

Vibration-Free Boring Bars With Bolt-On Heads

Materials



Applications



Boring



Back Boring



Chamfering

kennametal.com/Vibration-FreeBoringBars



Coupled with our bolt-on heads, the Vibration-Free boring bars provide stability and rigidity when boring at extended overhangs up to 10 x D.

Vibration-Free boring bars are a plug-and-play solution designed to work out of the box with no manual adjusting required or possible. The internal dampening package is designed to provide process stability by increasing the stiffness of the bar and dampening out chatter.

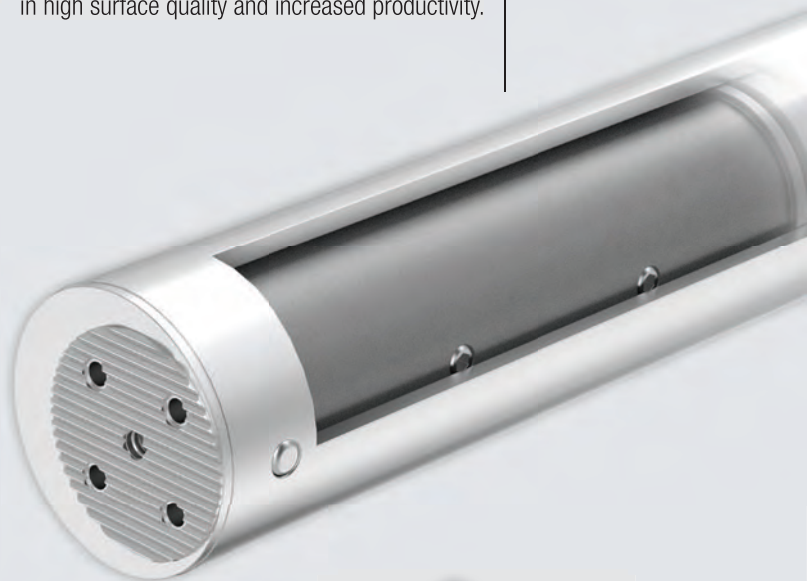
These Vibration-Free boring bars utilise a new portfolio of bolt-on heads that connect to the bar by a serrated design.

Internal dampening package ensures vibration- and chatter-free machining, allowing high metal removal rates and large depths-of-cut, resulting in high surface quality and increased productivity.

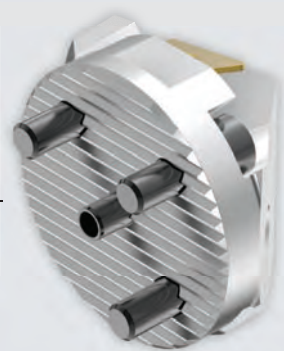
Short design bolt-on heads result in low weight, providing high stability and consistent repeatability.



Through coolant bolt-on heads to achieve optimum insert performance and tool life.

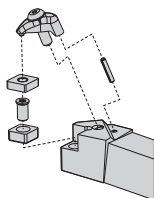


Serrated design interface creates a secure connection.



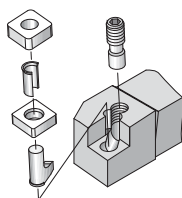
Lightweight Bolt-On Heads with Through Coolant

Kenclamp™



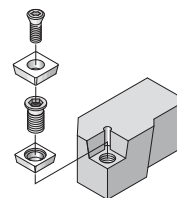
H-DCLN 95°
H-DDUN 93°
H-DTFN 90°
H-DVUN 93°
H-DWLN 95°

Kenlever™



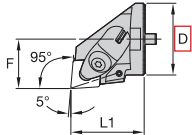
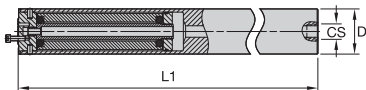
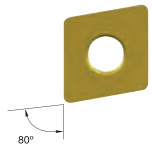
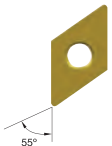
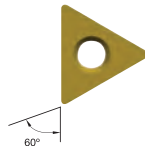
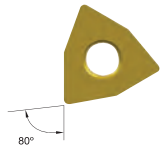
H-PCLN 95°
H-PDUN 93°
H-PTFN 90°

