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A33 MTB Morse Taper Holder For Mill（Screw Lockup）



A33 APU Drill Chuck Holder



A34 FMB Face Milling Holder



A35 PULL STUDS



A45 ER Collets



A49 Power Milling Collets



A49 OZ Spring Collets



A50 SK Precision Collet Holders



A54 DC Slim Collet



A55 TPC Tap Collet



A56 ER Clamping Nut



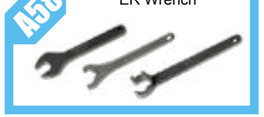
A57 SK Collet Nut For High Speed Milling Chuck



A57 GSK Collet Nut For High Speed Milling Chuck



A58 ER Wrench



A58 C Wrench



A58 OZ Wrench



A59 HPM Power Wrench For Sleeve



A59 GSK Wrench For Sleeve



A60 Straight Shank ER Collet Chuck Holder (M/UM Type)



A61 Straight Shank ER Collet Chuck Holder (A Type For Milling)



A61 Straight Shank ER Collet Chuck Holder (A Type For Lathe)



A62 Mini Type Straight Shank ER Collet Chuck Holder



A63 C-TER Flex Tapping Chucks With Straight Shank



A63 SK Straight Shank Collet Chuck Holder



A64 Cylindrical Shank Of DC Slim Chuck



A65 MT-APU Integrated Keyless Drill Chuck



A65 C-APU Integrated Keyless Drill Chuck



A65 NC-ER Chuck Holder



A66 Positioning Block



B01 FBH Micro-Finishing Cutter Fine Boring System



B01 FBH Micro-Finishing Cutter For Reverse Fine Boring System



B02 Body For FBH Micro-Finishing Cutter Fine Boring



B02 FBH Micro-Finishing Cutting Bar



B03 FBH Micro-Finishing Cutting Insert Holder



B03 FBH Micro-Finishing Reverse Cutting Insert Holder



B04 HCK2-FBH25P Micro-Finishing Cutter Fine Boring System



B04 HCK3-FBH32P Micro-Finishing Cutter Fine Boring System



B05 HCK4-FBH40P Micro-Finishing Cutter Fine Boring System



B06 HCK5-FBH50P Micro-Finishing Cutter Fine Boring System



B07 HCK6-FBH63P Micro-Finishing Cutter Fine Boring System



B08 HCK6-FBH63 Micro-Finishing Cutter Fine Boring System

B09 FBH Large Diametr Modular Micro Boring Head

B09 BST Boring Head Holder

B10 HST Extension Slide

B11 Body And Balance Holder For Diameter Finishing Cutter Fine Boring System

B11 Cutting Insert Holders For ABH Adjustable Twin Roughing

B11 Reverse Cutting Insert Holders For ABH Adjustable Twin Roughing

B12 CBH Micro Boring Head

B13 CBH Large Diameter Modular Micro Boring Head

B14 CBH-M Counter Boring Head

B14 CBH-L Counter Boring Head

B15 CNH Micro Boring Head

B16 HCK-DYD Micro Boring Bar

B16 HCK-DYD Micro Boring Head

B17 HBJ-16 Small Diameter Micro Boring Head

B17 HBJ-16 Micro Boring Bar

B17 HBJ-16 Micro Boring Set

B18 NBH2084 Micro Boring Head

B18 HBJ-20 Micro Boring Bar

B18 NBH2084 Micro Boring Set

B19 HBJ Collet For Super Head Solid Caibide Boring Bar

B19 HT Anti-Shank Solid Carbide Boring Bar

B19 HEB Throw-Away Boring Head

B20 Super Hard Solid Tungsten Carbide Boring Bar

B20 C32 Straight Shank Boring Bar

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B21 Body For ABH Twin Cutter Roughing



B21 Cutting Insert Holders For ABH Adjustable Twin Roughing



B21 Reverse Cutting Insert Holders For ABH Adjustable Twin Roughing



B22 ABH Rough Boring Head System Modular Holder



B22 ABH Rough Boring Head Reverse System Modular Holder



B23 HBH Modular Rough Boring Head



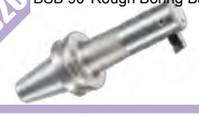
B24 HBH Large Diameter Modular Rough Boring



B25 BSA 45°Rough Boring Bar



B26 BSB 90°Rough Boring Bar



B27 TBS Hole Boring Throw-Away Cutting Tools



B28 CBS Hole Boring Throw-Away Cutting Tools



B29 SB Twin-Bit Rough Boring Head Rbh



B30 MC Fixed Twin-Bit Rough Boring Head



B31 HCK Boring Head Bar



B32 BST Boring Heads Bar



B32 NBH2084 Boring Heads Bar



B33 HCK Equal Diameter Extension Adapter



B33 HCK Reducing Change Adapter (Big To Small)



B34 HCK Chamfering Cutter



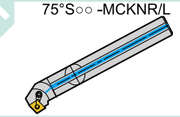
B34 HCK Chamfering Head



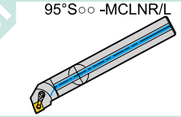
B35 Tool Presetter



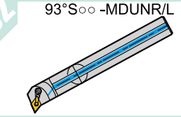
C01 75°S○○ -MCKNR/L



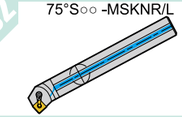
C01 95°S○○ -MCLNR/L



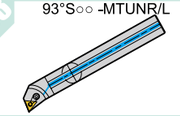
C02 93°S○○ -MDUNR/L



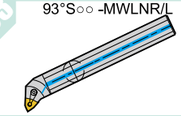
C02 75°S○○ -MSKNR/L



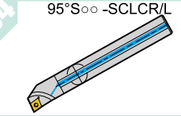
C03 93°S○○ -MTUNR/L



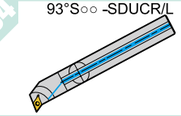
C03 93°S○○ -MWLNR/L



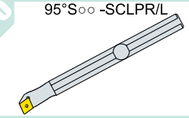
C04 95°S○○ -SCLCR/L



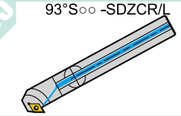
C04 93°S○○ -SDUCR/L



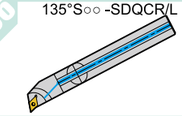
C05 95°S○○ -SCLPR/L



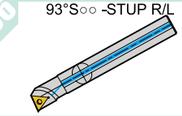
C05 93°S○○ -SDZCR/L



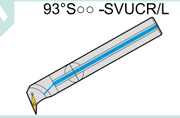
C06 135°S○○ -SDQCR/L



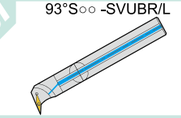
C06 93°S○○ -STUP R/L



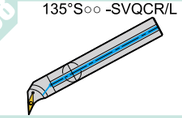
C07 93°S○○ -SVUCR/L



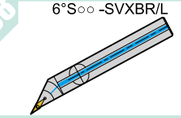
C07 93°S○○ -SVUBR/L



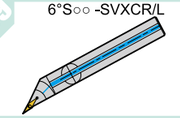
C08 135°S○○ -SVQCR/L



C08 6°S○○ -SVXBR/L



C09 6°S○○ -SVXCR/L



C10 93°WTJNR/L



C10 105°WTQNR/L



C11 95°WWLNR/L

C11 95°MCLNR/L

C12 93°MDJNR/L

C12 75°MCBNR/L

C13 107°30′MDQNR/L

C13 62°30′MDPNN

C14 95°MWLNR/L

C14 45°MSDNN

C15 75°MSKNR/L

C15 75°MSBNR/L

C16 45°MSSNR/L

C16 93°MTJNR/L

C17 105°MTQNR/L

C17 93°MVJNR/L

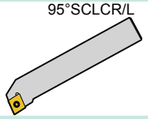
C18 72°30″MVVNN

C19 90°SCFCR/L

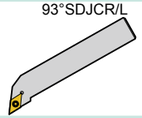
C19 90°SCGCR/L

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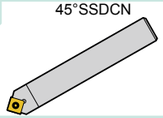
C20 95°SCLCR/L



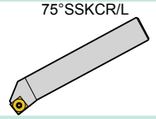
C20 93°SDJCR/L



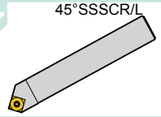
C21 45°SSDCN



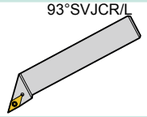
C21 75°SSKCR/L



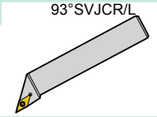
C22 45°SSSCR/L



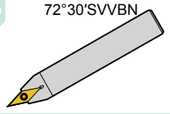
C22 93°SVJCR/L



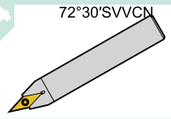
C23 93°SVJCR/L



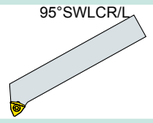
C23 72°30′SVVBN



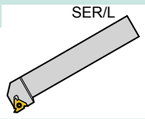
C24 72°30′SVVCN



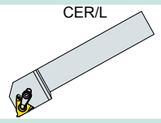
C24 95°SWLCR/L



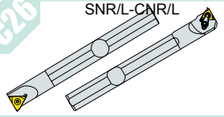
C25 SER/L



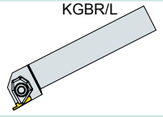
C25 CER/L



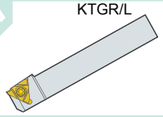
C26 SNR/L-CNR/L



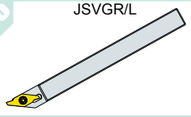
C27 KGBR/L



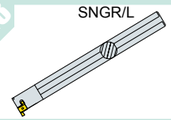
C27 KTGR/L



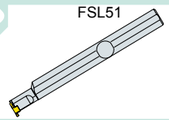
C28 JSVGR/L



C28 SNGR/L



C29 FSL51



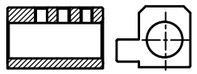
C30 Lathe Machine Reducing Change Tool Sleeve (Straight style)



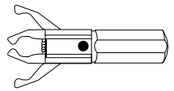
C30 Lathe Machine Reducing Change Tool Sleeve (Morse Drill style)



C31 Tool Holder



C32 Auto Link for CNC Lathe



D01 AJX Roughing Feed End Mills



D02 EXP Roughing Feed End Mills



D03 SKS Roughing Feed End Mills



D04 ASR Roughing Feed End Mills



D05 AHU Right Angle Shoulder End Mills



D07 JRC Corner Rounding End Mills



D08 EMR Corner Rounding End Mills



D10 EMRW Corner Rounding End Mill



D12 TRS Corner Rounding End Mills



D14 JRD Corner Rounding End Mills



D15 BCF/BCFL Ball End Mill



D11 T2139 Copy Fine End Mill



D19 UEX High Speed End Mills



D20 BAP 300R/400R High Speed End Mills



D22 TJU Drill End Mills



D24 R390 Corner Rounding End Mills



D24 TCP Power End Mills



D25 ATS T-Slot End Mills



D25 ASL Drilling End Mills Cutter

D26 ASJ-4P Drilling Mills

D27 SKM High Speed Milling Cutter

D28 TP Indexable Square Milling Cutter

D29 KE45°Fast Milling Cutter

D29 TP30°45°60° Straight Handle Chamfer Mills

D30 CH Counter-Sink Hole On Screw Of Mills Cutter

D30 EM45° In And Out Chamfer Mills

D31 SSK45° Indexable Chamfer Mills

D31 SSP45°Spot Chamfer Mills

D32 TCM45° Chamfer Mills

D32 SB New Chamfer Mills

D33 RGH Rough Cutting End Mills

D33 APE Rough Cutting End Mills

D33 SPE Rough Cutting End Mills

D34 AJX Rough Feed Mill Head

D35 TXP Rough Feed Face Mill Head

D36 SKS Rough Feed Face Mill Head

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D37 JRC Rounding Face Mill Head



D38 EMR Rounding Face Mill Head



D39 EMRW Rounding Face Mill Head



D40 TRS Rounding Face Mill Head



D41 PE75° Square Face Mill Head



D41 BAP Square face Mill Head



D42 TP90° Square Face Mill Head



D42 TP90° Square Face Mill Head



D43 SFM Square Face Mill Head



D44 SE45° High Speed Face Mill Head



D45 FM45°Aluminum Alloy Of Face Mill Head



D45 FM90°Aluminum Alloy Of Face Mill Head



D46 FP45°Face Milling Cutter



D46 FP75°Face Mill Head



D47 KM-45°Face Mill Head



D48 SDC Indexable Side Cutter



D49 AMC Shell Type Rough Cutting End Mills



D50 RGH Shell Type Rough Cutting End Mills



D51 PMC Shell Type Rough Cutting End Mills



D51 BT-BMC Rough Cutting End Mills



D52 XC-Funciton Drill



D53 SP Indexable High Speed Drilling Tools



D55 WC Indexable High Speed Drilling Tools D×3



D57 WC Indexable High Speed Drilling Tools D×4



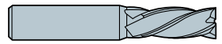
E01 Tungsten Steel Flat End Mill with 2 Flutes



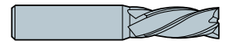
E01 Tungsten Steel Flat End Mill with 2 Flutes(Lengthen Style)



E02 Tungsten Steel Flat End Mill with 4 Flutes



E02 Tungsten Steel Flat End Mill with 4 Flutes (Lengthen Style)



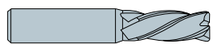
E03 Tungsten Steel Ball End Mill with 2 Flutes



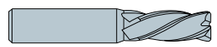
E03 Tungsten Steel Ball End Mill with 2 Flutes (Lengthen Style)



E04 Tungsten Steel Round Nose End Mill with 4 Flutes



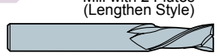
E04 Tungsten Steel Round Nose End Mill with 4 Flutes (Length Style)



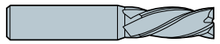
E05 High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 2 Flutes



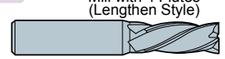
E05 High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 2 Flutes (Lengthen Style)



E06 High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 4 Flutes



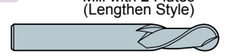
E06 High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 4 Flutes (Lengthen Style)



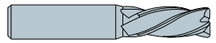
E07 High Hardness, High Speed Machining Tungsten Steel Ball End Mill with 2 Flutes



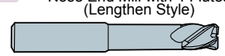
E07 High Hardness, High Speed Machining Tungsten Steel Ball End Mill with 2 Flutes (Lengthen Style)



E08 High Hardness, High Speed Machining Tungsten Steel Round Nose End Mill with 4 Flutes



E08 High Hardness, High Speed Machining Tungsten Steel Round Nose End Mill with 4 Flutes (Lengthen Style)

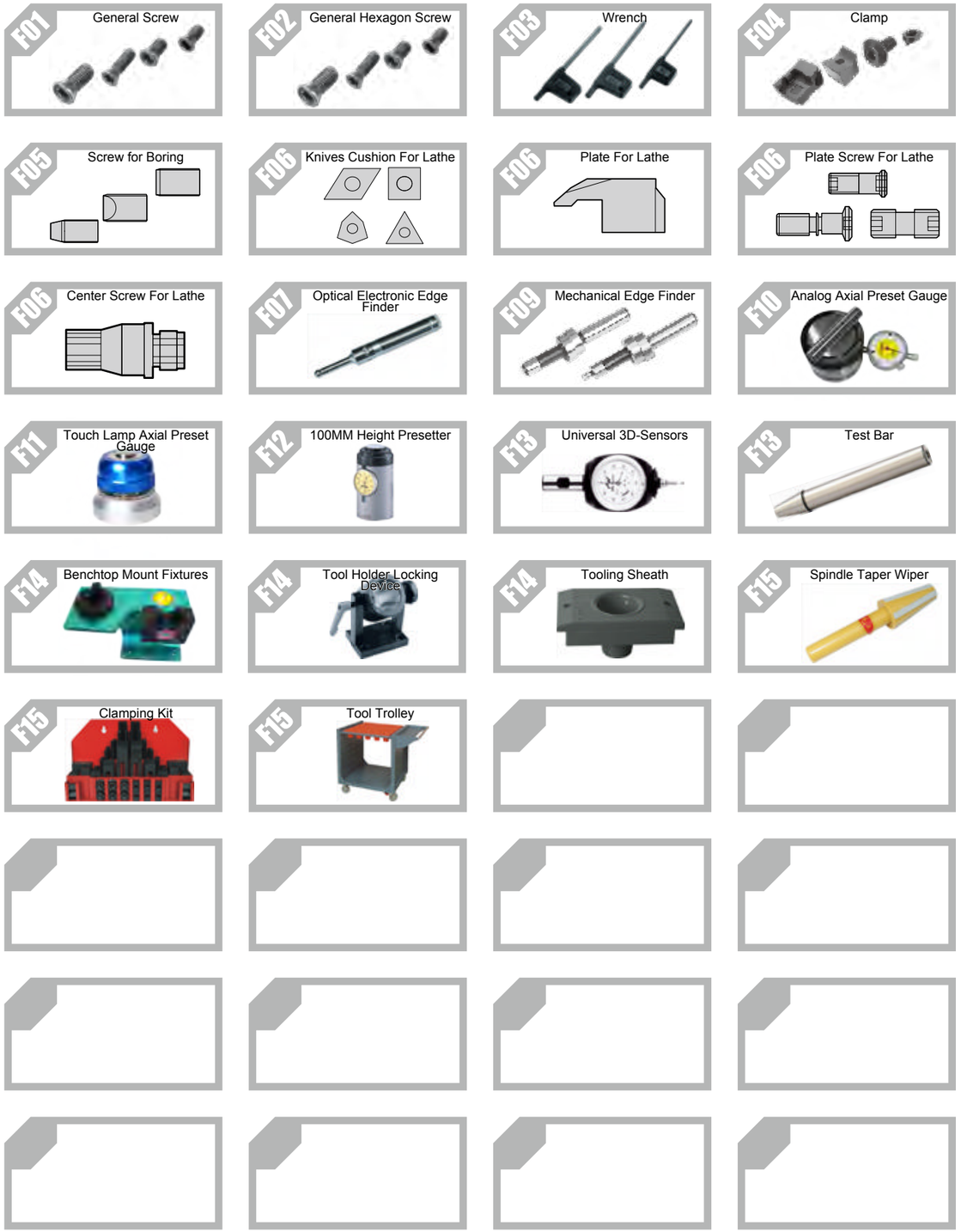


E09 Aluminum Machining Tungsten Steel Flat End Mill with 2 Flutes

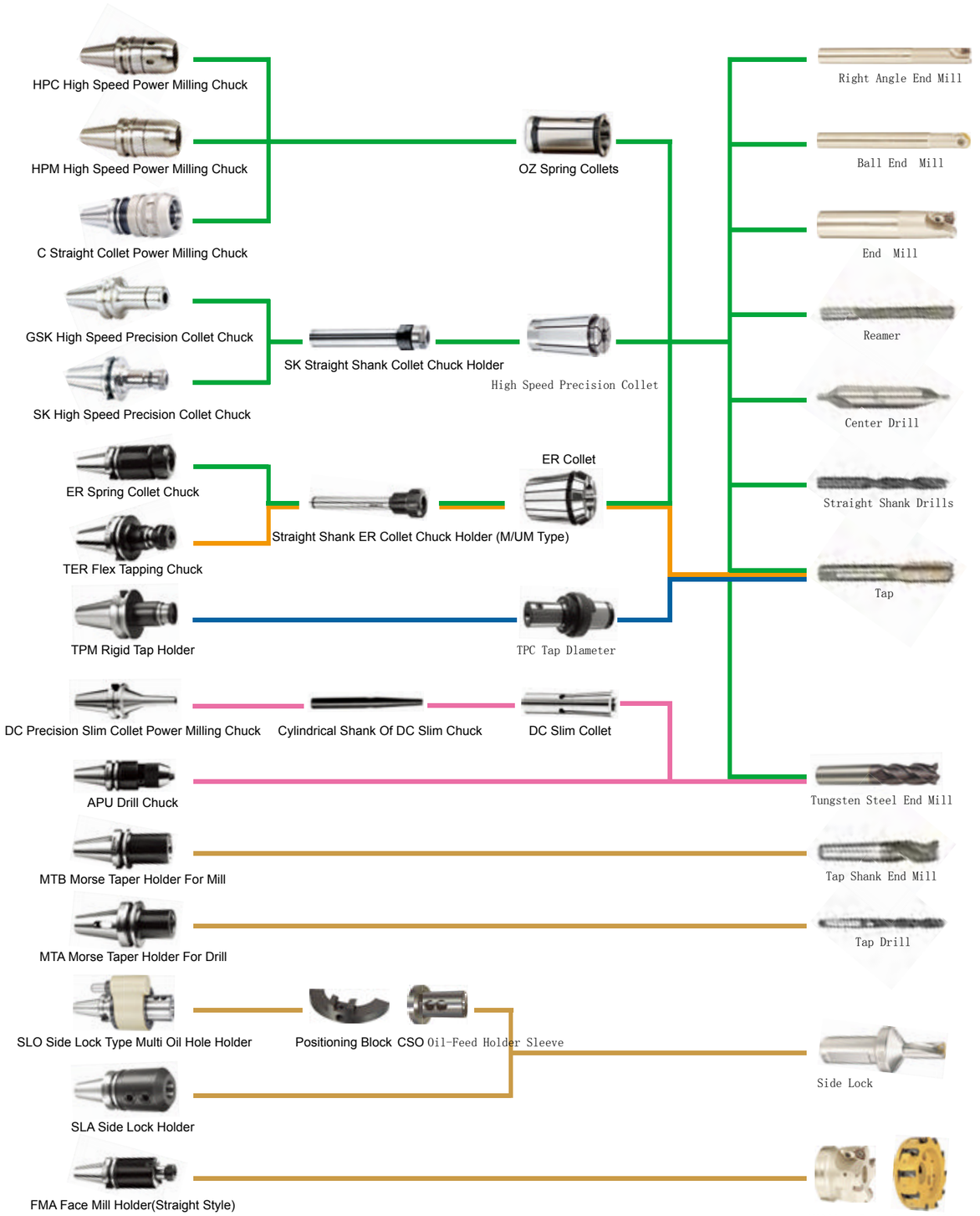
E09 Aluminum Machining Tungsten Steel Flat End Mill with 2 Flutes (Lengthen Style)

E10 Aluminum Machining Tungsten Steel Flat End Mill with 3 Flutes

E10 Aluminum Machining Tungsten Steel Ball End Mill with 2 Flutes



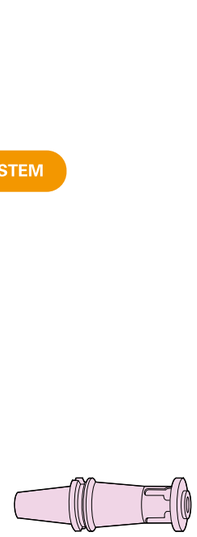
ARRANGEMENT PLAN OF TOOLING SYSTEM

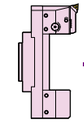


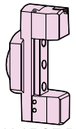
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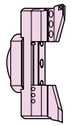
MODULAR BORING SYSTEMS

BST BORING SYSTEM


BST BORING HEADS BAR

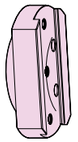

FBH LARGE DIAMETER
MOUDULAR MICRO BORING HEAD

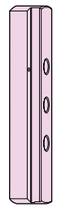

CBH LARGE DIAMETER
MODULAR MICRO BORING HEAD


HBH LARGE DIAMETER
MODULAR ROUGH BORING


HBH MODULAR
ROUGHING BORING HEAD
(HBH120)


HBH MODULAR
ROUGHING BORING HEAD
(HBH160)


FLANGE


EXTENSION SLIDE


FBH MICRO SLIDE

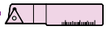

BALANCE WEIGHT


FINISH HEAD

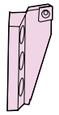

CLAMP BASE

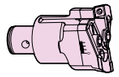

FBH FINE BORING INSERT HOLDER

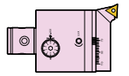

INSERT SPACER

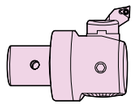

FBH–FINISHING REVERSE CUTTING INSERT HOLDER

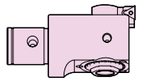

HEIGHT SETTING SHIM

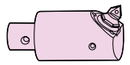

INSERT SETTING AND
APPLICABLE INSERT

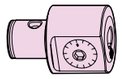

HBH MODULAR ROUGHING BORING HEAD


FBH MICRO FINISHING CUTTER FINE BORING SYSTEM


CBH MICRO BORING HEAD


CNH MICRO BORING HEAD


HCK-DYD MICRO BORING BAR

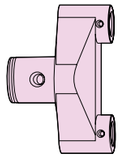

HBJ-16 SMALL DIAMETER
MIRCO BORING HEAD

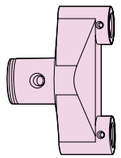

HBJ COLLET FOR SUPER HEAD
SOLID CAIBIDE BORING BAR

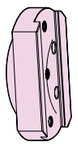

HT ANTI-SHANK SOLID
CARBIDE BORING BAR

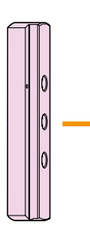

HEB THROW-AWAY
BORING HEAD


HBJ-16 MICRO BORING BAR


CBH–M COUNTER BORING HEAD

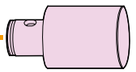

CBH–L COUNTER
BORING HEAD

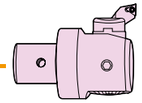

FLANGE


EXTENSION SLIDE


SLIDING BLOCK


BALANCE WEIGHT


BALANCE BLOCK

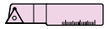

CBH MICRO BORING HEAD

BM8

BM5


BM140-20


INSERT SPACER


FBH–FINISHING REVERSE CUTTING INSERT HOLDER

FBH MICRO FINISHING CUTTER BAR

FBH FINE BORING INSERT HOLDER

HCK BORING SYSTEM

HCK BORING HEAD BAR

HCK REDUCING
CHANGE ADAPTER

HCK EQUAL DIAMETER
EXTENSION ADAPTER

SUPER HARD SOLID TUNGSTEN
CARBIDE BORING BAR

C32 STRAIGHT SHANK BORING BAR

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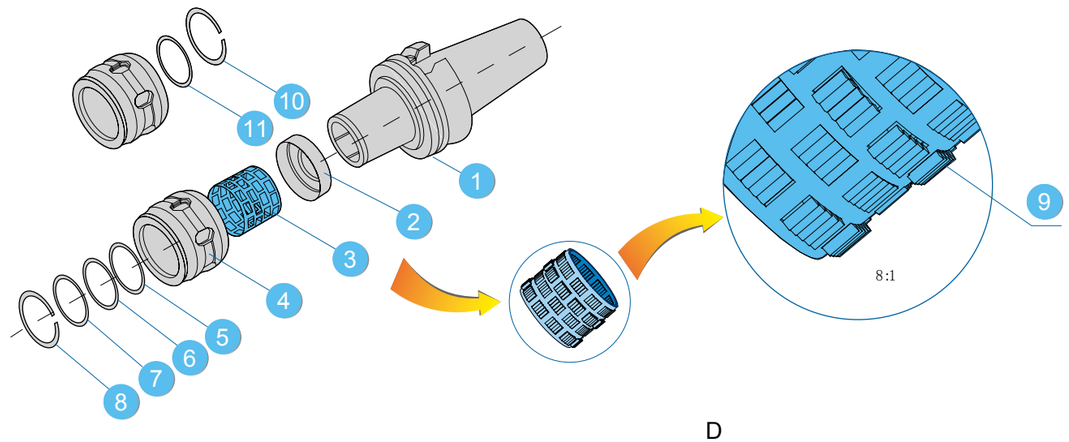
MILLING TOOLING SYSTEM



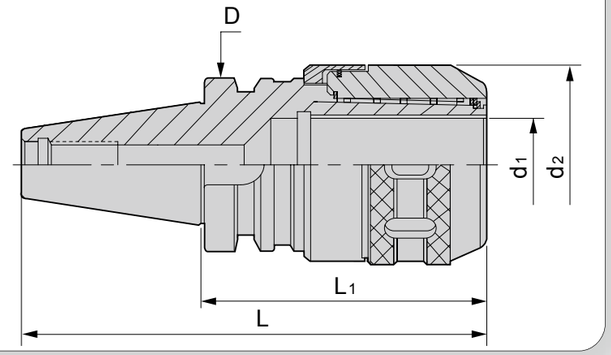
POWER MILLING CHUCK

FEATURE

-This cover ring is connecting with the transfer screw cap by groove of hermetic circle.
-This new power chuck mill is belongs to the hermetic set for CNC cutting tools.
-The cover ring can prevent the water, dust and cutting scrap going to the spacing from chuck body and transfer cap.
It can prolong the using time for the power milling chuck.



1. Holder body
2. Cover ring
3. Keeping shelves
4. Nut
5. Body spacer
6. Body lock ring
7. Body spacer
8. Body clamp spring
9. Needle roller
10. Nut clamp spring
11. Nut spacer



The shortcoming for the power miling chuck of standard type

-The standard milling chuck has the spacing between chuck body and transfer screw cap. It easily makes walter with dust and cutting scrap into the spacing, and it also will be move to take the dust and cutting scrap together running, it not only fret the surface of chuck body and transfer screw cap, but also break the needle roller bearing. The holding precision will be falling,at last it lose holding capacity.

THE INSTRUCITON OF HEINER MACHINE HOLDER

-The category of taper hole in machine holders: the universal system with taper of 7:24.

-The standards of machine holder with 7:24 taper in different countries: BT standard which is the most common in Asia matches with MAS403 CNC machine; DAT Germany standard matches with DIN69871 CNC machine; American CAT standard matches with the ANSI B5.50 CNC machine.

-The precision of Heiner brand series 7:24 machine holder taper< AT3.

-The usual material of Heiner machine holder is low-carbon steel above SCM415 or SNCM22. The materials of the different kinds of machine holders are different based on the actual requirement.

-Heat treatment craftwork: Carburization. On the surface it has 0.8mm carburized layer which has around HRC56°of the rigidity which is close to the rigidity of the machine tool's principal axis. Under high rolling with the principal axis clamping the machine holder, the precision of the machine holder's faying surface remains the same and the surface will not be deformation. But the rigidity of the holder center still remain HRC40°. The character of that soft inside and hard outside makes the Heiner machine holder flexible and resistant. Our experience indicates that the finishing work piece surface processed by Heiner brand machine holder is much better than other common machine holders.

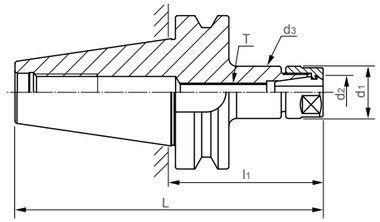
-Please inform us and mention specifically for the machine holders which requires standard dynamic balance with G6.3 or high precision dynamic balance with G2.5, which we need to quote specifically.

-If you want to know more of Heiner machine holder's precision, production date, and quality guarantee, etc, please find the inspection report in the product's packing box that you ordered. Each machine holder before leaving the factory is inspected more than three times. Please be rest assured with it.

ER Spring Collet Chuck

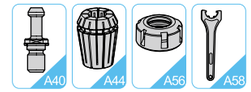
Use

For clamping tools with cylindrical shank in Collets according to DIN 6499
-Included in delivery: Clamping nut.
-Please guarantee that the clamping the tool hangs extends is short



Feature

-Material: Case-hardened steel,process machine : CNC Turing center
-Cone angle AT3,Tolerance:8°17′50″+/-5″
-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)
-With through hole for internal and flange coolant (AD/B) design can be customed on demand

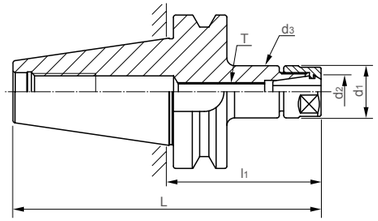


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BT30-ER11-100	100	148.4	19	11	19
BT30-ER16-70	70	118.4	28	16	28
BT30-ER16-100	100	148.4			
BT30-ER20-70	70	118.4	34	20	34
BT30-ER20-100	100	148.4			
BT30-ER25-70	70	118.4	42	25	42
BT30-ER25-100	100	148.4			
BT30-ER32-70	70	118.4	50	32	50
BT30-ER32-100	100	148.4			
BT30-ER40-80	80	128.4	63	40	63
BT40-ER11-70	70	118.4	19	11	19
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BT40-ER16-70	70	135.4	28	16	28
BT40-ER16-100	100	165.4			
BT40-ER16-150	150	215.4			
BT40-ER20-70	70	135.4	34	20	34
BT40-ER20-100	100	165.4			
BT40-ER20-150	150	215.4			
BT40-ER25-70	70	135.4	42	25	42
BT40-ER25-100	100	165.4			
BT40-ER25-150	150	215.4			
BT40-ER32-70	70	135.4	50	32	50
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BT40-ER32-150	150	215.4			
BT40-ER40-80	80	145.4	63	40	63
BT40-ER40-100	100	165.4			
BT40-ER40-150	150	215.4			

ER Spring Collet Chuck

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-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rpm/G2.5)
-With through hole for internal and flange coolant (AD/B) design can be customed on demand



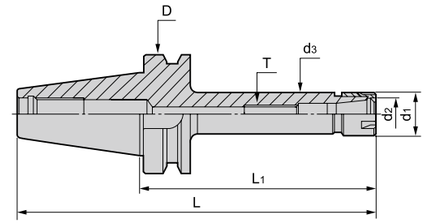
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BT50-ER16-200	200	301.8			
BT50-ER20-100	100	201.8	63	40	63
BT50-ER20-150	150	251.8			
BT50-ER20-200	200	301.8			
BT50-ER25-100	100	201.8	42	25	42
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BT50-ER40-250	250	351.8			
BT50-ER40-300	300	401.8			

Notice: Recommend the use of UP-grade ER Precision Collet. DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

ER Spring Collet Chuck -M Type

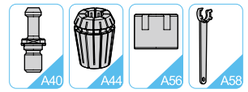
Use

For clamping tools with cylindrical shank in Collets according to DIN 6499
-Included in delivery: Clamping nut.
-Please guarantee that the clamping the tool hangs extends is short



Feature

-Material: Case-hardened steel,process machine : CNC Turing center
-Cone angle AT3,Tolerance:8°17′50″+/-5″
-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rpm/G2.5)
-With through hole for internal and flange coolant (AD/B) design can be customed on demand



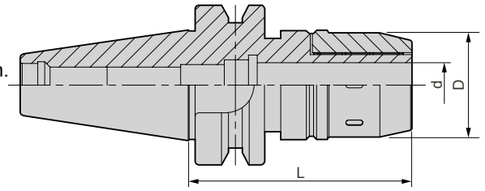
Code No.	Size(mm)						T	Weight
	D	d1	d2	d3	L1	L		
BT30-ER11M-70	46	16	11	15	70	118.4	M8×1.25P	0.50
BT30-ER11M-100					100	148.4		0.60
BT30-ER11M-120					120	168.4		0.70
BT30-ER16M-70		23	16	22	70	118.4	M12×1.75P	0.55
BT30-ER16M-100					100	148.4		0.65
BT30-ER16M-120					120	168.4		0.76
BT30-ER20M-100		28	20	27	100	148.4		0.70
BT30-ER20M-120					120	168.4		0.80
BT30-ER20M-150					150	198.4		1.00
BT40-ER11M-70	63	16	11	15	70	135.4	M8×1.25P	1.10
BT40-ER11M-100					100	165.4		1.20
BT40-ER11M-125					125	190.4		1.40
BT40-ER11M-150					150	215.4		1.50
BT40-ER16M-70		23	16	22	70	135.4	M12×1.75P	1.20
BT40-ER16M-100					100	165.4		1.30
BT40-ER16M-125					125	190.4		1.50
BT40-ER16M-150					150	215.4		1.60
BT40-ER20M-70		28	20	27	70	135.4		1.20
BT40-ER20M-100					100	165.4		1.55
BT40-ER20M-125					125	190.4		1.70
BT40-ER20M-150					150	215.4		1.80
BT50-ER11M-70	100	16	11	15	70	171.8	M8×1.25P	3.80
BT50-ER11M-90					90	191.8		3.90
BT50-ER11M-105					105	206.8		4.00
BT50-ER11M-135					135	236.8		4.10
BT50-ER11M-165					165	266.8		4.20
BT50-ER16M-70		23	16	22	70	171.8	M12×1.75P	3.90
BT50-ER16M-90					90	191.8		4.00
BT50-ER16M-105					105	206.8		4.10
BT50-ER16M-135					135	236.8		4.20
BT50-ER16M-165					165	266.8		4.30
BT50-ER20M-90		28	20	27	90	191.8		4.10
BT50-ER20M-105					105	206.8		4.20
BT50-ER20M-135					135	236.8		4.40
BT50-ER20M-165					165	266.8		4.60

Notice: Recommend the use of UP-grade ER Precision Collet. DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

HPC High Speed Power Milling Chuck

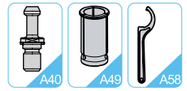
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.
-It is suitable for high-speed and high precision cutting.
-Included in delivery: C-type Wrench



Feature

-Accuracy: T.I.R. <0.01mm
-Material: Case-hardened steel
-Dust-proof design, to extend tool holder life time
-Standard balanced by design (12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rpm/G2.5)



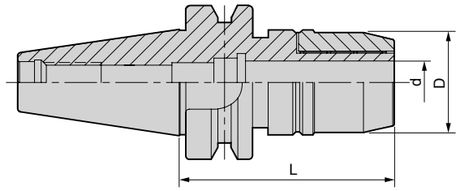
Code No.	Range	Size(mm)				Weight
		D	d	L		
BT30-HPC16-70	3-16	46	16	70	C16	1.4
BT30-HPC20-75	4-20	53	20	75	C20	1.8
BT40-HPC16-70	3-16	46	16	70	C16	1.6
BT40-HPC16-105				105		1.8
BT40-HPC16-135				135		2.3
BT40-HPC20-80	4-20	53	20	80	C20	2.4
BT40-HPC20-105				105		2.5
BT40-HPC20-135				135		2.8
BT40-HPC32-105	6-32	68	32	105	C32	2.8
BT40-HPC32-135				135		3.0
BT50-HPC16-90	3-16	46	16	90	C16	3.9
BT50-HPC16-110				110		4.1
BT50-HPC16-135				135		4.3
BT50-HPC16-150				150		4.5
BT50-HPC20-105	4-20	53	20	105	C20	4.5
BT50-HPC20-135				135		4.7
BT50-HPC20-150				150		4.9
BT50-HPC32-110	6-32	68	32	110	C32	5.2
BT50-HPC32-135				135		5.9
BT50-HPC32-165				165		6.6

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

HPM High Speed Power Milling Chuck

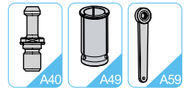
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.
-It is suitable for high-speed and high precision cutting.
-Included in delivery: C-type Wrench



Feature

-Accuracy: T.I.R. <0.01mm
-Material: Case-hardened steel
-Dust-proof design, to extend tool holder life time
-Standard balanced by design (12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rpm/G2.5)



Code No.	Range	Size(mm)			Suit Collet	Weight
		D	d	L		
BT30-HPM16-70	3-16	46	16	70	C16	1.4
BT30-HPM20-75	4-20	53	20	75	C20	1.8
BT40-HPM16-70	3-16	46	16	70	C16	1.6
BT40-HPM16-105				105		1.8
BT40-HPM16-135				135		2.3
BT40-HPM20-80	4-20	53	20	80	C20	2.4
BT40-HPM20-105				105		2.5
BT40-HPM20-135				135		2.8
BT40-HPM32-105	6-32	68	32	105	C32	2.8
BT40-HPM32-135				135		3.0
BT50-HPM16-90	3-16	46	16	90	C16	3.9
BT50-HPM16-110				110		4.1
BT50-HPM16-135				135		4.3
BT50-HPM16-150				150		4.5
BT50-HPM20-105	4-20	53	20	105	C20	4.5
BT50-HPM20-135				135		4.7
BT50-HPM20-150				150		4.9
BT50-HPM32-110	6-32	68	32	110	C32	5.2
BT50-HPM32-135				135		5.9
BT50-HPM32-165				165		6.6

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

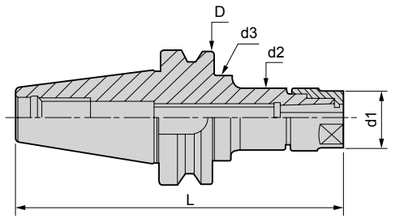
SK High Speed Precision Collet Chuck

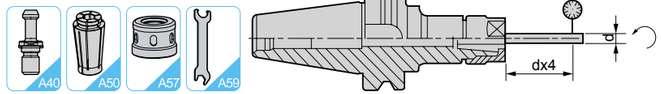
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-Process machine : CNC Turing center
-Standard balanced by designed(12000rpm/G6.3)
-Fine balancing can be customed on demand (30000rpm/G2.5)
-The 7/24 cone of the shank meet the standard ISO-AT3





Code No.	Range	Size(mm)					Suit Nut	Weight
		D	d1	d2	d3	L		
BT30-SK6A-70	0.7-6.0	46	19.5	20.5	20.5	118.4	SK6-A	0.9
BT30-SK6A-100					32	148.4		0.95
BT30-SK10A-70	1.75-10.0		27.5	29	29	118.4	SK10-A	0.95
BT30-SK10A-100						148.4		1.0
BT40-SK6A-70	0.7-6.0	63	19.5	20.5	20.5	135.4	SK6-A	1.1
BT40-SK6A-100					32	165.4		1.2
BT40-SK6A-120						185.4		1.4
BT40-SK10A-70	1.75-10.0	63	27.5	29	29	135.4	SK10-A	1.5
BT40-SK10A-100						165.4		1.6
BT40-SK10A-120					40	185.4		1.7
BT40-SK10A-150						215.4		1.8
BT50-SK10A-105	1.75-10.0	100	27.5	29	29	206.8	SK10-A	4.5
BT50-SK10A-135					32	236.8		4.6
BT50-SK10A-165						266.8		4.7
BT30-SK16M-100	2.75-16.0	46	40	41.9	41.9	148.4	SK16-M	1.1
BT30-SK16M-120						168.4		1.2
BT30-SK16M-150						198.4		1.3
BT30-SK25M-100	16.0-25.4		55	56.1	56.1	148.4	SK25-M	1.4
BT40-SK16M-70	2.75-16.0	63	40	41.9	41.9	135.4	SK16-M	1.6
BT40-SK16M-100						165.4		1.7
BT40-SK16M-120						185.4		1.8
BT40-SK16M-150						215.4		1.9
BT40-SK25M-100	16.0-25.4		55	56.1	56.1	165.4	SK25-M	1.7
BT40-SK25M-120						185.4		1.8
BT50-SK16M-100	2.75-16.0	100	40	41.9	41.9	201.8	SK16-M	4.6
BT50-SK16M-125						226.8		4.5
BT50-SK16M-150					50	251.8		4.7
BT50-SK16M-195					52	296.8		5.1
BT50-SK25M-100	16.0-25.4	100	55	56.1	56.1	201.8	SK25-M	4.5
BT50-SK25M-125						226.8		4.7
BT50-SK25M-150						251.8		4.9
BT50-SK25M-200						301.8		5.3

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

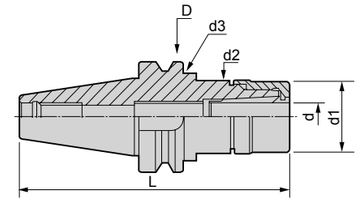
GSK High Speed Precision Collet Chuck

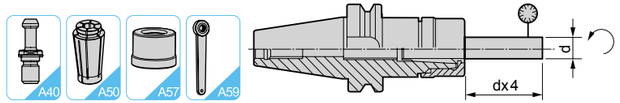
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-Process machine : CNC Turing center
-Standard balance 16000RPM/G6.3, optional balance 24000rpm/ G2.5 (the highest dynamic balancing of this product can reach up to 24000rpm/G2.5)
-The 7/24 cone of the shank meet the standard ISO-AT3





Code No.	Range	Size(mm)					Suit Nut	Weight
		D	d1	d2	d3	L		
BT30-GSK6-70	0.7-6.0	40	19.5	20.5	20.5	117.8	-GSK6	0.9
BT30-GSK6-100				32	32	147.8		0.95
BT30-GSK10-70	1.75-10.0		27.5	29	29	117.8	-GSK10	0.95
BT30-GSK10-100						147.8		1.0
BT30-GSK16-100	2.75-16.0		40	41.9	41.9	147.8	-GSK16	1.0
BT30-GSK16-120						167.8		1.1
BT30-GSK16-150						197.8		1.2
BT30-GSK25-100	16.0-25.4		55	56.1	56.1	147.8	-GSK25	1.1
BT40-GSK6-70	0.7-6.0	63	19.5	20.5	20.5	138.4	-GSK6	1.1
BT40-GSK6-100					32	168.4		1.2
BT40-GSK6-120						188.4		1.4
BT40-GSK10-70	1.75-10.0		27.5	29	29	138.4	-GSK10	1.5
BT40-GSK10-100					40	168.4		1.6
BT40-GSK10-120						188.4		1.7
BT40-GSK10-150						218.4		1.8
BT40-GSK16-70	2.75-16.0		40	41.9	41.9	138.4	-GSK16	1.6
BT40-GSK16-100						168.4		1.7
BT40-GSK16-120						188.4		1.8
BT40-GSK16-150						218.4		1.9
BT40-GSK25-100	16.0-25.4		55	56.1	56.1	168.4	-GSK25	1.7
BT40-GSK25-120						188.4		1.8
BT50-GSK10-100	1.75-10.0	100	27.5	29	29	201.75	-GSK10	4.0
BT50-GSK10-120					32	221.75		4.2
BT50-GSK10-150						251.75		4.5
BT50-GSK16-100	2.75-16.0		40	41.9	41.9	201.75	-GSK16	4.3
BT50-GSK16-120						221.75		4.5
BT50-GSK16-150					50	251.75		4.7
BT50-GSK16-200					52	301.75		5.1
BT50-GSK25-100	16.0-25.4		55	56.1	56.1	201.75	-GSK25	4.3
BT50-GSK25-120						221.75		4.5
BT50-GSK25-150						251.75		4.7
BT50-GSK25-200						301.75		5.1

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

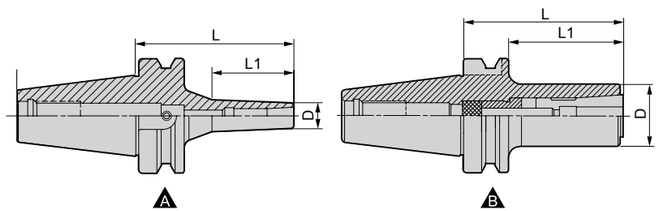
DC Precision Slim Collet Power Milling Chuck

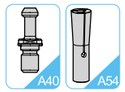
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-Process machine : CNC Turing center
-The small head diameter minimizes interference.
-It is easy to operate, for both assembling and disassembling, all you need is an ordinary hexagonal spanner.
-Accuracy: T.I.R. <0.005mm (Length 4D)
-Standard balanced by designed(12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rpm/G2.5)

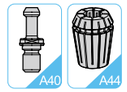


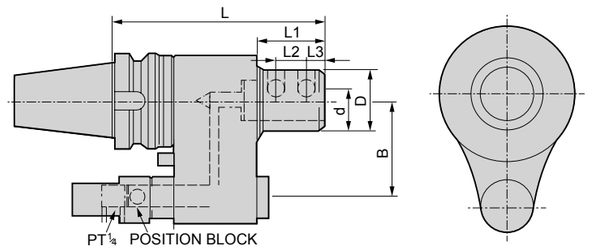


Code No.	Figure	Size(mm)			Suit Collet	Wrench
		D	L1	L		
BT30-DC6-60	A	13	26	60	-DC6	M4
BT30-DC6-90			50	90		
BT30-DC12-70	B	34	45	70	-DC12	M8
BT40-DC6-60	A	13	26	60	-DC6	M4
BT40-DC6-90			45	90		
BT40-DC6-120			60	120		
BT40-DC6-150			76	150		
BT40-DC8-90		22	53	90	-DC8	M5
BT40-DC8-120			65	120		
BT40-DC10-90	B	28	51	90	-DC10	M6
BT40-DC10-120	A		60	120		
BT40-DC12-70	B	34	35	70	-DC12	M8
BT40-DC12-90			55	90		
BT40-DC12-120			85	120		
BT40-DC12-150			90	150		
BT50-DC10-110	A	28	57	110	-DC10	M6
BT50-DC10-150			75	150		
BT50-DC12-110	B	34	57	110	-DC12	M8
BT50-DC12-150	A		80	150		

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

ER Collet Type Multi Oil Hole Holder

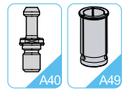


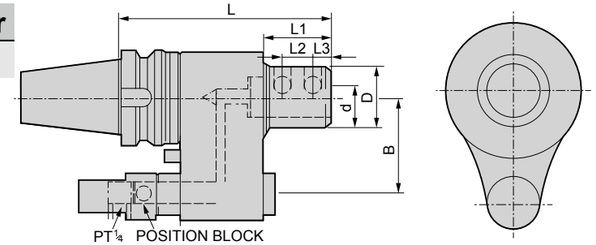


Code No.	Size(mm)				Weight
	D	d	L	B	
BT40-ERO32-145	50	4-20	145	60/65	4.4
BT40-ERO40-150	63	4-25	150		4.6
BT50-ERO32-160	50	4-20	155	80/82	7.3
BT50-ERO40-160	63	4-25	160		7.5

Notice:Must use ER coolant nut & ER coolant collet. When ordering,please specify the B part of oil-feed holder according to your machine.
Quote in cluding screw cap,collet,wrench and positioning block should order additional.
DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

C Straight Collet Type Multi Oil Hole Holder

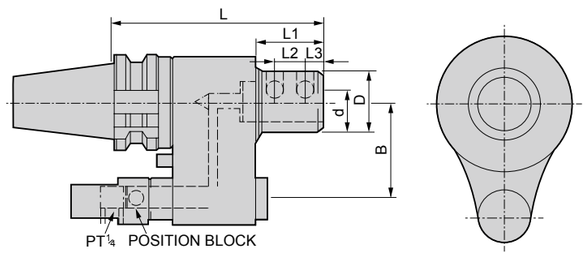




Code No.	Size(mm)				Weight
	D	D1	L	B	
BT40-CO20-145	52	20	150	60/65	3.6
BT40-CO32-160	69	32	165		4.4
BT50-CO20-160	52	20	160	80/82	7.0
BT50-CO32-170	69	32	170		7.1

Notice:When ordering,please specify the B part of oil-feed holder according to your machine.Collet,wrench and positioning block should order additional.
DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

SLO Side Lock Type Multi Oil Hole Holder





Code No.	Size(mm)							Weight
	D	d	L1	L2	L3	L	B	
BT40-SLO32-150	53	32	50	15	15	150	60/65	3.4
BT40-SLO40-150	70	40		18	19			3.8
BT50-SLO32-160	54	32		15	15	160	80/82	7.8
BT50-SLO40-160	54	40		18	19			8.7

Notice:When ordering,please specify the B part of OIL-FEED HOLDER according to your machine.
DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

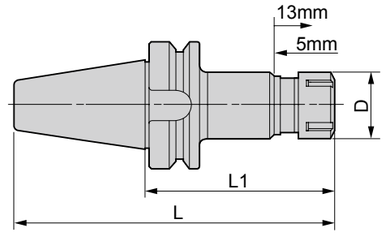
TER Flex Tapping Chuck

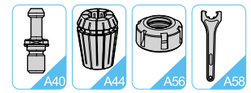
Use

For tapping preferably on CNC milling machines

Feature

-Material: Case-hardened steel
-Tap is clamped by ER spring collets, minimizing the need to stock various collet sizes.
-Tap is clamped on a floating tap holder; the tapping torque is transmitted through a square shank on the floating tap holder.
-0.1mm radius tolerance between floating tap holder and shank for compensation of the offset of tap and pre-drilled hole to increase tap tool life.
-Compression and extention movement of the floating tap holder is designed for compensating unsynchronization of the spindle speed and feed while tapping.
-Two set screws are added to prevent slipping of the taps while the tapping functions in taking place.

