRSN44	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
DRGNL3232P15KC06	32	32	40,0	170	32,0	RN..150600	IRSN54	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
DRGNL4040S25KC09	40	40	50,0	250	48,0	RN..250900	IRSN84	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP	



See pages B59–B66 and B178–B179 for inserts.

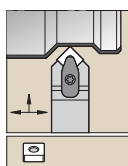


**DSBN-KC 75°**

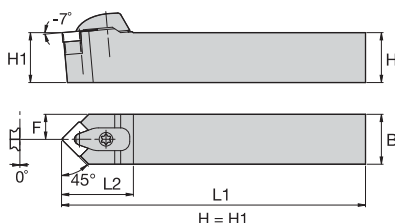


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
<b>DSBNR4040S25KC09</b>	40	40	35,0	250	52,0	5,9	SN..250924	<b>ISSN846</b>	<b>KMSP825IP</b>	25 IP	<b>CM236R ASSY</b>	25 IP	<b>SSP025018M</b>	<b>KLM81025IP</b>	
<b>left hand</b>															
<b>DSBNL2525M12KC04</b>	25	25	22,0	150	32,0	3,0	SN..120408	<b>ISSN443</b>	<b>KMSP415IP</b>	15 IP	<b>CM234R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM46L15IP</b>	
<b>DSBNL3232P15KC06</b>	32	32	27,0	170	36,0	5,0	SN..150612	<b>ISSN543</b>	<b>KMSP515IP</b>	15 IP	<b>CM209R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM58L15IP</b>	
<b>DSBNL4040S25KC09</b>	40	40	35,0	250	52,0	5,9	SN..250924	<b>ISSN846</b>	<b>KMSP825IP</b>	25 IP	<b>CM236R ASSY</b>	25 IP	<b>SSP025018M</b>	<b>KLM81025IP</b>	



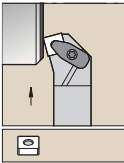
See pages B59–B66 and B178–B179 for inserts.



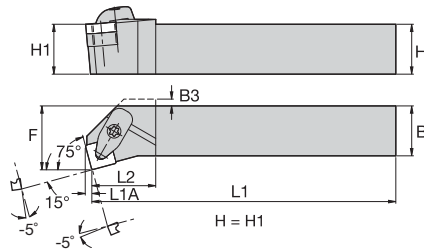
**DSDN-KC 45°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>DSDNN2020K12KC04</b>	20	20	10,0	125	36,0	SN..120408	<b>ISSN433</b>	<b>KMSP415IP</b>	15 IP	<b>CM234R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM46L15IP</b>
<b>DSDNN2525M12KC04</b>	25	25	12,5	150	36,0	SN..120408	<b>ISSN443</b>	<b>KMSP415IP</b>	15 IP	<b>CM234R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM46L15IP</b>
<b>DSDNN2525M15KC06</b>	25	25	12,5	150	42,0	SN..150612	<b>ISSN543</b>	<b>KMSP515IP</b>	15 IP	<b>CM209R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM58L15IP</b>
<b>DSDNN3225P12KC04</b>	32	25	12,0	170	36,0	SN..120408	<b>ISSN443</b>	<b>KMSP415IP</b>	15 IP	<b>CM234R ASSY</b>	15 IP	<b>SSP025016M</b>	<b>KLM46L15IP</b>
<b>DSDNN3232P19KC06</b>	32	32	15,5	170	44,0	SN..190612	<b>ISSN643</b>	<b>KMSP625IP</b>	25 IP	<b>CM210R ASSY</b>	25 IP	<b>SSP025016M</b>	<b>KLM68L25IP</b>
<b>DSDNN4040S25KC09</b>	40	40	19,5	250	59,0	SN..250924	<b>ISSN846</b>	<b>KMSP825IP</b>	25 IP	<b>CM236R ASSY</b>	25 IP	<b>SSP025018M</b>	<b>KLM81025IP</b>



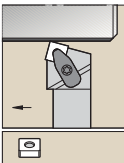
See pages B59–B66 and B178–B179 for inserts.



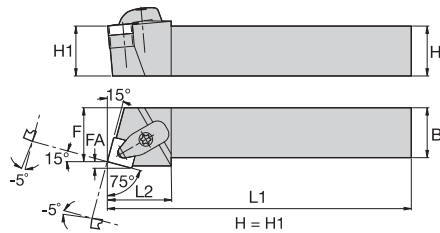
### ■ DSKN-KC 75°



catalogue number	H	B	F	L1	L2	L1A	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>															
<b>DSKNR2020K12KC04</b>	20	20	25,0	125	32,0	3,1	8,0	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
<b>DSKNR2525M12KC04</b>	25	25	32,0	150	32,0	3,1	4,0	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>DSKNR3225P12KC04</b>	32	25	32,0	170	32,0	3,1	—	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>DSKNR3232P15KC06</b>	32	32	40,0	170	32,0	3,8	—	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
<b>DSKNR3232P19KC06</b>	32	32	40,0	170	38,0	4,6	—	SN..190612	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
<b>left hand</b>															
<b>DSKNL2525M12KC04</b>	25	25	32,0	150	32,0	3,1	4,0	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>DSKNL3225P12KC04</b>	32	25	32,0	170	32,0	3,1	—	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>DSKNL3232P15KC06</b>	32	32	40,0	170	32,0	3,8	—	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP



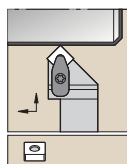
See pages B59–B66 and B178–B179 for inserts.



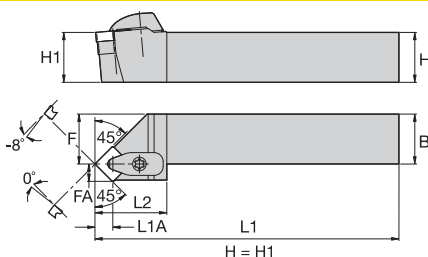
### ■ DSRN-KC 75°



catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
<b>DSRNR2020K12KC04</b>	20	20	22,0	125	32,0	3,1	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP	
<b>DSRNR2525M12KC04</b>	25	25	27,0	150	32,0	3,1	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
<b>DSRNR3232P15KC06</b>	32	32	35,0	170	38,0	3,8	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
<b>DSRNR3232P19KC06</b>	32	32	35,0	170	42,0	4,6	SN..190612	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP	
<b>DSRNR4040S25KC09</b>	40	40	43,0	250	52,0	5,9	SN..250924	ISSN846	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP	
<b>left hand</b>															
<b>DSRNL2525M12KC04</b>	25	25	27,0	150	32,0	3,1	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
<b>DSRNL3232P15KC06</b>	32	32	35,0	170	38,0	3,8	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP	
<b>DSRNL4040S25KC09</b>	40	40	43,0	250	52,0	5,9	SN..250924	ISSN846	KMSP825IP	25 IP	CM236R ASSY	25 IP	SSP025018M	KLM81025IP	



See pages B59–B66 and B178–B179 for inserts.

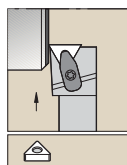


**■ DSSN-KC 45°**

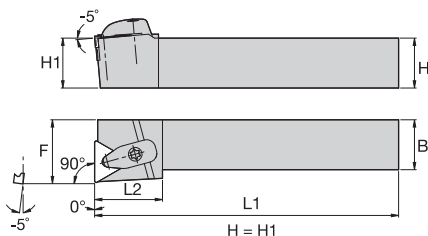
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>															
DSSNR2020K12KC04	20	20	25,0	125	36,0	8,7	8,7	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DSSNR2525M12KC04	25	25	32,0	150	36,0	8,7	8,7	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DSSNR2525M15KC06	25	25	32,0	150	42,0	10,7	10,7	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DSSNR3225P12KC04	32	25	32,0	170	35,4	8,7	8,7	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DSSNR3232P15KC06	32	32	40,0	170	40,3	10,7	10,7	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DSSNR3232P19KC06	32	32	40,0	170	44,0	10,7	10,7	SN..190612	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP
<b>left hand</b>															
DSSNL2020K12KC04	20	20	25,0	125	36,0	8,7	8,7	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DSSNL2525M12KC04	25	25	32,0	150	36,0	8,7	8,7	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DSSNL3225P12KC04	32	25	32,0	170	35,4	8,7	8,7	SN..120408	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DSSNL3232P15KC06	32	32	40,0	170	40,3	10,7	10,7	SN..150612	ISSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
DSSNL3232P19KC06	32	32	40,0	170	44,0	10,7	10,7	SN..190612	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M	KLM68L25IP



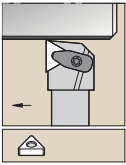
See pages B66–B73 and B179–B180 for inserts.



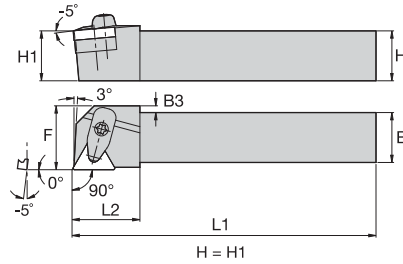
**■ DTFN-KC 90°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>													
DTFNR2020K16KC04	20	20	25,0	125	32,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DTFNR2525M16KC04	25	25	32,0	150	32,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DTFNR2525M22KC04	25	25	32,0	150	34,0	TN..220408	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DTFNR3232P27KC06	32	32	40,0	170	38,0	TN..270612	ITSN534	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	KLM58L15IP
<b>left hand</b>													
DTFNL2020K16KC04	20	20	25,0	125	32,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DTFNL2525M16KC04	25	25	32,0	150	32,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DTFNL2525M22KC04	25	25	32,0	150	34,0	TN..220408	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP
DTFNL3225P16KC04	32	25	32,0	170	32,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DTFNL3225P22KC04	32	25	32,0	170	34,0	TN..220408	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP



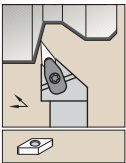
See pages B66–B73 and B179–B180 for inserts.



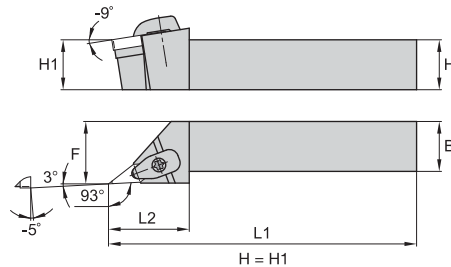
■ DTGN-KC 90°



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
DTGNR2020K16KC04	20	20	25,0	125	25,0	6,5	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DTGNR2525M16KC04	25	25	32,0	150	25,0	—	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DTGNR2525M22KC04	25	25	32,0	150	32,0	3,0	TN..220408	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM46L15IP	
<b>left hand</b>															
DTGNL2020K16KC04	20	20	25,0	125	25,0	6,5	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	
DTGNL2525M16KC04	25	25	32,0	150	25,0	—	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP	



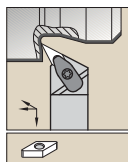
See pages B74–B78 and B180–B181 for inserts.



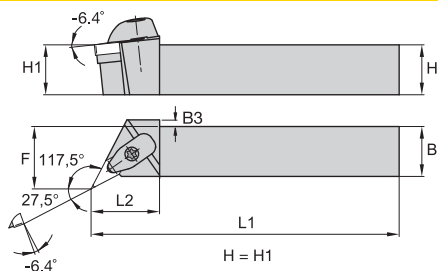
■ DVJN-KC 93°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>													
DVJNR2020K16KC04	20	20	25,0	125	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNR2525M16KC04	25	25	32,0	150	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNR2525M22KC04	25	25	32,0	150	55,0	VN..220408	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M	KLM46L15IP
DVJNR3225P16KC04	32	25	32,0	170	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNR3225P22KC04	32	25	32,0	170	55,0	VN..220408	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M	KLM46L15IP
<b>left hand</b>													
DVJNL2020K16KC04	20	20	25,0	125	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNL2525M16KC04	25	25	32,0	150	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNL2525M22KC04	25	25	32,0	150	55,0	VN..220408	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M	KLM46L15IP
DVJNL3225P16KC04	32	25	32,0	170	46,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVJNL3225P22KC04	32	25	32,0	170	55,0	VN..220408	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M	KLM46L15IP



See pages B74–B78 and B180–B181 for inserts.

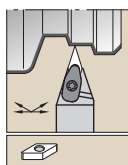


■ **DVON-KC 117,5°**

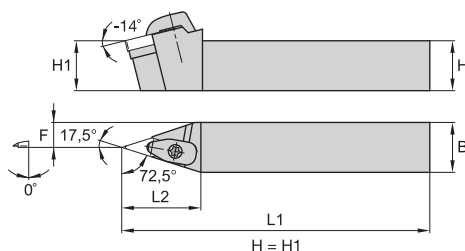


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin	
<b>right hand</b>															
DVONR2020K16KC04	20	20	27,0	125	38,0	5,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	
DVONR2525M16KC04	25	25	32,0	150	38,0	—	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	
DVONR3225P16KC04	32	25	32,0	170	38,0	—	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	
<b>left hand</b>															
DVONL2020K16KC04	20	20	27,0	125	38,0	5,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	
DVONL2525M16KC04	25	25	32,0	150	38,0	—	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	
DVONL3225P16KC04	32	25	32,0	170	38,0	—	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP	



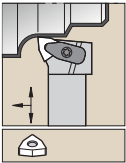
See pages B74–B78 and B180–B181 for inserts.



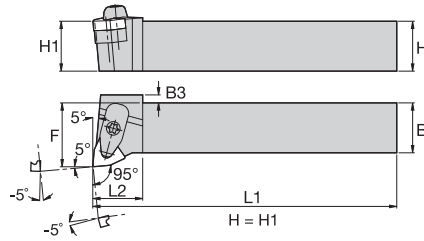
■ **DVVN-KC 72,5°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
DVVNN2020K16KC04	20	20	9,5	125	48,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVVNN2525M16KC04	25	25	12,0	150	48,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP
DVVNN2525M22KC04	25	25	12,0	150	57,0	VN..220408	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M	KLM4615IP
DVVNN3225P16KC04	32	25	12,0	170	48,0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	KLM34L9IP



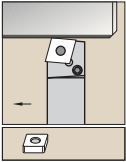
See pages B79–B83 and B181 for inserts.



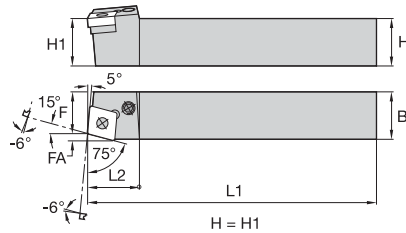
■ **DWLN-KC 95°**



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	optional lock pin
<b>right hand</b>														
DWLN2020K06KC04	20	20	25,0	125	31,0	—	WN..060408	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DWLN2020K08KC04	20	20	25,0	125	33,0	—	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN2525M06KC04	25	25	32,0	150	25,0	—	WN..060408	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DWLN2525M08KC04	25	25	32,0	150	25,0	4,0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN3225P08KC04	32	25	32,0	170	25,0	4,0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN3232P08KC04	32	32	40,0	170	25,0	—	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
<b>left hand</b>														
DWLN2020K06KC04	20	20	25,0	125	31,0	—	WN..060408	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DWLN2020K08KC04	20	20	25,0	125	33,0	—	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN2525M06KC04	25	25	32,0	150	25,0	—	WN..060408	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM34L9IP
DWLN2525M08KC04	25	25	32,0	150	25,0	4,0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN3225P08KC04	32	25	32,0	170	25,0	4,0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP
DWLN3232P08KC04	32	32	40,0	170	25,0	—	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	KLM4615IP



See pages B40–B49 and B174–B176 for inserts.

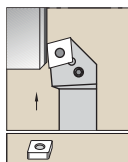


■ **PCBN 75°**

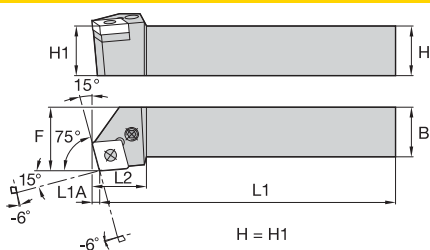


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>													
PCBNR2525M12	25	25	22,0	150	26,0	3,1	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCBNR2525M16	25	25	22,0	150	28,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNR3225P12	32	25	22,0	170	28,0	3,1	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCBNR3225P16	32	25	22,0	170	28,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNR3232P16	32	32	27,0	170	38,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNR3232P19	32	32	27,0	170	40,0	4,6	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCBNR4040S19	40	40	35,0	250	38,0	4,6	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
<b>left hand</b>													
PCBNL2020K12	20	20	17,0	125	26,0	3,1	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCBNL2525M12	25	25	22,0	150	26,0	3,1	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCBNL2525M16	25	25	22,0	150	28,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNL3225P16	32	25	22,0	170	28,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNL3232P16	32	32	27,0	170	38,0	4,2	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCBNL3232P19	32	32	27,0	170	40,0	4,6	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCBNL4040S19	40	40	35,0	250	38,0	4,6	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP





See pages B40–B49 and B174–B176 for inserts.

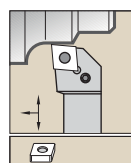


**PCKN 75°**

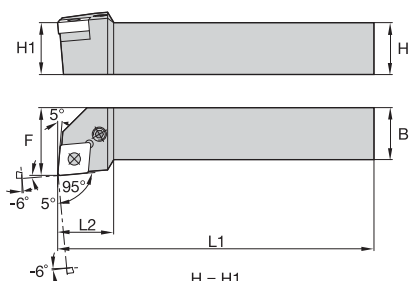
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>													
PCKNR2020K12	20	20	25,0	125	23,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNR2525M12	25	25	32,0	150	23,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNR2525M16	25	25	32,0	150	30,0	3,80	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCKNR3225P12	32	25	32,0	170	26,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNR3225P16	32	25	32,0	170	30,0	3,80	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCKNR3232P19	32	32	40,0	170	40,0	4,63	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
<b>left hand</b>													
PCKNL2020K12	20	20	25,0	125	23,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNL2525M12	25	25	32,0	150	23,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNL3225P12	32	25	32,0	170	26,0	3,09	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCKNL3225P16	32	25	32,0	170	30,0	3,80	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCKNL3232P19	32	32	40,0	170	40,0	4,63	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP



See pages B40–B49 and B174–B176 for inserts.



**PCLN 95°**



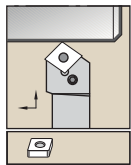
catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>												
PCLNR1616H12	16	16	20,0	100	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNR2020K12	20	20	25,0	125	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNR2525M12	25	25	32,0	150	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNR2525M16	25	25	32,0	150	28,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNR2525M19	25	25	32,0	150	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNR3225P12	32	25	32,0	170	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNR3225P16	32	25	32,0	170	38,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNR3225P19	32	25	32,0	170	38,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNR3232P16	32	32	40,0	170	36,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNR3232P19	32	32	40,0	170	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNR4040S19	40	40	50,0	250	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP

(continued)

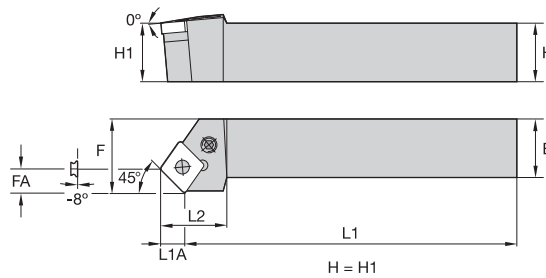
(PCLN 95° continued)

catalogue number	H	B	F	L1	L2	gage insert						Torx Plus
							shim	shim pin	punch pin	lever	lever screw	
<b>left hand</b>												
PCLNL1616H12	16	16	20,0	100	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNL2020K12	20	20	25,0	125	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNL2525M12	25	25	32,0	150	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNL2525M16	25	25	32,0	150	28,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNL2525M19	25	25	32,0	150	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNL3225P12	32	25	32,0	170	26,0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCLNL3225P16	32	25	32,0	170	38,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNL3225P19	32	25	32,0	170	38,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNL3232P16	32	32	40,0	170	36,0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
PCLNL3232P19	32	32	40,0	170	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
PCLNL4040S19	40	40	50,0	250	36,0	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP

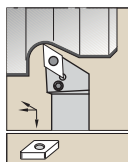
O.D./I.D. Tooling



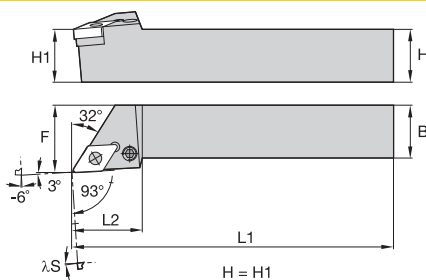
See pages B40–B49 and B174–B176 for inserts.


**■ PCSN 45°**

catalogue number	H	B	F	L1	L2	FA	L1A	gage insert						Torx Plus
									shim	shim pin	punch pin	lever	lever screw	
<b>right hand</b>														
PCSNR2020K12	20	20	25,0	125	26,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNR2525M12	25	25	32,0	150	28,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNR3225P12	32	25	32,0	170	32,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNR3232P19	32	32	40,0	170	40,0	12,7	12,7	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP
<b>left hand</b>														
PCSNL2020K12	20	20	25,0	125	26,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNL2525M12	25	25	32,0	150	28,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNL3225P12	32	25	32,0	170	32,0	8,5	8,5	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
PCSNL3232P19	32	32	40,0	170	40,0	12,7	12,7	CN..190612	512.123	513.033	515.022	511.033	514.133	25 IP



See pages B50–B58 and B176–B178 for inserts.

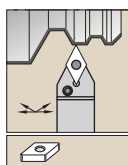


■ PDJN 93°

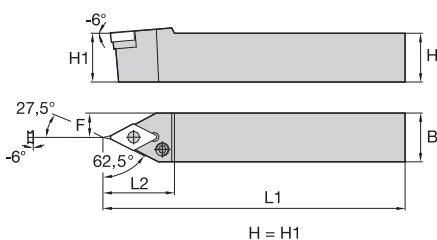


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	λS°	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>													
PDJNR1616H11	16	16	20,0	100	22,0	-6.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNR2020K11	20	20	25,0	125	30,0	-7.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNR2020K15	20	20	25,0	125	36,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNR2525M11	25	25	32,0	150	30,0	-7.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNR2525M15	25	25	32,0	150	36,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNR3225P15	32	25	32,0	170	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNR3232P15	32	32	40,0	170	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNR4025R15	40	25	32,0	200	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
<b>left hand</b>													
PDJNL1616H11	16	16	20,0	100	22,0	-6.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNL2020K11	20	20	25,0	125	30,0	-7.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNL2020K15	20	20	25,0	125	36,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNL2525M11	25	25	32,0	150	30,0	-7.0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDJNL2525M15	25	25	32,0	150	36,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNL3225P15	32	25	32,0	170	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNL3232P15	32	32	40,0	170	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDJNL4025R15	40	25	32,0	200	38,0	-7.0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP



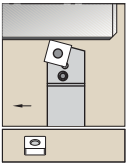
See pages B50–B58 and B176–B178 for inserts.



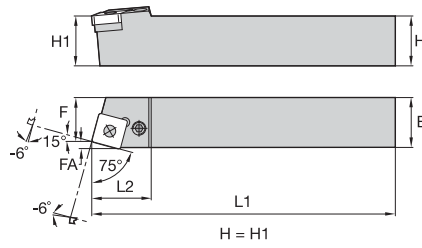
■ PDNN 62,5°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>												
PDNNR2020K11	20	20	10,0	125	24,0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDNNR2020K15	20	20	10,0	125	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDNNR2525M15	25	25	12,5	150	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDNNR4025M15	40	25	12,5	150	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
<b>left hand</b>												
PDNNL2020K11	20	20	10,0	125	24,0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDNNL2020K15	20	20	10,0	125	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDNNL2525M11	25	25	12,5	150	30,0	DN..110408	512.060	513.060	515.018	511.060	514.118	10 IP
PDNNL2525M15	25	25	12,5	150	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
PDNNL4025M15	40	25	12,5	150	36,0	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP



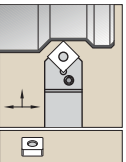
See pages B59–B66 and B178–B179 for inserts.



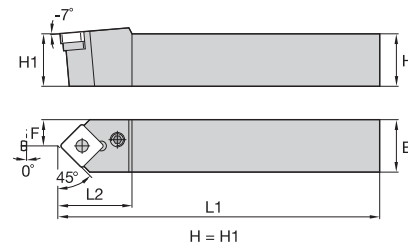
■ **PSBN 75°**



catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>													
PSBNR2020K12	20	20	17,0	125	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNR2525M12	25	25	22,0	150	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNR2525M15	25	25	22,0	150	36,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSBNR3225P12	32	25	22,0	170	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNR3232P15	32	32	27,0	170	33,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSBNR3232P19	32	32	27,0	170	40,0	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSBNR4040S19	40	40	35,0	250	38,0	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSBNR4040S25	40	40	35,0	250	47,0	5,9	SN..250724	512.092	513.038	515.028	511.038	514.138	30 IP
<b>left hand</b>													
PSBNL2020K12	20	20	17,0	125	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNL2525M12	25	25	22,0	150	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNL2525M15	25	25	22,0	150	36,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSBNL3225P12	32	25	22,0	170	26,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSBNL3225P15	32	25	22,0	170	33,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSBNL3232P15	32	32	27,0	170	33,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSBNL3232P19	32	32	27,0	170	40,0	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSBNL4040S19	40	40	35,0	250	38,0	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSBNL4040S25	40	40	35,0	250	47,0	5,9	SN..250724	512.092	513.038	515.028	511.038	514.138	30 IP



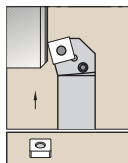
See pages B59–B66 and B178–B179 for inserts.



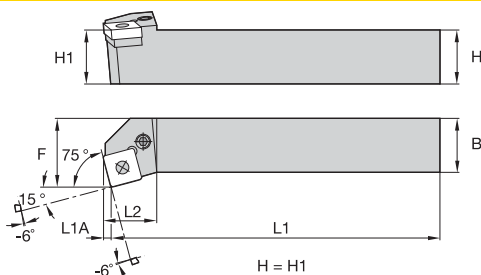
■ **PSDN 45°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
PSDNN1616H09	16	16	8,0	100	20,0	SN..090308	512.053	513.019	515.018	511.018	514.118	10 IP
PSDNN2020K12	20	20	10,0	125	26,0	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSDNN2525M12	25	25	12,5	150	26,0	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSDNN3225P12	32	25	12,5	170	28,0	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSDNN3225P19	32	25	12,5	170	40,0	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSDNN3232P19	32	32	16,0	170	40,0	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSDNN4040S25	40	40	20,0	250	47,0	SN..250724	512.092	513.038	515.028	511.038	514.138	30 IP



See pages B59–B66 and B178–B179 for inserts.

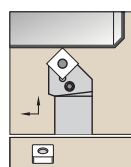


**PSKN 75°**

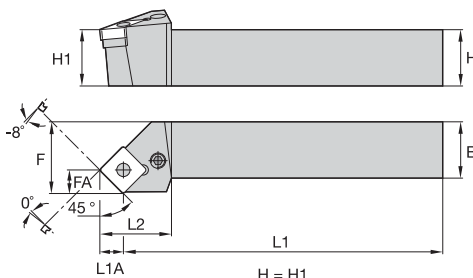


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>													
PSKNR1616H09	16	16	20,0	100	20,0	2,2	SN..090308	512.053	513.019	515.018	511.018	514.118	10 IP
PSKNR2020K12	20	20	25,0	125	23,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSKNR2525M12	25	25	32,0	150	23,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSKNR3232P15	32	32	40,0	170	33,0	3,8	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSKNR3232P19	32	32	40,0	170	37,5	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
<b>left hand</b>													
PSKNL2020K12	20	20	25,0	125	23,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSKNL2525M12	25	25	32,0	150	23,0	3,1	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSKNL3232P19	32	32	40,0	170	37,5	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSKNL4040S19	40	40	50,0	250	37,5	4,6	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP



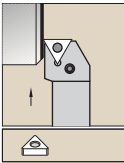
See pages B59–B66 and B178–B179 for inserts.



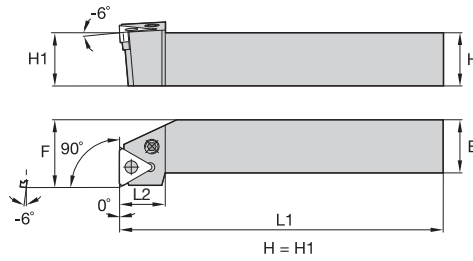
**PSSN 45°**



catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>														
PSSNR2020K09	20	20	25,0	125	26,0	6,1	6,1	SN..090308	512.053	513.019	515.018	511.018	514.118	10 IP
PSSNR2020K12	20	20	25,0	125	28,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNR2525M12	25	25	32,0	150	28,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNR2525M15	25	25	32,0	150	32,0	10,2	10,2	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSSNR3225P12	32	25	32,0	170	29,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNR3232P15	32	32	40,0	170	32,0	10,2	10,2	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSSNR3232P19	32	32	40,0	170	37,5	12,5	12,5	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSSNR4040S19	40	40	50,0	250	37,5	12,5	12,5	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
<b>left hand</b>														
PSSNL2020K12	20	20	25,0	125	28,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNL2525M12	25	25	32,0	150	28,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNL2525M15	25	25	32,0	150	32,0	10,2	10,2	SN..150608	512.025	513.025	515.022	511.025	514.125	15 IP
PSSNL3225P12	32	25	32,0	170	29,0	8,3	8,3	SN..120408	512.063	513.023	515.018	511.023	514.123	15 IP
PSSNL3232P19	32	32	40,0	170	37,5	12,5	12,5	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP
PSSNL4040S19	40	40	50,0	250	37,5	12,5	12,5	SN..190612	512.083	513.033	515.022	511.033	514.133	25 IP

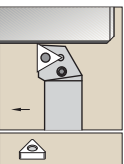


See pages B66–B73 and B179–B180 for inserts.

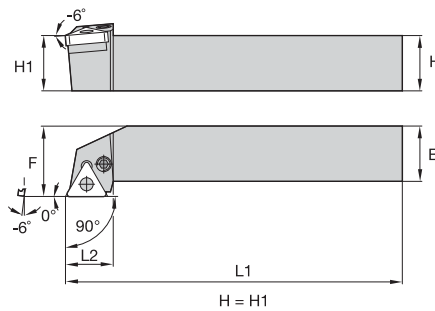


■ PTFN 90°

catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>												
PTFNR2020K16	20	20	25,0	125	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTFNR2525M16	25	25	32,0	150	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
<b>left hand</b>												
PTFNL1616H16	16	16	20,0	100	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTFNL2020K16	20	20	25,0	125	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTFNL2525M16	25	25	32,0	150	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP



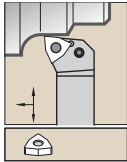
See pages B66–B73 and B179–B180 for inserts.



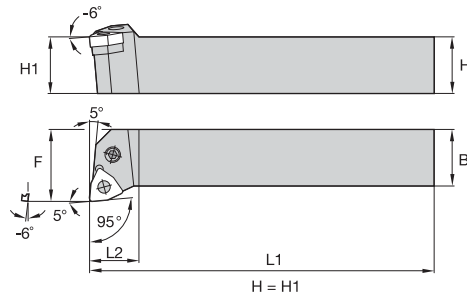
■ PTGN 90°

catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>												
PTGNR1616H16	16	16	20,0	100	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNR2020K16	20	20	25,0	125	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNR2525M16	25	25	32,0	150	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNR2525M22	25	25	32,0	150	26,0	TN..220408	512.023	513.023	515.018	511.023	514.123	15 IP
<b>left hand</b>												
PTGNL1616H16	16	16	20,0	100	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNL2020K16	20	20	25,0	125	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNL2525M16	25	25	32,0	150	20,0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
PTGNL2525M22	25	25	32,0	150	26,0	TN..220408	512.023	513.023	515.018	511.023	514.123	15 IP



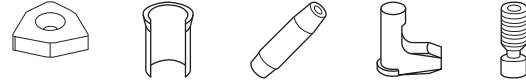


See pages B79–B83 and B181 for inserts.

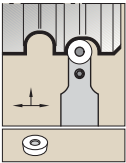


**PWLN 95°**

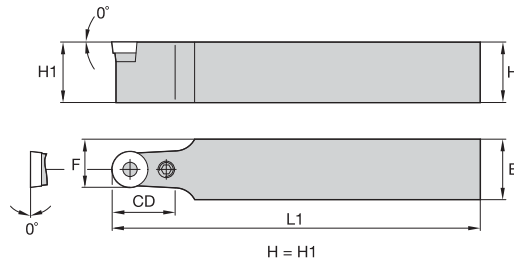
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	gage insert	shim	shim pin	punch pin	lever	lever screw	Torx Plus
<b>right hand</b>												
PWLN1616H06	16	16	20,0	100	14,0	WN..060404	512.134	513.018	515.018	511.018	514.118	10 IP
PWLN2020K06	20	20	25,0	125	14,0	WN..060404	512.134	513.018	515.018	511.018	514.118	10 IP
PWLN2020K08	20	20	25,0	125	20,0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
<b>left hand</b>												
PWLN1616H06	16	16	20,0	100	14,0	WN..060404	512.134	513.018	515.018	511.018	514.118	10 IP
PWLN2020K06	20	20	25,0	125	14,0	WN..060404	512.134	513.018	515.018	511.018	514.118	10 IP
PWLN2020K08	20	20	25,0	125	20,0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
PWLN2525M08	25	25	32,0	150	26,0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
PWLN3225P08	32	25	32,0	170	26,0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP



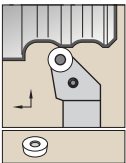
See pages B101–B102 for inserts.



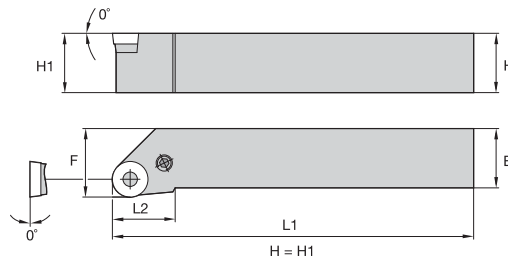
■ PRCC



catalogue number	H	B	F	L1	CD	gage insert	shim	clamp stud	clamp screw	wrench size clamp screw
PRCCN2020K08H1	20	20	14,0	125	16,0	RC..0803M0	—	119.069	121.408	2 mm
PRCCN2020K10H1	20	20	15,0	125	24,0	RC..1003M0	169.325	119.069	121.408	2 mm
PRCCN2525M08H1	25	25	16,5	150	16,0	RC..0803M0	—	119.069	121.408	2 mm
PRCCN2525M10H1	25	25	17,5	150	24,0	RC..1003M0	169.325	119.069	121.408	2 mm
PRCCN2525M12H1	25	25	18,5	150	24,0	RC..1204M0	169.322	119.071	121.512	2.5 mm
PRCCN3225P16H1	32	25	20,5	170	33,0	RC..1606M0	169.327	410.081	121.616	3 mm
PRCCN3232P20H1	32	32	26,0	170	32,0	RC..2006M0	169.333	119.073	121.820	4 mm
PRCCN4040S25H1	40	40	32,5	250	78,0	RC..2507M0	169.337	118.404	121.820	4 mm



See pages B101–B102 for inserts.

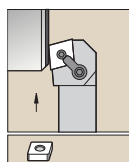


■ PRGC

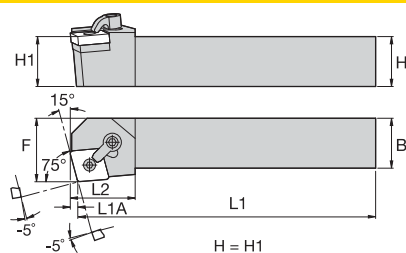


catalogue number	H	B	F	L1	L2	gage insert	shim	clamp stud	clamp screw	wrench size clamp screw
<b>right hand</b>										
PRGCR2020K10H1	20	20	25,0	125	26,0	RC..1003M0	169.325	119.069	121.408	2 mm
PRGCR2525M08H1	25	25	29,0	150	26,0	RC..0803M0	—	119.069	121.408	2 mm
PRGCR2525M10H1	25	25	30,0	150	26,0	RC..1003M0	169.325	119.069	121.408	2 mm
PRGCR2525M12H1	25	25	32,0	150	26,0	RC..1204M0	169.322	119.071	121.512	2.5 mm
PRGCR3225P16H1	32	25	32,0	170	36,0	RC..1606M0	169.327	118.205	121.616	3 mm
PRGCR3232P20H1	32	32	40,0	170	40,0	RC..2006M0	169.333	119.073	121.820	4 mm
PRGCR4040S25H1	40	40	50,0	250	47,0	RC..2507M0	169.337	118.404	121.820	4 mm
<b>left hand</b>										
PRGCL2525M08H1	25	25	29,0	150	26,0	RC..0803M0	—	119.069	121.408	2 mm
PRGCL2525M10H1	25	25	30,0	150	26,0	RC..1003M0	169.325	119.069	121.408	2 mm
PRGCL2525M12H1	25	25	32,0	150	26,0	RC..1204M0	169.322	119.071	121.512	2.5 mm
PRGCL3225P16H1	32	25	32,0	170	36,0	RC..1606M0	169.327	118.205	121.616	3 mm
PRGCL3232P20H1	32	32	40,0	170	40,0	RC..2006M0	169.333	119.073	121.820	4 mm
PRGCL4040S25H1	40	40	50,0	250	47,0	RC..2507M0	169.337	118.404	121.820	4 mm





See pages B40–B49 and B174–B176 for inserts.

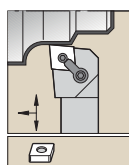


**MCKN 75°**

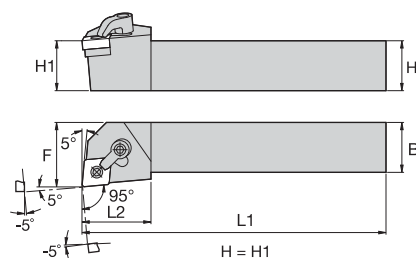
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
MCKNR2525M12	25	25	32,0	150	32,0	3,1	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCKNR3225P12	32	25	32,0	170	32,0	3,1	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCKNR3225P16	32	25	32,0	170	33,0	3,6	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
<b>left hand</b>													
MCKNR3232P19	32	32	40,0	170	38,0	4,4	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCKNL2525M12	25	25	32,0	150	32,0	3,1	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCKNL3225P16	32	25	32,0	170	33,0	3,6	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCKNL3232P19	32	32	40,0	170	38,0	4,4	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm



See pages B40–B49 and B174–B176 for inserts.



**MCLN 95°**



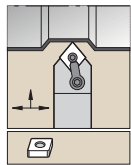
catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
MCLNR1616H09	16	16	20,0	100	25,0	CN..090308	—	KLM33	2 mm	CKM6	STCM5	2.5 mm
MCLNR1616H12	16	16	20,0	100	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNR2020K09	20	20	25,0	125	25,0	CN..090308	ICSN332	KLM34L	2 mm	CKM6	STCM5	2.5 mm
MCLNR2020K12	20	20	25,0	125	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNR2525M09	25	25	32,0	150	25,0	CN..090308	ICSN332	KLM34L	2 mm	CKM6	STCM5	2.5 mm
MCLNR2525M12	25	25	32,0	150	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNR2525M16	25	25	32,0	150	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNR2525M19	25	25	32,0	150	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNR3225P12	32	25	32,0	170	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNR3225P16	32	25	32,0	170	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNR3225P19	32	25	32,0	170	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNR3232P12	32	32	40,5	171	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNR3232P16	32	32	40,5	171	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNR3232P19	32	32	40,0	170	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNR4040R19	40	40	50,0	200	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm

(continued)

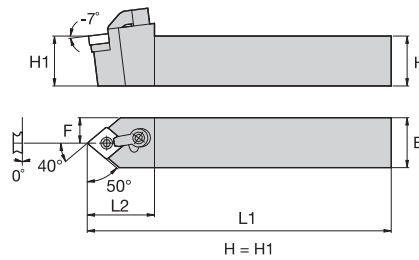
(MCLN 95° continued)



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>left hand</b>												
MCLNL1616H09	16	16	20,0	100	25,0	CN..090308	—	KLM33	2 mm	CKM6	STCM5	2.5 mm
MCLNL1616H12	16	16	20,0	100	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNL2020K12	20	20	25,0	125	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNL2525M09	25	25	32,0	150	25,0	CN..090308	ICSN332	KLM34L	2 mm	CKM6	STCM5	2.5 mm
MCLNL2525M12	25	25	32,0	150	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNL2525M16	25	25	32,0	150	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNL2525M19	25	25	32,0	150	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNL3225P12	32	25	32,0	170	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNL3225P16	32	25	32,0	170	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNL3225P19	32	25	32,0	170	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNL3232P12	32	32	40,5	171	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCLNL3232P16	32	32	40,5	171	33,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCLNL3232P19	32	32	40,0	170	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MCLNL4040R19	40	40	50,0	200	38,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm



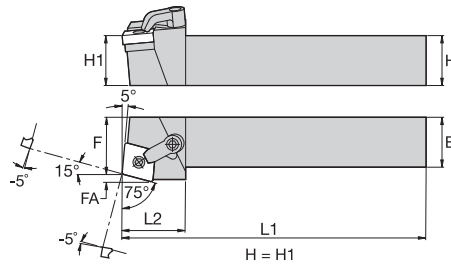
See pages B40–B49 and B174–B176 for inserts.


**MCMN 50°**


catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
MCMNN2020K12	20	20	10,0	125	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCMNN2525M12	25	25	12,9	150	32,0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCMNN3225P16	32	25	12,9	170	38,0	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCMNN4040R19	40	40	20,0	200	42,0	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm



See pages B40–B49 and B174–B176 for inserts.

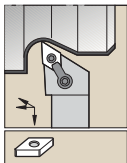


**MCRN 75°**

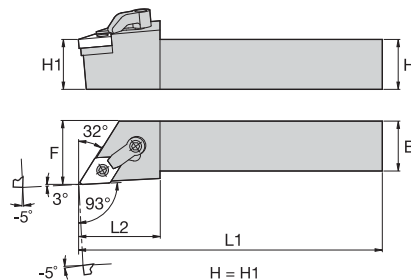


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	FA	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
MCRNR2020K12	20	20	25,0	125	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNR2525M12	25	25	32,0	150	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNR3225P12	32	25	32,0	170	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNR3232P16	32	32	32,0	170	33,0	4,2	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCRNR3232P19	32	32	40,0	170	38,0	4,6	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>													
MCRNL2020K12	20	20	25,0	125	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNL2525M12	25	25	32,0	150	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNL3225P12	32	25	32,0	170	32,0	3,3	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MCRNL3232P16	32	32	32,0	170	33,0	4,2	CN..160612	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MCRNL3232P19	32	32	40,0	170	38,0	4,6	CN..190612	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm



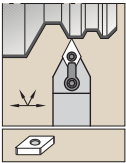
See pages B50–B58 and B176–B178 for inserts.



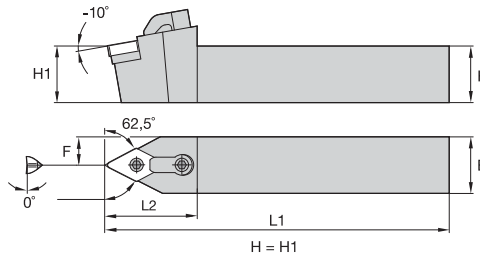
**MDJN 93°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
MDJNR1616H11	16	16	20,0	100	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNR2020K11	20	20	25,0	125	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNR2020K15	20	20	25,0	125	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNR2525M11	25	25	32,0	150	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNR2525M15	25	25	32,0	150	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNR3225P15	32	25	32,0	170	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNR3232P15	32	32	40,5	173	32,0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
<b>left hand</b>												
MDJNL1616H11	16	16	20,0	100	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNL2020K11	20	20	25,0	125	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNL2020K15	20	20	25,0	125	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNL2525M11	25	25	32,0	150	32,0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
MDJNL2525M15	25	25	32,0	150	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNL3225P15	32	25	32,0	170	36,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
MDJNL3232P15	32	32	40,5	173	32,0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm



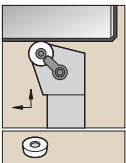
See pages B50–B58 and B176–B178 for inserts.



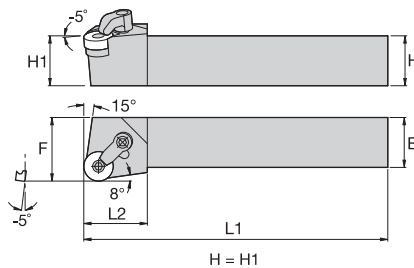
■ MDNN 62,5°



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MDNNR2525M15</b>	25	25	12,5	150	41,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
<b>MDNNR3225P15</b>	32	25	12,5	170	41,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
<b>left hand</b>												
<b>MDNNL2525M15</b>	25	25	12,5	150	41,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
<b>MDNNL3225P15</b>	32	25	12,5	170	41,0	DN..150612	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm



See pages B58–B59 for inserts.