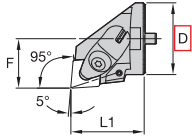
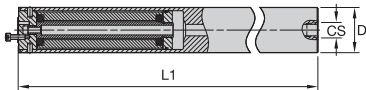
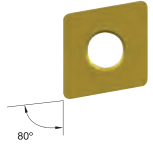
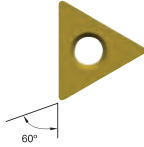
Screw-On



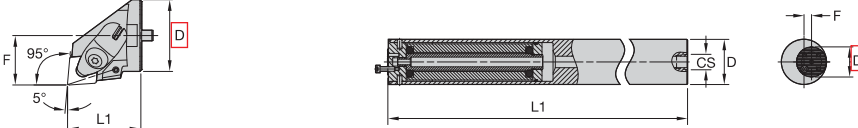
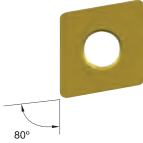
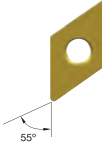
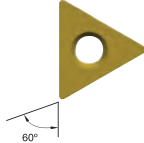
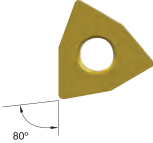
H-SCLC 95°
H-SDPC 62.5°
H-SDUC 93°
H-STFC 90°
H-SVUB 93°
H-SWLP 95°

VIBRATION-FREE • BOLT-ON HEADS • SELECTION GUIDE

D-Style Clamping					
					
	H-DCLN	H-DDUN	H-DTFN	H-DVUN	H-DWLN
Page	16	17	18	19	19
Bolt-On "D" diameter = "D1" on the vibration-free boring bar	  				
Lead Angle	95°	93°	90°	93°	95°
Bolt-On Head Diameter [D]	32–50mm	32–50mm	40–50mm	40–50mm	32mm
Minimum Boring Diameter [DMIN]	40–63mm	40–63mm	50–63mm	50–63mm	40mm
Centre of Boring Bar to Insert Tip [F]	22–35mm	22–35mm	27–35mm	27–35mm	22mm
Boring Head Length [L1]	33–36mm	33–39mm	35–36mm	35–36mm	33mm
Insert Shape					
Gage Inserts	CN..120408 CN..160612 CN..190612	DN..110408 DN..150408 DN..150608	TN..160408 TN..220408	VN..160408	WN..060408

P-Style Clamping			
			
	H-PCLN	H-PDUN	H-PTFN
Page	16	17	18
Bolt-On "D" diameter = "D1" on the vibration-free boring bar	  		
Lead Angle	95°	93°	90°
Bolt-On Head Diameter [D]	25–50mm	25–50mm	25–50mm
Minimum Boring Diameter [DMIN]	33–63mm	32–63mm	33–63mm
Centre of Boring Bar to Insert Tip [F]	17–35mm	17–35mm	17–35mm
Boring Head Length [L1]	26–36mm	27–36mm	25–36mm
Insert Shape			
Gage Inserts	CN..090308 CN..120408 CN..160612	DN..110408 DN..150608	TN..160408

VIBRATION-FREE • BOLT-ON HEADS • SELECTION GUIDE

Screw-On Style						
						
	H-SCLC	H-SDPC	H-SDUC	H-STFC	H-SVUB	H-SWLP
Page	20	20	21	21	22	22
Bolt-On "D" diameter = "D1" on the vibration-free boring bar						
Lead Angle	95°	62.5°	93°	90°	93°	95°
Bolt-On Head Diameter [D]	25–40mm	25mm	25–50mm	25–40mm	25–50mm	25mm
Minimum Boring Diameter [DMIN]	32–50mm	32mm	32–63mm	32–50mm	32–63mm	32mm
Centre of Boring Bar to Insert Tip [F]	17–27mm	17mm	17–35mm	17–27mm	17–35mm	17mm
Boring Head Length [L1]	19–32mm	18mm	18–36mm	18–32mm	18–36mm	18mm
Insert Shape						
Gage Inserts	CCMT09T308 CCMT120408	DCMT070204	DCMT070204 DCMT11T308	TCMT16T308	VBMT110304 VBMT160408	WPMT040204

VIBRATION-FREE • BORING BARS • CATALOGUE NUMBERING SYSTEM

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.