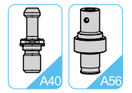


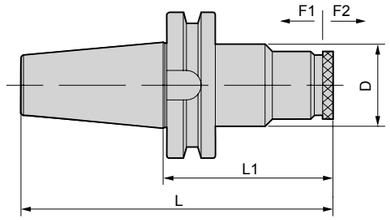


Code No.	Size(mm)			Suit Collet	Tapping Capacity	Weight
	D	L1	L			
BT30-TER16	28	80	128.4	ER16	M3-M12	0.75
BT30-TER20	34	90	138.4	ER20	M4-M16	0.80
BT40-TER16	28	77	145.4	ER16	M3-M12	1.65
BT40-TER20	32	86	154.4	ER20	M4-M16	1.70
BT40-TER25	42	90	158.4	ER25	M5-M20	1.80
BT40-TER32	50	94	162.4	ER32	M8-M27	2.10
BT40-TER40	63	98	166.4	ER40	M12-M35	2.40
BT50-TER16	28	80	181.8	ER16	M3-M12	4.20
BT50-TER20	34	99	200.8	ER20	M4-M16	4.30
BT50-TER25	42	97	198.8	ER25	M5-M20	4.50
BT50-TER32	50	95	196.8	ER32	M8-M27	4.70
BT50-TER40	63	117	218.8	ER40	M12-M35	4.90

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

TPM Rigid Tap Holder





Code No.	Size(mm)					Suit Collet	Tapping Capacity	Weight
	D	F1	F2	L1	L			
BT30-TPM316	48	10	20	150	198.4	TPC316	M3-M16	0.75
BT30-TPM830	66		25	195	243.4	TPC830	M8-M30	0.80
BT40-TPM316	48	10	20	150	218.4	TPC316	M3-M16	1.65
BT40-TPM830	66		25	195	263.4	TPC830	M8-M30	1.80
BT50-TPM316	48	10	20	150	251.8	TPC316	M3-M16	4.30
BT50-TPM830	66		25(80)	195	296.8	TPC830	M8-M30	4.70

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

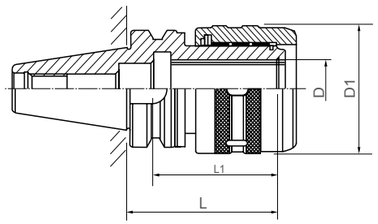
C Straight Collet Power Milling Chuck

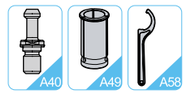
Use

For clamping tools with cylindrical shank

Feature

-Material: Case-hardened steel
-Included in delivery: ball bearing locknut
-Enlarging of size L against extra charge
-The needle bearing has been arranged inclined to center of the chuck as thread that gives higher gripping power and smooth operation.
-The holding portion of the chuck is slotted with radius form and thickness of the holding portion is thicker to increase the rigidity of the chuck
-Thanks to the stainless sealing washer has been used at the front of the chucking, waterproof is confirmed.
- Accuracy: T.I.R. 0.005mm





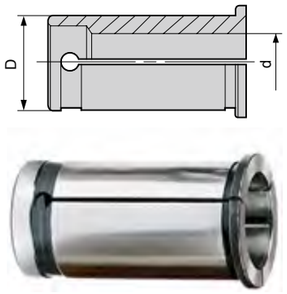
Code No.	Size(mm)				
	ØD	L	ØD1	L1	
				MIN	MAX
BT30-C20-80	20	80	53	45	70
BT40-C20-105	20	105	53	45	70
BT40-C32-105	32	105	70	50	76
BT40-C32-135		135			
BT50-C20-105	20	105	53	45	70
BT50-C32-105	32	105	74	60	95
BT50-C32-135		135			
BT50-C32-165		165			
BT50-C42-115	42	115	92		98
BT50-C42-135		135			
BT50-C42-165		165			

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

C Straight Collet Power Milling Chuck Set

Code No.	Size(mm)		PCS/SET
	D	d	
BT40-C20-5PCS	20	6,8,10,12,16	5
BT40-C32-7PCS	32	6,8,10,12,16,20,25	7
BT40-C42-8PCS	42	6,8,10,12,16,20,25,32	8
BT50-C20-5PCS	20	6,8,10,12,16	5
BT50-C32-7PCS	32	6,8,10,12,16,20,25	7
BT50-C42-8PCS	42	6,8,10,12,16,20,25,32	8

Notice:Cold treatment option against extra fee.





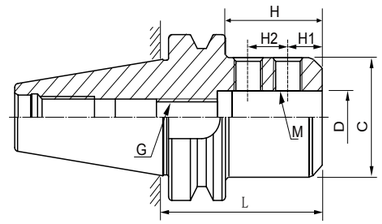
SLA Side Lock Holder

Use

For clamping tools with end mills DIN1835-B
-Combined End Mills and Drills
-Included in delivery: tightening bolt

Feature

-Material: Case-hardened steel,
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Holder diameter groud up to H4
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Standard balanced by (design 8000 rpm)
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)

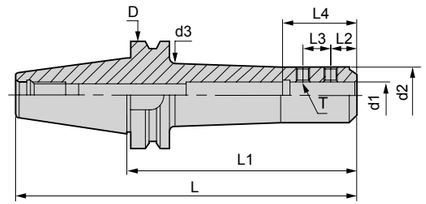




Code No.	Size(mm)								
	ØD	L	ØC	H		H1	H2	M	G
				MIN	MAX				
BT30-SLA6-60	6	60	25	20	35	18	-	M5	M5
BT30-SLA8-60	8	60	28	20	35	18	-	M6	M6
BT30-SLA10-60	10	60	35	35	50	14	13	M8	M8
BT30-SLA12-60	12	60	40	35	50	14	13	M8	M8
BT30-SLA16-90	16	90	40	55	70	25	20	M10	M10
BT30-SLA20-90	20	90	50	55	70	25	20	M12	M12
BT30-SLA25-90	25	90	50	55	70	25	20	M12	M12
BT30-SLA25-105	25	105	60	65	80	25	25	M12	M12
BT40-SLA6-75	6	75	25	20	35	18	-	M5	M5
BT40-SLA8-75	8	75	28	20	35	18	-	M6	M6
BT40-SLA10-75	10	75	35	35	50	14	13	M8	M8
BT40-SLA12-75	12	75	40	35	50	14	13	M8	M8
BT40-SLA16-90	16	90	40	55	70	25	20	M10	M10
BT40-SLA20-90	20	90	50	55	70	25	20	M12	M12
BT40-SLA25-90	25	90	50	55	70	25	20	M12	M12
BT40-SLA32-105	32	105	60	65	80	25	25	M14	M14
BT40-SLA40-105	40	105	70	65	80	25	25	M16	M16
BT40-SLA42-105	42	105	70	65	80	25	25	M16	M16
BT50-SLA6-105	6	105	25	20	35	-	-	M5	M5
BT50-SLA8-105	8	105	28	20	35	-	-	M6	M6
BT50-SLA10-105	10	105	35	35	50	13	13	M8	M8
BT50-SLA12-105	12	105	40	35	50	13	13	M8	M8
BT50-SLA16-105	16	105	40	55	70	20	20	M10	M10
BT50-SLA20-105	20	105	50	55	70	20	20	M12	M12
BT50-SLA20-150	20	150	50	55	70	20	20	M12	M12
BT50-SLA20-200	20	200	50	55	70	20	20	M12	M12
BT50-SLA20-250	20	250	50	55	70	20	20	M12	M12
BT50-SLA25-105	25	105	50	55	70	20	20	M12	M12
BT50-SLA25-150	25	150	50	55	70	20	20	M12	M12
BT50-SLA25-200	25	200	50	55	70	20	20	M12	M12
BT50-SLA25-250	25	250	50	55	70	20	20	M12	M12
BT50-SLA32-105	32	105	60	65	80	25	25	M14	M12
BT50-SLA32-150	32	150	60	65	80	25	25	M14	M12
BT50-SLA32-200	32	200	60	65	80	25	25	M14	M12
BT50-SLA32-250	32	250	60	65	80	25	25	M14	M12
BT50-SLA40-105	40	105	70	65	80	25	25	M14	M12
BT50-SLA42-105	42	105	70	65	80	25	25	M14	M12
BT50-SLA42-150	42	150	70	65	80	25	25	M14	M12
BT50-SLA42-200	42	200	70	65	80	25	25	M14	M12
BT50-SLA42-250	42	250	70	65	80	25	25	M14	M12

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

SLA-JIS Side Lock Holder



Use

For clamping tools with end mills DIN1835-B
-Combined End Mills and Drills
-Included in delivery: tightening bolt

Feature

-Material: Case-hardened steel,
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Holder diameter groud up to H4
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Standard balanced by (design 8000 rpm)
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)



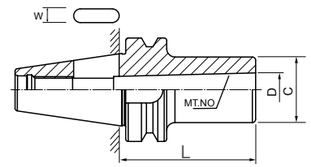
Code No.	Size(mm)									T	Weight
	D	d1	d2	d3	L1	L2	L3	L4	L		
BT40-SLA6-75JIS	63	6	25	-	75	12	10	45	140.4	M6×1.0P	1.3
BT40-SLA6-150JIS				30	150				215.4		1.5
BT40-SLA8-75JIS		8	28	-	75	14	12		140.4	M8×1.25P	1.3
BT40-SLA8-150JIS				33	150				215.4		1.5
BT40-SLA10-75JIS		10	35	-	75	15	14	49	140.4	M10×1.5P	1.3
BT40-SLA10-150JIS				40	150				215.4		1.5
BT40-SLA12-75JIS		12	42	-	75	20	16	54	140.4		1.5
BT40-SLA12-150JIS				47	150				215.4		1.5
BT40-SLA16-75JIS		16	48	-	75	22	18	57	140.4		1.5
BT40-SLA16-150JIS				53	150				215.4		1.7
BT40-SLA20-90JIS		20	52	-	90	25	20	65	155.4	M12×1.75P	1.6
BT40-SLA20-150JIS				57	150				215.4		1.8
BT40-SLA25-90JIS		25	50	-	90	24	25	65	155.4		2.5
BT40-SLA32-100JIS		32	60		100		28	73	165.4	M16×2.0P	2.75
BT50-SLA6-75JIS	100	6	25	-	75	12	10	45	176.8	M6×1.0P	3.9
BT50-SLA8-75JIS		8	28			14	12			M8×1.25P	
BT50-SLA10-75JIS		10	35			15	14	49		M10×1.5P	
BT50-SLA12-90JIS		12	42		90	20	16	54	191.8		
BT50-SLA12-165JIS				47	165				266.8		5
BT50-SLA16-90JIS		16	48	-	90	22	18	57	191.8	M10×1.5P	3.9
BT50-SLA16-165JIS				53	165				266.8		5
BT50-SLA20-90JIS		20	50	-	90	25	20	65	191.8	M12×1.75P	4.5
BT50-SLA20-165JIS				57	165				266.8		6
BT50-SLA20-210JIS					210				311.8		7
BT50-SLA25-100JIS		25		-	100	24	25	68	201.8		5.5
BT50-SLA25-165JIS				57	165				266.8		6
BT50-SLA25-210JIS					210				311.8		7
BT50-SLA32-105JIS		32	60	-	105		28	73	206.8	M16×2.0P	6.5
BT50-SLA32-165JIS				65	165				266.8		7
BT50-SLA32-210JIS					210				311.8		7.5
BT50-SLA32-250JIS			50	55	250				351.8		8
BT50-SLA42-210JIS		42	70	75	210	30	32	85	311.8	M20×2.0P	7.8
BT50-SLA50-120JIS		50	90	-	120	35	35	90	221.8		7.2
BT50-SLA50.8-120JIS		50.8				33	34.54				

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

MTA Morse Taper Holder For Drill

Use

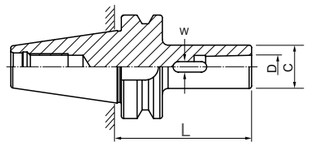
For holding tools with Morse tapers and tang according to DIN6383



Feature

-Material: Case-hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Hole diameter according to DIN6383
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)





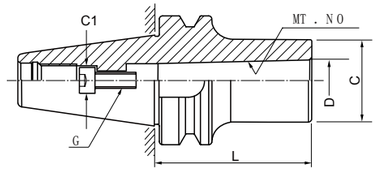
Code No.	Size(mm)					
	MT.NO	D	W	L	C	Fig
BT30-MTA1-45	1	12.065	45	20	5.6	1
BT30-MTA2-45	2	17.780	45	30	6.6	1
BT30-MTA3-45	3	23.825	45	40	8.4	1
BT40-MTA1-45	1	12.065	45	25	5.6	1
BT40-MTA1-120			120			2
BT40-MTA2-45	2	17.780	45	32	6.6	1
BT40-MTA2-120			120			2
BT40-MTA3-70	3	23.825	75	40	8.4	1
BT40-MTA3-135			135			2
BT40-MTA4-90	4	31.065	90	50	12.4	1
BT40-MTA4-165			165			2
BT50-MTA1-45	1	12.065	45	25	5.6	1
BT50-MTA1-120			120			2
BT50-MTA1-180			180			
BT50-MTA2-45	2	17.780	45	25	6.6	1
BT50-MTA2-135			135			2
BT50-MTA2-180			180			
BT50-MTA3-45	3	23.835	45	40	8.4	1
BT50-MTA3-150			150			2
BT50-MTA3-180			180			
BT50-MTA4-75	4	44.399	75	50	12.4	1
BT50-MTA4-180			180			2
BT50-MTA4-105			105			1

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

MTB Morse Taper Holder For Mill

Use

For holding tools with Morse tapers and tang according to DIN6364



Feature

-Material: Case-hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
- Hole diameter according to DIN6364
-Hardness: HRC60°+/-2°(HV700+/-50).
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)



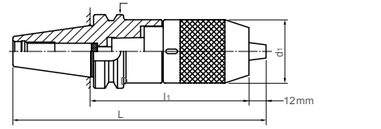
Code No.	Size(mm)					
	MT.NO	D	L	C	C1	G
BT30-MTB1-45	1	12.065	45	25	10	M6×1.0P
BT40-MTB1-45	1	12.065	45	25	10	M6×1.0P
BT40-MTB2-45	2	17.780	45	32	13.5	M10×1.5P
BT40-MTB3-75	3	23.825	75	42	18	M12×1.75P
BT40-MTB4-75	4	31.267	75	50	20.5	M16×2P
BT50-MTB1-45	1	12.065	45	25	10	M6×1.0P
BT50-MTB2-45	2	17.780	45	32	16	M10×1.5P
BT50-MTB3-60	3	23.825	60	42	18	M12×1.75P
BT50-MTB4-75	4	31.267	75	50	20.5	M16×2P

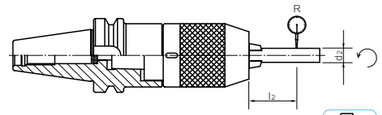
Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

APU Drill Chuck

Use

For high-precise clamping of tools with cylindrical shank with newly developed collets. Very useful for high-speed machining





Feature

-Material: Case-hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)
- With through hole for internal and flange coolant (AD/B) design can be customed on demand

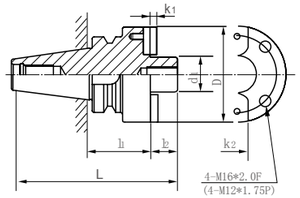
Code No.	Size(mm)					
	L1	L	L2	D	d1	d2
BT30-APU8-80	80	137.4	55	46	37	6
BT30-APU13-110	110	170.4	75		50	13
BT40-APU8-85	85	159.4	55	63	37	6
BT40-APU13-110	110	187.4	75		50	13
BT40-APU16-130	130	212.4	80		57	16
BT50-APU13-120	120	223.4	75	100	50	13
BT50-APU13-180	180	293.4	75		57	16
BT50-APU16-130	130	248.4	80		57	16
BT50-APU16-190	190	308.8	80		57	16

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

FMA Face Mill Holder(Straight Style)

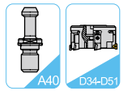
Use

For clamping JIS B4113 ace milling cutter with inch size center
Include in delivery: tightening bolt, and feater key



Feature

-material: Case -hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R <0.005MM
-Cone angle<AT3, TOLERANCE:8°17' 50" +/-5"
-Hardness: HRC60°+/-2°(HV700+/-50)
-Depth of case 0.8mm+/-0.2mm
-Pre-balance by design (8000rmp/G6.3), Through tool holder coolant capacity
-Fine balancing can be customed on demand(12000rmp/G6.3,25000rmp/G2.5)
-With through hole for internal and flange coolant(AD/B) design can be customed on demand.



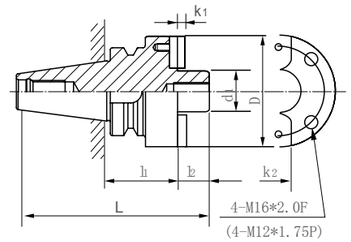
Code No.	Size(mm)							
	D	d1	d2	L1	L2	L	K1	K2
BT30-FMA25.4-45	50	25.40	31.5	45	20	113.4	4.52	9.52
BT30-FMA25.4-60				60		1284		
BT30-FMA31.75-45	60	31.75	40	45	22	115.4	6.70	12.70
BT40-FMA25.4-45	50	25.40	31.5	45	20	130.4	4.52	9.52
BT40-FMA25.4-60				60		145.4		
BT40-FMA25.4-90				90		175.4		
BT40-FMA25.4-105				105		190.4		
BT40-FMA31.75-45	60	31.75	40	45	22	132.4	6.70	12.70
BT40-FMA38.1-60	75	38.10	50	60	25	150.4	8.87	15.87
BT40-FMA50.8-60	98	50.80	65		36	161.4	9.75	19.05
BT50-FMA25.4-45	50	25.40	31.5	45	20	166.8	4.52	9.52
BT50-FMA25.4-90				90		211.8		
BT50-FMA25.4-150				150		271.8		
BT50-FMA31.75-45	60	31.75	40	45	22	168.8	6.70	12.70
BT50-FMA31.75-105	98			105		228.8		
BT50-FMA38.1-45	50	38.10	50	45	25	171.8	8.87	15.87
BT50-FMA50.8-45	95	50.80	65	45	36	182.8	9.75	19.05
BT50-FMA50.8-75				75		212.8		
BT50-FMA47.62-75	128.75	47.625	-		32	208.8	12.50	25.40

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

FMB Face Mill Holder(Straight Style)

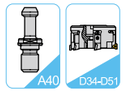
Use

For clamping JIS B4113 ace milling cutter with metric size center
Include in delivery: tightening bolt, and feater key



Feature

-material: Case -hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R <0.005MM
-Cone angle<AT3, TOLERANCE:8°17' 50" +/-5"
-Hardness: HRC60°+/-2°(HV700+/-50)
-Depth of case 0.8mm+/-0.2mm
-Pre-balance by design (8000rmp/G6.3), Through tool holder coolant capacity
-Fine balancing can be customed on demand(12000rmp/G6.3,25000rmp/G2.5)
-With through hole for internal and flange coolant(AD/B) design can be customed on demand.



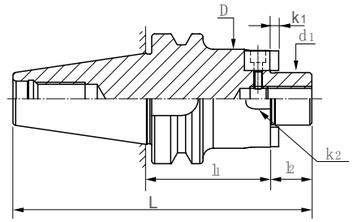
Code No.	Size(mm)							
	D	d1	d2	L1	L2	L	K1	K2
BT30-FMB22-45	48	22	26	45	18	111.4	4.8	10
BT30-FMB27-45	60	27	33	45	20	113.4	5.8	12
BT30-FMB32-45	78	32	40	45	22	115.4	6.8	15
BT40-FMB22-45	48	22	26	45	18	128.4	4.8	10
BT40-FMB22-60				60		143.4		
BT40-FMB22-90				70		173.4		
BT40-FMB22-150				150		128.4		
BT40-FMB22-200				200		143.4		
BT40-FMB22-250				250		173.4		
BT40-FMB27-45	60	27	33	45	20	130.4	5.8	12
BT40-FMB27-60				60				
BT40-FMB27-100				100				
BT40-FMB32-45	78	32	40	45	22	132.4	6.8	14
BT40-FMB32-60								
BT40-FMB40-45	80	40	50	45	25	135.4	8.3	16
BT50-FMB22-45	48	22	26	45	18	164.8	4.8	10
BT50-FMB22-100				100		219.8		
BT50-FMB22-150				150		269.8		
BT50-FMB22-250				250		369.8		
BT50-FMB22-300				300		369.8		
BT50-FMB27-75	60	27	33	75	20	141.8	5.8	12
BT50-FMB27-100								
BT50-FMB32-75	78	32	40	75	22	143.8	6.8	14
BT50-FMB40-75	85	40	50	75	25	145.8	8.3	16
BT50-FMB40F-75	110		-	75	26	202.8		

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

FMA Face Mill Holder(Lengthen&Pitch Style)

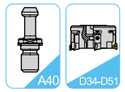
Use

For clamping JIS B4113 ace milling cutter with inch size center
Include in delivery: tightening bolt, and feater key



Feature

-material: Case -hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R <0.005MM
-Cone angle<AT3, TOLERANCE:8°17' 50" +/-5"
-Hardness: HRC60°+/-2°(HV700+/-50)
-Depth of case 0.8mm+/-0.2mm
-Pre-balance by design (8000rmp/G6.3), Through tool holder coolant capacity
-Fine balancing can be customed on demand(12000rmp/G6.3,25000rmp/G2.5)
-With through hole for internal and flange coolant(AD/B) design can be customed on demand.



Code No.	Size(mm)									
	D	d1	d2	d3	L1	L2	L	K1	K2	
BT50-FMA25.4-150BG	48	25.4	31.5	60	150	20	271.8	4.25	9.52	
BT50-FMA25.4-200BG	58			63	200		321.8			
BT50-FMA25.4-250BG					250		371.8			
BT50-FMA25.4-300BG					300		421.8			
BT50-FMA25.4-350BG				66	350		471.8			
BT50-FMA25.4-400BG					400		521.8			
BT50-FMA31.75-150BG	70	31.75	40	75	150	22	273.8	6.7	12.7	
BT50-FMA31.75-175BG					175		298.8			
BT50-FMA31.75-200BG					200		323.8			
BT50-FMA31.75-250BG					250		373.8			
BT50-FMA31.75-300BG					300		423.8			
BT50-FMA31.75-350BG					350		473.8			

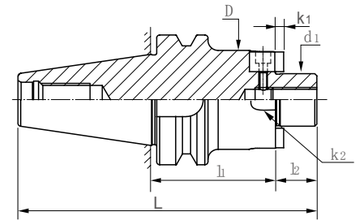
Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

Milling Tooling System - MAS403 BT System

FMB Face Mill Holder(Lengthen&Pitch Style)

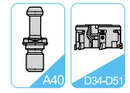
Use

For clamping JIS B4113 ace milling cutter with metric size center
Include in delivery: tightening bolt, and feater key



Feature

-material: Case -hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R <0.005MM
-Cone angle<AT3, TOLERANCE:8°17' 50" +/-5"
-Hardness: HRC60°+/-2°(HV700+/-50)
-Depth of case 0.8mm+/-0.2mm
-Pre-balance by design (8000rmp/G6.3), Through tool holder coolant capacity
-Fine balancing can be customed on demand(12000rmp/G6.3,25000rmp/G2.5)
-With through hole for internal and flange coolant(AD/B) design can be customed on demand.



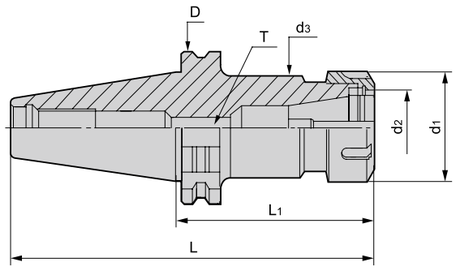
Code No.	Size(mm)									Weight
	D	d1	d2	d3	L1	L2	L	K1	K2	
BT40-FMB22-150BG	48	22	26	50	150	18	233.4	4.8	10	3.1
BT40-FMB22-200BG					200		283.4			4.0
BT40-FMB22-250BG					250		333.4			4.9
BT50-FMB22-150BG	58	22	26	63	150	18	269.8	4.8	10	6.8
BT50-FMB22-200BG					200		319.8			8.4
BT50-FMB22-250BG					250		369.8			9.4
BT50-FMB22-300BG					300		419.8			10.4
BT50-FMB22-350BG				66	350		469.8			11.4
BT50-FMB22-400BG					400		519.8			12.4
BT50-FMB22-450BG					450		569.8			13.4
BT50-FMB22-500BG					500		619.8			15.3

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

ER Spring Collet Chuck

Use

For clamping tools with cylindrical shank in collects according to DIN 6499
-Included in delivery: Clamping nut.
-Please guarantee that the clamping the tool hangs extends is short



Feature

-Material: Case-hardened steel,process machine : CNC Turing center
-Cone angle AT3,Tolerance:8°17′50″+/-5″
-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-re-balanced by design (8000rpm/G6.3), Through tool holder coolant capability.
Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5
- With through hole for internal and flange coolant (AD/B) design can be customed on demand



Code No.	Size(mm)						T	Weight
	D	d1	d2	d3	L1	L		
DAT30-ER11-60	50	19	11	19	79.4	127.8	M10×1.5P	0.60
DAT30-ER16-63		28	16	28	62.4	110.8		0.70
DAT30-ER16-120					119.4	167.8		0.85
DAT30-ER20-63		34	20	34	62.4	110.8	M12×1.75P	0.80
DAT30-ER20-120					119.4	167.8		1.05
DAT30-ER25-63		42	25	42	62.4	110.8	M16×2.0P	0.85
DAT30-ER32-63		50	32	50				0.90
DAT40-ER11-80	63.55	19	11	19	80	148.4	M10×1.5P	1.05
DAT40-ER11-125					125	193.4		1.15
DAT40-ER16-70		28	16	28	69.6	138.4		1.30
DAT40-ER16-100					100	168.4		1.40
DAT40-ER16-125					125	193.4		1.60
DAT40-ER16-150					150	218.4		1.65
DAT40-ER16-180					180	248.4		1.85
DAT40-ER20-70		34	20	34	70	138.4	M12×1.75P	1.40
DAT40-ER20-100					100	168.4		1.50
DAT40-ER20-135					135	203.4		1.95
DAT40-ER20-160					160	228.4		2.20
DAT40-ER25-70		42	25	42	70	138.4	M16×2.0P	1.60
DAT40-ER25-100					100	168.4		1.85
DAT40-ER25-150					150	218.4		2.25
DAT40-ER25-180					180	248.4		2.45
DAT40-ER25-200					200	268.4		2.55
DAT40-ER32-70		50	32	50	70	138.4		1.60
DAT40-ER32-100					100	168.4		2.00
DAT40-ER32-135					135	203.4		2.15
DAT40-ER32-150					150	218.4		2.65
DAT40-ER40-70		63	40	63	70	138.4	M20×2.0P	1.50
DAT40-ER40-100					100	168.4		2.00
DAT40-ER40-135					150	218.4		3.30
DAT40-ER50-100		78	50	78	66.6	168.4		1.70
DAT50-ER16-100	97.5	28	16	28	99.65	201.75	M10×1.5P	3.20
DAT50-ER16-135					134.95	236.75		4.30
DAT50-ER16-160					159.95	261.75		4.50
DAT50-ER16-180					179.95	281.75		4.80
DAT50-ER20-100		34	20	34	99.95	201.75	M12×1.75P	3.40
DAT50-ER20-135					134.95	236.75		3.60
DAT50-ER20-160					159.95	261.75		3.80

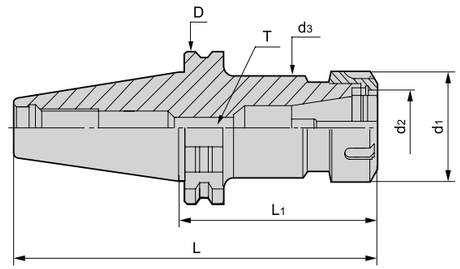
Notice: Recommend the use of UP-grade ER Precision Collet. DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

Milling Tooling System - DIN69871 DAT System

ER Spring Collet Chuck

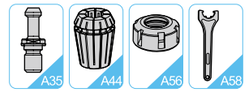
Use

For clamping tools with cylindrical shank in collects according to DIN 6499
-Included in delivery: Clamping nut.
-Please guarantee that the clamping the tool hangs extends is short



Feature

-Material: Case-hardened steel,process machine : CNC Turing center
-Cone angle AT3,Tolerance:8°17′50″+/-5″
-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-re-balanced by design (8000rpm/G6.3), Through tool holder coolant capability.
Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5
- With through hole for internal and flange coolant (AD/B) design can be customed on demand



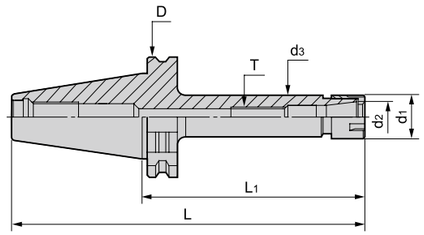
Code No.	Size(mm)						T	Weight
	D	d1	d2	d3	L1	L		
DAT50-ER25-70	97.5	42	25	42	69.95	171.75	M16×2.0P	3.40
DAT50-ER25-100					99.95	201.75		4.15
DAT50-ER25-150					149.95	251.75		4.50
DAT50-ER25-200					199.95	301.75		4.70
DAT50-ER32-80		50	32	50	79.95	181.75		3.60
DAT50-ER32-120					119.95	221.75		4.60
DAT50-ER32-160					159.95	261.75		4.75
DAT50-ER32-200					199.95	301.75		4.90
DAT50-ER40-80		63	40	63	79.95	181.75	M20×2.0P	3.65
DAT50-ER40-120					119.95	221.75		4.80
DAT50-ER40-160					159.95	261.75		5.20
DAT50-ER40-200					199.95	301.75		5.40
DAT50-ER50-80		78	50	78	79.95	181.75	M24×2.0P	4.85
DAT50-ER50-120					119.95	221.75		5.45
DAT50-ER50-160					159.95	261.75		5.55
DAT50-ER50-200					199.95	301.75		5.70

Notice: Recommend the use of UP-grade ER Precision Collet. DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

ER Spring Collet Chuck -M Type

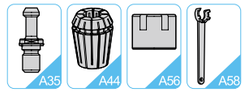
Use

For clamping tools with cylindrical shank in collects according to DIN 6499
-Included in delivery: Clamping nut.
-Please guarantee that the clamping the tool hangs extends is short



Feature

-Material: Case-hardened steel,process machine : CNC Turing center
-Cone angle AT3,Tolerance:8°17′50″+/-5″
-Run out between cone and holing part<0.005
-Hardness:HRC56-62° Depth of case 1.0 +/-0.2
-re-balanced by design (8000rpm/G6.3), Through tool holder coolant capability.
Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5
- With through hole for internal and flange coolant (AD/B) design can be customed on demand



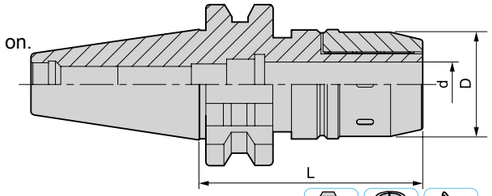
Code No.	Size(mm)						T	Weight
	D	d1	d2	d3	L1	L		
DAT30-ER11M-70	50	16	11	15	69.4	117.8	M6×1.0P	0.50
DAT30-ER11M-100					99.4	147.8		0.60
DAT30-ER11M-120					119.4	167.8		0.70
DAT30-ER16M-70		23	16	22	69.4	117.8	M12×1.75P	0.55
DAT30-ER16M-100					99.4	147.8		0.65
DAT30-ER16M-120					119.4	167.8		0.76
DAT30-ER20M-100		28	20	27	99.4	147.8		0.70
DAT30-ER20M-120					119.4	167.8		0.80
DAT30-ER20M-150					149.4	197.8		1.00
DAT40-ER11M-70	63.55	16	11	15	70	138.4	M6×1.0P	1.10
DAT40-ER11M-100					100	168.4		1.20
DAT40-ER11M-125					125	190.4		1.40
DAT40-ER11M-150					150	218.4		1.50
DAT40-ER16M-70		23	16	22	70	138.4	M12×1.75P	1.20
DAT40-ER16M-100					100	168.4		1.30
DAT40-ER16M-125					125	190.4		1.50
DAT40-ER16M-150					150	218.4		1.60
DAT40-ER20M-70		28	20	27	70	138.4		1.20
DAT40-ER20M-100					100	168.4		1.55
DAT40-ER20M-125					125	190.4		1.70
DAT40-ER20M-150					150	218.4		1.80
DAT50-ER11M-70	97.5	16	11	15	70	171.8	M6×1.0P	3.80
DAT50-ER11M-90					90	191.8		3.90
DAT50-ER11M-105					105	206.8		4.00
DAT50-ER11M-135					135	236.8		4.10
DAT50-ER11M-165					165	266.8		4.20
DAT50-ER16M-70		23	16	22	70	171.8	M12×1.75P	3.90
DAT50-ER16M-90					90	191.8		4.00
DAT50-ER16M-105					105	206.8		4.10
DAT50-ER16M-135					135	236.8		4.20
DAT50-ER16M-165					165	266.8		4.30
DAT50-ER20M-90		28	20	27	90	191.8		4.10
DAT50-ER20M-105					105	206.8		4.20
DAT50-ER20M-135					135	236.8		4.40
DAT50-ER20M-165					165	266.8		4.60

Notice:Cold treatment option against extra fee.

HPC High Speed Power Milling Chuck

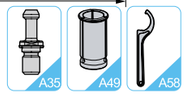
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.
- It is suitable for high-speed and high precision cutting.
- Included in delivery: C-type Wrench



Feature

-Accuracy: T.I.R. <0.01mm
-Material: Case-hardened steel
-Dust-proof design, to extend tool holder life time
-Standard balanced by design (12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rmp/G2.5)



Code No.	Range	Size(mm)			Suit Collet	Weight
		D	d	L		
DAT30-HPC16-70	3-16	46	16	70	C16	1.4
DAT30-HPC20-75	4-20	53	20	75	C20	1.8
DAT40-HPC16-70	3-16	46	16	70	C16	1.6
DAT40-HPC16-105				105		1.8
DAT40-HPC16-135				135		2.3
DAT40-HPC20-80	4-20	53	20	80	C20	2.4
DAT40-HPC20-105				105		2.5
DAT40-HPC20-135				135		2.8
DAT40-HPC32-105	6-32	68	32	105	C32	2.8
DAT40-HPC32-135				135		3.0
DAT50-HPC16-90	3-16	46	16	90	C16	3.9
DAT50-HPC16-110				110		4.1
DAT50-HPC16-135				135		4.3
DAT50-HPC16-150				150		4.5
DAT50-HPC20-105	4-20	53	20	105	C20	4.5
DAT50-HPC20-135				135		4.7
DAT50-HPC20-150				150		4.9
DAT50-HPC32-110	6-32	68	32	110	C32	5.2
DAT50-HPC32-135				135		5.9
DAT50-HPC32-165				165		6.6

Notice:Cold treatment option against extra fee.

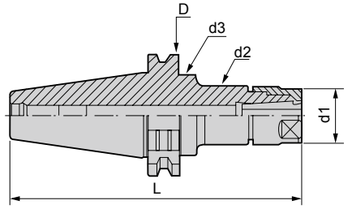
SK High Speed Precision Collet Chuck

Use

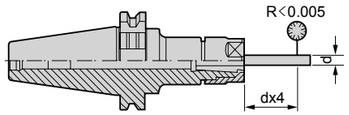
-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-Process machine : CNC Turing center
-Standard balanced by designed(12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rmp/G2.5)
-The 7/24 cone of the shank meet the standard ISO-AT3







Code No.	Range	Size(mm)					Suit Nut	Weight
		D	d1	d2	d3	L		
DAT30-SK6A-70	0.7-6.0	46	19.5	20.5	20.5	117.8	-SK-A	0.9
DAT30-SK6A-100					32	147.8		0.95
DAT30-SK10A-70	1.75-10.0		27.5	29	29	117.8	-SK-A	0.95
DAT30-SK10A-100						147.8		1.0
DAT40-SK6A-70	0.7-6.0	63	19.5	20.5	20.5	138.4	-SK-A	1.1
DAT40-SK6A-100					32	168.4		1.2
DAT40-SK6A-120						188.4		1.4
DAT40-SK10A-70	1.75-10.0	63	27.5	29	29	138.4	-SK-A	1.5
DAT40-SK10A-100					40	168.4		1.6
DAT40-SK10A-120						188.4		1.7
DAT40-SK10A-150						218.4		1.8
DAT50-SK10A-105	1.75-10.0	100	27.5	29	29	201.75	-SK-A	4.5
DAT50-SK10A-135					32	226.75		4.6
DAT50-SK10A-150						251.75		4.7
DAT30-SK16M-100	2.75-16.0	46	40	41.9	41.9	147.8	-SK-M	1.1
DAT30-SK16M-120						167.8		1.2
DAT30-SK16M-150						197.8		1.3
DAT30-SK25M-100	16.0-25.4		55	56.1	56.1	147.8	-SK-M	1.4
DAT40-SK16M-70	2.75-16.0	63	40	41.9	41.9	138.4	-SK-M	1.6
DAT40-SK16M-100						168.4		1.7
DAT40-SK16M-120						188.4		1.8
DAT40-SK16M-150						218.4		1.9
DAT40-SK25M-100	16.0-25.4		55	56.1	56.1	168.4	-SK-M	1.7
DAT40-SK25M-120						188.4		1.8
DAT50-SK16M-100	2.75-16.0	100	40	41.9	41.9	201.75	-SK-M	4.3
DAT50-SK16M-125						226.75		4.5
DAT50-SK16M-150					50	251.75		4.7
DAT50-SK16M-200					52	301.75		5.1
DAT50-SK25M-100	16.0-25.4	100	55	56.1	56.1	201.75	-SK-M	4.5
DAT50-SK25M-125						226.75		4.7
DAT50-SK25M-150						251.75		4.9
DAT50-SK25M-200						301.75		5.3

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

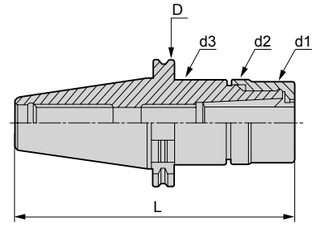
GSK High Speed Precision Collet Chuck

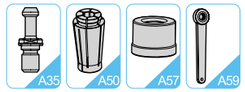
Use

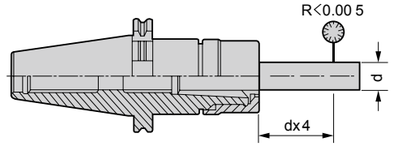
-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-Process machine : CNC Turing center
-Standard balanced by designed(12000rpm/G6.3)
-Fine balancing can be customed on demand (25000rmp/G2.5)
-The 7/24 cone of the shank meet the standard ISO-AT3



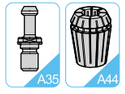


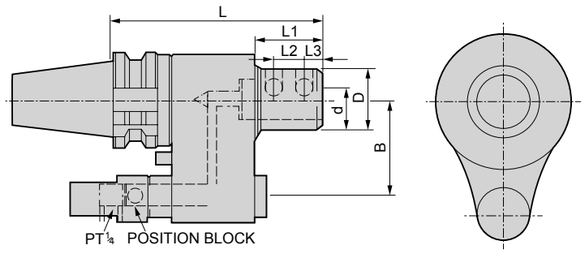


Code No.	Range	Size(mm)					Suit Nut	Weight
		D	d1	d2	d3	L		
DAT30-GSK6-70	0.7-6.0	46	19.5	20.5	20.5	117.8	-GSK6	0.9
DAT30-GSK6-100					32	147.8		0.95
DAT30-GSK10-70	1.75-10.0		27.5	29	29	117.8	-GSK10	
DAT30-GSK10-100						147.8		1.0
DAT30-GSK16-100	2.75-16.0		40	41.9	41.9		-GSK16	
DAT30-GSK16-120						167.8		1.1
DAT30-GSK16-150						197.8		1.2
DAT30-GSK25-100	16.0-25.4		55	56.1	56.1	147.8	-GSK25	1.1
DAT40-GSK6-70	0.7-6.0	63	19.5	20.5	20.5	138.4	-GSK6	1.1
DAT40-GSK6-100					32	168.4		1.2
DAT40-GSK6-120						188.4		1.4
DAT40-GSK10-70	1.75-10.0		27.5	29	29	138.4	-GSK10	1.5
DAT40-GSK10-100					40	168.4		1.6
DAT40-GSK10-120						188.4		1.7
DAT40-GSK10-150						218.4		1.8
DAT40-GSK16-70	2.75-16.0		40	41.9	41.9	138.4	-GSK16	1.6
DAT40-GSK16-100						168.4		1.7
DAT40-GSK16-120						188.4		1.8
DAT40-GSK16-150						218.4		1.9
DAT40-GSK25-100	16.0-25.4		55	56.1	56.1	168.4	-GSK25	1.7
DAT40-GSK25-120						188.4		1.8
DAT50-GSK10-100	1.75-10.0	100	27.5	29	29	201.75	-GSK10	4.0
DAT50-GSK10-120					32	221.75		4.2
DAT50-GSK10-150						251.75		4.5
DAT50-GSK16-100	2.75-16.0		40	41.9	41.9	201.75	-GSK16	4.3
DAT50-GSK16-120						221.75		4.5
DAT50-GSK16-150					50	251.75		4.7
DAT50-GSK16-200					52	301.75		5.1
DAT50-GSK25-100	16.0-25.4		55	56.1	56.1	201.75	-GSK25	4.3
DAT50-GSK25-120						221.75		4.5
DAT50-GSK25-150						251.75		4.7
DAT50-GSK25- 200						301.75		5.1

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

ER Collet Type Multi Oil Hole Holder

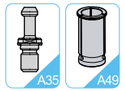


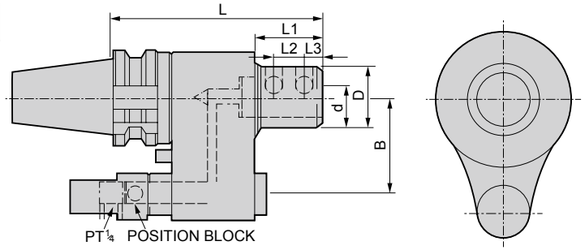


Code No.	Size(mm)				Weight
	D	d	L	B	
DAT40-ERO32-145	50	4-20	145	60/65	4.4
DAT40-ERO40-150	63	4-25	150		4.6
DAT50-ERO32-160	50	4-20	155	80/82	7.3
DAT50-ERO40-160	63	4-25	160		7.5

Notice:Must use ER coolant nut & ER coolant collet. When ordering,please specify the B part of oil-feed holder according to your machine.
Quote in cluding screw cap,collet,wrench and positioning block should order additional.
DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

C Power Collet Type Multi Oil Hole Holder



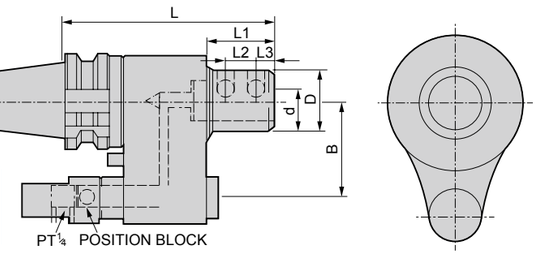


Code No.	Size(mm)				Weight
	D	D1	L	B	
DAT40-CO20-145	52	20	150	60/65	3.6
DAT40-CO32-160	69	32	165		4.4
DAT50-CO20-160	52	20	160	80/82	7.0
DAT50-CO32-170	69	32	170		7.1

Notice:When ordering,please specify the B part of oil-feed holder according to your machine.Collet, wrench and positioning block should order additional.
DIN69893 and DIN2080 specifications please specify contact.
Cold treatment option against extra fee.

SLO Side Lock Type Multi Oil Hole Holder





Code No.	Size(mm)							Weight
	D	d	L1	L2	L3	L	B	
DAT40-SLO32-150	53	32	50	15	15	150	60/65	3.4
DAT40-SLO40-150	70	40		18	19			3.8
DAT50-SLO32-160	54	32		15	15	160	80/82	7.8
DAT50-SLO40-160	54	40		18	19			8.7

Notice:When ordering,please specify the B part of OIL-FEED HOLDER according to your machine.
DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

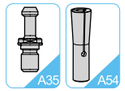
DC Precision Slim Collet Power Milling Chuck

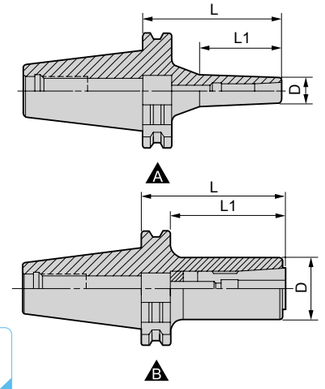
Use

-It can be used in the process of drilling, milling, reaming, tapping and so on.