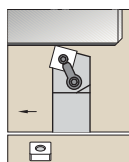


■ MRGN

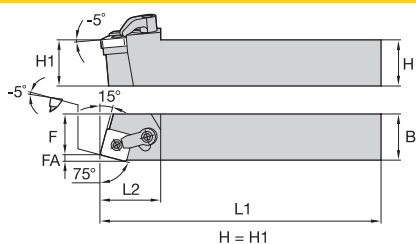


catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MRGNR2525M12</b>	25	25	32,0	150	32,0	RN..120400	IRSN43	KLM46	2.5 mm	CKM21	STCM20	3 mm
<b>MRGNR3232P19</b>	32	32	40,0	170	38,0	RN..190600	IRSN63	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>												
<b>MRGNL2525M12</b>	25	25	32,0	150	32,0	RN..120400	IRSN43	KLM46	2.5 mm	CKM21	STCM20	3 mm
<b>MRGNL3232P19</b>	32	32	40,0	170	38,0	RN..190600	IRSN63	KLM68	4 mm	CKM12	STCM4	4 mm

O.D./I.D. Tooling



See pages B59–B66 and B178–B179 for inserts.

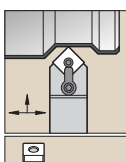


**MSBN 75°**

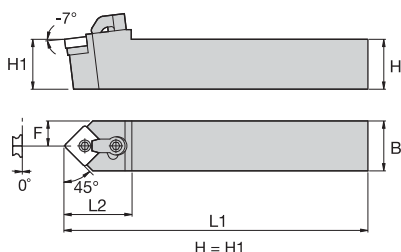
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	FA	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
MSBNR2020K12	20	20	17,0	125	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNR2525M12	25	25	22,0	150	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNR2525M15	25	25	22,0	150	35,0	3,8	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSBNR3225P12	32	25	22,0	170	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNR3232P15	32	32	27,0	170	35,0	3,8	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSBNR3232P19	32	32	27,0	170	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MSBNR4040R19	40	40	35,0	200	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>													
MSBNL2020K12	20	20	17,0	125	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNL2525M12	25	25	22,0	150	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNL2525M15	25	25	22,0	150	35,0	3,8	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSBNL3225P12	32	25	22,0	170	32,0	3,1	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSBNL3232P15	32	32	27,0	170	35,0	3,8	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSBNL3232P19	32	32	27,0	170	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MSBNL4040R19	40	40	35,0	200	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm



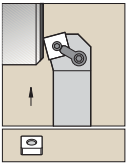
See pages B59–B66 and B178–B179 for inserts.



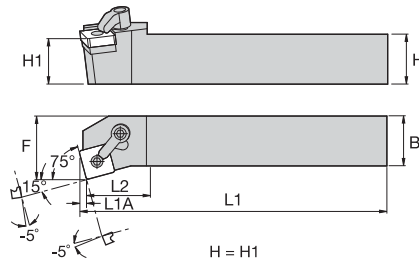
**MSDN 45°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
MSDNN1616H09	16	16	8,0	100	28,0	SN..090308	ISSN332	KLM34L	2 mm	CKM19	STCM9	2.5 mm
MSDNN2020K12	20	20	10,0	125	32,0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSDNN2525M12	25	25	12,5	150	32,0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSDNN2525M15	25	25	12,5	150	35,0	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSDNN3225P12	32	25	12,5	170	32,0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSDNN3232P19	32	32	16,0	170	42,0	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm



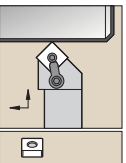
See pages B59–B66 and B178–B179 for inserts.



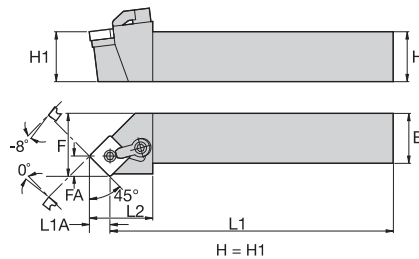
■ **MSKN 75°**



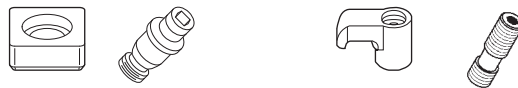
catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
MSKNR2525M12	25	25	32,0	150	32,0	3,1	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNR3225P12	32	25	32,0	170	32,0	3,1	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNR3232P15	32	32	40,0	170	35,0	3,7	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSKNR3232P19	32	32	40,0	170	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>													
MSKNL2020K12	20	20	25,0	125	32,0	3,1	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNL2525M12	25	25	32,0	150	32,0	3,1	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNL2525M15	25	25	32,0	150	35,0	3,7	SN..150612	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNL3225P12	32	25	32,0	170	32,0	3,1	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSKNL3232P15	32	32	40,0	170	35,0	3,7	SN..150612	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
MSKNL3232P19	32	32	40,0	170	40,0	4,6	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm



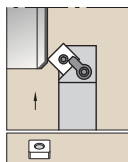
See pages B59–B66 and B178–B179 for inserts.



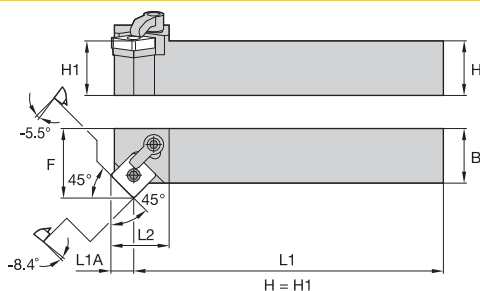
■ **MSSN 45°**



catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>														
MSSNR2020K12	20	20	25,0	125	32,0	8,3	8,3	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSSNR2525M12	25	25	32,0	150	32,0	8,3	8,3	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSSNR3232P19	32	32	40,0	170	40,0	12,5	12,5	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MSSNR4040R19	40	40	50,0	200	40,0	12,5	12,5	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>														
MSSNL2020K12	20	20	25,0	125	32,0	8,3	8,3	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSSNL2525M12	25	25	32,0	150	32,0	8,3	8,3	SN..120408	ISSN433	KLM46	2.5 mm	CKM21	STCM20	3 mm
MSSNL3232P19	32	32	40,0	170	40,0	12,5	12,5	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
MSSNL4040R19	40	40	50,0	200	40,0	12,5	12,5	SN..190612	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm



See pages B59–B66 and B178–B179 for inserts.

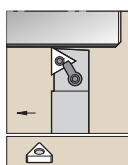


**MSZN 45°**

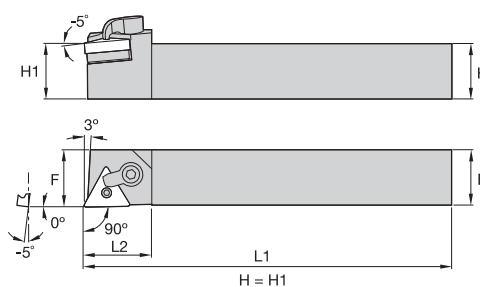


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
<b>MSZNR2525M12</b>	25	25	32,0	150	25,0	8,5	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
<b>left hand</b>													
<b>MSZNL2525M12</b>	25	25	32,0	150	25,0	8,5	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm



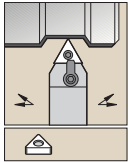
See pages B66–B73 and B179–B180 for inserts.



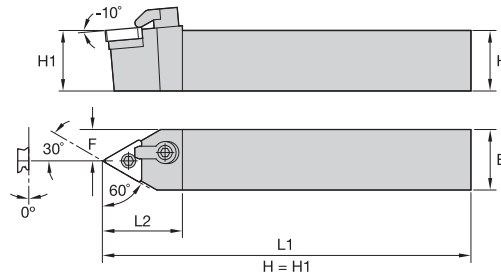
**MTAN-S 90°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MTANRS2020K16</b>	20	20	20,5	125	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTANRS2525M16</b>	25	25	25,5	150	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTANRS2525M22</b>	25	25	25,5	150	32,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm
<b>left hand</b>												
<b>MTANLS2020K16</b>	20	20	20,5	125	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTANLS2525M16</b>	25	25	25,5	150	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTANLS2525M22</b>	25	25	25,5	150	32,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm



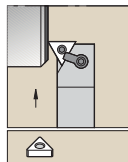
See pages B66–B73 and B179–B180 for inserts.



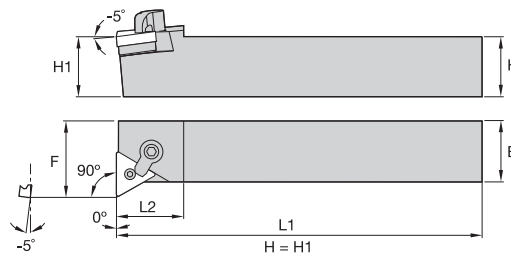
■ **MTEN-S 60°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>MTENNS2020K16</b>	20	20	10,0	125	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTENNS2525M16</b>	25	25	12,0	150	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
<b>MTENNS2525M22</b>	25	25	12,0	150	35,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm
<b>MTENNS3225P22</b>	32	25	12,0	170	35,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm



See pages B66–B73 and B179–B180 for inserts.



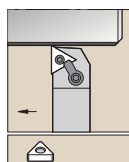
■ **MTFN 90°**



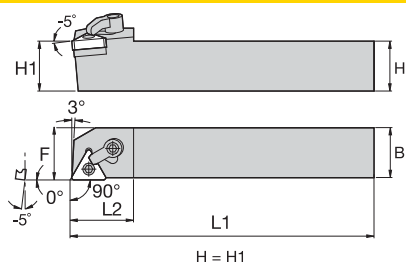
catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MTFNR2020K16</b>	20	20	25,0	125	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM20	STCM11	3 mm
<b>MTFNR2525M16</b>	25	25	32,0	150	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM20	STCM11	3 mm
<b>MTFNR2525M22</b>	25	25	32,0	150	32,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm
<b>left hand</b>												
<b>MTFNL2020K16</b>	20	20	25,0	125	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM20	STCM11	3 mm
<b>MTFNL2525M16</b>	25	25	32,0	150	32,0	TN..160408	ITSN322	KLM34L	2 mm	CKM20	STCM11	3 mm
<b>MTFNL2525M22</b>	25	25	32,0	150	32,0	TN..220408	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm

O.D./I.D. Tooling





See pages B66–B73 and B179–B180 for inserts.



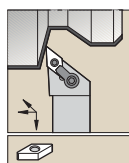
$H = H1$

■ **MTGN 90°**

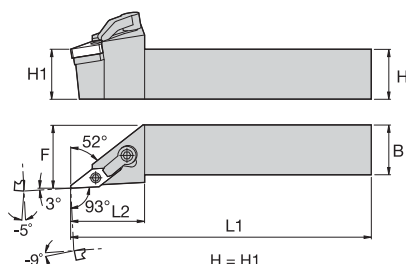
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MTGNR1616H16</b>	16	16	20,0	100	32,0	TN..160408	<b>ITSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM20</b>	<b>STCM11</b>	3 mm
<b>MTGNR2020K16</b>	20	20	25,0	125	32,0	TN..160408	<b>ITSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM21</b>	<b>STCM20</b>	3 mm
<b>MTGNR2525M16</b>	25	25	32,0	150	32,0	TN..160408	<b>ITSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM21</b>	<b>STCM20</b>	3 mm
<b>MTGNR2525M22</b>	25	25	32,0	150	32,0	TN..220408	<b>ITSN433</b>	<b>KLM46</b>	2.5 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm
<b>MTGNR3232P22</b>	32	32	40,0	170	32,0	TN..220408	<b>ITSN433</b>	<b>KLM46</b>	2.5 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm
<b>left hand</b>												
<b>MTGNL2525M16</b>	25	25	32,0	150	32,0	TN..160408	<b>ITSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM21</b>	<b>STCM20</b>	3 mm
<b>MTGNL2525M22</b>	25	25	32,0	150	32,0	TN..220408	<b>ITSN433</b>	<b>KLM46</b>	2.5 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm
<b>MTGNL3232P22</b>	32	32	40,0	170	32,0	TN..220408	<b>ITSN433</b>	<b>KLM46</b>	2.5 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm



See pages B74–B78 and B180–B181 for inserts.

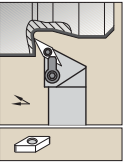


$H = H1$

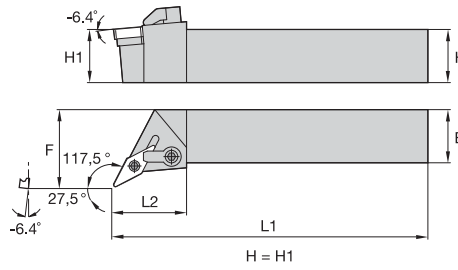
■ **MVJN 93°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MVJNR2020K16</b>	20	20	25,0	125	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNR2525M16</b>	25	25	32,0	150	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNR3225P16</b>	32	25	32,0	171	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNR3225P22</b>	32	25	32,0	170	50,0	VN..220408	<b>IVSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM26</b>	<b>STCM4</b>	4 mm
<b>MVJNR3232P16</b>	32	32	40,5	171	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>left hand</b>												
<b>MVJNL2020K16</b>	20	20	25,0	125	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNL2525M16</b>	25	25	32,0	150	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNL3225P16</b>	32	25	32,0	171	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm
<b>MVJNL3225P22</b>	32	25	32,0	170	50,0	VN..220408	<b>IVSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM26</b>	<b>STCM4</b>	4 mm
<b>MVJNL3232P16</b>	32	32	40,5	171	37,0	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM31</b>	<b>STCM20</b>	3 mm



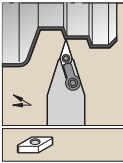
See pages B74–B78 and B180–B181 for inserts.



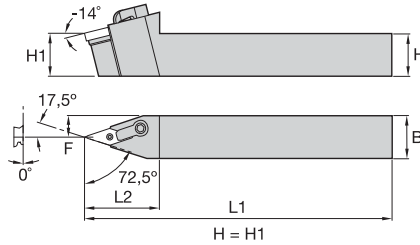
■ **MVON 117,5°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MVONR2525M16</b>	25	25	32,0	150	30,0	VN..160408	IVSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
<b>left hand</b>												
<b>MVONL2525M16</b>	25	25	32,0	150	30,0	VN..160408	IVSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm



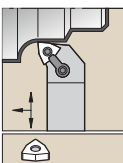
See pages B74–B78 and B180–B181 for inserts.



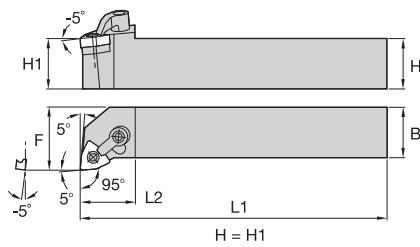
■ **MVVN 72,5°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>MVVNN2020K16</b>	20	20	10,0	125	42,0	VN..160408	IVSN322	KLM34L	2 mm	CKM31	STCM20	3 mm
<b>MVVNN2525M16</b>	25	25	12,5	150	42,0	VN..160408	IVSN322	KLM34L	2 mm	CKM31	STCM20	3 mm
<b>MVVNN2525M22</b>	25	25	12,0	150	55,0	VN..220408	IVSN432	KLM46	2.5 mm	CKM26	STCM4	4 mm
<b>MVVNN3225P16</b>	32	25	12,5	170	42,0	VN..160408	IVSN322	KLM34L	2 mm	CKM31	STCM20	3 mm



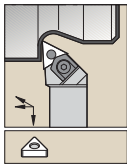
See pages B79–B83 and B181 for inserts.



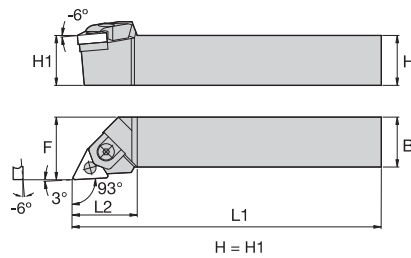
■ **MWLN 95°**



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>MWLN R2020K06</b>	20	20	25,0	125	25,0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
<b>MWLN R2525M06</b>	25	25	32,0	150	25,0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
<b>MWLN R3232P08</b>	32	32	40,3	171	32,0	WN..080408	IWSN433	KLM46	2.5 mm	CKM7	STCM5	2.5 mm
<b>left hand</b>												
<b>MWLN L2020K06</b>	20	20	25,0	125	25,0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
<b>MWLN L2525M06</b>	25	25	32,0	150	25,0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
<b>MWLN L3232P08</b>	32	32	40,3	171	32,0	WN..080408	IWSN433	KLM46	2.5 mm	CKM7	STCM5	2.5 mm



See pages B66–B73 and B179–B180 for inserts.

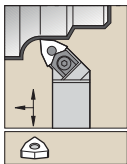


O.D./I.D. Tooling

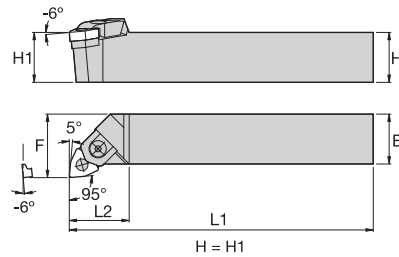
■ MTJN 93°



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	set screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b>												
MTJNR2020K16H4	20	20	25,0	125	32,0	TN..160408	512.125	513.125	192.159	3 mm	551.125	3 mm
MTJNR2525M16H4	25	25	32,0	150	32,0	TN..160408	512.125	513.125	192.159	3 mm	551.125	3 mm
MTJNR2525M22H4	25	25	32,0	150	36,0	TN..220408	512.126	513.126	192.159	3 mm	551.126	3 mm
<b>left hand</b>												
MTJNL2020K16H4	20	20	25,0	125	32,0	TN..160408	512.125	513.125	192.159	3 mm	551.125	3 mm
MTJNL2525M16H4	25	25	32,0	150	32,0	TN..160408	512.125	513.125	192.159	3 mm	551.125	3 mm
MTJNL2525M22H4	25	25	32,0	150	36,0	TN..220408	512.126	513.126	192.159	3 mm	551.126	3 mm
MTJNL3225P16H4	32	25	32,0	170	32,0	TN..160408	512.125	513.125	192.159	3 mm	551.125	3 mm



See pages B79–B83 and B181 for inserts.



■ MWLN 95°



catalogue number	H	B	F	L1	L2	gage insert	shim	lock pin	set screw	Torx	clamp assembly	hex (mm)
<b>right hand</b>												
MWLN2020K08H4	20	20	25,0	125	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm
MWLN2525M08H4	25	25	32,0	150	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm
MWLN3225P08H4	32	25	32,0	170	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm
<b>left hand</b>												
MWLN2020K08H4	20	20	25,0	125	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm
MWLN2525M08H4	25	25	32,0	150	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm
MWLN3225P08H4	32	25	32,0	170	30,0	WN..080408	512.131	513.132	192.636	T15	551.131	3 mm



# The ISO 26622 Standard

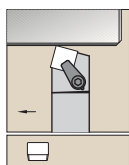
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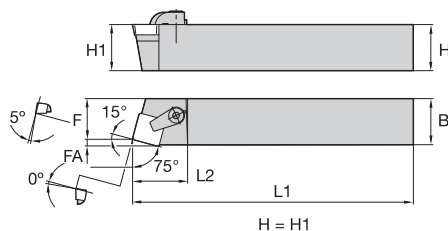
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See pages B85–B86 and B130 for inserts.

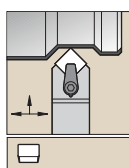


■ **CSBP 75°**

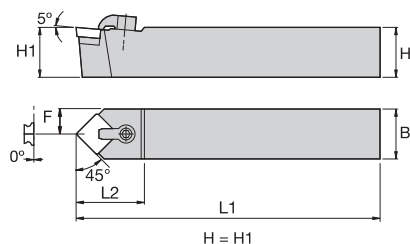
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	FA	gage insert	shim	hex (mm)	shim screw	clamp	clamp screw	hex (mm)
<b>right hand</b>													
<b>CSBPR2020K12</b>	20	20	17,0	125	30,0	3,1	SP..120308	<b>SM840</b>	2 mm	<b>MS111</b>	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>CSBPR2525M12</b>	25	25	22,0	150	30,0	3,1	SP..120308	<b>SM840</b>	2 mm	<b>MS111</b>	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>left hand</b>													
<b>CSBPL2020K12</b>	20	20	17,0	125	30,0	3,1	SP..120308	<b>SM840</b>	2 mm	<b>MS111</b>	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>CSBPL2525M12</b>	25	25	22,0	150	30,0	3,1	SP..120308	<b>SM840</b>	2 mm	<b>MS111</b>	<b>CKM10</b>	<b>STCM8</b>	4 mm



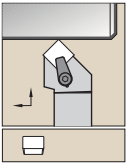
See pages B85–B86 and B130 for inserts.



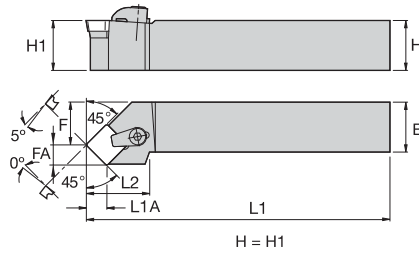
■ **CSDP 45°**



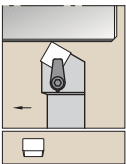
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>CSDPN1212F09</b>	12	12	6,0	80	25,0	SP..090308	<b>SM820</b>	<b>MS959</b>	—	<b>CKM7</b>	<b>STCM9</b>	2.5 mm
<b>CSDPN1616H09</b>	16	16	8,0	100	25,0	SP..090308	<b>SM820</b>	<b>MS959</b>	—	<b>CKM7</b>	<b>STCM9</b>	2.5 mm
<b>CSDPN2020K12</b>	20	20	10,0	125	32,0	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>CSDPN2525M12</b>	25	25	12,5	150	32,0	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm



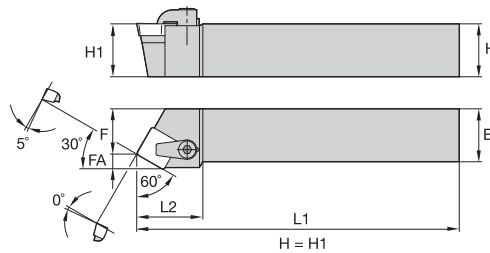
See pages B85–B86 and B130 for inserts.


**■ CSSP 45°**


catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>														
<b>CSSPR2020K12</b>	20	20	25,0	125	32,0	8,7	8,3	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>left hand</b>														
<b>CSSPR2525M12</b>	25	25	32,0	150	32,0	8,7	8,3	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm
<b>CSSPL2525M12</b>	25	25	32,0	150	32,0	8,7	8,3	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm

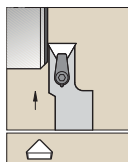


See pages B86–B87 and B130 for inserts.

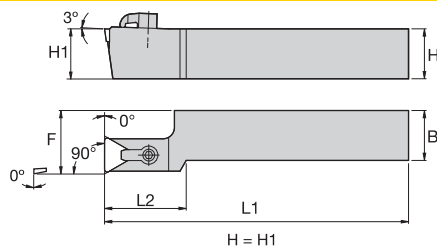

**■ CSTP 60°**


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
<b>CSTPR2020K09</b>	20	20	17,0	125	20,0	4,3	SP..090308	<b>SM820</b>	<b>MS959</b>	—	<b>CKM7</b>	<b>STCM5</b>	2.5 mm
<b>left hand</b>													
<b>CSTPR2020K12</b>	20	20	17,0	125	30,0	5,9	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>CSTPL2020K09</b>	20	20	17,0	125	20,0	4,3	SP..090308	<b>SM820</b>	<b>MS959</b>	—	<b>CKM7</b>	<b>STCM5</b>	2.5 mm
<b>CSTPL2020K12</b>	20	20	17,0	125	30,0	5,9	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>CSTPL2525M12</b>	25	25	22,0	150	28,0	5,9	SP..120308	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm

O.D./I.D. Tooling



See pages B86–B87 and B130 for inserts.

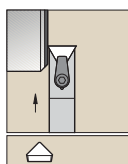


■ **CTCP 90°**

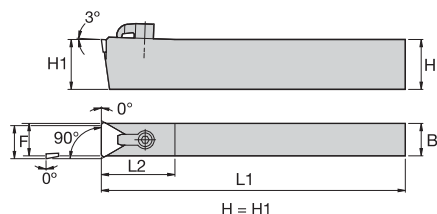


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>CTCPR2020K16</b>	20	20	25,0	125	38,0	TP..160308	<b>SM841</b>	<b>MS111</b>	2 mm	<b>CKM13</b>	<b>STCM8</b>	4 mm



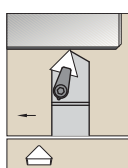
See pages B86–B87 and B130 for inserts.



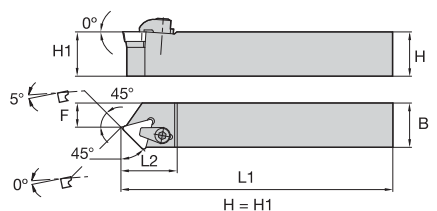
■ **CTCP 90°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>CTCPN2510M11</b>	25	10	10,0	150	26,0	TP..110304	<b>SM819</b>	<b>MS960</b>	–	<b>CKM7</b>	<b>STCM5</b>	2.5 mm
<b>CTCPN2514M16</b>	25	14	14,4	150	28,0	TP..160308	<b>SM841</b>	<b>MS111</b>	2 mm	<b>CKM13</b>	<b>STCM4</b>	4 mm
<b>CTCPN2518M22</b>	25	18	19,2	150	41,0	TP..220408	<b>SM837</b>	<b>MS125</b>	2.5 mm	<b>CKM13</b>	<b>STCM4</b>	4 mm
<b>CTCPN2520M22</b>	25	20	20,2	150	41,0	TP..220408	<b>SM837</b>	<b>MS125</b>	2.5 mm	<b>CKM13</b>	<b>STCM4</b>	4 mm
<b>CTCPN4018R22</b>	40	18	19,2	200	41,0	TP..220408	<b>SM837</b>	<b>MS125</b>	2.5 mm	<b>CKM13</b>	<b>STCM4</b>	4 mm
<b>CTCPN4020R22</b>	40	20	20,2	200	41,0	TP..220408	<b>SM837</b>	<b>MS125</b>	2.5 mm	<b>CKM13</b>	<b>STCM4</b>	4 mm



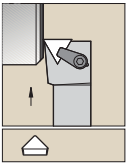
See pages B86–B87 and B130 for inserts.



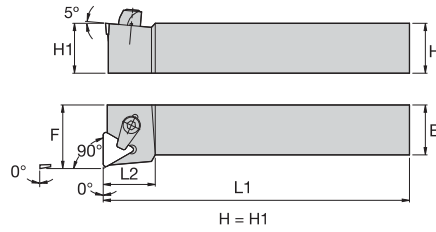
■ **CTDP 45°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>CTDPR1212F11</b>	12	12	6,0	80	22,0	TP..110304	<b>SM819</b>	<b>MS960</b>	–	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>CTDPR2525M16</b>	25	25	16,0	150	30,0	TP..160308	<b>SM841</b>	<b>MS111</b>	2 mm	<b>CKM9</b>	<b>STCM4</b>	4 mm
<b>left hand</b>												
<b>CTDPL1212F11</b>	12	12	6,0	80	22,0	TP..110304	<b>SM819</b>	<b>MS960</b>	–	<b>CKM19</b>	<b>STCM9</b>	2.5 mm



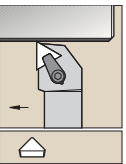
See pages B86–B87 and B130 for inserts.



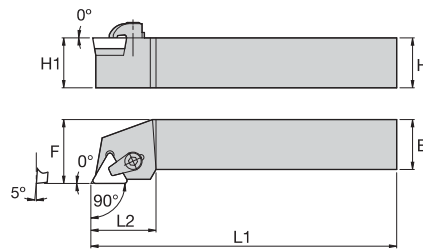
■ **CTFP 90°**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
right hand												
CTFPR2020K16	20	20	25,0	125	29,0	TP..160308	SM841	MS111	2 mm	CKM10	STCM8	4 mm
CTFPR2525M16	25	25	32,0	150	29,0	TP..160308	SM841	MS111	2 mm	CKM9	STCM4	4 mm
left hand												
CTFPL2020K16	20	20	25,0	125	29,0	TP..160308	SM841	MS111	2 mm	CKM10	STCM8	4 mm
CTFPL2525M16	25	25	32,0	150	29,0	TP..160308	SM841	MS111	2 mm	CKM9	STCM4	4 mm



See pages B86–B87 and B130 for inserts.

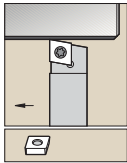


■ **CTGP 90°**

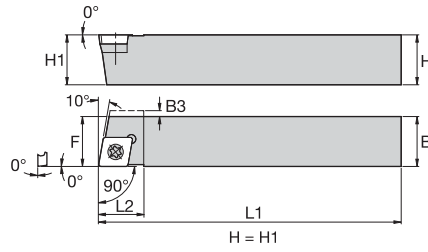


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
right hand												
CTGPR1212F11	12	12	16,0	80	20,0	TP..110304	SM819	MS960	—	CKM19	STCM9	2.5 mm
CTGPR1616H11	16	16	20,0	100	20,0	TP..110304	SM819	MS960	—	CKM19	STCM9	2.5 mm
CTGPR2020K11	20	20	25,0	125	20,0	TP..110304	SM819	MS960	—	CKM19	STCM9	2.5 mm
CTGPR2020K16	20	20	25,0	125	26,0	TP..160308	SM841	MS111	2 mm	CKM10	STCM8	4 mm
CTGPR2525M16	25	25	32,0	150	26,0	TP..160308	SM841	MS111	2 mm	CKM9	STCM4	4 mm
CTGPR2525M22	25	25	32,0	150	30,0	TP..220408	SM837	MS125	2.5 mm	CKM9	STCM4	4 mm
left hand												
CTGPL1212F11	12	12	16,0	80	20,0	TP..110304	SM819	MS960	—	CKM19	STCM9	2.5 mm
CTGPL2020K16	20	20	25,0	125	26,0	TP..160308	SM841	MS111	2 mm	CKM10	STCM8	4 mm
CTGPL2525M16	25	25	32,0	150	26,0	TP..160308	SM841	MS111	2 mm	CKM9	STCM4	4 mm





See pages B88–B91 and B187–B188 for inserts.

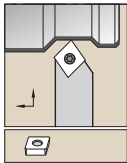


■ SCAC 90°

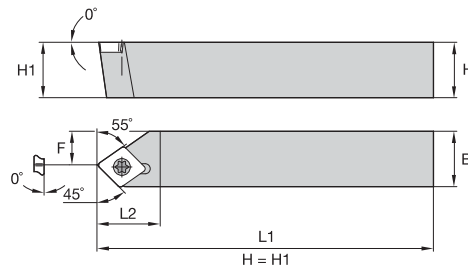
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
SCACR1010M06Q	10	10	10,0	150	11,0	—	CC..060204	—	—	—	MS1153	T7
SCACR1212M06Q	12	12	12,0	150	11,0	—	CC..060204	—	—	—	MS1153	T7
SCACR1616K09Q	16	16	16,0	125	16,0	—	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>												
SCACL0808M06Q	8	8	8,0	150	12,0	1,5	CC..060204	—	—	—	MS1153	T7
SCACL1010M06Q	10	10	10,0	150	11,0	—	CC..060204	—	—	—	MS1153	T7



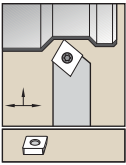
See pages B92–B95 and B189–B190 for inserts.



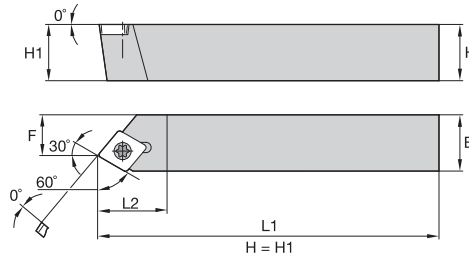
■ SCDP 45°



catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
SCDPR1212H06	12	12	7,0	100	14,0	CP..060203	MS1153	T7
<b>left hand</b>								
SCDPL1212H06	12	12	7,0	100	14,0	CP..060203	MS1153	T7



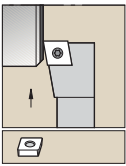
See pages B92–B95 and B189–B190 for inserts.



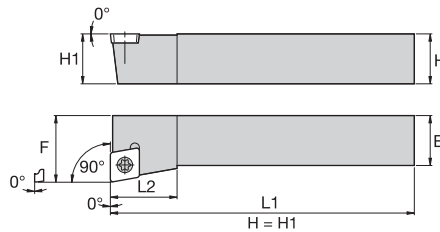
■ SCEP 60°



catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
right hand <b>SCEPR1010H06</b>	10	10	6,5	100	12,0	CP..060203R.	<b>MS1153</b>	T7
<b>SCEPR1212H06</b>	12	12	8,5	100	12,0	CP..060203R.	<b>MS1153</b>	T7
left hand <b>SCEPL1010H06</b>	10	10	6,5	100	12,0	CP..060203L.	<b>MS1153</b>	T7



See pages B88–B91 and B187–B188 for inserts.

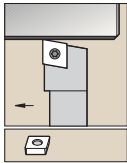


■ SCFC 90°

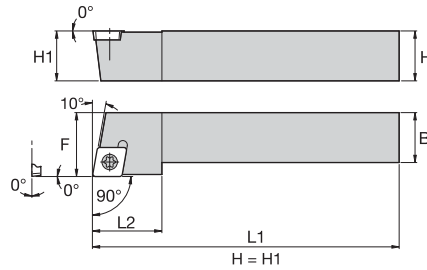


catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
right hand <b>SCFCR1212N09</b>	12	12	16,0	160	16,0	CC..09T308	<b>MS1155</b>	T15
left hand <b>SCFCL1212N09</b>	12	12	16,0	160	16,0	CC..09T308	<b>MS1155</b>	T15

O.D./I.D. Tooling



See pages B88–B91 and B187–B188 for inserts.

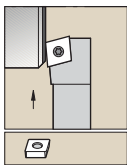


### ■ SCGC 90°

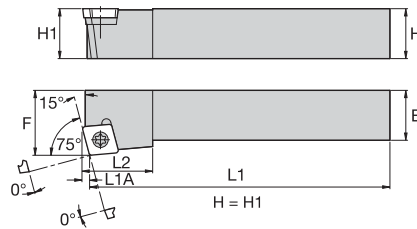


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
<b>SCGCR1010M06</b>	10	10	12,0	150	11,0	CC..060204	<b>MS1153</b>	T7
<b>SCGCR1212N09</b>	12	12	16,0	160	16,0	CC..09T308	<b>MS1155</b>	T15
<b>left hand</b>								
<b>SCGCL1010M06</b>	10	10	12,0	150	11,0	CC..060204	<b>MS1153</b>	T7
<b>SCGCL1212N09</b>	12	12	16,0	160	16,0	CC..09T308	<b>MS1155</b>	T15



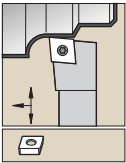
See pages B88–B91 and B187–B188 for inserts.



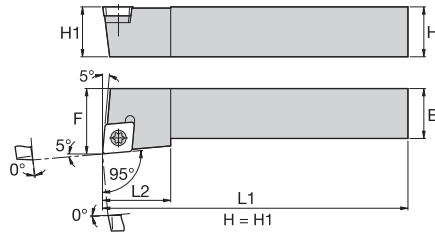
### ■ SCKC 75°



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
<b>SCKCR1616H09</b>	16	16	20,0	100	16,0	2,3	CC..09T308	<b>SKCP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SCKCR2020K09</b>	20	20	25,0	125	16,0	2,3	CC..09T308	<b>SKCP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15



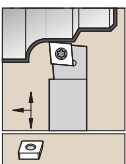
See pages B88–B91 and B187–B188 for inserts.



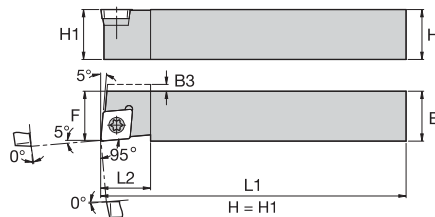
■ SCLC 95°



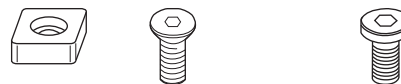
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
SCLCR0808L06	8	8	10,0	140	11,0	CC..060204	–	–	–	MS1153	T7
SCLCR1010M06	10	10	12,0	150	12,0	CC..060204	–	–	–	MS1153	T7
SCLCR1212N09	12	12	16,0	160	16,0	CC..09T308	–	–	–	MS1155	T15
SCLCR1616H09	16	16	20,0	100	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCR2020K09	20	20	25,0	125	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCR2020K12	20	20	25,0	125	20,0	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15
SCLCR2525M09	25	25	32,0	150	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCR2525M12	25	25	32,0	150	19,8	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15
<b>left hand</b>											
SCLCL0808L06	8	8	10,0	140	11,0	CC..060204	–	–	–	MS1153	T7
SCLCL1010M06	10	10	12,0	150	12,0	CC..060204	–	–	–	MS1153	T7
SCLCL1212N09	12	12	16,0	160	16,0	CC..09T308	–	–	–	MS1155	T15
SCLCL1616H09	16	16	20,0	100	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCL2020K09	20	20	25,0	125	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCL2020K12	20	20	25,0	125	20,0	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15
SCLCL2525M09	25	25	32,0	150	16,0	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
SCLCL2525M12	25	25	32,0	150	19,8	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15



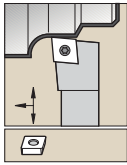
See pages B88–B91 and B187–B188 for inserts.



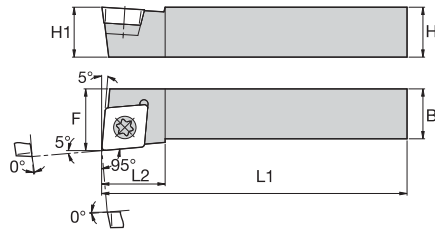
■ SCLC-F 95°



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
SCLCRF0808M06Q	8	8	8,0	150	12,0	1,5	CC..060204	–	–	–	MS1153	T7
SCLCRF1010M06Q	10	10	10,0	150	11,0	–	CC..060204	–	–	–	MS1153	T7
SCLCRF1212M06Q	12	12	12,0	150	11,0	–	CC..060204	–	–	–	MS1153	T7
SCLCRF1616K09Q	16	16	16,0	125	16,0	–	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>												
SCLCLF1616K09Q	16	16	16,0	125	16,0	–	CC..09T308	SKCP343	SRS3	3.5 mm	MS1156	T15



See pages B92–B95 and B189–B190 for inserts.

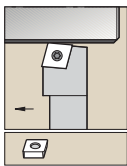


### ■ SCLP 95°

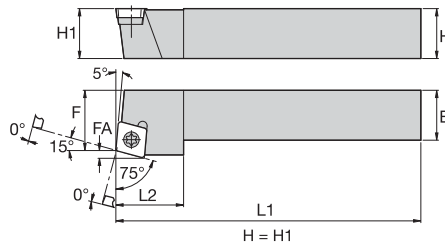


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
<b>SCLPR1010M06</b>	10	10	11,0	150	11,4	CP..060203	<b>MS1153</b>	T7
<b>SCLPR1212M06</b>	12	12	13,0	150	11,4	CP..060203	<b>MS1153</b>	T7
<b>left hand</b>								
<b>SCLPL1212M06</b>	12	12	13,0	150	11,4	CP..060203	<b>MS1153</b>	T7



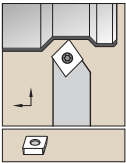
See pages B88–B91 and B187–B188 for inserts.



### ■ SCRC 75°

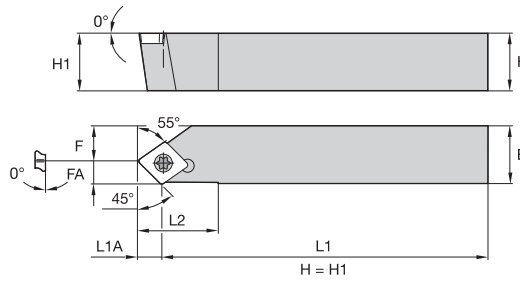


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
<b>SCRCR1212N09</b>	12	12	13,0	160	14,0	2,3	CC..09T308	—	—	—	<b>MS1155</b>	T15
<b>SCRCR1616H09</b>	16	16	17,0	100	14,0	2,3	CC..09T308	<b>SKCP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15

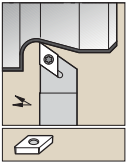


See pages B92–B95 and B189–B190 for inserts.

■ SCSP 45°

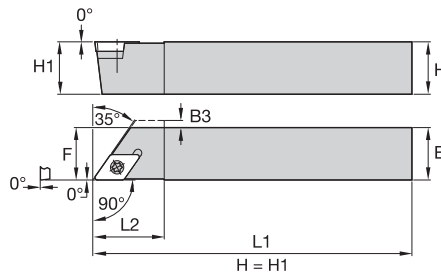


catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex	insert screw	Torx
SCSPR1010H06	10	10	6,0	100	14,0	4,2	4,2	CP..060203	—	—	—	MS1153	T7

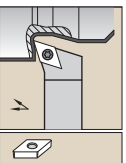


See pages B95–B98 and B191–B192 for inserts.

■ SDAC 90°

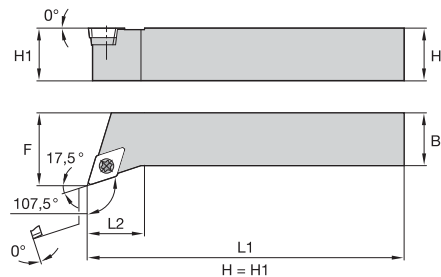


catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	hex	insert screw	Torx
right hand SDACR1212M11Q	12	12	12,0	150	22,0	1,5	DC..11T308	—	—	—	MS1155	T15
SDACR1616K11Q left hand	16	16	16,0	125	22,0	—	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDACL0808M07Q	8	8	8,0	150	16,0	1,5	DC..070204	—	—	—	MS1153	T7
SDACL1212M11Q	12	12	12,0	150	22,0	1,5	DC..11T308	—	—	—	MS1155	T15

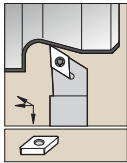


See pages B95–B98 and B191–B192 for inserts.

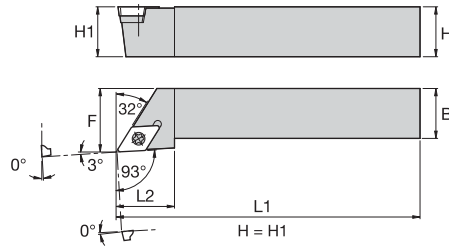
■ SDHC 107,5°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
right hand SDHCR1616H11	16	16	20,0	100	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCR2020K11	20	20	25,0	125	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCR2525M11	25	25	32,0	150	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCR2525M15 left hand	25	25	32,0	150	25,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15
SDHCL1616H11	16	16	20,0	100	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCL2020K11	20	20	25,0	125	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCL2525M11	25	25	32,0	150	20,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDHCL2525M15	25	25	32,0	150	25,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15



See pages B95–B98 and B191–B192 for inserts.

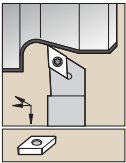


**SDJC 93°**

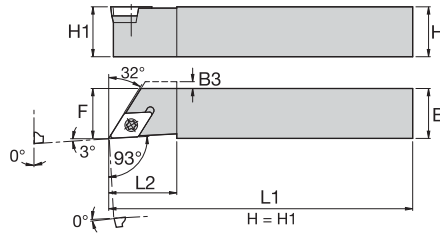
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
SDJCR0808L07	8	8	10,0	140	16,0	DC..070204	—	—	—	MS1153	T7
SDJCR1010M07	10	10	12,0	150	16,0	DC..070204	—	—	—	MS1153	T7
SDJCR1212N07	12	12	16,0	160	16,0	DC..070204	—	—	—	MS1153	T7
SDJCR1212N11	12	12	16,0	160	22,0	DC..11T308	—	—	—	MS1155	T15
SDJCR1616H07	16	16	20,0	100	16,0	DC..070204	—	—	—	MS1153	T7
SDJCR1616H11	16	16	20,0	100	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCR2020K07	20	20	25,0	125	16,0	DC..070204	—	—	—	MS1153	T7
SDJCR2020K11	20	20	25,0	125	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCR2020K15	20	20	25,0	125	32,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15
SDJCR2525M11	25	25	32,0	150	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCR2525M15	25	25	32,0	150	32,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15
<b>left hand</b>											
SDJCL0808L07	8	8	10,0	140	16,0	DC..070204	—	—	—	MS1153	T7
SDJCL1010M07	10	10	12,0	150	16,0	DC..070204	—	—	—	MS1153	T7
SDJCL1212N07	12	12	16,0	160	16,0	DC..070204	—	—	—	MS1153	T7
SDJCL1212N11	12	12	16,0	160	22,0	DC..11T308	—	—	—	MS1155	T15
SDJCL1616H07	16	16	20,0	100	16,0	DC..070204	—	—	—	MS1153	T7
SDJCL1616H11	16	16	20,0	100	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCL2020K07	20	20	25,0	125	16,0	DC..070204	—	—	—	MS1153	T7
SDJCL2020K11	20	20	25,0	125	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCL2525M11	25	25	32,0	150	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDJCL2525M15	25	25	32,0	150	32,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15



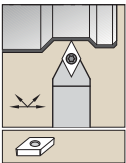
See pages B95–B98 and B191–B192 for inserts.