Boring Bars

Boring Bars

VIBRATION-FREE • STEEL BAR • THROUGH COOLANT

order number	catalog number	Ø	2x	1x	F	CS	VB
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
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D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
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D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
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D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
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D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	1.75
D25HBB356	STEEL BAR	2.5	31.5	31.5	1000	1000	

D25HBB356

D

Dampened Bar
with Coolant

25

Bar
Diameter

Metric: A two-digit number indicates the bar diameter in mm.

HBB

Vibration-Free
Boring Bar

356

Total Assembled
Length

Metric: Measured in mm when using a standard bolt-on head. Round up or down to the nearest 0,5mm increment.

VIBRATION-FREE • BOLT-ON HEADS • CATALOGUE NUMBERING SYSTEM

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.

Boring Bars									
VIBRATION-FREE • BOLT-ON HEADS • KENCLAMP™ • DCLN 95°									
Bar Number	Head Diameter	Min. Bore Dia.	Length	Insert	Insert Shape	Insert Angle	Insert Material	Insert Holder	Insert Holder Material
H3240DCNLR12	32	40	12	D	C	95°	DC	CLN	95°

H3240DCNLR12

H

Bolt-On Head

32

Head Diameter

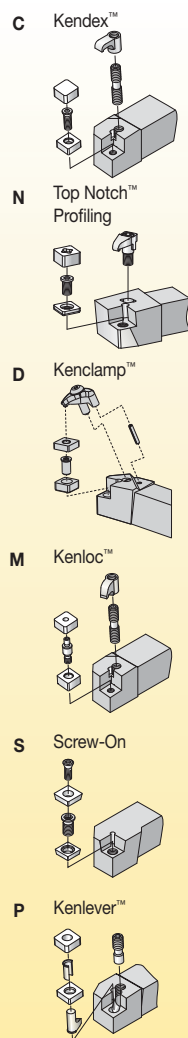
A two-digit number indicates the bar diameter in mm.

40

Minimum Boring Diameter

D

Insert Holding Method



C

Insert Shape

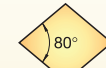
A



B



C



D



E



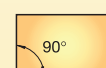
H



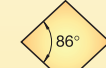
K



L



M



O



P



R



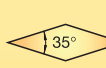
S



T



V



W



VIBRATION-FREE • BOLT-ON HEADS • CATALOGUE NUMBERING SYSTEM

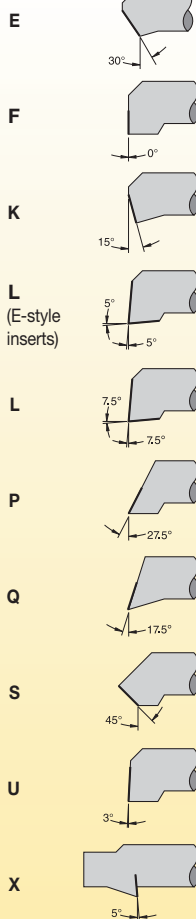
(continued)

VIBRATION-FREE • BOLT-ON HEADS • KENCLAMP™ • DCNLN 95°									
Bar Style	Bar Number	Bar Size	Bar Length	Bar Weight	Bar Material	Bar Finish	Bar Grade	Bar Type	Bar Notes
H3240DCNLR12									