Feature

-Material: Case-hardened steel
-process machine : CNC Turing center
-The small head diameter minimizes interference.
-It is easy to operate, for both assembling and disassembling, all you need is an ordinary hexagonal spanner.
-Accuracy: T.I.R. <0.005mm (Length 4D)
-Standard balanced by designed(12000rpm/G6.3)
- Fine balancing can be customed on demand (25000rmp/G2.5)





Code No.	Figure	Size(mm)			Suit Collet	Wrench
		D	L1	L		
DAT40–DC6-90	A	13	45	90	-DC6	M4
DAT40–DC8-90		22	53		-DC8	M5
DAT40–DC10-90	B	28	51		-DC10	M6
DAT40–DC12-90		34	55		-DC12	M8
DAT50–DC10-110	A	28	57	110	-DC10	M6
DAT50–DC12-110	B	34			-DC12	M8

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

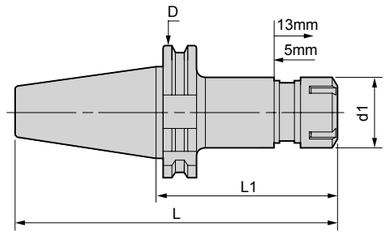
TER Flex Tapping Chuck

Use

For tapping preferably on CNC milling machines
-Material: Case-hardened steel

Feature

-Tap is clamped by ER spring collets, minimizing the need to stock various collet sizes.
-Tap is clamped on a floating tap holder; the tapping torque is transmitted through a square shank on the floating tap holder.
-0.1mm radius tolerance between floating tap holder and shank for compensation of the offset of tap and pre-drilled hole to increase tap tool life.
-Compression and extention movement of the floating tap holder is designed for compensating unsynchronization of the spindle speed and feed while tapping.
-Two set screws are added to prevent slipping of the taps while the tapping functions in taking place.

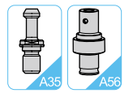


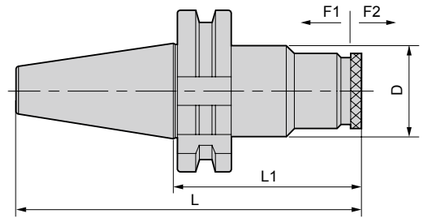


Code No.	Size(mm)				Suit Collet	Tapping Capacity	Weight
	D	d1	L1	L			
DAT40-TER16A-120	63.55	28	120	188.4	ER16	M3-M10	1.65
DAT40-TER16A-150			150	218.4			1.85
DAT40-TER20A-100		34	100	168.4	ER20	M3-M16	1.65
DAT40-TER20A-150			150	218.4			1.90
DAT40-TER20M-200		28	200	268.4			2.15
DAT40-TER32-120		50	120	188.4	ER32	M3-M27	2.10
DAT50-TER16A-120	97.50	28	120	221.75	ER16	M3-M10	4.30
DAT50-TER16A-150			150	251.75			4.50
DAT50-TER20A-100		34	100	201.75	ER20	M3-M16	4.30
DAT50-TER20A-150			150	251.75			4.60
DAT50-TER20M-200		28	200	301.75			4.70
DAT50-TER32-120		80	120	221.75	ER32	M3-M27	4.65

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

TPM Rigid Tap Holder





Code No.	Size(mm)					Suit Collet	Tapping Capacity	Weight
	D	F1	F2	L1	L			
DAT40-TPM316	48	10	20	145	213.4	TPC316	M3-M16	1.65
DAT40-TPM830	66		25	190	291.8	TPC830	M8-M30	1.80
DAT50-TPM316	48	10	20	190	291.8	TPC316	M3-M16	4.30
DAT50-TPM830	66		25(80)			TPC830	M8-M30	4.70

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

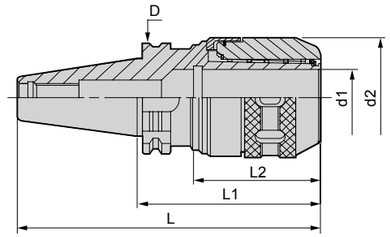
C Straight Collet Power Milling Chuck

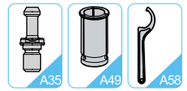
Use

For clamping tools with cylindrical shank

Feature

-Material: Case-hardened steel
-Included in delivery: ball bearing locknut
-Enlarging of size L against extra charge
-The needle bearing has been arranged inclined to center of the chuck as thread that gives higher gripping power and smooth operation.
-The holding portion of the chuck is slotted with radius form and thickness of the holding portion is thicker to increase the rigidity of the chuck
-Thanks to the stainless sealing washer has been used at the front of the chucking, waterproof is confirmed.
- Accuracy: T.I.R. 0.005mm

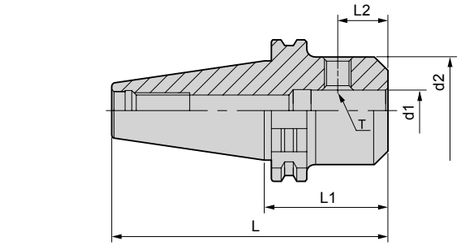


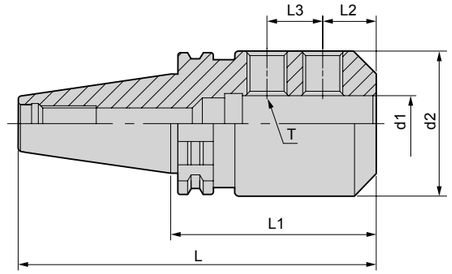


Code No.	Size(mm)						Weight
	D	d1	d2	L1	L2	L	
DAT30-C20-75	50	20	55	85	70	132.80	1.9
DAT30-C20-100				100		147.80	2.1
DAT30-C32-135		32	73	135	75	203.40	3.0
DAT40-C20-80	63.55	20	55	80	70	153.40	2.4
DAT40-C20-100				100		168.40	2.5
DAT40-C20-135				135		203.40	2.8
DAT40-C32-105		32	73	95	75	173.40	2.7
DAT50-C20-105	97.5	20	55	105	70	206.75	4.5
DAT50-C20-150				150		251.80	4.9
DAT50-C32-105		32	73	105	75	206.75	5.1
DAT50-C32-110				110		211.75	5.2
DAT50-C32-135				135		236.75	5.9
DAT50-C42-110		42	95	110	90	211.75	6.0
DAT50-C42-165				165		266.75	7.4

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

SLA Side Lock Holder





Use

For clamping tools with end mills
DIN1835-B
-Combined End Mills and Drills
-Included in delivery: tightening bolt

Feature

-Material: Case-hardened steel,
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Holder diameter groud up to H4
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)
-With through hole for internal and flange coolant (AD/B) design can be customed on demand



Code No.	Size(mm)						T	Weight
	d1	d2	L1	L2	L3	L		
DAT30-SLA6-50	6	25	50	18	-	97.8	M6×1.0P	0.73
DAT30-SLA8-50	8	28					M8×1.25P	0.80
DAT30-SLA10-50	10	35		20			M10×1.5P	0.90
DAT30-SLA12-50	12	42		22.5			M12×1.75P	
DAT30-SLA16-63	16	48	63	24		110.8	M14×2.0P	1.10
DAT40-SLA6-50	6	25	50	18	-	118.4	M6×1.0P	0.85
DAT40-SLA8-50	8	28					M8×1.25P	1.00
DAT40-SLA10-50	10	35		20			M10×1.5P	1.10
DAT40-SLA12-50	12	42		22.5			M12×1.75P	1.15
DAT40-SLA16-63	16	48	63	24		161.4	M14×2.0P	1.40
DAT40-SLA20-63	20	52		25			M16×2.0P	1.30
DAT40-SLA25-100	25	65	100	24	25	168.4	M18×2.0P	2.40
DAT40-SLA32-100	32	72			28		M20×2.0P	2.70
DAT50-SLA6-63	6	25	63	18	-	164.75	M6×1.0P	3.10
DAT50-SLA8-63	8	28					M8×1.25P	
DAT50-SLA10-63	10	35		20			M10×1.5P	3.30
DAT50-SLA12-63	12	42		22.5			M12×1.75P	3.50
DAT50-SLA16-63	16	48		24			M14×2.0P	3.45
DAT50-SLA20-63	20	52		25			M16×2.0P	3.50
DAT50-SLA25-80	25	65	80	24	25	181.75	M18×2.0P	4.20
DAT50-SLA32-100	32	72	100			201.75	M20×2.0P	5.00
DAT50-SLA40-100	40	90		30	32			5.60
DAT50-SLA42-100	42							5.70
DAT50-SLA50-125	50	100	125	35	35	226.75		5.90
DAT50-SLA63-150	63	125	150	40	40	251.75		6.20
DAT50-SLA63-150					24		M16×2.0P	

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

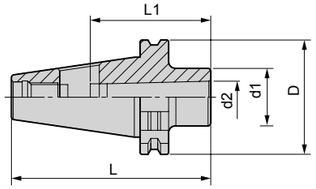
MTB Morse Taper Holder For Mill(Screw Lockup)

Use

For holding tools with Morse tapers and tang according to DIN6364

Feature

-Material: Case-hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
-Hole diameter according to DIN6364
-Hardness: HRC60°+/-2°(HV700+/-50).
-Depth of case 0.8mm+/-0.2mm
-Pre-balanced by design (8000rpm/G6.3), Through tool holder coolant capability
-Fine balancing can be customed on demand (12000rpm/G6.3, 25000rmp/G2.5)
-With through hole for internal and flange coolant (AD/B) design can be customed on demand

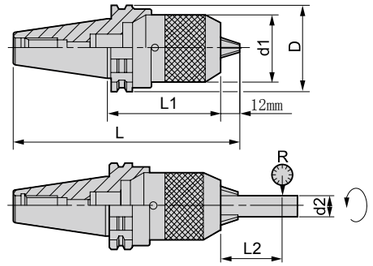




Code No.	Size(mm)				Weight
	D	d1	d2	L1	L	
DAT30-MTB1-50	50	25	12.065	59	97.8	0.55
DAT30-MTB2-60		32	17.780	67	107.8	0.80
DAT30-MTB3-75		40	23.825	84	122.8	1.00
DAT40-MTB1-50	63.55	25	12.065	59	118.4	1.00
DAT40-MTB2-50		32	17.780	67		1.10
DAT40-MTB3-70		40	23.825	84	138.4	1.20
DAT50-MTB4-95	63.55	48	31.267	107	163.4	1.35
DAT50-MTB1-45	97.50	23	12.065	59	146.75	3.00
DAT50-MTB2-60		32	17.780	67	161.75	3.10
DAT50-MTB3-65		40	23.825	84	166.75	3.20
DAT50-MTB4-95		48	31.267	107	196.75	3.40
DAT50-MTB5-105		63	44.399	133	206.75	3.60

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

APU Drill Chuck



Use

For high-precise clamping of tools with cylindrical shank with newly developed collets. Very useful for high-speed machining

Feature

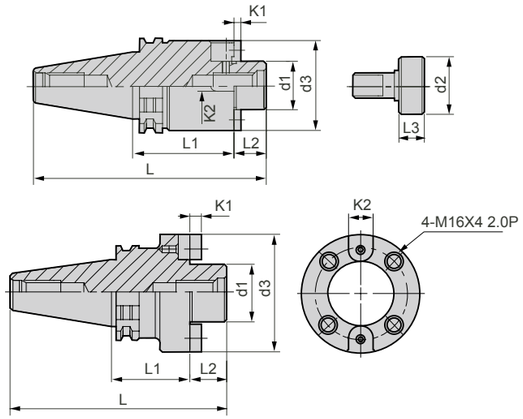
-Material: Case-hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R. <0.005mm,
-Cone angle<AT 3, Tolerance: 8°17' 50"+/-5"
- Hardness: HRC60°+/-2°(HV700+/-50).
- Depth of case 0.8mm+/-0.2mm
- Standard balanced by (design 8000 rpm)
- Fine balancing can be customed on demand (25000rmp/G2.5)
- With through hole for internal and flange coolant (AD/B) design can be customed on demand



Code No.	Size(mm)						Precision R	Weight
	D	d1	d2	L1	L2	L		
DAT30-APU8-80	50	37	6	80	55	136.8	0.04	0.60
DAT30-APU13-120		50	13	120	75	179.8		1.45
DAT30-APU16-125		57	16	125	80	189.8		1.78
DAT40-APU8-75	63.55	37	6	75	55	152.4	0.04	1.46
DAT40-APU13-100		50	13	100	75	180.4		2.00
DAT40-APU16-105		57	16	105	80	190.4		2.33
DAT50-APU8-75	97.50	37	6	75	55	185.75	0.04	3.86
DAT50-APU13-100		50	13	100	75	216.75		4.40
DAT50-APU16-105]		57	16	105	80	218.75		4.73

Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

FMB Face Milling Holder

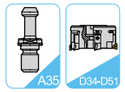


Use

For clamping JIS B4113 ace milling cutter with metric size center
Include in delivery: tightening bolt, and feater key

Feature

-material: Case -hardened steel
-Process machine: CNC Turning Center
-Accuracy: T.I.R <0.005MM
-Cone angle<AT3, TOLERANCE:8°17' 50" +/-5"
-Hardness: HRC60°+/-2°(HV700+/-50)
-Depth of case 0.8mm+/-0.2mm
-Pre-balance by design (8000rmp/G6.3), Through tool holder coolant capacity
-Fine balancing can be customed on demand(12000rmp/G6.3,25000rmp/G2.5)
-With through hole for internal and flange coolant(AD/B) design can be customed on demand.



Code No.	Size(mm)									Weight
	d1	d2	d3	L1	L2	L3	L	K1	K2	
DAT30-FMB22-35	22	26	47	35	18	14	100.8	4.8	10	1.00
DAT30-FMB27-35	27	33	58		20	16	102.8	5.8	12	1.05
DAT40-FMB22-35	22	26	47	35	18	14	121.4	4.8	10	1.20
DAT40-FMB27-60	27	33	58	60	20	16	148.4	5.8	12	1.80
DAT40-FMB32-60	32	40	66		22		150.4	6.8	14	2.30
DAT40-FMB40-60	40	50	82		25	20.5	153.4		16	2.80
DAT40-FMB40-60		M12	89		30	66.7	158.4		15.9	2.90
DAT40-FS40-60		50	110		26		154.4	8.3	16	3.20
DAT50-FMB22-35	22	26	47	35	18	14	154.75	4.8	10	3.40
DAT50-FMB27-35	27	33	58		20	16	156.75	5.8	12	3.50
DAT50-FMB32-35	32	40	66		22	16	158.75	6.8	14	3.70
DAT50-FMB40-50	40	50	82	50	25	20.5	189.75	8.3	16	4.70
DAT50-FMB50-60	50	68	95	60	30	25	211.75	9.7	19	5.80
DAT50-FMB40F-70	40	M12	89	70	30	66.7	201.75	8.3	15.9	5.50
DAT50-FMB60F-70	60	M16	129		40	101.6	211.75	12.5	25.4	5.70
DAT50-FS40-70	40	20	110		26	66.7		8.3	16	
DAT50-FS60-70	60	M16	140		25	101.6	196.75	12.5	25.4	5.50

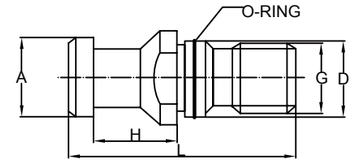
Notice: DIN69893 and DIN2080 specifications please specify contact. Cold treatment option against extra fee.

PULL STUDS

Feature

- It was made of 20CrMnti.
- Vacuum carburizing heat treatment,carburizing depth 1 to 1.2 millimeter.
- Surface hardness 56 ~ 60 °

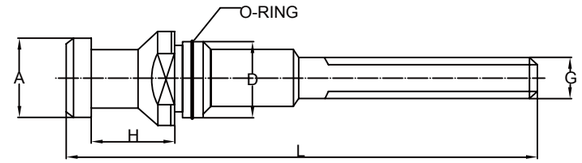
PULL STUDS DIN69872



-WITHOUT COOLANT BORE(SOLID)

Code No.	With O-ring	G	L	H	A	D	Tool Shank	Weight
PS-DIN30SF	NO	M12	44	19	13	13	DIN30	
PS-DIN40SF	NO	M16	54	20	19	17	DIN40	
PS-DIN40SF-O	YES	M16	54	20	19	17	DIN40	
PS-DIN50SF	NO	M24	74	25	28	25	DIN50	
PS-DIN50SF-O	YES	M24	74	25	28	25	DIN50	

PULL STUDS DIN69872

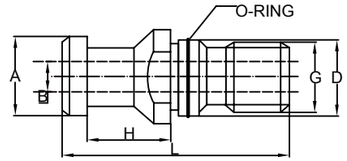


-EXTENDED FOR MT SLEEVES

Code No.	Morse	G	D	A	H	L	Tool Shank
PSL-DIN40-M10	2	M10	17	19	20	85	DIN40
PSL-DIN40-M12	3	M12	17	19	20	90	DIN40
PSL-DIN40-M16	4	M16	17	19	20	95	DIN40

The extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS DIN69872 FORM A

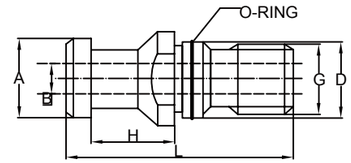


-WITH COOLANT BORE (HOLLOW)

Code No.	With O-ring	G	L	H	A	D	B	Tool Shank	Weight
PS-DIN30SF	NO	M12	44	19	13	13	3.0	DIN30	
PS-DIN40SF	NO	M16	54	20	19	17	7.0	DIN40	
PS-DIN40SF-O	YES	M16	54	20	19	17	7.0	DIN40	
PS-DIN50SF	NO	M24	74	25	28	25	11.5	DIN50	
PS-DIN50SF-O	YES	M24	74	25	28	25	11.5	DIN50	

Sealed pull studs with Double O-RING for high pressure coolant, are available on request.

PULL STUDS DIN69872 FORM A EXTENDED BY 3MM



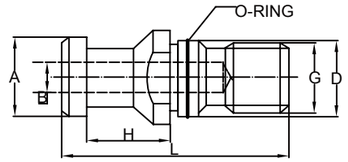
-WITH COOLANT BORE (HOLLOW)

Code No.	With O-ring	G	L	H	A	D	B	Tool Shank	Weight
PS-DIN40A-3-O	YES	M16	57	23	19	17	7.0	DIN40	

The Extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS DIN69872 FORM B

-WITH HALF BORE

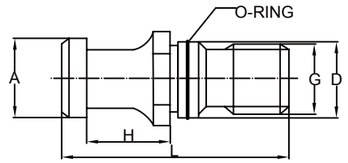


Code No.	With O-ring	G	L	H	A	D	Tool Shank	Weight
PS-DIN40B-O	YES	M16	54	20	19	17	DIN40	
PS-DIN50B-O	YES	M24	74	25	28	25	DIN50	

Interchangeable with DIN40 and DIN50 SF

PULL STUDS ISO7388/2 FORM A

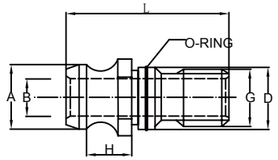
-WITHOUT COOLANT BORE (SOLID)



Code No.	With O-ring	G	L	H	A	D	Tool Shank	Weight
PS-TC30A-SF	NO	M12	44	19	12	13	DIN30	
PS-TC40A-SF	NO	M16	54	20	19	17	DIN40	
PS-TC40A-SF-O	YES	M16	54	20	19	17	DIN40	
PS-TC50A-SF	NO	M24	74	25	28	25	DIN50	
PS-TC50A-SF-O	YES	M24	74	25	28	25	DIN50	

PULL STUDS ISO7388/2 FORM A

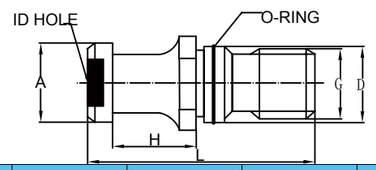
-WITH COOLANT BORE (HOLLOW)



Code No.	With O-ring	G	L	H	A	D	B	Tool Shank	Weight
PS-TC30A	NO	M12	44	19	13	13	3.0	DIN30	
PS-TC40A	NO	M16	54	20	19	17	7.0	DIN40	
PS-TC40A-O	YES	M16	54	20	19	17	7.0	DIN40	
PS-TC50A	NO	M24	74	25	28	25	11.5	DIN50	
PS-TC50A-O	YES	M24	74	25	28	25	11.5	DIN50	

PULL STUDS ISO 7388/2 FORM A

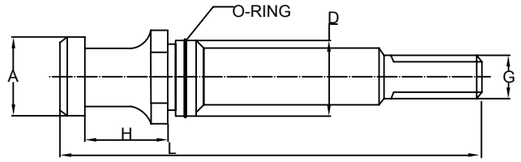
-WITH ID-HOLE



Code No.	G	D	A	ID Hole	H	L	Tool Shank	Weight
PS-TC40-BF	M16	17	19	10×4.7	20	54	DIN40	
PS-TC50-BF	M24	25	28	10×4.7	25	74	DIN50	
PS-TC50-BF1	M24	25	28	10×4.7	25	74	DIN50	

PULL STUDS ISO7388/2 FORM A

- EXTENDED FOR MT SLEEVES

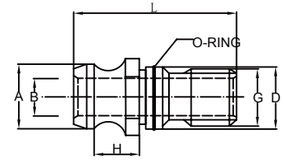


Code No.	Morse	G	D	A	H	L	Tool Shank
PSL-TC40-M10	2	M10	17	19	20	85	DIN40
PSL-TC40-M12	3	M12	17	19	20	90	DIN40
PSL-TC40-M16	4	M16	17	19	20	95	DIN40

The extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS ISO7388/2 FORM B

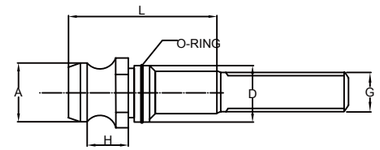
-WITH COOLANT BORE (HOLLOW)



Code No.	With O-ring	G	L	H	A	D	B	Tool Shank	Weight
PS-TC40A	YES	M16	44.5	11.15	18.95	17	7.0	DIN40	
PS-TC50A	YES	M24	65.5	17.95	29.10	25	11.55	DIN50	

PULL STUDS ISO7388/2 FORM B

- EXTENDED FOR MT SLEEVES

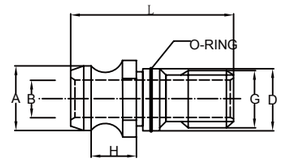


Code No.	Morse	G	D	A	H	L	Tool Shank
PSL-CAT40-M10	2	M10	17	18.95	11.15	85	DIN40
PSL-CAT40-M12	3	M12	17	18.95	11.15	90	DIN40
PSL-CAT40-M16	4	M16	17	18.95	11.15	95	DIN40

The extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS ISO7388/2 FORM B EXTENDED BY 3MM

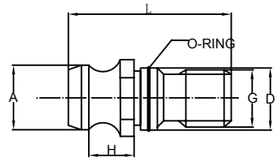
-WITH COOLANT BORE (HOLLOW)



Code No.	With O-ring	G	L	H	A	D	B	Tool Shank	Weight
PS-CAT40-3-O	YES	M16	47.50	214.15	18.95	17	7.3	DIN40	

The Extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS ISO7388/2 FORM B

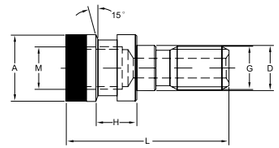


-WITHOUT COOLANT BORE(SOLID)

Code No.	With O-ring	G	L	H	A	D	Tool Shank	Weight
PS-CAT30A-SF	NO	M12	34	8.15	13.35	12.5	DIN30	
PS-CAT40A-SF	NO	M16	44.5	11.15	18.95	17	DIN40	
PS-CAT40A-SF-O	YES	M16	44.5	11.15	18.95	17	DIN40	
PS-CAT50A-SF	NO	M24	65.5	17.95	29.10	25	DIN50	
PS-CAT50A-SF-O	YES	M24	65.5	17.95	29.10	25	DIN50	
PS-CAT40-3-O	YES	M16	47.50	214.15	18.95	17	DIN40	

The Extended pull studs for DIN50 sleeves are available upon request.

PULL STUDS OTT/TC FOR DIN2080 TOOL HOLDERS

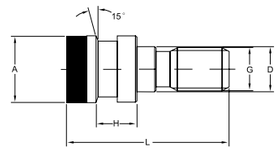


- WITH INTERNAL THREAD AND COOLANT BORE(HOLLOW)

Code No.	Morse	G	D	A	H	L	Tool Shank
PS-OTT40TC	M16	M16	17	25	13.6	53.0	DIN40
PS-OTT50TC	M24	M24	25	39.6	13.3	65.1	DIN50

Pull studs PS-OTT40TC and PS-OTT50TC are correspond with DIN69871 and DIN2080 tool holder
With protection ring

PULL STUDS OTT/TC FOR DIN2080 TOOL HOLDERS

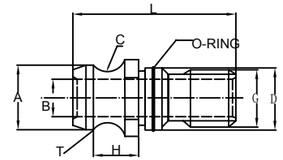


- WITHOUT COOLANT BORE(SOLID)

Code No.	Morse	G	D	A	H	L	Tool Shank
PS-OTT40TC-SF	M16	M16	17	25	14	53.0	DIN40
PS-OTT50TC-SF	M24	M24	25	39.6	13	65.0	DIN50

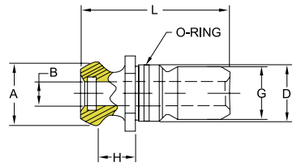
Pull studs PS-OTT40TC and PS-OTT50TC are correspond with DIN69871 and DIN2080 tool holder
With protection ring

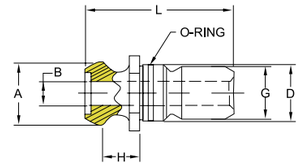
PULL STUDS CAT - METRIC



-WITH COOLANT BORE (HOLLOW)

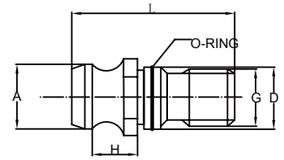
Code No.	With O-ring	Coni Taper	G	L	H	A	D	B	MAZAK CODE	Tool Shank
PS-CAT40-MZ1	YES	CAT-METIC	M16	41.26	11.18	18.8	17	7	349319 00 660	DIN40
PS-CAT40-MZ2	YES	BT	M16	44.1	14.02	18.8	17	7	349319 00 680	BT40
PS-CAT40-MZ3	YES	CAT-ANSI	5/8"-11	51.25	11.18	18.8	16.27	7	349319 00 670	CAT40
PS-CAT50-MZ3	YES	BT	M24	65.2	17.58	28.95	25	10	448319 01 160	BT50
PS-CAT50-MZ4	YES	CAT-METIC	M24	65.4	17.8	28.95	25	11.5	448319 01 180	DIN50
PS-CAT50-MZ5	YES	CAT-ANSI	1"×8	58.5	17.8	28.95	26.16	10	448319 01 170	CAT50





Sealed pull studs with DOUBLE O-RING for high pressure coolant, are available on request

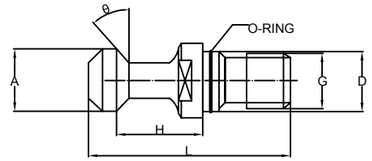
PULL STUDS CAT - METRIC



-WITHOUT COOLANT BORE(SOLID)

Code No.	With O-ring	Coni Taper	G	L	H	A	D	B	MAZAK CODE	Tool Shank
PS-CAT40-MZ1-SF	YES	CAT-METIC	M16	41.26	11.18	18.8	17	7	349319 00 660	DIN40
PS-CAT40-MZ2-SF	YES	BT	M16	44.1	14.02	18.8	17	7	349319 00 680	BT40

PULL STUDS MAS 403BT

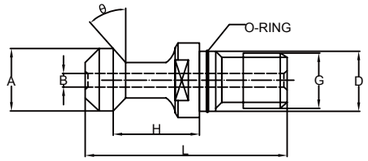


-WITHOUT COOLANT BORE(SOLID)

Code No.	With O-ring	θ	G	D	A	H	L	Tool Shank	Weight
PS-BT30-SF-45	NO	45°	M12	12.5	11	18	43	BT30	
PS-BT30-SF-60	NO	60°	M12	12.5	11	18	43	BT30	
PS-BT40-SF-45	NO	45°	M16	17	15	28	60	BT40	
PS-BT40-SF-O-45	YES	45°	M16	17	15	28	60	BT40	
PS-BT40-SF-60	NO	60°	M16	17	15	28	60	BT40	
PS-BT40-SF-O-60	YES	60°	M16	17	15	28	60	BT40	
PS-BT40-SF-90	NO	90°	M16	17	15	28	60	BT40	
PS-BT40-SF-O-90	YES	90°	M16	17	15	28	60	BT40	
PS-BT50-SF-45	NO	45°	M24	25	23	35	85	BT50	
PS-BT50-SF-O-45	YES	45°	M24	25	23	35	85	BT50	
PS-BT50-SF-60	NO	60°	M24	25	23	35	85	BT50	
PS-BT50-SF-O-60	YES	60°	M24	25	23	35	85	BT50	
PS-BT50-SF-90	NO	90°	M24	25	23	35	85	BT50	
PS-BT50-SF-O-90	YES	90°	M24	25	23	35	85	BT50	

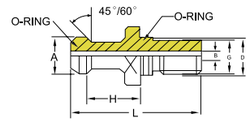
PULL STUDS MAS 403BT

-WITH COOLANT BORE(HOLLOW)



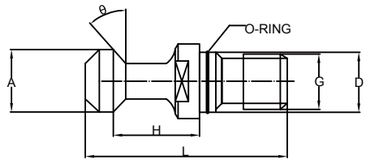
Code No.	With O-ring	θ	G	D	A	H	L	B	Tool Shank	Weight
PS-BT30-SF-45	NO	45°	M12	12.5	11	18	43	2.5	BT30	
PS-BT30-SF-60	NO	60°	M12	12.5	11	18	43	2.5	BT30	
PS-BT40-SF-45	NO	45°	M16	17	15	28	60	4.0	BT40	
PS-BT40-SF-O-45	YES	45°	M16	17	15	28	60	4.0	BT40	
PS-BT40-SF-60	NO	60°	M16	17	15	28	60	4.0	BT40	
PS-BT40-SF-O-60	YES	60°	M16	17	15	28	60	4.0	BT40	
PS-BT40-SF-90	NO	90°	M16	17	15	28	60	4.0	BT40	
PS-BT40-SF-O-90	YES	90°	M16	17	15	28	60	4.0	BT40	
PS-BT50-SF-45	NO	45°	M24	25	23	35	85	6.0	BT50	
PS-BT50-SF-O-45	YES	45°	M24	25	23	35	85	6.0	BT50	
PS-BT50-SF-60	NO	60°	M24	25	23	35	85	6.0	BT50	
PS-BT50-SF-O-60	YES	60°	M24	25	23	35	85	6.0	BT50	
PS-BT50-SF-90	NO	90°	M24	25	23	35	85	6.0	BT50	
PS-BT50-SF-O-90	YES	90°	M24	25	23	35	85	6.0	BT50	

Sealed pull studs with Double O-RING for high pressure coolant, are available on request.



PULL STUDS MAS 403BT SHORTENED 3MM

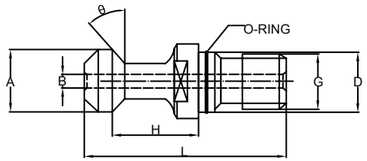
-WITHOUT COOLANT BORE(SOLID)



Code No.	With O-ring	θ	G	D	A	H	L	Tool Shank	Weight
SPS-BT40-SF-O-45	YES	45°	M16	17	15	25	57	BT40	
SPS-BT40-SF-O-60	YES	60°	M16	17	15	25	57	BT40	
SPS-BT40-SF-O-90	YES	90°	M16	17	15	25	57	BT40	

PULL STUDS MAS 403BT SHORTENED 3MM

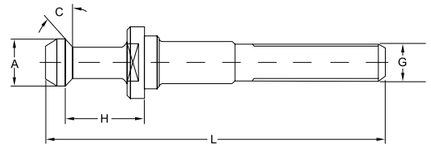
-WITHOUT COOLANT BORE(HOLLOW)



Code No.	With O-ring	θ	G	D	A	H	L	Tool Shank	Weight
SPS-BT40-SF-O-45	YES	45°	M16	17	15	25	57	BT40	
SPS-BT40-SF-O-60	YES	60°	M16	17	15	25	57	BT40	
SPS-BT40-SF-O-90	YES	90°	M16	17	15	25	57	BT40	

PULL STUDS MAS 403BT

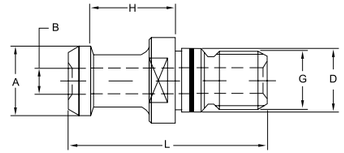
-EXTENDED FOR MT SLEEVES



Code No.	Angle C	Morse	G	D	A	H	L	Tool Shank	Weight
PSL-BT40-1M10	45°	2	M10	17	15	28	85	BT40	
PSL-BT40-1M12	45°	3	M12	17	15	28	85	BT40	
PSL-BT40-1M16	45°	4	M16	17	15	28	90	BT40	
PSL-BT40-1M10	60°	2	M10	17	15	28	85	BT40	
PSL-BT40-1M12	60°	3	M12	17	15	28	85	BT40	
PSL-BT40-1M16	60°	4	M16	17	15	28	90	BT40	
PSL-BT40-1M10	90°	2	M10	17	15	28	85	BT40	
PSL-BT40-1M12	90°	3	M12	17	15	28	85	BT40	
PSL-BT40-1M16	90°	4	M16	17	15	28	90	BT40	

PULL STUDS JS-B 6339

-WITH COOLANT BORE (HOLLOW)



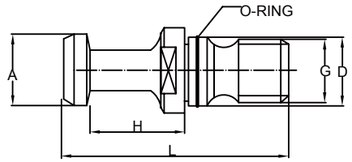
Code No.	With O-ring	G	D	A	H	L	B	Tool Shank	Weight
PS-JS30	NO	M12	12.5	12	18.4	43	3	BT30	
PS-JS401	NO	M16	17	19	23	54	7	BT40	
PS-JS401-O	YES	M16	17	19	23	54	7	BT40	
PS-JS402	NO	M16	17	19	23	54	5.5	BT40	
PS-JS402-O	YES	M16	17	19	23	54	5.5	BT40	
PS-JS403	NO	M16	17	19	23	54	5.5-4	BT40	
PS-JS403-O	YES	M16	17	19	23	54	5.5-4	BT40	
PS-JS40-OKU	NO	M16	17	19	23	54	5.5-4	BT40	
PS-JS50	NO	M24	25	28	25	75	10	BT50	
PS-JS50-O	YES	M24	25	28	25	75	10	BT50	

Note: PS-JS40-OKU -the head flat is ground

Sealed pull studs with DOUBLE O-RING for high pressure coolant, are available on request

PULL STUDS JS-B 6339

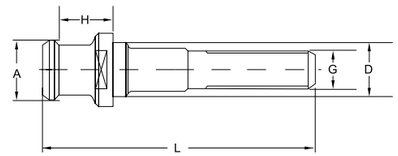
-WITHOUT COOLANT BORE(SOLID)



Code No.	With O-ring	G	D	A	H	L	Tool Shank	Weight
PS-JS30SF	NO	M12	12.5	12	18.4	43	BT30	
PS-JS40SF	NO	M16	17	19	23	54	BT40	
PS-JS40SF-O	YES	M16	17	19	23	54	BT40	
PS-JS50SF	NO	M24	25	28	25	74	BT50	
PS-JS50SF-O	YES	M24	25	28	25	74	BT50	

PULL STUDS JS-B 6339

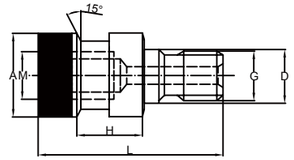
- EXTENDED FOR MT SLEEVES



Code No.	Morse	G	D	A	H	L	Tool Shank	Weight
PSL-JS40-M10	2	M10	17	19	23	85	BT40	
PSL-JS40-M12	3	M12	17	19	23	85	BT40	
PSL-JS40-M16	4	M16	17	19	23	90	BT40	

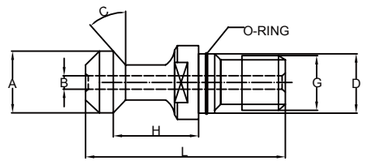
PULL STUDS OTT/TC FOR MAS403 TOOL HOLDERS

- WITH INTERNAL THREAD AND COOLANT BORE(HOLLOW)



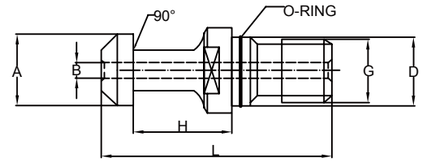
Code No.	Morse	G	D	A	H	L	Tool Shank
PS-OTT40BT	M16	M16	17	25	16.35	53.0	DIN40
PS-OTT50BT	M24	M24	25	39.6	13.35	65.0	DIN50

PULL STUDS HURCO TYPE



Code No.	Coolant hole	Angle C	G	D	A	H	L	Tool Shank
PS-BT40-11	-	45°	M16	17	15	25.15	57.15	BT40
PS-BT40-11F	3	45°	M16	17	15	25.15	57.15	BT40
PS-BT40-12	-	90°	M16	17	15	25.15	57.15	BT40

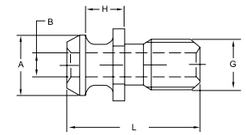
PULL STUDS MITSUI TYPE



Code No.	Coolant hole	Angle C	G	D	A	H	L	Tool Shank
PS-BT40-31	-	90°	M16	17	15	18	50	BT40
PS-BT40-31	-	90°	M24	25	24	23	71	BT50
PS-BT40-31F	8	90°	M24	25	24	23	71	BT50

PULL STUDS ANSI B5.50/CAT (INCH-SIZES)

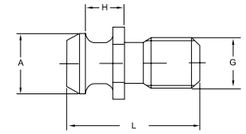
- WITH COOLANT BORE(HOLLOW)



Code No.	G	A	H	L	B	Tool Shank	Weight
PS-ANSI40	5/8-11	0.74	0.438	1.50	0.281	CAT40	
PS-ANSI40M	M16	0.74	0.438	1.50	0.281	CAT40M	
PS-ANSI50	1"×8	1.14	0.700	2.30	0.460	CAT50	
PS-ANSI50M	M24	1.14	0.700	2.30	0.460	CAT50M	

PULL STUDS ANSI B5.50/CAT (INCH-SIZES)

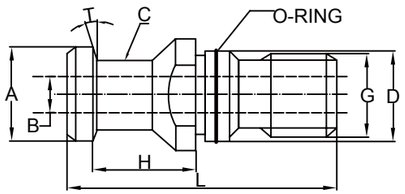
- WITHOUT COOLANT BORE(SOLID)



Code No.	G	A	H	L	Tool Shank	Weight
PS-ANSI40SF	5/8-11	0.74	0.438	1.50	CAT40	
PS-ANSI50SF	1"×8	1.14	0.700	2.30	CAT50	

RETENTION KNOB REQUEST SHEET

If required KNOB is not shown in the previous pages,please select the most similar design and specify dimensions.



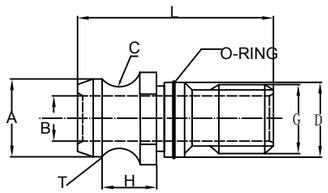
G = A =

D = T =

L = C =

H = B =

MACHINE TYPE



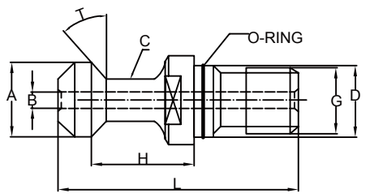
G = A =

D = T =

L = C =

H = B =

MACHINE TYPE



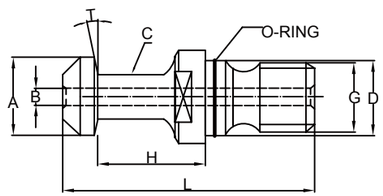
G = A =

D = T =

L = C =

H = B =

MACHINE TYPE



G = A =

D = T =

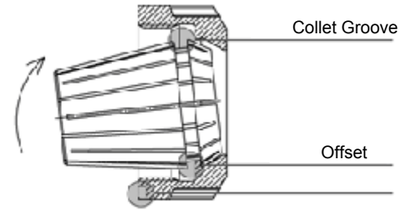
L = C =

H = B =

MACHINE TYPE

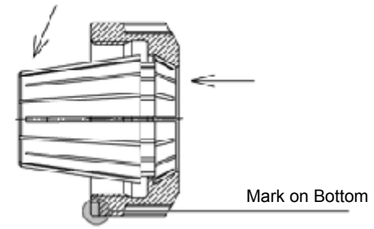
ER Collet

-MOUNTING INSTRUCTION FOR ER COLLETS PER DIN STANDARD 6499



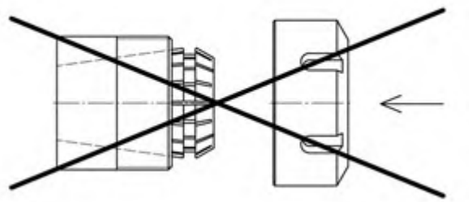
Assembling Instructions
Put the collet into the nut,turn it slightly in the direction of the arrow.Insert collet groove into the offset flange of the nut. Fix nut and collet into the toolholder or spindle. Rotate the nut with a wrench until the collet is clamped heavily

Disassembly Instructions
Loosen the nut, push out the collet slightly in the offered direction.



Improper assembly can permanently damage the concentricity of the collet and may result in the destruction of the clamping nut.

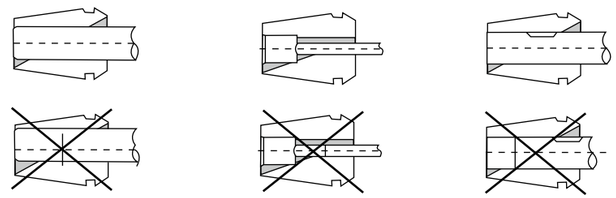
NOTE:



- Only mount nuts with correctly inserted collet!
Never put the collet into the holder without first fixing it into the nut.

- Never clamp oversize tool shafts!
E.g. never use a Ø 6–5 mm collet to clamp a Ø 6.3 mm shank. Rather use the next bigger collet (here Ø 6.5–5.5 mm or 7–6 mm collet).

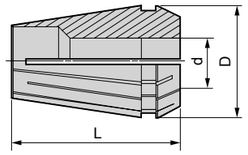
- Insert tool to the full length of the collet for best results.However never insert the tool less than2/3 of the collet boring length.Improper tool insertion can permanently destroy the collet and will result in poor precision.