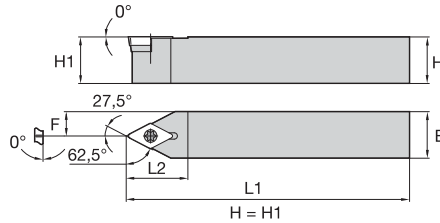
■ SDJC-F 93°



catalogue number	H	B	F	L1	L2	B3	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
SDJCRF0808M07Q	8	8	8,0	150	16,0	1,5	DC..070204	—	—	—	MS1153	T7
SDJCRF1010M07Q	10	10	10,0	150	16,0	—	DC..070204	—	—	—	MS1153	T7
SDJCRF1212M07Q	12	12	12,0	150	16,0	—	DC..070204	—	—	—	MS1153	T7
<b>left hand</b>												
SDJCLF1212M07Q	12	12	12,0	150	16,0	—	DC..070204	—	—	—	MS1153	T7
SDJCLF1616K11Q	16	16	16,0	125	22,0	—	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15



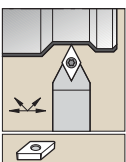
See pages B95–B98 and B191–B192 for inserts.



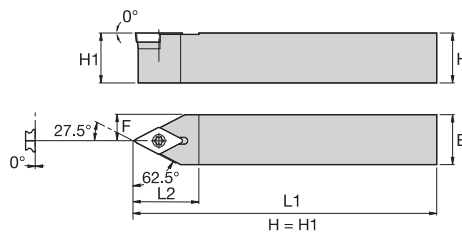
■ SDNC 62,5°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
SDNCN0808L07	8	8	4,0	140	16,0	DC..070204	—	—	—	MS1153	T7
SDNCN1010M07	10	10	5,0	150	16,0	DC..070204	—	—	—	MS1153	T7
SDNCN1212N07	12	12	6,0	160	16,0	DC..070204	—	—	—	MS1153	T7
SDNCN1616H11	16	16	8,0	100	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDNCN2020K11	20	20	10,0	125	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15
SDNCN2020K15	20	20	10,0	125	28,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15
SDNCN2525M15	25	25	12,5	150	28,0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15



See pages B95–B98 and B191–B192 for inserts.

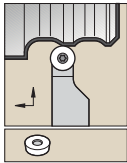


■ SDPC 62,5°

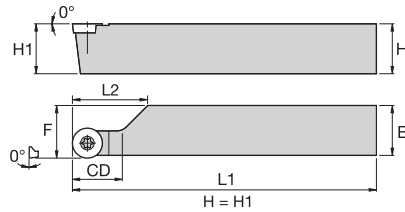


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
SDPCN1212M11Q	12	12	6,0	150	22,0	DC..11T308	—	—	—	MS1155	T15
SDPCN1616K11Q	16	16	8,0	125	22,0	DC..11T308	SKDP343	SRS3	3.5 mm	MS1156	T15





See pages B100–B102 for inserts.

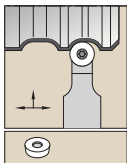


**SRAC**

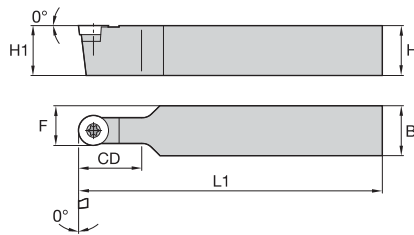
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	CD	gage insert	insert screw	Torx
<b>right hand</b>									
<b>SRACR1010M06</b>	10	10	11,0	150	29,0	10,0	RC..0602M0	<b>MS1153</b>	T7
<b>SRACR1212N08</b>	12	12	13,0	160	31,0	12,0	RC..0803M0	<b>MS1154</b>	T9
<b>SRACR1616Q08</b>	16	16	17,0	180	35,0	16,0	RC..0803M0	<b>MS1154</b>	T9
<b>left hand</b>									
<b>SRACL1616Q08</b>	16	16	17,0	180	35,0	16,0	RC..0803M0	<b>MS1154</b>	T9



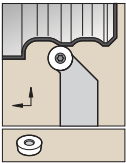
See pages B100–B102 for inserts.



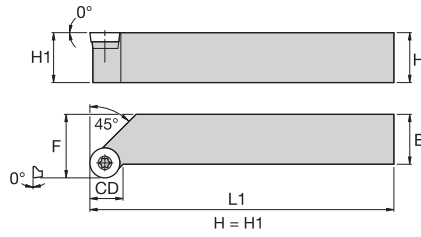
**SRDC**



catalogue number	H	B	F	L1	CD	gage insert	shim	shim screw	hex	insert screw	Torx
<b>SRDCN0808L06</b>	8	8	7,0	140	8,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
<b>SRDCN1010M06</b>	10	10	8,0	150	10,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
<b>SRDCN1212N06</b>	12	12	9,0	160	12,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
<b>SRDCN1212N08</b>	12	12	10,0	160	12,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
<b>SRDCN1616H06</b>	16	16	11,0	100	16,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
<b>SRDCN1616H08</b>	16	16	12,0	100	16,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
<b>SRDCN1616H10</b>	16	16	13,0	100	16,0	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SRDCN1616Q08</b>	16	16	12,0	180	16,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
<b>SRDCN2020K08</b>	20	20	14,0	125	20,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
<b>SRDCN2020K10</b>	20	20	15,0	125	20,0	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SRDCN2020K12</b>	20	20	16,0	125	20,0	RC..1204M0	<b>SKRN1203M0</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SRDCN2525M08</b>	25	25	16,5	150	25,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
<b>SRDCN2525M10</b>	25	25	17,5	150	25,0	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SRDCN2525M12</b>	25	25	18,5	150	25,0	RC..1204M0	<b>SKRN1203M0</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SRDCN2525M16</b>	25	25	20,5	150	25,0	RC..1605M0	<b>SKRN160400</b>	<b>SRS4</b>	4 mm	—	T15

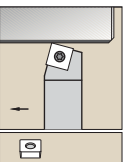


See pages B100–B102 for inserts.

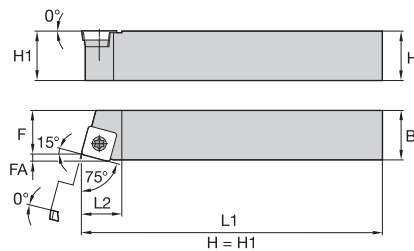


■ SRGC

catalogue number	H	B	F	L1	CD	gage insert					Torx
							shim	shim screw	hex	insert screw	
<b>right hand</b>											
SRGCR1616H06	16	16	20,0	100	7,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
SRGCR1616H10	16	16	20,0	100	7,9	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
SRGCR2020K08	20	20	25,0	125	9,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
SRGCR2020K10	20	20	25,0	125	9,3	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
SRGCR2525M08	25	25	32,0	150	11,8	RC..0803M0	—	—	—	<b>MS1154</b>	T9
SRGCR2525M10	25	25	32,0	150	12,1	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
SRGCR2525M12	25	25	32,0	150	12,7	RC..1204M0	<b>SKRN1203M0</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>left hand</b>											
SRGCL1616H06	16	16	20,0	100	7,0	RC..0602M0	—	—	—	<b>MS1153</b>	T7
SRGCL1616H10	16	16	20,0	100	7,9	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
SRGCL2020K08	20	20	25,0	125	9,0	RC..0803M0	—	—	—	<b>MS1154</b>	T9
SRGCL2525M08	25	25	32,0	150	11,8	RC..0803M0	—	—	—	<b>MS1154</b>	T9
SRGCL2525M10	25	25	32,0	150	12,1	RC..10T3M0	<b>SKRN100300</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
SRGCL2525M12	25	25	32,0	150	12,7	RC..1204M0	<b>SKRN1203M0</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15

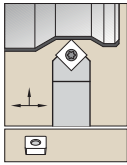


See pages B103–B104 for inserts.

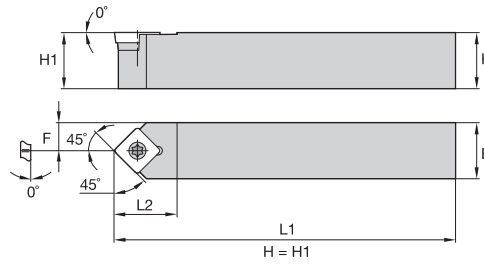


■ SSBC 75°

catalogue number	H	B	F	L1	L2	FA	gage insert					Torx
								shim	shim screw	hex	insert screw	
<b>right hand</b>												
SSBCR1212N09	12	12	11,0	160	16,0	2,2	SC..09T308	—	—	—	<b>MS1155</b>	T15
SSBCR2020K12	20	20	17,0	125	21,0	3,1	SC..120408	<b>SKSP453</b>	<b>SRS4</b>	4 mm	<b>MS1158</b>	T15
SSBCR2525M12	25	25	22,0	150	21,0	3,1	SC..120408	<b>SKSP453</b>	<b>SRS4</b>	4 mm	<b>MS1158</b>	T15
<b>left hand</b>												
SSBCL1616H09	16	16	13,0	100	16,0	2,2	SC..09T308	<b>SKSP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15



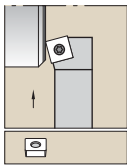
See pages B103–B104 for inserts.



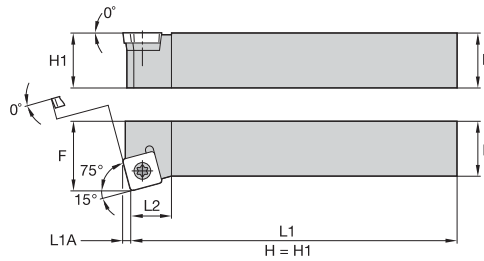
■ **SSDC 45°**

O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>SSDCN1212N09</b>	12	12	6,0	160	18,0	SC..09T308	—	—	—	<b>MS1155</b>	T15
<b>SSDCN1616H09</b>	16	16	8,0	100	18,0	SC..09T308	<b>SKSP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SSDCN2020K09</b>	20	20	10,0	125	18,0	SC..09T308	<b>SKSP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15



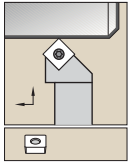
See pages B103–B104 for inserts.



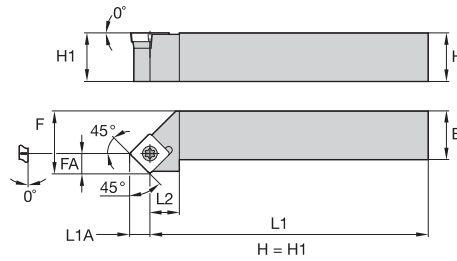
■ **SSKC 75°**

catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>												
<b>SSKCR1616H09</b>	16	16	20,0	100	16,0	2,2	SC..09T308	<b>SKSP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
<b>SSKCR2020K12</b>	20	20	25,0	125	22,0	3,1	SC..120408	<b>SKSP453</b>	<b>SRS4</b>	4 mm	<b>MS1158</b>	T15
<b>left hand</b>												
<b>SSKCL2020K12</b>	20	20	25,0	125	22,0	3,1	SC..120408	<b>SKSP453</b>	<b>SRS4</b>	4 mm	<b>MS1158</b>	T15





See pages B103–B104 for inserts.



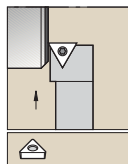
■ SSSC 45°



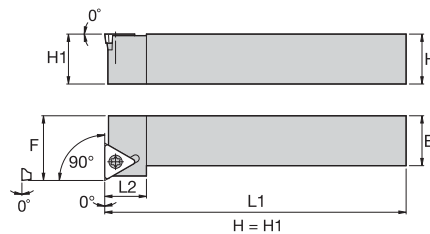
catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>													
SSSCR1212N09	12	12	16,0	160	18,0	6,1	6,1	SC..09T308	—	—	—	MS1155	T15
SSSCR1616H09	16	16	20,0	100	18,0	6,1	6,1	SC..09T308	SKSP343	SRS3	3,5 mm	MS1156	T15
SSSCR1616H12	16	16	20,0	100	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15
SSSCR2020K12	20	20	25,0	125	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15
SSSCR2525M12	25	25	32,0	150	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15
<b>left hand</b>													
SSSCL1212N09	12	12	16,0	160	18,0	6,1	6,1	SC..09T308	—	—	—	MS1155	T15
SSSCL1616H09	16	16	20,0	100	18,0	6,1	6,1	SC..09T308	SKSP343	SRS3	3,5 mm	MS1156	T15
SSSCL1616H12	16	16	20,0	100	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15
SSSCL2020K12	20	20	25,0	125	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15
SSSCL2525M12	25	25	32,0	150	25,0	8,3	8,3	SC..120408	SKSP453	SRS4	4 mm	MS1158	T15



O.D./I.D. Tooling



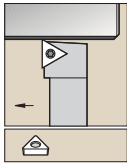
See pages B106–B108 and B194–B195 for inserts.



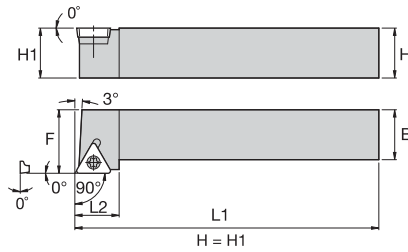
■ STFC 90°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
STFCR1616H11	16	16	20,0	100	16,0	TC..110204	—	—	—	MS1153	T7
STFCR1616H16	16	16	20,0	100	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15
STFCR2020K16	20	20	25,0	125	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15
STFCR2525M16	25	25	32,0	150	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15
<b>left hand</b>											
STFCL1010M11	10	10	12,0	150	13,0	TC..110204	—	—	—	MS1153	T7
STFCL1212N11	12	12	16,0	160	13,0	TC..110204	—	—	—	MS1153	T7
STFCL1616H16	16	16	20,0	100	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15
STFCL2020K16	20	20	25,0	125	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15
STFCL2525M16	25	25	32,0	150	20,0	TC..16T308	SKTP343	SRS3	3,5 mm	MS1156	T15



See pages B106–B108 and B194–B195 for inserts.

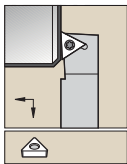


■ STGC 90°

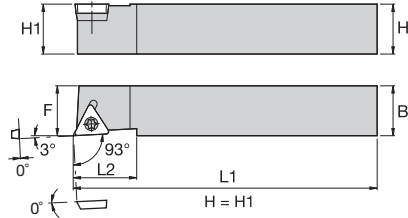
O.D./I.D. Tooling



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
STGCR1010M11	10	10	12,0	150	16,0	TC..110204	–	–	–	MS1153	T7
STGCR1212N11	12	12	16,0	160	16,0	TC..110204	–	–	–	MS1153	T7
STGCR1616H11	16	16	20,0	100	20,0	TC..110204	–	–	–	MS1153	T7
STGCR1616H16	16	16	20,0	100	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
STGCR2020K16	20	20	25,0	125	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
STGCR2525M16	25	25	32,0	150	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>											
STGCL1010M11	10	10	12,0	150	16,0	TC..110204	–	–	–	MS1153	T7
STGCL1212N11	12	12	16,0	160	16,0	TC..110204	–	–	–	MS1153	T7
STGCL1616H11	16	16	20,0	100	20,0	TC..110204	–	–	–	MS1153	T7
STGCL1616H16	16	16	20,0	100	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
STGCL2020K16	20	20	25,0	125	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
STGCL2525M16	25	25	32,0	150	20,0	TC..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15



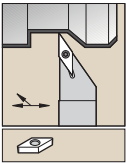
See pages B106–B108 and B194–B195 for inserts.



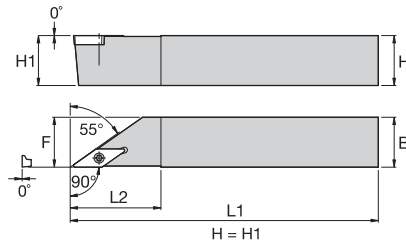
■ STJC-F 90°



catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
STJCRF1212M11Q	12	12	12,0	150	16,0	TC..110204	MS1153	T7
<b>left hand</b>								
STJCLF1212M11Q	12	12	12,0	150	16,0	TC..110204	MS1153	T7



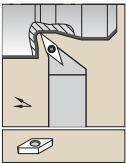
See pages B113–B114 and B196–B197 for inserts.



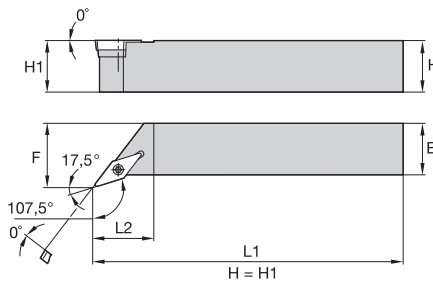
■ SVAB 90°



catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
SVABR1010M11Q	10	10	10,0	150	22,0	VB..110304	MS1153	T7
SVABR1212M11Q	12	12	12,0	150	22,0	VB..110304	MS1153	T7
SVABR1616K16Q	16	16	16,0	125	30,0	VB..160408	MS1155	T15
<b>left hand</b>								
SVABL1212M11Q	12	12	12,0	150	22,0	VB..110304	MS1153	T7
SVABL1616K16Q	16	16	16,0	125	30,0	VB..160408	MS1155	T15



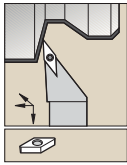
See pages B113–B114 and B196–B197 for inserts.



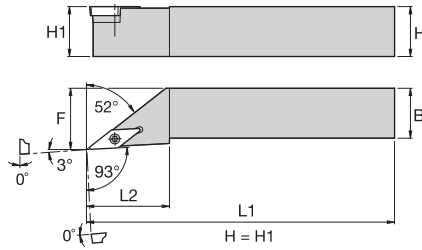
■ SVHB 107,5°



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
SVHBR1212N11	12	12	16,0	160	19,0	VB..110304	–	–	–	MS1153	T7
SVHBR1616H11	16	16	20,0	100	19,0	VB..110304	–	–	–	MS1153	T7
SVHBR2020K11	20	20	25,0	125	26,0	VB..110304	–	–	–	MS1153	T7
SVHBR2020K16	20	20	25,0	125	28,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVHBR2525M16	25	25	32,0	150	28,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>											
SVHBL1212N11	12	12	16,0	160	19,0	VB..110304	–	–	–	MS1153	T7
SVHBL1616H11	16	16	20,0	100	19,0	VB..110304	–	–	–	MS1153	T7
SVHBL2020K11	20	20	25,0	125	26,0	VB..110304	–	–	–	MS1153	T7
SVHBL2020K16	20	20	25,0	125	28,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVHBL2525M16	25	25	32,0	150	28,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15



See pages B113–B114 and B196–B197 for inserts.

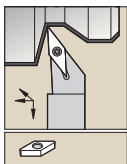


**SVJB 93°**

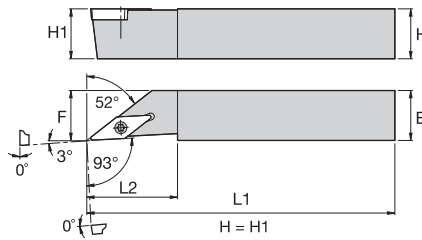


O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
<b>right hand</b>											
SVJBR1212N11	12	12	16,0	160	22,0	VB..110304	—	—	—	MS1153	T7
SVJBR1616H11	16	16	20,0	100	22,0	VB..110304	—	—	—	MS1153	T7
SVJBR1616H16	16	16	20,0	100	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBR2020K11	20	20	25,0	125	26,0	VB..110304	—	—	—	MS1153	T7
SVJBR2020K16	20	20	25,0	125	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBR2525M16	25	25	32,0	150	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBR3225P16	32	25	32,0	170	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>											
SVJBL1212N11	12	12	16,0	160	22,0	VB..110304	—	—	—	MS1153	T7
SVJBL1616H11	16	16	20,0	100	22,0	VB..110304	—	—	—	MS1153	T7
SVJBL1616H16	16	16	20,0	100	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBL2020K11	20	20	25,0	125	26,0	VB..110304	—	—	—	MS1153	T7
SVJBL2020K16	20	20	25,0	125	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBL2525M16	25	25	32,0	150	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVJBL3225P16	32	25	32,0	170	35,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15



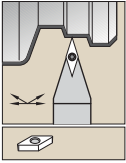
See pages B113–B114 and B196–B197 for inserts.



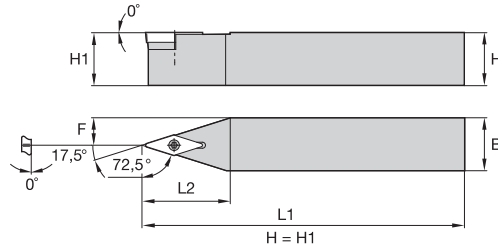
**SVJB-F 93°**



catalogue number	H	B	F	L1	L2	gage insert	insert screw	Torx
<b>right hand</b>								
SVJBRF1010M11Q	10	10	10,0	150	23,0	VB..110304	MS1153	T7
SVJBRF1212M11Q	12	12	12,0	150	23,0	VB..110304	MS1153	T7
SVJBRF1616K16Q	16	16	16,0	125	31,0	VB..160408	MS1155	T15
<b>left hand</b>								
SVJBLF1010M11Q	10	10	10,0	150	23,0	VB..110304	MS1153	T7
SVJBLF1212M11Q	12	12	12,0	150	23,0	VB..110304	MS1153	T7
SVJBLF1616K16Q	16	16	16,0	125	31,0	VB..160408	MS1155	T15



See pages B113–B114 and B196–B197 for inserts.



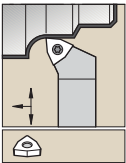
■ SVVB 72,5°



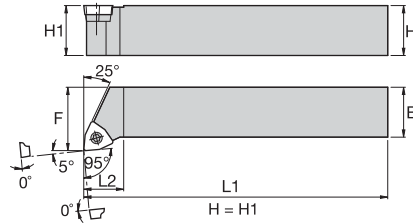
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
SVVBN1212N11	12	12	6,0	160	26,0	VB..110304	—	—	—	MS1153	T7
SVVBN1616H11	16	16	8,0	100	26,0	VB..110304	—	—	—	MS1153	T7
SVVBN1616H16	16	16	8,0	100	33,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVVBN2020K11	20	20	10,0	125	26,0	VB..110304	—	—	—	MS1153	T7
SVVBN2020K16	20	20	10,0	125	33,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVVBN2525M16	25	25	12,5	150	33,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15
SVVBN3225P16	32	25	12,5	170	33,0	VB..160408	SKVN343	SRS3	3.5 mm	MS1156	T15



O.D./I.D. Tooling



See pages B114–B115 for inserts.



■ SWLC 95°

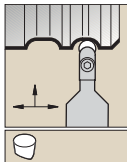


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	insert screw	Torx
right hand											
SWLCR1212N06	12	12	16,0	160	16,0	WC..06T308	SKWP343	SRS3	3.5 mm	MS1156	T15
SWLCR2020K06	20	20	25,0	125	16,0	WC..06T308	SKWP343	SRS3	3.5 mm	MS1156	T15
left hand											
SWLCL2020K06	20	20	25,0	125	16,0	WC..06T308	SKWP343	SRS3	3.5 mm	MS1156	T15

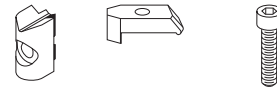
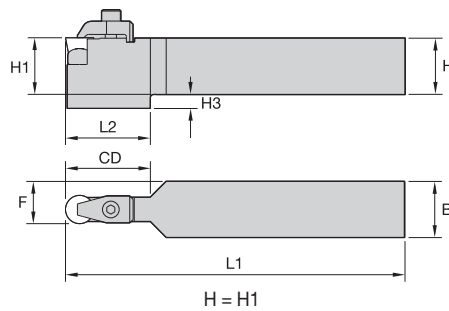


# V-Bottom Round Toolholders

Kendex™ Positive Inserts



See pages B85 and B129 for inserts.

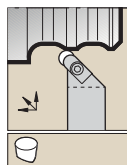


## CRDP

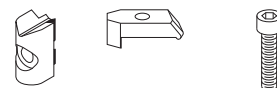
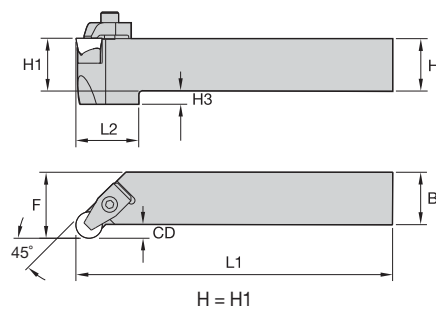
O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	CD	H3	gage insert	nest	clamp	clamp screw	hex
CRDPN2525M06V	25	25	12,5	151,3	—	19,0	—	RPGX060400E	NST1	CM214	MS1321	2.5 mm
CRDPN3232P09V	32	32	16,0	171,3	—	29,0	—	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRDPN2525M09V	25	25	12,5	151,3	—	29,0	—	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRDPN3232P12V	32	32	16,0	171,3	—	38,0	—	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRDPN2525M12V	25	25	12,5	151,3	38,1	38,0	6,4	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRDPN3232P15V	32	32	16,0	171,3	38,1	38,0	6,4	RPGX151000	NST4	CM217	MS1294	6 mm
CRDPN4040R19V	40	40	20,0	201,5	—	38,0	—	RPGX191000	NST5	CM217	MS1294	6 mm
CRDPN3232P19V	32	32	16,0	171,3	38,1	38,0	6,4	RPGX191000	NST5	CM217	MS1294	6 mm
CRDPN3232P25V	32	32	16,0	171,3	38,0	38,0	6,4	RPGX251200	NST6	CM218	MS1242	8 mm

NOTE: CRDP Toolholders are able to use RPGX and RCGX insert styles.



See pages B85 and B129 for inserts.



## CRGP

catalogue number	H	B	F	L1	L2	H3	CD	gage insert	nest	clamp	clamp screw	hex
<b>right hand</b>												
CRGPR2525M06V	25	25	32,0	151,3	—	—	7,0	RPGX060400E	NST1	CM214	MS1321	2.5 mm
CRGPR3232P09V	32	32	40,0	171,3	—	—	8,0	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRGPR2525M09V	25	25	32,0	151,3	—	—	7,0	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRGPR3232P12V	32	32	40,0	171,3	—	—	8,0	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRGPR2525M12V	25	25	32,0	151,3	27,1	6,4	7,0	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRGPR3232P15V	32	32	40,0	171,3	37,1	6,4	8,0	RPGX151000	NST4	CM217	MS1294	6 mm
CRGPR4040R19V	40	40	50,0	201,5	—	—	10,0	RPGX191000	NST5	CM217	MS1294	6 mm
CRGPR3232P19V	32	32	40,0	171,3	41,0	6,4	8,0	RPGX191000	NST5	CM217	MS1294	6 mm
<b>left hand</b>												
CRGPL2525M06V	25	25	32,0	151,3	—	—	7,0	RPGX060400E	NST1	CM214	MS1321	2.5 mm
CRGPL3232P09V	32	32	40,0	171,3	—	—	8,0	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRGPL2525M09V	25	25	32,0	151,3	—	—	7,0	RPGX090700E	NST2	CM219	CS412	3.5 mm
CRGPL3232P12V	32	32	40,0	171,3	—	—	8,0	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRGPL2525M12V	25	25	32,0	151,3	27,1	6,4	7,0	RPGX120700E	NST3	CM216	CS412	3.5 mm
CRGPL3232P15V	32	32	40,0	171,3	37,1	6,4	8,0	RPGX151000	NST4	CM217	MS1294	6 mm
CRGPL4040R19V	40	40	50,0	201,5	—	—	10,0	RPGX191000	NST5	CM217	MS1294	6 mm
CRGPL3232P19V	32	32	40,0	171,3	41,0	6,4	8,0	RPGX191000	NST5	CM217	MS1294	6 mm

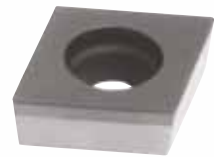
NOTE: CRGP Toolholders are able to use RPGX and RCGX insert styles.



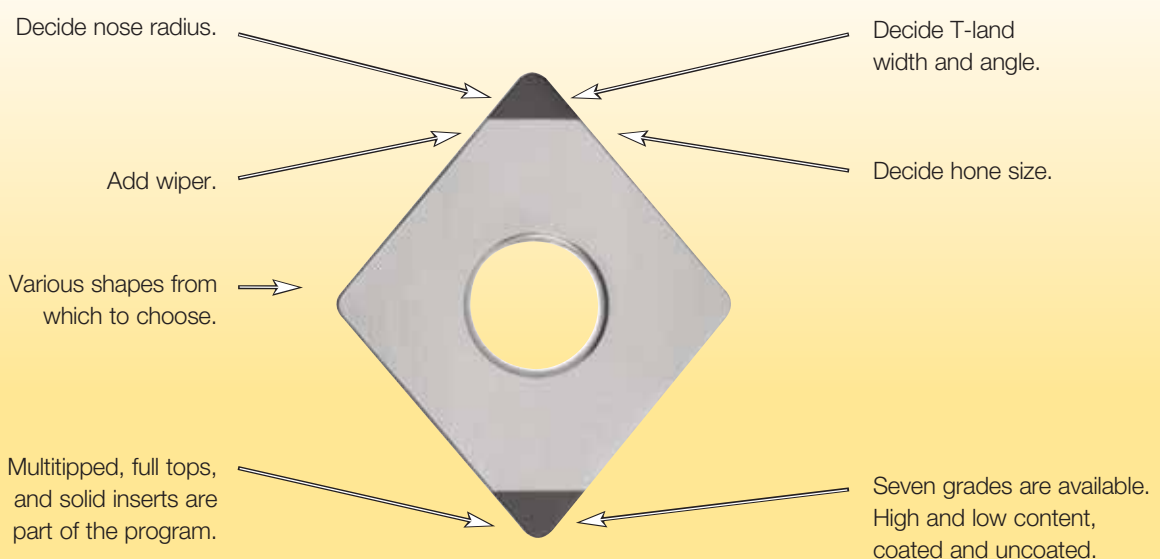
## Quick-Turn Solutions Program for CBN Inserts

Standard inserts incorporate latest grade, coating, edge preparation, and manufacturing technology. They cover a wide range of applications and provide superior performance.

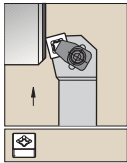
However, in some cases, further fine tuning is needed to reach the optimum performance point. Therefore, Kennametal has set up the Quick-Turn Solutions Program (QTSP) to allow edge preparation modifications on selected styles, grades, and formats to further enhance the tool performance.



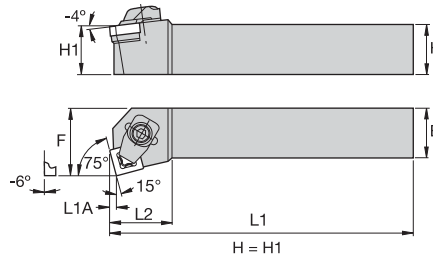
### Technical Details • Options for a Customisation



For more information, please contact a Kennametal Sales Representative, Authorised Kennametal Distributor, or visit [www.kennametal.com](http://www.kennametal.com).



See pages B122 and B183 for inserts.



O.D./I.D. Tooling

■ CCKN 75° • MX



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
right hand												
CCKNR2525M12MX7	25	25	32,5	151	32,0	3,1	CNGX120708	552.221	554.252	2.5 mm	551.013	4 mm
CCKNR3225P12MX7	32	25	32,5	171	32,0	3,1	CNGX120708	552.221	554.252	2.5 mm	551.013	4 mm
left hand												
CCKNL2525M12MX7	25	25	32,5	151	32,0	3,1	CNGX120708	552.221	554.252	2.5 mm	551.013	4 mm

■ CCKN 75° • MN



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
right hand												
CCKNR3225P12MN7	32	25	32,5	171	32,0	3,1	CNGN120708	552.221	554.252	2.5 mm	551.255	4 mm
left hand												
CCKNL2525M12MN4	25	25	32,5	151	32,0	3,1	CNGN120408	552.220	554.252	2.5 mm	551.255	4 mm
CCKNL2525M12MN7	25	25	32,5	151	32,0	3,1	CNGN120708	552.221	554.252	2.5 mm	551.255	4 mm
CCKNL3225P12MN7	32	25	32,5	171	32,0	3,1	CNGN120708	552.221	554.252	2.5 mm	551.255	4 mm

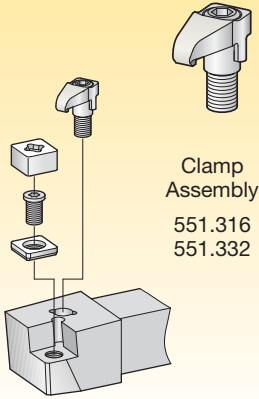
■ CCKN 75° • MF



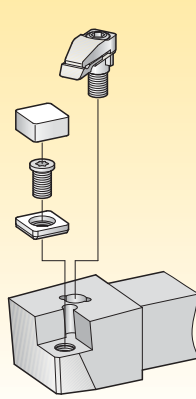
catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
right hand												
CCKNR2525M12MF7	25	25	32,5	151	32,0	3,1	CNGN120708	552.221	554.252	2.5 mm	551.252	4 mm
left hand												
CCKNL2525M12MF4	25	25	32,5	151	32,0	3,1	CNGN120408	552.220	554.252	2.5 mm	551.252	4 mm
CCKNL2525M12MF7	25	25	32,5	151	32,0	3,1	CNGN120708	552.221	554.252	2.5 mm	551.255	4 mm

NOTE: MX — clamping version is shown.

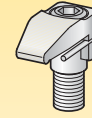
Basic holder may be ordered separately:  
V.SKN R/L 2525M12

**■ Spare Parts • -MX, -MN, -MF, and -MA Clamping Version**
**Clamping Mode  
MX**


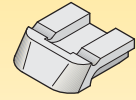
Clamp  
Assembly  
551.316  
551.332

**Clamping Mode  
MN**


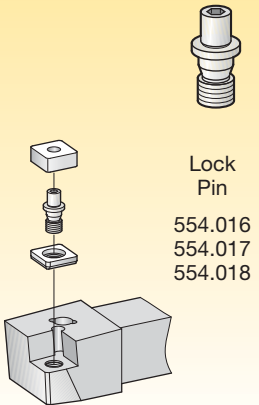
Clamp  
Assembly  
551.251  
551.255

**Individual  
Clamping Elements**


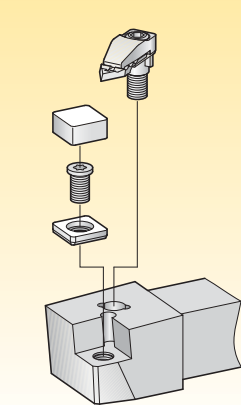
Clamping  
Element  
551.333  
551.317



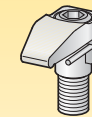
Pressure  
Plate  
557.111  
557.111

**Clamping Mode  
MA**


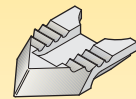
Lock  
Pin  
554.016  
554.017  
554.018

**Clamping Mode  
MF**


Clamp  
Assembly  
551.252  
551.253  
551.254  
551.256  
551.257  
551.258  
551.260  
551.261

**Individual  
Clamping Elements**


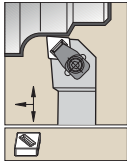
Clamping  
Element  
551.317  
551.317  
551.317  
551.317  
551.317  
551.317  
551.317  
551.317  
551.317



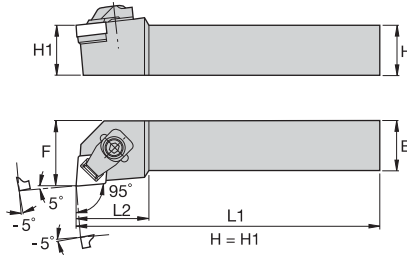
Chipbreaker  
557.125  
557.126  
557.127  
557.120  
557.121  
557.122  
557.123  
557.124



O.D./I.D. Tooling



See pages B122 and B183 for inserts.



**■ CCLN 95° • MX**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>right hand</b>											
CCLNR2525M12-MX7	25	25	32,0	150	32,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm
<b>left hand</b>											
CCLNR3225P12-MX7	32	25	32,0	170	32,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm
<b>right hand</b>											
CCLNL2525M12-MX7	25	25	32,0	150	32,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm
CCLNL3225P12-MX7	32	25	32,0	170	32,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm

**■ CCLN 95° • MN**



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>												
CCLNR2525M12-MN4	25	25	32,0	150	32,0	CN.N120408	552.220	554.252	2.5 mm	557.111	551.317	4 mm
CCLNR2525M12-MN7	25	25	32,0	150	32,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm
CCLNR3225P12-MN4	32	25	32,0	170	32,0	CN.N120408	552.220	554.252	2.5 mm	557.111	551.317	4 mm
CCLNR3225P12-MN7	32	25	32,0	170	32,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm
<b>left hand</b>												
CCLNL2525M12-MN4	25	25	32,0	150	32,0	CN.N120408	552.220	554.252	2.5 mm	557.111	551.317	4 mm
CCLNL2525M12-MN7	25	25	32,0	150	32,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm
CCLNL3225P12-MN7	32	25	32,0	170	32,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm

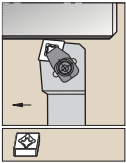
**■ CCLN 95° • MF**



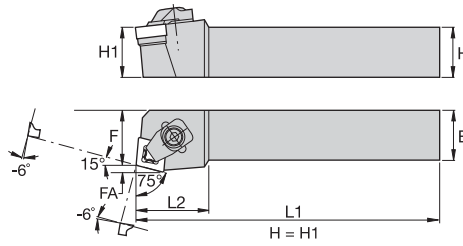
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
<b>right hand</b>												
CCLNR2525M12-MF4	25	25	32,0	150	32,0	CN.N120408	552.220	554.252	2.5 mm	557.125	551.317	4 mm
CCLNR2525M12-MF7	25	25	32,0	150	32,0	CN.N120708	552.221	554.252	2.5 mm	557.125	551.317	4 mm
<b>left hand</b>												
CCLNL2525M12-MF4	25	25	32,0	150	32,0	CN.N120408	552.220	554.252	2.5 mm	557.125	551.317	4 mm
CCLNL2525M12-MF7	25	25	32,0	150	32,0	CN.N120708	552.221	554.252	2.5 mm	557.125	551.317	4 mm

NOTE: MX — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.CLN R/L 2525M12  
 V.CLN R/L 3225P12  
 V.CLN R/L 3225P16

O.D./I.D. Tooling



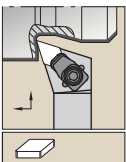
See pages B122 and B183 for inserts.


**■ CCRN 75° • MX**

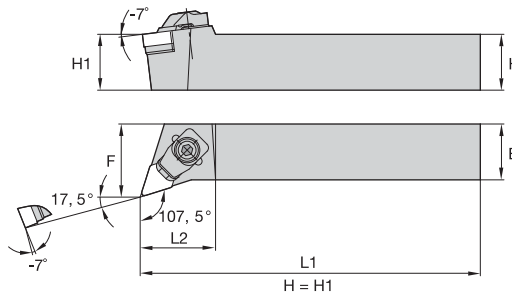

catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>right hand</b>												
<b>CCRN3225P16-MX7</b>	32	25	27,0	170	35,0	4,2	CN.X160708	<b>552.223</b>	<b>554.253</b>	3 mm	<b>551.316</b>	4 mm
<b>left hand</b>												
<b>CCRN3225P16-MX7</b>	32	25	27,0	170	35,0	4,2	CN.X160708	<b>552.223</b>	<b>554.253</b>	3 mm	<b>551.316</b>	4 mm

**■ CCRN 75° • MN**


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>													
<b>CCRN2525M12-MN7</b>	25	25	27,0	150	35,0	3,1	CN.N120708	<b>552.221</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>left hand</b>													
<b>CCRN3225P12-MN7</b>	32	25	27,0	170	35,0	3,1	CN.N120708	<b>552.221</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>CCRN2525M12-MN7</b>	25	25	27,0	150	35,0	3,1	CN.N120708	<b>552.221</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

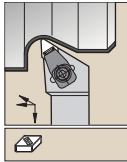
 NOTE: MX — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.CRN R/L 2525M12  
 V.CRN R/L 3225P12  
 V.CRN R/L 3225P16


See pages B123 and B183 for inserts.

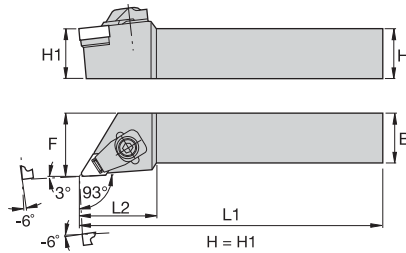

**■ CDHN 107,5° • MX**


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>right hand</b>											
<b>CDHNR2525M12-MX7</b>	25	25	32,0	150	30,0	DN.X120708	<b>552.225</b>	<b>554.254</b>	2.5 mm	<b>551.316</b>	4 mm
<b>left hand</b>											
<b>CDHNL3225P15-MX7</b>	32	25	32,0	170	33,0	DN.X150708	<b>552.228</b>	<b>554.252</b>	2.5 mm	<b>551.332</b>	4 mm

 NOTE: MN — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.DHN R/L 2525M12  
 V.DHN R/L 2525M15  
 V.DHN R/L 3225P15



See pages B123 and B183 for inserts.



■ CDJN 93° • MX



O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>right hand</b>											
CDJNR2525M12-MX7	25	25	32,0	150	38,0	DN.X120708	552.225	554.254	2.5 mm	551.316	4 mm
CDJNR2525M15-MX7	25	25	32,0	150	38,0	DN.X150708	552.228	554.252	2.5 mm	551.332	4 mm
CDJNR3225P12MX7	32	25	32,5	171	38,0	DNGX120708	552.225	554.254	—	551.316	4 mm
<b>left hand</b>											
CDJNL2525M12-MX7	25	25	32,0	150	38,0	DN.X120708	552.225	554.254	2.5 mm	551.316	4 mm
CDJNL2525M15-MX7	25	25	32,0	150	38,0	DN.X150708	552.228	554.252	2.5 mm	551.332	4 mm
CDJNL3225P12MX7	32	25	32,5	171	38,0	DNGX120708	552.225	554.254	—	551.316	4 mm

■ CDJN 93° • MN



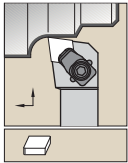
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>												
CDJNR2525M15-MN7	25	25	32,0	150	38,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm
CDJNR3225P15-MN7	32	25	32,0	170	38,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm
<b>left hand</b>												
CDJNL2525M15-MN7	25	25	32,0	150	38,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm
CDJNL3225P15-MN7	32	25	32,0	170	38,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm

■ CDJN 93° • MF

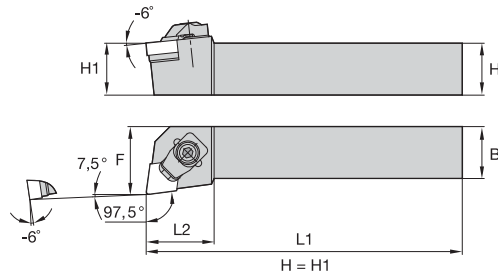


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
<b>right hand</b>												
CDJNR2525M15-MF7	25	25	32,0	150	38,0	DN.N150708	552.228	554.252	2.5 mm	557.123	551.317	4 mm
<b>left hand</b>												
CDJNL2525M15-MF7	25	25	32,0	150	38,0	DN.N150708	552.228	554.252	2.5 mm	557.124	551.317	4 mm

NOTE: MX — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.DJN R/L 2525M12  
 V.DJN R/L 3225M15  
 V.DJN R/L 3225P15



See pages B123–B124 for inserts.