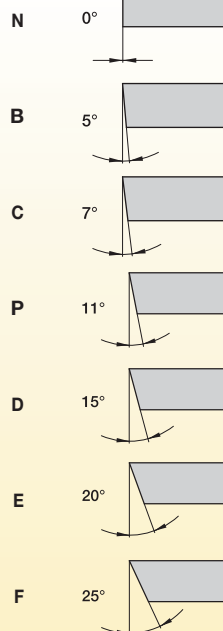
H3240DCNLR12

N

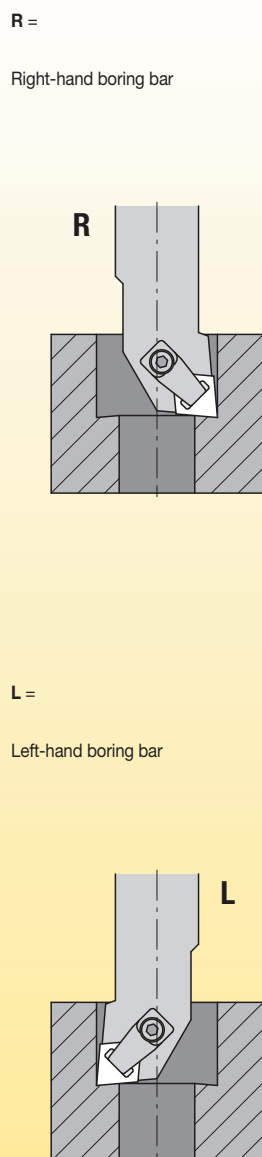
Bar Style or Lead Angle

**L**

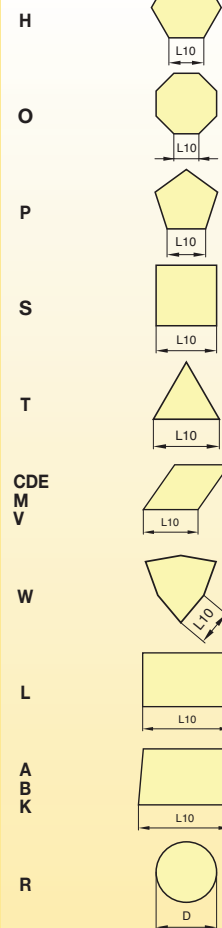
Insert Clearance Angle

**R**

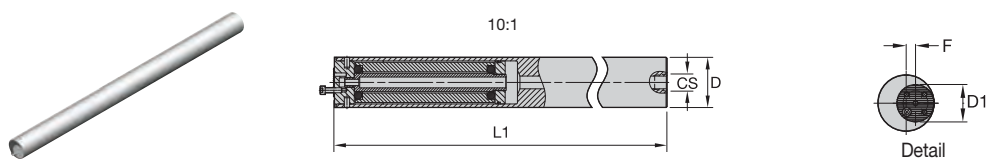
Hand of Tool

**12**

Insert Size Cutting Edge Length L10

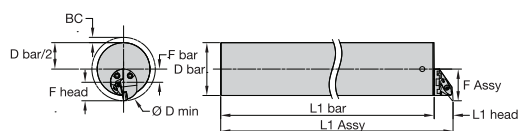


VIBRATION-FREE • STEEL BAR • THROUGH COOLANT



order number	catalogue number	D	D1	L1	F	CS	kg
6517231	D25MHBB356	25	25	329,30	0,00	RP 1/4-19	1,21
6517232	D32MHBB448	32	32	414,98	0,00	RP 1/4-19	2,55
6517233	D40MHBB563	40	40	524,26	0,00	RP 1/4-19	5,18
6517234	D50MHBB702	50	40	663,78	5,00	RP 3/8-19	10,14
6517235	D60MHBB860	60	40	821,29	10,00	RP 3/8-19	18,08
6549456	D80MHBB1125	80	50	1089,64	13,10	RP 3/8-19	39,94
6549457	D100MHBB1445	100	50	1409,29	25,00	RP 3/8-19	81,20

NOTE: When using smaller bolt-on heads on larger bars:
Minimum Bore = (F bar + F head) + (0.5 x D bar) + Bore Clearance

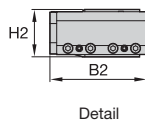
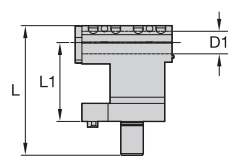


$$D \text{ min} = F \text{ head} + F \text{ bar} + D/2 + BC$$

Metric	
Bar Diameter	Bore Clearance
32-50mm	3mm
50-100mm	7mm

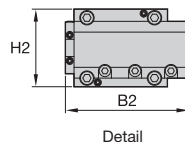
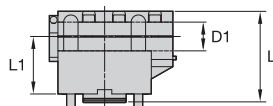
120	122	9	4	124

VIBRATION-FREE • SPLIT BLOCK • MAZAK™



order number	catalogue number	D1	L1	L	H2	B2	series
6423189	SB40QTN200M065	40	140	230,0	84,0	172,0	QTN200M
6423190	SB40QTN300M175	40	175	285,0	100,0	172,0	Nexus 300/350/400/450M
6423201	SB50QTN300M175	50	175	290,0	100,0	212,0	SQT28, 30, 300 - QT Nexus 300/350M, 400/450M