ER-S Collet (Standard)

Feature

- Average T.I.R. 0.02mm (0.00079")
-Clamping range from 3.0mm(0.1181")up to 26mm(1.0236")
- Material: made of SUJ2
- Cold treatment



Metric Size

Code No.	D	L	d
S-ER11	11.5	18	3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
S-ER16	17	27	3, 4, 5, 6, 7, 8, 9, 10
S-ER20	21	31	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
S-ER25	26	35	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
S-ER32	33	40	3, 4, 5, 6, 7, 8, 9, 10 ,11, 12, 13, 14, 15, 16, 17, 18, 19, 20
S-ER40	41	46	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Inch Size

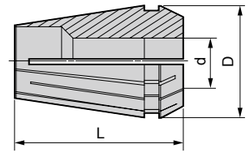
Code No.	D	L	d
S-ER11	11.5	18	1/8, 3/16, 7/32, 1/4
S-ER16	17	27	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8
S-ER20	21	31	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2
S-ER25	26	35	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8
S-ER32	33	40	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32
S-ER40	41	46	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32, 1

ER11		ER16		ER20		ER25		ER32		ER40	
SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm
S-ER11-3	3.0-2.5	S-ER16-3	3.0-2.0	S-ER20-3	3.0-2.0	S-ER25-3	3.0-2.0	S-ER32-3	3.0-2.0	S-ER40-3	3.0-2.0
S-ER11-3.5	3.5-3.0	S-ER16-4	4.0-3.0	S-ER20-4	4.0-3.0	S-ER25-4	4.0-3.0	S-ER32-4	4.0-3.0	S-ER40-4	4.0-3.0
S-ER11-4	4.0-3.5	S-ER16-5	5.0-4.0	S-ER20-5	5.0-4.0	S-ER25-5	5.0-4.0	S-ER32-5	5.0-4.0	S-ER40-5	5.0-4.0
S-ER11-4.5	4.5-4.0	S-ER16-6	6.0-5.0	S-ER20-6	6.0-5.0	S-ER25-6	6.0-5.0	S-ER32-6	6.0-5.0	S-ER40-6	6.0-5.0
S-ER11-5	5.0-4.5	S-ER16-7	7.0-6.0	S-ER20-7	7.0-6.0	S-ER25-7	7.0-6.0	S-ER32-7	7.0-6.0	S-ER40-7	7.0-6.0
S-ER11-5.5	5.5-5.0	S-ER16-8	8.0-7.0	S-ER20-8	8.0-7.0	S-ER25-8	8.0-7.0	S-ER32-8	8.0-7.0	S-ER40-8	8.0-7.0
S-ER11-6	6.0-5.5	S-ER16-9	9.0-8.0	S-ER20-9	9.0-8.0	S-ER25-9	9.0-8.0	S-ER32-9	9.0-8.0	S-ER40-9	9.0-8.0
S-ER11-6.5	6.5-6.0	S-ER16-10	10-9.0	S-ER20-10	10-9.0	S-ER25-10	10-9.0	S-ER32-10	10-9.0	S-ER40-10	10-9.0
S-ER11-7	7.0-6.5			S-ER20-11	11-10	S-ER25-11	11-10	S-ER32-11	11-10	S-ER40-11	11-10
				S-ER20-12	12-11	S-ER25-12	12-11	S-ER32-12	12-11	S-ER40-12	12-11
				S-ER20-13	13-12	S-ER25-13	13-12	S-ER32-13	13-12	S-ER40-13	13-12
						S-ER25-14	14-13	S-ER32-14	14-13	S-ER40-14	14-13
						S-ER25-15	15-14	S-ER32-15	15-14	S-ER40-15	15-14
						S-ER25-16	16-15	S-ER32-16	16-15	S-ER40-16	16-15
								S-ER32-17	17-16	S-ER40-17	17-16
								S-ER32-18	18-17	S-ER40-18	18-17
								S-ER32-19	19-18	S-ER40-19	19-18
								S-ER32-20	20-19	S-ER40-20	20-19
										S-ER40-21	21-20
										S-ER40-22	22-21
										S-ER40-23	23-22
										S-ER40-24	24-23
										S-ER40-25	25-24
										S-ER40-26	26-25

ER-A Collet (Precision)

Feature

- Average T.I.R. 0.01mm (0.0004")
-Clamping range from 3.0mm(0.1181")up to 26mm(1.0236")
- Material: made of SUJ2
- Cold treatment



Metric Size

Code No.	D	L	d
A-ER11	11.5	18	3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
A-ER16	17	27	3, 4, 5, 6, 7, 8, 9, 10
A-ER20	21	31	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
A-ER25	26	35	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
A-ER32	33	40	3, 4, 5, 6, 7, 8, 9, 10 ,11, 12, 13, 14, 15, 16, 17, 18, 19, 20
A-ER40	41	46	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Inch Size

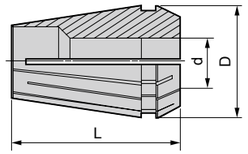
Code No.	D	L	d
A-ER11	11.5	18	1/8, 3/16, 7/32, 1/4
A-ER16	17	27	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8
A-ER20	21	31	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2
A-ER25	26	35	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8
A-ER32	33	40	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32
A-ER40	41	46	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32, 1

ER11		ER16		ER20		ER25		ER32		ER40	
SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm
A-ER11-3	3.0-2.5	A-ER16-3	3.0-2.0	A-ER20-3	3.0-2.0	A-ER25-3	3.0-2.0	A-ER32-3	3.0-2.0	A-ER40-3	3.0-2.0
A-ER11-3.5	3.5-3.0	A-ER16-4	4.0-3.0	A-ER20-4	4.0-3.0	A-ER25-4	4.0-3.0	A-ER32-4	4.0-3.0	A-ER40-4	4.0-3.0
A-ER11-4	4.0-3.5	A-ER16-5	5.0-4.0	A-ER20-5	5.0-4.0	A-ER25-5	5.0-4.0	A-ER32-5	5.0-4.0	A-ER40-5	5.0-4.0
A-ER11-4.5	4.5-4.0	A-ER16-6	6.0-5.0	A-ER20-6	6.0-5.0	A-ER25-6	6.0-5.0	A-ER32-6	6.0-5.0	A-ER40-6	6.0-5.0
A-ER11-5	5.0-4.5	A-ER16-7	7.0-6.0	A-ER20-7	7.0-6.0	A-ER25-7	7.0-6.0	A-ER32-7	7.0-6.0	A-ER40-7	7.0-6.0
A-ER11-5.5	5.5-5.0	A-ER16-8	8.0-7.0	A-ER20-8	8.0-7.0	A-ER25-8	8.0-7.0	A-ER32-8	8.0-7.0	A-ER40-8	8.0-7.0
A-ER11-6	6.0-5.5	A-ER16-9	9.0-8.0	A-ER20-9	9.0-8.0	A-ER25-9	9.0-8.0	A-ER32-9	9.0-8.0	A-ER40-9	9.0-8.0
A-ER11-6.5	6.5-6.0	A-ER16-10	10-9.0	A-ER20-10	10-9.0	A-ER25-10	10-9.0	A-ER32-10	10-9.0	A-ER40-10	10-9.0
A-ER11-7	7.0-6.5			A-ER20-11	11-10	A-ER25-11	11-10	A-ER32-11	11-10	A-ER40-11	11-10
				A-ER20-12	12-11	A-ER25-12	12-11	A-ER32-12	12-11	A-ER40-12	12-11
				A-ER20-13	13-12	A-ER25-13	13-12	A-ER32-13	13-12	A-ER40-13	13-12
						A-ER25-14	14-13	A-ER32-14	14-13	A-ER40-14	14-13
						A-ER25-15	15-14	A-ER32-15	15-14	A-ER40-15	15-14
						A-ER25-16	16-15	A-ER32-16	16-15	A-ER40-16	16-15
								A-ER32-17	17-16	A-ER40-17	17-16
								A-ER32-18	18-17	A-ER40-18	18-17
								A-ER32-19	19-18	A-ER40-19	19-18
								A-ER32-20	20-19	A-ER40-20	20-19
										A-ER40-21	21-20
										A-ER40-22	22-21
										A-ER40-23	23-22
										A-ER40-24	24-23
										A-ER40-25	25-24
										A-ER40-26	26-25

ER-UP Collet (Ultra Precision)

Feature

- Average T.I.R. 0.005mm (0.0002")
-Clamping range from 3.0mm(0.1181")up to 26mm(1.0236")
- Material: made of SUJ2
-t Cold treatment



Metric Size

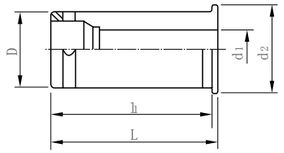
Code No.	D	L	d
UP-ER11	11.5	18	3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
UP-ER16	17	27	3, 4, 5, 6, 7, 8, 9, 10
UP-ER20	21	31	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
UP-ER25	26	35	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
UP-ER32	33	40	3, 4, 5, 6, 7, 8, 9, 10 ,11, 12, 13, 14, 15, 16, 17, 18, 19, 20
UP-ER40	41	46	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Inch Size

Code No.	D	L	d
UP-ER11	11.5	18	1/8, 3/16, 7/32, 1/4
UP-ER16	17	27	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8
UP-ER20	21	31	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2
UP-ER25	26	35	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8
UP-ER32	33	40	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32
UP-ER40	41	46	1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32, 1

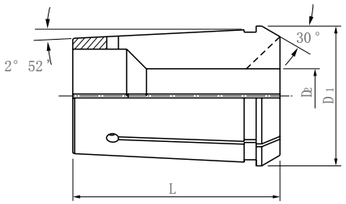
ER11		ER16		ER20		ER25		ER32		ER40	
SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm	SET NO.	RANGEmm
UP-ER11-3	3.0-2.5	UP-ER16-3	3.0-2.0	UP-ER20-3	3.0-2.0	UP-ER25-3	3.0-2.0	UP-ER32-3	3.0-2.0	UP-ER40-3	3.0-2.0
UP-ER11-3.5	3.5-3.0	UP-ER16-4	4.0-3.0	UP-ER20-4	4.0-3.0	UP-ER25-4	4.0-3.0	UP-ER32-4	4.0-3.0	UP-ER40-4	4.0-3.0
UP-ER11-4	4.0-3.5	UP-ER16-5	5.0-4.0	UP-ER20-5	5.0-4.0	UP-ER25-5	5.0-4.0	UP-ER32-5	5.0-4.0	UP-ER40-5	5.0-4.0
UP-ER11-4.5	4.5-4.0	UP-ER16-6	6.0-5.0	UP-ER20-6	6.0-5.0	UP-ER25-6	6.0-5.0	UP-ER32-6	6.0-5.0	UP-ER40-6	6.0-5.0
UP-ER11-5	5.0-4.5	UP-ER16-7	7.0-6.0	UP-ER20-7	7.0-6.0	UP-ER25-7	7.0-6.0	UP-ER32-7	7.0-6.0	UP-ER40-7	7.0-6.0
UP-ER11-5.5	5.5-5.0	UP-ER16-8	8.0-7.0	UP-ER20-8	8.0-7.0	UP-ER25-8	8.0-7.0	UP-ER32-8	8.0-7.0	UP-ER40-8	8.0-7.0
UP-ER11-6	6.0-5.5	UP-ER16-9	9.0-8.0	UP-ER20-9	9.0-8.0	UP-ER25-9	9.0-8.0	UP-ER32-9	9.0-8.0	UP-ER40-9	9.0-8.0
UP-ER11-6.5	6.5-6.0	UP-ER16-10	10-9.0	UP-ER20-10	10-9.0	UP-ER25-10	10-9.0	UP-ER32-10	10-9.0	UP-ER40-10	10-9.0
UP-ER11-7	7.0-6.5			UP-ER20-11	11-10	UP-ER25-11	11-10	UP-ER32-11	11-10	UP-ER40-11	11-10
				UP-ER20-12	12-11	UP-ER25-12	12-11	UP-ER32-12	12-11	UP-ER40-12	12-11
				UP-ER20-13	13-12	UP-ER25-13	13-12	UP-ER32-13	13-12	UP-ER40-13	13-12
						UP-ER25-14	14-13	UP-ER32-14	14-13	UP-ER40-14	14-13
						UP-ER25-15	15-14	UP-ER32-15	15-14	UP-ER40-15	15-14
						UP-ER25-16	16-15	UP-ER32-16	16-15	UP-ER40-16	16-15
								UP-ER32-17	17-16	UP-ER40-17	17-16
								UP-ER32-18	18-17	UP-ER40-18	18-17
								UP-ER32-19	19-18	UP-ER40-19	19-18
								UP-ER32-20	20-19	UP-ER40-20	20-19
										UP-ER40-21	21-20
										UP-ER40-22	22-21
										UP-ER40-23	23-22
										UP-ER40-24	24-23
										UP-ER40-25	25-24
										UP-ER40-26	26-25

Power Milling Collets



Taper	Code No.	Size(mm)			
		D	d2	L	L1
C20	6,8,10,12,16	20	25	52.5	49
C32	6,8,10,12,16,20,25	32	37.5	65	67.4
C32	1/4,5/6,3/8,1/2,3/4,5/8,1"	32	37.5	65	67.4
C42	6,8,10,12,16,20,25,32	42	47	80	76
C42	1/4,5/6,3/8,1/2,3/4,5/8,1"	42	47	80	76

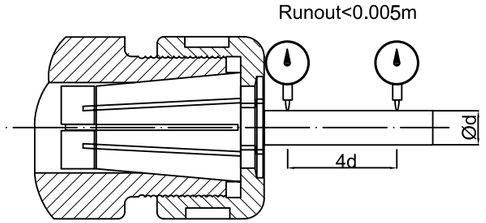
OZ Spring Collets



Taper	Code No.
OZ-25	6,8,10,12,16,20,25MM
	3,4,5,7,9,11,13,18MM
OZ-32	1/8",3/16",1/4",5/16",3/8",7/16",1/2",9/16"
	5/8",11/16",3/4",13/16",7/8",15/16",1"

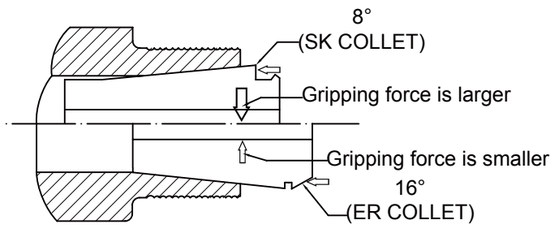
SK Precision Collet Holders

UP



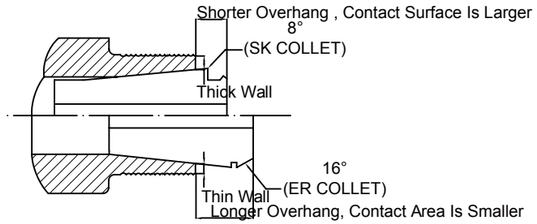
Feature

-Runout<0.005mm(collet grade:UP)



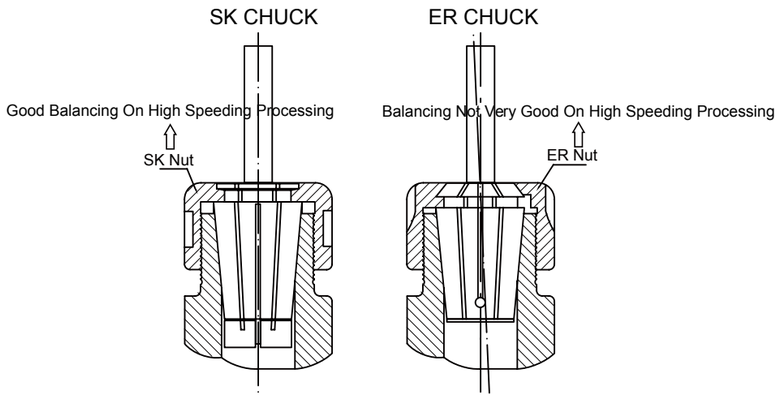
Feature

-SK collet designed with 8 degree cone angle,the gripping force is two times larger than ordinary collet with 16 degree.



Feature

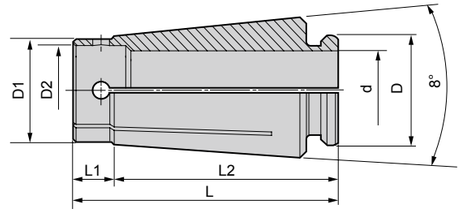
-SK inner hole uses thick-wall design,which provide a strong ability to absorb vibration and robust rigidity.



Feature

-SK nuts have been precisely ground after heat treatment,they can improve the banlancing value and minimize vibration during high speed cutting.
-Max speed:16000rpm/G6.3
-Balancing value up to 24000rpm/ G2.5 is avallable on special request.

SK-S Precision Collet (Standard)



Feature

-It is ideal for a variety of machining applications including boring milling , reaming, tapping and grinding.
- Material: SUJ2
-HRC46 degree
-SK Collet designed with 8 degree cone angle which shortens the suspended length of a collet , -therefore , the clamping power is huge.
-The nut is completely balanced, it can improve the performance of dynamic balancing.
- the tolerance of the clamping tool is limited during H7
- the hollow diameter is smaller than 3mm, its elastic contract is 0.25mm
- the hollow diameter is larger than 3mm, its elastic contract is 0.5mm
-Accuracy: T.I.R. <0.02mm S Grade.

Code No.	Size(mm)					
	D1	D2	d	L	L1	L2
S-SK6	10.5	7.5	5.8	25	4	17.4
S-SK10	15.5	12	9.8	30.5	5	21.3
S-SK16	24.6	18.8	15.75	45	8	32
S-SK25	35.6	28.9	25.4	57	8.5	43

Code No.	D	Clamping Range
S-SK6-2	10.4	1.8-2.0
S-SK6-2.25		2.05-2.25
S-SK6-2.5		2.3-2.5
S-SK6-2.75		2.55-2.75
S-SK6-3		2.8-3.0
S-SK6-3.5		3.0-3.5
S-SK6-4		3.5-4.0
S-SK6-4.5		4.0-4.5
S-SK6-5		4.5-5.0
S-SK6-5.5		5.0-5.5
S-SK6-6		5.5-6.0

Code No.	D	Clamping Range
S-SK10-2	15.6	1.75-2.0
S-SK10-2.25		2.0-2.25
S-SK10-2.75		2.5-2.75
S-SK10-3		2.75-3.0
S-SK10-3.5		3.0-3.5
S-SK10-4		3.5-4.0
S-SK10-4.5		4.0-4.5
S-SK10-5		4.5-5.0
S-SK10-5.5		5.0-5.5
S-SK10-6		5.5-6.0
S-SK10-6.5		6.0-6.5
S-SK10-7		6.5-7.0
S-SK10-7.5		7.0-7.5
S-SK10-8		7.5-8.0
S-SK10-8.5		8.0-8.5
S-SK10-9		8.5-9.0
S-SK10-9.5		9.0-9.5
S-SK10-10		9.5-10.0

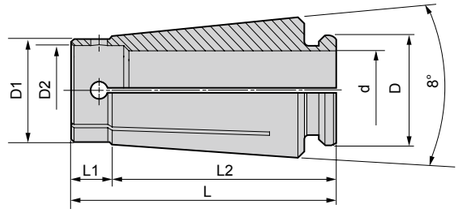
Code No.	D	Clamping Range
S-SK16-3	24.63	2.75-3.0
S-SK16-3.5		3.0-3.5
S-SK16-4		3.5-4.0
S-SK16-4.5		4.0-4.5
S-SK16-5		4.5-5.0
S-SK16-5.5		5.0-5.5
S-SK16-6		5.5-6.0
S-SK16-6.5		6.0-6.5
S-SK16-7		6.5-7.0
S-SK16-7.5		7.0-7.5
S-SK16-8		7.5-8.0
S-SK16-8.5		8.0-8.5
S-SK16-9		8.5-9.0
S-SK16-9.5		9.0-9.5
S-SK16-10		9.5-10.0
S-SK16-10.5		10.0-10.5
S-SK16-11		10.5-11.0
S-SK16-11.5		11.0-11.5
S-SK16-12		11.5-12.0
S-SK16-12.5		12.0-12.5
S-SK16-13		12.5-13.0
S-SK16-13.5		13.0-13.5
S-SK16-14		13.5-14.0
S-SK16-14.5		14.0-14.5
S-SK16-15		14.5-15.0
S-SK16-15.5		15.0-15.5
S-SK16-16		15.5-16.0

Code No.	D	Clamping Range
S-SK25-16.5	35.7	16.0-16.5
S-SK25-17		16.5-17.0
S-SK25-17.5		17.0-17.5
S-SK25-18		17.5-18.0
S-SK25-18.5		18.0-18.5
S-SK25-19		18.5-19.0
S-SK25-19.5		19.0-19.5
S-SK25-20		19.5-20.0
S-SK25-20.5		20.0-20.5
S-SK25-21		20.5-21.0
S-SK25-21.5		21.0-21.5
S-SK25-22		21.5-22.0
S-SK25-22.5		22.0-22.5
S-SK25-23		22.5-23.0
S-SK25-23.5		23.0-23.5
S-SK25-24		23.5-24.0
S-SK25-24.5		24.0-24.5
S-SK25-25		24.5-25.0
S-SK25-25.4		25.0-25.4

SK-A Precision Collet (Precision)

Feature

-It is ideal for a variety of machining applications including boring milling , reaming, tapping and grinding.
- Material: SUJ2
-HRC46 degree
-SK Collet designed with 8 degree cone angle which shortens the suspended length of a collet , -therefore , the clamping power is huge.
-The nut is completely balanced, it can improve the performance of dynamic balancing.
- the tolerance of the clamping tool is limited during H7
- the hollow diameter is smaller than 3mm, its elastic contract is 0.25mm
- the hollow diameter is larger than 3mm, its elastic contract is 0.5mm
- Accuracy: T.I.R. <0.01mm A Grade.



Code No.	Size(mm)					
	D1	D2	d	L	L1	L2
A-SK6	10.5	7.5	5.8	25	4	17.4
A-SK10	15.5	12	9.8	30.5	5	21.3
A-SK16	24.6	18.8	15.75	45	8	32
A-SK25	35.6	28.9	25.4	57	8.5	43

Code No.	D	Clamping Range
A-SK6-2	10.4	1.8-2.0
A-SK6-2.25		2.05-2.25
A-SK6-2.5		2.3-2.5
A-SK6-2.75		2.55-2.75
A-SK6-3		2.8-3.0
A-SK6-3.5		3.0-3.5
A-SK6-4		3.5-4.0
A-SK6-4.5		4.0-4.5
A-SK6-5		4.5-5.0
A-SK6-5.5		5.0-5.5
A-SK6-6		5.5-6.0

Code No.	D	Clamping Range
A-SK10-2	15.6	1.75-2.0
A-SK10-2.25		2.0-2.25
A-SK10-2.75		2.5-2.75
A-SK10-3		2.75-3.0
A-SK10-3.5		3.0-3.5
A-SK10-4		3.5-4.0
A-SK10-4.5		4.0-4.5
A-SK10-5		4.5-5.0
A-SK10-5.5		5.0-5.5
A-SK10-6		5.5-6.0
A-SK10-6.5		6.0-6.5
A-SK10-7		6.5-7.0
A-SK10-7.5		7.0-7.5
A-SK10-8		7.5-8.0
A-SK10-8.5		8.0-8.5
A-SK10-9		8.5-9.0
A-SK10-9.5		9.0-9.5
A-SK10-10		9.5-10.0

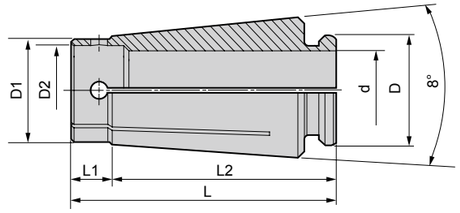
Code No.	D	Clamping Range
A-SK16-3	24.63	2.75-3.0
A-SK16-3.5		3.0-3.5
A-SK16-4		3.5-4.0
A-SK16-4.5		4.0-4.5
A-SK16-5		4.5-5.0
A-SK16-5.5		5.0-5.5
A-SK16-6		5.5-6.0
A-SK16-6.5		6.0-6.5
A-SK16-7		6.5-7.0
A-SK16-7.5		7.0-7.5
A-SK16-8		7.5-8.0
A-SK16-8.5		8.0-8.5
A-SK16-9		8.5-9.0
A-SK16-9.5		9.0-9.5
A-SK16-10		9.5-10.0
A-SK16-10.5		10.0-10.5
A-SK16-11		10.5-11.0
A-SK16-11.5		11.0-11.5
A-SK16-12		11.5-12.0
A-SK16-12.5		12.0-12.5
A-SK16-13		12.5-13.0
A-SK16-13.5		13.0-13.5
A-SK16-14		13.5-14.0
A-SK16-14.5		14.0-14.5
A-SK16-15		14.5-15.0
A-SK16-15.5		15.0-15.5
A-SK16-16		15.5-16.0

Code No.	D	Clamping Range
A-SK25-16.5	35.7	16.0-16.5
A-SK25-17		16.5-17.0
A-SK25-17.5		17.0-17.5
A-SK25-18		17.5-18.0
A-SK25-18.5		18.0-18.5
A-SK25-19		18.5-19.0
A-SK25-19.5		19.0-19.5
A-SK25-20		19.5-20.0
A-SK25-20.5		20.0-20.5
A-SK25-21		20.5-21.0
A-SK25-21.5		21.0-21.5
A-SK25-22		21.5-22.0
A-SK25-22.5		22.0-22.5
A-SK25-23		22.5-23.0
A-SK25-23.5		23.0-23.5
A-SK25-24		23.5-24.0
A-SK25-24.5		24.0-24.5
A-SK25-25		24.5-25.0
A-SK25-25.4		25.0-25.4

SK-UP Precision Collet(Ultra Precision)

Feature

-It is ideal for a variety of machining applications including boring milling , reaming, tapping and grinding.
- Material: SUJ2
-HRC46 degree
-SK Collet designed with 8 degree cone angle which shortens the suspended length of a collet , -therefore , the clamping power is huge.
- the tolerance of the clamping tool is limited during H7
- the hollow diameter is smaller than 3mm, its elastic contract is 0.25mm
- the hollow diameter is larger than 3mm, its elastic contract is 0.5mm
-Accuracy: T.I.R. <0.005mm UP grade.



Code No.	Size(mm)					
	D1	D2	d	L	L1	L2
UP-SK6	10.5	7.5	5.8	25	4	17.4
UP-SK10	15.5	12	9.8	30.5	5	21.3
UP-SK16	24.6	18.8	15.75	45	8	32
UP-SK25	35.6	28.9	25.4	57	8.5	43

Code No.	D	Clamping Range
UP-SK6-2	10.4	1.8-2.0
UP-SK6-2.25		2.05-2.25
UP-SK6-2.5		2.3-2.5
UP-SK6-2.75		2.55-2.75
UP-SK6-3		2.8-3.0
UP-SK6-3.5		3.0-3.5
UP-SK6-4		3.5-4.0
UP-SK6-4.5		4.0-4.5
UP-SK6-5		4.5-5.0
UP-SK6-5.5		5.0-5.5
UP-SK6-6		5.5-6.0

Code No.	D	Clamping Range
UP-SK10-2	15.6	1.75-2.0
UP-SK10-2.25		2.0-2.25
UP-SK10-2.75		2.5-2.75
UP-SK10-3		2.75-3.0
UP-SK10-3.5		3.0-3.5
UP-SK10-4		3.5-4.0
UP-SK10-4.5		4.0-4.5
UP-SK10-5		4.5-5.0
UP-SK10-5.5		5.0-5.5
UP-SK10-6		5.5-6.0
UP-SK10-6.5		6.0-6.5
UP-SK10-7		6.5-7.0
UP-SK10-7.5		7.0-7.5
UP-SK10-8		7.5-8.0
UP-SK10-8.5		8.0-8.5
UP-SK10-9		8.5-9.0
UP-SK10-9.5		9.0-9.5
UP-SK10-10		9.5-10.0

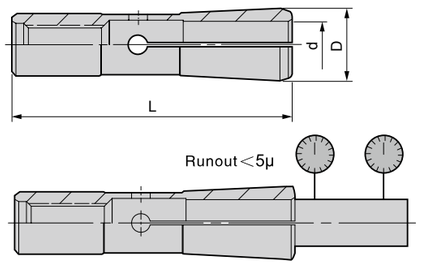
Code No.	D	Clamping Range
UP-SK16-3	24.63	2.75-3.0
UP-SK16-3.5		3.0-3.5
UP-SK16-4		3.5-4.0
UP-SK16-4.5		4.0-4.5
UP-SK16-5		4.5-5.0
UP-SK16-5.5		5.0-5.5
UP-SK16-6		5.5-6.0
UP-SK16-6.5		6.0-6.5
UP-SK16-7		6.5-7.0
UP-SK16-7.5		7.0-7.5
UP-SK16-8		7.5-8.0
UP-SK16-8.5		8.0-8.5
UP-SK16-9		8.5-9.0
UP-SK16-9.5		9.0-9.5
UP-SK16-10		9.5-10.0
UP-SK16-10.5		10.0-10.5
UP-SK16-11		10.5-11.0
UP-SK16-11.5		11.0-11.5
UP-SK16-12		11.5-12.0
UP-SK16-12.5		12.0-12.5
UP-SK16-13		12.5-13.0
UP-SK16-13.5		13.0-13.5
UP-SK16-14		13.5-14.0
UP-SK16-14.5		14.0-14.5
UP-SK16-15		14.5-15.0
UP-SK16-15.5		15.0-15.5
UP-SK16-16		15.5-16.0

Code No.	D	Clamping Range
UP-SK25-16.5	35.7	16.0-16.5
UP-SK25-17		16.5-17.0
UP-SK25-17.5		17.0-17.5
UP-SK25-18		17.5-18.0
UP-SK25-18.5		18.0-18.5
UP-SK25-19		18.5-19.0
UP-SK25-19.5		19.0-19.5
UP-SK25-20		19.5-20.0
UP-SK25-20.5		20.0-20.5
UP-SK25-21		20.5-21.0
UP-SK25-21.5		21.0-21.5
UP-SK25-22		21.5-22.0
UP-SK25-22.5		22.0-22.5
UP-SK25-23		22.5-23.0
UP-SK25-23.5		23.0-23.5
UP-SK25-24		23.5-24.0
UP-SK25-24.5		24.0-24.5
UP-SK25-25		24.5-25.0
UP-SK25-25.4		25.0-25.4

DC Slim Collet

Feature

- Material: SUJ2
-Powerful Clamping
- Clamping precision is high
- 5.72 degree cone angle design, the clamping power is up to 2 times than ordinary ER Collet
- the built-in collet design, and the clamping action is on the head of collet, both contributing to the stable clamping and high precision clamping(0.005mm)
- The locking system is directly tightened at the bottom, it is more suitable for the high speed processing than use a nut for locking.
- The EC collet uses a direct connection at the bottom and the clamping action is on the head of the collet . So clamping is more stable than on traditional ER collets and the accuracy can be maintained within 0.005mm.



Code No.	Size(mm)	
	D	L
DC4	7	31
DC6	9.6	36
DC8	14	45
DC10	18	62
DC12	22	60

Code No.	Range
	d
DC8-3E	2
DC8-4E	3
DC8-6E	6
DC8-8E	8

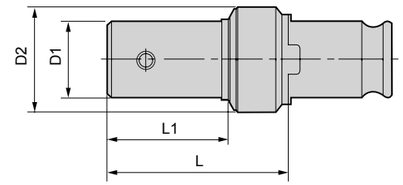
Code No.	Range
	d
DC4-2E	2
DC4-3E	3
DC4-4E	4
DC4-3.175E	3.175

Code No.	Range
	d
DC10-3E	3
DC10-4E	4
DC10-6E	6
DC10-8E	8
DC10-10E	10

Code No.	Range
	d
DC6-3E	3
DC6-4E	4
DC6-6E	6
DC6-3.175E	3.175
DC6-6.35E	6.35

Code No.	Range
	d
DC12-3E	3
DC12-4E	4
DC12-6E	6
DC12-8E	8
DC12-10E	10
DC12-12E	12

TPC Tap Collet

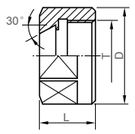


Code No.	TAP Dlameter	Size(mm)				Weight
		D1	D2	L1	L	
TPC316	M3,M4,M5,M6,M8,M10,M12,M14,M16 W1/8″,W3/16″,W1/4″,W5/16″,W3/8″,W7/16″	33	20	27	47	TPM316
TPC830	M8,M10,M12,M14,M16,M18,M20,M22,M24,M27,M30 W5/16″,W3/4″,W7/16″,W1/2″,W5/8″, W5/16″,W3/4″,W7/16″,W1/2″,W5/8″,W3/4″,W7/8″,W1″ PT1/8,PT3/8,PT1/4,PT1/2,PT5/8,PT3/4	50	30 36	43	62	TPM830

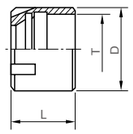
ER Clamping Nut

Feature

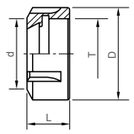
-Material: 40Cr.
-HRC : 45-48°



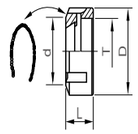
A Type



M Type



UM/RD Type



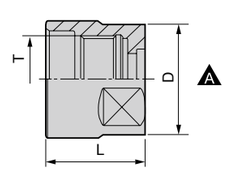
KM/RD Type

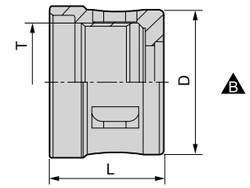
Type	Code No.	D	d	L	L1
A	ER11	19	17	11.3	M14×0.75P
	ER16	28	25	17.5	M22×1.5P
	ER20	34	30	19	M25×1.5P
M	ER8	12	-	10.8	M10×0.75P
	ER11	16	-	12	M13×0.75P
	ER16	22	-	18	M19×1.0P
	ER20	28	-	19	M24×1.0P
	ER25	35	-	20	M30×1.0P
UM/RD	ER25	42	29	20	M32×1.5P
	ER32	50	38.5	22.5	M40×1.5P
	ER40	63	48.3	22.5	M50×1.5P
	ER50	78	59	35.5	M64×2.0P
KM/RD	ER25	42	29	22.5	M32×1.5P
	ER32	50	38.5	26	M40×1.5P
	ER40	63	48.3	29	M50×1.5P
	ER50	78	59	40	M64×2.0P

SK Collet Nut For High Speed Milling Chuck

Feature

-The nut is completely balanced, it can improve the performance of dynamic balancing.





Code No.	Figure	Size(mm)			T
		D	D	L	
SK6-A	A	18	-	21	M15.5×1.0P
SK10-A		26		24	M21.5×1.0P
SK16-M	B	-	40	31	M32×1.5P
SK25-M			50	37	M45×1.5P

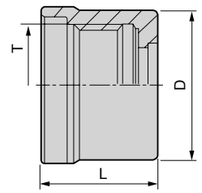
GSK Collet Nut For High Speed Milling Chuck

Feature

-The nut is completely balanced, it can improve the performance of dynamic balancing.

-The nut is completely balanced, it can improve the performance of dynamic balancing.

Code No.	Size(mm)		T
	D	L	
GSK6	19.5	21	M15.5×1.0P
GSK10	27.5	24	M21.5×1.0P
GSK16	40	31	M32×1.5P
GSK25	55	37	M45×1.5P



ER Wrench

Feature

- Material: 40Cr special elastic steel.
- HRC : 38-44°.
- For clamping nuts ER-system.



CODE NO	D	L	N
A-ER11	ER11	32.0	95
A-ER16	ER16	44.0	144
A-ER20	ER20	52.5	144



CODE NO	MODEL	A	B
UM-ER25	ER25	65	210
UM-ER32	ER32	76	250
UM-ER40	ER40	90	290
UM-ER50	ER50	110	350



CODE NO	MODEL	A	B
ER-8M	ER8	12.0	90
ER-11M	ER11	16.8	90
ER-16M	ER16	22.5	110
ER-20M	ER20	29.0	120
ER-25M	ER25	36.0	130

C Wrench



Code No.	Range of Application	L	B	C	I
C20	50-55	260	46	50-55	52
C32	80-90	272	64	80-90	67
C42	92-98	285	65	92-98	90

OZ Wrench



Code No.	D1	Taper
OZ25	60	OZ25
OZ32	76	OZ32

OZ Collets with slits from both sides. For cylindrical shanks with tolerance h10

HPM Power Wrench For Sleeve

Code No.	Applicable for holder
WHPM16	HPM16
WHPM20	HPM20
WHPM32	HPM32

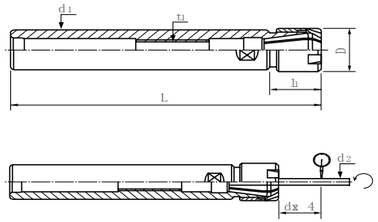


GSK Wrench For Sleeve

Code No.	Applicable Clamping Nut
WGSK06	GSK06
WGSK10	GSK10
WGSK16	GSK16
WGSK25	GSK25



Straight Shank ER Collet Chuck Holder (M/UM Type)

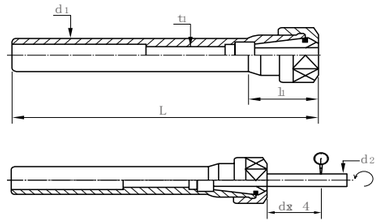


Feature

- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

Code No.	L	L1	D	d1	t1
C10-ER8M-100	115.5	15.5	12	10	M4×0.7P
C10-ER8M-150	165.5	15.5	12	10	M4×0.7P
C12-ER11M-100	130.5	20.5	16	12	M8×1.5P
C12-ER11M-150	180.5	20.5	16	12	M8×1.5P
C16-ER16M-100	139.5	39.5	22	16	M12×1.75P
C16-ER16M-150	189.5	39.5	22	16	M12×1.75P
C16-ER16M-200	239.5	39.5	22	16	M12×1.75P
C20-ER16M-100	139.5	39.5	22	20	M12×1.75P
C20-ER16M-150	189.5	39.5	22	20	M12×1.75P
C20-ER16M-200	239.5	39.5	22	20	M12×1.75P
C20-ER20M-100	144.5	44.5	28	20	M12×1.75P
C20-ER20M-150	194.5	44.5	28	20	M12×1.75P
C20-ER20M-200	244.5	44.5	28	20	M12×1.75P
C20-ER25UM-120	172	52	42	20	M12×1.75P
C20-ER25UM-150	202	52	42	20	M12×1.75P
C32-ER25UM-120	172	52	42	32	M12×1.75P
C32-ER25UM-150	202	52	42	32	M12×1.75P
C32-ER32UM-120	175	55	50	32	M16×2.0P
C32-ER32UM-150	205	55	50	32	M16×2.0P

Straight Shank ER Collet Chuck Holder (A Type For Milling)

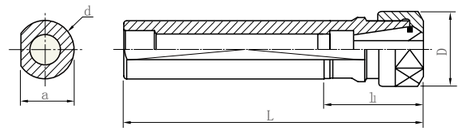


Feature

- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

Code No.	L	L1	d1	t1
ER11A-100-C16	121.6	21.6	C16	M6×1.0P
ER11A-150-C16	171.6			
ER16A-100-C16	135.1	35.1		M10×1.5P
ER16A-150-C16	185.1			
ER16A-100-C20	135.1		C20	
ER16A-150-C20	185.1			
ER16A-200-C20	234.1			
ER20A-100-C20	140.5	40.5		M12×1.75P
ER20A-150-C20	190.5			
ER20A-200-C20	240.5			

Straight Shank ER Collet Chuck Holder (B Type For Lathe)



Feature

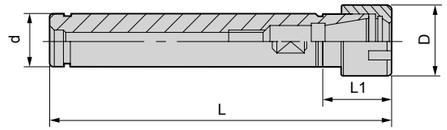
- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

Code No.	L	L1	a	D	d
ER16A-100-C20B	100	29	19	28	20
ER20A-100-C20B	100	33	19	34	20
ER20A-100-C25B	100	33	24	34	25

Mini Type Straight Shank ER Collet Chuck Holder

Feature

- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

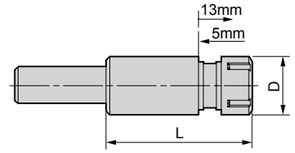


Code No.	Size(mm)			
	D	d	L1	L
C8ER8M-55	12	8	24	79
C10ER8M-180	12	10	17	197
C12ER8M-55	12	12	17	72
C12ER8M-120	12	12	17	137
C12ER8M-180				197
C12ER11M-80	16		26.5	106.5
C16ER11M-50	16	16	18.5	68.5
C16ER11M-100				118.5
C16ER11M-140				158.5
C16ER16M-80	23		37	117
C20ER16M-100	23	20	25	125
C20ER16M-140				165
C20ER16M-160				185
C20ER20M-60	28		40	100
C20ER20M-100				140
C20ER20M-120	28	20	40	160
C20ER20M-150				190
C20ER20M-180				220
C25ER20M-140	28	25	28	168
C20ER25M-100	35	20	40	140

C-TER Flex Tapping Chucks With Straight Shank

Feature

- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

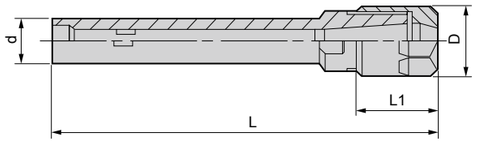


Code No.	Size(mm)		Suit Collet	Tapping Capacity
	D	L		
C20-TER16	28	75	ER16	M3-M12
C20-TER20	34	80	ER20	M4-M16
C20-TER25	42		ER25	M5-M20
C25-TER16	28	75	ER16	M3-M12
C25-TER20	32	80	ER20	M4-M16
C25-TER25	42		ER25	M5-M20
C25-TER32	50		ER32	M8-M27
C32-TER16	28	75	ER16	M3-M12
C32-TER20	32	80	ER20	M4-M16
C32-TER25	42		ER25	M5-M20
C32-TER32	50		ER32	M8-M27
C40-TER16	28	75	ER16	M3-M12
C40-TER20	32	80	ER20	M4-M16
C40-TER25	42		ER25	M5-M20
C40-TER32	50		ER32	M8-M27

SK Straight Shank Collet Chuck Holder

Feature

- Material: SCM415.
- HRC : 58-60 °.
- For mounting straight-shank tools in collets.

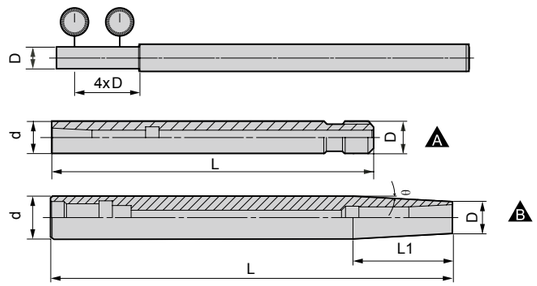


Code No.	Size(mm)			
	D	d	L1	L
C20-SK6-120	20	20	20	120
C20-SK6-150				150
C20-SK6-180				180
C20-SK10-120	29		28	120
C20-SK10-150				150
C20-SK10-180				180

Cylindrical Shank Of DC Slim Chuck

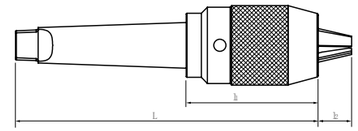
Feature

-DC Collet designed without cap, the outer diameter can reach 8.6mm.It represent well performance in deep machining.
-We offer different length of Collet holder, the maximum can be 300mm.
-Runout:<0.005(4XD).



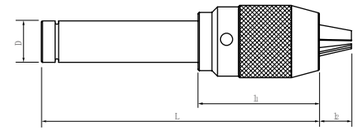
Code No.	Figure	Size(mm)					Suit Collet	Wrench
		D	d	L1	L	θ		
C08-DC4-80	A	-	8	-	80	-	DC4	2-4
C12-DC4-120	B		12		120			
C12-DC6-120	A						DC6	2-6
C16-DC6-150	B	12	16	38	150	3°		
C20-DC6-200			20	76	200			
C25-DC6-250			25	124	250			
C20-DC8-150		19	20	28	150	2°	DC8	3-8
C20-DC8-200					200			
C25-DC10-150		24	25		150		DC10	3-10
C25-DC10-200					200			
C25-DC10-250					250			
C32-DC12-200		30	32	57	200		DC12	3-12
C32-DC12-250					250			
C32-DC12-300					300			

MT-APU Integrated Keyless Drill Chuck



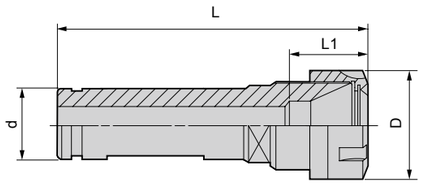
Code No.	L	l1	l2
MT2-APU8	164	70	10
MT2-APU13	174	80	10
MT3-APU13	179	80	10
MT3-APU16	184	85	12
MT4-APU13	202	80	10
MT4-APU16	207	85	12

C-APU Integrated Keyless Drill Chuck



Code No.	D	L	l1	l2
C20-APU8	20	120	70	10
C20-APU13	20	140	80	10
C20-APU16	20	150	80	10
C25-APU13	25	161	80	10
C25-APU16	25	165	80	12
C32-APU13	32	165	85	10
C32-APU16	32	165	85	12

NC-ER Chuck Holder



Code No.	Size(mm)			
	D	d	L1	L
C20NC/ER16	28	20	32	92
C25NC/ER16		25		97
C25NC/ER25	42			
C32NC/ER20	34	32		102
C32NC/ER25	42			
C32NC/ER32	50		38	108

Positioning Block



Notice:In using OIL-FEED holder, positioning block illustrated here is necessary.
The positioning block can be mounted to the intefere with ATC arm, etc. of the machine.
Therefore, as the mounting differs with different machines, it is necessary to consult the machine manufacturer about the proper mounting.



CONDITION OF BORING

Machining Material	ΦDia of Boring	A Type: Finish Machining A Type			D Type: Rough Machining D Type		
		Line Speed V(m/min)	Feed (mm/rev)	Depth of Cut (mm)	Line Speed V(m/min)	Feed (mm/rev)	Depth of Cut (mm)
Carbon Steel(S45C,S50C)	25-33	110-140	0.05-0.15	0.05-0.30	100-130	0.15-0.25	4.2
	32-42	115-150			105-140	0.15-0.30	5.7
	40-55			0.06-0.35	105-150		
	52-70		0.15-0.2			0.25-0.35	6.3
	120-164			0.07-0.50		0.30-0.40	
	160-204						
Alloy Steel(SCM,SNCM)	25-33	100-130	0.05-0.15	0.05-0.30	90-120	0.15-0.25	4.2
	32-42	110-140			100-130	0.15-0.30	5.7
	40-55	110-150		0.06-0.35		0.20-0.30	
	52-70		0.15-0.2			0.25-0.35	6.3
	120-164			0.07-0.50		0.30-0.40	
	160-204						
Stainless Steel(SUS)	25-33	70-100	0.07-0.15	0.12-0.35	60-90	0.12-0.20	4.2
	32-42	80-110			70-100	0.15-0.25	5.7
	40-55			0.20-0.50			
	52-70		0.1-0.20			0.20-0.30	6.3
	120-164			0.25-0.75		0.25-0.35	
	160-204						
Cast Steel(FC)	25-33	70-100	0.07-0.15	0.12-0.35	60-110	0.20-0.30	4.2
	32-42	80-110				0.25-0.35	5.7
	40-55			0.20-0.50			
	52-70		0.12-0.2			0.30-0.40	6.3
	120-164			0.25-0.75		0.30-0.45	
	160-204						
Aluminum Alloy(AC)	25-33	150-300	0.05-0.15	0.12-0.35	120-300	0.20-0.30	4.2
	32-42	150-360	0.10-0.20		150-370	0.25-0.35	5.7
	40-55			0.20-0.50			
	52-70					0.30-0.40	6.3
	120-164		0.10-0.25	0.25-0.75		0.30-0.45	
	160-204						
Special Steel(SKD61)	25-33	30-40	0.07-0.15	0.12-0.35	25-35	0.12-0.20	4.2
	32-42	40-45			30-40	0.15-0.25	5.7
	40-55			0.20-0.50			
	52-70		0.10-0.2			0.20-0.30	6.3
	120-164			0.25-0.75		0.25-0.35	
	160-204						

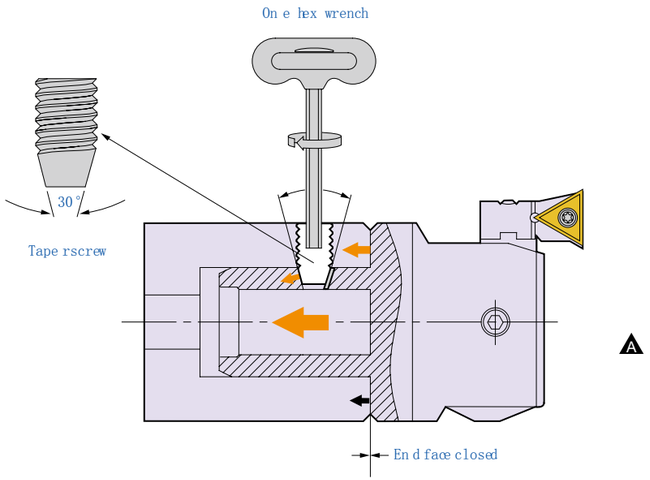
SPEED OF CUT AND POWER

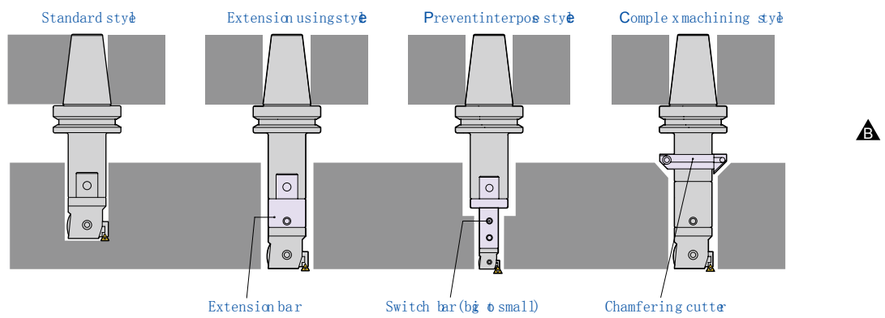
Speed of Cut	$V = \frac{3.14 \times D \times N}{1000}$ (m/min)	V:Speed of Cut(m/min) D:ΦDia of Milling(mm) N:Rotating Speed(r.p.m) F:Table Feed(mm/min) Fz:Feed per Tooth(mm/tooth) Z:Tooth Number
Feed	$F = f \times Z \times N$ (MM/min) $V = \frac{f}{Z\ N}$ (mm/tooch)	
Power	$W = \frac{Q \times Ks}{60 \times 102 \times \eta}$ (Km) $Hp = \frac{W}{0.75}$ (Km) $Q = \frac{L \times F \times d}{1000}$ (Km) $= \frac{d \times f \times V \times L \times z}{3.14 \times D}$	W:Power HP:Horse Power Needed Q:Output Volume L:Speed of Cut F:Table Feed(mm/min) d:Depth of Cut(mm) Ks:Non-Cutting Impedance η:Machinery Efficiency

Machining Material	Tensile Strength(kg/mm^2) & Rigidity	Non-Cutting Impedance for each feed(kg/mm^2)				
		0.1(mm/Tooth)	0.2(mm/Tooth)	0.3(mm/Tooth)	0.4(mm/Tooth)	0.5(mm/Tooth)
Mild Steel	520	2200	1950	1820	1700	1580
Sino Steel	620	1980	1800	1730	1600	1570
Hard Steel	720	2520	2200	2040	1850	1740
Tool Steel	670	1980	1800	1730	1700	1600
Tool Steel	770	2030	1800	1750	1700	1580
chrome-manganese steel	770	2300	2000	1880	1750	1660
chrome-manganese steel	630	2750	2300	2060	1800	1780
chrome-manganese steel	730	2540	2250	2140	2000	1800
chrome-manganese steel	600	2180	2000	1860	1800	1670
chromium nickel molybdenum steel	940	2000	1800	1680	1600	1500
chromium nickel molybdenum steel	HB352	2100	1900	1760	1700	1530
Cast Steel	520	2800	2500	2320	2200	2040
carbide cast steel	HRC46	3000	2700	2500	2400	2200
Preparation Castiron	360	2180	2000	1750	1600	1470
Gray Cast Steel	HB200	1750	1400	1240	1050	970
Brass	500	1150	950	800	700	630
(Al-Mg)Hard Alloy	160	580	480	400	350	320
(Al-Si) Hard Alloy	200	700	600		450	390

HCK MODULAR BORING BAR

HIGH PRECISION, BIG POWER AND EASY OPERATION—THE BEST CONNECTI ON STYLE

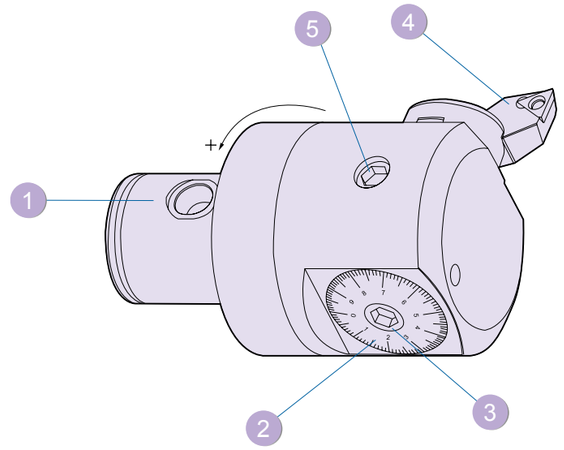




- To change settled force into axial pull with the 30 angle taper screw, so the end face of boring bar and holder touch closely. (Show as chart A)
- Modular designs can set on machining diameter and available process depth freely and easy for choosing.Reducing the cutter diameter of switch head (size) can not only assure the rigidity but also prevent interpose; then cooperating with chamfering machine, there is the most suitable boring bar in free combination.(show as chart B)
- Because the boring head and holder minutely connected, so we should setting cutiing head separated, Then it can increase the job efficiency, reduce the labor intensity and colligation cost.

THE NAME OF THE MAIN PART OF PRODUCTS WITH CBH

1. CBH Stem
2. Micro Adjusting Knob
3. CBH Head
4. Blade Block
5. Fixed Screw



SEQUENCE OF USE

Please operate the following step (1–5) according to the diagram figured:

Step1.Loosening the fixed screws.

Step2.Rotating tune knob by clockwise to increase the processing diameter, the graduate is Φ0.01mm.

Step3.Rotating by anti–clockwise will decrease the processing diameter.

Step4.When adjusting the size of processing, please fine–tuning by the same direction to ensure mirco adjustment Precision.

Step5.When meet the demanded size, please use the proper force to lock the fasten screws.

NOTICES OF THE USER

1.Using in the processing range .

2.Do not rotate the adjustment knob when the slide is tightly locked, or the adjusting mechanism will be destroyed.

3.Please use special wrench to fix the slide, too much force will be seat shift, on the contrary, there will be accuracy of non–performing.