■ CELN 97,5° • MX



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
right hand											
<b>CELNR2525M13-MX7</b>	25	25	32,0	150	32,0	EN.X130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
left hand											
<b>CELNL2525M13-MX7</b>	25	25	32,0	150	32,0	EN.X130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm

■ CELN 97,5° • MN



catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
right hand												
<b>CELNR2525M13-MN7</b>	25	25	32,0	150	32,0	EN.N130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
left hand												
<b>CELNL2525M13-MN7</b>	25	25	32,0	150	32,0	EN.N130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

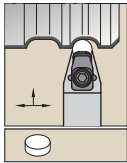
■ CELN 97,5° • MF



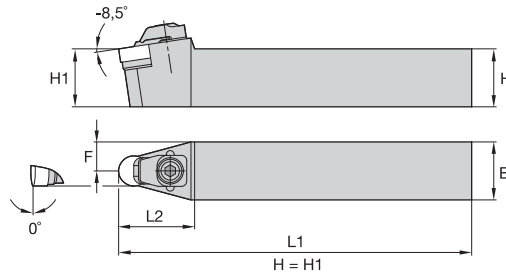
catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
right hand												
<b>CELNR2525M13-MF7</b>	25	25	32,0	150	32,0	EN.N130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>557.125</b>	<b>551.317</b>	4 mm
left hand												
<b>CELNL2525M13-MF7</b>	25	25	32,0	150	32,0	EN.N130708	<b>552.240</b>	<b>554.252</b>	2.5 mm	<b>557.125</b>	<b>551.317</b>	4 mm

NOTE: MN — clamping version is shown.  
Basic holder may be ordered separately:  
V.ELN R/L 2525M13  
V.ELN R/L 3225P13





See page B124 for inserts.



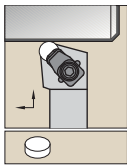
■ CRDN • MN



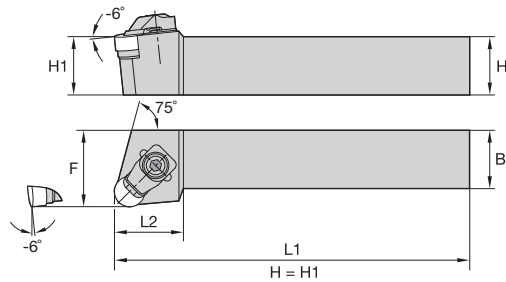
O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
CRDNN2525M12-MN4	25	25	12,5	150	30,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRDNN2525M12-MN7	25	25	12,5	150	30,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm
CRDNN3225P12-MN4	32	25	12,5	170	30,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRDNN3225P12-MN7	32	25	12,5	170	30,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm

NOTE: MN — clamping version is shown.  
Basic holder may be ordered separately:  
V.RDN N 2525M12  
V.RDN N 3225M12



See page B124 for inserts.

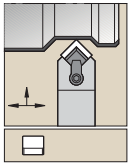


■ CRSN • MN

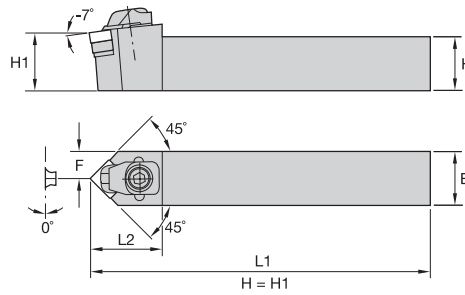


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>												
CRSNR2525M12-MN4	25	25	32,0	150	26,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRSNR2525M12-MN7	25	25	32,0	150	26,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm
CRSNR3225P12-MN4	32	25	32,0	170	26,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRSNR3225P12-MN7	32	25	32,0	170	26,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm
<b>left hand</b>												
CRSNL2525M12-MN4	25	25	32,0	150	26,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRSNL2525M12-MN7	25	25	32,0	150	26,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm
CRSNL3225P12-MN4	32	25	32,0	170	26,0	RN.N120400	552.229	554.252	2.5 mm	557.111	551.333	4 mm
CRSNL3225P12-MN7	32	25	32,0	170	26,0	RN.N120700	552.230	554.252	2.5 mm	557.111	551.333	4 mm

NOTE: MN — clamping version is shown.  
Basic holder may be ordered separately:  
V.RSN R/L 2525M12  
V.RSN R/L 3225P12



See pages B125–B126 and B184 for inserts.


**■ CSDN • MX**


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
CSDNN2525M12MX7	25	25	12,5	151	36,0	SNGX120708	552.232	554.252	2.5 mm	551.316	4 mm
CSDNN3225P12MX7	32	25	12,5	171	36,0	SNGX120708	552.232	554.252	2.5 mm	551.316	4 mm

**■ CSDN • MN**

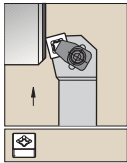

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
CSDNN2525M12MN4	25	25	12,5	151	36,0	SNGN120408	552.231	554.252	2.5 mm	551.255	4 mm
CSDNN2525M12MN7	25	25	12,5	151	36,0	SNGN120708	552.232	554.252	2.5 mm	551.255	4 mm
CSDNN3225P12MN4	32	25	12,5	171	36,0	SNGN120408	552.231	554.252	2.5 mm	551.255	4 mm
CSDNN3225P12MN7	32	25	12,5	171	36,0	SNGN120708	552.232	554.252	2.5 mm	551.255	4 mm

**■ CSDN • MF**

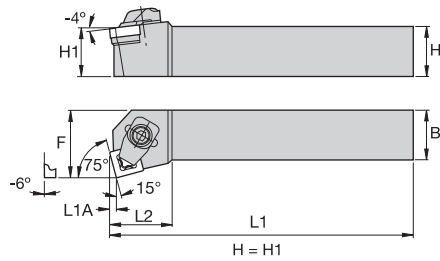

catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
CSDNN2525M12MF4	25	25	12,5	151	36,0	SNGN120408	552.231	554.252	2.5 mm	551.252	4 mm
CSDNN2525M12MF7	25	25	12,5	151	36,0	SNGN120708	552.232	554.252	2.5 mm	551.252	4 mm
CSDNN3225P12MF4	32	25	12,5	171	36,0	SNGN120408	552.231	554.252	2.5 mm	551.252	4 mm
CSDNN3225P12MF7	32	25	12,5	171	36,0	SNGN120708	552.232	554.252	2.5 mm	551.252	4 mm

NOTE: MN — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.SRN R/L 2525M12  
 V.SRN R/L 3225P12  
 V.SRN R/L 3225P15

O.D./I.D. Tooling



See pages B125–B126 and B184 for inserts.



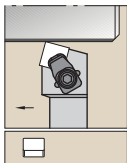
**CSKN 75° • MN**



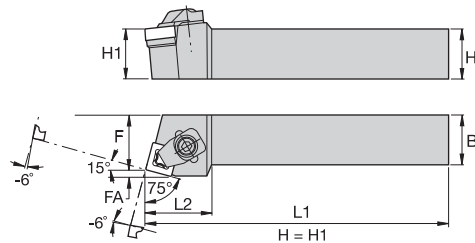
O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>													
<b>CSKNR2525M12-MN4</b>	25	25	32,0	150	27,0	3,0	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>CSKNR2525M12-MN7</b>	25	25	32,0	150	27,0	3,0	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>left hand</b>													
<b>CSKNL2525M12-MN4</b>	25	25	32,0	150	27,0	3,0	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>CSKNL2525M12-MN7</b>	25	25	32,0	150	27,0	3,0	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

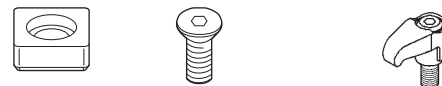
NOTE: MX — clamping version is shown.  
Basic holder may be ordered separately:  
V.SKN R/L 2525M12



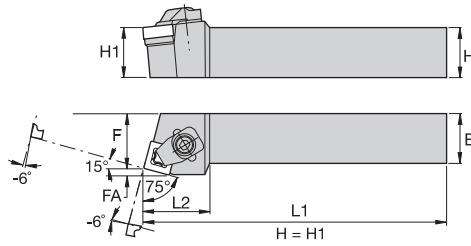
See pages B125–B126 and B184 for inserts.



**CSRN 75° • MX**



catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>left hand</b>												
<b>CSRNL3225P15-MX7</b>	32	25	27,0	170	34,0	4,1	SN.X150708	<b>552.234</b>	<b>554.253</b>	3 mm	<b>551.316</b>	4 mm


**■ CSRN 75° • MN**

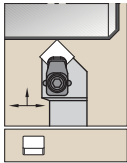

catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>													
CSRRN2525M12-MN4	25	25	27,0	150	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSRRN2525M12-MN7	25	25	27,0	150	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
CSRRN3225P12-MN4	32	25	27,0	170	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSRRN3225P12-MN7	32	25	27,0	170	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
<b>left hand</b>													
CSRNL2525M12-MN4	25	25	27,0	150	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSRNL2525M12-MN7	25	25	27,0	150	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
CSRNL3225P12-MN4	32	25	27,0	170	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSRNL3225P12-MN7	32	25	27,0	170	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm

**■ CSRN 75° • MF**

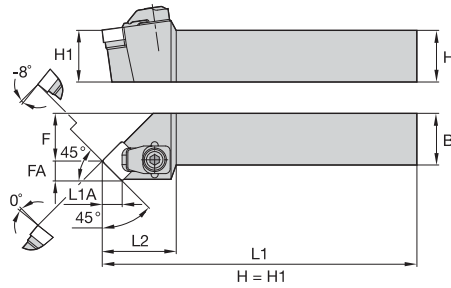

catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
<b>right hand</b>													
CSRRN2525M12-MF4	25	25	27,0	150	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.126	551.317	4 mm
CSRRN2525M12-MF7	25	25	27,0	150	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.126	551.317	4 mm
CSRRN3225P15-MF7	32	25	27,0	170	34,0	4,1	SN.N150708	552.234	554.253	3 mm	557.121	551.317	4 mm
<b>left hand</b>													
CSRNL2525M12-MF4	25	25	27,0	150	32,0	3,1	SN.N120408	552.231	554.252	2.5 mm	557.127	551.317	4 mm
CSRNL2525M12-MF7	25	25	27,0	150	32,0	3,1	SN.N120708	552.232	554.252	2.5 mm	557.127	551.317	4 mm
CSRNL3225P15-MF7	32	25	27,0	170	34,0	4,1	SN.N150708	552.234	554.253	3 mm	557.122	551.317	4 mm

NOTE: MX — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.SRN R/L 2525M12  
 V.SRN R/L 3225P12  
 V.SRN R/L 3225P15

O.D./I.D. Tooling



See pages B125–B126 and B184 for inserts.



■ CSSN 45° • MX



O.D./I.D. Tooling

catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex	clamp assembly	hex
right hand													
CSSNR2525M12-MX7	25	25	32,0	150	35,0	8,3	8,3	SN.X120708	552.232	554.252	2.5 mm	551.316	4 mm
CSSNR3225P15-MX7	32	25	32,0	159	37,0	10,6	10,6	SN.X150708	552.234	554.253	3 mm	551.316	4 mm
left hand													
CSSNL2525M12-MX7	25	25	32,0	150	35,0	8,3	8,3	SN.X120708	552.232	554.252	2.5 mm	551.316	4 mm

■ CSSN 45° • MN



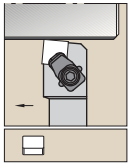
catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
right hand														
CSSNR2525M12-MN7	25	25	32,0	142	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
CSSNR3225P12-MN4	32	25	32,0	162	35,0	8,3	8,3	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSSNR3225P12-MN7	32	25	32,0	162	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
left hand														
CSSNL2525M12-MN7	25	25	32,0	142	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm
CSSNL3225P12-MN4	32	25	32,0	162	35,0	8,3	8,3	SN.N120408	552.231	554.252	2.5 mm	557.111	551.317	4 mm
CSSNL3225P12-MN7	32	25	32,0	162	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.111	551.317	4 mm

■ CSSN 45° • MF

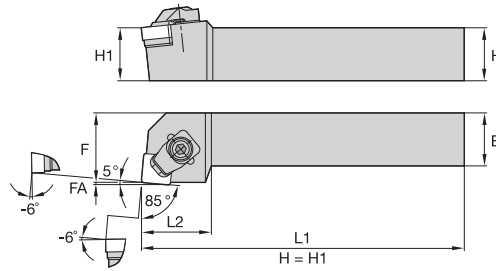


catalogue number	H	B	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
right hand														
CSSNR2525M12-MF7	25	25	32,0	142	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.125	551.317	4 mm
left hand														
CSSNL2525M12-MF7	25	25	32,0	142	35,0	8,3	8,3	SN.N120708	552.232	554.252	2.5 mm	557.125	551.317	4 mm

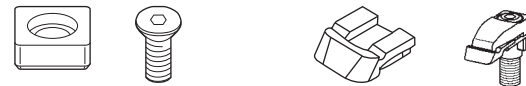
NOTE: MN — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.SSN R/L 2525M12  
 V.SSN R/L 3225P12  
 V.SSN R/L 3225P15



See pages B125–B126 and B184 for inserts.


**■ CSXN 85° • MX**


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	clamp assembly	hex
<b>right hand</b>												
<b>CSXNR2525M12-MX7</b>	25	25	32,0	150	30,0	1,1	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
<b>left hand</b>												
<b>CSXNR3225P12-MX7</b>	32	25	32,0	170	30,0	1,1	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
<b>right hand</b>												
<b>CSXNL2525M12-MX7</b>	25	25	32,0	150	30,0	1,1	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
<b>left hand</b>												
<b>CSXNL3225P12-MX7</b>	32	25	32,0	170	30,0	1,1	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm

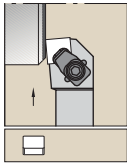
**■ CSXN 85° • MN**


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
<b>right hand</b>													
<b>CSXNR2525M12-MN4</b>	25	25	32,0	150	30,0	1,1	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>left hand</b>													
<b>CSXNL2525M12-MN4</b>	25	25	32,0	150	30,0	1,1	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

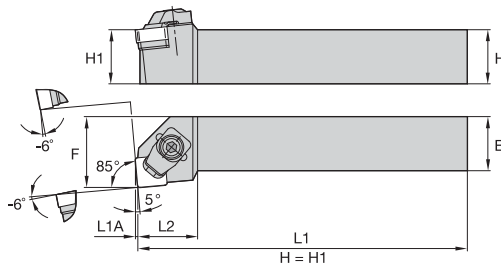
**■ CSXN 85° • MF**


catalogue number	H	B	F	L1	L2	FA	gage insert	shim	shim screw	hex	chipbreaker	clamp assembly	hex
<b>right hand</b>													
<b>CSXNR2525M12-MF7</b>	25	25	32,0	150	30,0	1,1	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.126</b>	<b>551.317</b>	4 mm
<b>left hand</b>													
<b>CSXNL2525M12-MF7</b>	25	25	32,0	150	30,0	1,1	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.127</b>	<b>551.317</b>	4 mm

NOTE: MN — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.SXN R/L 2525M12  
 V.SXN R/L 3225P12



See pages B125–B126 and B184 for inserts.



**CSYN 85° • MX**



catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex	clamp assembly	hex
left hand												
<b>CSYNL3225P12-MX7</b>	32	25	32,0	170	27,0	1,0	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm

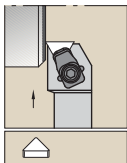
O.D./I.D. Tooling

**CSYN 85° • MN**

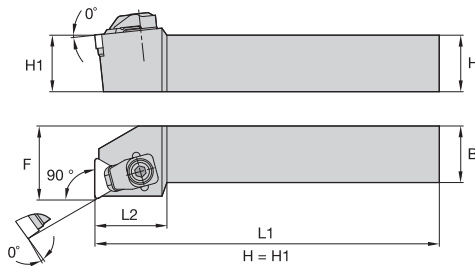


catalogue number	H	B	F	L1	L2	L1A	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
right hand													
<b>CSYNR2525M12-MN4</b>	25	25	32,0	150	27,0	1,1	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>CSYNR2525M12-MN7</b>	25	25	32,0	150	27,0	1,1	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
left hand													
<b>CSYNL2525M12-MN4</b>	25	25	32,0	150	27,0	1,1	SN.N120408	<b>552.231</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>CSYNL2525M12-MN7</b>	25	25	32,0	150	27,0	1,1	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

NOTE: MN — clamping version is shown.  
Basic holder may be ordered separately:  
V.SYN R/L 2525M12  
V.SYN R/L 3225P12



See pages B126 and B184 for inserts.

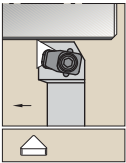


**CTFN 90° • MN**

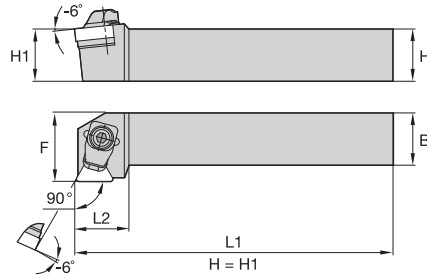


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
right hand												
<b>CTFNR2525M16-MN4</b>	25	25	32,0	150	29,0	TN.N160408	<b>552.235-H</b>	<b>554.254</b>	2.5 mm	<b>557.111</b>	<b>551.333</b>	4 mm
left hand												
<b>CTFNL2525M16-MN4</b>	25	25	32,0	150	29,0	TN.N160408	<b>552.235-H</b>	<b>554.254</b>	2.5 mm	<b>557.111</b>	<b>551.333</b>	4 mm

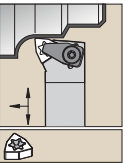
NOTE: MN — clamping version is shown.  
Basic holder may be ordered separately:  
V.TFN R/L 2525M16



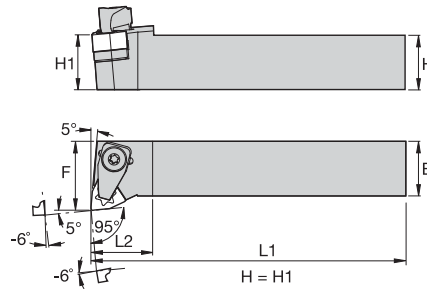
See pages B126 and B184 for inserts.

**CTGN 90° • MN**


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	thrust plate	clamp assembly	hex
right hand												
CTGNR2525M16-MN4	25	25	32,0	150	20,0	TN.N160408	552.235-H	554.254	2.5 mm	557.111	551.333	4 mm
left hand												
CTGNR2525M16-MN7	25	25	32,0	150	20,0	TN.N160708	552.236	554.254	2.5 mm	557.111	551.333	4 mm
right hand												
CTGNL2525M16-MN4	25	25	32,0	150	20,0	TN.N160408	552.235-H	554.254	2.5 mm	557.111	551.333	4 mm
CTGNL2525M16-MN7	25	25	32,0	150	20,0	TN.N160708	552.236	554.254	2.5 mm	557.111	551.333	4 mm

 NOTE: MN — clamping version is shown.  
 Basic holder may be ordered separately:  
 V.TGN R/L 2525M16


See page B127 for inserts.

**CWLN 95° • MX**


catalogue number	H	B	F	L1	L2	gage insert	shim	shim screw	hex	clamp assembly	hex
right hand											
CWLN2525M08MX7	25	25	32,0	150	32,0	WN.X080708	552.210	554.252	2.5 mm	551.316	4 mm
left hand											
CWLN3225P08MX7	32	25	32,0	170	32,0	WN.X080708	552.210	554.252	2.5 mm	551.316	4 mm
right hand											
CWLN2525M08MX7	25	25	32,0	150	32,0	WN.X080708	552.210	554.252	2.5 mm	551.316	4 mm

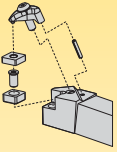
O.D./I.D. Tooling



tool path	insert shape	clamping style	boring	back boring	profiling	page(s)
<b>117,5° Lead Angle</b>						
		Kenclamp™	•	•		C78
<b>107,5° Lead Angle</b>						
		Kenclamp	•	•	•	C79
		Screw-On	•	•		C94-C95
		Screw-On	•	•	•	C102
<b>95° Lead Angle</b>						
		Kenloc™	•	•		C82
		Kenclamp	•	•		C78
		Screw-On	•	•		C90-C94
		Kenlever™	•	•		C105
		MTS	•	•		C107
		MTS	•	•		-
		Screw-On	•	•		C100-C101
		Kenloc	•			C84
		Kenclamp	•	•		C81
		Kenlever	•	•		C106
		Screw-On	•	•		C103
		MTS	•	•		C109
<b>93° Lead Angle</b>						
		Kenloc	•	•	•	C82
		Kenclamp	•	•	•	C79
		Screw-On	•	•		C95-C97
		MTS	•	•		C108
		Kenloc	•	•		C84
		Kenclamp	•	•		C81
		Screw-On	•	•	•	C103
		Kendex™	•	•		C86
		Screw-On		•	•	

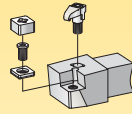
tool path	insert shape	clamping style	boring	back boring	profiling	page(s)
<b>90° Lead Angle</b>						
		Screw-On	•	•		C87-C89
		Kenloc	•			C83
		Kenclamp	•	•		C80
		Kenlever	•	•		C106
		Kendex	•	•		C85
		Screw-On	•			C98-C100
<b>75° Lead Angle</b>						
		Screw-On	•			C89
		Kenloc	•			C83
		Kenclamp	•			C80
		Kenlever	•			C105
		Kendex	•			C85
		Screw-On	•			C97-C98
			MTS	•		
		Kendex	•			-
<b>60° Lead Angle</b>						
		Screw-On	•	•		C102
<b>45° Lead Angle</b>						
		MTS	•			C108

## Clamping Styles



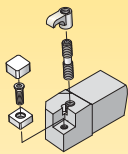
### Kenclamp™ Style

- Suitable for Kenloc inserts.
- Unique clamp design provides rigid clamping.
- Ensures insert repeatability and seating.
- Reduced chatter and improved tool life.



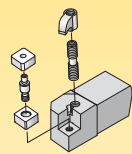
### MTS Style

- Proven superior system in holding ceramic inserts rigidly in turning and profiling operations.
- Uses standard insert sizes — 80°, 75°, 55°, square, and trigon.
- This system offers the added versatility of using optional hardware to hold standard Kendex and Kenloc inserts.



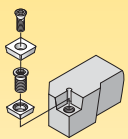
### Kendex™ Style

- Suitable for Kendex inserts.
- Chipbreaker option available for ceramic inserts.
- Wide variety of insert styles may be used.



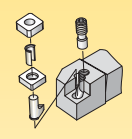
### Kenloc™ Style

- Suitable for Kenloc inserts.
- Lock pin and top clamp provide rigid clamping.
- Wide variety of insert styles may be used.
- Tools may be used with or without clamp.



### Screw-On Style

- Top clamping by screw for Screw-On inserts.



### Kenlever™ Style

- Proven superior system for holding ceramic inserts rigidly in turning and profiling operations.
- Can be used on Kendex or Kenloc inserts using optional hardware.

## How Do Catalogue Numbers Work?

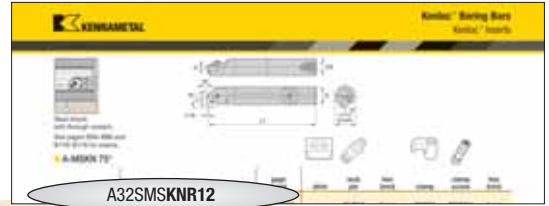
Each character in our catalogue number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



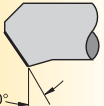
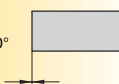
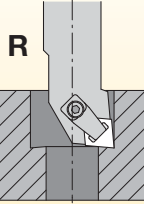

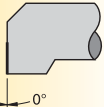
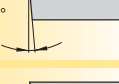
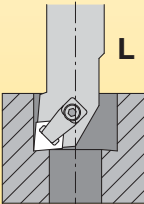

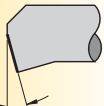
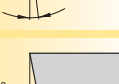

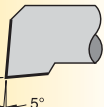


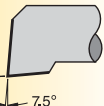


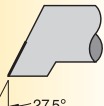


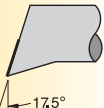
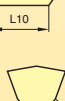
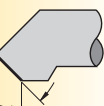

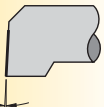
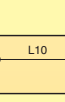
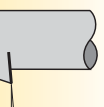
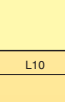
O.D./I.D. Tooling

A	32	S	M	S																																																
Bar Type	Bar Diameter	Bar Length	Insert Holding Method	Insert Shape																																																
<p><b>A</b></p> <p>Steel bar with coolant</p>	<p><b>Metric:</b> A two-digit number indicates the bar diameter in mm. If the diameter is represented by a one digit number, a 0 (zero) will be used in front of it. Example: 8mm = 08</p>	<p><b>L1</b></p> <table border="0"> <tr> <td><b>L1</b></td> <td><b>ISO</b></td> </tr> <tr> <td>32</td> <td>= A</td> </tr> <tr> <td>40</td> <td>= B</td> </tr> <tr> <td>50</td> <td>= C</td> </tr> <tr> <td>60</td> <td>= D</td> </tr> <tr> <td>70</td> <td>= E</td> </tr> <tr> <td>80</td> <td>= F</td> </tr> <tr> <td>90</td> <td>= G</td> </tr> <tr> <td>100</td> <td>= H</td> </tr> <tr> <td>110</td> <td>= J</td> </tr> <tr> <td>125</td> <td>= K</td> </tr> <tr> <td>140</td> <td>= L</td> </tr> <tr> <td>150</td> <td>= M</td> </tr> <tr> <td>160</td> <td>= N</td> </tr> <tr> <td>170</td> <td>= P</td> </tr> <tr> <td>180</td> <td>= Q</td> </tr> <tr> <td>200</td> <td>= R</td> </tr> <tr> <td>250</td> <td>= S</td> </tr> <tr> <td>300</td> <td>= T</td> </tr> <tr> <td>350</td> <td>= U</td> </tr> <tr> <td>400</td> <td>= V</td> </tr> <tr> <td>450</td> <td>= W</td> </tr> <tr> <td>500</td> <td>= Y</td> </tr> <tr> <td>Special Length</td> <td>= X</td> </tr> </table>	<b>L1</b>	<b>ISO</b>	32	= A	40	= B	50	= C	60	= D	70	= E	80	= F	90	= G	100	= H	110	= J	125	= K	140	= L	150	= M	160	= N	170	= P	180	= Q	200	= R	250	= S	300	= T	350	= U	400	= V	450	= W	500	= Y	Special Length	= X	<p><b>C</b></p> <p>Kendex™</p> <p><b>N</b></p> <p>Top Notch™ Profiling</p> <p><b>D</b></p> <p>Kenclamp™</p> <p><b>M</b></p> <p>Kenloc™</p> <p><b>S</b></p> <p>Screw-On</p> <p><b>P</b></p> <p>Kenlever™</p>	<p><b>A</b></p> <p><b>B</b></p> <p><b>C</b></p> <p><b>D</b></p> <p><b>E</b></p> <p><b>H</b></p> <p><b>K</b></p> <p><b>L</b></p> <p><b>M</b></p> <p><b>O</b></p> <p><b>P</b></p> <p><b>R</b></p> <p><b>S</b></p> <p><b>T</b></p> <p><b>V</b></p> <p><b>W</b></p>
<b>L1</b>			<b>ISO</b>																																																	
32			= A																																																	
40			= B																																																	
50			= C																																																	
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70			= E																																																	
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125	= K																																																			
140	= L																																																			
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160	= N																																																			
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500	= Y																																																			
Special Length	= X																																																			
<p><b>S</b></p> <p>Steel bar without coolant</p>																																																				
<p><b>C</b></p> <p>Carbide bar</p>																																																				
<p><b>D</b></p> <p>DeVibrator bar with coolant</p>																																																				
<p><b>D</b></p> <p>Tuneable bar with coolant</p>																																																				
<p><b>E</b></p> <p>Carbide bar with coolant</p>																																																				
<p><b>B</b></p> <p>DeVibrator</p>																																																				
<p><b>H</b></p> <p>Interchangeable head</p>																																																				
<p><b>L</b></p> <p>Heavy metal bar with coolant</p>																																																				

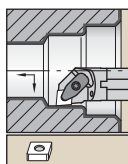
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



A32SMSKNR12

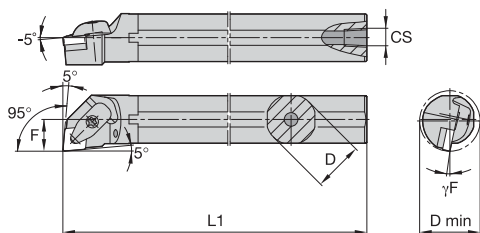
K	N	R	12	
Bar Style or Lead Angle	Insert Clearance Angle	Hand of Tool	Insert Size	Additional Information
<b>E</b> 	<b>N</b> 0° 	<b>R</b> = Right-hand boring bar 	<b>Cutting Edge Length L10</b> <b>H</b> 	<b>M..</b> = TNT/MTS clamping systems for ceramic and PCBN inserts
<b>F</b> 	<b>B</b> 5° 	<b>L</b> = Left-hand boring bar 	<b>O</b> 	<b>D</b> = Dual pocket
<b>K</b> 	<b>C</b> 7° 		<b>P</b> 	<b>AP5</b> = Axial positive
<b>L</b> 	<b>D</b> 15° 		<b>S</b> 	<b>KC</b> = Kenclamp™
<b>(E-style inserts)</b> <b>L</b> 	<b>E</b> 20° 		<b>T</b> 	<b>+</b> = Insert thickness
<b>P</b> 	<b>F</b> 25° 		<b>CDE</b> <b>M</b> <b>V</b> 	
<b>Q</b> 			<b>W</b> 	
<b>S</b> 			<b>L</b> 	
<b>U</b> 			<b>ABK</b> 	
<b>X</b> 			<b>H</b> 	

O.D./I.D. Tooling



Steel shank with through coolant.

See pages B40–B49 and B174–B176 for inserts.

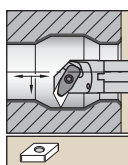


**A-DCLN-KC 95°**



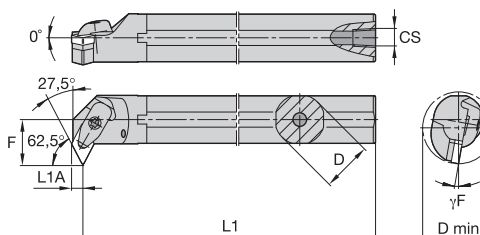
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>													
A25RDCLNR12KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	CN..120408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDCLNR12KC04	32	40,0	22,0	250	1/4-18 NPT	-12.0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDCLNR12KC04	40	50,0	27,0	300	1/4-18 NPT	-9.0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDCLNR16KC06	40	50,0	27,0	300	1/4-18 NPT	-12.0	CN..160612	ICSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP
<b>left hand</b>													
A25RDCLNL12KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	CN..120408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDCLNL12KC04	32	40,0	22,0	250	1/4-18 NPT	-12.0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDCLNL12KC04	40	50,0	27,0	300	1/4-18 NPT	-9.0	CN..120408	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDCLNL16KC06	40	50,0	27,0	300	1/4-18 NPT	-12.0	CN..160612	ICSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP

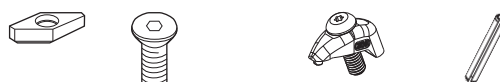


Steel shank with through coolant.

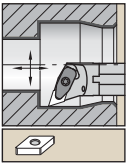
See pages B50–B58 and B176–B178 for inserts.



**A-DDPN-KC 117,5°**

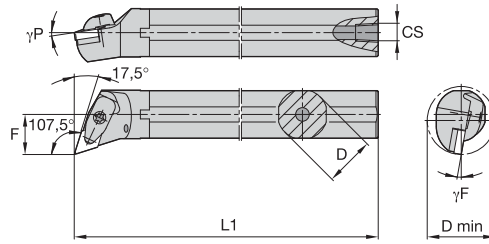


catalogue number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>														
A25RDDPNR11KC04	25	37,0	22,0	200	4,8	1/4-18 NPT	-10.0	DN..110408	IDSN322	KMSP315IP	9 IP	CM234R ASSY	SSP025016M	15 IP
A32SDDPNR15KC06	32	45,0	27,0	250	6,5	1/4-18 NPT	-12.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDPNR15KC06	40	52,0	30,0	300	6,6	1/4-18 NPT	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
<b>left hand</b>														
A25RDDPNL11KC04	25	37,0	22,0	200	4,8	1/4-18 NPT	-10.0	DN..110408	IDSN322	KMSP315IP	9 IP	CM234R ASSY	SSP025016M	15 IP
A32SDDPNL15KC06	32	45,0	27,0	250	6,5	1/4-18 NPT	-12.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDPNL15KC06	40	52,0	30,0	300	6,6	1/4-18 NPT	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP



Steel shank with through coolant.

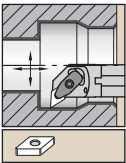
See pages B50–B58 and B176–B178 for inserts.



■ **A-DDQN-KC 107,5°**

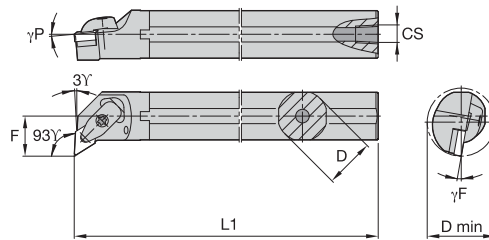


catalogue number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>														
A25RDDQNR11KC04	25	32,0	17,0	200	1/4-18 NPT	-11.0	-7.0	DN..110408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDDQNR15KC06	32	40,0	22,0	250	1/4-18 NPT	-12.0	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDQNR15KC06	40	50,0	27,0	300	1/4-18 NPT	-10.0	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
<b>left hand</b>														
A25RDDQNL11KC04	25	32,0	17,0	200	1/4-18 NPT	-11.0	-7.0	DN..110408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDDQNL15KC06	32	40,0	22,0	250	1/4-18 NPT	-12.0	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDQNL15KC06	40	50,0	27,0	300	1/4-18 NPT	-10.0	-10.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP



Steel shank with through coolant.

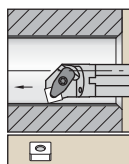
See pages B50–B58 and B176–B178 for inserts.



■ **A-DDUN-KC 93°**

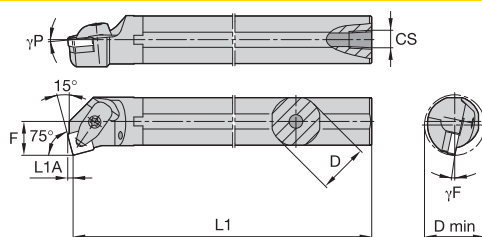


catalogue number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>														
A25RDDUNR11KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	-5.0	DN..110408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDDUNR11KC04	32	40,0	22,0	250	1/4-18 NPT	-12.0	-5.0	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A32SDDUNR15KC06	32	40,0	22,0	250	1/4-18 NPT	-12.0	-6.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDUNR15KC06	40	50,0	27,0	300	1/4-18 NPT	-9.0	-5.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A50UDDUNR15KC06	50	63,0	35,0	350	1/4-18 NPT	-7.0	-5.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
<b>left hand</b>														
A25RDDUNL11KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	-5.0	DN..110408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDDUNL11KC04	32	40,0	22,0	250	1/4-18 NPT	-12.0	-5.0	DN..110408	IDSN322	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A32SDDUNL15KC06	32	40,0	22,0	250	1/4-18 NPT	-12.0	-6.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDDUNL15KC06	40	50,0	27,0	300	1/4-18 NPT	-9.0	-5.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A50UDDUNL15KC06	50	63,0	35,0	350	1/4-18 NPT	-7.0	-5.0	DN..150608	IDSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP



Steel shank with through coolant.

See pages B59–B66 and B178–B179 for inserts.

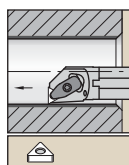


**A-DSKN-KC 75°**



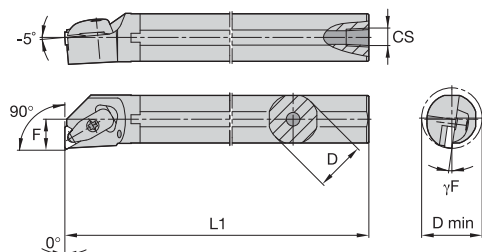
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L1A	CS	γF°	γP°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>															
A25RDSKNR12KC04	25	32,0	17,0	200	3,0	1/4-18 NPT	-13,0	-15,0	SN..120408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDSKNR12KC04	32	40,0	22,0	250	3,0	1/4-18 NPT	-14,0	-5,0	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDSKNR12KC04	40	50,0	27,0	300	3,0	1/4-18 NPT	-9,0	-5,0	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDSKNR15KC06	40	50,0	27,0	300	3,7	1/4-18 NPT	-12,0	-5,0	SN..150612	ISSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP
<b>left hand</b>															
A25RDSKNL12KC04	25	32,0	17,0	200	3,0	1/4-18 NPT	-13,0	-15,0	SN..120408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDSKNL12KC04	32	40,0	22,0	250	3,0	1/4-18 NPT	-14,0	-5,0	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDSKNL12KC04	40	50,0	27,0	300	3,0	1/4-18 NPT	-9,0	-5,0	SN..120408	ISSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDSKNL15KC06	40	50,0	27,0	300	3,7	1/4-18 NPT	-12,0	-5,0	SN..150612	ISSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP



Steel shank with through coolant.

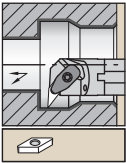
See pages B66–B73 and B179–B180 for inserts.



**A-DTFN-KC 90°**



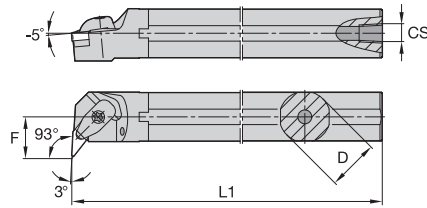
catalogue number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>													
A25RDTFNR16KC04	25	32,0	17,0	200	1/4-18 NPT	-14,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A32SDTFNR16KC04	32	40,0	22,0	250	1/4-18 NPT	-12,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
<b>left hand</b>													
A25RDTFNL16KC04	25	32,0	17,0	200	1/4-18 NPT	-14,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A32SDTFNL16KC04	32	40,0	22,0	250	1/4-18 NPT	-12,0	TN..160408	ITSN323	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP



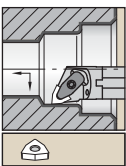
Steel shank with through coolant.

See pages B74–B78 and B180–B181 for inserts.

■ **A-DVUN-KC 93°**



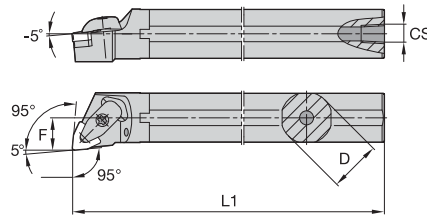
catalogue number	D	D min	F	L1	CS	$\gamma F^\circ$	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>													
A32SDVUNR16KC04	32	40,0	22,0	250	1/4-18 NPT	-9.0	VN..160408	IVSN322	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDVUNR16KC04	40	50,0	27,0	300	1/4-18 NPT	-8.0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	SSP025016M	15 IP
<b>left hand</b>													
A32SDVUNL16KC04	32	40,0	22,0	250	1/4-18 NPT	-9.0	VN..160408	IVSN322	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDVUNL16KC04	40	50,0	27,0	300	1/4-18 NPT	-8.0	VN..160408	IVSN322	KMSP315IP	15 IP	CM215R ASSY	SSP025016M	15 IP



Steel shank with through coolant.

See pages B79–B83 and B181 for inserts.

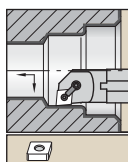
■ **A-DWLN-KC 95°**



catalogue number	D	D min	F	L1	CS	$\gamma F^\circ$	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
<b>right hand</b>													
A25RDWLNLR06KC04	25	32,0	17,0	200	1/4-18 NPT	-14.0	WN..060408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A25RDWLNLR08KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	WN..080408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDWLNLR08KC04	32	40,0	22,0	250	1/4-18 NPT	-14.0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDWLNLR08KC04	40	50,0	27,0	300	1/4-18 NPT	-14.0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
<b>left hand</b>													
A25RDWLNLR06KC04	25	32,0	17,0	200	1/4-18 NPT	-14.0	WN..060408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A25RDWLNLR08KC04	25	32,0	17,0	200	1/4-18 NPT	-12.0	WN..080408	—	—	—	CM234R ASSY	SSP025016M	15 IP
A32SDWLNLR08KC04	32	40,0	22,0	250	1/4-18 NPT	-14.0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
A40TDWLNLR08KC04	40	50,0	27,0	300	1/4-18 NPT	-14.0	WN..080408	IWSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP

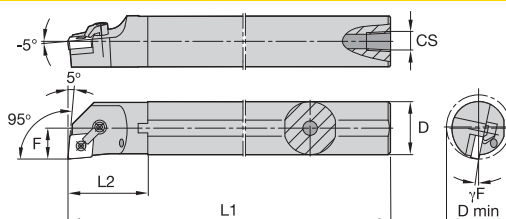
O.D./I.D. Tooling





Steel shank with through coolant.

See pages B40–B49 and B174–B176 for inserts.

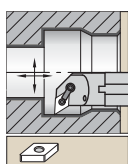


**A-MCLN 95°**



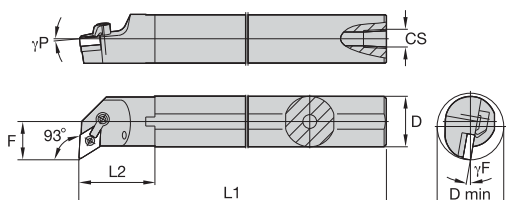
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)	
<b>right hand</b>															
A25RMCLNR09	25	32,0	17,0	200	40	1/4-18 NPT	-12.0	CN..090308	—	KLM33	2 mm	CKM6	STCM5	2.5 mm	
A25RMCLNR12	25	32,0	17,0	200	33	1/4-18 NPT	-12.0	CN..120408	—	KLM43	2 mm	CKM21	STCM11	3 mm	
A32SMCLNR12	32	40,0	22,0	250	—	1/4-18 NPT	-14.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm	
A40TMCLNR12	40	50,0	27,0	300	—	1/4-18 NPT	-12.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm	
A40TMCLNR16	40	50,0	27,0	300	—	1/4-18 NPT	-11.0	CN..160608	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm	
A50UMCLNR12	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm	
A50UMCLNR16	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..160608	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm	
A50UMCLNR19	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..190608	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm	
<b>left hand</b>															
A25RMCLNL12	25	32,0	17,0	200	33	1/4-18 NPT	-12.0	CN..120408	—	KLM43	2 mm	CKM21	STCM11	3 mm	
A32SMCLNL12	32	40,0	22,0	250	—	1/4-18 NPT	-14.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm	
A40TMCLNL12	40	50,0	27,0	300	—	1/4-18 NPT	-12.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm	
A40TMCLNL16	40	50,0	27,0	300	—	1/4-18 NPT	-11.0	CN..160608	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm	
A50UMCLNL12	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..120408	ICSN432	KLM46	2.5 mm	CKM21	STCM11	3 mm	
A50UMCLNL16	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..160608	ICSN533	KLM58	3 mm	CKM21	STCM20	3 mm	
A50UMCLNL19	50	63,0	35,0	350	—	1/4-18 NPT	-12.0	CN..190608	ICSN633	KLM68	4 mm	CKM12	STCM4	4 mm	



Steel shank with through coolant.

See pages B50–B58 and B176–B178 for inserts.