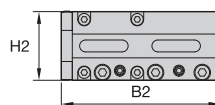
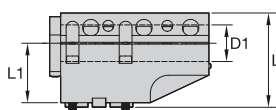
VIBRATION-FREE • SPLIT BLOCK • DMG MORI



order number	catalogue number	D1	L1	L	H2	B2	series
6423204	SB40NL2000080	40	80	127,0	108,0	172,0	DMG Mori NL1500, NL2000, NL2500, NL3000, NT5400DCG
6423205	SB60NZX4000080	60	80	144,0	135,0	252,0	DMG Mori NZX4000080

				
120	122	—	4	124

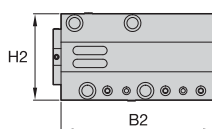
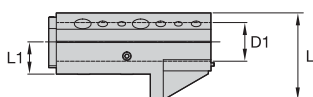
VIBRATION-FREE • SPLIT BLOCK • DOOSAN™



Detail

order number	catalogue number	D1	L1	L	H2	B2	series
6423207	SB40PU230M060	40	60	115,0	93,0	172,0	PUMA 230M, 240M, 280M, 1500, 2000, 2500SY&LSY, TT1500, 18 LYNX L220LM/M (BMT45 TURRET)
6423206	SB40L220M065	40	65	103,0	75,0	174,0	
6423208	SB40PU300M072	40	70	139,0	110,0	172,0	PUMA 300M, MA, LMA, LM, LMB, MB, MC, LMC, MS (BMT65 TURRET) PUMA 400MA, 400MB, 400LMA, 400LMB (BMT75 TURRET)
6423209	SB60PU400MB060	60	60	150,0	120,0	252,0	

VIBRATION-FREE • SPLIT BLOCK • OKUMA™

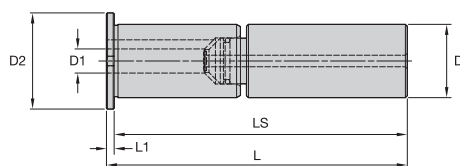
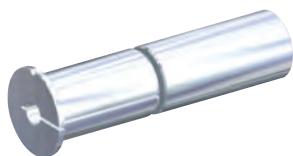


Detail

order number	catalogue number	D1	L1	L	H2	B2	series
6423221	SB40LB4000EX085	40	85	130,0	100,0	172,0	LB4000 EX (M,MY) LU35, LB35 (2 AXIS)
6423222	SB50LU35035	50	35	122,0	136,0	215,2	
6423223	SB60LU45050	60	50	120,0	134,0	252,0	LB45II & LU45 LB45II & LU45/M
6423210	SB60LU45M050	60	50	135,0	134,0	252,0	

120	122	—	4	124

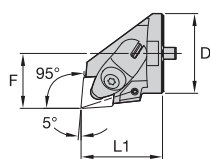
VIBRATION-FREE • REDUCER SLEEVES



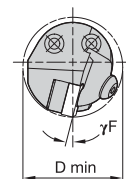
order number	catalogue number	D	D1	D2	L1	L	LS
6423264	SL040025	40	25	50	10	170	160
6423263	SL040032	40	32	50	4	164	160
6423262	SL050032	50	32	60	4	204	200
6423261	SL050040	50	40	60	4	204	200
6423260	SL060032	60	32	70	4	244	240
6423259	SL060040	60	40	70	4	244	240
6423258	SL080050	80	50	90	6	326	320
6423256	SL080060	80	60	90	4	324	320
6423255	SL100060	100	60	110	4	404	400
6423254	SL100080	100	80	110	4	404	400
6423253	SL120080	120	80	138	8	395	387
6423252	SL120100	120	100	138	8	488	480

				NOVO
120	122	—	4	124

VIBRATION-FREE • BOLT-ON HEADS • KENCLAMP™ • DCLN 95°



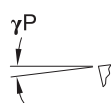
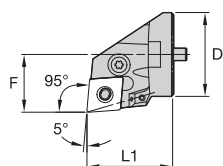
Detail