4.Our products use micro screws, mobile slide to rotate the adjustment knob. You should make sure the following notices and adjusting with great resistance or it can not move:

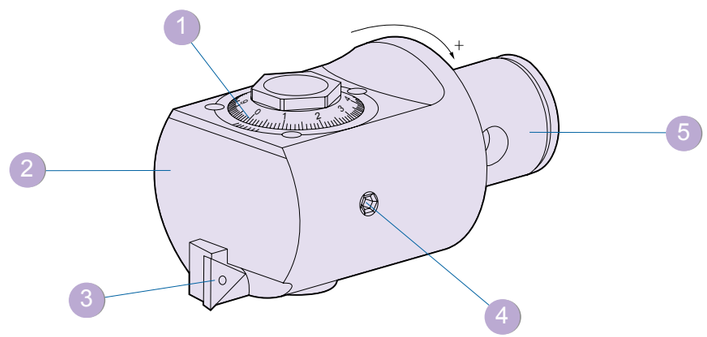
①Whether the fixed screw is loosened.

②Whether it is out of the adjustment range.

③Too much force will make cutting tools dead and the precision of boring head destroyed.

THE NAME OF THE MAIN PART OF PRODUCTS WITH CNH

1. Micro Adjusting Knob
2. CNH Head
3. Blade Block
4. Fixed Screw
5. CNH Stem



SEQUENCE OF USE

Please operate the following step (1–5) according to the diagram figured:
Step1.Loosening the fixed screws.
Step2.Rotating tune knob by clockwise to increase the processing diameter, the graduate is Φ0.01mm.
Step3.Rotating by anti–clockwise will decrease the processing diameter.
Step4.When adjusting the size of processing, please fine–tuning by the same direction to ensure mirco adjustment Precision.
Step5.When meet the demanded size, please use the proper force to lock the fasten screws.

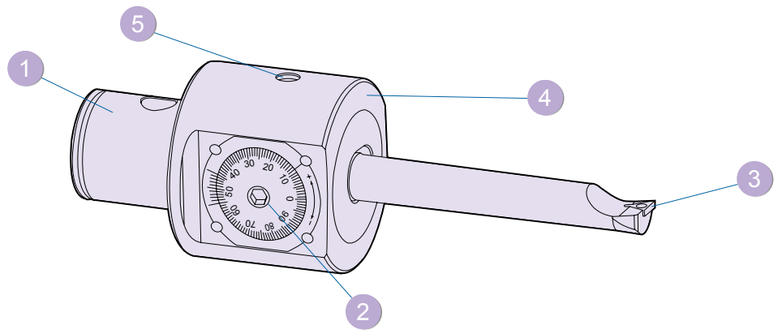
NOTICES OF THE USER

1.Using in the processing range .
2.Do not rotate the adjustment knob when the slide is tightly locked, or the adjusting mechanism will be destroyed.
3.Please use special wrench to fix the slide, too much force will be seat shift, on the contrary, there will be accuracy of non–performing.
4.Our products use micro screws, mobile slide to rotate the adjustment knob. You should make sure the following notices and adjusting with great resistance or it can not move:
①Whether the fixed screw is loosened.
②Whether it is out of the adjustment range.
③Too much force will make cutting tools dead and the precision of boring head destroyed.

Milling Boring System

THE NAME OF THE MAIN PART OF PRODUCTS WITH DBJ16

1. HBJ16 stem
2. Micro adjusting knob
3. Insert
4. HBJ16 cutting tools
5. Fixed screw



SEQUENCE OF USE

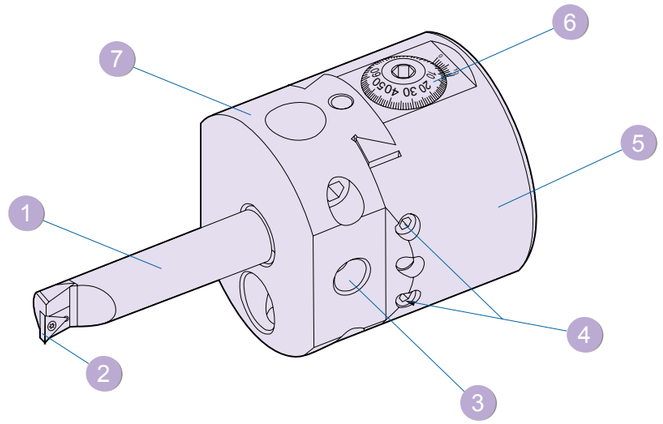
Please operate the following step (1–6) according to the diagram figured:
Step1.Using special wrench to lock two M10 screws to fasten the cutting tools in the processing size range.
Step2.Loosening the fixed screws.
Step3.Rotating tune knob by clockwise to increase the processing diameter, the graduate is Φ0.01mm.
Step4.Rotating by anti–clockwise will decrease the processing diameter.
Step5.When adjusting the size of processing, please fine–tuning by the same direction to ensure mirco adjustment Precision.
Step6.When meet the demanded size, please use the proper force to lock the spindle orientation to make spindle fix into the substance.

NOTICES OF THE USER

1.Using in the processing range Φ11mm.
2.Do not rotate the adjustment knob when the slide is tightly locked, or the adjusting mechanism will be destroyed.
3.Please use special wrench to fix the slide with three M10 screws, too much force will be axis–oriented shift, on the contrary, there will be accuracy of non–performing.
4.Our products use micro screws, spindle orientation to rotate adjusting knob. You should make sure the following notices and adjusting with great resistance or it can not move:
①Whether the guiding shaft of the fixed screw is loosened.
②Whether it is out of the adjustment range.
③Too much force will make cutting tools dead and the precision of boring head destroyed.

THE NAME OF THE MAIN PART OF PRODUCTS WITH NBH2084

1. NBH2084 Cutting Tools
2. Insert
3. Cutting ToolsFixed Screw
4. Slide Fixed Screw
5. Base
6. Micro Adjusting Knob
7. Head Slide



SEQUENCE OF USE

Please operate the following step (1–6) according to the diagram figured:

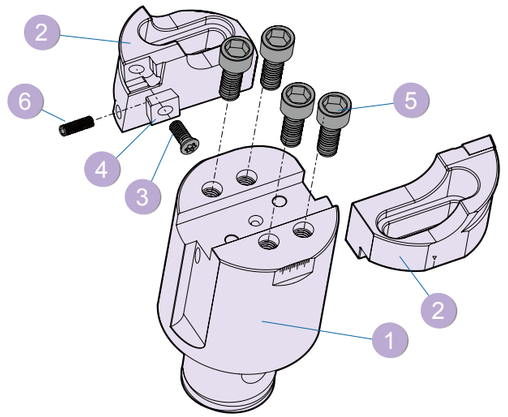
Step1.Fixing the cutting tools in the processing size range, using special wrench to rotate the screws.
Step2.Loosening the swallowtail solid groove, fixing with two screws.
Step3.Rotating tune knob by anti–clockwise to increase the processing diameter, the graduate is Φ 0.01mm.
Step4.Rotating by clockwise will decrease the processing diameter.
Step5.When adjusting the size of processing, please fine–tuning by the same direction to ensure mirco adjustment Precision.
Step6.When meet the demanded size, please use the proper force to fasten two M8 screws of the boring then the slide can fixed to the block body.

NOTICES OF THE USER

1.Using in the range of processing.
2.Do not rotate the adjustment knob when the slide is tightly locked, or the adjusting mechanism will be destroyed.
3.Please use special wrench to fix the slide with two M8 screws, too much force will be seat shift, on the contrary, there will be accuracy of non–performing.
4.Our products use micro screws, mobile slide to rotate the adjustment knob. You should make sure the following notices and adjusting with great resistance or it can not move:
①Whether the guiding shaft of the fixed screw is loosened.
②Whether it is out of the adjustment range.
③Too much force will make screw stem and T nut dead, thus the slide will come off to undermine precision.

INSTRUCTIONS OF DBH DUAL BLADES MODULAR ROUGH BORING AND HBH INTERRUPTED ROUGH BORING

1. Boring head
2. Blade block
3. Insert screw
4. Insert
5. Locking screws
6. Adjusting screws

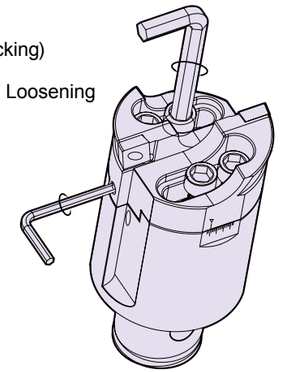


Step 1:Clockwise(Locking)

Step 3:Anticlockwise: Loosening

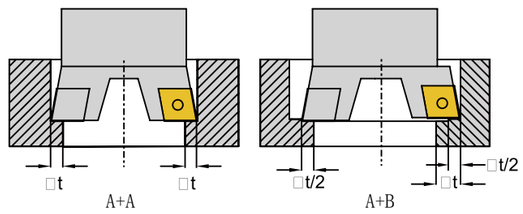
Step 2

Step 4



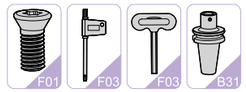
PROCESSING METHOD

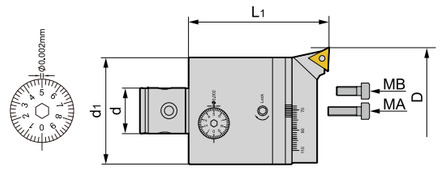
1. During plain–blade cutting processing, i.e. equal height and dimension of A and B blade, the cutting feed is twice of single blade cutting. This method is suitable for cutting less output or easy cutting material such as cast iron, aluminum, or copper, etc.
2. During high–low cutting processing, i.e. unequal height of A and B blade, the cutting feed is same with single blade cutting. This method is suitable for cutting more output or hard cutting material such as steel, etc.



a. When A and B blade bearing be mutual exchanged side to form high–low blade, i.e. A blade bearing to match B matching face, B blade bearing to match A matching face.
b. Be careful that the adjusted cutting output of high blade and low blade should be same. In that case the two sides cutting and counteractive will be balanced to prevent of resonance and damage from excessive force on single blade.

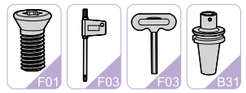
FBH Micro-Finishing Cutter Fine Boring System

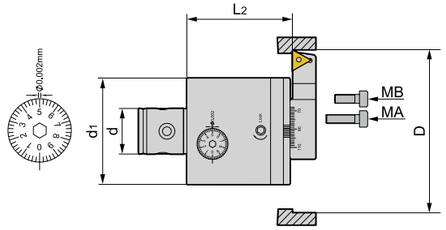




Code No.	Size(mm)		Boring Range	Modular Holder	Cutting Insert Holder	Weight
	d1	L1				
HCK2-FBH25-M	25	50	29-38	HCK2	MLTP2938	0.16
HCK3-FBH32-M	32	63	36-52	HCK3	MLTP3652	0.37
HCK4-FBH40-M	40	63	44-68	HCK4	MLTP4468	0.53
HCK5-FBH50-BM	50	80	57-90	HCK5	MLTP5790	1.05
HCK6-FBH63-BM	63	80	70-110	HCK6	MLTP70110	1.65
HCK6-FBH63-BM	63	80	110-150		MLTP110150	1.76

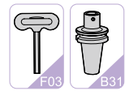
FBH Micro-Finishing Cutter For Reverse Fine Boring System

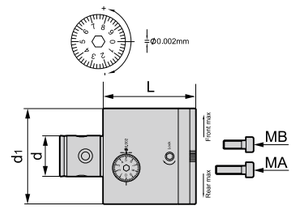




Code No.	Size(mm)		Boring Range	Modular Holder	Cutting Insert Holder	Weight
	d1	L1				
HCK2-FBH25-MK	25	42	29-38	HCK2	MLTP2938	0.16
HCK3-FBH32-MK	32	52	36-52	HCK3	MLTP3652	0.37
HCK4-FBH40-MK	40	53	44-68	HCK4	MLTP4468	0.53
HCK5-FBH50-BMK	50	63	57-90	HCK5	MLTP5790	1.05
HCK6-FBH63-BMK	63	63	70-110	HCK6	MLTP70110	1.65
HCK6-FBH63-BMK	63	63	110-150		MLTP110150	1.76

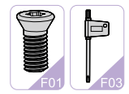
Body For FBH Micro-Finishing Cutter Fine Boring

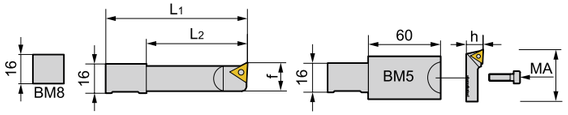




Code No.	Size(mm)			Front	Rear	MA Bolt	MB Bolt	Weight
	d1	d1	L					
HCK2-FBH25	14	25	42	1	1	ATH0512	-	0.15
HCK3-FBH32	18	32	52	2	2	ATH0612	-	0.35
HCK4-FBH40	22	40	53	2	2	ATH0612	-	0.50
HCK5-FBH50	28	50	63	2	2	BM8	-	0.92
HCK6-FBH63	36	63	63	4	4	BM8	ATH0816	1.52

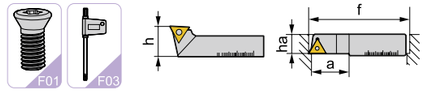
FBH Micro-Finishing Cutting Bar





Code No.	Size(mm)		Boring Range	Boring Head	Insert	Screw	Wrench	Weight
	L1	L2						
HR1606-21	55	21	6-9	HCK5-FBH50 HCK6-FBH63	WBGT0601..L	M2	T6	0.04
HR1608-28	59	28	8-11		TBGT0601..L	M2	T6	0.04
HR1610-35	65	35	10-13					0.05
HR1612-42	70	42	12-15		TPGH0902..L	M2.5	T8	0.06
HR1614-50	77	50	14-17					0.07
HR1614-60	85	60	16-20					0.09
HR1614-65	88	65	20-24		TPGH1103..L	M3	T10	0.11
HR1614-68	91	68	24-28					0.12
BM5	60+MLTP2938 or MLTP4468 or MLTP5790					AHL0512	L4	0.25
BM8	+MLTP70110 or MLTP110150					AHL0820	L6	0.03

FBH Micro-Finishing Cutting Insert Holder



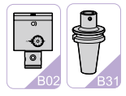
Code No.	Size(mm)		Boring Range	Boring Head	Insert	Screw	Wrench	Weight
	h	f						
MLTP2938	11	27	29-38	HCK2-FBH25	TPGH0902..L	M2.5	T8	0.01
MLTP3652	13	35	36-52	HCK3-FBH32				0.02
MLTP4468	13	43	44-68	HCK4-FBH40				0.03
MLTP5790	20	54	57-90	HCK5-FBH50	TPGH1103..L	M3	T10	0.10
MLTP70110	20	66	70-110	HCK6-FBH63				0.10
MLTP110150	20	106	110-150	HCK6-FBH63				0.21

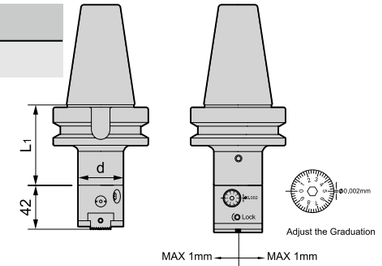
FBH Micro-Finishing Reverse Cutting Insert Holder

Code No.	Size(mm)			Boring Range	Boring Head	Insert	Screw	Wrench	Weight
	a	ha	f						
MRTP2938	6	11	27	29-38	HCK2-FBH25	TPGH0902..L	M2.5	T8	0.01
MRTP3652	10	11	35	36-52	HCK3-FBH32				0.02
MRTP4468	12	11	43	44-68	HCK4-FBH40				0.03
MRTP5790	14	15	54	57-90	HCK5-FBH50	TPGH1103..L	M3	T10	0.10
MRTP70110	16	15	66	70-110	HCK6-FBH63				0.10
MRTP110150	25	15	106	110-150	HCK6-FBH63				0.21

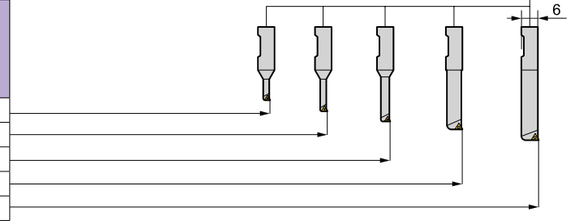
HCK2-FBH25P Micro-Finishing Cutter Fine Boring System

Code No.	Size(mm)	Boring Range	Modular Holder	Weight
	L1			
BT30-HCK2-FBH25P	80	2-6	BT30-HCK2-80	0.71
BT40-HCK2-FBH25P	75	2-6	BT40-HCK2-75	1.30



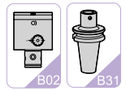


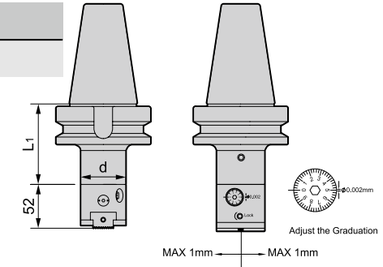
Cutting Bar	Boring Range	DM	Weight
TA0602-10	2-3.2	10	0.01
TA0603-16	3-4.2	16	0.01
TA0604-22	4-5.2	22	0.02
TA0605-28	5-6.2	28	0.02
TA0606-32	6-7.2	32	0.02



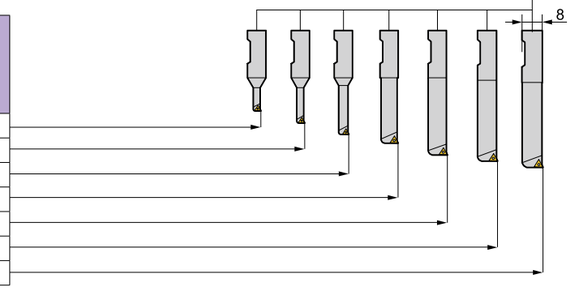
HCK3-FBH32P Micro-Finishing Cutter Fine Boring System

Code No.	Size(mm)	Boring Range	Modular Holder	Weight
	L1			
BT30-HCK3-FBH32P	80	2-8	BT30-HCK2-80	1.02
BT40-HCK3-FBH32P	80	2-8	BT40-HCK2-80	1.61

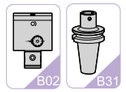




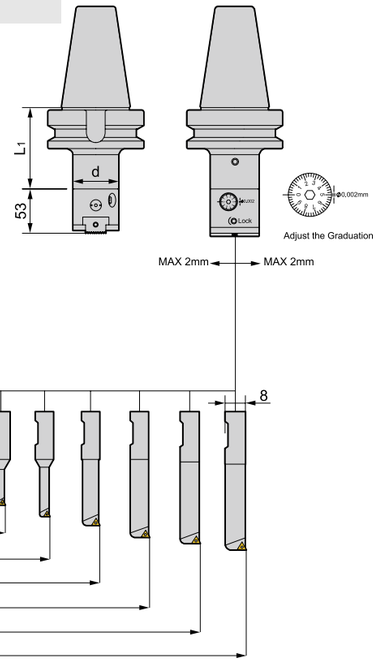
Cutting Bar	Boring Range	DM	Weight
TA0802-10	2-3.2	10	0.03
TA0803-16	3-4.2	16	0.03
TA0804-22	4-5.2	22	0.03
TA0805-28	5-6.2	28	0.04
TA0806-32	6-7.2	32	0.04
TA0807-36	7-8.2	36	0.04
TA0808-42	8-9.2	42	0.05



HCK4-FBH40P Micro-Finishing Cutter Fine Boring System

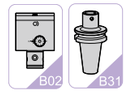


Code No.	Size(mm) L1	Boring Range	Modular Holder	Weight
BT30-HCK4-FBH40P	70	2-8	BT30-HCK4-70	1.21
BT40-HCK4-FBH40P	70	2-8	BT40-HCK4-70	1.61

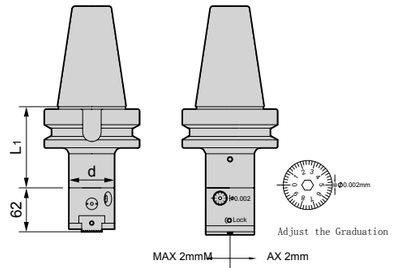


Cutting Bar	Boring Range	DM	Weight
CA0802-09	2-3.2	9	0.03
CA0803-16	3-4.2	16	0.03
CA0804-22	4-5.2	22	0.03
CA0805-27	5-6.2	27	0.04
CA0806-32	6-7.2	32	0.04
CA0807-37	7-8.2	37	0.04
CA0808-42	8-9.2	42	0.05

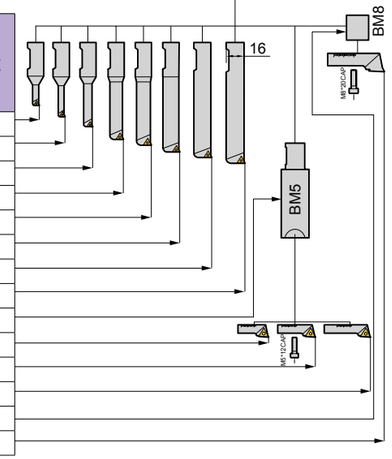
HCK5-FBH50P Micro-Finishing Cutter Fine Boring System



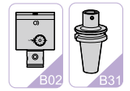
Code No.	Size(mm) L1	Boring range	Modular holder	Weight
BT30-HCK5-FBH50P	70	6-90	BT30-HCK5-70	8.2
BT40-HCK5-FBH50P	80	6-90	BT40-HCK5-80	10.8
BT50-HCK5-FBH50P	90	6-90	BT40-HCK5-90	11.3



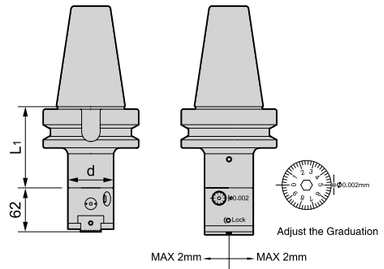
Cutting bar	Boring range	Depth L	Insert	Screw	Wrench	Weight
BR1606-21	6-9	21	WBGT0601..L	M2	T6	0.04
BR1608-28	8-11	28	TBGT0601..L	M2	T6	0.04
BR1610-35	10-13	35				0.05
BR1612-42	12-15	42	TPGH0902..L	M2.5	T8	0.06
BR1614-50	14-17	50				0.07
BR1616-60	16-20	60				0.09
BR1620-65	20-24	65	TPGH1103..L	M3	T8	0.11
BR1624-68	24-28	68				0.12
BM5		60+MLTP2938 or MLTP3652 or MLTP4468			L4	0.25
MLTP2938	29-38	+10	TPGH0902..L	M2.5	T8	0.01
MLTP3652	36-52	+12				0.02
MLTP4468	44-68	+12				0.03
BM8		+MLTP5790			L6	0.03
MLTP5790	57-90	+20	TPGH1103..L	M3	T10	0.10



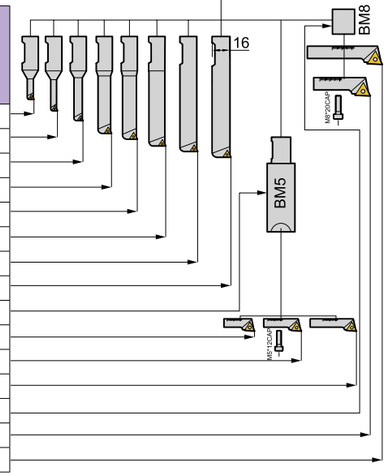
HCK6-FBH63P Micro-Finishing Cutter Fine Boring System



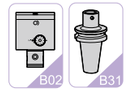
Code No.	Size(mm)	Boring range	Modular holder	Weight
	L1			
BT30-HCK6-FBH63P	55	6-150	BT40-HCK6-55	8.2
BT40-HCK6-FBH63P	85	6-150	BT50-HCK6-85	10.8
BT50-HCK6-FBH63P	155	6-150	BT50-HCK6-155	11.3



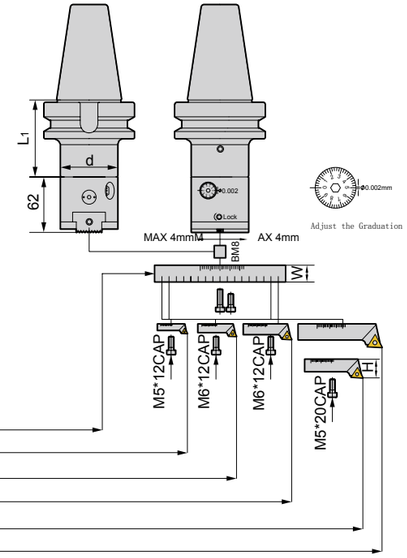
Cutting bar	Boring range	Depth L	Insert	Screw	Wrench	Weight
BR1606-21	6-9	21	WBGT0601..L	M2	T6	0.04
BR1608-28	8-11	28	TBGT0601..L	M2	T6	0.04
BR1610-35	10-13	35				0.05
BR1612-42	12-15	42	TPGH0902..L	M2.5	T8	0.06
BR1614-50	14-17	50				0.07
BR1616-60	16-20	60				0.09
BR1620-65	20-24	65	TPGH1103..L	M3	T8	0.11
BR1624-68	24-28	68				0.12
BM5		60+MLTP2938 or MLTP3652 or MLTP4468			L4	0.25
SRTP2938	29-38	+10	TPGH0902..L	M2.5	T8	0.01
SRTP3652	36-52	+12				0.02
SRTP4468	44-68	+12				0.03
BM8		+MLTP5790		AHL0820	L6	0.03
SRTP70110	70-110	+20	TPGH1103..L	M3	T10	0.10
SRTP110150	110-150	+20				0.21



HCK6-FBH63 Micro-Finishing Cutter Fine Boring System

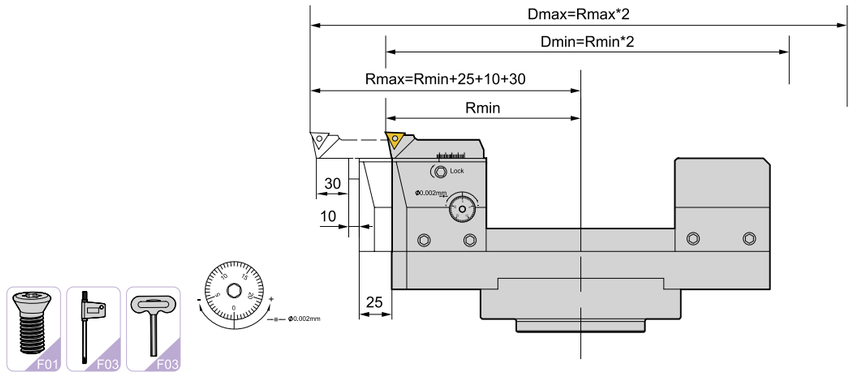


Code No.	Size(mm)	Boring Range	Modular holder	Weight
	L1			
BT30-HCK6-FBH63	55	6-150	BT40-HCK6-55	8.2
BT40-HCK6-FBH63	85	6-150	BT50-HCK6-85	10.8
BT50-HCK6-FBH63	155	6-150	BT50-HCK6-155	11.3



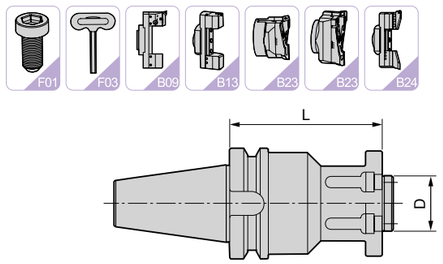
Code No.	Boring Range	Size(mm)	Weight
		H	
PS140-20	+BM8	20	0.43
MLTP2938	150-200	10	0.01
MLTP3652	160-210	12	0.02
MLTP4468	170-220	12	0.03
MLTP70110	140-240	19	0.10
MLTP110150	180-280	19	0.21

FBH Large Diameter Modular Micro Boring Head



Code No.	Boring range	Micro-Finishing Cutter Fine Boring System					Boring range
		Extension Slid	Boring Heads Bar	Moudular Holder	Blance Holder	Cutting Insert Holder	
BST-FBH200-310	200-260	HST200	BST	HST200	HSP200	MLTP70110	9.7
BST-FBH200-310	250-310					MLTP110150	9.8
BST-FBH300-410	300-360					MLTP70110	11.7
BST-FBH300-410	350-410					MLTP110150	11.8
BST-FBH400-510	400-460					MLTP70110	13.7
BST-FBH400-510	450-510					MLTP110150	13.8
BST-FBH500-610	500-560					MLTP70110	15.7
BST-FBH500-610	550-610					MLTP110150	15.8
BST-FBH600-710	600-660					MLTP70110	17.7
BST-FBH600-710	650-710					MLTP110150	17.8
BST-FBH700-810	700-760					MLTP70110	19.7
BST-FBH700-810	750-810					MLTP110150	19.8
BST-FBH800-910	800-860					MLTP70110	21.7
BST-FBH800-910	850-910					MLTP110150	21.8

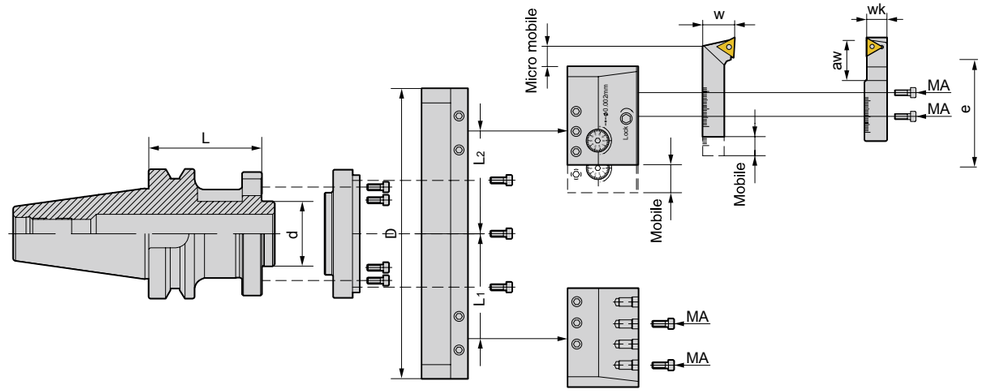
BST Boring Head Holder



BST Basic holder for roughness and precision boring bar
(Boring range > 200)

Code No.	Size(mm)		Weight
	D	L	
BT50-BST-100	50	100	5.7
BT50-BST-150		150	7.4
BT50-BST-200		200	8.8
BT50-BST-250		250	10.3
BT50-BST-300		300	11.3
BT50-BST-350		350	12.3

HST Extension Slide



Code No.	Size(mm)			Weight
	d	L_1	L_2	
HST-200	200	61	66	3.00
HST-300	300	111	116	4.60
HST-400	400	161	166	6.20
HST-500	500	211	216	7.80

Code No.	Size(mm)			Weight
	d	L_1	L_2	
HST-600	600	261	266	9.40
HST-700	700	311	316	11.00
HST-800	800	361	366	12.60

Body And Balance Holder For Diameter Finishing Cutter Fine Boring System



Code No.	Mobile	Micro Mobile	Boring Range	MA Bolt	Wrench	Weight
HSJ-200	25		10	ATH0816	L5,L6	3.00
HSP-200	-		-		L6	

Cutting Insert Holders For ABH Adjustable Twin Roughing



Code No.	Size(mm)		Mobile	Insert	Screw	Wrench	Weight
	w	e					
MLTP70110	20	66	15	TPGS1103L	ATH0816	L6	0.10
MLTP110150		106	30				0.21

Reverse Cutting Insert Holders For ABH Adjustable Twin Roughing

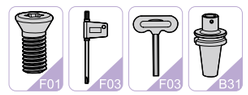


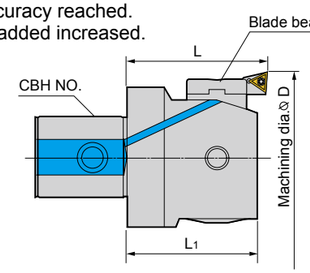
Code No.	Size(mm)			Mobile	Insert	Screw	Wrench	Weight
	aw	wk	e					
MRTP70110	16	66	66	15	TPGH1103R	ATH0816	L6	0.10
MRTP110150	25	106	106	30				0.21

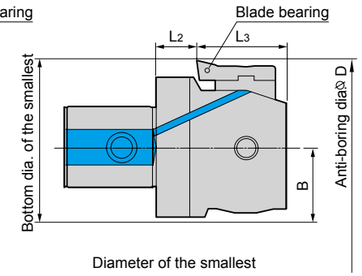
CBH Micro Boring Head

Feature

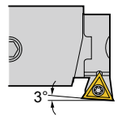
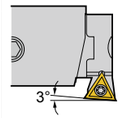
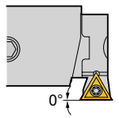
- Center for the cold manths.
- Balancing structure based, reliable machining accuracy reached.
- Against the standard of counter boring the value-added increased.



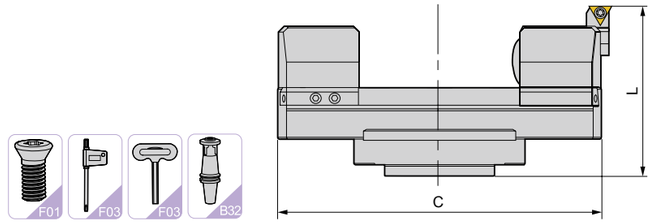




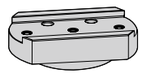
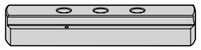
Code No.	Boring			Counter Boring				Modular Holder	Blade Bearing	Insert	Weight
	L1	L	Range	B	L2	L3	Range				
HCK1-CBH20-36	29.5	32.5	20-26	10	10.5	19	-	HCK1	CBH1-1	TP08	0.07
			25-31				30-31		CBH1-2		
			30-36				30-36		CBH1-3		
HCK2-CBH25-47	32.5	35.5	25-33	12.5	11.5	21	-	HCK2	CBH2-1		0.12
			32-40				36-40		CBH2-2		
			39-47				39-47		CBH2-3		
HCK3-CBH32-60	35	40	32-42	16	10	25	-	HCK3	CBH3-1		0.21
			41-51				46-51		CBH3-2		
			50-60				50-60		CBH3-3		
HCK4-CBH41-74	43	47	41-54	20	14	29	-	HCK4	CBH4-1	TC11	0.40
			50-63				53-63		CBH4-2		
			61-74				61-74		CBH4-3		
HCK5-CBH53-95	53	57	53-70	25.5	19	34	62-70	HCK5	CBH5-1		1.10
			65-82				65-82		CBH5-2		
			78-95				78-95		CBH5-3		
HCK6-CBH68-150	67.2	71	68-100	32.5	22	45.2	80-100	HCK6	CBH6-1		1.47
			94-126				94-126		CBH6-2		
			118-150				118-150		CBH6-3		
HCK7-CBH100-203	67.2	71	100-153	45.5	22	45.2	112-153	HCK6	CBH6-1		2.46
			126-179				126-179		CBH6-2		
			150-203				150-203		CBH6-3		

Code No.	Drawing of Shape	Boring Head	Code No.	Drawing of Shape	Boring Head	Code No.	Drawing of Shape	Boring Head
CBH1-1	 TP08	HCK1-CHB20-36	CBH4-1	 TP11	HCK4-CHB41-74	CBH4-1	 TC11	HCK4-CHB41-74
CBH1-2			CBH4-2			CBH4-2		
CBH1-3			CBH4-3			CBH4-3		
CBH2-1		HCK2-CHB25-47	CBH5-1		HCK5-CHB53-95	CBH5-1		HCK5-CHB53-95
CBH2-2			CBH5-2			CBH5-2		
CBH2-3			CBH5-3			CBH5-3		
CBH3-1		HCK3-CHB32-60	CBH6-1		HCK6-CHB68-150 HCK6-CHB110-203	CBH6-1		HCK6-CHB68-150 HCK6-CHB100-203
CBH3-2			CBH6-2			CBH6-2		
CBH3-3			CBH6-3			CBH6-3		

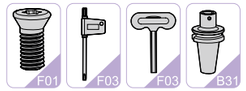
CBH Large Diameter Modular Micro Boring Head

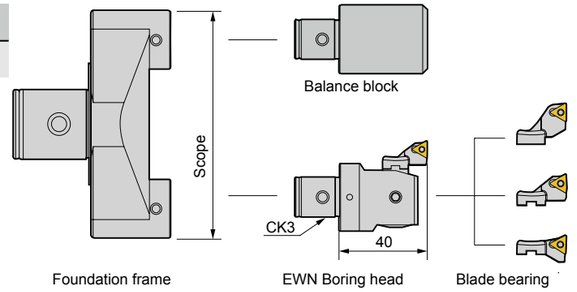


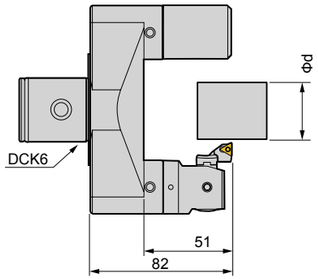
Code No.	Size(mm)		Boring Range	Modular Holder	Insert	Screw	Wrench	Total Weight
	C	L						
BST-CBH200310	180	130	200-310	BST	TP**0902	M2.5 M3	T8	9.7
BST-CBH300410	280		300-410					11.7
BST-CBH400510	380		400-510					13.7
BST-CBH500610	480		500-610					15.7
BST-CBH600710	580		600-710					17.7
BST-CBH700810	680		700-810					19.7
BST-CBH800910	780		800-910					21.7

Module	Code No.	Figure	Weight
Modular Holder	BT50-BST Series		-
Flange	BST-FL200		2.7
Extension Slide	HST200		3.4
	HST300		5.4
	HST400		7.4
	HST500		9.4
	HST600		11.4
	HST700		13.4
	HST800		15.4
Balance Weight	HBN300		1.6
Finish Head	CB200		
Suit Insert	TPGH080202/M2.2/T7, TPGH090204/M2.5/T8,TCMT110204/M2.5/T8,TPGH110304/M3/T15		

CBH-M Counter Boring Head



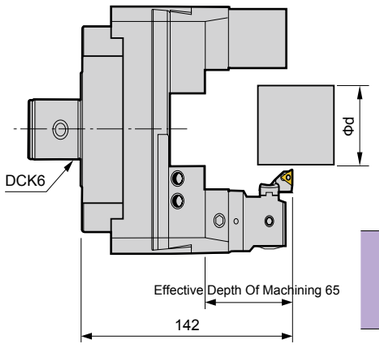


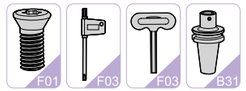


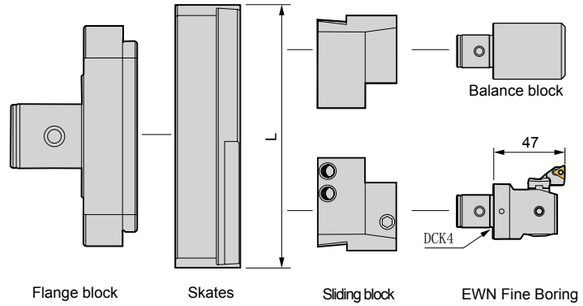
Range Ød	Foundation Frame	Boring Head	Balance Block	Balance Bearing	Insert
24-34	HCK6-2454-42 Range114	CBH32-60	HCK3-CBH	CBH3-3	TP08
34-44				CBH3-2	
44-54				CBH3-1	
52-62	HCK6-5282-42 Range142			CBH3-3	
62-72				CBH3-2	
72-82				CBH3-1	
80-90	HCK6-80110-42 Range170			CBH3-3	
90-100				CBH3-2	
100-110				CBH3-1	

Notice:1.Excluding:boring head, balance block,blade block and insert. 2.REV.
3.The FWD when making boring machining.

CBH-L Counter Boring Head







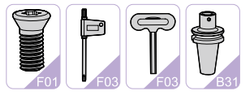
Range Ød	Connection Plate	Horizontal Slide		Sliding Block	Boring Head	Balance Block
		Type	L			
13-101	HCK6-FL200	HST-200	180	CB200-HCK4	CBH41-74 Blade Bearing 4-1 Insert TC11	HCK4
100-201		HST-300	280			
200-301		HST-400	380			
300-401		HST-500	480			
400-501		HST-600	580			
500-601		HST-700	680			
600-701		HST-800	780			

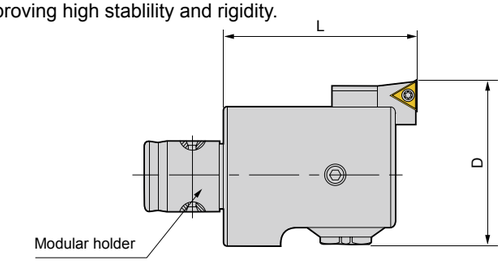
Notice:1.CBH boring head incidentals one blade bearing(CBH4-1),the insert should order to others.
2.When machining,the spindle should be a reversal.

CNH Micro Boring Head

Feature

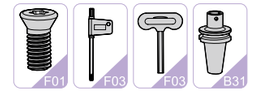
■CNH finish boring is suitable for micro boring with working ranges from Φ19.8mm to 202mm on diameter.
■20-32: The dial has been graduated into 50 divisions, each of which is 0.02mm on diameter.
42-150:The dial has been graduated into 100 divisions, each of which is 0.01 mm on diameter.
Aaliable is a sub-dial for finer adjustment.
■High precision internal lead screw with inner lubrication is free from the effects of chips, featuring high durability.
■Coolant nozzle easilly cools the insert elongating its working life.
■Cartridge unit is housed in a square structure with two face support, proving high stablility and rigidity.

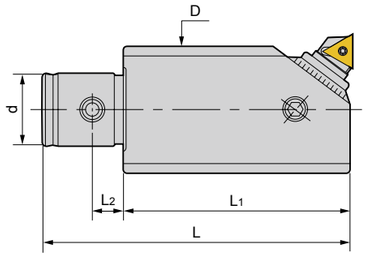




Code No.	Size(mm)	Boring Range	Modular Holder	Insert	Screw	Wrench
	L	D				
HCK1-CNH20-35	35	19.8-25.2	HCK1	TB**0601 TB**0802	M2 M2.5	T6 T8
HCK2-CNH25-40	40	24.8-32.2	HCK2			
HCK3-CNH32-40		31.8-42.2	HCK3			
HCK4-CNH42-50	50	41.8-55.2	HCK4	TB**0802 TB**0902	M2.5	T8
HCK5-CNH55-60	60	54.8-70.2	HCK5	TB**0902 TB**1103	M2.5 M3	T8
HCK6-CNH70-72	72	69.8-85.2	HCK6			
HCK6-CNH85-72		85-108				
HCK6-CNH106-72		106-152				
HCK6-CNH150-88	88	150-202				

HCK-DYD Micro Boring Bar





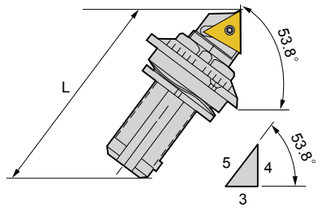
INCLINED MOUNTING TYPE

Code No.	Size(mm)					Boring Range	Modular Holder	Modular Boring	Insert
	D	d	L1	L2	L				
HCK1-DYD19	18	11	35	4.65	51	19-22.5	HCK1	M2-DYD19	TB**0601L
HCK1-DYD22	20					22-29.5		M2-DYD22	
HCK2-DYD29	25	14	45	62	61	29-41	HCK2	M3-DYD29	
HCK3-DYD38	35	18	70	7.5	90	38-50	HCK3	M5-DYD38	TB**1103L
HCK4-DYD48	41	22	60	9.5	86	48-65	HCK4	M5-DYD48	
HCK5-DYD62	54	28	80	12.4	110	62-90	HCK5	M7-DYD62	TB**16T3L
HCK6-DYD82	67	36	110	15	150	82-110	HCK6	M7-DYD82	
HCK6-DYD105	84		130		170	105-140		M9-DYD105	
HCK6-DYD135	98		140		180	135-175		M9-DYD135	

HCK-DYD Micro Boring Head

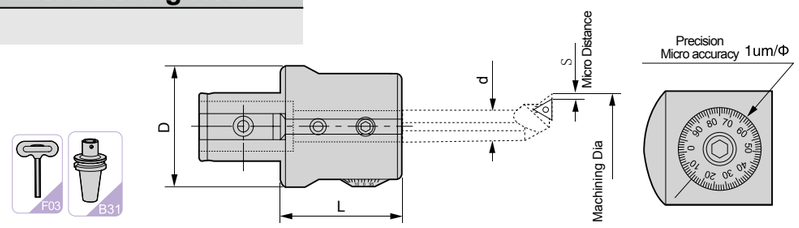
Feature

■The dial each of which is 0.02mm on diameter.



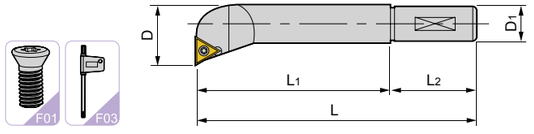
Code No.	Size(mm)	Boring Range	Insert
	L		
M2-DYD19	20.7	19-22.5	TP**0601L
M2-DYD22	23.5	22-29.5	
M3-DYD29	31.0	29-41	TP**1103L
M5-DYD38	40.0	38-50	
M5-DYD48	47.7	48-65	
M7-DYD62	63.5	62-90	
M7-DYD82	84	82-110	TP**16T3L
M9-DYD105	110	105-140	
M9-DYD135	136	135-175	

HBJ-16 Small Diameter Micro Boring Head



Code No.	Size(mm)			Micro Distance	Precision Micro accuracy	Boring Range	Modular Holder	Weight
	D	d	L					
HBJ-16	63	16	50	6	0.01	8-50	HCK6	1.60

HBJ-16 Micro Boring Bar



Code No.	Size(mm)					Boring Range	Insert	Screw	Wrench	Weight
	D	D1	L1	L2	L					
HBJ1608-32	8	16	32	32	74	8-11	TB**0601L	M2	T6	0.06
HBJ1610-40	10		40		75	10-13				0.07
HBJ1612-53	12		53		88	12-17	TP**0902L	M2.5	T8	0.08
HBJ1616-68	16		68		100	16-21				0.12
HBJ1620-83	20		83		118	20-26	TP**1103L	M3		0.16
HBJ1625-90	25		90		122	25-32				0.25
HBJ1630-90	30					30-42				0.30
HBJ1640-90	40					40-50				0.40

Outstretch of small diameter boring is better within 3 times of its diameter when in use.

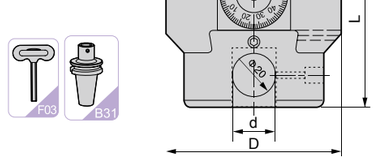
HBJ-16 Micro Boring Set

(8PCS in one set) HBJ-16-8PCS	Code No.	
	HBJ-1608-32	HBJ-1620-83
	HBJ-1610-40	HBJ-1625-90
	HBJ-1612-53	HBJ-1630-90
	HBJ-1616-68	HBJ-1640-90

Code No.	Boring Range	Fittings
BT40-HBJ16-8PCS	8-500	1. One piece of HCK shank 2. One HBJ micro boring head 3. Eight micro boring bar HBJ16 4. Four Wrench
BT50-HBJ16-8PCS		

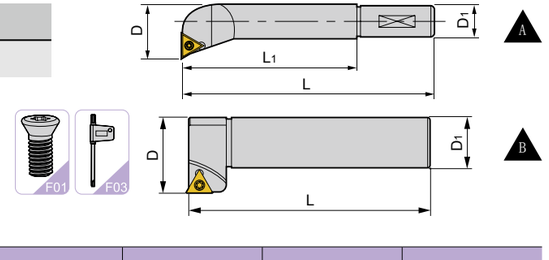


NBH2084 Micro Boring Head



Code No.	Size(mm)					Boring Range	Micro Distance	Micro Accuracy (Dia)	Modular Holder
	D	d	d1	d2	L				
NBH2084S	84	20	35	60	80	8-280Coupling with boring bar	28	0.01	NBH-A.B

HBJ-20 Micro Boring Bar



Code No.	Figure	Size(mm)				Boring Range	Insert	Screw	Wrench	Weight
		D	D1	L1	L					
HBJ2008-32	A	8	20	32	74	8-11	TB**0601L	M2	T6	0.09
HBJ2010-40		10		40	75	10-13				0.1
HBJ2012-53	A	12	20	53	88	12-17	TP**0902L	M2.5	T8	0.11
HBJ2016-68		16		68	103	16-21				0.15
HBJ2020-83	A	20	20	83	115	20-26	TP**1103L	M3	T8	0.2
HBJ2025-96		25		96	131	25-135				0.3
HBJ2030-115		30		115	159	30-140				0.5
HBJ20120-L	B	30		-	97	120-280				0.25

NBH2084 Micro Boring Set

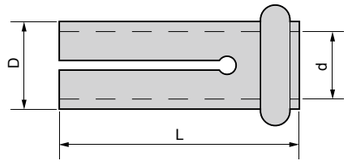
(8PCS in one set) HBJ-20-8PCS	Code No.	
	HBJ-20080-32	HBJ-2020-83
	HBJ-2010-40	HBJ-2025-96
	HBJ-2012-53	HBJ-2030-115
	HBJ-2016-68	HBJ-20120-L

Code No.	Boring Range	Fittings
BT40-NBH2084-8PCS	8-280	1. One piece of NBH2084 shank 2. One NBH2084 micro boring head 3. Eight micro boring bar HBJ16 4. Four Wrench”
BT50-NBH2084-8PCS		

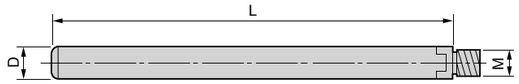


HBJ Collet For Super Head Solid Caibide Boring Bar

Code No.	Size(mm)		
	D	d	L
HBJ16-8	16	8	37
HBJ16-10		10	
HBJ16-12		12	
HBJ16-14		14	



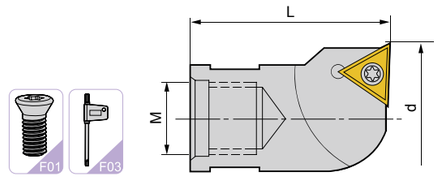
HT Anti-Shank Solid Carbide Boring Bar



Code No.	Size(mm)			Boring Range	Modular Boring
	D	L	M		
HT08-M5-100	8	100	M5	9-13	HEB09N
HT10-M6-110	10	110	M6	12-15	HEB12N
HT12-M6-120	12	120		14-17	HEB14N
HT14-M6-160	14	160		16-20	HEB16N
HT16-M10-160	16		M10	18-42	HEB18N HEB40N

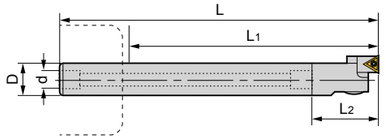
The boring depth should be no more than 6 times of the hole.