**A-MDUN 93°**

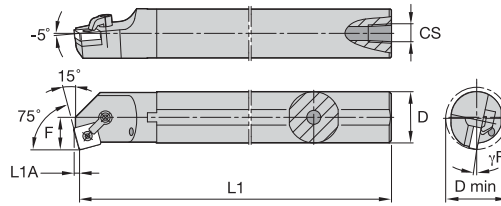


catalogue number	D	D min	F	L1	L2	CS	γF°	γP°	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>															
A25RMDUNR11	25	32,0	17,0	200	40	1/4-18 NPT	-14.0	-5.0	DN..110408	—	KLM33L	2 mm	CKM7	STCM5	2.5 mm
A25RMDUNR15	25	32,0	17,0	200	—	1/4-18 NPT	-14.0	-5.0	DN..150408	IDSN432	KLM46L	2.5 mm	CKM22	STCM11	3 mm
A32SMDUNR11	32	40,0	22,0	250	50	1/4-18 NPT	-12.0	-5.0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
A32SMDUNR15	32	40,0	22,0	250	—	1/4-18 NPT	-12.0	-6.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
A40TMDUNR15	40	50,0	27,0	300	—	1/4-18 NPT	-9.0	-5.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
A50UMDUNR15	50	63,0	35,0	350	—	1/4-18 NPT	-7.0	-5.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
<b>left hand</b>															
A25RMDUNL11	25	32,0	17,0	200	40	1/4-18 NPT	-14.0	-5.0	DN..110408	—	KLM33L	2 mm	CKM7	STCM5	2.5 mm
A25RMDUNL15	25	32,0	17,0	200	—	1/4-18 NPT	-14.0	-5.0	DN..150408	IDSN432	KLM46L	2.5 mm	CKM22	STCM11	3 mm
A32SMDUNL11	32	40,0	22,0	250	50	1/4-18 NPT	-12.0	-5.0	DN..110408	IDSN322	KLM34L	2 mm	CKM7	STCM5	2.5 mm
A32SMDUNL15	32	40,0	22,0	250	—	1/4-18 NPT	-12.0	-6.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
A40TMDUNL15	40	50,0	27,0	300	—	1/4-18 NPT	-9.0	-5.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm
A50UMDUNL15	50	63,0	35,0	350	—	1/4-18 NPT	-7.0	-5.0	DN..150608	IDSN432	KLM46L	2.5 mm	CKM22	STCM20	3 mm



Steel shank with through coolant.

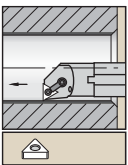
See pages B59–B66 and B178–B179 for inserts.



■ **A-MSKN 75°**

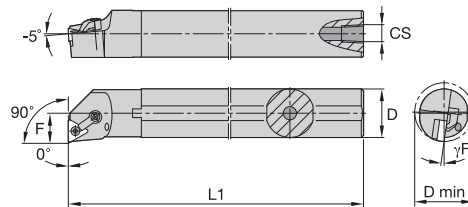


catalogue number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>														
A25RMSKNR12	25	32,0	17,0	200	3,1	1/4-18 NPT	-14.0	SN..120408	—	KLM43	2 mm	CKM21	STCM11	3 mm
A32SMSKNR12	32	40,0	22,0	250	3,1	1/4-18 NPT	-14.0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
A40TMSKNR12	40	50,0	27,0	300	3,1	1/4-18 NPT	-10.0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
A40TMSKNR15	40	50,0	27,0	300	4,1	1/4-18 NPT	-14.0	SN..150608	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
A50UMSKNR19	50	63,0	35,0	350	4,6	1/4-18 NPT	-12.0	SN..190608	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm
<b>left hand</b>														
A25RMSKNL12	25	32,0	17,0	200	3,1	1/4-18 NPT	-14.0	SN..120408	—	KLM43	2 mm	CKM21	STCM11	3 mm
A32SMSKNL12	32	40,0	22,0	250	3,1	1/4-18 NPT	-14.0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
A40TMSKNL12	40	50,0	27,0	300	3,1	1/4-18 NPT	-10.0	SN..120408	ISSN432	KLM46	2.5 mm	CKM21	STCM20	3 mm
A40TMSKNL15	40	50,0	27,0	300	4,1	1/4-18 NPT	-14.0	SN..150608	ISSN533	KLM58	3 mm	CKM21	STCM20	3 mm
A50UMSKNL19	50	63,0	35,0	350	4,6	1/4-18 NPT	-12.0	SN..190608	ISSN633	KLM68	4 mm	CKM12	STCM4	4 mm



Steel shank with through coolant.

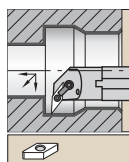
See pages B66–B73 and B179–B180 for inserts.



■ **A-MTFN 90°**

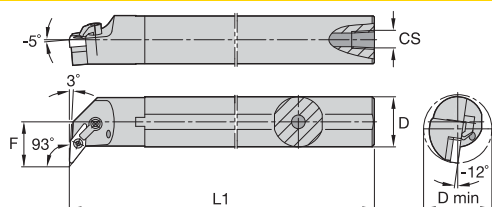


catalogue number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
A25RMTFNR16	25	32,0	17,0	200	1/4-18 NPT	-14.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A32SMTFNR16	32	40,0	22,0	250	1/4-18 NPT	-12.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A40TMTFNR16	40	50,0	27,0	300	1/4-18 NPT	-9.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A50UMTFNR22	50	63,0	35,0	350	1/4-18 NPT	-7.0	TN..220412	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm
<b>left hand</b>													
A25RMTFNL16	25	32,0	17,0	200	1/4-18 NPT	-14.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A32SMTFNL16	32	40,0	22,0	250	1/4-18 NPT	-12.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A40TMTFNL16	40	50,0	27,0	300	1/4-18 NPT	-9.0	TN..160408	ITSN322	KLM34L	2 mm	CKM21	STCM20	3 mm
A50UMTFNL22	50	63,0	35,0	350	1/4-18 NPT	-7.0	TN..220412	ITSN433	KLM46	2.5 mm	CKM9	STCM4	4 mm



Steel shank with through coolant.

See pages B74–B78 and B180–B181 for inserts.

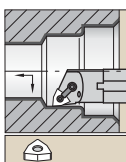


**A-MVUN 93°**



O.D./I.D. Tooling

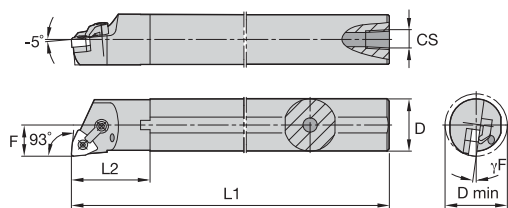
catalogue number	D	D min	F	L1	CS	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>												
A25RMVUNR16	25	37,0	22,0	200	1/4-18 NPT	VN..160408	IWSN322	KLM34L	2 mm	CKM31	STCM26	3 mm
A32SMVUNR16	32	40,0	22,0	250	1/4-18 NPT	VN..160408	IWSN322	KLM34L	2 mm	CKM31	STCM20	3 mm
<b>left hand</b>												
A25RMVUNL16	25	37,0	22,0	200	1/4-18 NPT	VN..160408	IWSN322	KLM34L	2 mm	CKM31	STCM26	3 mm
A32SMVUNL16	32	40,0	22,0	250	1/4-18 NPT	VN..160408	IWSN322	KLM34L	2 mm	CKM31	STCM20	3 mm



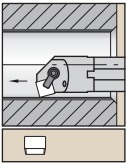
Steel shank with through coolant.

See pages B79–B83 and B181 for inserts.

**A-MWLN 95°**



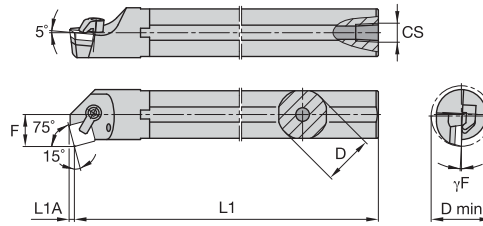
catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>														
A25RMWLNRO6	25	32,0	17,0	200	—	1/4-18 NPT	-12.0	WN..060408	—	KLM33L	2 mm	CKM6	STCM5	2.5 mm
A25RMWLNRO8	25	32,0	17,0	200	40	1/4-18 NPT	-12.0	WN..080408	—	KLM43	2 mm	CKM20	STCM11	3 mm
A32SMWLNRO6	32	40,0	22,0	250	—	1/4-18 NPT	-10.0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
A32SMWLNRO8	32	40,0	22,0	250	50	1/4-18 NPT	-14.0	WN..080408	IWSN433	KLM46	2.5 mm	CKM20	STCM20	3 mm
A40TMWLNRO8	40	50,0	27,0	300	55	1/4-18 NPT	-12.0	WN..080408	IWSN433	KLM46	2.5 mm	CKM20	STCM20	3 mm
<b>left hand</b>														
A25RMWLNLO6	25	32,0	17,0	200	—	1/4-18 NPT	-12.0	WN..060408	—	KLM33L	2 mm	CKM6	STCM5	2.5 mm
A25RMWLNLO8	25	32,0	17,0	200	40	1/4-18 NPT	-12.0	WN..080408	—	KLM43	2 mm	CKM20	STCM11	3 mm
A32SMWLNLO6	32	40,0	22,0	250	—	1/4-18 NPT	-10.0	WN..060408	IWSN322	KLM34L	2 mm	CKM6	STCM5	2.5 mm
A32SMWLNLO8	32	40,0	22,0	250	50	1/4-18 NPT	-14.0	WN..080408	IWSN433	KLM46	2.5 mm	CKM20	STCM20	3 mm
A40TMWLNLO8	40	50,0	27,0	300	55	1/4-18 NPT	-12.0	WN..080408	IWSN433	KLM46	2.5 mm	CKM20	STCM20	3 mm



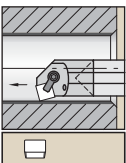
Steel shank  
with through coolant.

See pages B85–B86 and  
B130 for inserts.

■ **A-CSKP 75°**



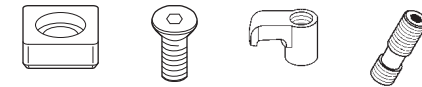
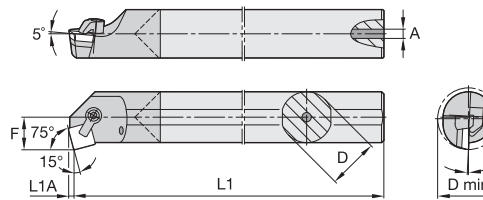
catalogue number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)	
<b>right hand</b>															
<b>A25RCSKPR12</b>	25	32,0	17,0	200	3,1	1/4-18 NPT	-2.0	SP..120308	<b>SM840</b>	<b>MS110</b>	2 mm	<b>CKM20</b>	<b>STCM11</b>	3 mm	
<b>A32SCKPR12</b>	32	40,0	22,0	250	3,1	1/4-18 NPT	0.0	SP..120308	<b>SM840</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm	
<b>left hand</b>															
<b>A25RCSKPL12</b>	25	32,0	17,0	200	3,1	1/4-18 NPT	-2.0	SP..120308	<b>SM840</b>	<b>MS110</b>	2 mm	<b>CKM20</b>	<b>STCM11</b>	3 mm	
<b>A32SCKPL12</b>	32	40,0	22,0	250	3,1	1/4-18 NPT	0.0	SP..120308	<b>SM840</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm	



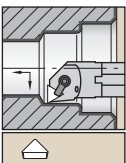
Carbide shank  
with through coolant.

See pages B85–B86 and  
B130 for inserts.

■ **E-CSKP 75°**



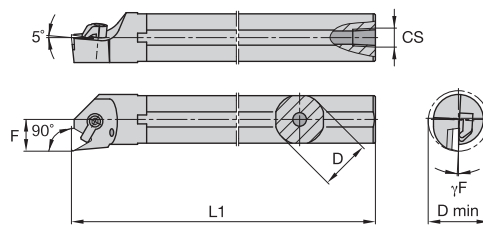
catalogue number	D	D min	F	L1	L1A	A	gage insert	shim	shim screw	clamp	clamp screw	hex (mm)
<b>right hand</b>												
<b>E16RCSKPR09</b>	16	20,0	11,0	200	2,2	5,5	SP..090308	<b>SM821</b>	<b>MS963</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>left hand</b>												
<b>E16RCSKPL09</b>	16	20,0	11,0	200	2,2	5,5	SP..090308	<b>SM821</b>	<b>MS963</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm



Steel shank  
with through coolant.

See pages B86–B87 and  
B136 for inserts.

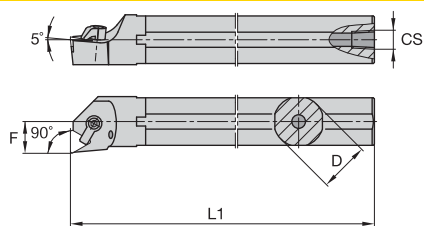
■ **A-CTFP 90°**



catalogue number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
<b>A16RCTFPR11</b>	16	20,0	11,0	200	1/8-27 NPT	-4.0	TP..110304	—	—	—	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>A20QCTFPR11</b>	20	25,0	13,0	180	1/8-27 NPT	0.0	TP..110304	<b>SM815</b>	<b>MS961</b>	—	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>A25RCTFPR16</b>	25	32,0	17,0	200	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>A32SCTFPR16</b>	32	40,0	22,0	250	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>A40VCTFPR16</b>	40	48,0	27,0	400	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm

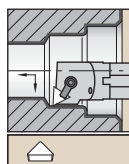
(continued)

(A-CTFP 90° continued)



O.D./I.D. Tooling

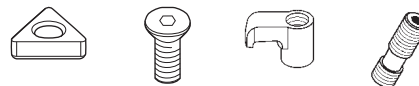
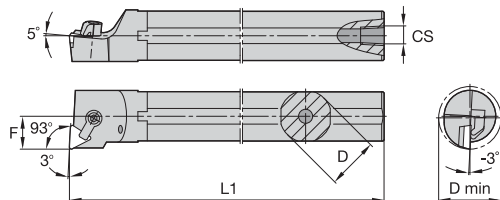
catalogue number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	hex (mm)	clamp	clamp screw	hex (mm)
<b>left hand</b>													
<b>A16RCTFPL11</b>	16	20,0	11,0	200	1/8-27 NPT	-4.0	TP..110304	—	—	—	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>A20QCTFPL11</b>	20	25,0	13,0	180	1/8-27 NPT	0.0	TP..110304	<b>SM815</b>	<b>MS961</b>	—	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>A25RCTFPL16</b>	25	32,0	17,0	200	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>A32SCTFPL16</b>	32	40,0	22,0	250	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm
<b>A40VCTFPL16</b>	40	48,0	27,0	400	1/4-18 NPT	-3.0	TP..160308	<b>SM841</b>	<b>MS110</b>	2 mm	<b>CKM10</b>	<b>STCM8</b>	4 mm



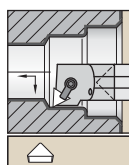
Steel shank with through coolant.

See pages B86–B87 and B130 for inserts.

■ **A-CTUP 93°**



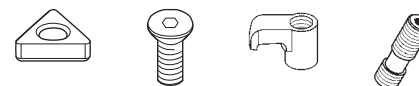
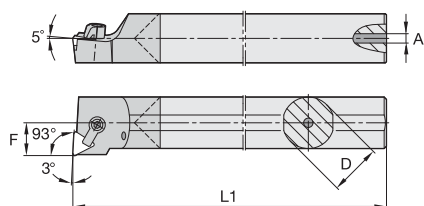
catalogue number	D	D min	F	L1	CS	gage insert	shim	shim screw	clamp	clamp screw	hex (mm)
<b>right hand</b>											
<b>A16MCTUPR11</b>	16	20,0	11,0	150	1/8-27 NPT	TP..110304	<b>SM815</b>	<b>MS961</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>left hand</b>											
<b>A16MCTUPL11</b>	16	20,0	11,0	150	1/8-27 NPT	TP..110304	<b>SM815</b>	<b>MS961</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>A20QCTUPL11</b>	20	25,0	13,0	180	1/8-27 NPT	TP..110304	<b>SM815</b>	<b>MS961</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm



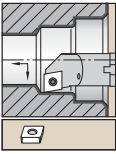
Carbide shank with through coolant.

See pages B86–B87 and B130 for inserts.

■ **E-CTUP 93°**



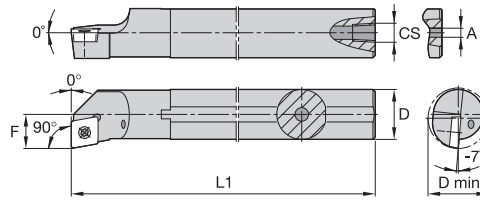
catalogue number	D	D min	F	L1	A	gage insert	shim	shim screw	clamp	clamp screw	hex (mm)
<b>right hand</b>											
<b>E16RCTUPR11</b>	16	20,0	11,0	200	5,5	TP..110304	<b>SM815</b>	<b>MS961</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm
<b>left hand</b>											
<b>E16RCTUPL11</b>	16	20,0	11,0	200	5,5	TP..110304	<b>SM815</b>	<b>MS961</b>	<b>CKM19</b>	<b>STCM9</b>	2.5 mm



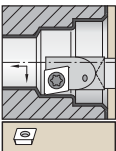
Steel shank with through coolant.

See pages B88–B91 and B187–B188 for inserts.

■ A-SCFC 90°



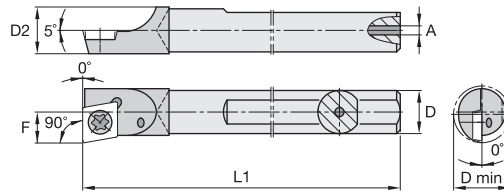
catalogue number	D	D min	F	L1	CS	gage insert	insert screw	Torx
<b>right hand</b>								
<b>A25TSCFCR12</b>	25	32,0	17,0	300	1/4-18 NPT	CC..120408	<b>MS1157</b>	T15
<b>left hand</b>								
<b>A25TSCFCL12</b>	25	32,0	17,0	300	1/4-18 NPT	CC..120408	<b>MS1157</b>	T15



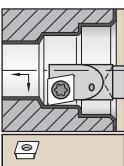
Carbide shank with through coolant.

See pages B91–B92 and B189 for inserts.

■ E-SCFD 90°



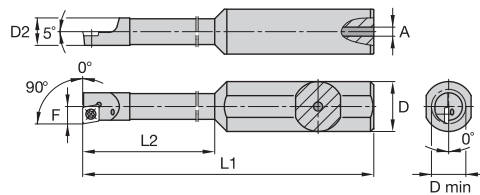
catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
<b>right hand</b>									
<b>E05HSCFDRS4</b>	5	5,9	5,2	3,0	102	1,0	CD..S4T002	<b>CC09</b>	T6
<b>E06HSCFDRS4</b>	6	7,1	6,2	3,7	100	1,2	CD..S4T002	<b>CC11</b>	T6



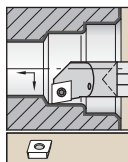
Necked steel shank with through coolant.

See pages B91–B92 and B189 for inserts.

■ A-SCFD 90°

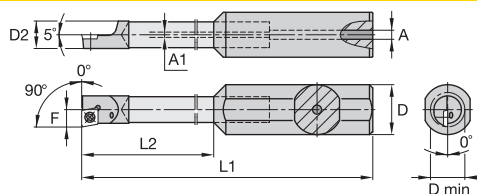


catalogue number	D	D min	D2	F	L1	L2	A	gage insert	insert screw	Torx
<b>right hand</b>										
<b>A0510ESCFDRS412</b>	10	5,9	5,16	3,1	70	12,7	1,0	CD..S4T002	<b>CC11</b>	T6
<b>A0510ESCFDRS425</b>	10	5,9	5,16	3,1	70	25,4	1,0	CD..S4T002	<b>CC11</b>	T6
<b>A0612ESCFDRS431</b>	12	7,4	6,60	3,9	70	31,7	1,0	CD..S4T002	<b>CC11</b>	T6



Necked carbide shank with through coolant.

See pages B91–B92 and B189 for inserts.

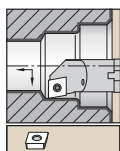


■ E-SCFD 90°



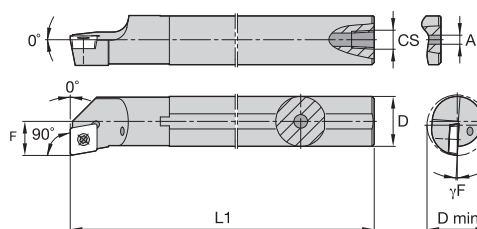
O.D./I.D. Tooling

catalogue number	D	D min	D2	F	L1	L2	A	A1	gage insert	insert screw	Torx
<b>right hand</b>											
E0512XSCFDRS425	12	6,1	5,30	3,2	64	25,4	3,18	1,0	CD..S4T002	CC11	T6
E0512XSCFDRS450	12	6,1	5,30	3,2	89	50,8	3,18	1,0	CD..S4T002	CC11	T6
E0616XSCFDRS463	16	7,4	6,50	3,9	127	63,5	3,18	1,2	CD..S4T002	CC11	T6



Steel shank with through coolant.

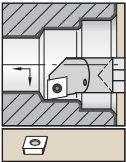
See pages B92–B95 and B189–B190 for inserts.



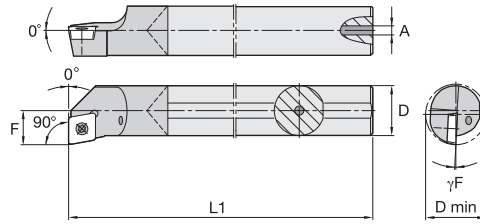
■ A-SCFP 90°



catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>										
A08JSCFPR06	8	11,0	6,0	110	2,4	—	-8.0	CP..060204	MS1153	T7
A10KSCFPR06	10	13,0	7,0	125	3,2	—	-6.0	CP..060204	MS1153	T7
A12MSCFPR06	12	16,0	9,0	150	—	1/16-27 NPT	-4.0	CP..060204	MS1153	T7
A16RSCFPR06	16	20,0	11,0	200	—	1/8-27 NPT	-5.0	CP..060203	MS1153	T7
A16RSCFPR09	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	CP..09T308	MS1155	T15
A20SSCFPR06	20	25,0	13,0	250	—	1/8-27 NPT	-3.0	CP..060203	MS1153	T7
A20SSCFPR09	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	CP..09T308	MS1155	T15
<b>left hand</b>										
A08JSCFPL06	8	11,0	6,0	110	2,4	—	-8.0	CP..060204	MS1153	T7
A10KSCFPL06	10	13,0	7,0	125	3,2	—	-6.0	CP..060204	MS1153	T7
A12MSCFPL06	12	16,0	9,0	150	—	1/16-27 NPT	-4.0	CP..060204	MS1153	T7
A16RSCFPL06	16	20,0	11,0	200	—	1/8-27 NPT	-5.0	CP..060203	MS1153	T7
A16RSCFPL09	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	CP..09T308	MS1155	T15
A20SSCFPL06	20	25,0	13,0	250	—	1/8-27 NPT	-3.0	CP..060203	MS1153	T7
A20SSCFPL09	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	CP..09T308	MS1155	T15



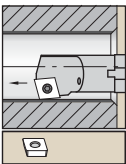
Carbide shank  
with through coolant.  
See pages B92–B95 and  
B189–B190 for inserts.



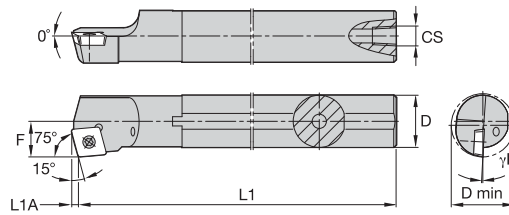
■ E-SCFP 90°



catalogue number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
<b>E08KSCFP06A</b>	8	11,0	6,0	125,0	2,4	-8,0	CP..060204	<b>MS1939</b>	T7
<b>E10MSCFP06A</b>	10	13,0	7,0	150,0	3,2	-4,0	CP..060204	<b>MS1939</b>	T7
<b>E12QSCFP06</b>	12	16,0	9,0	180,0	4,8	-3,0	CP..060204	<b>MS1153</b>	T7
<b>left hand</b>									
<b>E08KSCFPL06A</b>	8	11,0	6,0	125,0	2,4	-8,0	CP..060204	<b>MS1939</b>	T7
<b>E10MSCFPL06A</b>	10	13,0	7,0	150,0	3,2	-4,0	CP..060204	<b>MS1939</b>	T7
<b>E12QSCFPL06</b>	12	16,0	9,0	180,0	4,8	-3,0	CP..060204	<b>MS1153</b>	T7



Steel shank  
with through coolant.  
See pages B92–B95 and  
B189–B190 for inserts.



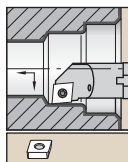
■ A-SCKP 75°



catalogue number	D	D min	F	L1	L1A	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>										
<b>A16RSCKPR09</b>	16	20,0	11,0	200	2,3	1/8-27 NPT	-4,0	CP..09T308	<b>MS1155</b>	T15
<b>A20SSCKPR09</b>	20	25,0	13,0	250	2,3	1/8-27 NPT	-3,0	CP..09T308	<b>MS1155</b>	T15
<b>left hand</b>										
<b>A16RSCKPL09</b>	16	20,0	11,0	200	2,3	1/8-27 NPT	-4,0	CP..09T308	<b>MS1155</b>	T15
<b>A20SSCKPL09</b>	20	25,0	13,0	250	2,3	1/8-27 NPT	-3,0	CP..09T308	<b>MS1155</b>	T15

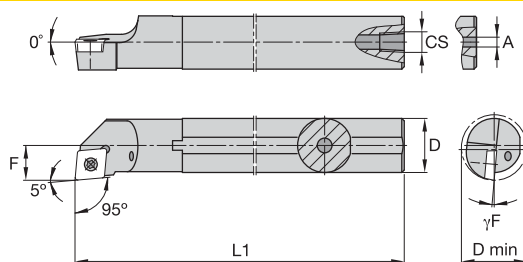
O.D./I.D. Tooling





Steel shank with through coolant.

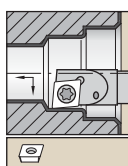
See pages B88–B91 and B187–B188 for inserts.



■ A-SCLC 95°

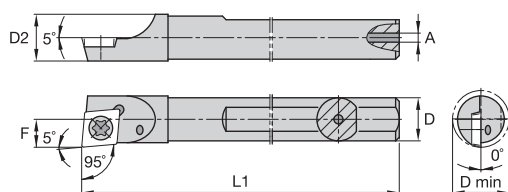
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex (mm)	insert screw	Torx
<b>right hand</b>													
A08JSCLCR06	8	11,0	6,0	110	2,4	—	-8.0	CC..060204	—	—	—	MS1939	T7
A10KSCLCR06	10	13,0	7,0	125	3,2	—	-7.0	CC..060204	—	—	—	MS1153	T7
A12MSCLCR06	12	16,0	9,0	150	4,0	1/16-27 NPT	-6.0	CC..060204	—	—	—	MS1153	T7
A16RSCLCR09	16	20,0	11,0	200	—	1/8-27 NPT	-7.0	CC..09T308	—	—	—	MS1155	T15
A20SSCLCR09	20	25,0	13,0	250	—	1/8-27 NPT	-5.0	CC..09T308	—	—	—	MS1155	T15
A25TSCLCR12	25	32,0	17,0	300	—	1/4-18 NPT	-7.0	CC..120408	—	—	—	MS1157	T15
A32TSCLCR12	32	40,0	22,0	300	—	1/4-18 NPT	-7.0	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15
<b>left hand</b>													
A08JSCLCL06	8	11,0	6,0	110	2,4	—	-8.0	CC..060204	—	—	—	MS1939	T7
A10KSCLCL06	10	13,0	7,0	125	3,2	—	-7.0	CC..060204	—	—	—	MS1153	T7
A12MSCLCL06	12	16,0	9,0	150	4,0	1/16-27 NPT	-6.0	CC..060204	—	—	—	MS1153	T7
A16RSCLCL09	16	20,0	11,0	200	—	1/8-27 NPT	-7.0	CC..09T308	—	—	—	MS1155	T15
A20SSCLCL09	20	25,0	13,0	250	—	1/8-27 NPT	-5.0	CC..09T308	—	—	—	MS1155	T15
A25TSCLCL12	25	32,0	17,0	300	—	1/4-18 NPT	-7.0	CC..120408	—	—	—	MS1157	T15
A32TSCLCL12	32	40,0	22,0	300	—	1/4-18 NPT	-7.0	CC..120408	SKCP453	SRS4	4 mm	MS1158	T15



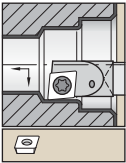
Steel shank with through coolant.

See pages B91–B92 and B189 for inserts.



■ A-SCLD 95°

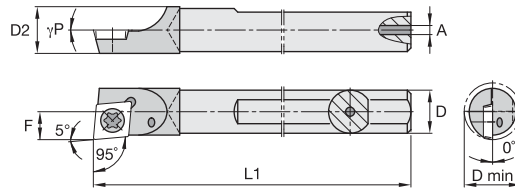
catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
<b>right hand</b>									
A04XSCLDRS4	4	4,6	4,2	2,4	65	1,0	CD..S4T002	CC09	T6
A05XSCLDRS4	5	5,8	5,2	3,0	65	1,0	CD..S4T002	CC09	T6
A06XSCLDRS4	6	7,1	6,2	3,7	64	1,0	CD..S4T002	CC11	T6
A08XSCLDRS4	8	9,1	8,2	4,7	76	2,0	CD..S4T002	CC11	T6
<b>left hand</b>									
A04XSCLDLS4	4	4,6	4,2	2,4	65	1,0	CD..S4T002	CC09	T6
A05XSCLDLS4	5	5,8	5,2	3,0	65	1,0	CD..S4T002	CC09	T6
A06XSCLDLS4	6	6,9	6,2	3,7	65	1,0	CD..S4T002	CC11	T6
A08XSCLDLS4	8	9,1	8,2	4,7	76	2,0	CD..S4T002	CC11	T6



Carbide shank with through coolant.

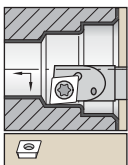
See pages B91–B92 and B189 for inserts.

■ E-SCLD 95°



catalogue number	D	D min	D2	F	L1	A	$\gamma^P$	gage insert	insert screw	Torx
right hand										
E04HSCLDRS4	4	4,6	—	2,4	100	1,0	0,0	CD..S4T002	CC09	T6
E04MSCLDRS4	4	4,6	4,2	2,4	150	1,0	0,0	CD..S4T002	CC09	T6
E05HSCLDRS4	5	5,9	—	3,0	101	1,0	5,0	CD..S4T002	CC09	T6
E05MSCLDRS4	5	5,9	5,2	3,0	150	1,0	0,0	CD..S4T002	CC09	T6
E06HSCLDRS4	6	7,1	6,2	3,7	100	1,2	0,0	CD..S4T002	CC11	T6
E06MSCLDRS4	6	7,1	6,2	3,7	150	1,2	0,0	CD..S4T002	CC11	T6
E08MSCLDRS4	8	9,1	—	4,7	150	2,4	5,0	CD..120605	CC11	T6
left hand										
E04HSCLDLS4	4	4,6	4,2	2,4	100	1,0	0,0	CD..S4T002	CC09	T6
E04MSCLDLS4	4	4,6	4,2	2,4	150	1,0	0,0	CD..S4T002	CC09	T6
E05HSCLDLS4	5	5,9	5,2	3,0	100	1,0	0,0	CD..S4T002	CC09	T6
E05MSCLDLS4	5	5,9	5,2	3,0	150	1,0	0,0	CD..S4T002	CC09	T6
E06HSCLDLS4	6	7,1	6,2	3,7	100	1,2	0,0	CD..S4T002	CC11	T6
E06MSCLDLS4	6	7,1	6,2	3,7	150	1,2	0,0	CD..S4T002	CC11	T6
E08MSCLDLS4	8	9,1	8,2	4,7	150	2,4	0,0	CD..S4T002	CC11	T6

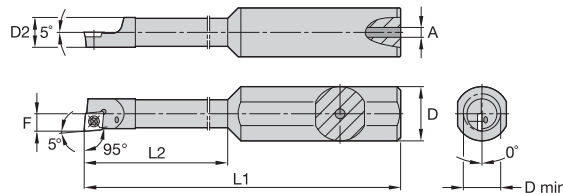
O.D./I.D. Tooling



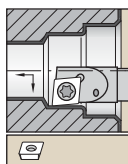
Necked steel shank with through coolant.

See pages B91–B92 and B189 for inserts.

■ A-SCLD 95°

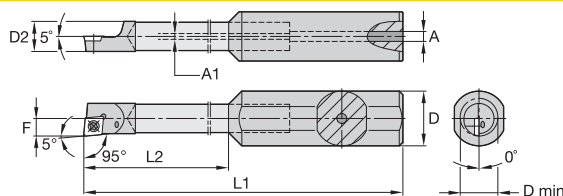


catalogue number	D	D min	D2	F	L1	L2	A	gage insert	insert screw	Torx
right hand										
A0410ESCLDRS412	10	5,2	4,57	2,6	70	12,7	1,0	CD..S4T002	CC09	T6
A0410ESCLDRS425	10	5,2	4,70	2,6	70	25,4	1,0	CD..S4T002	CC09	T6
A0412ESCLDRS412	12	5,2	4,57	2,6	70	12,7	1,0	CD..S4T002	CC09	T6
A0412ESCLDRS425	12	5,2	4,57	2,6	70	25,4	1,0	CD..S4T002	CC09	T6
A0510ESCLDRS412	10	5,8	5,16	3,0	70	12,7	1,0	CD..S4T002	CC11	T6
A0510ESCLDRS425	10	5,8	5,16	3,0	70	25,4	1,0	CD..S4T002	CC11	T6
A0510GSCLDRS4	10	6,0	—	3,2	90	25,0	3,2	CD..S4T002	MS1454	T5
A0610HSCLDRS4	10	7,6	—	3,8	100	32,0	3,2	CD..S4T002	MS1454	T5
A0612ESCLDRS419	12	7,2	6,60	3,7	70	19,1	1,0	CD..S4T002	CC11	T6



Necked carbide shank with through coolant.

See pages B91–B92 and B189 for inserts.

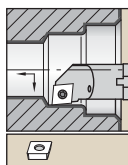


■ E-SCLD 95°



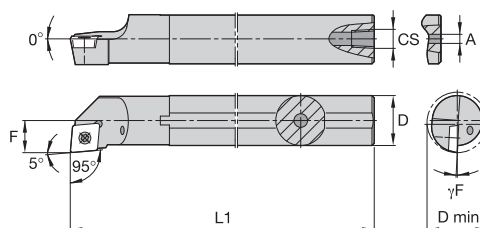
O.D./I.D. Tooling

catalogue number	D	D min	D2	F	L1	L2	A	gage insert	insert screw	Torx
right hand										
E0412DSCLDRS422	12	5,3	4,80	2,6	60	22,2	3,18	CD..S4T002	CC09	T6
E0412XSCLDRS447	12	5,3	4,80	2,6	86	47,6	3,18	CD..S4T002	CC09	T6
E0416KSCLDRS447	16	5,3	4,80	2,6	124	47,6	3,18	CD..S4T002	CC09	T6
E0512XSCLDRS425	12	5,9	5,30	3,0	64	25,4	3,18	CD..S4T002	CC11	T6
E0612ESCLDRS431	12	7,2	6,56	3,7	70	31,7	3,18	CD..S4T002	CC11	T6
E0612HSCLDRS463	12	7,2	6,56	3,7	100	63,5	3,18	CD..S4T002	CC11	T6
E0616HSCLDRS431	16	7,2	6,56	3,7	95	31,7	3,18	CD..S4T002	CC11	T6
E0616XSCLDRS463	16	7,2	6,56	3,7	133	63,5	3,18	CD..S4T002	CC11	T6



Steel shank with through coolant.

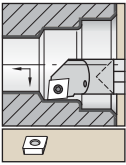
See pages B92–B95 and B189–B190 for inserts.



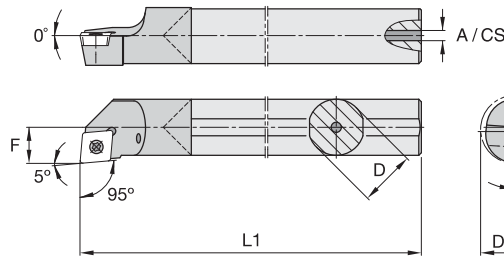
■ A-SCLP 95°



catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand										
A08JSCLPR06	8	11,0	6,0	110	2,4	—	-6.0	CP..060204	MS1939	T7
A10KSCLPR06	10	13,0	7,0	125	3,2	—	-4.0	CP..060204	MS1939	T7
A12MSCLPR06	12	16,0	9,0	150	4,0	1/16-27 NPT	-3.0	CP..060204	MS1153	T7
A16RSCLPR06	16	20,0	11,0	200	—	1/8-27 NPT	-5.0	CP..060203	MS1153	T7
A16RSCLPR09	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	CP..09T308	MS1155	T15
A20SSCLPR06	20	25,0	13,0	250	—	1/8-27 NPT	-3.0	CP..060203	MS1153	T7
A20SSCLPR09	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	CP..09T308	MS1155	T15
left hand										
A08JSCLPL06	8	11,0	6,0	110	2,4	—	-6.0	CP..060204	MS1939	T7
A10KSCLPL06	10	13,0	7,0	125	3,2	—	-4.0	CP..060204	MS1939	T7
A12MSCLPL06	12	16,0	9,0	150	4,0	1/16-27 NPT	-3.0	CP..060204	MS1153	T7
A16RSCLPL06	16	20,0	11,0	200	—	1/8-27 NPT	-5.0	CP..060203	MS1153	T7
A16RSCLPL09	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	CP..09T308	MS1155	T15
A20SSCLPL06	20	25,0	13,0	250	—	1/8-27 NPT	-3.0	CP..060203	MS1153	T7
A20SSCLPL09	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	CP..09T308	MS1155	T15



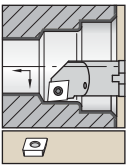
Carbide shank with through coolant.  
See pages B92–B95 and B189–B190 for inserts.



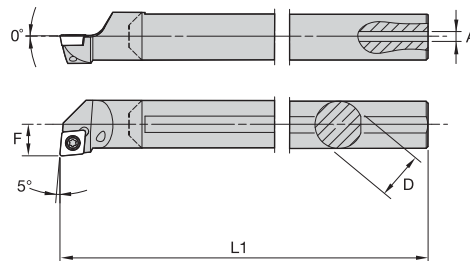
■ **E-SCLP 95°**



catalogue number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
<b>E08KSCLPR06A</b>	8	11,0	6,0	122	2,4	-6.0	CP..060204	<b>MS1939</b>	T7
<b>E10MSCLPR06A</b>	10	13,0	7,0	150	3,2	-4.0	CP..060204	<b>MS1939</b>	T7
<b>E12QSCLPR06</b>	12	16,0	9,0	180	4,8	-3.0	CP..060204	<b>MS1153</b>	T7
<b>E16RSCLPR09</b>	16	20,0	11,0	200	5,5	-4.0	CP..09T308	<b>MS1155</b>	T15
<b>E20SSCLPR09</b>	20	25,0	13,0	250	7,1	-2.0	CP..09T308	<b>MS1155</b>	T15
<b>left hand</b>									
<b>E08KSCLPL06A</b>	8	11,0	6,0	122	2,4	-6.0	CP..060204	<b>MS1939</b>	T7
<b>E10MSCLPL06A</b>	10	13,0	7,0	150	3,2	-4.0	CP..060204	<b>MS1939</b>	T7
<b>E12QSCLPL06</b>	12	16,0	9,0	180	4,8	-3.0	CP..060204	<b>MS1153</b>	T7
<b>E16RSCLPL09</b>	16	20,0	11,0	200	5,5	-4.0	CP..09T308	<b>MS1155</b>	T15
<b>E20SSCLPL09</b>	20	25,0	13,0	250	7,1	-2.0	CP..09T308	<b>MS1155</b>	T15



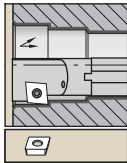
Heavy metal bar with through coolant.  
See pages B92–B95 and B189–B190 for inserts.



■ **L-SCLP 95°**

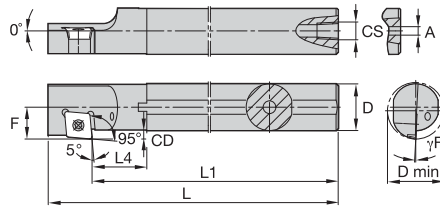


catalogue number	D	D min	F	L1	L2	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>										
<b>L08KSCLPR06</b>	8	11,0	6,0	123	17,62	2,4	-6.0	CPMT060204..	<b>MS1939</b>	T7
<b>L10MSCLPR06</b>	10	13,0	7,0	149	21,65	3,2	-4.0	CPMT060204..	<b>MS1939</b>	T7
<b>L12QSCLPR06</b>	12	16,0	9,0	181	22,35	4,0	-3.0	CPMT060204..	<b>MS1153</b>	T7
<b>L16RSCLPR09</b>	16	20,0	11,0	203	28,57	4,0	-4.0	CPMT09T308..	<b>MS1155</b>	T15
<b>L20SSCLPR09</b>	20	25,0	13,0	251	33,61	4,0	-2.0	CPMT09T308..	<b>MS1155</b>	T15
<b>left hand</b>										
<b>L08KSCLPL06</b>	8	11,0	6,0	123	17,62	2,4	-6.0	CPMT060204..	<b>MS1939</b>	T7
<b>L10MSCLPL06</b>	10	13,0	7,0	149	21,65	3,2	-4.0	CPMT060204..	<b>MS1939</b>	T7
<b>L12QSCLPL06</b>	12	16,0	9,0	181	22,35	4,0	-3.0	CPMT060204..	<b>MS1153</b>	T7
<b>L16RSCLPL09</b>	16	20,0	11,0	203	28,57	4,0	-4.0	CPMT09T308..	<b>MS1155</b>	T15
<b>L20SSCLPL09</b>	20	25,0	13,0	251	33,61	4,0	-2.0	CPMT09T308..	<b>MS1155</b>	T15



Steel shank  
with through coolant.

See pages B92–B95 and  
B189–B190 for inserts.

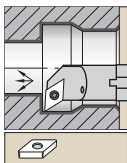


■ A-SCXP 95°



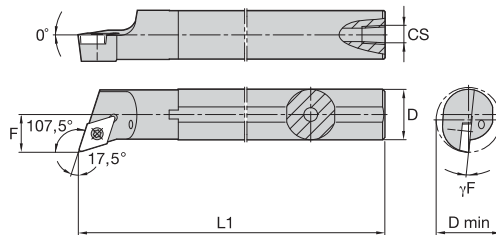
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L	L4	CD	A	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>													
<b>A10KSCXPR06</b>	10	13,0	7,0	125	136,0	15,9	2,1	3,2	—	-4.0	CP..060204	<b>MS1153</b>	T7
<b>A12MSCXPR06</b>	12	16,0	9,0	150	161,0	16,4	3,1	—	1/16-27 NPT	-3.0	CP..060204	<b>MS1153</b>	T7
<b>A16RSCXPR09</b>	16	20,0	11,0	200	218,0	17,8	3,2	—	1/8-27 NPT	-4.0	CP..09T308	<b>MS1155</b>	T15



Steel shank  
with through coolant.

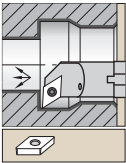
See pages B95–B98 and  
B191–B192 for inserts.



■ A-SDQC 107,5°

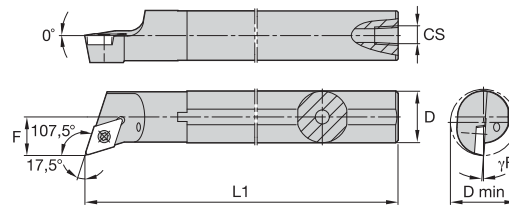


catalogue number	D	D min	F	L1	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
<b>A12MSDQCR07</b>	12	16,0	9,0	150	1/16-27 NPT	-6.0	DC..070204	<b>MS1153</b>	T7
<b>A16RSDQCR07</b>	16	20,0	11,0	200	1/8-27 NPT	-5.0	DC..070204	<b>MS1153</b>	T7
<b>A20SSDQCR11</b>	20	25,0	13,0	250	1/8-27 NPT	-5.0	DC..11T308	<b>MS1155</b>	T15
<b>A25TSDQCR11</b>	25	32,0	17,0	300	1/4-18 NPT	-4.0	DC..11T308	<b>MS1155</b>	T15
<b>left hand</b>									
<b>A12MSDQCL07</b>	12	16,0	9,0	150	1/16-27 NPT	-6.0	DC..070204	<b>MS1153</b>	T7
<b>A16RSDQCL07</b>	16	20,0	11,0	200	1/8-27 NPT	-5.0	DC..070204	<b>MS1153</b>	T7
<b>A20SSDQCL11</b>	20	25,0	13,0	250	1/8-27 NPT	-5.0	DC..11T308	<b>MS1155</b>	T15
<b>A25TSDQCL11</b>	25	32,0	17,0	300	1/4-18 NPT	-4.0	DC..11T308	<b>MS1155</b>	T15



Steel shank  
with through coolant.

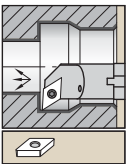
See pages B98–B100 and  
B192–B194 for inserts.