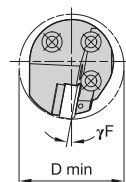
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550556	H3240DCLNR12	32	40	22,0	32,6	-14,0	-5,0	CNMA120408
6550558	H4050DCLNR12	40	50	27,0	34,6	-12,0	-5,0	CNMA120408
6550560	H4050DCLNR16	40	50	27,0	35,6	-14,0	-5,0	CNMA160612
6550632	H5063DCLNR12	50	63	35,0	35,6	-12,0	-5,0	CNMA120408
6549432	H5063DCLNR16	50	63	35,0	35,6	-12,0	-5,0	CNMA160612
6549434	H5063DCLNR19	50	63	35,0	35,6	-12,0	-5,0	CNMA190612
left hand								
6550557	H3240DCLNL12	32	40	22,0	32,6	-14,0	-5,0	CNMA120408
6550559	H4050DCLNL12	40	50	27,0	34,6	-12,0	-5,0	CNMA120408
6550631	H4050DCLNL16	40	50	27,0	35,6	-14,0	-5,0	CNMA160612
6550633	H5063DCLNL12	50	63	35,0	35,6	-12,0	-5,0	CNMA120408
6549431	H5063DCLNL16	50	63	35,0	35,6	-12,0	-5,0	CNMA160612
6549433	H5063DCLNL19	50	63	35,0	35,6	-12,0	-5,0	CNMA190612

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Detail

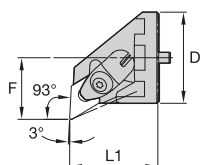


Detail

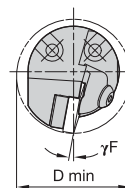
order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549409	H2532PCLNR09	25	33	17,0	25,6	-10,0	-5,0	CNMA090308
6550656	H3240PCLNR12	32	40	22,0	32,6	-10,0	-5,0	CNMA120408
6550658	H4050PCLNR12	40	50	27,0	34,6	-10,0	-5,0	CNMA120408
6550660	H4050PCLNR16	40	50	27,0	34,6	-11,0	-5,0	CNMA160612
6549442	H5063PCLNR12	50	63	35,0	35,6	-10,0	-5,0	CNMA120408
left hand								
6549408	H2532PCLNL09	25	33	17,0	25,6	-10,0	-5,0	CNMA090308
6550657	H3240PCLNL12	32	40	22,0	32,6	-10,0	-5,0	CNMA120408
6550659	H4050PCLNL12	40	50	27,0	34,6	-10,0	-5,0	CNMA120408
6550671	H4050PCLNL16	40	50	27,0	34,6	-11,0	-5,0	CNMA160612
6549441	H5063PCLNL12	50	63	35,0	35,6	-10,0	-5,0	CNMA120408

120	122	10	4	124

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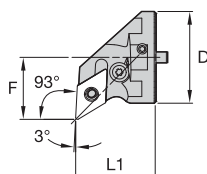
Detail



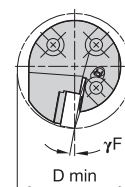
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550634	H3240DDUNR11	32	40	22,0	32,6	-10.0	-5.0	DNMA110408
6550636	H4050DDUNR15	40	50	27,0	38,6	-10.0	-5.0	DNMA150408
6549436	H5063DDUNR15	50	63	35,0	35,6	-8.0	-5.0	DNMA150608
left hand								
6550635	H3240DDUNL11	32	40	22,0	32,6	-10.0	-5.0	DNMA110408
6550637	H4050DDUNL15	40	50	27,0	38,6	-10.0	-5.0	DNMA150408
6549435	H5063DDUNL15	50	63	35,0	35,6	-8.0	-5.0	DNMA150608

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Detail

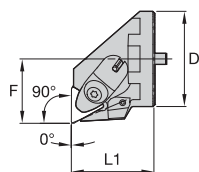


Detail

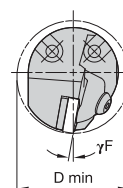
order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550672	H2532PDUNR11	25	32	17,0	26,6	-11.0	-5.0	DNMA110408
6550674	H3240PDUNR15	32	40	22,0	32,6	-12.0	-5.0	DNMA150608
6550676	H4050PDUNR15	40	50	27,0	34,6	-10.0	-5.0	DNMA150608
6549444	H5063PDUNR15	50	63	35,0	35,6	-10.0	-5.0	DNMA150608
left hand								
6550673	H2532PDUNL11	25	32	17,0	26,6	-11.0	-5.0	DNMA110408
6550675	H3240PDUNL15	32	40	22,0	32,6	-12.0	-5.0	DNMA150608
6550677	H4050PDUNL15	40	50	27,0	34,6	-10.0	-5.0	DNMA150608
6549443	H5063PDUNL15	50	63	35,0	35,6	-10.0	-5.0	DNMA150608