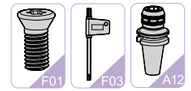
HEB Indexable Boring Head



Code No.	Size(mm)			Boring Range	Insert	Screw	Wrench
	D	L	M				
HEB09	9	18	M5	9-10.5	TP**0802	M2.2-2.5-60	T6
HEB10.5	10.5			10.5-12			
HEB12	12	23	M6	12-14			
HEB14	14			14-16			
HEB16	16			16-18			
HEB18	18	27	M10	18-20			
HEB20	20			20-22			
HEB22	22			22-24			
HEB24	24			24-26			
HEB26	26			26-28			
HEB28	28			28-30			
HEB30	30			30-32			
HEB32	32			32-34			
HEB34	34			34-36			
HEB36	36			36-38			
HEB38	38			38-40			
HEB40	40			40-42			

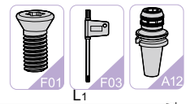
Super Hard Solid Tungsten Carbide Boring Bar





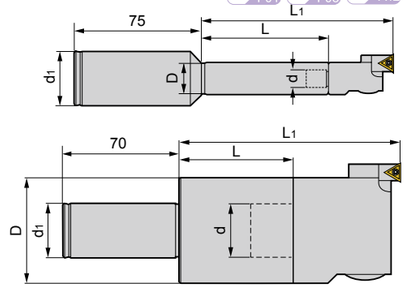
Code No.	Size(mm)				Modular Boring	Lengthen dia
	D	d	L1	L		
C19-HCK1-150	19	11	150	225	CBH20-35	19.8-25.2
C19-HCK1-200			200	275		
C24-HCK2-180	24	14	180	260	CBH25-40	24.8-32.2
C24-HCK2-240			240	320		
C32-HCK3-310	31	18	310	390	CBH32-40	31.8-42.2

C32 Straight Shank Boring Bar



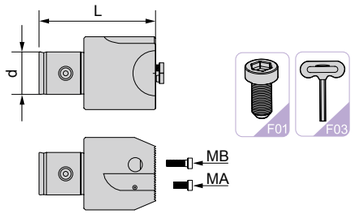
Feature

■Super hard tungsten carbide boring bar made from high toughness compound is tough and durable, highly materializing features of super hardness, high rigidity and extra vibration resistance, most suitable for extra depth boring(10D).
■Standard internal coolant hole is built in every size of the bar, best for cooling and chip evacuation in deep hple boring.
■Featuring straight shank stucture, the bar canbe adjusted to different working lengths.
■On both ends of main body integrated are soldering holes.One hole will be superseded by the other upon breaking. This will reduce your cost and greatly increase the value of boring bar.



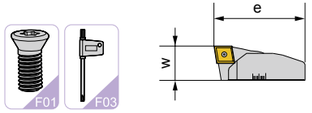
Code No.	Size(mm)					Modular Boring
	D	d	d1	L1	L	
C32-HCK1-075L	19	11	32	110	75	CBH20-35 DYD19 DYD22
C32-HCK2-070L	24	14			70	CBH25-40 CBH2533 DYD29
C32-HCK2-120L				160	120	
C32-HCK3-070L	31	18		110	70	CBH32-40 HBH3242 DYD38
C32-HCK3-120L				160	120	
C32-HCK4-060L	39	22		110	60	CBH42-50 HBH4055 DYD48
C32-HCK4-110L				160	110	
C32-HCK5-060L	50	28		120	60	CBH55-60 HBH5270 DYD62
C32-HCK5-120L				180	120	
C32-HCK6-060L	64	36		130	60	CBH70-70 CBH84-72 CBH106-72 CBH150-88
C32-HCK6-120L				190	120	HBH6892 HBH90122 DYD82 DYD105 DYD135

Body For ABH Twin Cutter Roughing



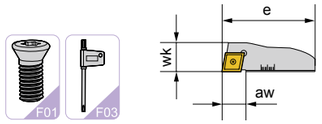
Code No.	Size(mm)		System	MA Bolt	MB Bolt	Weight
	d	L				
ABH25	14	40	25	M4×10	M4×18	0.15
ABH32	18	50	32	M5×10	M5×20	0.33
ABH40	22	48	40	M6×12	M6×20	0.48
ABH50	28	62	50	M6×14	M6×25	0.96
ABH63	36	58	63	M8×16	M8×30	1.54
ABH80	36	58	80	M8×16	M8×30	1.96

Cutting Insert Holders For ABH Adjustable Twin Roughing



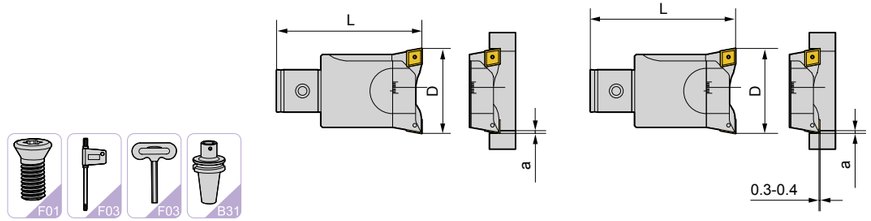
Same Cutting Dimeter Insert Hoider	Different Cutting Dimeter Insert Hoider	Size(mm)			Boring Range	System	Insert	Screw	Wrench	Weight
		w	e	a						
HACC2936	HBCC2936	11.7	25	0.5-1 - 1-3	29-36	ABH25	CCMT0602	M2.5×6	T8	0.01
HACC3542	HBCC3541		30		35-42					0.02
HACC3645	HBCC3645		32		36-45	ABH32				0.02
HACC4453	HBCC4453		38		44-53					0.02
HACC4556	HBCC4556	15.6	40	0.5-1 - 1-4	45-56	ABH40	CCMT09T3	M4×8	T15	0.04
HACC5566	HBCC5566		46.5		55-66					0.05
HACC5674	HBCC5674	17.6	48.5		56-74	ABH50				0.06
HACC7492	HBCC7492		62		74-92					0.09
HACC7090	HBCC7090	22.6	60	0.5-1 - 1-5	70-90	ABH63	CCMT1204	M5×10	T20	0.12
HACC90110	HBCC90110		78		90-110					0.18
HACC90130	HBCC90130		79.5		90-130	ABH80				0.18
HACC130170	HBCC130170		99.5		130-170					0.23

Reverse Cutting Insert Holders For ABH Adjustable Twin Roughing



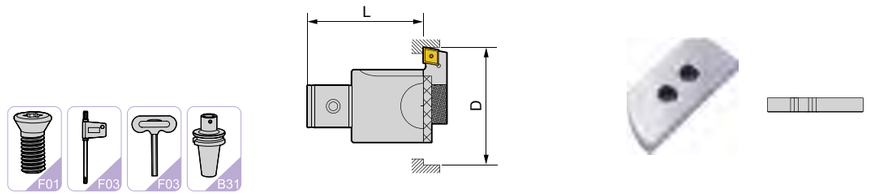
Cutting insert hoider	Size(mm)				Boring Range	System	Apron	Insert	Screw	Wrench	Weight
	aw	wk	e	a							
HKCC2936	4	11	25	0.5-3	29-36	ABH25	APR25	CCMT0602	A25055	T8	0.01
HKCC3542	7	11	30		35-42						0.02
HKCC3645	5	11	32		36-45	ABH32	APR32				0.02
HKCC4453	9	11	38		44-53						0.02
HKCC4556	5	15	40	0.5-4	45-56	ABH40	APR40	CCMT09T3	A40080	T15	0.04
HKCC5566	12	15	46.5		55-66						0.05
HKCC5674	11	17	48.5		56-74	ABH50	APR50				0.07
HKCC7492	17	17	62		74-92						0.09
HKCC7090	12	22	60	0.5-5	70-90	ABH63	APR63	CCMT1204	A50100	T20	0.13
HKCC90110	22	22	78		90-110						0.18
HKCC90130	24	22	79.5		90-130	ABH80	APR80				0.18
HKCC130170	24	22	99.5		130-170						0.25

ABH Rough Boring Head System Modular Holder



Code No.	Size(mm)		Boring Range D	Modular Holder	Cutting Insert Holder		Weight
	D	L					
HCK2-ABH25	25	50	29-36	HCK2	HACC2936	DDCC2936	0.17
HCK2-ABH25			35-42		HACC3542	DDCC3542	0.19
HCK3-ABH32	32	63	36-45	HCK3	HACC3645	DDCC3645	0.37
HCK3-ABH32			44-53		HACC4453	DDCC4453	0.37
HCK4-ABH40	40		45-56	HCK4	HACC4556	DDCC4556	0.56
HCK4-ABH40			55-66		HACC5566	DDCC5566	0.58
HCK5-ABH50	50	80	56-74	HCK5	HACC5674	DDCC5674	1.10
HCK5-ABH50			74-92		HACC7492	DDCC7492	1.14
HCK6-ABH63	63		70-90	HCK6	HACC7090	DDCC7090	1.78
HCK6-ABH63			90-110		HACC90110	DDCC90110	1.90
HCK6-ABH80			90-130		HACC90130	DDCC90130	2.30
HCK6-ABH80			130-170		HACC130170	DDCC130170	2.44

ABH Rough Boring Head Reverse System Modular Holder

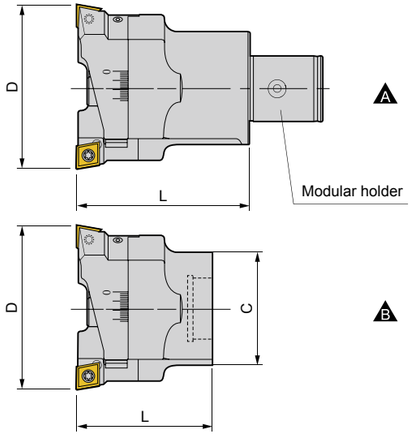


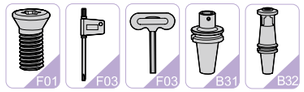
Code No.	Size(mm)		Boring Range D	Modular Holder	Reverse cutting insert holder	Apron for reverse	Weight
	D	L					
HCK2-ABH25	25	50	29-36	HCK2	HKCC2936	APR25	0.17
HCK2-ABH25			35-42		HKCC3542		0.18
HCK3-ABH32	32	63	36-45	HCK3	HKCC3645	APR32	0.36
HCK3-ABH32			44-53		HKCC4453		0.36
HCK4-ABH40	40		45-56	HCK4	HKCC4556	APR40	0.54
HCK4-ABH40			55-66		HKCC5566		0.55
HCK5-ABH50	50	80	56-74	HCK5	HKCC5674	APR50	1.07
HCK5-ABH50			74-92		HKCC7492		1.09
HCK6-ABH63	63		70-90	HCK6	HKCC7090	APR63	1.74
HCK6-ABH63			90-110		HKCC90110		1.79
HCK6-ABH80			90-130		HKCC90130	APR80	2.23
HCK6-ABH80			130-170		HKCC130170		2.30

HBH Modular Rough Boring Head

Feature

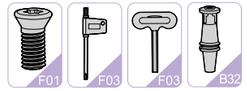
■The head is suitable for single bit boring,twin-bit boring and step boring with working diameter from Φ25 to 122 for modular HCK,Φ120 to 910 for modular BST.
■New cartridge style with built-up rib. The pressure imposed on both cartridges counteracts producing highest rigidity and cutting efficiency, most suitable for a variety of borings.
■Boring head can be easily adjusted to different boring needs for machining on demand. Boring depth can be extended by tool connection.
■Clear side division provides a convenient adjustment without using a tool pre-setter.
■Most suitable for boring on various machine centers or boring mill. Universal design accepts inserts of any brands,which will reduce tool grinding and greatly improve boring performance.
■Patented step boring design, suitable for both level boring and step boring.
■Boring heads over Φ120mm feature direct module, simple structure and high rigidity.

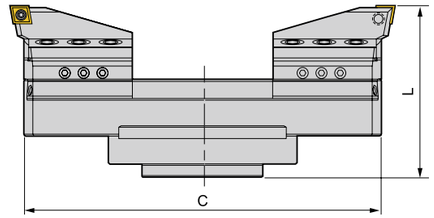




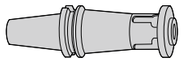
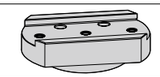
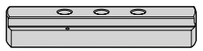
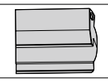
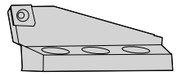
Code No.	Figure	Size(mm)		Boring Range D	Modular Holder	Insert	Screw	Wrench
		C	L					
HCK2-HBH2533-C	A	24	45	25-33	HCK2	CC**0602	M2.5	T8
HCK3-HBH3242-T	A	31	55	32-42	HCK3	TC**1102	M2.5	T8
HCK3-HBH3242-C	A	31	55	32-42	HCK3	CC**0602	M2.5	T8
HCK4-HBH4055-T	A	39	65	40-55	HCK4	TC**16T3	M4	T15
HCK4-HBH4055-C	A	39	65	40-55	HCK4	CC**09T3	M4	T15
HCK5-HBH5270-T	A	50	75	52-70	HCK5	TC**16T3	M4	T15
HCK5-HBH5270-C	A	50	75	52-70	HCK5	CC**09T3	M4	T15
HCK6-HBH6892-T	A	64	85	68-92	HCK6	TC**16T3	M5	T20
HCK6-HBH6892-C	A	64	85	68-92	HCK6	CC**1204	M5	T20
HCK6-HBH90122-T	A	64	100	90-122	HCK6	TC**2204	M5	T20
HCK6-HBH90122-C	A	64	100	90-122	HCK6	CC**1204	M5	T20
BST-HBH120164-T	B	95	95	120-164	BT50-BST	TC**2204	M5	T20
BST-HBH120164-C	B	95	95	120-164	BT50-BST	CC**1204	M5	T20
BST-HBH160204-T	B	95	95	160-204	BT50-BST	TC**2204	M5	T20
BST-HBH160204-C	B	95	95	160-204	BT50-BST	CC**1204	M5	T20

HBH Large Diameter Modular Rough Boring

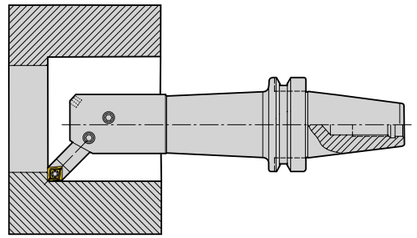




Code No.	Size(mm)		Boring Range	Modular Holder	Insert	Screw	Wrench	Total Weight
	C	L						
BSTHBH200310	180	130	200-310	BST	(blade bearing option) HB200-C12 HB200-T16 HB200-T22 HB200-S12	M5	T20	9.7
BSTHBH300410	280		300-410					11.7
BSTHBH400510	380		400-510					13.7
BSTHBH500610	480		500-610					15.7
BSTHBH600710	580		600-710					17.7
BSTHBH700810	680		700-810					19.7
BSTHBH800910	780		800-910					21.7

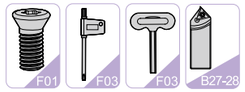
Module	Code No.		Figure	Weight
Modular Holder	BT50-BST Series			-
Flange	BST-FL200			2.7
Extension Slide	HST200			3.4
	HST300			5.4
	HST400			7.4
	HST500			9.4
	HST600			11.4
	HST700			13.4
	HST800			15.4
Clamp Base	DS200			0.98
Height Setting Shim	DS201			0.05
Insert Setting And Applicable Insert	HB200-C12	CC1204		0.68
	HB200-T16	TC16T3		
	HB200-T22	TC2204		
	HB200-S12	SC1204		

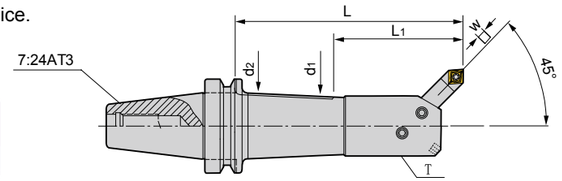
BSA 45°Rough Boring Bar



Feature

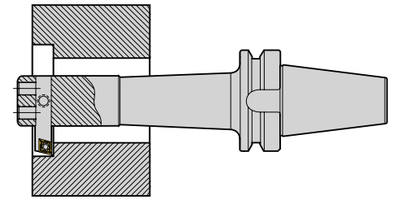
-4 corner joining cutter or Indexable cutting tools also can be choice.
-Specially for blind hole.





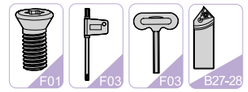
Code No.	Size(mm)				Boring Range	W	Screw T	Weight
	d1	d2	L1	L				
BT40BSA25-120	20	22	35	90	25-38	8	M6	1.2
BT40BSA30-150	24	26	40	120	30-42			1.4
BT40BSA38-165	30	33	50	135	38-52	10	M8	1.7
BT40BSA42-165	34	37			42-56			2.0
BT40BSA50-165	40	44	65		50-65	13		2.3
BT40BSA62-180	50	56	80	150	62-90	16	M10	2.4
BT40BSA72-180	60	-	95		72-110	19		3.9
BT40BSA90-180	75		-		90-125			5.2
BT50BSA25-135	20	22	35	92	25-38	8	M6	4.2
BT50BSA30-165	24	26	40	122	30-42			4.4
BT50BSA38-180	30	33	50	137	38-52	10	M8	4.8
BT50BSA42-210	34	37	60	167	42-56			5.0
BT50BSA50-180	40	44	65	137	50-65	13	M10	5.4
BT50BSA50-240				197				5.7
BT50BSA62-195	50	56	80	152	62-90	16		6.2
BT50BSA62-270				227				7.6
BT50BSA72-195	60	66	95	152	72-110	19		7.0
BT50BSA72-285				242				9.3
BT50BSA90-210	75	80	110	267	90-125		M12	9.2
BT50BSA90-300				257				12.3
BT50BSA105-195	90	-	-	152	105-160	25		10.7
BT50BSA105-285		94	130	242				15

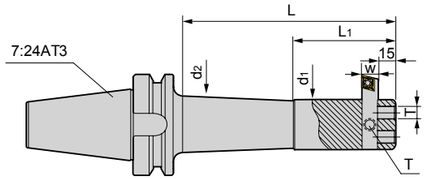
BSB 90°Rough Boring Bar



Feature

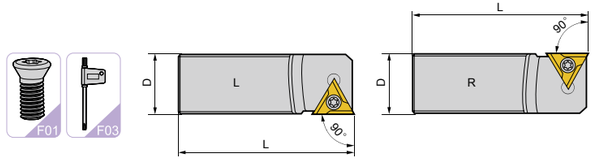
-Suitable for accidented hole neck or roughness workpieces.
-4 corner joining cutter or Indexable cutting tools also can be choice.
-can be used for boring, and back boring machining.





Code No.	Size(mm)				Boring Range	W	Screw T	Weight
	d1	d2	L1	L				
BT40BSB25-120	20	22	35	90	25-52	8	M6	1.2
BT40BSB38-150	30	33	55	120	38-70	10	M8	1.7
BT40BSB50-165	40	44	70	135	50-90	13	M10	2.5
BT40BSB62-180	50	56	80	150	62-115	16		3.6
BT40BSB90-180	75	-	-		90-150	19	M12	5.9
BT50BSB25-135	20	22	35	92	25-52	8	M6	4.3
BT50BSB38-180	30	33	55	137	38-70	10	M8	4.9
BT50BSB50-480	40	44	70		50-90	13	M10	5.5
BT50BSB50-240				197				5.8
BT50BSB62-195	50	56	80	152	62-115	16		6.4
BT50BSB62-270				227				7.8
BT50BSB72-195	60	66	95	152	72-135	19	M12	7.3
BT50BSB72-285				242				9.6
BT50BSB90-210	75	80	115	167	90-150			9.7
BT50BSB90-300				257				12.8
BT50BSB105-195	90	90	-	152	105-190	25		11.4
BT50BSB105-285		94	135	242				15.7

TBS Hole Boring Indexable Cutting Tools

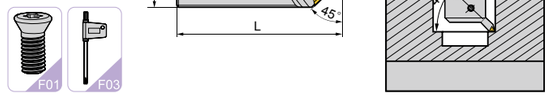


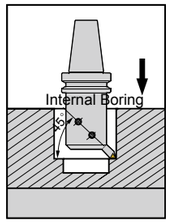
T90 FIT FOR BSB BORING BAR

Code No.	Size(mm)		Boring Range	Insert	Screw	Wrench
	D	L				
TBS910-36-L/R	10	36	38-50	TP**0902	M2.5	T8
TBS910-45-L/R		45	50-70			
TBS913-48-L/R	13	48	50-70	TP**1103	M3	T8
TBS913-65-L/R		65	70-90			
TBS916-60-L/R	16	60	62-90			
TBS916-80-L/R		80	90-115			
TBS919-70-L/R	19	70	72-105	TP**1603	M4	T15
TBS919-90-L/R		90	105-135			
TBS919-85-L/R		85	90-115			
TBS919-105-L/R		105	115-150			
TBS215-100-L/R	25	100	105-140			
TBS215-135-L/R		130	140-190			

Feature

-TBS cutter is suit for precision and moderate machining.

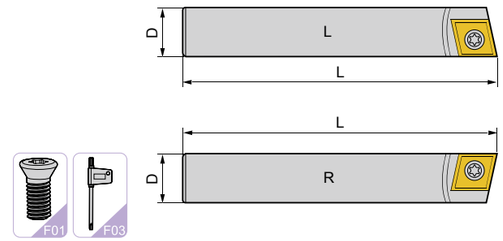


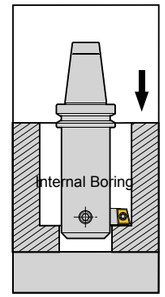


T45 FIT FOR BSB BORING BAR

Code No.	Size(mm)		Boring Range	Insert	Screw	Wrench
	D	L				
TBS410-45	10	45	38-52	TP**0902	M2.5	T8
TBS410-50		50	42-56			
TBS413-60	13	60	50-65	TP**1103	M3	T8
TBS416-75	16	75	62-90			
TBS419-90	19	90	72-110	TP**1603	M4	T15
TBS419-115		115	90-125			
TBS425-130	25	130	105-160			

CBS Hole Boring Indexable Cutting Tools





Feature

-it suit for heavy cutting machining.

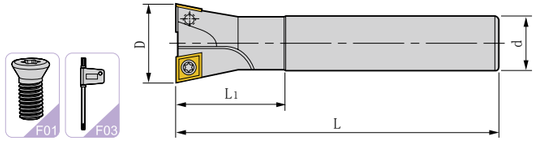
C90 FIT FOR BSB BORING BAR

Code No.	Size(mm)		Boring Range	Insert	Screw	Wrench
	D	L				
CBS908-23-L/R	8	23	25-38	CC**0602	M2.5	T8
CBS908-30-L/R		30	38-52			
CBS910-36-L/R	10	36	38-50			
CBS910-45-L/R		45	50-70			
CBS913-48-L/R	13	48	50-70	CC**09T3	M4	T15
CBS913-65-L/R		65	70-90			
CBS916-60-L/R	16	60	62-90			
CBS916-80-L/R		80	90-115			
CBS919-70-L/R	19	70	72-105	CC**1204	M5	T20
CBS919-90-L/R		90	105-135			
CBS919-85-L/R		85	90-115			
CBS919-105-L/R		105	115-150			
CBS925-100-L/R	25	100	105-140			
CBS925-135-L/R		135	140-190			

C45 FIT FOR BSA BORING BAR

Code No.	Size(mm)		Boring Range	Insert	Screw	Wrench
	D	L				
CBS408-30	8	30	25-38	CC**0602	M2.5	T8
CBS408-35		35	30-42			
CBS410-45	10	45	38-52			
CBS410-50		50	42-56			
CBS413-60	13	60	50-6509	CC**09T3	M4	T15
CBS416-75	16	75	62-90			
CBS419-115	19	115	90-125	CC**1204	M5	T20
CBS425-130	25	130	105-160			

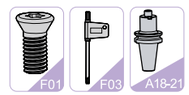
SB Twin-Bit Rough Boring Head Rbh

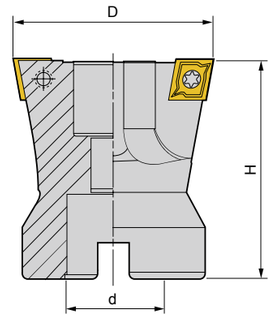


Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	L1	L			
SBC16-TB15-110	2	14.7	16	60	110	CCMT060204	M2.5	T8
SBC16-TB16-110		15.7						
SBC16-TB17-110		16.7		40				
SBC16-TB18-110		17.7						
SBC16-TB19-110		18.7						
SBC16-TB20-110		19.7						
SBC20-TB21-120		20.7	20		120			
SBC20-TB22-120		21.7						
SBC20-TB23-120		22.7						
SBC20-TB24-120		23.7						
SBC20-TB25-120		24.7						
SBC20-TB26-120	2	25.7	20	40	120	CCMT09T308	M4	T15
SBC20-TB27-120		26.7						
SBC20-TB28-120		27.7						
SBC25-TB25-160	2	24.7	25	100	160	CCMT060204	M2.5	T8
SBC25-TB30-160	2	29.7	25	50	160	CCMT09T308	M4	T15
SBC25-TB30-190					190			
SBC25-TB32-160		31.7			160			
SBC25-TB35-160		34.7						
SBC25-TB37-160		36.7						
SBC25-TB40-160		39.7						
SBC32-TB35-230		34.7	32		230			
SBC32-TB40-250		39.7			250			
SBC32-TB42-200		41.7			200			
SBC32-TB45-200		44.7						
SBC32-TB47-200		46.7						
SBC32-TB50-200		49.7						

SUITABLE:HITACHI INSERT

MC Fixed Twin-Bit Rough Boring Head





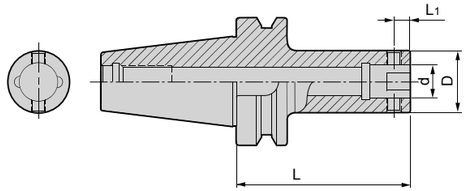
Code No.	Teeth	Size(mm)			Insert	Screw	Wrench
		D	d	H			
MC22-45	2	44.7	22	50	CCMT09T308	M4	T15
MC22-50		49.7					
MC22-55		54.7					
MC22-60		59.7	27				
MC27-60							
MC27-65		64.7					
MC27-70		69.7					
MC27-75		74.7					
MC27-80		79.7					
MC27-85		84.7					
MC27-90		89.7					
MC27-95		94.7					
MC27-100		99.7					
MC32-105		104.7	32	63			
MC32-110		109.7					
MC32-115		114.7					
MC32-120		119.7					
MC32-125		124.7					
MC32-130		129.7					

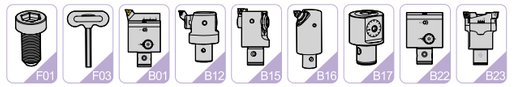
SUITABLE:HITACHI INSERT

HCK Boring Head Bar

Feature

■The whole bar with through holes,be useful to coolant and anti-shank.
■Be suitable for all"ck"series.
■Side lock screw is at right angles to key slot, to make sure that the replacing holders in CNC machine are always in phase.
■When side lock screw fastened, please use lube oil in order not to fasten the screw while too much strength is for torsion.

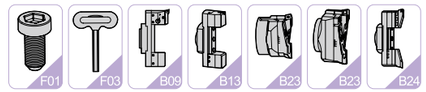




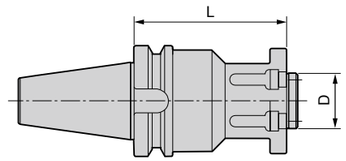
Code No.	Size(mm)				Screw
	D	d	L1	L	
BT30HCK1-55	19	11	5.05	55	M5
BT30HCK1-70				70	
BT30HCK2-80	24	14	6.62	80	
BT30HCK3-80	31	18	8		M6
BT30HCK4-70	39	22	10	70	M8
BT30HCK5-70	50	28	13		M10
BT30HCK6-60	64	36	16	60	M12
BT40HCK1-100	19	11	5.05	100	M5
BT40HCK1-130				130	
BT40HCK2-75	24	14	6.62	75	
BT40HCK2-100				100	
BT40HCK2-130				130	
BT40HCK3-80	31	18	8	80	M6
BT40HCK3-100				100	
BT40HCK3-135				135	
BT40HCK4-70	39	22	10	70	M8
BT40HCK4-100				100	
BT40HCK4-150				150	
BT40HCK5-60	50	28	13	60	M10
BT40HCK5-80				80	
BT40HCK5-100				100	
BT40HCK5-150				150	
BT40HCK6-55	64	36	16	55	M12
BT40HCK6-100				100	
BT40HCK6-150				150	
BT50HCK1-115	19	11	5.05	115	M5
BT50HCK1-145				145	
BT50HCK2-105	24	14	6.62	105	
BT50HCK2-135				135	
BT50HCK2-165				165	
BT50HCK3-110	31	18	8	110	M6
BT50HCK3-140				140	
BT50HCK3-170				170	
BT50HCK4-100	39	22	10	100	M8
BT50HCK4-160				160	
BT50HCK4-205				205	
BT50HCK5-90	50	28	13	90	M10
BT50HCK5-165				165	
BT50HCK5-210				210	
BT50HCK5-270				270	

Code No.	Size(mm)				Screw
	D	d	L1	L	
BT50HCK6-85	64	36	16	85	M12
BT50HCK6-155				155	
BT50HCK6-215				215	
BT50HCK6-250				250	
BT50HCK6-300				300	
BT50HCK6-350				350	

BST Boring Heads Bar



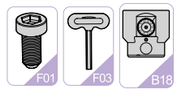
Code No.	Size(mm)	
	D	L
BT50-BST-100	50	100
BT50-BST-150		150
BT50-BST-200		200
BT50-BST-250		250
BT50-BST-300		300
BT50-BST-350		350

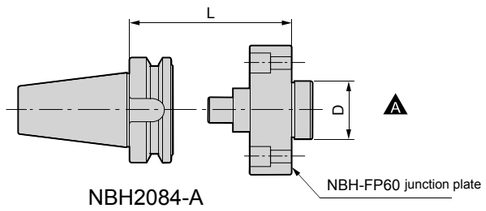


NBH2084 Boring Heads Bar

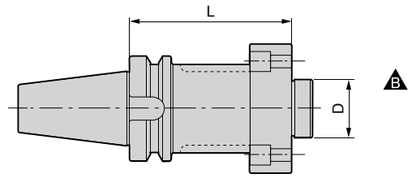
Code No.	Size(mm)	
	D	L
BT40-NBH-A50	35	50
BT50-NBH-A50		50
NBH-FP60		Junction Plate
BT40-NBH-B100		100
BT50-NBH-B100		100

Code No.	Size(mm)	
	D	L
BT50-NBH-B165	35	165
BT50-NBH-B200		200
BT50-NBH-B250		250
BT50-NBH-B300		300





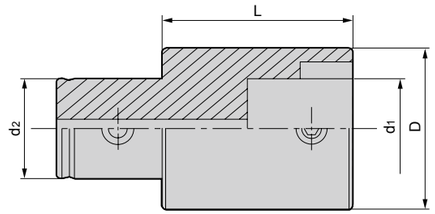
NBH2084-A



NBH2084-B

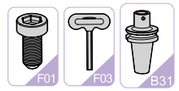
HCK Equal Diameter Extension Adapter

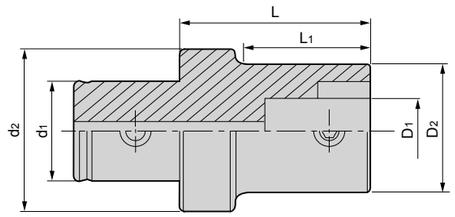




Code No.	Size(mm)				Weight
	D	d1	d2	L	
HCK1-1-30	19	11	1	30	0.07
HCK2-2-30	24	14	14		0.1
HCK3-3-30	31	18	18		0.15
HCK4-4-45	39	22	22	45	0.4
HCK4-4-60				60	
HCK5-5-60	50	28	28		0.8
HCK5-5-90				90	
HCK6-6-60	64	36	36	60	1.4
HCK6-6-100				100	

HCK Reducing Change Adapter (Big To Small)

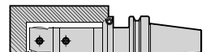


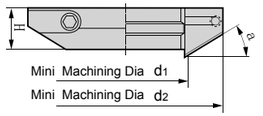


Code No.	Size(mm)						Weight
	D	D1	d1	d2	L1	L	
HCK2-1-36	11	19	14	-	30	36	0.1
HCK3-1-41			18	31		41	0.15
HCK3-2-37	14	24			25	37	
HCK4-1-58	11	19	22	39	40	58	0.3
HCK4-2-50	14	24			36	50	
HCK4-3-50	18	31			37		0.35
HCK5-1-60	11	19	28	50	40	60	0.45
HCK5-2-54	14	24			35	54	
HCK5-2-74					55	74	0.5
HCK5-3-47	18	31			29	47	
HCK5-3-72					54	72	0.6
HCK5-4-42	22	39			25	42	0.5
HCK5-4-67					50	67	0.7
HCK6-1-70	11	19	36	64	40	70	0.9
HCK6-2-63	14	24			45	63	0.7
HCK6-2-93					75	93	0.8
HCK6-3-56	18	31			39	56	0.75
HCK6-3-96					79	96	0.95
HCK6-4-51	22	39			35	51	0.85
HCK6-4-101					85	101	1.3
HCK6-5-41	28	50			25	41	0.85
HCK6-5-91					75	91	1.45

HCK Chamfering Cutter



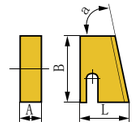




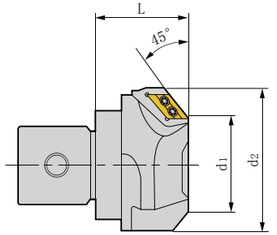
Code No.	Size(mm)			Modular Holder	Insert
	d1	d2	H		
CR1-35	20	35	13	HCK1	CB1-45 CB1-30
CR2-42	25	42	15	HCK2	
CR3-49	32	49		HCK3	
CR4-57	41	57		HCK4	
CR5-90	53	90	25	HCK5	CB2-45 CB2-30
CR6-104	68	104		HCK6	
CR7-138	98	138			
CR8-160	120	160			

1.One insert with 45 angle is needed in HCK chamfering cutter. 2.The insert material is type M carbide.

DCK insert



Code No.	Size(mm)				Modular Holder
	L	A	B	a	
CB1-35	23.5	4	9	45°	HCK1-4
CB2-45	43	8	20		HCK5-6
CB1-30	27.5	4	9	30°	HCK1-4
CB2-30	52	8	20		HCK5-6



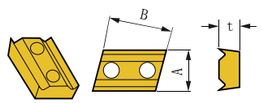
HCK Chamfering Head



Code No.	Teeth	Size(mm)			Modular Holder	Insert	Screw
		d1	d2	L			
HCK-B2-C0525	1	5	25	25	HCK2	CW1206A	M2
HCK-B4-C1040	2	10	40	35	HCK4	CW1909A	M3
HCK-B5-C3060	3	30	60	40	HCK5		
HCK-B5-C50100	3	50	100	65	HCK6	CW3115A	M5

The head is saled with 10 pieces insert screws and one wrench.

Exclusive Insert



Code No.	Size(mm)			Screw
	A	B	t	
CW1206A	6.35	12.7	2.7	M2
CW1909A	9.525	4.5	4.5	M3
CW3115A	15.875	7.0	7.0	M5

Tool Presetter



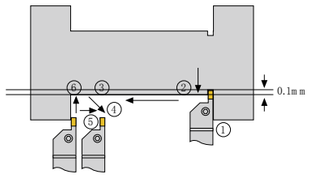
Code No.	Size(mm)	Range Of Measurement	Resoltion	Accessories Of Test Bar	Power Source	Weight
HK-300	860×560×990	Diameter (X axis) 300mm Highly(Z axis) 30-300mm	X axis 0.005mm Z axis 0.005mm	Standard Accessories BT50 Optional BT40/BT30	AC110V/220V 50HZ/60HZ	102
HK-400	930×600×950	Diameter (X axis) 400mm Highly(Z axis)30-400mm				108
HK-600	1070×680×1050	Diameter (X axis) 600mm Highly(Z axis)30-600mm				125



LATHE TOOLS PROCESSING METHODS

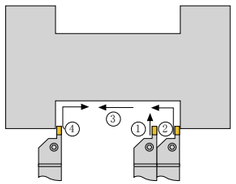
Parting-off tool

1.When the insert was close to the workpiece, should reduce 30% of cutting speed to
improve the insert lifetime and surface quality.
2.In Prem,if allowed,in order to keep stabiliy,please choose the holder as short as we
can.



External grooving and turning,copy turning

The sequence of feed: during depth of cut >0.5mm, radial direction feeding(deepest depth of cut can reach 0.75*insert blade width S)→radial direction retract around 0.1mm→axial direction feeding→slant direction retract axial direction feeding→radial direction processing till to reach the required depth.
During cutting or chamfering (finish machining), operate as the sequence shown in this figure will reduce the small vibration generated from the cutting tools and the friction during cutting.



End face grooving and turning

■Rough machining(multiple-grroved cutting)
During retract after cutting from the biggest diameter to inner, shift the insert to the inner edge a little. As shown in figure(1)
■Recessing Tool
Axial direction turning depth not exceeding 0.75*S (insert blade width);
when groove width is bigger than groove depth, it is suggested to use recessing tool, as shown in figure(2);
when groove depth is bigger than groove width, it is suggested to use multiple-grooving turning.
■Finish machining
First to finish machine the bottom and outer diameter edge, and then finish machine the inner diameter to the required dimensions.As shown in figure(3)

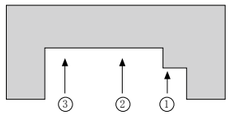


Figure (1)

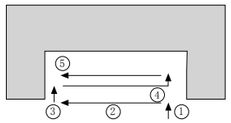


Figure (2)

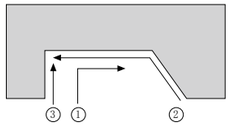
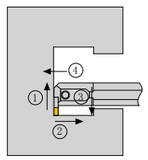


Figure (3)

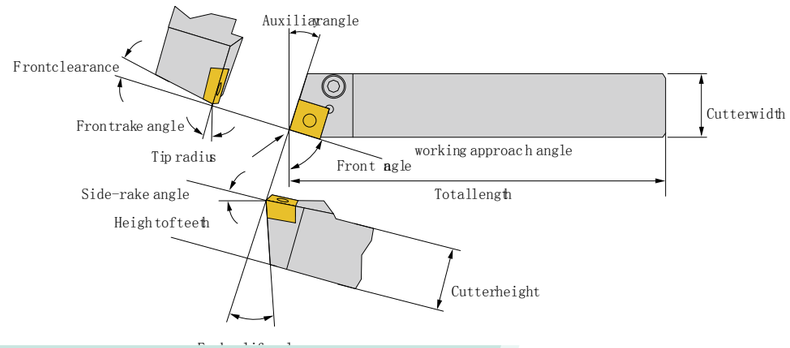
Inner grooving turing

■Inner grooving turing
Using the processing sequence as shown in this figure
For better cutting outflow, always feed outward from the direction that far from the hole end face.



TECHNICAL DATA OF LATHE TOOLS

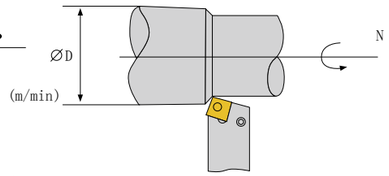
Technical data of Lathe tools



Common formulas of cutting

■Cutting speed

$$V=\frac{\pi \cdot D \cdot N}{1000}\ (m/min)$$



V: Speed of Cut (m/min)
D: Working Diameter (mm)
N: Rotating Speed (rpm)
π: (3.14)

■Feed

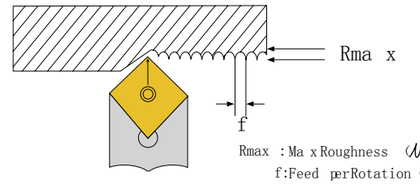
$$f=\frac{F}{N}\ (m/min)$$

f: Feed per Rotation (m/rev)
F: Feed per Minute (m/min)
N: Rotating Speed (rpm)

■Surface roughness

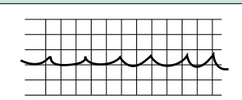
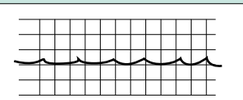
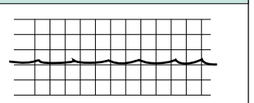
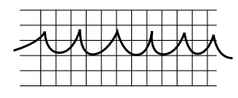
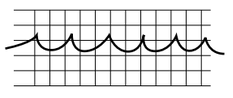
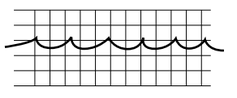
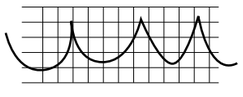
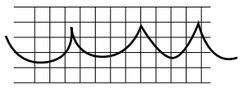
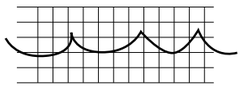
Theory surface roughness

$$Rmax=\frac{f^2}{8r}1000\ (\mu)$$

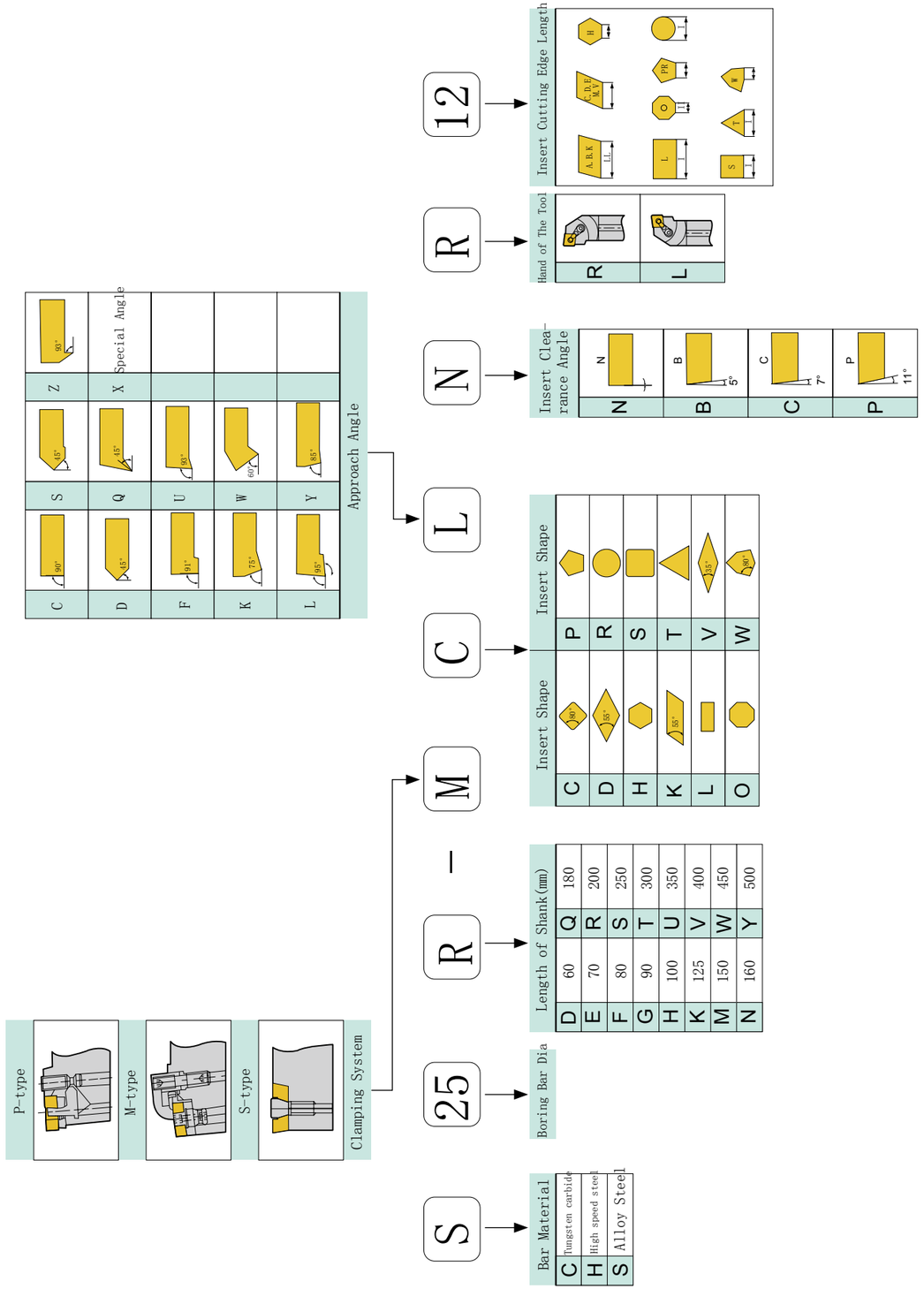


Rmax: Max Roughness (μ)
f:Feed per Rotation (mm/rev)
r:Feed per Rotation

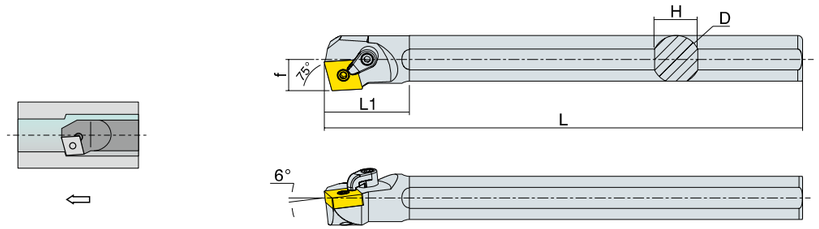
■The impact that tip radius and feed have on the roughness

Feed Volume \ Tip Radius	0.40	0.8	1.2
0.15			
0.26			
0.46			

CODIFICATION OF INTERNAL LATHE TOOLS

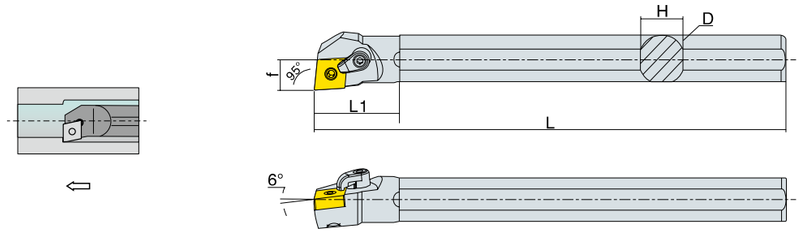


75°S○○ -MCKNR/L



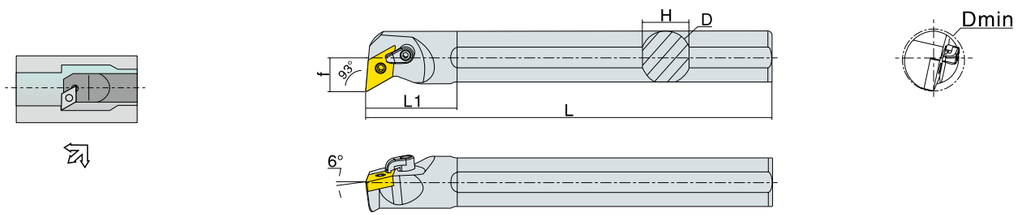
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S20R-MCKNR/L-12	20	200	36	13	18	15	25	CN○○1204○○	—	MLP612	MCL1511	WS05020	S2.5L
S25R-MCKNR/L-12	25	200	36	16.5	23	13	32						
S32S-MCKNR/L-12	32	250	40	22.5	30	13	40		MC1204	MSP617			
S40T-MCKNR/L-12	40	300	45	26	38	13	50						
S50U-MCKNR/L-12	50	350	60	32	48	13	60						