■ A-SDQP 107,5°

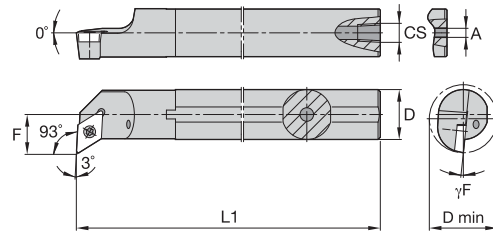


catalogue number	D	D min	F	L1	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
A12MSDQPR07	12	16,0	9,0	150	1/16-27 NPT	-2.0	DP..070204	MS1153	T7
A16RSDQPR07	16	20,0	11,0	200	1/8-27 NPT	0.0	DP..070204	MS1153	T7
A20SSDQPR11	20	25,0	13,0	250	1/8-27 NPT	-2.0	DP..11T308	MS1155	T15
A25TSDQPR11	25	32,0	17,0	300	1/4-18 NPT	0.0	DP..11T308	MS1155	T15
<b>left hand</b>									
A12MSDQPL07	12	16,0	9,0	150	1/16-27 NPT	-2.0	DP..070204	MS1153	T7
A16RSDQPL07	16	20,0	11,0	200	1/8-27 NPT	0.0	DP..070204	MS1153	T7
A20SSDQPL11	20	25,0	13,0	250	1/8-27 NPT	-2.0	DP..11T308	MS1155	T15
A25TSDQPL11	25	32,0	17,0	300	1/4-18 NPT	0.0	DP..11T308	MS1155	T15



Steel shank  
with through coolant.

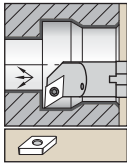
See pages B95–B98 and  
B191–B192 for inserts.



■ A-SDUC 93°

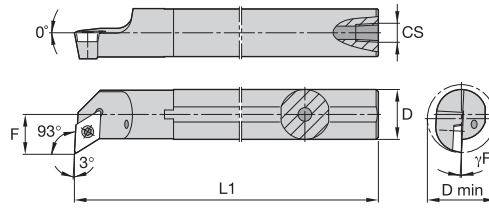


catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex (mm)	insert screw	Torx
<b>right hand</b>													
A10KSDUCR07	10	13,0	7,0	125	3,2	—	-7.0	DC..070204	—	—	—	MS1153	T7
A12MSDUCR07	12	16,0	9,0	150	—	1/16-27 NPT	-4.0	DC..070204	—	—	—	MS1153	T7
A16RSDUCR07	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	DC..070204	—	—	—	MS1153	T7
A16RSDUCR11	16	20,0	11,0	200	—	1/8-27 NPT	-6.0	DC..11T308	—	—	—	MS1155	T15
A20SSDUCR11	20	25,0	13,0	250	—	1/8-27 NPT	-5.0	DC..11T308	—	—	—	MS1155	T15
A25TSDUCR11	25	32,0	17,0	300	—	1/4-18 NPT	-4.0	DC..11T308	—	—	—	MS1155	T15
A32TSDUCR15	32	40,0	22,0	300	—	1/4-18 NPT	-7.0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15
<b>left hand</b>													
A10KSDUCL07	10	13,0	7,0	125	3,2	—	-7.0	DC..070204	—	—	—	MS1153	T7
A12MSDUCL07	12	16,0	9,0	150	—	1/16-27 NPT	-4.0	DC..070204	—	—	—	MS1153	T7
A16RSDUCL07	16	20,0	11,0	200	—	1/8-27 NPT	-4.0	DC..070204	—	—	—	MS1153	T7
A16RSDUCL11	16	20,0	11,0	200	—	1/8-27 NPT	-6.0	DC..11T308	—	—	—	MS1155	T15
A20SSDUCL11	20	25,0	13,0	250	—	1/8-27 NPT	-5.0	DC..11T308	—	—	—	MS1155	T15
A25TSDUCL11	25	32,0	17,0	300	—	1/4-18 NPT	-4.0	DC..11T308	—	—	—	MS1155	T15
A32TSDUCL15	32	40,0	22,0	300	—	1/4-18 NPT	-7.0	DC..150408	SKDP453	SRS4	4 mm	MS1158	T15



Steel shank  
with through coolant.

See pages B98–B100 and  
B192–B194 for inserts.

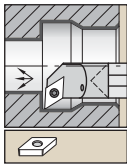


■ A-SDUP 93°



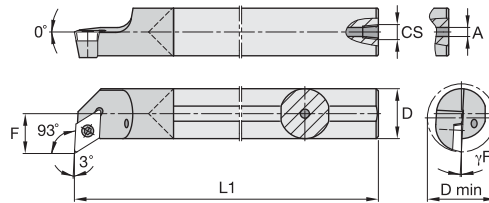
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
A12MSDUPR07	12	16,0	9,0	150	1/16-27 NPT	-2.0	DP..070204	MS1153	T7
A16RSDUPR07	16	20,0	11,0	200	1/8-27 NPT	0.0	DP..070204	MS1153	T7
A20SSDUPR11	20	25,0	13,0	250	1/8-27 NPT	-2.0	DP..11T308	MS1155	T15
A25TSDUPR11	25	32,0	17,0	300	1/4-18 NPT	0.0	DP..11T308	MS1155	T15
<b>left hand</b>									
A12MSDUPL07	12	16,0	9,0	150	1/16-27 NPT	-2.0	DP..070204	MS1153	T7
A16RSDUPL07	16	20,0	11,0	200	1/8-27 NPT	0.0	DP..070204	MS1153	T7
A20SSDUPL11	20	25,0	13,0	250	1/8-27 NPT	-2.0	DP..11T308	MS1155	T15
A25TSDUPL11	25	32,0	17,0	300	1/4-18 NPT	0.0	DP..11T308	MS1155	T15



Carbide shank  
with through coolant.

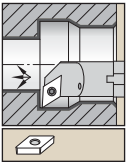
See pages B98–B100 and  
B192–B194 for inserts.



■ E-SDUP 93°



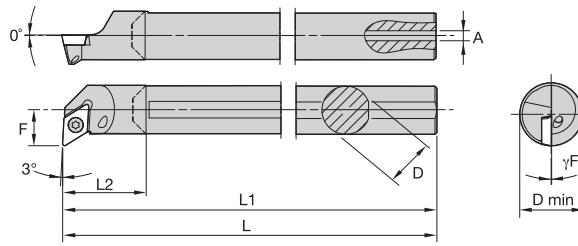
catalogue number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
E12QSDUPR07	12	16,0	9,0	180	4,8	-2.0	DP..070204	MS1153	T7
E16RSDUPR07	16	20,0	11,0	200	5,5	0.0	DP..070204	MS1153	T7
E20SSDUPR11	20	25,0	13,0	250	7,1	-2.0	DP..11T308	MS1155	T15
<b>left hand</b>									
E12QSDUPL07	12	16,0	9,0	180	4,8	-2.0	DP..070204	MS1153	T7
E16RSDUPL07	16	20,0	11,0	200	5,5	0.0	DP..070204	MS1153	T7
E20SSDUPL11	20	25,0	13,0	250	7,1	-2.0	DP..11T308	MS1155	T15



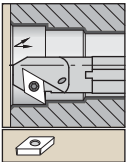
Heavy metal bar with through coolant.

See pages B98–B100 and B192–B194 for inserts.

■ **L-SDUP 93°**



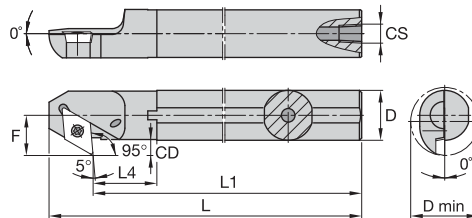
catalogue number	D	D min	F	L1	L	L2	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>											
L12QSDUPR07	12	16,0	9,0	181	181,170	22,4	4,0	-2.0	DP..070204..	MS1153	T7
L16RSDUPR07	16	20,0	11,0	199	199,410	25,4	4,0	0.0	DP..070204..	MS1153	T7
L20SSDUPR11	20	25,0	13,0	251	251,450	33,6	4,0	-2.0	DP..11T308..	MS1155	T15
<b>left hand</b>											
L12QSDUPL07	12	16,0	9,0	181	181,170	22,4	4,0	-2.0	DP..070204..	MS1153	T7
L16RSDUPL07	16	20,0	11,0	199	199,410	25,4	4,0	0.0	DP..070204..	MS1153	T7
L20SSDUPL11	20	25,0	13,0	251	251,450	33,6	4,0	-2.0	DP..11T308..	MS1155	T15



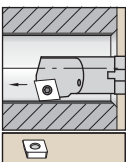
Carbide shank with through coolant.

See pages B98–B100 and B192–B194 for inserts.

■ **A-SDXP 95°**



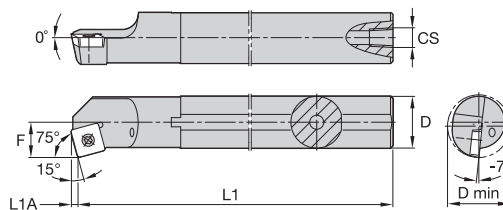
catalogue number	D	D min	F	L1	L	L4	CD	CS	gage insert	insert screw	Torx
<b>right hand</b>											
A12MSDXPR07	12	16,0	9,0	150	162,0	17,07	3,09	1/16-27 NPT	DP..070204	MS1153	T7
A16RSDXPR07	16	20,0	11,0	200	212,0	18,15	3,20	1/8-27 NPT	DP..070204	MS1153	T7
A20SSDXPR11	20	25,0	13,0	250	270,0	50,80	4,31	1/8-27 NPT	DP..11T308	MS1155	T15
<b>left hand</b>											
A12MSDXPL07	12	16,0	9,0	150	162,0	17,07	3,09	1/16-27 NPT	DP..070204	MS1153	T7
A16RSDXPL07	16	20,0	11,0	200	212,0	18,15	3,20	1/8-27 NPT	DP..070204	MS1153	T7
A20SSDXPL11	20	25,0	13,0	250	270,0	50,80	4,31	1/8-27 NPT	DP..11T308	MS1155	T15



Steel shank with through coolants.

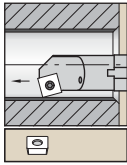
See pages B103–B104 for inserts.

■ **A-SSKC 75°**



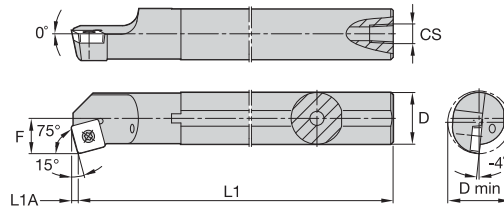
catalogue number	D	D min	F	L1	L1A	CS	gage insert	insert screw	Torx
<b>right hand</b>									
A16RSSKCR09	16	20,0	11,0	200	2,2	1/8-27 NPT	SC..09T308	MS1155	T15





Steel shank with through coolant.

See pages B104–B106 for inserts.

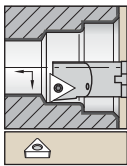


■ A-SSKP 75°



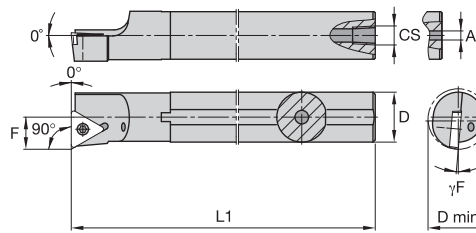
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L1A	CS	gage insert	insert screw	Torx
right hand <b>A20SSSKPR09</b>	20	25,0	13,0	250	2,2	1/8-27 NPT	SP..09T308	<b>MS1155</b>	T15



Steel shank with through coolant.

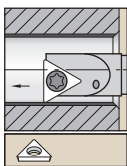
See pages B106–B108 for inserts.



■ A-STFC 90°

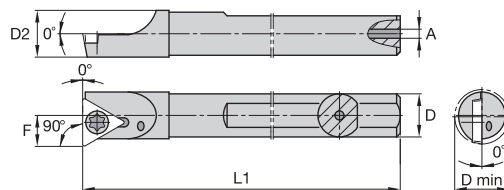


catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex (mm)	insert screw	Torx
right hand <b>A10KSTFCR11</b>	10	13,0	7,0	125	3,2	—	-7.0	TC..110204	—	—	—	<b>MS1153</b>	T7
<b>A12MSTFCR11</b>	12	16,0	9,0	150	—	1/16-27 NPT	-6.0	TC..110204	—	—	—	<b>MS1153</b>	T7
<b>A32TSTFCR16</b>	32	40,0	22,0	300	—	1/4-18 NPT	-2.0	TC..16T308	<b>SKTP343</b>	<b>SRS3</b>	3.5 mm	<b>MS1156</b>	T15
left hand <b>A10KSTFCL11</b>	10	13,0	7,0	125	3,2	—	-7.0	TC..110204	—	—	—	<b>MS1153</b>	T7
<b>A12MSTFCL11</b>	12	16,0	9,0	150	—	1/16-27 NPT	-6.0	TC..110204	—	—	—	<b>MS1153</b>	T7



Steel shank with through coolant.

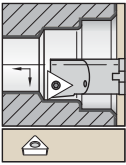
See pages B104 and B195 for inserts.



■ A-STFD 90°

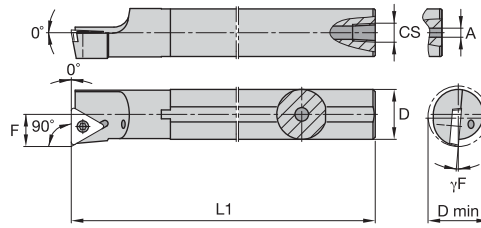


catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand <b>A06HSTFDR07</b>	6	7,1	6,2	3,7	100	1,0	TD..07T1202	<b>FC11</b>	T7
<b>A08HSTFDR07</b>	8	9,2	8,2	4,8	100	2,0	TD..07T1202	<b>FC14</b>	T7
left hand <b>A12MSTFDL11</b>	12	13,2	12,2	6,8	150	3,0	TP..110202	<b>QC26</b>	T9



Steel shank  
with through coolant.

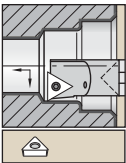
See pages B109–B112 and  
B195–B196 for inserts.



■ A-STFP 90°

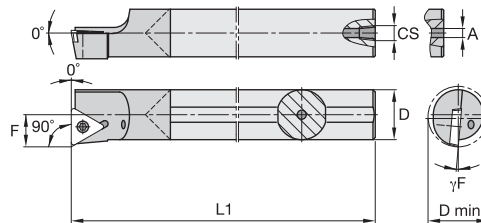


catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex (mm)	insert screw	Torx
<b>right hand</b>													
A08JSTFPR09	8	11,0	6,0	110	2,4	—	-8.0	TP..090204	—	—	—	MS1933	T7
A10KSTFPR11	10	13,0	7,0	125	3,2	—	-4.0	TP..110204	—	—	—	MS1153	T7
A12MSTFPR11	12	16,0	9,0	150	4,0	1/16-27 NPT	-2.0	TP..110204	—	—	—	MS1153	T7
A16RSTFPR11	16	20,0	11,0	200	—	1/16-27 NPT	0.0	TP..110204	—	—	—	MS1153	T7
A20SSTFPR16	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	TP..16T308	—	—	—	MS1155	T15
A25STFPR16	25	32,0	17,0	300	—	1/4-18 NPT	0.0	TP..16T308	—	—	—	MS1155	T15
A32TSTFPR16	32	40,0	22,0	300	—	1/4-18 NPT	-2.0	TP..16T308	SKTP343	SRS3	3.5 mm	MS1156	T15
<b>left hand</b>													
A08JSTFPL09	8	11,0	6,0	110	2,4	—	-8.0	TP..090204	—	—	—	MS1933	T7
A10KSTFPL11	10	13,0	7,0	125	3,2	—	-4.0	TP..110204	—	—	—	MS1153	T7
A12MSTFPL11	12	16,0	9,0	150	4,0	1/16-27 NPT	-2.0	TP..110204	—	—	—	MS1153	T7
A16RSTFPL11	16	20,0	11,0	200	—	1/16-27 NPT	0.0	TP..110204	—	—	—	MS1153	T7
A20SSTFPL16	20	25,0	13,0	250	—	1/8-27 NPT	-2.0	TP..16T308	—	—	—	MS1155	T15
A25STFPL16	25	32,0	17,0	300	—	1/4-18 NPT	0.0	TP..16T308	—	—	—	MS1155	T15



Carbide shank  
with through coolant.

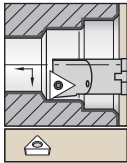
See pages B109–B112 and  
B195–B196 for inserts.



■ E-STFP 90°

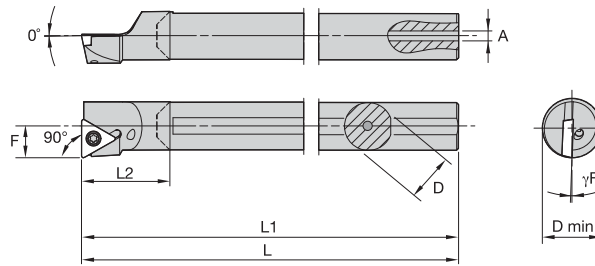


catalogue number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
E08KSTFPR09A	8	11,0	6,0	125	2,4	-6.0	TP..090204	MS1933	T7
E10MSTFPR11A	10	13,0	7,0	150	3,2	-4.0	TP..110204	MS1153	T7
E12QSTFPR11	12	16,0	9,0	180	4,8	-2.0	TP..110204	MS1153	T7
E16RSTFPR11	16	20,0	11,0	200	5,5	0.0	TP..110204	MS1153	T7
E20SSTFPR16	20	25,0	13,0	250	7,1	-2.0	TP..16T308	MS1155	T15
<b>left hand</b>									
E08KSTFPL09A	8	11,0	6,0	125	2,4	-6.0	TP..090204	MS1933	T7
E10MSTFPL11A	10	13,0	7,0	150	3,2	-4.0	TP..110204	MS1153	T7
E12QSTFPL11	12	16,0	9,0	180	4,8	-2.0	TP..110204	MS1153	T7
E16RSTFPL11	16	20,0	11,0	200	5,5	0.0	TP..110204	MS1153	T7
E20SSTFPL16	20	25,0	13,0	250	7,1	-2.0	TP..16T308	MS1155	T15



Heavy-metal bar with through coolant.

See pages B109–B112 and B195–B196 for inserts.

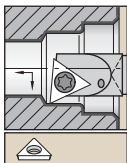


■ L-STFP 90°



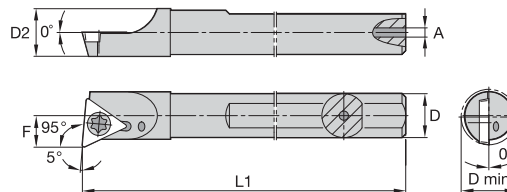
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L2	A	γF°	gage insert	insert screw	Torx
<b>right hand</b>										
L08KSTFPR09	8	11,0	6,0	125	19,1	2,4	-6.0	TP..090204..	MS1933	T7
L10MSTFPR11	10	13,0	7,0	151	23,7	3,2	-4.0	TP..110204..	MS1153	T7
L12QSTFPR11	12	16,0	9,0	183	24,4	4,0	-2.0	TP..110204..	MS1153	T7
L16RSTFPR11	16	20,0	11,0	201	27,4	4,0	0.0	TP..110204..	MS1153	T7
L20SSTFPR16	20	25,0	13,0	251	33,6	4,0	-2.0	TP..16T308..	MS1155	T15
<b>left hand</b>										
L08KSTFPL09	8	11,0	6,0	125	19,1	2,4	-6.0	TP..090204..	MS1933	T7
L10MSTFPL11	10	13,0	7,0	151	23,7	3,2	-4.0	TP..110204..	MS1153	T7
L12QSTFPL11	12	16,0	9,0	183	24,4	4,0	-2.0	TP..110204..	MS1153	T7
L16RSTFPL11	16	20,0	11,0	201	27,4	4,0	0.0	TP..110204..	MS1153	T7
L20SSTFPL16	20	25,0	13,0	251	33,6	4,0	-2.0	TP..16T308..	MS1155	T15



Steel shank with through coolant.

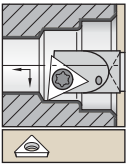
See pages B109 and B195 for inserts.



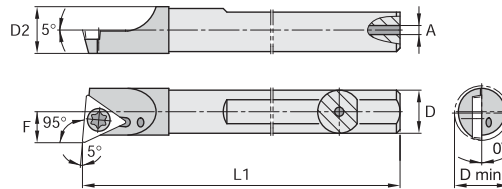
■ A-STLD 95°



catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx	
<b>right hand</b>										
A06HSTLDR07	6	7,1	6,2	3,7	100	1,0	TD..07T1202	FC11	T7	
A08HSTLDR07	8	9,2	8,2	4,8	100	2,0	TD..07T1202	FC14	T7	
A20RSTLDR6P	20	21,3	20,2	10,9	200	7,2	TD..160308	SC30	T10	



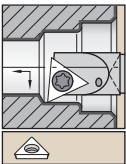
Carbide shank with through coolant.  
See pages B109 and B195 for inserts.



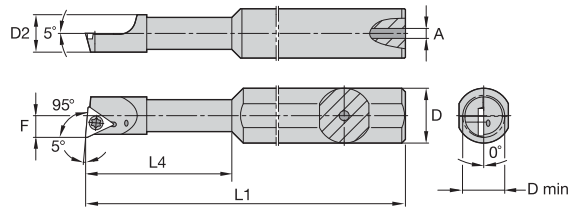
■ **E-STLD 95°**



catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
<b>right hand</b>									
<b>E06MSTLDR07</b>	6	7,1	6,2	3,7	150	1,2	TD..07T1202	<b>FC11</b>	T7
<b>E08MSTLDR07</b>	8	9,2	8,2	4,8	150	2,4	TD..07T1202	<b>FC14</b>	T7
<b>left hand</b>									
<b>E06MSTLDL07</b>	6	7,1	6,2	3,7	150	1,2	TD..07T1202	<b>FC11</b>	T7
<b>E08MSTLDL07</b>	8	9,2	8,2	4,8	150	2,4	TD..07T1202	<b>FC14</b>	T7



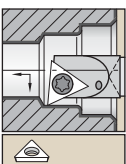
Necked steel shank with through coolant.  
See pages B109 and B195 for inserts.



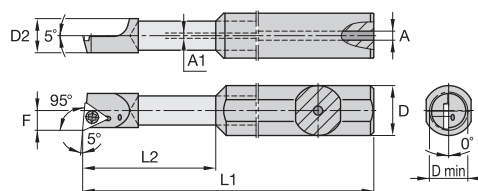
■ **A-STLD 95°**



catalogue number	D	D min	D2	F	L1	L4	A	gage insert	insert screw	Torx
<b>right hand</b>										
<b>A0512XSTLDR0725</b>	12	7,0	5,16	3,2	76	25,4	1,0	TD..07T1202	<b>FC11</b>	T7
<b>A0612XSTLDR0731</b>	12	7,5	6,58	4,0	76	31,8	1,0	TD..07T1202	<b>FC14</b>	T7
<b>left hand</b>										
<b>A0616HSTLDR0731</b>	16	7,5	6,58	4,0	100	31,8	1,0	TD..07T1202	<b>FC14</b>	T7



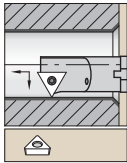
Necked carbide shank with through coolant.  
See pages B109 and B195 for inserts.



■ **E-STLD 95°**

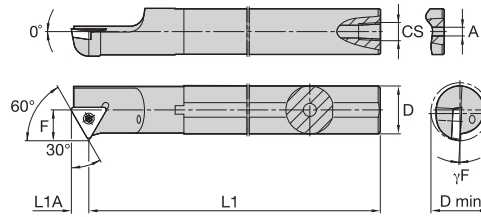


catalogue number	D	D min	D2	F	L1	L2	A	A1	gage insert	insert screw	Torx
<b>right hand</b>											
<b>E0612ESTLDR0731</b>	12	7,5	6,35	4,0	70	31,7	3,18	1,2	TD..07T1202	<b>FC14</b>	T7
<b>E0812XSTLDR0738</b>	12	9,1	7,92	4,8	76	38,1	3,18	2,4	TD..07T1202	<b>FC14</b>	T7
<b>E0616XSTLDR0731</b>	16	7,5	6,35	4,0	95	31,7	3,18	1,2	TD..07T1202	<b>FC14</b>	T7



Steel shank  
with through coolant.

See pages B109–B112 and  
B195–B196 for inserts.

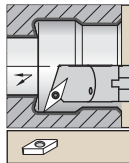


■ A-STWP 60°



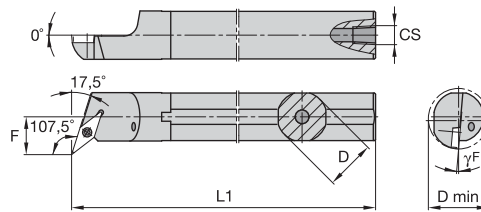
O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L1A	A	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>											
A10KSTWPR11	10	13,0	7,0	125	5,0	3,2	—	-4.0	TP..110204	MS1153	T7
A12MSTWPR11	12	16,0	9,0	150	5,0	—	1/16-27 NPT	-2.0	TP..110204	MS1153	T7
A16RSTWPR11	16	20,0	11,0	200	5,0	—	1/8-27 NPT	-2.0	TP..110204	MS1153	T7
<b>left hand</b>											
A10KSTWPL11	10	13,0	7,0	125	5,0	3,2	—	-4.0	TP..110204	MS1153	T7
A12MSTWPL11	12	16,0	9,0	150	5,0	—	1/16-27 NPT	-2.0	TP..110204	MS1153	T7
A16RSTWPL11	16	20,0	11,0	200	5,0	—	1/8-27 NPT	-2.0	TP..110204	MS1153	T7



Steel shank  
with through coolant.

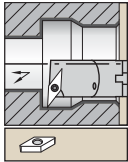
See pages B113–B114 and  
B196–B197 for inserts.



■ A-SVQB 107,5°

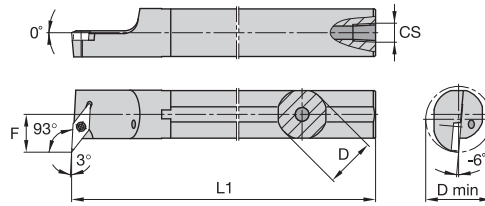


catalogue number	D	D min	F	L1	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>									
A16RSVQBR11	16	20,0	11,0	200	1/8-27 NPT	-7.0	VB..110304	MS1153	T7
A20SSVQBR11	20	25,0	13,0	250	1/8-27 NPT	-6.0	VB..110304	MS1153	T7
A25TSVQBR16	25	32,0	17,0	300	1/4-18 NPT	-6.0	VB..160408	MS1155	T15
<b>left hand</b>									
A16RSVQBL11	16	20,0	11,0	200	1/8-27 NPT	-7.0	VB..110304	MS1153	T7
A20SSVQBL11	20	25,0	13,0	250	1/8-27 NPT	-6.0	VB..110304	MS1153	T7
A25TSVQBL16	25	32,0	17,0	300	1/4-18 NPT	-6.0	VB..160408	MS1155	T15



Steel shank  
with through coolant.

See pages B113–B114 and  
B196–B197 for inserts.

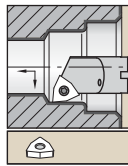


■ A-SVUB 93°



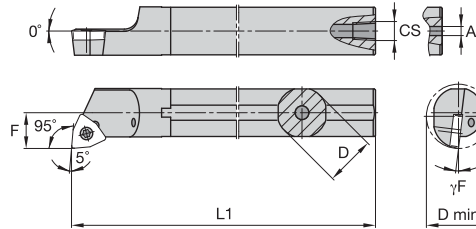
catalogue number	D	D min	F	L1	CS	gage insert	insert screw	Torx
<b>right hand</b>								
A20SSVUBR11	20	25,0	13,0	250	1/8-27 NPT	VB..110304	MS1153	T7
A25TSVUBR16	25	32,0	17,0	300	1/4-18 NPT	VB..160408	MS1155	T15
<b>left hand</b>								
A20SSVUBL11	20	25,0	13,0	250	1/8-27 NPT	VB..110304	MS1153	T7
A25TSVUBL16	25	32,0	17,0	300	1/4-18 NPT	VB..160408	MS1155	T15

O.D./I.D. Tooling



Steel shank  
with through coolant.

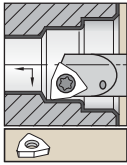
See pages B114–B115 for inserts.



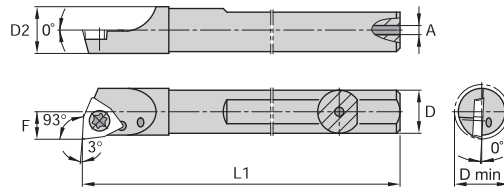
■ A-SWLC 95°



catalogue number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
<b>right hand</b>										
A10KSWLCR04	10	13,0	7,0	125	3,0	—	-7.0	WC..040204	MS1153	T7
A12MSWLCR04	12	16,0	9,0	150	—	1/16-27 NPT	-6.0	WC..040204	MS1153	T7
A16RSWLCR06	16	20,0	11,0	200	—	1/8-27 NPT	-7.0	WC..06T308	MS1155	T15
<b>left hand</b>										
A20SSWLCR06	20	25,0	13,0	250	—	1/8-27 NPT	-5.0	WC..06T308	MS1155	T15
A12MSWLCR04	12	16,0	9,0	150	—	1/16-27 NPT	-6.0	WC..040204	MS1153	T7
A16RSWLCR06	16	20,0	11,0	200	—	1/8-27 NPT	-7.0	WC..06T308	MS1155	T15



Steel shank  
with through coolant.  
See page B115 for inserts.

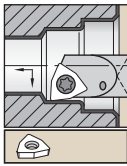


■ A-SWUP 93°

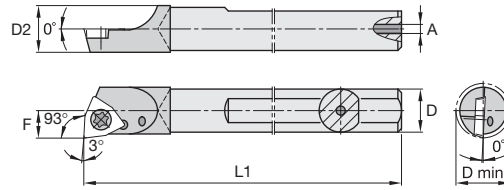


O.D./I.D. Tooling

catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
<b>right hand</b>									
A06HSWUPRS3	6	6,8	6,2	3,4	100	1,0	WP..S30102	CT11	T6
A08HSWUPRS3	8	8,8	8,2	4,4	100	2,0	WP..S30102	CT15	T6
A12MSWUPR04	12	12,8	12,2	6,6	150	3,0	WP..040202	QTM26	T6
<b>left hand</b>									
A06HSWUPLS3	6	6,8	6,2	3,4	100	1,0	WP..S30102	CT11	T6



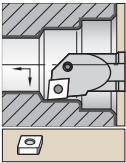
Carbide shank  
with through coolant.  
See page B115 for inserts.



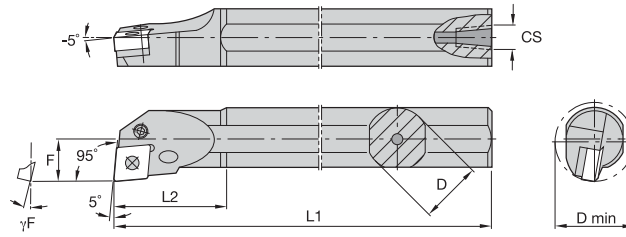
■ E-SWUP 93°



catalogue number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
<b>right hand</b>									
E06MSWUPRS3	6	6,8	6,2	3,4	150	1,2	WP..S30104	CT11	T6
E08MSWUPRS3	8	8,8	8,2	4,4	150	2,4	WP..S30104	CT15	T6
E10SSWUPR04	10	10,8	10,2	5,6	250	3,2	WP..040204	QTM20	T7
E12SSWUPR04	12	12,8	12,2	6,6	250	4,7	WP..040204	QTM26	T7
<b>left hand</b>									
E06MSWUPLS3	6	6,8	6,2	3,4	150	1,2	WP..S30104	CT11	T6
E08MSWUPLS3	8	8,8	8,2	4,4	150	2,4	WP..S30104	CT15	T6



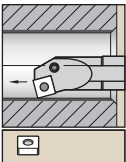
Steel shank with through coolant.  
See pages B40–B49 and B174–B176 for inserts.



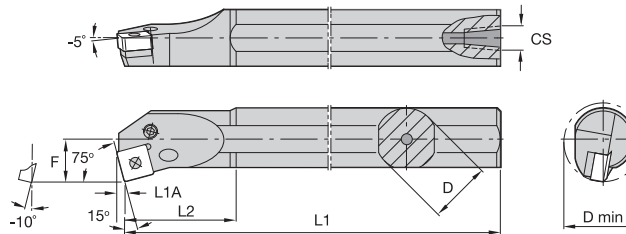
■ **A-PCLN 95°**



catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert	shim	shim pin	pin	toggle lever	lever screw	Torx Plus
<b>right hand</b>														
A25TPCLNR12	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	CN..120408	—	—	—	511.022	514.122	10 IP
A32UPCLNR12	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
A40VPCLNR12	40	50,0	27,0	400	55	1/4-18 NPT	-10.0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
A32UPCLNR16	32	50,0	22,0	350	50	1/4-18 NPT	-10.0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
A40VPCLNR16	40	50,0	27,0	400	55	1/4-18 NPT	-11.0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
<b>left hand</b>														
A25TPCLNL12	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	CN..120408	—	—	—	511.022	514.122	10 IP
A32UPCLNL12	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
A40VPCLNL12	40	50,0	27,0	400	55	1/4-18 NPT	-10.0	CN..120408	512.112	513.023	515.018	511.023	514.123	15 IP
A32UPCLNL16	32	50,0	22,0	350	50	1/4-18 NPT	-10.0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP
A40VPCLNL16	40	50,0	27,0	400	55	1/4-18 NPT	-11.0	CN..160612	512.117	513.025	515.022	511.025	514.125	15 IP



Steel shank with through coolant.  
See pages B59–B66 and B178–B179 for inserts.

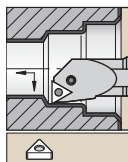


■ **A-PSKN 75°**

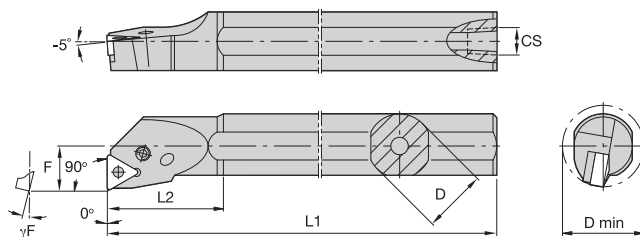


catalogue number	D	D min	F	L1	L2	L1A	CS	gage insert	shim	shim pin	pin	toggle lever	lever screw	Torx Plus
<b>right hand</b>														
A25TPSKNR12	25	30,0	17,0	300	43	3	1/4-18 NPT	SN..120408	—	—	—	511.022	514.122	10 IP
A32UPSKNR12	32	40,0	22,0	350	52	3	1/4-18 NPT	SN..120408	512.063	513.023	515.018	511.023	514.124	15 IP
A40VPSKNR12	40	48,0	27,0	400	57	3	1/4-18 NPT	SN..120408	512.063	513.023	515.018	511.023	514.124	15 IP
<b>left hand</b>														
A25TPSKNL12	25	30,0	17,0	300	43	3	1/4-18 NPT	SN..120408	—	—	—	511.022	514.122	10 IP
A32UPSKNL12	32	40,0	22,0	350	52	3	1/4-18 NPT	SN..120408	512.063	513.023	515.018	511.023	514.124	15 IP





Steel shank with through coolant.  
See pages B66–B73 and B179–B180 for inserts.

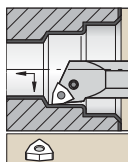


**A-PTFN 90°**

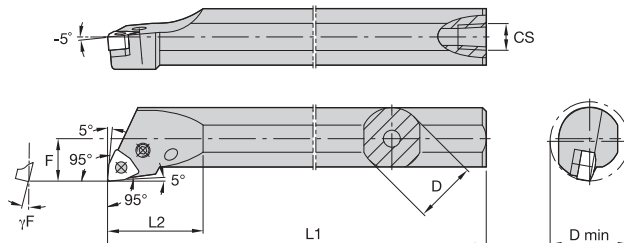


O.D./I.D. Tooling

catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert	shim	shim pin	pin	toggle lever	lever screw	Torx Plus
<b>right hand</b>														
A16RPTFNR11	16	20,0	11,0	200	28	1/8-27 NPT	-14.0	TN..110304	—	—	—	511.011	514.111	8 IP
A20SPTFNR11	20	25,0	13,0	250	30	1/8-27 NPT	-12.0	TN..110304	—	—	—	511.011	514.111	8 IP
A25TPTFNR16	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
A32UPTFNR16	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
A40VPTFNR22	40	48,0	27,0	400	55	1/4-18 NPT	-10.0	TN..220408	512.023	513.023	515.018	511.023	514.123	15 IP
<b>left hand</b>														
A16RPTFNL11	16	20,0	11,0	200	28	1/8-27 NPT	-14.0	TN..110304	—	—	—	511.011	514.111	8 IP
A20SPTFNL11	20	25,0	13,0	250	30	1/8-27 NPT	-12.0	TN..110304	—	—	—	511.011	514.111	8 IP
A25TPTFNL16	25	32,0	17,0	300	40	1/4-18 NPT	-12.0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
A32UPTFNL16	32	40,0	22,0	350	50	1/4-18 NPT	-10.0	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
A40VPTFNL22	40	48,0	27,0	400	55	1/4-18 NPT	-10.0	TN..220408	512.023	513.023	515.018	511.023	514.123	15 IP



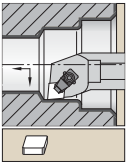
Steel shank with through coolant.  
See pages B79–B83 and B181 for inserts.



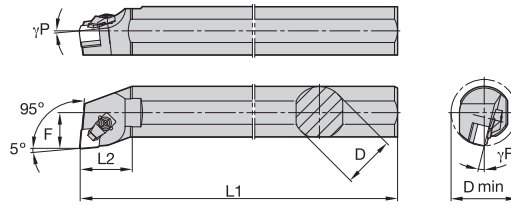
**A-PWLN 95°**



catalogue number	D	D min	F	L1	L2	CS	γF°	gage insert	shim	shim pin	pin	toggle lever	lever screw	Torx Plus
<b>right hand</b>														
A16RPWLNRO6	16	27,0	11,0	200	32	1/8-27 NPT	-12.0	WN..060404	—	—	—	511.030	514.112	8 IP
A20SPWLNRO6	20	25,0	13,0	250	32	1/8-27 NPT	-14.0	WN..060408	—	—	—	511.030	514.112	8 IP
A25RPWLNRO8	25	32,0	17,0	200	40	1/4-18 NPT	-12.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
A32SPWLNRO8	32	40,0	22,0	250	50	1/4-18 NPT	-10.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
A40TPWLNRO8	40	50,0	27,0	300	55	1/4-18 NPT	-8.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
<b>left hand</b>														
A16RPWLNLO6	16	27,0	11,0	200	32	1/8-27 NPT	-12.0	WN..060404	—	—	—	511.030	514.112	8 IP
A20SPWLNLO6	20	25,0	13,0	250	32	1/8-27 NPT	-14.0	WN..060408	—	—	—	511.030	514.112	8 IP
A25RPWLNLO8	25	32,0	17,0	200	40	1/4-18 NPT	-12.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
A32SPWLNLO8	32	40,0	22,0	250	50	1/4-18 NPT	-10.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP
A40TPWLNLO8	40	50,0	27,0	300	55	1/4-18 NPT	-8.0	WN..080408	512.135	513.023	515.018	511.023	514.123	15 IP



Steel shank  
without through coolant.  
See pages B122 and  
B183 for inserts.



■ S-CCLN 95° • MX



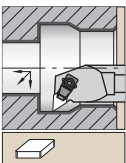
catalogue number	D	D min	F	L1	L2	γF°	γP°	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b>													
S32SCCLNR12MX7	32	40,0	22,0	251	42,8	-14,0	-5,0	CN.X120708	—	—	—	551.316	4 mm
S40T-CCLNR12-MX7	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm
<b>left hand</b>													
S32SCCLNL12MX7	32	40,0	22,0	251	42,8	-14,0	-5,0	CN.X120708	—	—	—	551.316	4 mm
S40T-CCLNL12-MX7	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.X120708	552.221	554.252	2.5 mm	551.316	4 mm

■ S-CCLN 95° • MN

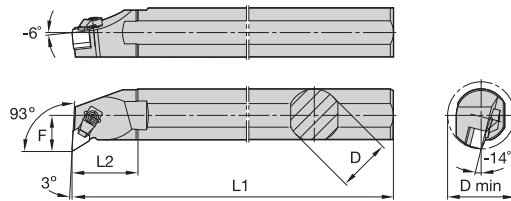


catalogue number	D	D min	F	L1	L2	γF°	γP°	gage insert	shim	shim screw	hex (mm)	thrust plate	clamp assembly	hex (mm)
<b>right hand</b>														
S40T-CCLNR12-MN4	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.N120408	552.220	554.252	2.5 mm	557.111	551.317	4 mm
S40T-CCLNR12-MN7	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm
<b>left hand</b>														
S40T-CCLNL12-MN4	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.N120408	552.220	554.252	2.5 mm	557.111	551.317	4 mm
S40T-CCLNL12-MN7	40	55,0	27,0	300	40,0	-14,0	-6,0	CN.N120708	552.221	554.252	2.5 mm	557.111	551.317	4 mm

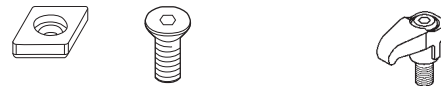
NOTE: MN clamping version is shown.



Steel shank  
without through coolant.  
See pages B122 and  
B183 for inserts.



■ S-CDUN 93° • MX



catalogue number	D	D min	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b>											
S40T-CDUNR15-MX7	40	55,0	27,0	300	50,0	DN.X150708	552.228	554.252	2.5 mm	551.332	4 mm
<b>left hand</b>											
S40T-CDUNL15-MX7	40	55,0	27,0	300	50,0	DN.X150708	552.228	554.252	2.5 mm	551.332	4 mm

(continued)

(S-CDUN 93° • MX continued)

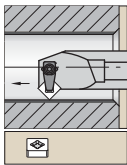
## ■ S-CDUN 93° • MN



O.D./I.D. Tooling

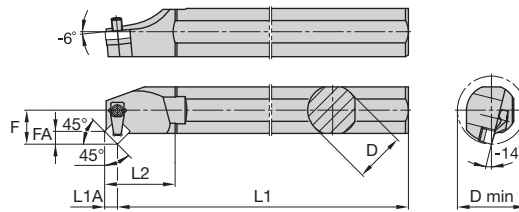
catalogue number	D	D min	F	L1	L2	gage insert	shim	shim screw	hex (mm)	thrust plate	clamp assembly	hex (mm)
<b>right hand</b> S40T-CDUNR15-MN7	40	55,0	27,0	300	50,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm
<b>left hand</b> S40T-CDUNL15-MN7	40	55,0	27,0	300	50,0	DN.N150708	552.228	554.252	2.5 mm	557.111	551.317	4 mm

NOTE: MN clamping version is shown.  
Basic holder may be ordered separately:  
S40T-V. DUN R/L 15



Steel shank without through coolant.

See pages B125–B126 and B184 for inserts.

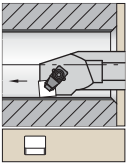


## ■ S-CSSN 45° • MX



catalogue number	D	D min	F	L1	L2	FA	L1A	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b> S40TCSSNR12MX7	40	55	27,0	300	67,0	8,23	8,50	SN.X120708	552.232	554.252	2.5 mm	551.316	4 mm
<b>left hand</b> S40TCSSNL12MX7	40	55	27,0	300	67,0	8,23	8,50	SN.X120708	552.232	554.252	2.5 mm	551.316	4 mm

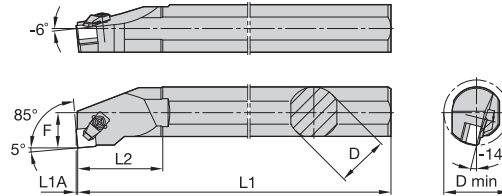
NOTE: MX clamping version is shown.  
Basic holder may be ordered separately:  
S40T-V.SSN R/L 12



Steel shank  
without through coolant.

See pages B125–B126 and  
B184 for inserts.