120	122	10	4	124

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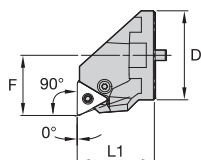
Detail



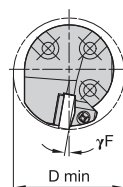
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550638	H4050DTFNR16	40	50	27,0	34,6	-10.0	-5.0	TNMA160408
6549438	H5063DTFNR22	50	63	35,0	35,6	-8.0	-5.0	TNMA220408
left hand								
6550639	H4050DTFNL16	40	50	27,0	34,6	-10.0	-5.0	TNMA160408
6549437	H5063DTFNL22	50	63	35,0	35,6	-8.0	-5.0	TNMA220408

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Detail

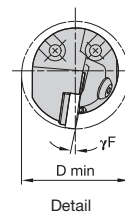
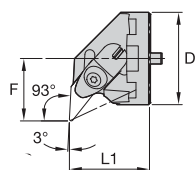


Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549411	H2532PTFNR16	25	32	17,0	24,6	-12.0	-15.0	TNMA160408
6550678	H3240PTFNR16	32	40	22,0	32,6	-12.0	-5.0	TNMA160408
6550680	H4050PTFNR16	40	50	27,0	34,6	-10.0	-5.0	TNMA160408
6549446	H5063PTFNR16	50	63	35,0	35,6	-8.0	-5.0	TNMA160408
left hand								
6549410	H2532PTFNL16	25	32	17,0	24,6	-12.0	-15.0	TNMA160408
6550679	H3240PTFNL16	32	40	22,0	32,6	-12.0	-5.0	TNMA160408
6550681	H4050PTFNL16	40	50	27,0	34,6	-10.0	-5.0	TNMA160408
6549445	H5063PTFNL16	50	63	35,0	35,6	-8.0	-5.0	TNMA160408

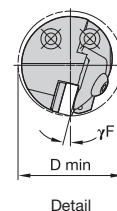
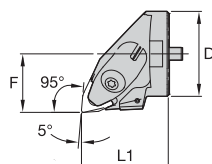
120	122	10	4	124

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order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550640	H4050DVUNR16	40	50	27,0	34,6	-9.0	-4.0	VNMA160408
6549440	H5063DVUNR16	50	63	35,0	35,6	-9.0	-5.0	VNMA160408
left hand								
6550651	H4050DVUNL16	40	50	27,0	34,6	-9.0	-4.0	VNMA160408
6549439	H5063DVUNL16	50	63	35,0	35,6	-9.0	-5.0	VNMA160408

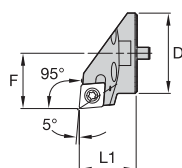
VIBRATION-FREE • BOLT-ON HEADS • KENCLAMP™ • DWLN 95°



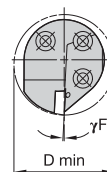
order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6550652	H3240DWLNR06	32	40	22,0	32,6	-14.0	-5.0	WNMA060408
left hand								
6550653	H3240DWLNL06	32	40	22,0	32,6	-14.0	-5.0	WNMA060408

120	122	10	4	124

VIBRATION-FREE • BOLT-ON HEADS • SCREW-ON • SCLC 95°



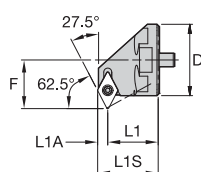
Detail



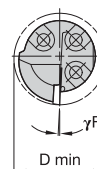
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549070	H2532SCLCR09	25	32	17,0	18,6	-3.0	0.0	CCMT09T308
6549392	H3240SCLCR09	32	40	22,0	22,6	-3.0	0.0	CCMT09T308
6549394	H4050SCLCR12	40	50	27,0	31,6	-3.0	0.0	CCMT120408
left hand								
6549391	H2532SCLCL09	25	32	17,0	18,6	-3.0	0.0	CCMT09T308
6549393	H3240SCLCL09	32	40	22,0	22,6	-3.0	0.0	CCMT09T308
6549395	H4050SCLCL12	40	50	27,0	31,6	-3.0	0.0	CCMT120408