95°S○○ -MCLNR/L



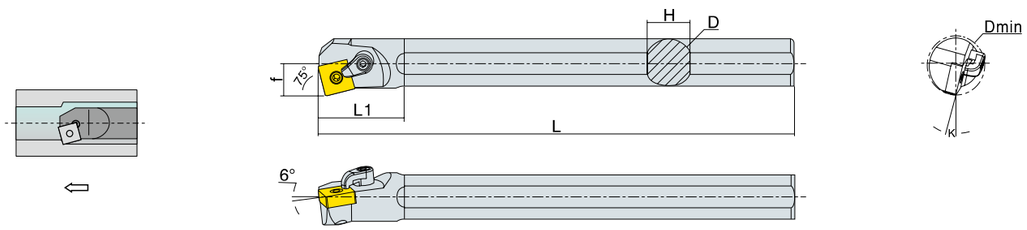
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S20R-MCLNR/L-12			36	13	18	15	25	CN○○1204○○	—	MLP612	MCL1511	WS05020	S2.5L
S25R-MCLNR/L-12	25	200	36	16.5	23	13	32						
S32S-MCLNR/L-12	32	250	40	22.5	30	13	40		MC1204	MSP617			
S40T-MCLNR/L-12	40	300	45	26	38	13	50						
S50U-MCLNR/L-12	50	350	60	32	47	13	60						

93°S○○ -MDUNR/L



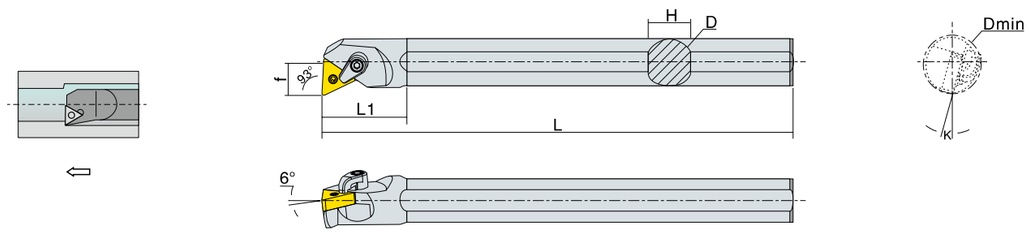
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S25R-MDUNR/L-15	25	200	40	16	23	15	32	DN○○1504○○	—	MLP612	MLP1511	WS05020	S2.5L
S32S-MDUNR/L-15	32	250	45	21	30	15	40		MD1504	MLP617			
S40T-MDUNR/L-15	40	300	55	26	38	12	50						
S50U-MDUNR/L-15	50	350	65	32	48	12	60						

75°S○○ -MSKNR/L



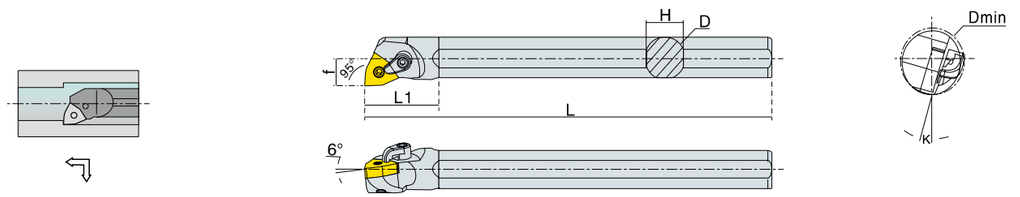
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S20R-MSKNR/L12	20	200	40	13	18	15	25	SN○○1204○○	—	MLP612	MCL1511	WS05020	S2.5L
S25R-MSKNR/L12	25	200	40	17	23	15	32						
S32S-MSKNR/L12	32	250	45	22	30	12	40		MS1204	MLP617			
S40T-MSKNR/L12	40	300	50	27	38	12	50						
S45U-MSKNR/L12	45	350	60	30	43	12	55						
S50U-MSKNR/L12	50	350	65	34	48	12	60						

93°S○○ -MTUNR/L



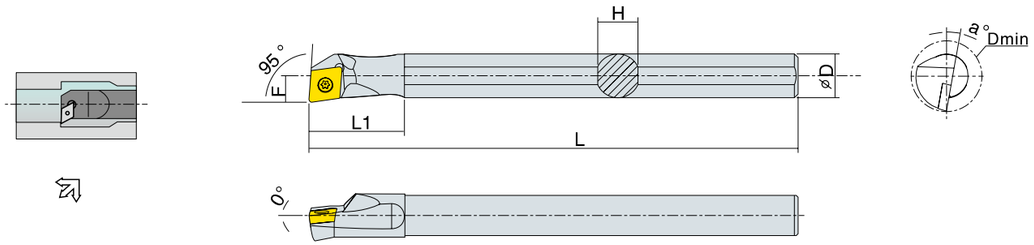
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S20R-MTUNR/L-16	20	200	36	13.5	18	15	25	TN○○1604○○	—	MLP511	MCL1511	WS05020	S2.5L
S25R-MTUNR/L-16	25	200	40	17	23	13	32						
S32S-MTUNR/L-16	32	250	48	23	30	15	41		MT1603	MSP513			
S40T-MTUNR/L-16	40	300	55	26.5	38	15	50						
S45U-MTUNR/L-16	45	350	55	30	43	13	55						
S50U-MTUNR/L-16	50	350	60	31	48	13	60						

93°S○○ -MWLNR/L



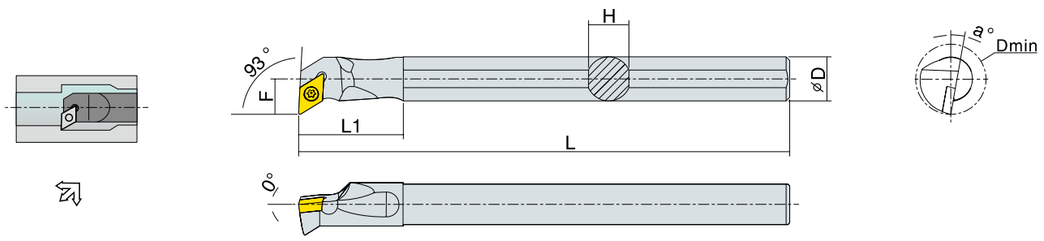
Code No.	Size(mm)							Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	D	L	L1	F	H	K	Dmin						
S20R-MWLNR/L-08	20	200	36	13.5	18	15	25	WN○○0804○○	—	MLP612	MCL1511	WS05020	S2.5L
S25R-MWLNR/L-08	25	200	40	17	23	13	32						
S32S-MWLNR/L-08	32	250	48	23	30	15	41		MW0804	MSP617			
S40T-MWLNR/L-08	40	300	55	26.5	38	15	50						
S50U-MWLNR/L-08	50	350	60	31	48	13	60						

95°S○○ -SCLCR/L



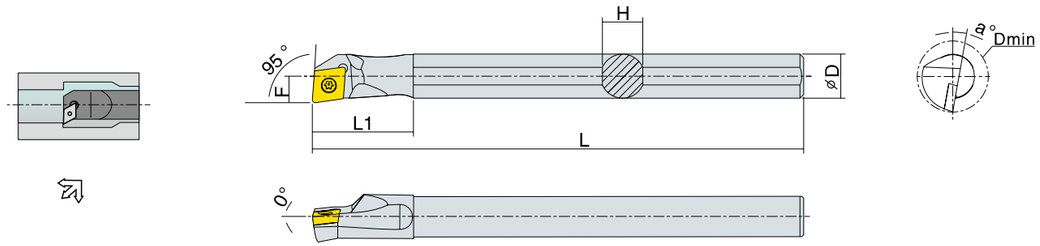
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	D	F	L	L1	H	Dmin			
S08H-SCLCR/L-06	8	5	100	17	7.2	10	CC○○0602○○	B25060G	T8
S10H-SCLCR/L-06	10	6	125	21	9	12			
S12H-SCLCR/L-06	12	7	150	25	11	14			
S14H-SCLCR/L-06	14	8	160	25	13	16			
S16H-SCLCR/L-09	16	9	170	28	15	18	CC○○09T3○○	B35100J	T15
S20H-SCLCR/L-09	20	11	180	32	19	22			
S25H-SCLCR/L-09	25	15	200	42	23	30			
S32H-SCLCR/L-12	32	19	250	50	30	38	CC○○1204○○	B50120J	T20

93°S○○ -SDUCR/L



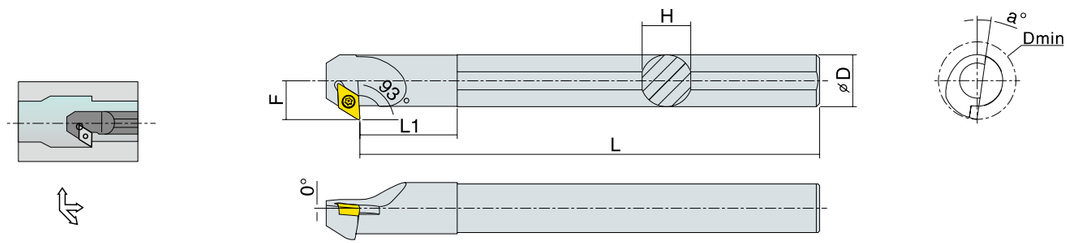
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	D	F	L	L1	H	Dmin			
S10K-SDUCR/L-07	10	7	125	18	9	14	DC○○0702○○	B25060G	T8
S12M-SDUCR/L-07	12	8	150	20	11	16			
S16P-SDUCR/L-07	16	10	170	20	15	20			
S20Q-SDUCR/L-11	20	16	180	23	19	32	DC○○11T3○○	B35100J	T15
S25R-SDUCR/L-11	25	18	200	26	23	36			

95°S○○ -SCLPR/L



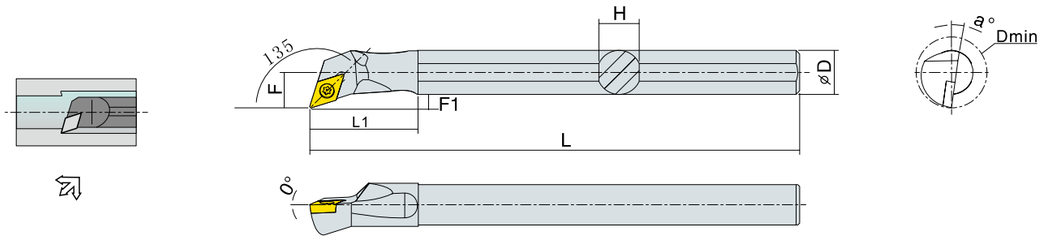
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	D	F	L	L1	H	Dmin			
S08H-SCLPR/L-06	8	5	100	17	7.2	10	CP○○0602○○	B25060G*	T8
S10K-SCLPR/L-06	10	6	125	21	9	12			
S12M-SCLPR/L-06	12	7	150	25	11	14			
S14N-SCLPR/L-06	14	8	160	25	13	16			
S16P-SCLPR/L-09	16	9	170	28	15	18	CP○○0903○○	B35100J*	T15
S20Q-SCLPR/L-09	20	11	180	32	19	22			
S25R-SCLPR/L-09	25	15	200	42	23	30			

95°S○○ -SDZCR/L



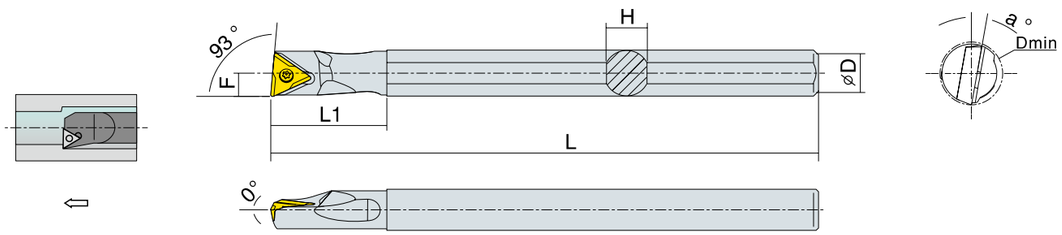
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	D	F	L	L1	H	Dmin			
S16P-SDZCR/L-07	16	13	170	18	15	22	DC○○0702○○	B25070G	T8
S20Q-SDZCR/L-07	20	15	180	20	19	27			
S25R-SDZCR/L-07	25	18	200	20	23	32			
S32X-SDZCR/L-11	32	22	220	23	30	40	DC○○11T3○○	B35100J	T15
S40S-SDZCR/L-11	40	27	250	26	37	48			

135°S○○ -SDQCR/L



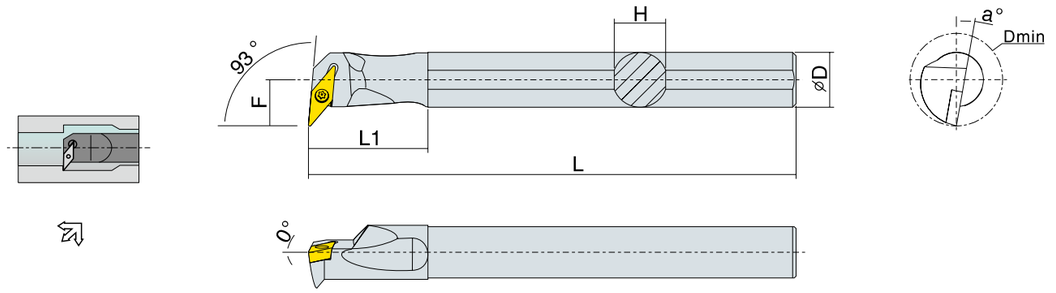
Code No.	Size(mm)							Inserts	Screw F01	Wrench F03
	D	F	F1	L	L1	H	Dmin			
S10K-SDQCR/L-07	10	7.6	2.6	125	21	9	13	DC○○0702○○	B25060G	T8
S12M-SDQCR/L-07	12	8.6	2.6	150	23	11	16			
S16P-SDQCR/L-07	16	10.6	2.6	170	23	15	20			
S20Q-SDQCR/L-11	20	13.7	3.7	180	26	19	25	DC○○11T3○○	B35100J	T15
S25R-SDQCR/L-11	25	17	3.7	200	29	23	32			

93°S○○ -STUP R/L



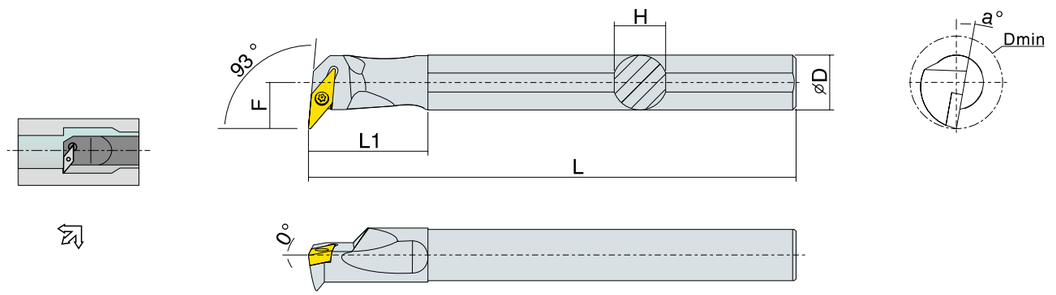
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	D	F	L	L1	H	Dmin			
S08H-STUPR/L-07	8	8	100	17	7.2	10	TP○○0725○○	B20050J*	T6
S10K-STUPR/L-09	10	6	125	21	9	12	TP○○0902○○	B22050J*	T8
S12M-STUPR/L-09	12	7	150	25	11	14			
S16P-STUPR/L-11	16	9	170	28	15	18	Japanese Series InsertsTP○○1103○○	B30080J	T10
S20Q-STUPR/L-11	20	11	180	32	19	22			
S14N-STUCR/L-11	14	8	160	26	13	16	TC○○1102○○	B25060G	T8
S16P-STUCR/L-11	16	9	170	28	15	18			
S20Q-STUCR/L-11	20	11	180	32	19	22			
S25R-STUCR/L-16	25	16	200	42	23	30	TC○○16T3○○	B40100J	T15
S32X-STUCR/L-16	32	19	220	50	30	38			

93°S○○ -SVUCR/L



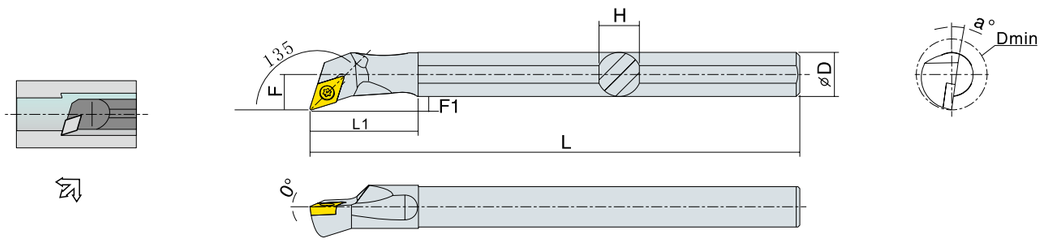
Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	D	F	L	H	Dmin			
S12M-SVUCR/L-07	12	11	150	11	16	VC○○0702○○	B20050J*	T6
S16P-SVUCR/L-11	16	16	170	15	20	VC○○1103○○	B25070G	T8
S20Q-SVUCR/L-11	20	18	180	19	25			
S25R-SVUCR/L-16	25	21	200	23	34	VC○○1604○○	B35100J	T15
S32X-SVUCR/L-16	32	28	220	30	40			
S40S-SVUCR/L-22	40	35	250	37	45	VC○○2205○○	B50100J*	T20

93°S○○ -SVUBR/L



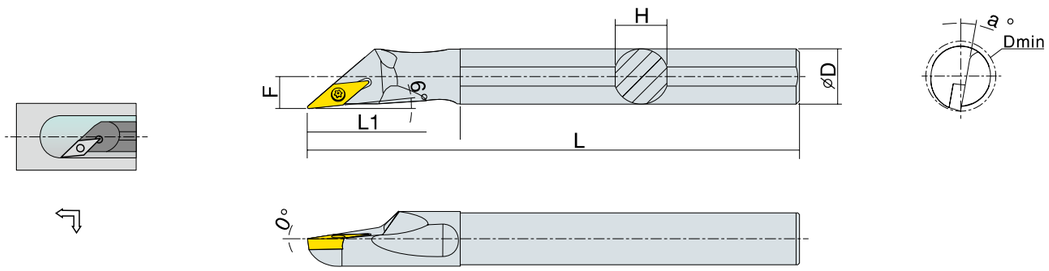
Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	D	F	L	H	Dmin			
S12M-SVUBR/L-07	12	11	150	11	16	VB○○0702○○	B20050J*	T6
S16P-SVUBR/L-11	16	16	170	15	20	VB○○1103○○	B25070G	T8
S20Q-SVUBR/L-11	20	18	180	19	25			
S25R-SVUBR/L-16	25	21	200	23	34	VB○○1604○○	B35100J*	T15
S32X-SVUBR/L-16	32	28	220	30	40			
S40S-SVUBR/L-22	40	35	250	37	45	VB○○2205○○	B50100J*	T20

135°S○○ -SVQCR/L



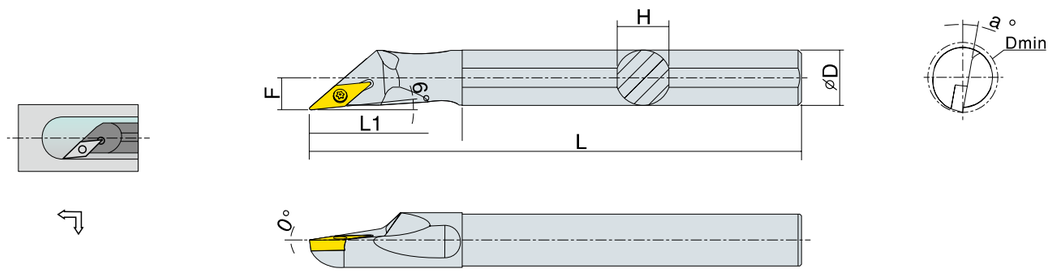
Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	D	F	L	H	Dmin			
S10K-SVQCR/L-07	10	8	125	9	16	VC○○0702○○	B20050J	T6
S12M-SVQCR/L-11	12	10	150	11	20	VC○○1103○○	B25070G	T8
S16P-SVQCR/L-11	16	12.5	170	15	25			
S20Q-SVQCR/L-11	20	15	180	19	30			
S25R-SVQCR/L-16	25	17	200	23	34	VC○○1604○○	B35100J	T15
S32X-SVQCR/L-16	32	22	220	30	40			
S40S-SVQCR/L-22	40	33	250	37	45	VC○○2205○○	B50100J*	T20

6°S○○ -SVXBR/L



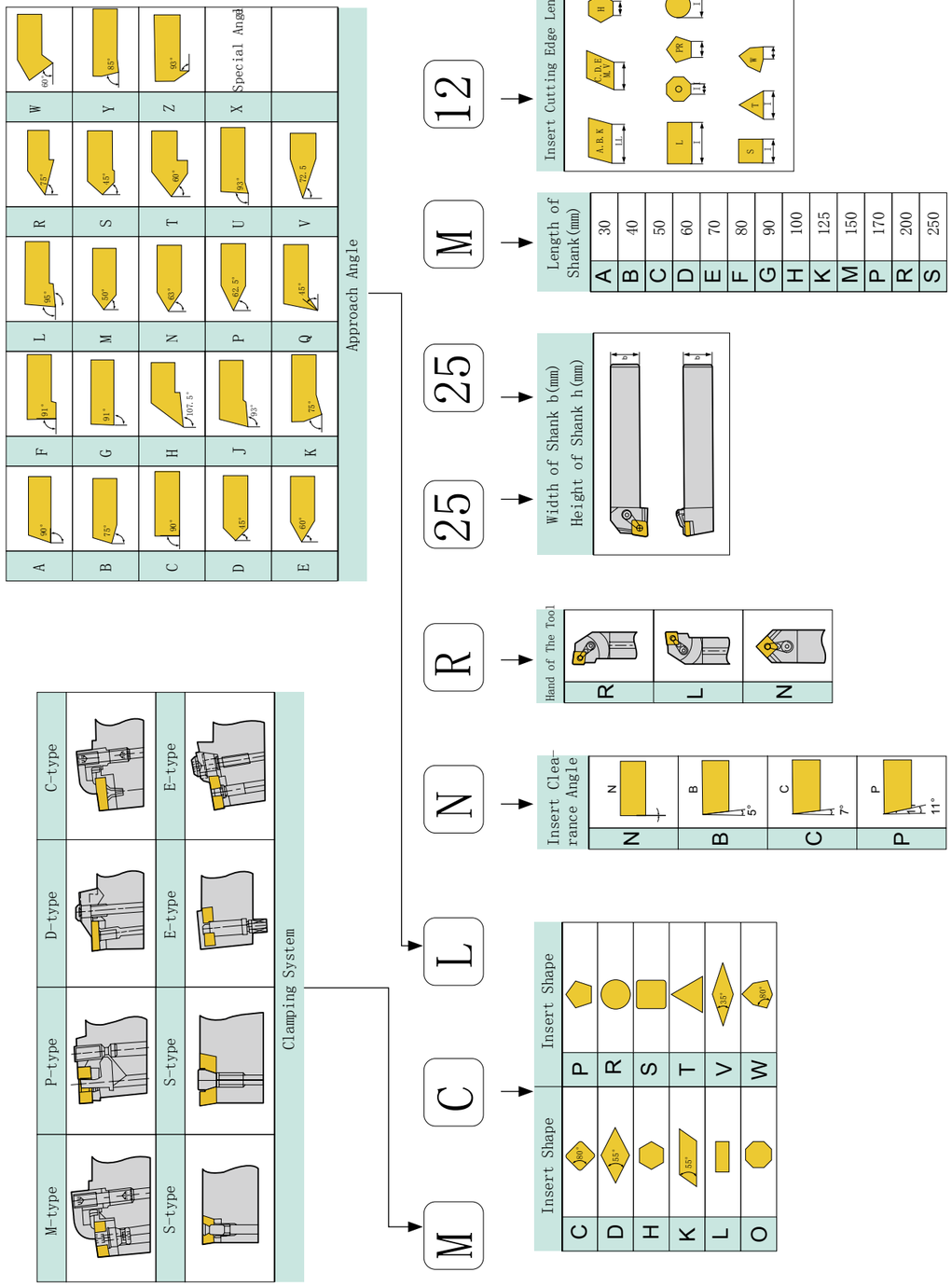
Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	D	F	L	H	Dmin			
S10K-SVXBR/L-07	10	8	125	9	14	VB○○0702○○	B20050J*	T6
S12M-SVXBR/L-07	12	8	150	11	16			
S16P-SVXBR/L-07	16	10	170	15	20			
S20Q-SVXBR/L-11	20	12.5	180	19	25	VB○○1103○○	B25070G	T8
S25R-SVXBR/L-11	25	16	200	23	32			
S32X-SVXBR/L-16	32	20	220	30	40	VB○○1604○○	B35100J*	T15
S40S-SVXBR/L-16	40	24	250	37	45			

6°S○○ -SVXCR/L

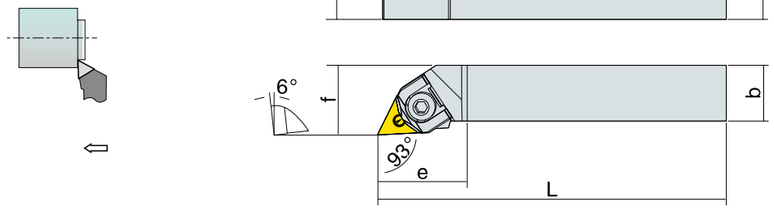


Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	D	F	L	H	Dmin			
S10K-SVXCR/L-07	10	8	125	9	14	VC○○0702○○	B20050J*	T6
S12M-SVXCR/L-07	12	8	150	11	16			
S16P-SVXCR/L-07	16	10	170	15	20			
S20Q-SVXCR/L-11	20	12.5	180	19	25	VC○○1103○○	B25070G	T8
S25R-SVXCR/L-11	25	16	200	23	32			
S32X-SVXCR/L-16	32	20	220	30	40	VC○○1604○○	B35100J*	T15
S40S-SVXCR/L-16	40	24	250	37	45			

CODIFICATION OF EXTERNAL LATHE TOOLS

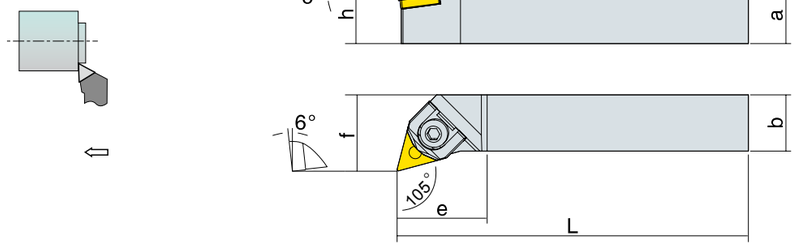


93°WTJNR/L



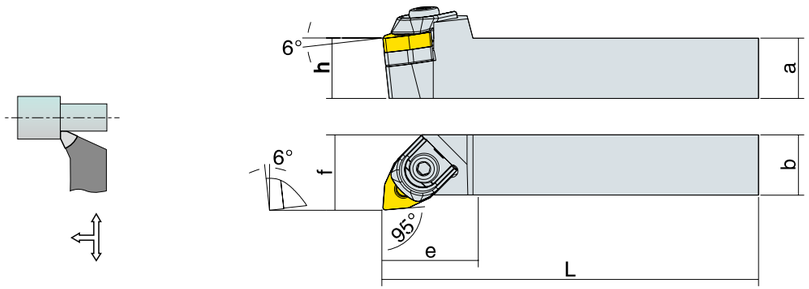
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamping Screw F06	Clamp F04	Clamp Screw F04	Wrench F03
	a	b	L	h	f	e							
WTJNR/L 1616K16-S	16	16	125	16	20	31	TN○○1604○○	MTS1603	MSPS515	CS 06011	MCLS1608	MS 05026	S3L/S4L
WTJNR/L 2020K16-S	20	20	125	20	25	31							
WTJNR/L 2525M16-S	25	25	150	25	32	31							
WTJNR/L 3232P16-S	32	32	170	32	40	31							

105°WTQNR/L



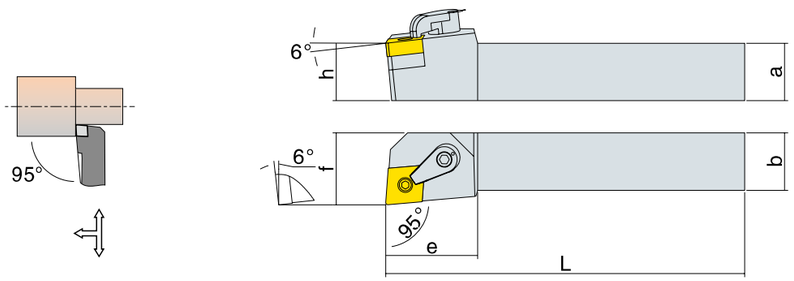
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamping Screw F06	Clamp F04	Clamp Screw F04	Wrench F03
	a	b	L	h	f	e							
WTQNR/L 1616H16-S	16	16	125	16	20	31	TN○○1604○○	MTS1603	MSPS515	CS 06011	MCLS1608	MS 05026	S3L/S4L
WTQNR/L 2020K16-S	20	20	125	20	25	31							
WTQNR/L 2525M16-S	25	25	150	25	32	31							
WTQNR/L 3232P16-S	32	32	170	32	40	31							

95°WWLNR/L



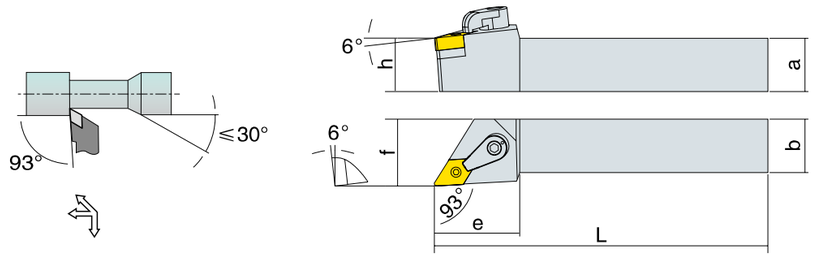
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
WWLNR/L 2020K08-S	20	20	125	20	25	32	WN○○0804○○	MW0804	MSPS619	MCLS1808	MS06023	S3L/S4L
WWLNR/L 2525M08-S	25	25	150	25	32	32						
WWLNR/L 3225P08-S	32	25	170	32	32	32						
WWLNR/L 3232P08-S	32	30	170	32	40	32						

95°MCLNR/L



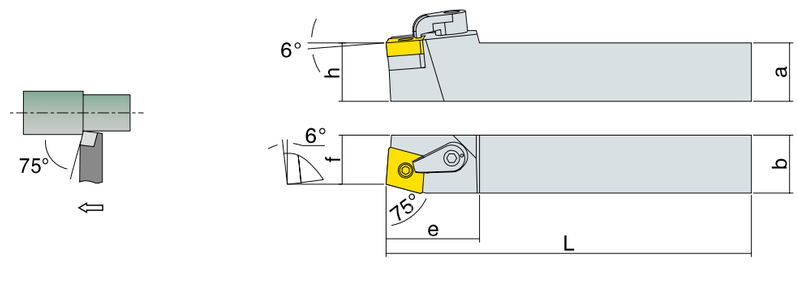
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MCLNR/L 1616H12	16	16	100	16	20	32	CN○○1204○○	MC1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MCLNR/L 2020K12	20	20	125	20	25	32						
MCLNR/L 2525M12	25	25	150	25	32	32						
MCLNR/L 3225P12	32	25	170	32	32	32						
MCLNR/L 2525M16	25	25	150	25	32	38	CN○○1606○○	MC1604	MSP821	MCL1814	WS06025	S3L
MCLNR/L 3225P16	32	25	170	32	32	38						
MCLNR/L 3232P16	32	32	170	32	40	38						

93°MDJNR/L



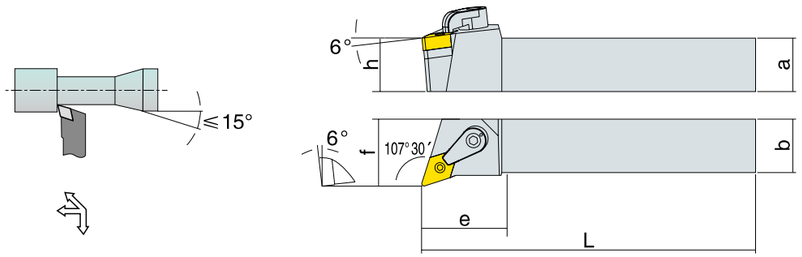
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MDJNR/L 1616H11	16	16	100	16	20	32	DN○○1104○○	MD1103	MSP513	MCL1814	WS06025	S2L/S3L
MDJNR/L 2020K11	20	20	125	20	25	32						
MDJNR/L 2525M11	25	25	150	25	32	32						
MDJNR/L 3225P11	32	25	170	32	32	32						
MDJNR/L 2525M15	25	25	150	25	32	38	DN○○1506○○	MD1504	MSP619	MCL1814	WS06025	S3L
MDJNR/L 3225P15	32	25	170	32	32	38						
MDJNR/L 3232P15	32	32	170	32	40	38						

75°MCBNR/L



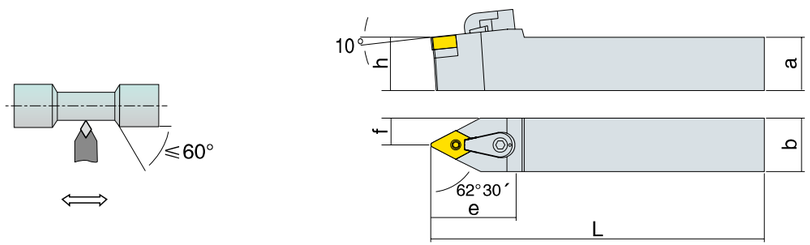
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MCBNR/L 2020K12	20	20	125	20	17	32	CN○○1204○○	MC1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MCBNR/L 2525M12	25	25	150	25	22	32						
MCBNR/L 3225P12	32	25	170	32	22	32						
MCBNR/L 2525M16	25	25	150	25	22	40	CN○○1606○○	MC1604	MSP821	MCL1814	WS06025	S3L
MCBNR/L 3225P16	32	25	170	32	22	40						
MCBNR/L 3232P16	32	32	170	32	27	40						

107°30′MDQNR/L



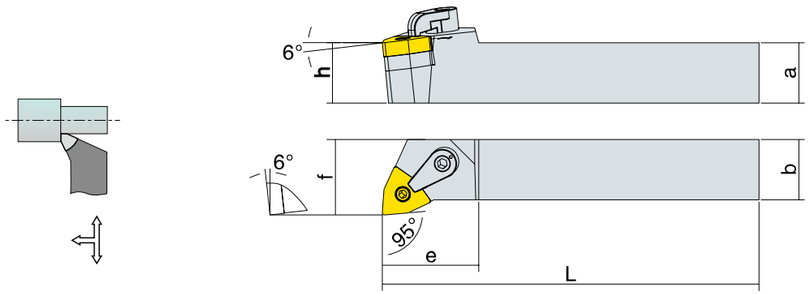
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MDQNR/L 1616H11	16	16	100	16	20	32	DN○○1104○○	MD1103	MSP513	MCL1814	WS06025	S2L/S3L
MDQNR/L 2020K11	20	20	125	20	25	32						
MDQNR/L 2525M11	25	25	150	25	32	32						
MDQNR/L 3225P11	32	25	170	32	32	32						
MDQNR/L 2525M15	25	25	150	25	32	38	DN○○1506○○	MD1504	MSP619	MCL1814	WS06025	S3L
MDQNR/L 3225P15	32	25	170	32	32	38						
MDQNR/L 3232P15	32	32	170	32	40	38						

62°30′MDPNN



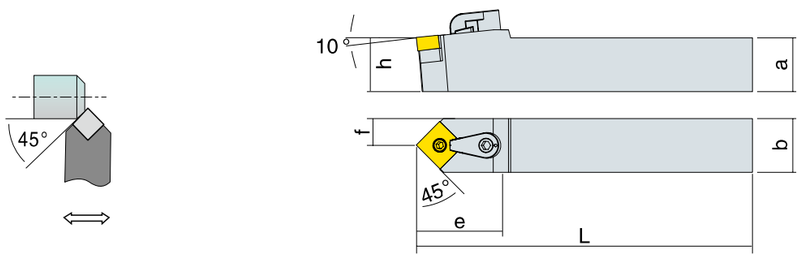
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MDPNN 1616H11	16	16	100	16	8	35	DN○○1104○○	MD1103	MSP513	MCL1814	WS06025	S2L/S3L
MDPNN 2020K11	20	20	125	20	10	35						
MDPNN 2525M11	25	25	150	25	12.5	35						
MDPNN 3225P11	32	25	170	32	12.5	35						
MDPNN 2525M15	25	25	150	25	12.5	42	DN○○1506○○	MD1504	MSP619	MCL1814	WS06025	S3L
MDPNN 3225P15	32	25	170	32	12.5	42						
MDPNN 3232P15	32	32	170	32	16	42						

95°MWLNR/L



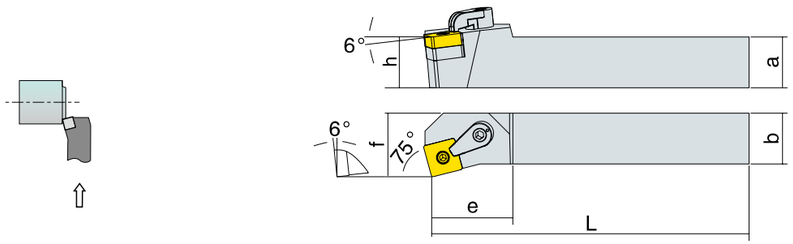
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MWLNR/L 2020K06	20	20	125	20	25	30	VN○○0604○○	MW0603	MSP513	MCL1814	WS06025	S2L/S3L
MWLNR/L 2525M06	25	25	150	25	32	30						
MWLNR/L 2020K08	20	20	125	20	25	32	VN○○0804○○	MW0804	MSP617	MCL1814	WS06025	S2.5L/S3L
MWLNR/L 2525M08	25	25	150	25	32	32						
MWLNR/L 3225P08	32	25	170	32	32	32						
MWLNR/L 3232P08	32	32	170	32	40	32						

45°MSDNN



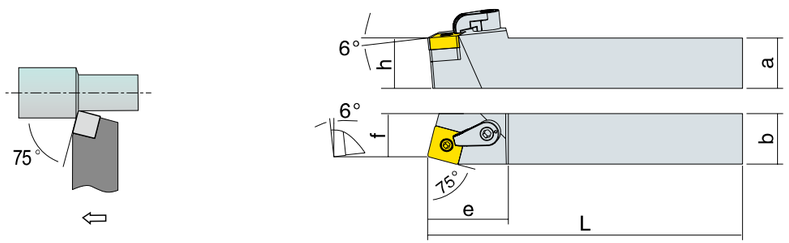
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MSDNN 1616H09	16	16	100	16	8.5	35	SN○○0903○○	MS0904	MSP513	MCL1511	WS05020	S2L/S2.5L
MSDNN 2020K12	20	20	125	20	10	35	SN○○1204○○	MS1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MSDNN 2525M12	25	25	150	25	13	35						
MSDNN 3225P12	32	25	170	32	13	35						
MSDNN 2525M15	25	25	150	25	13	42	SN○○1506○○	MS1504	MSP821	MCL1814	WS06025	S3L
MSDNN 3225P15	32	25	170	32	13	42						
MSDNN 3232P15	32	32	170	32	16.5	42						

75°MSKNR/L



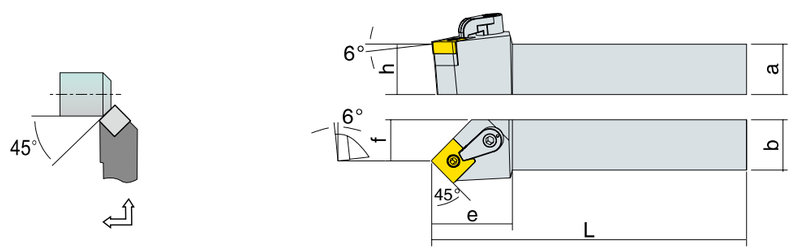
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MSKNR/L 1616H09	16	16	100	16	20	30	SN○○0903○○	MS0904	MSP513	MCL1511	WS05020	S2L/S2.5L
MSKNR/L 2020K09	20	20	125	20	25	30						
MSKNR/L 1616H12	16	16	100	16	20	32	SN○○1204○○	MS1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MSKNR/L 2020K12	20	20	125	20	25	32						
MSKNR/L 2525M12	25	25	150	25	32	32						
MSKNR/L 3225P12	32	25	170	32	32	32						
MSKNR/L 2525M15	25	25	150	25	32	38	SN○○1506○○	MS1504	MSP821	MCL1814	WS06025	S3L
MSKNR/L 3225P15	32	25	170	32	32	38						
MSKNR/L 3232P15	32	32	170	32	40	38						

75°MSBNR/L



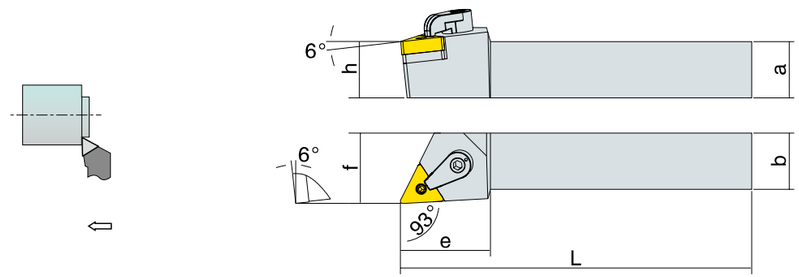
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MSBNR/L 1616H09	16	16	100	16	17	30	SN○○0903○○	MS0904	MSP513	MCL1511	WS05020	S2L/S2.5L
MSBNR/L 2020K09	20	20	125	20	22	30						
MSBNR/L 2020K12	20	20	125	20	22	32	SN○○1204○○	MS1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MSBNR/L 2525M12	25	25	150	25	27	32						
MSBNR/L 3225P12	32	25	170	32	27	32						
MSBNR/L 2525M15	25	25	150	25	27	38	SN○○1506○○	MS1504	MSP821	MCL1814	WS06025	S3L
MSBNR/L 3225P15	32	25	170	32	27	38						
MSBNR/L 3232P15	32	32	170	32	35	38						

45°MSSNR/L



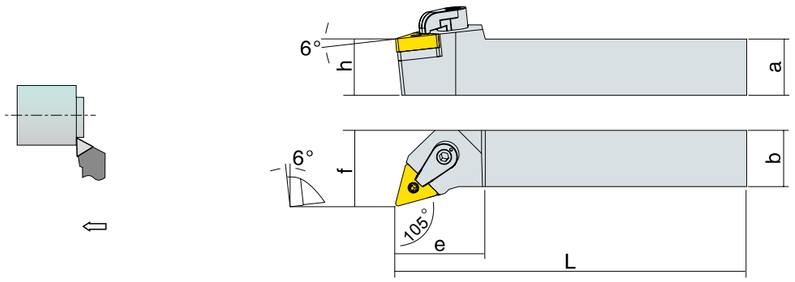
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MSSNR/L 1616H09	16	16	100	16	20	30	SN○○0903○○	MS0904	MSP513	MCL1511	WS05020	S2L/S2.5L
MSSNR/L 2020K09	20	20	125	20	25	30						
MSSNR/L 1616H12	16	16	100	16	20	32	SN○○1204○○	MS1204	MSP617	MCL1814	WS06025	S2.5L/S3L
MSSNR/L 2020K12	20	20	125	20	25	32						
MSSNR/L 2525M12	25	25	150	25	32	32						
MSSNR/L 3225P12	32	25	170	32	32	32						
MSSNR/L 2525M15	25	25	150	25	32	38	SN○○1506○○	MS1504	MSP821	MCL1814	WS06025	S3L
MSSNR/L 3225P15	32	25	170	32	32	38						
MSSNR/L 3232P15	32	32	170	32	40	38						

93°MTJNR/L



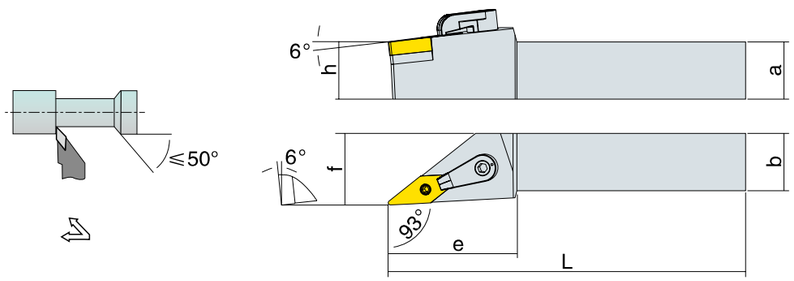
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MTJNR/L 1616H16	16	16	100	16	20	30	TN○○1604○○	MT1603	MSP513	MCL1814	WS06025	S2L/S3L
MTJNR/L 2020K16	20	20	125	20	25	30						
MTJNR/L 2525M16	25	25	150	25	32	30						
MTJNR/L 3225P16	32	25	170	32	32	30						
MTJNR/L 2525M22	25	25	150	25	32	40	TN○○2204○○	MT2204	MSP617	MCL1814	WS06025	S2.5L/S3L
MTJNR/L 3225P22	32	25	170	32	32	40						
MTJNR/L 3232P22	32	32	170	32	40	40						

105°MTQNR/L



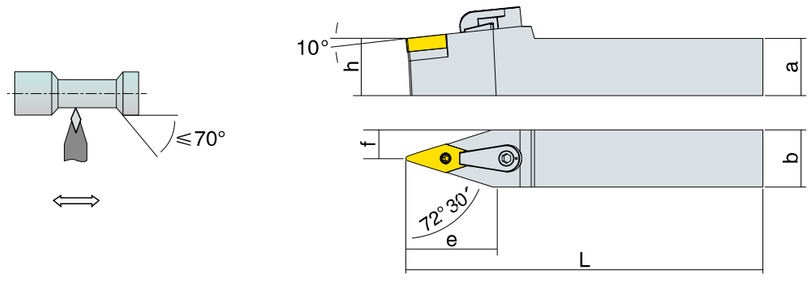
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MTQNR/L 1616H16	16	16	100	16	20	30	TN○○1604○○	MT1603	MSP513	MCL1814	WS06025	S2L/S3L
MTQNR/L 2020K16	20	20	125	20	25	30						
MTQNR/L 2525M16	25	25	150	25	32	30						
MTQNR/L 3225P16	32	25	170	32	32	30						
MTQNR/L 2525M22	25	25	150	25	32	40	TN○○2204○○	MT2204	MSP617	MCL1814	WS06025	S2.5L/S3L
MTQNR/L 3225P22	32	25	170	32	32	40						
MTQNR/L 3232P22	32	32	170	32	40	40						

93°MVJNR/L



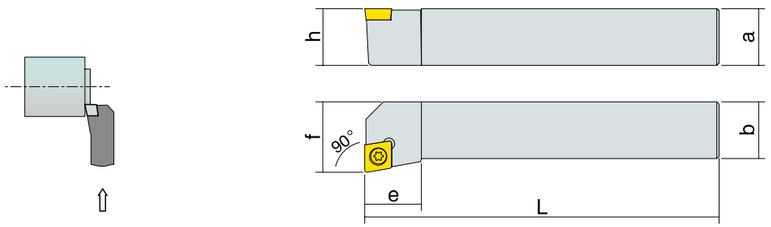
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MVJNR/L 1616H16	16	16	100	16	20	45	TN○○1604○○	MV1603	MSP513	MCL2414	WS06025	S2L/S3L
MVJNR/L 2020K16	20	20	125	20	25	45						
MVJNR/L 2525M16	25	25	150	25	32	45						
MVJNR/L 3225P16	32	25	170	32	32	45						
MVJNR/L 3232P16	32	32	170	32	40	45						