■ **S-CSYN 85° • MX**



catalogue number	D	D min	F	L1	L2	L1A	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b>												
<b>S40T-CSYNR12-MX7</b>	40	55,0	27,0	300	67,0	0,97	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
<b>left hand</b>												
<b>S40T-CSYNL12-MX7</b>	40	55,0	27,0	300	67,0	0,97	SN.X120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm

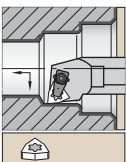
NOTE: MN clamping version is shown.  
Basic holder may be ordered separately:  
S40T-V.SYN R/L 08

■ **S-CSYN 85° • MN**



catalogue number	D	D min	F	L1	L2	L1A	gage insert	shim	shim screw	hex (mm)	thrust plate	clamp assembly	hex (mm)
<b>right hand</b>													
<b>S40T-CSYNR12-MN7</b>	40	55,0	27,0	300	67,0	0,97	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm
<b>left hand</b>													
<b>S40T-CSYNL12-MN7</b>	40	55,0	27,0	300	67,0	0,97	SN.N120708	<b>552.232</b>	<b>554.252</b>	2.5 mm	<b>557.111</b>	<b>551.317</b>	4 mm

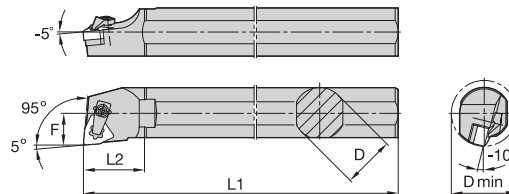
NOTE: MN clamping version is shown.



Steel shank  
without through coolant.

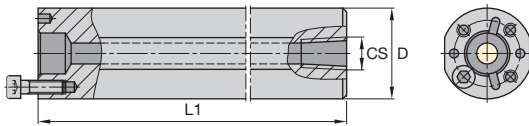
See page B127 for inserts.

■ **S-CWLN 95° • MX**



catalogue number	D	D min	F	L1	L2	gage insert	shim	shim screw	hex (mm)	clamp assembly	hex (mm)
<b>right hand</b>											
<b>S40TCWLNRO8MX7</b>	40	80	27,0	300	55,0	WN.X080708	<b>552.210</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm
<b>left hand</b>											
<b>S40TCWLNLO8MX7</b>	40	80	27,0	300	55,0	WN.X080708	<b>552.210</b>	<b>554.252</b>	2.5 mm	<b>551.316</b>	4 mm

NOTE: Basic holder may be ordered separately:  
S40T-V.WLN R/L 12



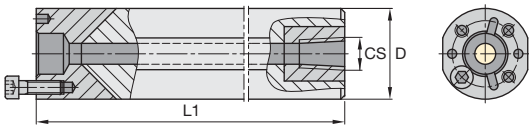
Steel shank with through coolant.

Max 4:1 overhang ratio.

### ■ BS

catalogue number	D	L1	CS	screw 3 required	screw	hex (mm)
BS32S	32	210	RP3/8	MS412	MS330	4 mm
BS40T	40	260	RP3/8	MS412	MS330	4 mm
BS50U	50	310	RP3/8	MS337	MS339	5 mm
BS60V	60	360	RP3/8	MS337	MS339	5 mm

O.D./I.D. Tooling

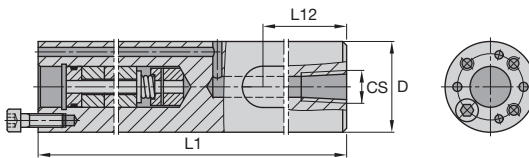


Carbide shank with through coolant.

Max 6:1 overhang ratio.

### ■ BC

catalogue number	D	L1	CS	screw 3 required	screw	hex (mm)
BC25T	25	260	RP1/4	MS322	MS322	3 mm
BC32U	32	310	RP3/8	MS330	MS330	4 mm
BC40V	40	360	RP3/8	MS330	MS330	4 mm
BC50W	50	410	RP3/8	MS339	MS339	5 mm

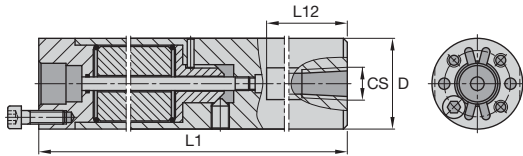


Steel shank DeVibrator with through coolant.

Max 6:1 overhang ratio.

### ■ BSD

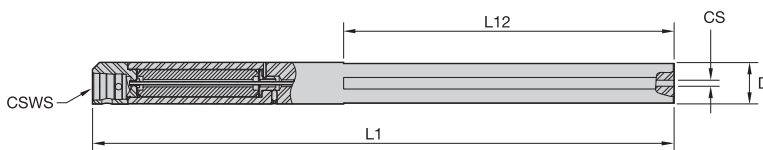
catalogue number	D	L1	CS	L12	L1 min	screw 3 required	screw	hex (mm)
BSD32U	32	310	RP3/8	200	200	MS330	MS330	4 mm
BSD40V	40	360	RP3/8	248	228	MS330	MS330	4 mm
BSD50W	50	410	RP3/8	280	276	MS339	MS339	5 mm



Tunable steel shank with through coolant.

■ D...TTB

catalogue number	D	L1	CS	L12	L1 min	screw 3 required	screw	hex
D25MTTB400	25	381	RP1/4	203	227	MS1499	MS319	3 mm
D32MTTB447	32	422	RP3/8	267	332	MS325	MS1130	4 mm
D40MTTB530	40	492	RP3/8	305	300	MS326	MS330	4 mm
D50MTTB700	50	670	RP3/8	470	309	MS337	MS339	5 mm

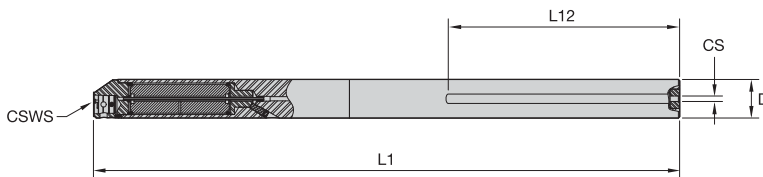


Tunable steel shank with through coolant and front end KM™ clamping unit.



■ D...TTB-KM

catalogue number	CSWS system size	D	L1	CS	L12	L1 min
D40MTTB560KM40	KM40	40	520	RP 3/8-19	305	330
D50MTTB737KM40	KM40	50	697	RP 3/8-19	470	337
D60MTTB1000KM40	KM40	60	976	RP 3/8-19	686	396
D80MTTB1120KM63	KM63	80	1060	RP 3/8-19	610	560
D100MTTB1330KM63	KM63	100	1384	RP 3/8-19	622	695

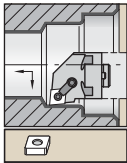


• Carbide tunable boring bar with KM Quick Change connection.

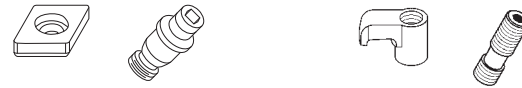
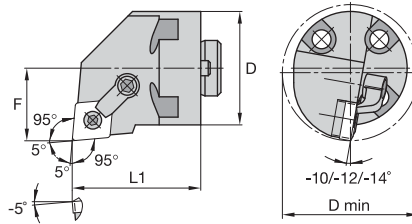


■ G-KM-TTB • Metric

order number	catalogue number	D	L1	CS	L12	CSWS system size
3954298	G50MTTB1026KM40	50	986	RP 3/8-19	300	KM40
3954299	G60MTTB1226KM40	60	1186	RP 3/8-19	381	KM40
3954300	G80MTTB1666KM63	80	1606	RP 3/8-19	480	KM63
3954301	G100MTTB2066KM63	100	1975	RP 3/8-19	600	KM63



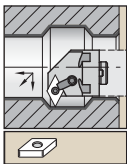
With through coolant.  
See pages B40–B49 and  
B174–B176 for inserts.



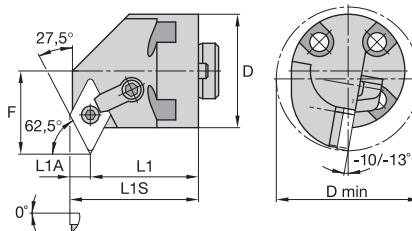
O.D./I.D. Tooling

### ■ H-MCLN 95°

catalogue number	D	F	L1	D min	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>											
<b>H25MCLNR12</b>	25	17	41	32	CN..120408	—	<b>KLM43</b>	2 mm	<b>CKM7</b>	<b>STCM9</b>	2.5 mm
<b>H32MCLNR12</b>	32	22	41	40	CN..120408	<b>ICSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM21</b>	<b>STCM20</b>	3 mm
<b>H40MCLNR16</b>	40	27	41	50	CN..160612	<b>ICSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H40MCLNR19</b>	40	27	41	50	CN..190612	<b>ICSN633</b>	<b>KLM68</b>	4 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MCLNR12</b>	50	35	41	63	CN..120408	<b>ICSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM20</b>	<b>STCM20</b>	3 mm
<b>H50MCLNR16</b>	50	35	41	63	CN..160612	<b>ICSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MCLNR19</b>	50	35	41	63	CN..190612	<b>ICSN633</b>	<b>KLM68</b>	4 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>left hand</b>											
<b>H25MCLNL12</b>	25	17	41	32	CN..120408	—	<b>KLM43</b>	2 mm	<b>CKM7</b>	<b>STCM9</b>	2.5 mm
<b>H32MCLNL12</b>	32	22	41	40	CN..120408	<b>ICSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM21</b>	<b>STCM20</b>	3 mm
<b>H40MCLNL16</b>	40	27	41	50	CN..160612	<b>ICSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H40MCLNL19</b>	40	27	41	50	CN..190612	<b>ICSN633</b>	<b>KLM68</b>	4 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MCLNL12</b>	50	35	41	63	CN..120408	<b>ICSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM20</b>	<b>STCM20</b>	3 mm
<b>H50MCLNL16</b>	50	35	41	63	CN..160612	<b>ICSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MCLNL19</b>	50	35	41	63	CN..190612	<b>ICSN633</b>	<b>KLM68</b>	4 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm



With through coolant.  
See pages B50–B58 and  
B176–B178 for inserts.

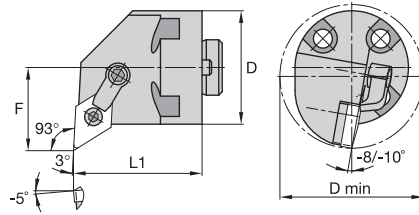


### ■ H-MDPN 62,5°

catalogue number	D	F	L1	L1A	L1S	D min	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>													
<b>H25MDPNR11</b>	25	19	37	5	41	32	DN..110408	<b>IDSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM7</b>	<b>STCM5</b>	2.5 mm
<b>H32MDPNR15</b>	32	25	35	7	41	43	DN..150408	<b>IDSN442</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H40MDPNR15</b>	40	28	35	7	41	50	DN..150608	<b>IDSN432</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H40MDPNR19</b>	40	28	33	8	41	50	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MDPNR15</b>	50	35	35	7	41	63	DN..150608	<b>IDSN432</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MDPNR19</b>	50	35	33	8	41	63	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>left hand</b>													
<b>H25MDPNL11</b>	25	19	37	5	41	32	DN..110408	<b>IDSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM7</b>	<b>STCM5</b>	2.5 mm
<b>H32MDPNL15</b>	32	25	35	7	41	43	DN..150408	<b>IDSN442</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H40MDPNL15</b>	40	28	35	7	41	50	DN..150608	<b>IDSN432</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H40MDPNL19</b>	40	28	33	8	41	50	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>H50MDPNL15</b>	50	35	35	7	41	63	DN..150608	<b>IDSN432</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MDPNL19</b>	50	35	33	8	41	63	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm



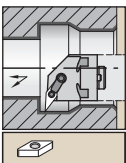
With through coolant.  
See pages B50–B58 and  
B176–B178 for inserts.



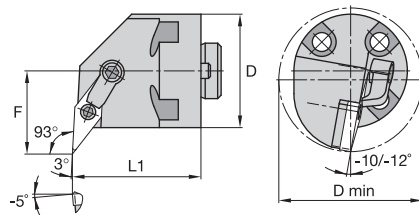
■ **H-MDUN 93°**



catalogue number	D2	F	L1	D min	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>											
<b>H40MDUNR15</b>	40	27	41	50	DN..150608	<b>IDSN432</b>	<b>KLM46L</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MDUNR19</b>	50	35	41	63	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm
<b>left hand</b>											
<b>H50MDUNL19</b>	50	35	41	63	DN..190612	<b>IDSN533</b>	<b>KLM58</b>	3 mm	<b>CKM12</b>	<b>STCM4</b>	4 mm



With through coolant.  
See pages B74–B78 and  
B180–B181 for inserts.



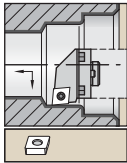
■ **H-MVUN 93°**



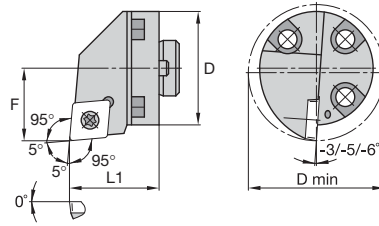
catalogue number	D	F	L1	D min	gage insert	shim	lock pin	hex (mm)	clamp	clamp screw	hex (mm)
<b>right hand</b>											
<b>H32MVUNR16</b>	32	25	41	43	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM23</b>	<b>STCM20</b>	3 mm
<b>H40MVUNR16</b>	40	27	41	50	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MVUNR16</b>	50	35	41	63	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MVUNR22</b>	50	35	41	63	VN..220408	<b>IVSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>left hand</b>											
<b>H32MVUNL16</b>	32	25	41	43	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM23</b>	<b>STCM20</b>	3 mm
<b>H40MVUNL16</b>	40	27	41	50	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MVUNL16</b>	50	35	41	63	VN..160408	<b>IVSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm
<b>H50MVUNL22</b>	50	35	41	63	VN..220408	<b>IVSN432</b>	<b>KLM46</b>	2.5 mm	<b>CKM22</b>	<b>STCM20</b>	3 mm

O.D./I.D. Tooling





With through coolant.  
See pages B88–B91 and  
B187–B188 for inserts.

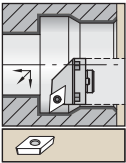


### ■ H-SCLC 95°

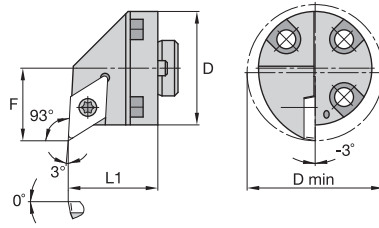


O.D./I.D. Tooling

catalogue number	D	F	L1	D min	gage insert	insert screw	Torx
<b>right hand</b>							
H25SCLCR09	25	17	20	32,000	CC..09T308	MS1155	T15
H25SCLCR12	25	17	25	32,000	CC..120408	MS1157	T15
H32SCLCR09	32	22	25	40,000	CC..09T308	MS1155	T15
H32SCLCR12	32	22	25	40,000	CC..120408	MS1158	T15
H40SCLCR09	40	27	41	50,000	CC..09T308	MS1156	T15
H40SCLCR12	40	27	41	50,000	CC..120408	MS1158	T15
H50SCLCR09	50	35	41	63,000	CC..09T308	MS1156	T15
H50SCLCR12	50	35	41	63,000	CC..120408	MS1158	T15
<b>left hand</b>							
H25SCLCL09	25	17	20	32,000	CC..09T308	MS1155	T15
H25SCLCL12	25	17	25	32,000	CC..120408	MS1157	T15
H32SCLCL09	32	22	25	40,000	CC..09T308	MS1155	T15
H32SCLCL12	32	22	25	40,000	CC..120408	MS1158	T15
H40SCLCL09	40	27	41	50,000	CC..09T308	MS1156	T15
H40SCLCL12	40	27	41	50,000	CC..120408	MS1158	T15
H50SCLCL09	50	35	41	63,000	CC..09T308	MS1156	T15
H50SCLCL12	50	35	41	63,000	CC..120408	MS1158	T15



With through coolant.  
See pages B95–B98 and  
B191–B192 for inserts.

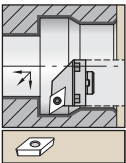


■ **H-SDUC 93°**

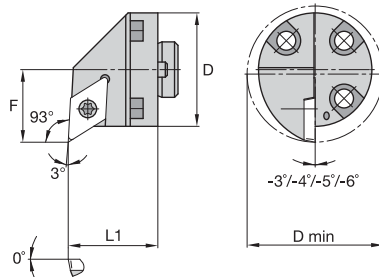


catalogue number	D	F	L1	D min	gage insert	insert screw	Torx
<b>right hand</b>							
H25SDUCR11	25	17	20	32	DC..11T308	MS1155	T15
H32SDUCR11	32	22	25	40	DC..11T308	MS1155	T15
H40SDUCR11	40	27	41	50	DC..11T308	MS1156	T15
H50SDUCR11	50	35	41	63	DC..11T308	MS1156	T15
<b>left hand</b>							
H25SDUCL11	25	17	20	32	DC..11T308	MS1155	T15
H32SDUCL11	32	22	25	40	DC..11T308	MS1155	T15
H40SDUCL11	40	27	41	50	DC..11T308	MS1156	T15
H50SDUCL11	50	35	41	63	DC..11T308	MS1156	T15

O.D./I.D. Tooling



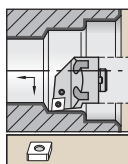
With through coolant.  
See pages B113–B114 and  
B196–B197 for inserts.



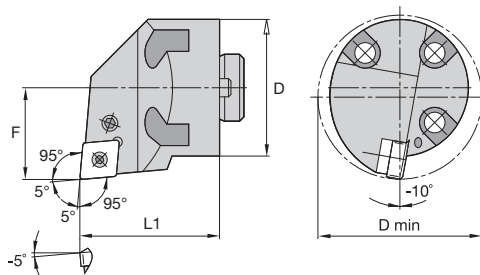
■ **H-SVUB 93°**



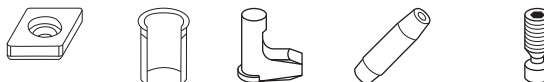
catalogue number	D	F	L1	D min	gage insert	insert screw	Torx
<b>right hand</b>							
H25SVUBR11	25	17	25	32	VB..110304	MS1153	T7
H32SVUBR11	32	22	25	40	VB..110304	MS1153	T7
H32SVUBR16	32	22	25	40	VB..160408	MS1156	T15
H40SVUBR16	40	27	41	50	VB..160408	MS1156	T15
H50SVUBR16	50	35	41	63	VB..160408	MS1156	T15
<b>left hand</b>							
H25SVUBL11	25	17	25	32	VB..110304	MS1153	T7
H32SVUBL11	32	22	25	40	VB..110304	MS1153	T7
H32SVUBL16	32	22	25	40	VB..160408	MS1156	T15
H40SVUBL16	40	27	41	50	VB..160408	MS1156	T15
H50SVUBL16	50	35	41	63	VB..160408	MS1156	T15



With through coolant.  
See pages B40–B49 and  
B174–B176 for inserts.

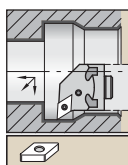


**H-PCLN 95°**

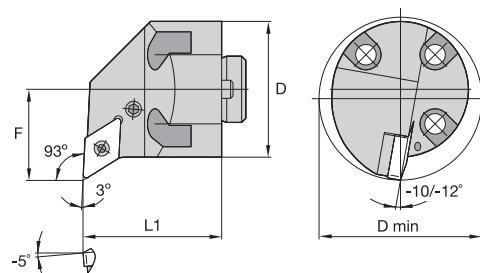


O.D./I.D. Tooling

catalogue number	D	F	L1	D min	gage insert	shim	shim pin	lever	pin punch	lever lock screw	Torx Plus
<b>right hand</b>											
H32PCLNR12	32	22	41	40	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP
H40PCLNR12	40	27	41	50	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP
H50PCLNR12	50	35	41	63	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP
<b>left hand</b>											
H32PCLNL12	32	22	41	40	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP
H40PCLNL12	40	27	41	50	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP
H50PCLNL12	50	35	41	63	CN..120408	512.112	513.023	511.023	515.018	514.123	15 IP



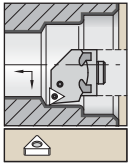
With through coolant.  
See pages B50–B58 and  
B176–B178 for inserts.



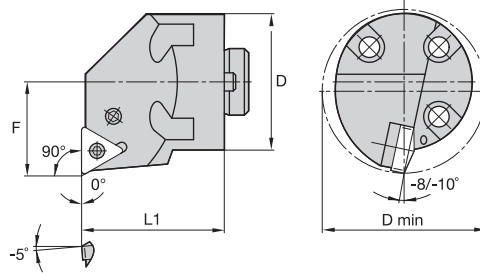
**H-PDUN 93°**



catalogue number	D	F	L1	D min	gage insert	shim	shim pin	pin punch	toggle lever	lever lock screw	Torx Plus
<b>right hand</b>											
H32PDUNR15	32	25	41	43	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
H40PDUNR15	40	27	41	50	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
H50PDUNR15	50	35	41	63	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
<b>left hand</b>											
H32PDUNL15	32	25	41	43	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
H40PDUNL15	40	27	41	50	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP
H50PDUNL15	50	35	41	63	DN..150608	512.153	513.023	515.018	511.024	514.128	15 IP



With through coolant.  
See pages B66–B73 and  
B179–B180 for inserts.



■ H-PTFN 90°



catalogue number	D	F	L1	D min	gage insert	shim	shim pin	pin punch	toggle lever	lever lock screw	Torx Plus
<b>right hand</b>											
H32PTFNR16	32	22	41	40	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
H40PTFNR16	40	27	41	50	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
H50PTFNR16	50	35	41	63	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
<b>left hand</b>											
H32PTFNL16	32	22	41	40	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP
H40PTFNL16	40	27	41	50	TN..160408	512.013	513.018	515.018	511.018	514.118	10 IP

O.D./I.D. Tooling

Looking for a product that's not shown in this catalogue?  
Check the Kennametal website!



Online product catalogue available 24/7

Visit <http://www.kennametal.com/turning/> to browse our electronic catalogue any time you're looking for Kennametal's best tooling solutions. It's fast, free, and always available. The online e-catalogue is updated weekly with products and solutions for milling, turning, drilling, and tooling systems applications.



# Cartridges

## Primary Application

Modern machining operations demand high-quality, high-performance toolholders that provide straightforward design and application versatility.

Standard Kennametal cartridges are ideal for turning tools with one, or several, cutting edges. A wide range of cartridge sizes and styles provide numerous combinations and application possibilities.

## Features and Benefits

### Kenloc™ Style (M-Clamping)

- Used for Kenloc inserts.
- Lock pin and top clamp provide rigid clamping.
- Wide variety of insert styles may be used.
- Tools may be used with or without top clamp.
- Optional hardware available for thicker inserts.
- Extreme sturdy clamping system, specially designed for interrupted cuts.
- Tool is protected by a carbide shim.

### Kenlever™ Style (P-Clamping\*)

- Proven superior system for holding ceramic inserts rigidly in turning and profiling operations.
- Can be used on Kendex or Kenloc inserts using optional hardware.
- Lever-type clamping system for negative indexable inserts with hole to DIN 4988 and positive round inserts more than 20mm in diameter.
- Inserts with one- and two-side chip control geometries have positive rakes from 6–18°.
- Advantages include fast insert changes and no interference with chip flow.

\*NOTE: P-style available in metric sizes only.



### **Kendex™ Style (C-Clamping)**

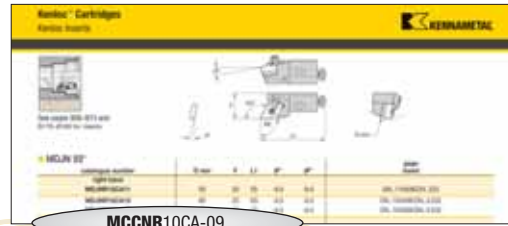
- Suitable for Kendex inserts.
- Chipbreaker option available for ceramic inserts.
- Wide variety of insert styles may be used.
- Top clamping system for negative and positive indexable inserts to DIN 4968.
- Universal clamping system is robust and easy to handle.
- Some height-adjustable clamps enable the use of additional chipbreakers.
- Carbide shim provides additional tool protection.

### **Screw-On Style (S-Clamping)**

- Used for Screw-On inserts.
- Top clamping by screw.
- Screw clamping system for positive indexable inserts with countersunk hole to DIN 4967.
- Compact design using a minimum of spare parts for high reliability and cost efficiency.
- Toolholders with cutting edge heights greater than 16mm (.625") and insert ICs from 9,52mm (.375") are secured by a threaded bushing.
- Carbide shim provides additional tool protection.

## How Do Catalogue Numbers Work?

Each character in our catalogue number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

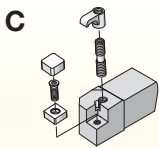


MCCNR10CA-09

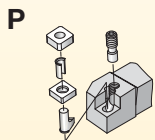
O.D./I.D. Tooling

**M**

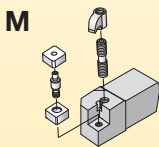
Insert Holding Method



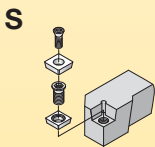
Kendex™



Kenlever™



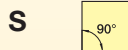
Kenloc™



Screw-On

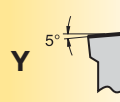
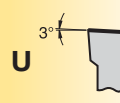
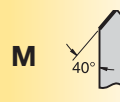
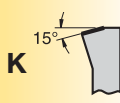
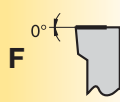
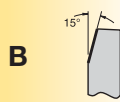
**C**

Insert Shape



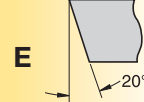
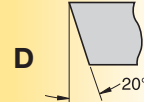
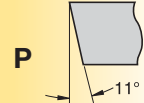
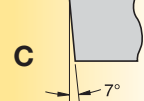
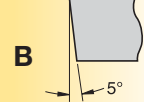
**C**

Tool Style or Lead Angle



**N**

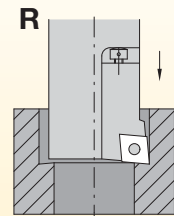
Insert Clearance Angle



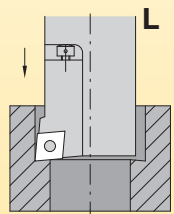
**R**

Hand of Tool

**R** =  
Right-hand  
boring bar



**L** =  
Left-hand  
boring bar

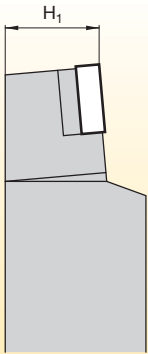


By referencing this easy-to-use guide, you can identify the correct product to meet your needs.

MCCNR10CA-09

**10**

Cartridge Size



$H_1$  =  
Cutting edge height of cartridge,  
in millimetres

**C**

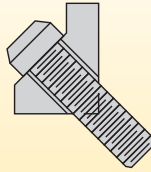
Cartridge Identification

**C** =  
Cartridge

**A**

Cartridge Mounting

**A** =  
Angular acc.  
ISO 5611



-

**09**

Insert Size

Cutting edge length L10

**C**



**T**



**D**



**W**



**S**

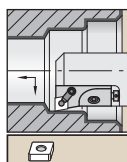


**R**

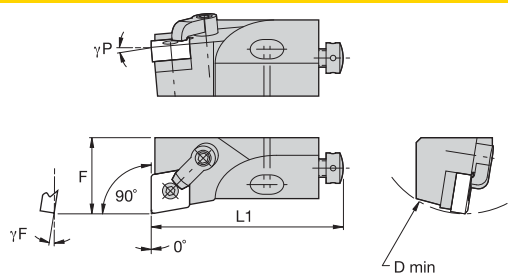


O.D./I.D. Tooling





See pages B40–B49 and B174–B176 for inserts.



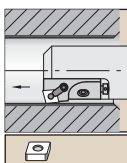
**MCFN 90°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
MCFNR10CA09	40	14,0	50	-9.0	-9.0	CN..090308/CN..322
MCFNR12CA12	50	20,0	55	-9.0	-5.0	CN..120408/CN..432
MCFNR16CA12	60	25,0	63	-9.0	-5.0	CN..120408/CN..432
MCFNR20CA12	70	25,0	70	-9.0	-5.0	CN..120408/CN..432
<b>left hand</b>						
MCFNL10CA09	40	14,0	50	-9.0	-9.0	CN..090308/CN..322
MCFNL12CA12	50	20,0	55	-9.0	-5.0	CN..120408/CN..432
MCFNL16CA12	60	25,0	63	-9.0	-5.0	CN..120408/CN..432

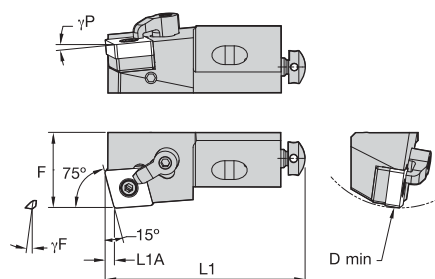
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	ICSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B40–B49 and B174–B176 for inserts.



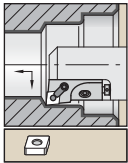
**MCKN 75°**

catalogue number	D min	F	L1	L1A	γF°	γP°	gage insert
<b>right hand</b>							
MCKNR12CA12	50	20,0	55	3	-9.0	-5.0	CN..120408/CN..432
MCKNR16CA12	60	25,0	63	3	-9.0	-5.0	CN..120408/CN..432
<b>left hand</b>							
MCKNL12CA12	50	20,0	55	3	-9.0	-5.0	CN..120408/CN..432
MCKNL16CA12	60	25,0	63	3	-9.0	-5.0	CN..120408/CN..432

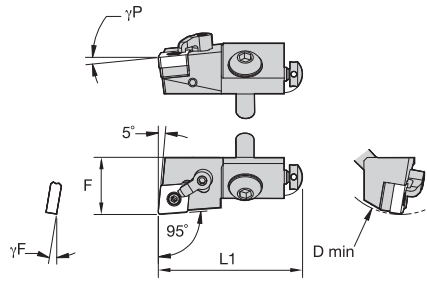
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B40–B49 and B174–B176 for inserts.

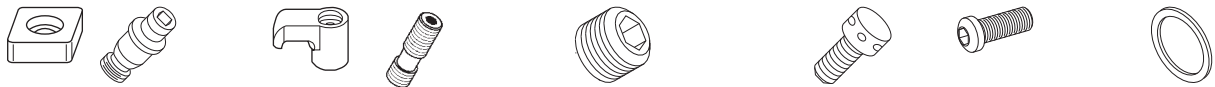


### ■ MCLN 95°

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>MCLNR12CA12</b>	50	20,0	55	-9.0	-5.0	CN..120408/CN..432
<b>MCLNR16CA12</b>	60	25,0	63	-9.0	-5.0	CN..120408/CN..432
<b>MCLNR20CA12</b>	70	25,0	70	-9.0	-5.0	CN..120408/CN..432
<b>MCLNR25CA12</b>	100	32,0	100	-9.0	-5.0	CN..120408/CN..432
<b>MCLNR25CA16</b>	100	32,0	100	-9.0	-5.0	CN..160612/CN..543
<b>MCLNR25CA19</b>	100	32,0	100	-9.0	-5.0	CN..190612/CN..643
<b>left hand</b>						
<b>MCLNL12CA12</b>	50	20,0	55	-9.0	-5.0	CN..120408/CN..432
<b>MCLNL16CA12</b>	60	25,0	63	-9.0	-5.0	CN..120408/CN..432
<b>MCLNL20CA12</b>	70	25,0	70	-9.0	-5.0	CN..120408/CN..432
<b>MCLNL25CA12</b>	100	32,0	100	-9.0	-5.0	CN..120408/CN..432
<b>MCLNL25CA16</b>	100	32,0	100	-9.0	-5.0	CN..160612/CN..543
<b>MCLNL25CA19</b>	100	32,0	100	-9.0	-5.0	CN..190612/CN..643

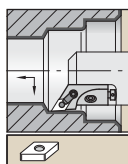
O.D./I.D. Tooling

### ■ Spare Parts

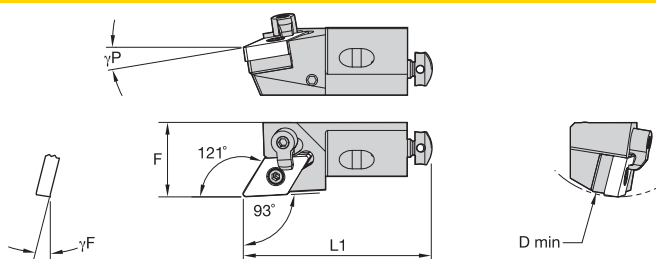


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	ICSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
100	ICSN432	KLM46	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	MS364	8 mm	CSWM 100 080
100	ICSN533	KLM58	3 mm	CKM41	STCM20	3 mm	KUAM26	3 mm	KUAM32	MS364	8 mm	CSWM 100 080
100	ICSN633	KLM68	4 mm	CKM35	STCM8	4 mm	KUAM27	4 mm	KUAM32	MS364	8 mm	CSWM 100 080

NOTE: Select spare parts based off of D min and the insert size selected.



See pages B66–B73 and B179–B180 for inserts.



O.D./I.D. Tooling

**MDJN 93°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
MDJNR12CA11	50	20	55	-9.0	-9.0	DN..110408/DN..322
MDJNR16CA15	60	25	63	-9.0	-9.0	DN..150408/DN..3.532
MDJNR20CA15	70	25	70	-8.5	-8.5	DN..150408/DN..3.532
<b>left hand</b>						
MDJNL12CA11	50	20	55	-9.0	-9.0	DN..110408/DN..322
MDJNL16CA15	60	25	63	-9.0	-9.0	DN..150408/DN..3.532
MDJNL20CA15	70	25	70	-8.5	-8.5	DN..150408/DN..3.532

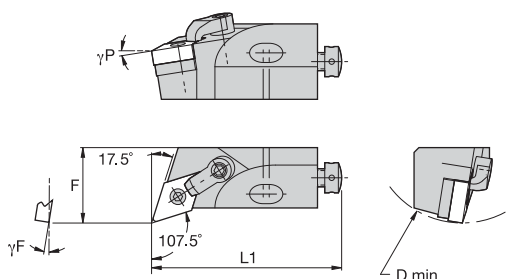
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	IDSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	IDSN432	KLM46	2.5 mm	CKM41	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B66–B73 and B179–B180 for inserts.



**MDQN 107,5°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
MDQNR16CA15	60	25,0	63	-9.0	-6.0	DN..150408/DN..3.532
MDQNR20CA15	70	25,0	70	-9.0	-8.0	DN..150408/DN..3.532
<b>left hand</b>						
MDQNL16CA15	60	25,0	63	-9.0	-6.0	DN..150408/DN..3.532
MDQNL20CA15	70	25,0	70	-9.0	-8.0	DN..150408/DN..3.532

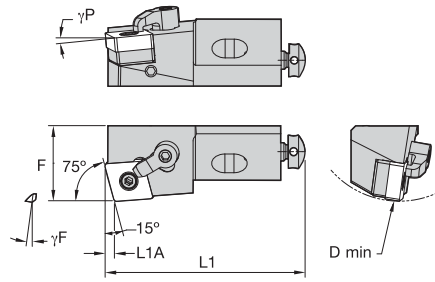
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
60	IDSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	IDSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B59–B66 and B178–B179 for inserts.

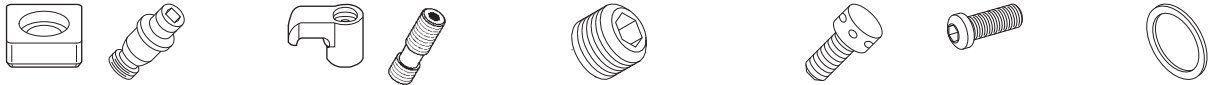


### ■ MSKN 75°

catalogue number	D min	F	L1	L1A	γF°	γP°	gage insert
<b>right hand</b>							
<b>MSKNR10CA09</b>	40	14,0	50	2,22	-9,0	-5,0	SN..090308/SN..322
<b>MSKNR12CA12</b>	50	20,0	55	3,04	-9,0	-5,0	SN..120408/SN..432
<b>MSKNR16CA12</b>	60	25,0	63	3,04	-9,0	-5,0	SN..120408/SN..432
<b>MSKNR20CA15</b>	70	25,0	70	3,74	-9,0	-5,0	SN..150612/SN..543
<b>MSKNR25CA19</b>	100	32,0	100	4,56	-9,0	-5,0	SN..190612/SN..543
<b>left hand</b>							
<b>MSKNL10CA09</b>	40	14,0	50	2,22	-9,0	-5,0	SN..090308/SN..322
<b>MSKNL12CA12</b>	50	20,0	55	3,04	-9,0	-5,0	SN..120408/SN..432
<b>MSKNL16CA12</b>	60	25,0	63	3,04	-9,0	-5,0	SN..120408/SN..432
<b>MSKNL20CA15</b>	70	25,0	70	3,74	-9,0	-5,0	SN..150612/SN..543
<b>MSKNL25CA12</b>	100	32,0	100	3,04	-9,0	-5,0	SN..120408/SN..432

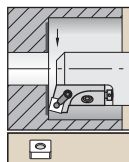
O.D./I.D. Tooling

### ■ Spare Parts

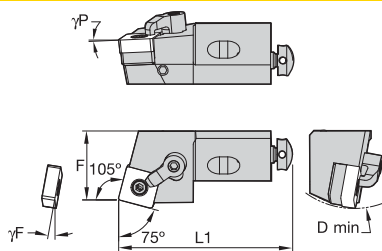


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ISSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
100	ICSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	MS364	8 mm	CSWM 100 080
100	ICSN633	KLM68	4 mm	CKM35	STCM8	4 mm	KUAM27	4 mm	KUAM32	MS364	8 mm	CSWM 100 080

NOTE: Select spare parts based off of D min and the insert size selected.



See pages B59–B66 and B178–B179 for inserts.



O.D./I.D. Tooling

**MSRN 75°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>MSRNR10CA09</b>	40	14,0	50	-9.0	-5.0	SN..090308/SN..322
<b>MSRNR12CA12</b>	50	20,0	55	-9.0	-5.0	SN..120408/SN..432
<b>MSRNR16CA12</b>	60	25,0	63	-9.0	-5.0	SN..120408/SN..432
<b>MSRNR20CA15</b>	70	25,0	70	-9.0	-5.0	SN..150612/SN..543
<b>left hand</b>						
<b>MSRNL10CA09</b>	40	14,0	50	-9.0	-5.0	SN..090308/SN..322
<b>MSRNL12CA12</b>	50	20,0	55	-9.0	-5.0	SN..120408/SN..432
<b>MSRNL16CA12</b>	60	25,0	63	-9.0	-5.0	SN..120408/SN..432
<b>MSRNL20CA15</b>	70	25,0	70	-9.0	-5.0	SN..150612/SN..543

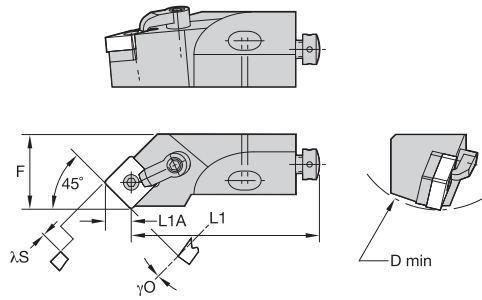
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ISSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



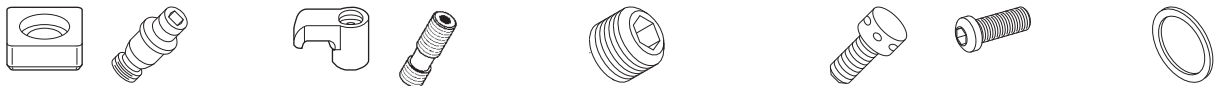
See pages B59–B66 and B178–B179 for inserts.



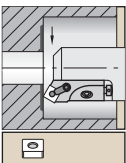
### ■ MSSN 45°

catalogue number	D min	F	L1	L1A	λS°	γO°	gage insert
<b>right hand</b>							
MSSNR10CA09	40	14,0	44	6,09	-13.0	0.0	SN..090308/SN..322
MSSNR12CA12	50	20,0	47	8,33	-13.0	0.0	SN..120408/SN..432
MSSNR16CA12	60	25,0	53	8,33	-13.0	0.0	SN..120408/SN..432
MSSNR20CA15	70	25,0	60	10,25	-13.0	0.0	SN..150612/SN..543
<b>left hand</b>							
MSSNL10CA09	40	14,0	44	6,09	-13.0	0.0	SN..090308/SN..322
MSSNL12CA12	50	20,0	47	8,33	-13.0	0.0	SN..120408/SN..432
MSSNL16CA12	60	25,0	53	8,33	-13.0	0.0	SN..120408/SN..432
MSSNL20CA15	70	25,0	60	10,25	-13.0	0.0	SN..150612/SN..543

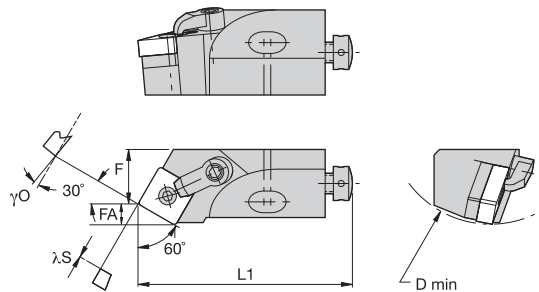
### ■ Spare Parts



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ISSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B59–B66 and B178–B179 for inserts.



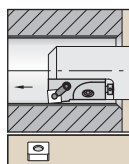
### ■ MSTN 60°

catalogue number	D min	F	L1	FA	λS°	γO°	gage insert
<b>right hand</b>							
MSTNR10CA09	40	9,0	50	13,31	-11.0	0.0	SN..090308/SN..322
MSTNR12CA12	50	13,0	55	5,86	-11.0	0.0	SN..120408/SN..432
<b>left hand</b>							
MSTNL10CA09	40	9,0	50	13,31	-11.0	0.0	SN..090308/SN..322
MSTNL16CA12	60	15,0	63	5,90	-11.0	0.0	SN..120408/SN..432

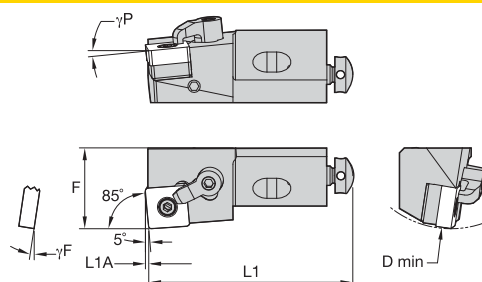
### ■ Spare Parts



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ISSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B59–B66 and B178–B179 for inserts.



O.D./I.D. Tooling

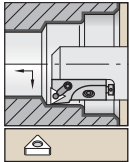
**MSYN 85°**

catalogue number	D min	F	L1	L1A	γF°	γP°	gage insert
<b>right hand</b>							
<b>MSYNR10CA09</b>	40	14,0	50	0,75	-9,0	-5,0	SN..090308/SN..322
<b>MSYNR12CA12</b>	50	20,0	55	1,02	-9,0	-5,0	SN..120408/SN..432
<b>MSYNR16CA12</b>	60	25,0	63	1,02	-9,0	-5,0	SN..120408/SN..432
<b>MSYNR25CA19</b>	100	32,0	100	1,54	-9,0	-5,0	SN..190612/SN..643
<b>left hand</b>							
<b>MSYNL10CA09</b>	40	14,0	50	0,75	-9,0	-5,0	SN..090308/SN..322
<b>MSYNL12CA12</b>	50	20,0	55	1,02	-9,0	-5,0	SN..120408/SN..432
<b>MSYNL16CA12</b>	60	25,0	63	1,02	-9,0	-5,0	SN..120408/SN..432
<b>MSYNL20CA15</b>	70	25,0	70	1,26	-9,0	-5,0	SN..150612/SN..543

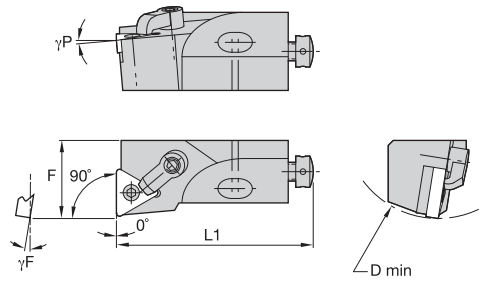
**Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	<b>KLM33</b>	2 mm	<b>CKM36</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	—	<b>KLM43</b>	2 mm	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>ISSN432</b>	<b>KLM46S</b>	2.5 mm	<b>CKM34</b>	<b>STCM9</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
60	<b>ISSN432</b>	<b>KLM46S</b>	2.5 mm	<b>CKM36</b>	<b>STCM9</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
70	<b>SKSN566K</b>	<b>KLM54</b>	2.5 mm	<b>CKM37</b>	<b>STCM40</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM33</b>	<b>191.407</b>	6 mm	<b>CSWM 080 050</b>
100	<b>ISSN633</b>	<b>KLM68</b>	4 mm	<b>CKM34</b>	<b>STCM8</b>	4 mm	<b>KUAM27</b>	4 mm	<b>KUAM33</b>	<b>MS364</b>	8 mm	<b>CSWM 100 080</b>



See pages B66–B73 and B179–B180 for inserts.