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Detail

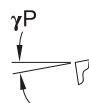
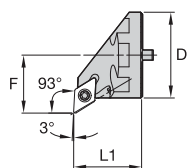


Detail

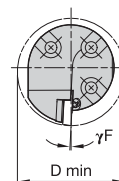
order number	catalogue number	D	D min	F	L1	L1A	L1S	γF°	γP°	GI
right hand										
6549413	H2532SDPCR07	25	32	17,0	17,6	3,5	21,2	-3.0	0.0	DCMT070204
left hand										
6549412	H2532SDPCL07	25	32	17,0	17,6	3,5	21,2	-3.0	0.0	DCMT070204

120	122	10	4	124

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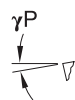
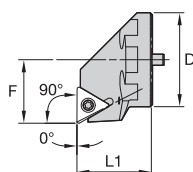
Detail



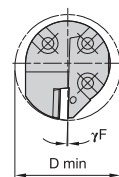
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549415	H2532SDUCR07	25	32	17,0	17,6	-3.0	0.0	DCMT070204
6549396	H2532SDUCR11	25	32	17,0	17,6	-3.0	0.0	DCMT11T308
6549398	H3240SDUCR11	32	40	22,0	22,6	-3.0	0.0	DCMT11T308
6549400	H4050SDUCR11	40	50	27,0	31,6	-3.0	0.0	DCMT11T308
6549448	H5063SDUCR11	50	63	35,0	35,6	-3.0	0.0	DCMT11T308
left hand								
6549414	H2532SDUCL07	25	32	17,0	17,6	-3.0	0.0	DCMT070204
6549397	H2532SDUCL11	25	32	17,0	17,6	-3.0	0.0	DCMT11T308
6549399	H3240SDUCL11	32	40	22,0	22,6	-3.0	0.0	DCMT11T308
6549401	H4050SDUCL11	40	50	27,0	31,6	-3.0	0.0	DCMT11T308
6549447	H5063SDUCL11	50	63	35,0	35,6	-3.0	0.0	DCMT11T308

VIBRATION-FREE • BOLT-ON HEADS • SCREW-ON • STFC 90°



Detail

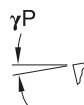
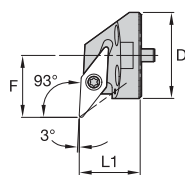


Detail

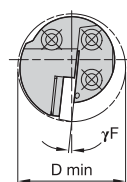
order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549417	H2532STFCR11	25	32	17,0	17,6	-2.0	0.0	TCMT110204
6549403	H3240STFCL16	32	40	22,0	24,6	-3.0	0.0	TCMT16T308
6549404	H4050STFCR16	40	50	27,0	31,6	-2.0	0.0	TCMT16T308
left hand								
6549416	H2532STFCL11	25	32	17,0	17,6	-2.0	0.0	TCMT110204
6549402	H3240STFCR16	32	40	22,0	24,6	-3.0	0.0	TCMT16T308
6549405	H4050STFCL16	40	50	27,0	31,6	-2.0	0.0	TCMT16T308

120	122	10	4	124

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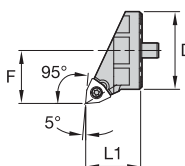
Detail



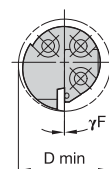
Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549406	H2532SVUBR11	25	32	17,0	17,6	-5,0	0,0	VBMT110304
6549452	H3240SVUBR16	32	40	23,0	22,6	-6,0	0,0	VBMT160408
6549450	H5063SVUBR16	50	63	35,0	35,6	-3,0	0,0	VBMT160408
left hand								
6549407	H2532SVUBL11	25	32	17,0	17,6	-5,0	0,0	VBMT110304
6549451	H3240SVUBL16	32	40	23,0	22,6	-6,0	0,0	VBMT160408
6549449	H5063SVUBL16	50	63	35,0	35,6	-3,0	0,0	VBMT160408

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Detail



Detail

order number	catalogue number	D	D min	F	L1	γF°	γP°	GI
right hand								
6549419	H2532SWLPR04	25	32	17,0	17,6	0,0	0,0	WPMT040204
left hand								
6549418	H2532SWLPL04	25	32	17,0	17,6	0,0	0,0	WPMT040204

120	122	10	4	124