### ■ MTFN 90°

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>MTFNR12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
<b>MTFNR16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTFNR20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432
<b>left hand</b>						
<b>MTFNL12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
<b>MTFNL16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTFNL20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432

O.D./I.D. Tooling

### ■ Spare Parts

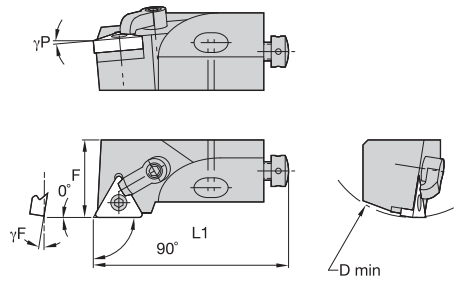


D min	shim	lock pin	hex	clamp	clamping screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ITSN322	KLM34L	2 mm	CKM34	STCM9	2 mm	KUAM25	2 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	ITSN433	KLM46	2.5 mm	CKM35	STCM37	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050





See pages B66–B73 and B179–B180 for inserts.

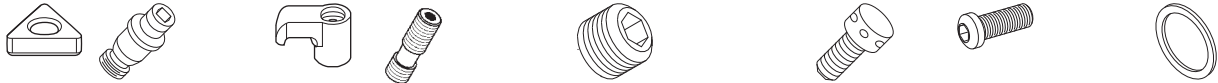


■ **MTGN 90°**

O.D./I.D. Tooling

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>MTGNR12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
<b>MTGNR16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTGNR20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432
<b>left hand</b>						
<b>MTGNL12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
<b>MTGNL16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTGNL20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432

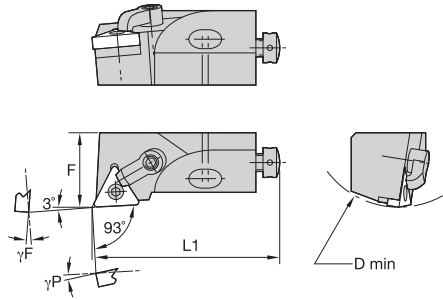
■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	ITSN322	KLM34L	2 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	ITSN433	KLM46	2.5 mm	CKM35	STCM37	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B66–B73 and B179–B180 for inserts.



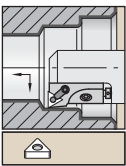
### ■ MTJN 93°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>MTJNR12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
left hand <b>MTJNL12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332

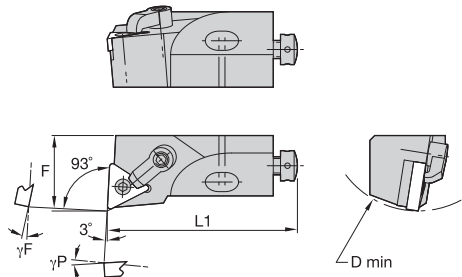
### ■ Spare Parts



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	<b>KLM33L</b>	2 mm	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>



See pages B66–B73 and B179–B180 for inserts.



### ■ MTUN 93°

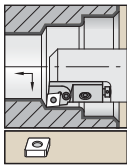
catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>MTUNR16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTUNR20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432
left hand <b>MTUNL12CA16</b>	50	20,0	55	-9.0	-5.0	TN..160408/TN..332
<b>MTUNL16CA16</b>	60	25,0	63	-9.0	-5.0	TN..160408/TN..332
<b>MTUNL20CA22</b>	70	25,0	70	-9.0	-5.0	TN..220408/TN..432

### ■ Spare Parts

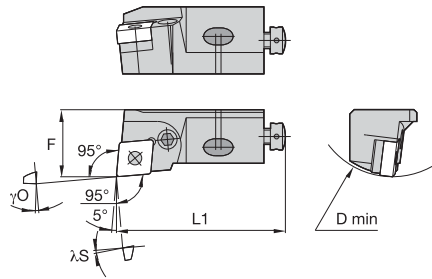


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	<b>KLM33L</b>	2 mm	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>ITSN322</b>	<b>KLM34L</b>	2 mm	<b>CKM34</b>	<b>STCM9</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
70	<b>ITSN433</b>	<b>KLM46</b>	—	<b>CKM35</b>	<b>STCM37</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM33</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
70	<b>ITSN433</b>	<b>KLM46</b>	—	<b>CKM37</b>	<b>STCM40</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM33</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>

NOTE: Select spare parts based off of D min and the insert size selected.



See pages B40–B49 and B174–B176 for inserts.



**■ PCLN 95°**

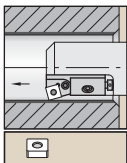
catalogue number	D min	F	L1	λS°	γO°	gage insert
right hand <b>PCLNR12CA12</b>	50	20,0	55	-6.0	-9.0	CN..120408/CN..432
<b>PCLNR16CA12</b> left hand	60	25,0	63	-6.0	-7.0	CN..120408/CN..432
<b>PCLNL16CA12</b>	60	25,0	63	-6.0	-7.0	CN..120408/CN..432

O.D./I.D. Tooling

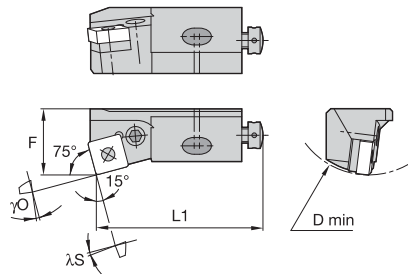
**■ Spare Parts**



D min	shim	shim pin	toggle lever	lever screw	wrench size lever screw	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	—	511.022	514.122	10 IP	KUAM28	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	512.112	513.023	511.023	514.123	15 IP	KUAM23	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B59–B66 and B178–B179 for inserts.



**■ PSKN 75°**

catalogue number	D min	F	L1	L1A	λS°	γO°	gage insert
right hand <b>PSKNR12CA-12</b>	50	20,0	55	3	-8.0	-6.0	SN..120408/SN..432
left hand <b>PSKNL16CA-12</b>	60	25,0	63	3	-6.0	-6.0	SN..120408/SN..432

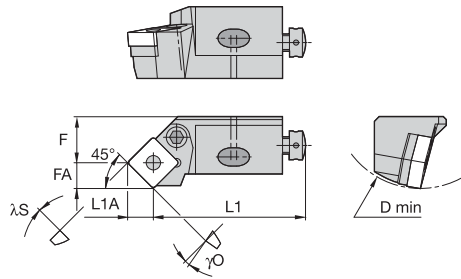
**■ Spare Parts**



D min	shim	shim pin	toggle lever	lever screw	wrench size lever screw	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	—	511.022	514.122	10 IP	KUAM28	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	512.063	513.023	511.023	514.123	15 IP	KUAM23	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B59–B66 and B178–B179 for inserts.



### ■ PSSN 45°

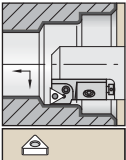
catalogue number	D min	F	L1	FA	L1A	λS°	γO°	gage insert
<b>right hand</b>								
<b>PSSNR12CA-12</b>	50	20,0	47	8,7	8,3	-10.0	0.0	SN..120408/SN..432
<b>PSSNR16CA-12</b>	60	25,0	53	8,7	8,3	-10.0	0.0	SN..120408/SN..432
<b>left hand</b>								
<b>PSSNL12CA12</b>	50	11,3	47	8,7	8,3	0.0	-10.0	SN..120408/SN..432
<b>PSSNL16CA12</b>	60	16,3	53	8,7	8,3	0.0	-10.0	SN..120408/SN..432

O.D./I.D. Tooling

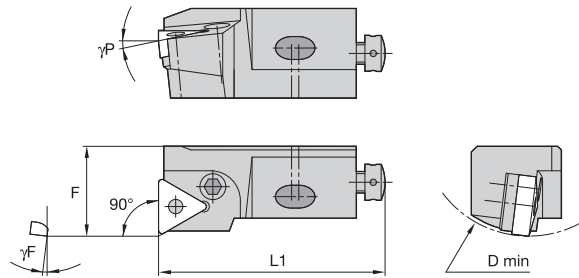
### ■ Spare Parts



D min	shim	shim pin	toggle lever	lever screw	wrench size lever screw	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	—	—	511.022	514.122	10 IP	KUAM28	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	512.063	513.023	511.023	514.123	15 IP	KUAM23	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B66–B73 and B179–B180 for inserts.



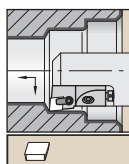
### ■ PTFN 90°

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>PTFNR12CA-16</b>	50	20,0	55	-7.0	-6.0	TN..160408/TN..332
<b>left hand</b>						
<b>PTFNL12CA-16</b>	50	20,0	55	-7.0	-6.0	TN..160408/TN..332

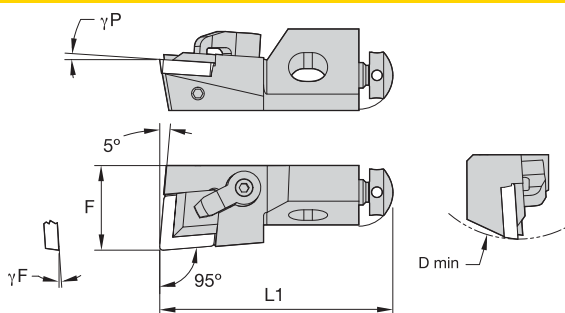
### ■ Spare Parts



D min	toggle lever	lever screw	wrench size lever screw	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	511.030	514.112	8 IP	KUAM28	2 mm	KUAM31	191.406	4 mm	CSWM 060 050



See pages B84 and B185 for inserts.



**CCLP 95°**

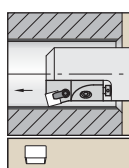
catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>CCLPR12CA12</b>	50	20,0	55	3.5	3.5	CP..120308/CP..422
left hand <b>CCLPL12CA12</b>	50	20,0	55	3.5	3.5	CP..120308/CP..422

O.D./I.D. Tooling

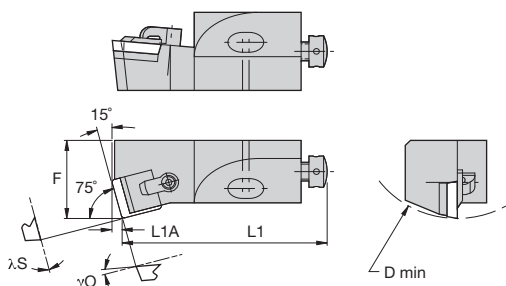
**Spare Parts**



D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>



See pages B85–B86 and B130 for inserts.



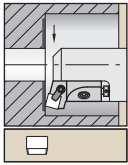
**CSKP 75°**

catalogue number	D min	F	L1	L1A	λS°	γO°	gage insert
right hand <b>CSKPR10CA09</b>	40	14,0	50	2,2	0.0	5.0	SP..090308/SP..322
<b>CSKPR12CA12</b>	50	20,0	55	3,1	0.0	5.0	SP..120308/SP..422
<b>CSKPR20CA12</b>	70	25,0	70	3,1	0.0	5.0	SP..120308/SP..422
left hand <b>CSKPL12CA12</b>	50	20,0	55	3,1	0.0	5.0	SP..120308/SP..422
<b>CSKPL20CA12</b>	70	25,0	70	3,1	0.0	5.0	SP..120308/SP..422

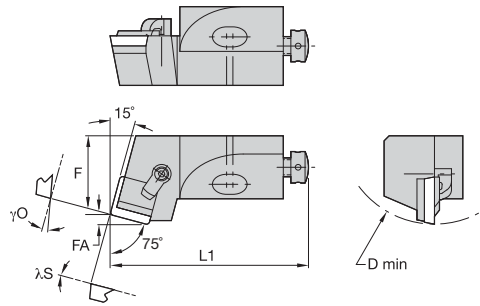
**Spare Parts**



D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
70	<b>SM840</b>	<b>MS109</b>	2 mm	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM24</b>	2 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>



See pages B85–B86 and B130 for inserts.



### ■ CSRP 75°

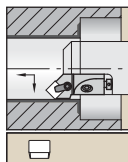
catalogue number	D min	F	L1	FA	λS°	γO°	gage insert
<b>right hand</b>							
<b>CSRPR10CA09</b>	40	14,0	50	2,2	0.0	0.0	SP..090308/SP..322
<b>CSRPR12CA12</b>	50	20,0	55	3,0	3.0	0.0	SP..120308/SP..422
<b>left hand</b>							
<b>CSRPL10CA09</b>	40	14,0	50	2,2	0.0	0.0	SP..090308/SP..322
<b>CSRPL12CA12</b>	50	20,0	55	3,0	3.0	0.0	SP..120308/SP..422

O.D./I.D. Tooling

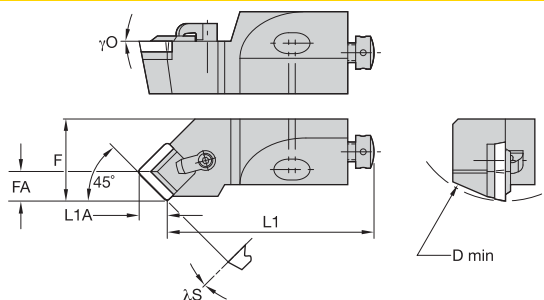
### ■ Spare Parts



D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050



See pages B85–B86 and B130 for inserts.



O.D./I.D. Tooling

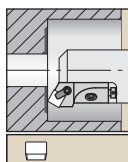
■ **CSSP 45°**

catalogue number	D min	F	L1	FA	L1A	λS°	γO°	gage insert
<b>right hand</b>								
<b>CSSPR10CA09</b>	40	14,0	44	6,5	6,1	0.0	0.0	SP..090308/SP..322
<b>CSSPR12CA12</b>	50	20,0	47	8,3	8,3	0.0	0.0	SP..120308/SP..422
<b>CSSPR16CA12</b>	60	25,0	53	8,3	8,3	0.0	0.0	SP..120308/SP..422
<b>left hand</b>								
<b>CSSPL10CA09</b>	40	14,0	44	6,5	6,1	0.0	0.0	SP..090308/SP..322
<b>CSSPL12CA12</b>	50	20,0	47	8,3	8,3	0.0	0.0	SP..120308/SP..422
<b>CSSPL16CA12</b>	60	25,0	53	8,3	8,3	0.0	0.0	SP..120308/SP..422
<b>CSSPL20CA12</b>	70	25,0	60	8,3	8,3	0.0	0.0	SP..120308/SP..422

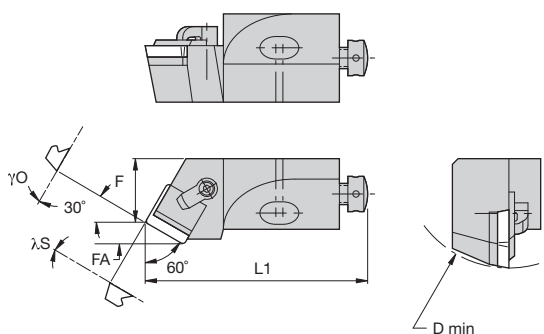
■ **Spare Parts**



D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>SM840</b>	<b>CS109PKG</b>	2 mm	<b>CKM34</b>	<b>STCM9</b>	2.5 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
70	<b>SM840</b>	<b>MS111</b>	2 mm	<b>CKM20</b>	<b>STCM11</b>	3 mm	<b>KUAM26</b>	3 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>



See pages B85–B86 and B130 for inserts.



■ **CSTP 60°**

catalogue number	D min	F	L1	FA	λS°	γO°	gage insert
<b>right hand</b>							
<b>CSTPR10CA09</b>	40	9,0	50	4,3	0.0	0.0	SP..090308/SP..322

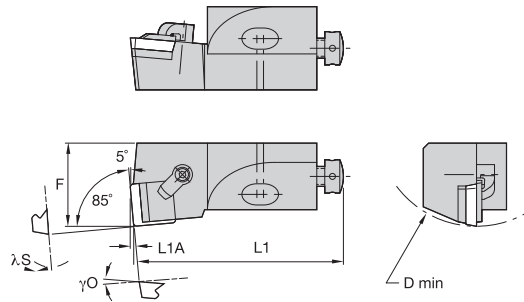
■ **Spare Parts**



D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>



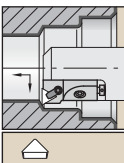
See pages B86–B87 and B130 for inserts.


**CSYP 85°**

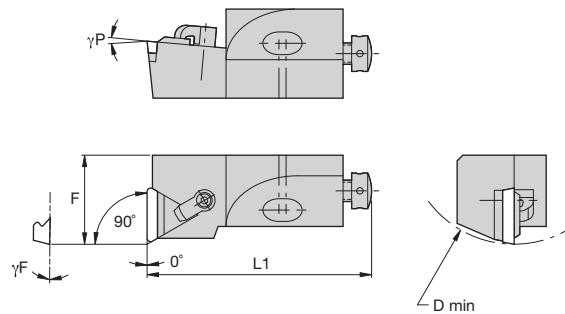
catalogue number	D min	F	L1	L1A	$\lambda S^\circ$	$\gamma O^\circ$	gage insert
right hand <b>CSYPR10CA09</b>	40	14,0	50	0,8	0.0	5.0	SP..090308/SP..322
left hand <b>CSYPL10CA09</b>	40	14,0	50	0,8	0.0	5.0	SP..090308/SP..322

**Spare Parts**


D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>



See pages B86–B87 and B130 for inserts.


**CTFP 90°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand <b>CTFPR10CA11</b>	40	14,0	50	0.0	5.0	TP..110304/TP..421
<b>CTFPR12CA16</b>	50	20,0	55	0.0	5.0	TP..160308/TP..322
<b>CTFPR16CA16</b>	60	25,0	63	0.0	5.0	TP..160308/TP..322
<b>CTFPR20CA22</b>	70	25,0	70	0.0	5.0	TP..220408/TP..432
left hand <b>CTFPL10CA11</b>	40	14,0	50	0.0	5.0	TP..110304/TP..421
<b>CTFPL12CA16</b>	50	20,0	55	0.0	5.0	TP..160308/TP..322
<b>CTFPL16CA16</b>	60	25,0	63	0.0	5.0	TP..160308/TP..322

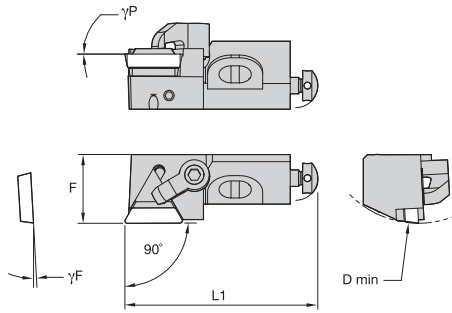
**Spare Parts**


D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	—	—	—	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM22</b>	2 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>SM841</b>	<b>MS109</b>	2 mm	<b>CKM34</b>	<b>STCM38</b>	2 mm	<b>KUAM24</b>	2 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>
70	<b>SM837</b>	<b>MS125</b>	2.5 mm	<b>CKM35</b>	<b>STCM8</b>	4 mm	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>





See pages B86–B87 and B130 for inserts.



O.D./I.D. Tooling

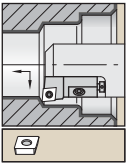
**CTGP 90°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
CTGPR10CA11	40	14,0	50	3.0	0.0	TP..110304/TP..421
CTGPR12CA16	50	20,0	55	3.0	0.0	TP..160308/TP..322
CTGPR16CA16	60	25,0	63	3.0	0.0	TP..160308/TP..322
CTGPR20CA22	70	25,0	70	3.0	0.0	TP..220408/TP..432
<b>left hand</b>						
CTGPL12CA16	50	20,0	55	3.0	0.0	TP..160308/TP..322
CTGPL20CA22	70	25,0	70	3.0	0.0	TP..220408/TP..432

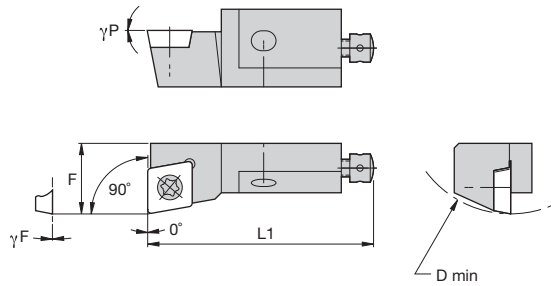
**Spare Parts**



D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	—	—	—	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	—	—	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	SM841	MS109	2 mm	CKM34	STCM38	2 mm	KUAM24	2 mm	KUAM32	191.407	5 mm	CSWM 080 050
70	SM837	MS125	2.5 mm	CKM35	STCM8	4 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B92–B95 and B189–B190 for inserts.



■ **SCFP 90°**

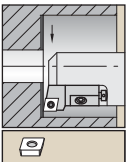
catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
<b>right hand</b>						
SCFPR06CA05	20	8,0	25	0.0	0.0	CP..050204/CP..18151
SCFPR08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151
SCFPR10CA09	40	14,0	50	0.0	0.0	CPMT09T308
<b>left hand</b>						
SCFPL06CA05	20	8,0	25	0.0	0.0	CP..050204/CP..18151
SCFPL08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151

O.D./I.D. Tooling

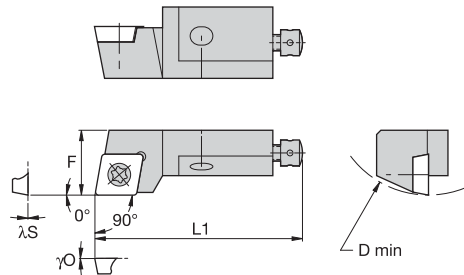
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
20	MS1933	T7	KUAM34	1.5 mm	KUAM35	MS2173	2 mm	CSWM 035 040
25	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050
40	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



See pages B92–B95 and B189–B190 for inserts.



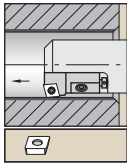
■ **SCGP 90°**

catalogue number	D min	F	L1	$\lambda S^\circ$	$\gamma O^\circ$	gage insert
<b>right hand</b>						
SCGPR08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151
<b>left hand</b>						
SCGPL08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151

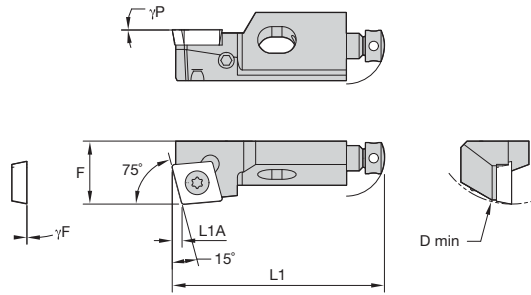
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



See pages B92–B95 and B189–B190 for inserts.



O.D./I.D. Tooling

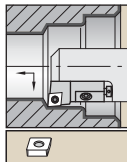
### SCKP 75°

catalogue number	D min	F	L1	L1A	γF°	γP°	gage insert
right hand <b>SCKPR08CA06</b>	25	10,0	32	1,6	0.0	0.0	CP..060204/CP..2151
left hand <b>SCKPL08CA06</b>	25	10,0	32	1,6	0.0	0.0	CP..060204/CP..2151

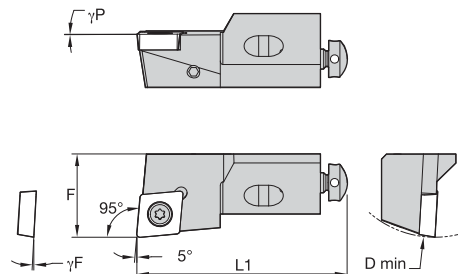
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	<b>MS1153</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>
25	<b>MS1153</b>	T7	<b>KUAM34</b>	2 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>



See pages B88–B91 and B187–B188 for inserts.



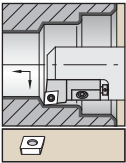
### SCLC 95°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>SCLCR12CA12</b>	50	20,0	55	-3.0	0.0	CC..120408/CC..432
<b>SCLCR16CA12</b>	60	25,0	63	-3.0	0.0	CC..120408/CC..432
left hand <b>SCLCL12CA12</b>	50	20,0	55	-3.0	0.0	CC..120408/CC..432
<b>SCLCL16CA12</b>	60	25,0	63	-3.0	0.0	CC..120408/CC..432

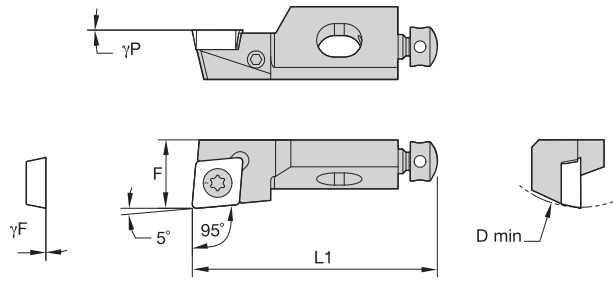
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	<b>MS1157</b>	T15	<b>KUAM23</b>	2.5 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>MS1157</b>	T15	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>



See pages B92–B95 and B189–B190 for inserts.



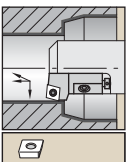
■ **SCLP 95°**

catalogue number	D min	F	L1	γF°	γP°	gage insert
<b>right hand</b>						
<b>SCLPR06CA05</b>	20	8,0	25	0.0	0.0	CP..050204/CP..18151
<b>SCLPR08CA06</b>	25	10,0	32	0.0	0.0	CP..060204/CP..2151
<b>SCLPR10CA09</b>	40	14,0	50	0.0	0.0	CP..09T308/CP..3252
<b>left hand</b>						
<b>SCLPL06CA05</b>	20	8,0	25	0.0	0.0	CP..050204/CP..18151
<b>SCLPL08CA06</b>	25	10,0	32	0.0	0.0	CP..060204/CP..2151
<b>SCLPL10CA09</b>	40	14,0	50	0.0	0.0	CP..09T308/CP..3252

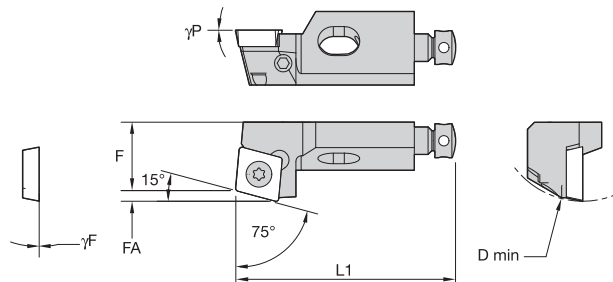
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
20	<b>MS1933</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM35</b>	<b>MS2173</b>	2 mm	<b>CSWM 035 040</b>
25	<b>MS1153</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>
40	<b>MS1155</b>	T15	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>



See pages B92–B95 and B189–B190 for inserts.



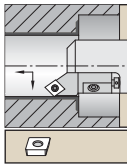
■ **SCRP 75°**

catalogue number	D min	F	L1	FA	γF°	γP°	gage insert
<b>right hand</b>							
<b>SCRPR08CA06</b>	25	10,0	32	1,5	0.0	0.0	CP..060204/CP..2151
<b>left hand</b>							
<b>SCRPL08CA06</b>	25	10,0	32	1,5	0.0	0.0	CP..060204/CP..2151

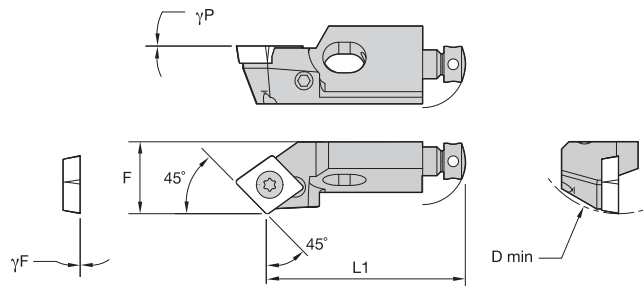
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	<b>MS1153</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>



See pages B92–B95 and B189–B190 for inserts.



### SCSP 45°

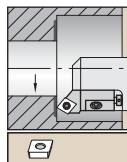
catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand						
SCSPR06CA05	20	8,0	21	0.0	0.0	CP..050204/CP..18151
SCSPR08CA06	25	10,0	28	0.0	0.0	CP..060204/CP..2151
left hand						
SCSPL06CA05	20	8,0	21	0.0	0.0	CP..050204/CP..18151
SCSPL08CA06	25	10,0	28	0.0	0.0	CP..060204/CP..2151

O.D./I.D. Tooling

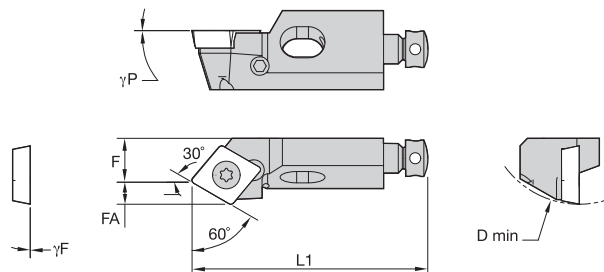
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
20	MS1933	T7	—	—	KUAM35	MS2173	2 mm	CSWM 035 040
25	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



See pages B92–B95 and B189–B190 for inserts.



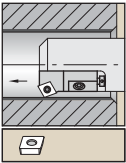
### SCTP 60°

catalogue number	D min	F	L1	FA	γF°	γP°	gage insert
right hand							
SCTPR06CA05	20	5,5	25	2,6	0.0	0.0	CP..050204/CP..18151
SCTPR08CA06	25	6,0	32	3,0	0.0	0.0	CP..060204/CP..2151
left hand							
SCTPL08CA06	25	6,0	32	3,0	0.0	0.0	CP..060204/CP..2151

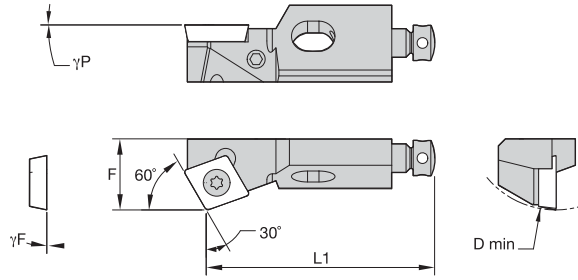
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
20	MS1933	T7	—	—	KUAM35	MS2173	2 mm	CSWM 035 040
25	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



See pages B92–B95 and B189–B190 for inserts.



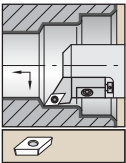
■ **SCWP 60°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand SCWPR08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151
left hand SCWPL08CA06	25	10,0	32	0.0	0.0	CP..060204/CP..2151

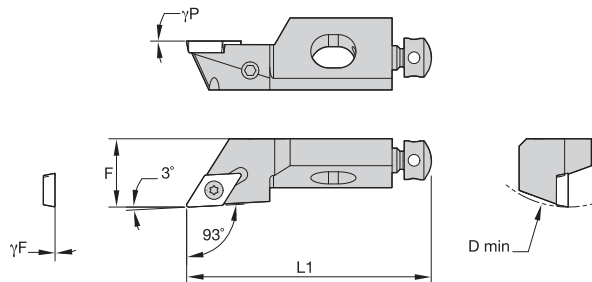
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



See pages B98–B100 and B192–B194 for inserts.



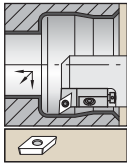
■ **SDJP 93°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand SDJPR10CA07	40	14,0	50	0.0	0.0	DP..070204/DP..2151
left hand SDJPL10CA07	40	14,0	50	0.0	0.0	DP..070204/DP..2151

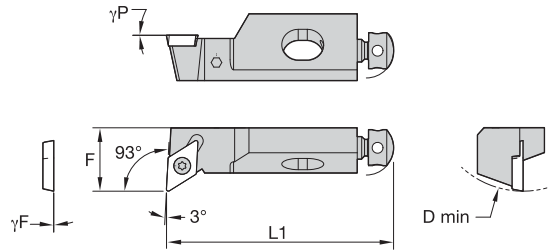
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



See pages B98–B100 and B192–B194 for inserts.



O.D./I.D. Tooling

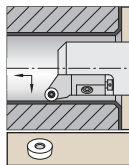
### SDUP 93°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>SDUPR10CA07</b>	40	14,0	50	0.0	0.0	DP..070204/DP..2151

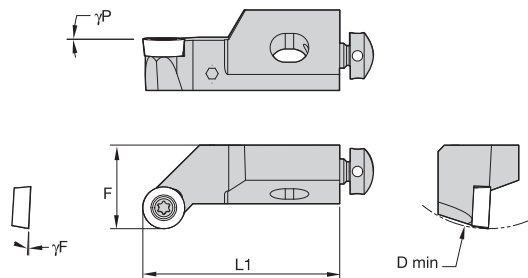
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	<b>MS1153</b>	T7	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>



See pages B100–B102 for inserts.



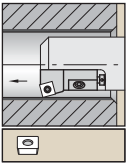
### SRGC

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand <b>SRGCR08CA06</b>	25	10,0	32	-4.0	0.0	RC..0602M0/RC..215
<b>SRGCR10CA08</b>	40	14,0	50	-3.0	0.0	RC..0803M0/RC..0803M0
<b>SRGCR12CA10</b>	50	20,0	55	-3.0	0.0	RC..10T3M0/RC..10T3M0
left hand <b>SRGCL08CA06</b>	25	10,0	32	-4.0	0.0	RC..0602M0/RC..215
<b>SRGCL12CA10</b>	50	20,0	55	-3.0	0.0	RC..10T3M0/RC..10T3M0

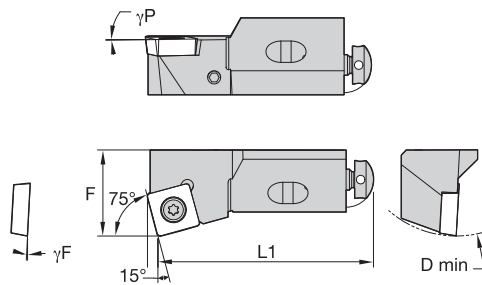
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	<b>MS1153</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>
40	<b>MS1154</b>	T9	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	<b>MS1155</b>	T15	<b>KUAM23</b>	2.5 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>



See pages B103–B104 for inserts.



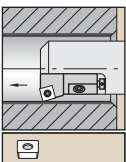
■ **SSKC 75°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand						
<b>SSKCR12CA12</b>	50	20,0	55	-3.0	0.0	SC..120408/SC..432
<b>SSKCR16CA12</b>	60	25,0	63	-3.0	0.0	SC..120408/SC..432
left hand						
<b>SSKCL12CA12</b>	50	20,0	55	-3.0	0.0	SC..120408/SC..432

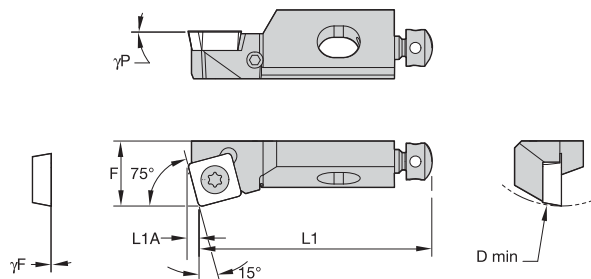
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	<b>MS1157</b>	T15	<b>KUAM23</b>	2.5 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>MS1157</b>	T15	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>



See pages B104–B106 for inserts.



■ **SSKP 75°**

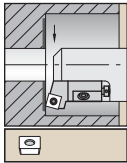
catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand						
<b>SSKPR10CA09</b>	40	14,0	50	0.0	0.0	SP..09T308/SP..3252
left hand						
<b>SSKPL10CA09</b>	40	14,0	50	0.0	0.0	SP..09T308/SP..3252

■ **Spare Parts**

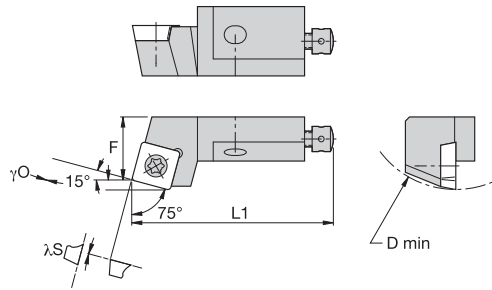


D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	<b>MS1155</b>	T15	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>





See pages B103–B104 for inserts.



### SSRC 75°

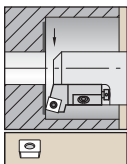
catalogue number	D min	F	L1	γO°	λS°	gage insert
right hand SSRCR12CA12	50	20,0	55	0.0	-3.0	SC..120408/SC..432
left hand SSRCL12CA12	50	20,0	55	0.0	-3.0	SC..120408/SC..432

O.D./I.D. Tooling

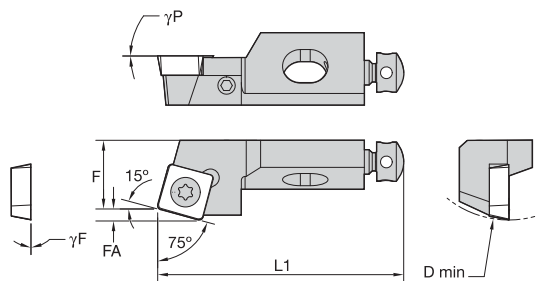
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050



See pages B104–B106 for inserts.



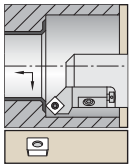
### SSRP 75°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand SSRPR10CA09	40	14,0	50	0.0	0.0	SP..09T308/SP..3252
left hand SSRPL10CA09	40	14,0	50	0.0	0.0	SP..09T308/SP..3252

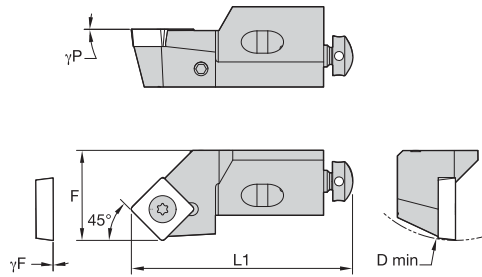
### Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



See pages B103–B104 for inserts.



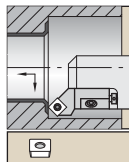
■ SSSC 45°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand SSSCR12CA12	50	20,0	47	-3.0	0.0	SC..120408/SC..432
SSSCR16CA12	60	25,0	53	0.0	0.0	SC..120408/SC..432
left hand SSSCL12CA12	50	20,0	47	-3.0	0.0	SC..120408/SC..432

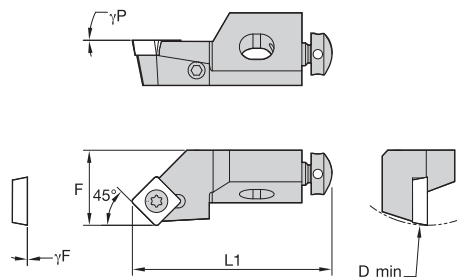
■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
50	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	MS1157	T15	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B104–B106 for inserts.



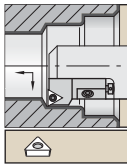
■ SSSP 45°

catalogue number	D min	F	L1	γF°	γP°	gage insert
right hand SSSPR10CA09	40	14,0	44	0.0	0.0	SP..09T308/SP..3252
SSSPR12CA09	50	20,0	47	0.0	0.0	SP..09T308/SP..3252
left hand SSSPL10CA09	40	14,0	44	0.0	0.0	SP..09T308/SP..3252

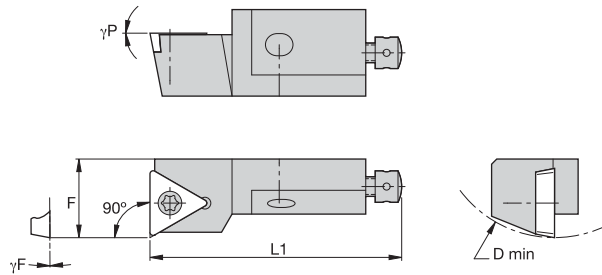
■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
40	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	MS1155	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050



See pages B109–B112 and B195–B196 for inserts.



O.D./I.D. Tooling

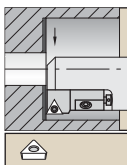
**STFP 90°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
<b>right hand</b>						
STFPR08CA09	25	10,0	32	0.0	0.0	TP..090204/TP..18151
STFPR10CA11	40	14,0	50	0.0	0.0	TP..110204/TP..2151
STFPR12CA16	50	20,0	55	0.0	0.0	TP..16T308/TP..3252
STFPR16CA16	60	25,0	63	0.0	0.0	TP..16T308/TP..3252
<b>left hand</b>						
STFPL08CA09	25	10,0	32	0.0	0.0	TP..090204/TP..18151
STFPL10CA11	40	14,0	50	0.0	0.0	TP..110204/TP..2151
STFPL12CA16	50	20,0	55	0.0	0.0	TP..16T308/TP..3252

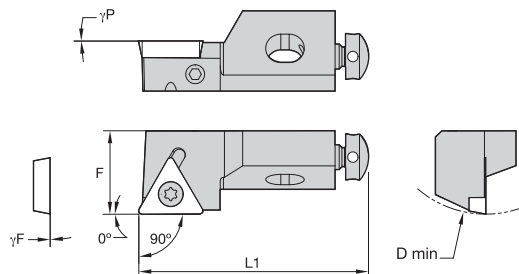
**Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	MS1152	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050
40	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	MS1155	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050
60	MS1155	T15	KUAM25	4 mm	KUAM32	191.407	5 mm	CSWM 080 050



See pages B109–B112 and B195–B196 for inserts.



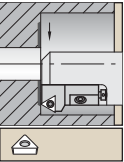
**STGP 90°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
<b>right hand</b>						
STGPR08CA09	25	10,0	32	0.0	0.0	TP..090204/TP..18151
STGPR10CA11	40	14,0	50	0.0	0.0	TP..110204/TP..2151
STGPR12CA16	50	20,0	55	0.0	0.0	TP..16T308/TP..3252
<b>left hand</b>						
STGPL08CA09	25	10,0	32	0.0	0.0	TP..090204/TP..18151
STGPL10CA11	40	14,0	50	0.0	0.0	TP..110204/TP..2151

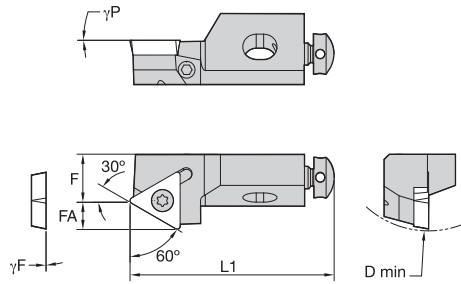
**Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	MS1152	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050
40	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050
50	MS1155	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050



See pages B109–B112 and B195–B196 for inserts.



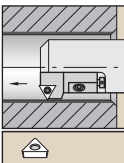
■ **STTP 60°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand						
<b>STTPR08CA09</b>	25	6,0	32	0.0	0.0	TP..090204/TP..18151
<b>STTPR10CA11</b>	40	9,0	50	0.0	0.0	TP..110204/TP..2151
<b>STTPR12CA16</b>	50	13,0	55	0.0	0.0	TP..16T308/TP..3252

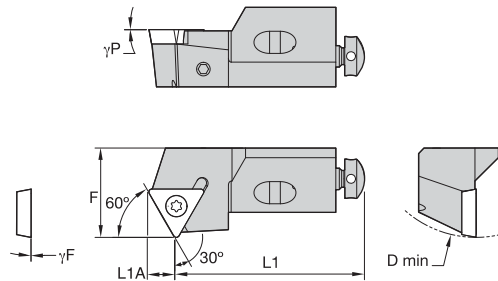
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	<b>MS1152</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>
40	<b>MS1153</b>	T7	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	<b>MS1155</b>	T15	<b>KUAM23</b>	2.5 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>



See pages B109–B112 and B195–B196 for inserts.



■ **STWP 60°**

catalogue number	D min	F	L1	$\gamma F^\circ$	$\gamma P^\circ$	gage insert
right hand						
<b>STWPR08CA09</b>	25	10,0	28	0.0	0.0	TP..090204/TP..18151
<b>STWPR10CA11</b>	40	14,0	44	0.0	0.0	TP..110204/TP..2151
<b>STWPR12CA16</b>	50	20,0	47	0.0	0.0	TP..16T308/TP..3252
<b>STWPR16CA16</b>	60	25,0	53	0.0	0.0	TP..16T308/TP..3252

■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
25	<b>MS1152</b>	T7	<b>KUAM34</b>	1.5 mm	<b>KUAM20</b>	<b>MS2175</b>	2.5 mm	<b>CSWM 040 050</b>
40	<b>MS1153</b>	T7	<b>KUAM28</b>	2 mm	<b>KUAM30</b>	<b>191.405</b>	4 mm	<b>CSWM 060 050</b>
50	<b>MS1155</b>	T15	<b>KUAM23</b>	2.5 mm	<b>KUAM31</b>	<b>191.406</b>	4 mm	<b>CSWM 060 050</b>
60	<b>MS1155</b>	T15	<b>KUAM25</b>	2.5 mm	<b>KUAM32</b>	<b>191.407</b>	5 mm	<b>CSWM 080 050</b>