72°30″MVVNN



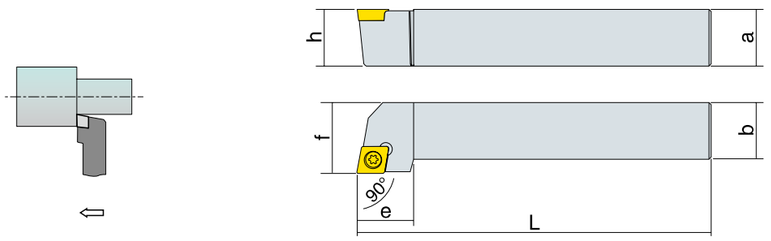
Code No.	Size(mm)						Inserts	Shim F06	Pin F06	Clamp F06	Clamp Screw F06	Wrench F03
	a	b	L	h	f	e						
MVVNN 2020K16	20	20	125	20	10.5	45	TN○○1604○○	MV1603	MSP513	MCL2414	WS06025	S2L/S3L
MVVNN 2525M16	25	25	150	25	13	45						
MVVNN 3225P16	32	25	170	32	13	45						

90°SCFCR/L



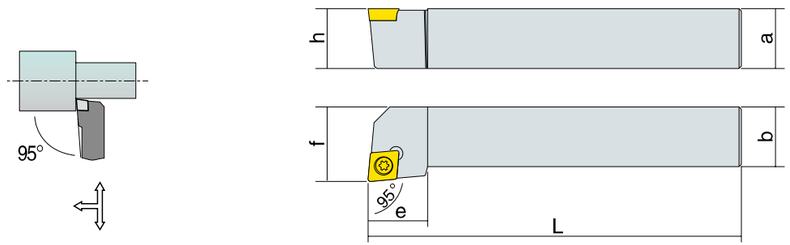
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SCFCR/L 1010E06	10	10	70	10	12	11	CC○○0602○○	B25060G	T8F
SCFCR/L 1212F06	12	12	80	12	16	11			
SCFCR/L 1212F09	12	12	80	12	16	16	CC○○09T3○○	B35100J	T15F
SCFCR/L 1616H09	16	16	100	16	20	16			
SCFCR/L 2020K09	20	20	125	20	25	25			
SCFCR/L 2525M09	25	25	150	25	32	25			
SCFCR/L 2525M12	25	25	150	25	32	25	CC○○1204○○	B50120J	T20F

90°SCGCR/L



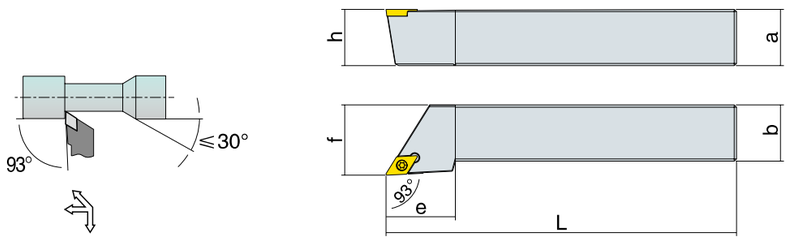
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SCGCR/L 1010E06	10	10	70	10	12	11	CC○○0602○○	B25060G	T8F
SCGCR/L 1212F06	12	12	80	12	16	11			
SCGCR/L 1212F09	12	12	80	12	16	16	CC○○09T3○○	B35100J	T15F
SCGCR/L 1616H09	16	16	100	16	20	16			
SCGCR/L 2020K09	20	20	125	20	25	25			
SCGCR/L 2525M09	25	25	150	25	32	25			
SCGCR/L 2525M12	25	25	150	25	32	25	CC○○1204○○	B50120J	T20F

95°SCLCR/L



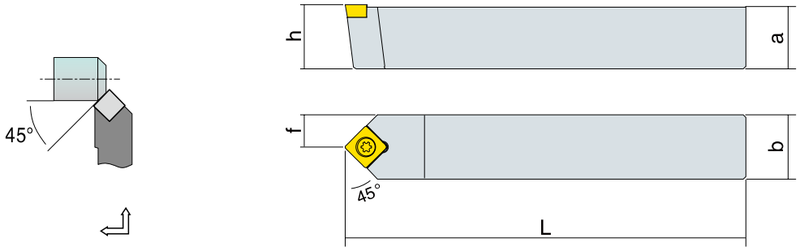
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SCLCR/L 0808E06	8	8	70	8	10	11	CC○○0602○○	B25060G	T8F
SCLCR/L 1010E06	10	10	70	10	12	11			
SCLCR/L 1212F06	12	12	80	12	16	11			
SCLCR/L 1212F09	12	12	80	12	16	16	CC○○09T3○○	B35100J	T15F
SCLCR/L 1616H09	16	16	100	16	20	16			
SCLCR/L 2020K09	20	20	125	20	25	25			
SCLCR/L 2525M09	25	25	150	25	32	25			
SCLCR/L 2525M12	25	25	150	25	32	25	CC○○1204○○	B50120J	T20F

93°SDJCR/L



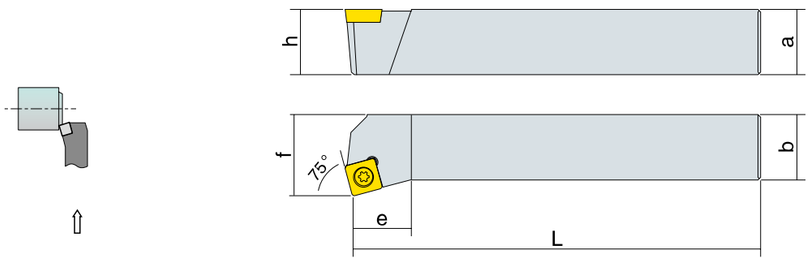
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SDJCR/L 0808E07	8	8	70	8	10	16	DC○○0702○○	B25070G	T8F
SDJCR/L 1010E07	10	10	70	10	12	16			
SDJCR/L 1212F07	12	12	80	12	16	16			
SDJCR/L 1616H07	16	16	100	16	20	16			
SDJCR/L 2020K07	20	20	125	20	25	25			
SDJCR/L 2525M07	25	25	150	25	32	25			
SDJCR/L 1616H11	16	16	100	16	20	25	DC○○11T3○○	B35100J	T15F
SDJCR/L 2020K11	20	20	125	20	25	25			
SDJCR/L 2525M11	25	25	150	25	32	25			

45°SSDCN



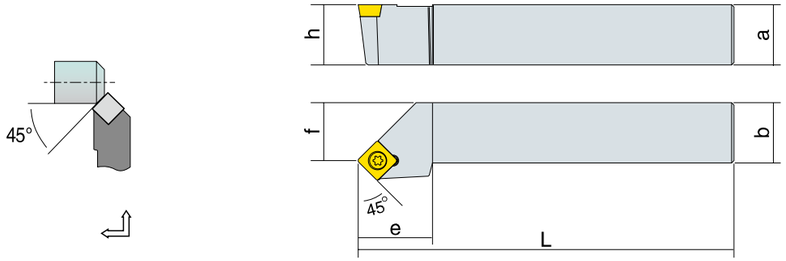
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SSDCN 1212F09	12	12	80	12	6	18	SC○○09T3○○	B40080J	T15F
SSDCN 1616H09	16	16	100	16	8	18			
SSDCN 2020K09	20	20	125	20	100	25			
SSDCN 2525M09	25	25	150	25	12.5	25			
SSDCN 2525M12	25	25	150	25	12.5	28	SC○○1204○○	B50120J	T20F

75°SSKCR/L



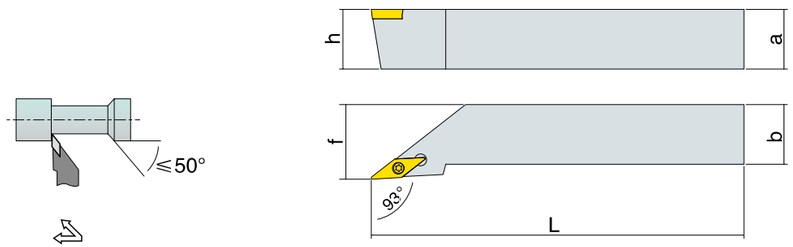
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SSKCR/L 1212F09	12	12	80	12	6	18	SC○○09T3○○	B40080J	T15F
SSKCR/L 1616H09	16	16	100	16	8	18			
SSKCR/L 2020K09	20	20	125	20	100	25			
SSKCR/L 2525M09	25	25	150	25	12.5	25			
SSKCR/L 2525M12	25	25	150	25	12.5	28	SC○○1204○○	B50120J	T20F

45°SSSCR/L



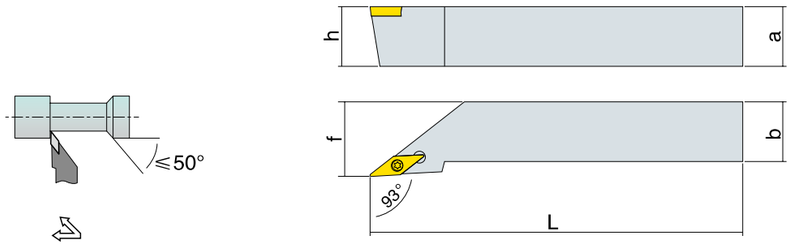
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SSSCR/L 1212F09	12	12	80	12	16	16	SC○○09T3○○	B40080J	T15F
SSSCR/L 1616H09	16	16	100	16	20	16			
SSSCR/L 2020K09	20	20	125	20	25	25			
SSSCR/L 2525M09	25	25	150	25	32	25			
SSSCR/L 2525M12	25	25	150	25	32	25	SC○○1204○○	B50120J	T20F

93°SVJBR/L



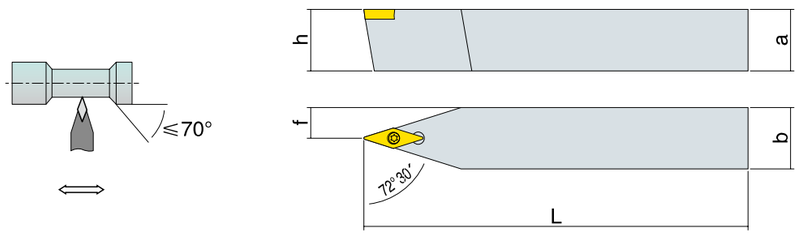
Code No.	Size(mm)						Inserts	Screw	Wrench F03
	a	b	L	h	f	e			
SVJBR/L 1212F11	12	12	80	12	16	25	VB○○1103○○	B25070G	T8F
SVJBR/L 1616H11	16	16	100	16	20	25			
SVJBR/L 2020K11	20	20	125	20	25	25			
SVJBR/L 2525M11	25	25	150	25	32	35			
SVJBR/L 2020K16	20	20	125	20	25	35	VB○○1604○○	B35100J	T15F
SVJBR/L 2525M16	25	25	150	25	32	35			

93°SVJCR/L



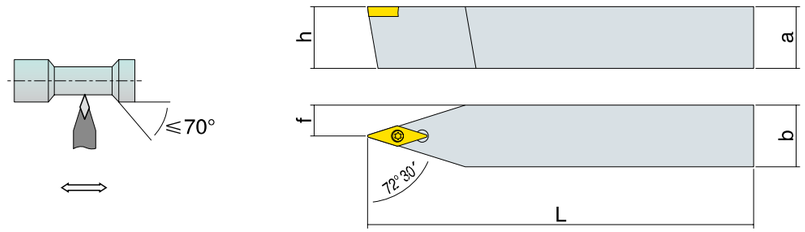
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SVJCR/L 1212F11	12	12	80	12	16	25	VC○○1103○○	B25070G	T8F
SVJCR/L 1616H11	16	16	100	16	20	25			
SVJCR/L 2020K11	20	20	125	20	25	25			
SVJCR/L 2525M11	25	25	150	25	32	35			
SVJCR/L 2020K16	20	20	125	20	25	35	VC○○1604○○	B35100J	T15F
SVJCR/L 2525M16	25	25	150	25	32	35			

72°30′SVVBN



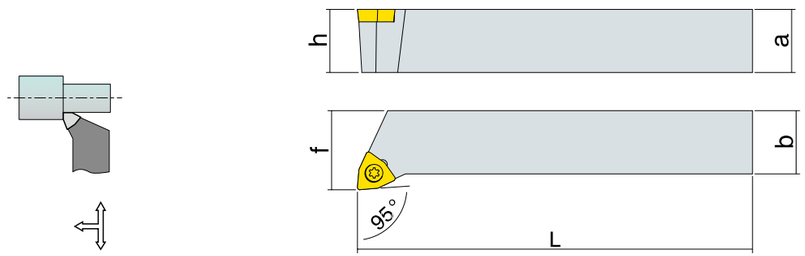
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SVVBN 1212F11	12	12	80	12	6	25	VB○○1103○○	B25070G	T8F
SVVBN 1616H11	16	16	100	16	8	25			
SVVBN 2020K11	20	20	125	20	10	25			
SVVBN 2525M11	25	25	150	25	12.5	28			
SVVBN 2525M16	25	25	150	25	12.5	40	VB○○1604○○	B35100 *	T15F

72°30′SVVCN



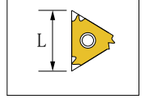
Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SVVCN 1212F11	12	12	80	12	6	25	VC○○1103○○	B25070G	T8F
SVVCN 1616H11	16	16	100	16	8	25			
SVVCN 2020K11	20	20	125	20	10	25			
SVVCN 2525M11	25	25	150	25	12.5	28			
SVVCN 2525M16	25	25	150	25	12.5	40	VC○○1604○○	B35100J	T15F

95°SWLCR/L

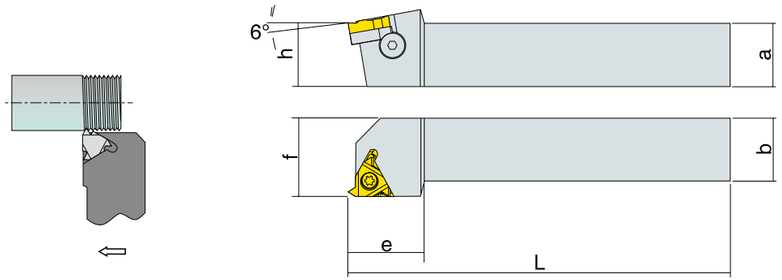


Code No.	Size(mm)						Inserts	Screw F02	Wrench F03
	a	b	L	h	f	e			
SWLCR/L 1010E0	10	10	70	10	12	11	WC○○0402○○	B25070G *	T8F
SWLCR/L 1212F06	12	12	80	12	16	16	WC○○06T3○○	B35080F *	T15F
SWLCR/L 1616H06	16	16	100	16	20	16			
SWLCR/L 2020K06	20	20	125	20	25	25			
SWLCR/L 2525M06	25	25	150	25	32	25			

CODIFICATION OF THREADING HOLDERS

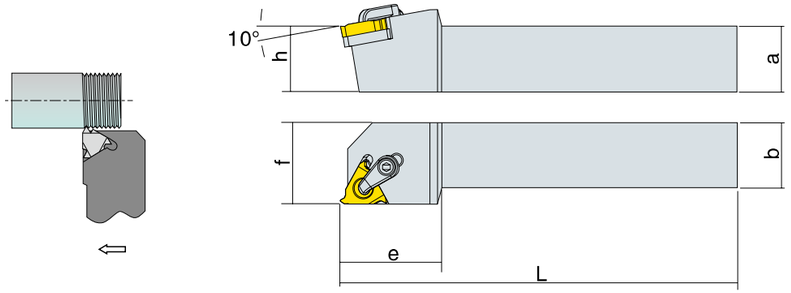
S	E	R	2020	K	16	
Clamping System	Operation	Hand of Tool	Tool Holder Size	Length of Shank mm	Insert Pocket Size	
S Screw	I Internal	R Right Hand	Tool Holders Square Shank 2020=20X20	F80		B Coolant Hole
C Clamp	E External	L Left Hand	Boring Bar Round Shank 0020=Dia2 0	H100		C Carbide Shank
				K125		V Vertical (On Edge)
				M150		D Decline Tool Holder
				N160		G Gang Toolholder
				P170		U U type Toolholder
				Q180		
				R200		
				S250		
				T300		
				U350		
				V400		

SER/L



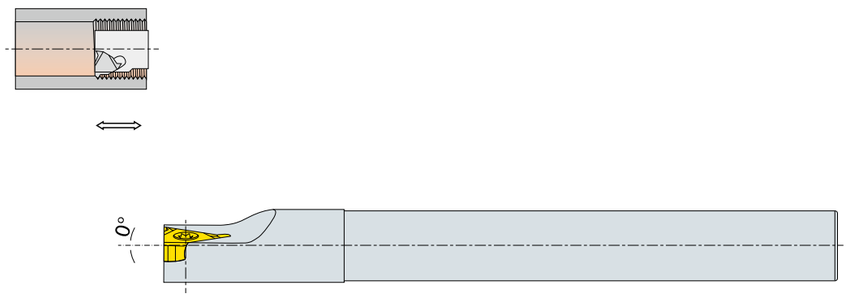
Code No.	Size(mm)					Inserts	Inserts Screw F01	Wrench F03	Shim F06	Clamp Screw F04	Wrench F03
	b	L	h	f	e						
SER/L-1616H-16T	16	16	16	100	20	16ER/Lㅇㅇㅇㅇ	B35125J	T15F	LT16/0.5 LT16/1.75	SS04008	S2.5L
SER/L-2020K-16T	20	20	20	125	25						
SER/L-2525M-16T	25	25	25	150	32						
SER/L-3225P-16T	32	32	25	170	32						
SER/L-3232P-16T	32	32	32	170	40						
SER/L-2525M-22T	25	25	25	150	32	22ER/Lㅇㅇㅇㅇ	B40147J	T15F	LT22		
SER/L-3225P-22T	32	32	25	170	32						
SER/L-3232P-22T	32	32	32	170	40						

CER/L

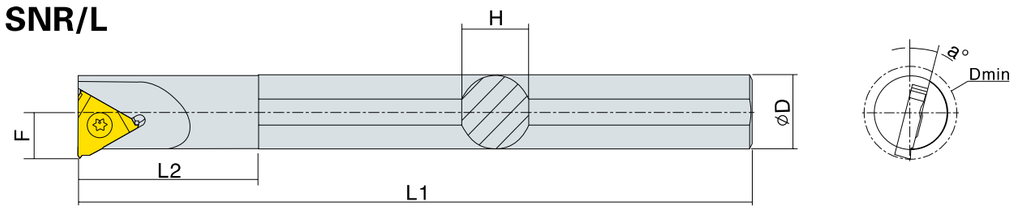


Code No.	Size(mm)					Inserts	Clamp F06	Clamp Screw F06	Wrench F03	Shim F06		Wrench F03
	h	a	b	L	f					R	L	
CER/L-1616H-16T	16	16	16	100	20	16ER/Lㅇㅇㅇㅇ	MCS1708	WS 05015	T15F	GXE 16-1	GXN 16-1	S2.5L
CER/L-2020K-16T	20	20	20	125	25							
CER/L-2525M-16T	25	25	25	150	32							
CER/L-3225P-16T	32	32	25	170	32							
CER/L-3232P-16T	32	32	32	170	40							

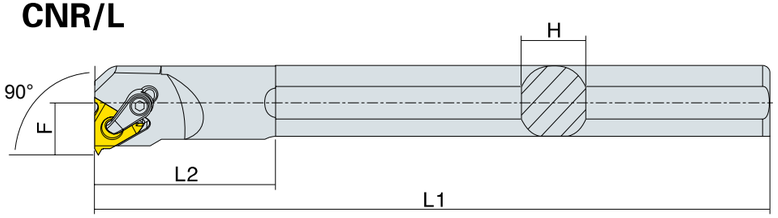
SNR/L-CNR/L



SNR/L

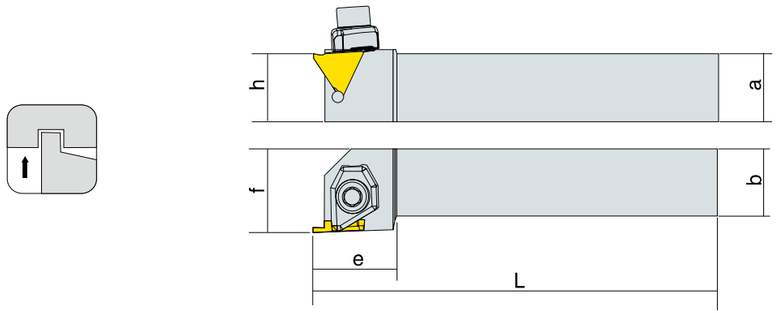


CNR/L



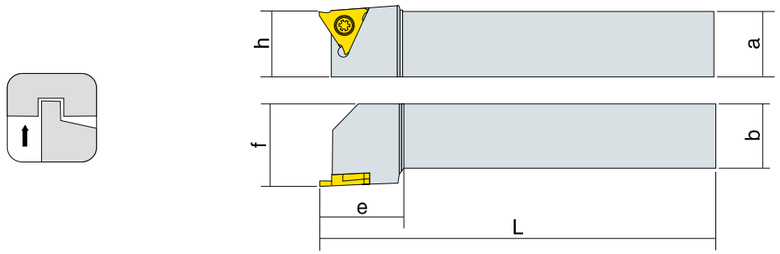
Code No.	Inserts	Size(mm)							Clamp F06	Clamp Screw F06	Shim F06		Wrench F03	Wrench F03
		Dmin	ØD	F	L1	L2	H	α°			R	L		
SNR/L-0010K-11	11NR/Lㅇㅇㅇ	Ø12	10	7.4	125	25	9	18	—	—	—	—	T8F	—
SNR/L-0013L-11		Ø15	16	8.9	140	32.5	15	15						
CNR/L-0013M-16	16NR/Lㅇㅇㅇ	Ø16	16	10.2	150	32	15	15					T15F	
CNR/L-0016M-16		Ø19	16	11.7	150	40	15	15						
CNR/L-0020Q-16		Ø24	20	13.7	180	40	19	15	MCS1708	WS05015	GXE 16-1	GXN 16-1	T15F	S2.5L
CNR/L-0025R-16		Ø29	25	16.2	200	45	24	15						
CNR/L-0032S-16		Ø36	32	19.7	250	50	30	15						

KGBR/L



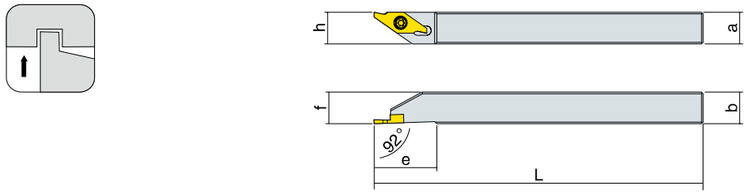
Code No.	Size(mm)						Inserts		Clamp F06	Clamp Screw F04	Spring	Wrench F03
	h	a	b	e	L	f						
KGBR/L 2020K-16	20	20	20	24	125	25	GBA32R/Lㅇㅇㅇ		MGB-1	BH 06025	SP-6	S4L
KGBR/L 2525M-16	25	25	25	21	150	30	GB32R/Lㅇㅇㅇ					
KGBR/L 2020K-22-15	20	20	20	25.5	125	25	GBA43R/L125~230	GBA43R/L050R~100R				
KGBR/L 2525M-22-15	25	25	25	25.5	150	30	GB43R/L125~230	GB43R/L050R~100R				
KGBR/L 2020K-22-25	20	20	20	25.5	125	25	GBA43R/L250~330	GBA43R/L125R~150R				
KGBR/L 2525M-22-25	25	25	25	25.5	150	30	GB43R/L250~330	GB43R/L125R~150R				
KGBR/L 2020K-22-35	20	20	20	25.5	125	25	GBA43R/L350~480	GBA43R/L200R				
KGBR/L 2525M-22-35	25	25	25	25.5	150	30	GB43R/L350~480	GB43R/L200R				

KTGR/L



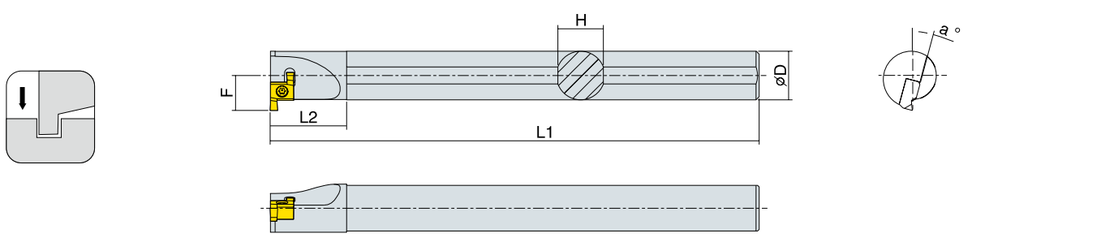
Code No.	Size(mm)						Inserts	Screw F01	Wrench F03
	h	a	b	e	L	f			
KTGR/L 2020K-16	20	20	20	24	125	25	TG32R/Lㅇㅇㅇ	B40077K	T15F
KTGR/L 2525M-16	25	25	25	21	150	30			
KTGR/L 2020K-22-15	20	20	20	25.5	125	25	TG43R/L150ㅇㅇ230	B50130K	T20F
KTGR/L 2525M-22-15	25	25	25	25.5	150	30			
KTGR/L 2020K-22-25	20	20	20	25.5	125	25	TG43R/Lㅇㅇ330		
KTGR/L 2525M-22-25	25	25	25	25.5	150	30			
KTGR/L 2020K-22-35	20	20	20	25.5	125	25	TG43R/L350ㅇㅇ450		
KTGR/L 2525M-22-35	25	25	25	25.5	150	30			

JSVGR/L



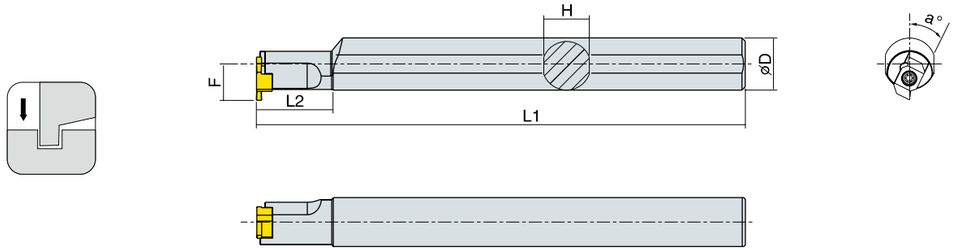
Code No.	Size(mm)					Inserts	Screw F01	Wrench F03
	h	a	b	L	f			
JSVGR/L 1010K	10	10	10	125	10	JVGR/L○○○	B30060J	T9F
JSVGR/L 1212K	12	12	12	125	12			
JSVGR/L 1616K	16	16	16	125	16			

SNGR/L



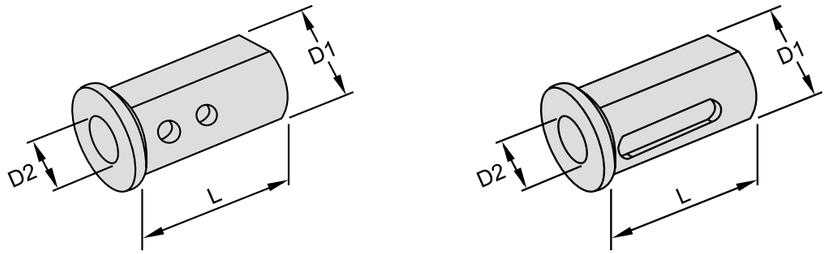
Code No.	Inserts	Size(mm)							Screw F01	Wrench F03
		Dmin	ØD	F	L1	L2	H	α°		
SNGR/L08H-06	6GR/L○○○○	Ø8	8	4.7	100	18	7	18	B20040J	T6F
SNGR/L08H-07	7GR/L○○○○	Ø10	8	5.8	100	23	7	15	B22046J	T7F
SNGR/L10K-07		Ø12	10	6.8	125	29	9	15		
SNGR/L10K-08	8GR/L○○○○	Ø14	10	7.6	125	15	9	15	B22061J	T7F
SNGR/L12M-08		Ø16	12	8.6	150	18	11	15		
SNGR/L10K-08-2W		Ø14	10	7.6	125	15	9	15		
SNGR/L12M-08-2W		Ø16	12	8.6	150	18	11	15		
SNGR/L16N-09	9GR/L○○○○	Ø20	16	11.6	160	20	15	15	B25080J	T8F
SNGR/L20Q-09		Ø24	20	13.6	180	25	19	15		
SNGR/L16N-09-2W		Ø20	16	11.6	160	20	15	15		
SNGR/L20Q-09-2W		Ø24	20	13.6	180	25	19	15		

FSL51



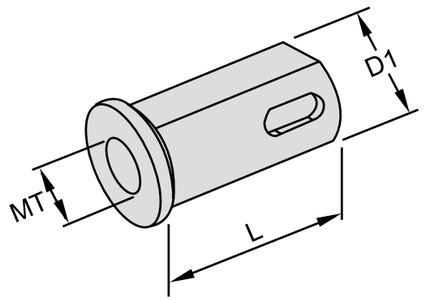
Code No.	Size(mm)							Inserts	Screw F01	Wrench F03
	Dmin	ØD	F	L1	L2	H	α°			
FSL5108R	8	10	4.8	125	30	7	5	MLG10○○L	B25060G	T08F
FSL5110R	10	12	5.8	150	40	9	5			
FSL5112R	12	14	6.8	180	50	11	5	MLG14○○L	B30070E	T08F
FSL5114R	14	16	7.8	180	60	13	5			
FSL5116R	16	20	9.7	200	70	14	5	MLG20○○L	B40090G	T15F

Lathe Machine Reducing Change Tool Sleeve (Straight style)



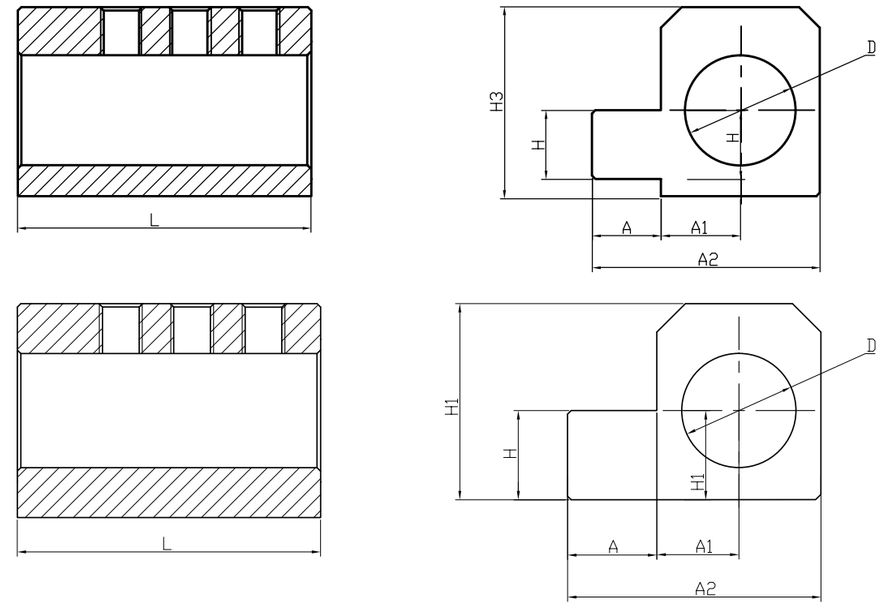
Code No.	External Dia D	Clamping Length L	Front End Length	Total Length	Internal Dia d
D20-6/8/10/12/16	D20	45	5	50	6/8/10/12/16
D25-6/8/10/12/16/20	D25	55	5	60	6/8/10/12/16/20
D32-6/8/10/12/16/20/25	D32	60	5	65	6/8/10/12/16/20/25
D40-6/8/10/12/16/20/25/32	D40	70	5	75	6/8/10/12/16/20/25/32
D50-6/8/10/12/16/20/25/32/40	D50	85	5	90	6/8/10/12/16/20/25/32/40

Lathe Machine Reducing Change Tool Sleeve (Morse Drill style)



Code No.	External Dia D	Clamping Length L	Front End Length	Total Length	Internal Dia d
D20-MTA1	D20	50	15	65	5
D20-MTA2	D20	50	25	75	5
D25-MTA1	D25	50	15	65	5
D25-MTA2	D25	50	25	75	5
D25-MTA3	D25	50	45	95	5
D32-MTA1	D32	60	5	65	5
D32-MTA2	D32	60	15	75	5
D32-MTA3	D32	60	35	95	5
D40-MTA1/MTA2	D40	75	5	80	5
D40-MTA3	D40	75	20	95	5
D50-MTA1/MTA2/MTA3	D50	85	5	90	5
D50-MTA4	D50	85	35	120	5

Tool Holder



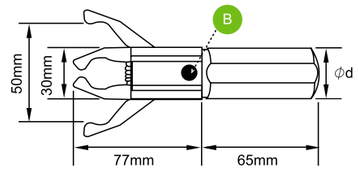
Code No.	H1	H	A	A1	L	D
HTD2020-32	20	20	20	24	80	32
HTD2525-40	25	25	25	30	80	32

Auto Link for CNC Lathe

AUTO LINK control work piece from side to side automatically.
• Durability, Convenience and Economical comparing with expensive BAR Feeder.
• Easy to handle.
• Chucking force to 28kg.
• Wide range of processing for work piece (ø0mm~ø50mm)



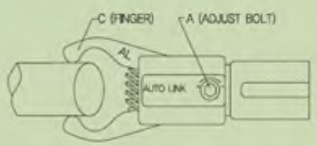
A Adjust Bolt
C Finger
D Body
E Shank



B SET BOLT

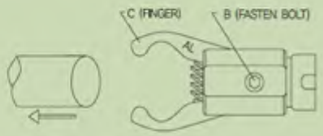
Code No.	Width	Ød	Length	Chucking Force	Weight
HALF20	0-50mm	20mm	77+65=L142	0-25KG	0.43KG
HALF25	0-50mm	25mm			0.53KG
HALF32	0-50mm	32mm			0.74KG

Joint of the work piece



Adjust the front A(Adjust Bolt), let C(Finger) hold the work piece external diameter.(Holding press about 0~2kg)

Disjoint of the work piece



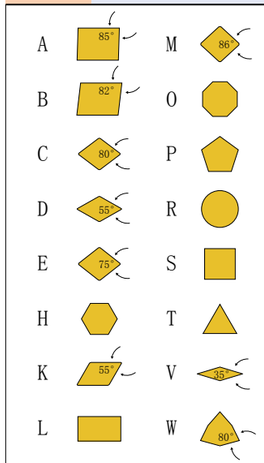
Pull the work piece out and tighten the back B(Fasten Bolt), C(Finger) getting close and the press of holding is controlled.



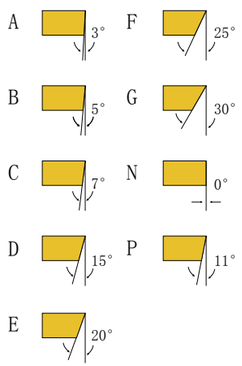
CODIFICATION OF INSERTS I

C	P	M	T	12	04	08	
1	2	3	4	5	6	7	

1 Insert Shape

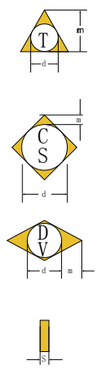


2 Relief Angle



3 Tolerance

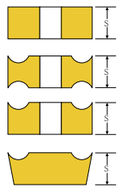
Range (mm)



	d	m	s
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
E	±0.025	±0.025	±0.025
F	±0.013	±0.005	±0.025
G	±0.025	±0.025	±0.130
H	±0.013	±0.013	±0.025
J[1]	±0.05-0.15 [2]	±0.005	±0.025
K[1]	±0.05-0.15 [2]	±0.013	±0.025
L[1]	±0.05-0.15 [2]	±0.025	±0.025
M	±0.05-0.15 [2]	±0.08-0.20 [2]	±0.130
N	±0.05-0.15 [2]	±0.05-0.20 [2]	±0.025
U	±0.08-0.25 [2]	±0.13-0.38 [2]	±0.130

1、Wiper grinded
2、Depending on the specification of inserts (Refer to ISO1832)

6 Insert's Thickness



01 s=1.59
T1 s=1.98
02 s=2.38
T2 s=2.78
03 s=3.18
T3 s=3.97
04 s=4.76
05 s=5.56
06 s=6.35
07 s=7.94
09 s=9.52

7 Round Corner of Tip



01 r=0.1
02 r=0.2
04 r=0.4
08 r=0.8
12 r=1.2
16 r=1.6
24 r=2.4

R

OO is for the diameter which converted from inch unit to mm unit

MO is for metric unit diameter

Front Rank Angle



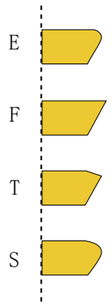
A=45°
D=60°
E=75°
F=85°
P=90°
Z=other
Front Rank Angle

Wiper's relief angle

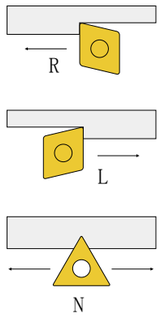


A=3°
B=5°
C=7°
D=15°
E=20°
F=25°
G=30°
N=0°
P=11°
Z=other's relief angle

8 Cutting Tooth Shape



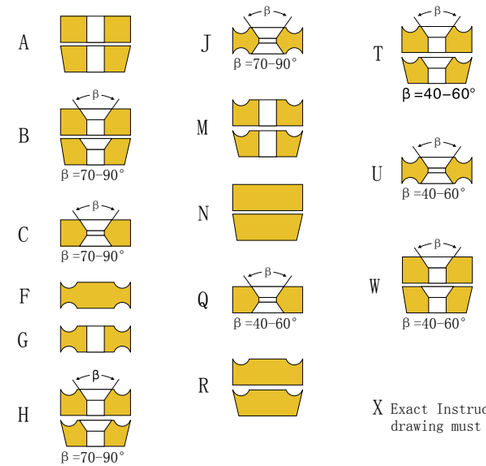
9 Cutting Direction



CODIFICATION OF INSERTS II

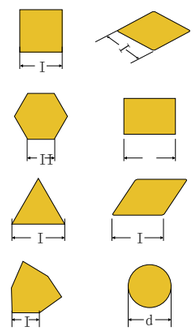
T	N	M	A	16	04	08	T	020	20
1	2	3	4	5	6	7	8	10	11

4 Character of Cutting & Clamping

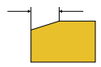


X Exact Instruction and drawing must be supplied

5 Length of Tooth

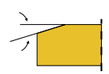


10 Width to The Edge



010=0.10mm
020=0.20mm
025=0.25mm
070=0.70mm
150=1.50mm
200=2.00mm

11 Radians to The Edge

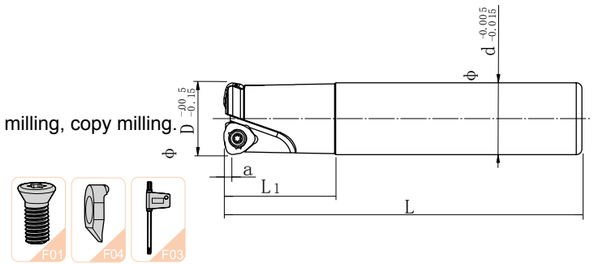


15=15°
20=20°

AJX Roughing Feed End Mills

Feature

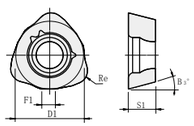
- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- The most suitable for high-feed cutting



Code No.	Teeth	Type	Size(mm)					
			D	D1	d	L	L1	a
AJX12R-32-160	2	B	32	20.3	32	160	75	2
AJX12R-32-200	2	B	32	20.3	32	200	115	2
AJX12R-32-250	2	B	32	20.3	32	250	115	2
AJX12R-32-300	2	B	32	20.3	32	300	150	2
AJX12R-33-160-C32	2	B	33	21.3	32	160	-	2
AJX12R-33-200-C32	2	B	33	21.3	32	200	-	2
AJX12R-33-250-C32	2	B	33	21.3	32	250	-	2
AJX12R-33-300-C32	2	B	33	21.3	32	300	-	2
AJX12R-35-160-C32	2	C	35	23.3	32	160	-	2
AJX12R-35-200-C32	2	C	35	23.3	32	200	-	2
AJX12R-35-250-C32	2	C	35	23.3	32	250	-	2
AJX12R-40-160-C32	2	C	40	28.3	32	160	-	2
AJX12R-40-200-C32	2	C	40	28.3	32	200	-	2
AJX12R-40-250-C32	2	C	40	28.3	32	250	-	2
AJX12R-40-300-C32	2	C	40	28.3	32	300	-	2

Accessories

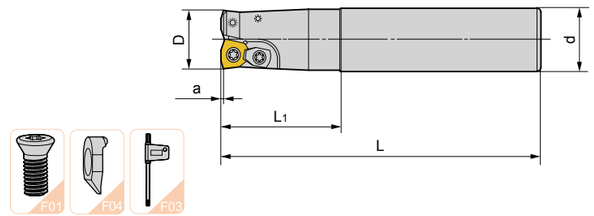
Code No.	Insert	Clamp	Screw	Wrench
AJX12R	JDMT120420ZDSR	AJX-12	M4×10	T15

Code No.	CY100H	CY15	CY25	Insert shape	Size(mm)					
					B3°	D1	S1	F1	Re	
JOMW06T215ZZSR-FT	●	●	●		13	6.35	2.78	1.2	1.5	MITSUBISHI
JOMW080320ZZSR-FT	●	●	●		13	8	3.18	1.4	2	
JDMW09T320ZDSR-FT	●	●	●		15	9.525	3.97	1.8	2	
JDMW120420ZDSR-FT	●	●	●		15	12	4.76	5	2	
JOMT06T215ZZSR-JM	●	●	●		13	6.35	2.78	1.2	1.5	
JOMT080320ZZSR-JM	●	●	●		13	8	3.18	1.4	2	
JDMT09T320ZDSR-JM	●	●	●		15	9.525	3.97	1.8	2	
JDMT120420ZDSR-ST	●	●	●		15	12	4.76	5	2	
JDMT120420ZDSR-JM	●	●	●		15	12	4.76	5	2	

EXP Roughing Feed End Mills

Feature

-Suitable on high speed feed cutting.
-Use taper design,high rigidity that avoid buckler.



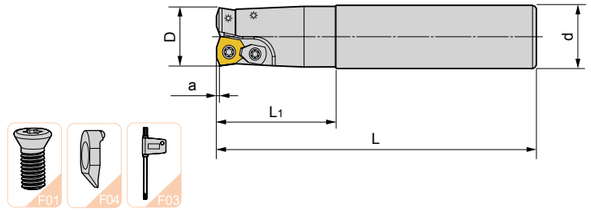
Code No.	Teeth	Size(mm)					Insert	Screw	Clamp	Wrench
		D	d	a	L1	L				
EXP-C20-20-130	2	20	20	1.5	50	130	WPMW05H315ZPR	M3.5X8	Y-5R	T15
EXP-C20-21-130		21								
EXP-C20-20-180		20			100	180				
EXP-C20-21-180		21			50					
EXP-C20-20-250		20			130	250				
EXP-C20-21-250		21			50					
EXP-C25-25-140	2	25	25		60	140				
EXP-C25-26-140		26								
EXP-C25-25-200		25			120	200				
EXP-C25-26-200		26			60					
EXP-C25-25-250		25			130	250				
EXP-C25-26-250		26			60					
EXP-C32-32-150		32	32		70	150				
EXP-C32-32-150	3									
EXP-C32-32-200	2				120	200				
EXP-C32-32-200	3									
EXP-C32-32-250	2				130	250				
EXP-C32-32-250	3									
EXP-C32-33-150	2	33			70	150				
EXP-C32-33-150	3									
EXP-C32-33-200	2					200				
EXP-C32-33-200	3									
EXP-C32-33-250	2					250				
EXP-C32-33-250	3									
EXP-C42-40-200	3	40			50	200				
EXP-C42-40-250						250				
EXP-C42-40-300						300				
EXP-C32-40-200	2	40	32	1.5	50	200	WPMW080615ZSR	M5X11	Y-5R	T20
EXP-C32-40-250						250				
EXP-C32-40-300						300				
EXP-C42-50-200	3	50	42	2	50	200	WPMW090725ZSR	M5X11	Y-5R	T20
EXP-C42-50-250						250				

SUITABLE:TOSHIBA INSERT

SKS Roughing Feed End Mills

Feature

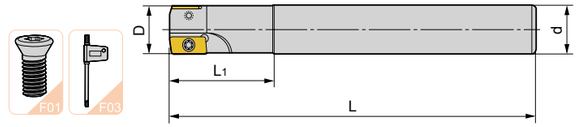
-Suitable on high speed feed cutting.
-Use taper design,high rigidity that avoid buckler.



Code No.	Teeth	Size(mm)					Insert	Screw	Clamp	Wrench
		D	d	a	L1	L				
SKS-C20-20-130	2	20	20	1.25	50	130	WDMW053316ZTR	M3X7	-	T8
SKS-C20-21-130		21								
SKS-C20-20-180		20			100	180				
SKS-C20-21-180		21			50					
SKS-C25-25-140	2	25	25	1.5	60	140	WDMW06T320ZTR	M4X10	Y-4R	T8
SKS-C25-26-140		26								
SKS-C25-25-200		25			120	200				T15
SKS-C25-26-200		26			60					
SKS-C32-30-150		30	32		70	150				
SKS-C32-30-200					120	200				
SKS-C32-32-150	3	32			70	150				
SKS-C32-32-200					120	200				
SKS-C32-33-150		33			70	150				
SKS-C32-33-200						200				
SKS-C32-32-150	2	32	32	2	70	150	WDMW080520ZTR	M4.5X11	Y-4R	T20
SKS-C32-32-200					120	200				
SKS-C32-33-150		33			50	150				
SKS-C32-33-250						200				
SKS-C32-40-250	3	40				200				
SKS-C32-40-250						250				
SKS-C32-50-200		50				200				
SKS-C32-40-200		40	42		120				Y-5R	
SKS-C32-40-250					130	250				
SKS-C32-50-200		50			50	200				
SKS-C32-50-250						250				

SUITABLE:DIJET INSERT

ASR Roughing Feed End Mills



Feature

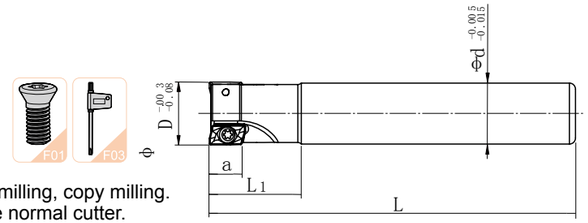
-High speedrate rounding mill.
-To increase per teeth feedrate will improve the using life of insert without regard to the defect influence of its using life.

Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	L1	L			
ASR-C16-16-120	2	16	16	40	120	EPNW0603TN-8 EPMT0603TN-8	M2.5X6	T8
ASR-C16-17-120		17		27				
ASR-C16-16-160		16		50	160			
ASR-C16-17-160		17		27				
ASR-C20-20-120		20	20	50	120			
ASR-C20-20-160					160			
ASR-C20-21-160		21		27				
ASR-C25-25-160	3	25	25	60	160			
ASR-C25-25-200				70	200			
ASR-C25-26-200		26		50				
ASR-C32-32-160	4	32	32	70	160			
ASR-C32-33-160		33		60				
ASR-C32-32-200		32		115	200			
ASR-C32-33-200		33		70				
ASR-C32-35-200		35		50				
ASR-C32-40-160		40			160			
ASR-C32-40-200					200			

SUITABLE:HITACHI INSERT

AHU Right Angle Shoulder End Mills

Code No.	Teeth	Type	Size(mm)					
			D	d	L	L1	L2	a
AHU-1012×120	1	A	12	12	120	30	-	9
AHU-1012×150	1	A	12	12	150	30	-	9
AHU-1013×120-C12	1	A	13	12	120	30	-	9
AHU-1013×150-C12	1	A	13	12	150	30	-	9
AHU-1016×120	2	A	16	16	120	30	-	9
AHU-1016×120-C15	2	A	16	15	120	30	-	9
AHU-1016×160	2	A	16	16	160	40	-	9
AHU-1016×160-C15	2	A	16	15	160	40	-	9
AHU-1016×160-C15.6	2	A	16	15.6	160	40	-	9
AHU-1016×180	2	B	16	16	180	40	90	9
AHU-1016×180-C15	2	A	16	15	180	40	-	9
AHU-1016×200	2	B	16	16	200	40	100	9
AHU-1017×120-C16	2	A	17	16	120	30	-	9
AHU-1017×160-C16	2	A	17	16	160	40	-	9
AHU-1017×200-C16	2	A	17	16	200	50	-	9
AHU-1020×120	2/3	A	20	20	120	30	-	9
AHU-1020×160	2/3	A	20	20	160	40	-	9
AHU-1020×160-C19	2/3	A	20	19	160	40	-	9
AHU-1020×200	2/3	B	20	20	200	50	100	9
AHU-1020×200-C19	2/3	A	20	19	200	50	-	9
AHU-1021×160-C20	2/3	A	21	20	160	40	-	9
AHU-1021×200-C20	2/3	A	21	20	200	50	-	9
AHU-1025×160	3	A	25	25	160	40	-	9
AHU-1025×200	3	A	25	25	200	40	-	9
AHU-1025×160-C24	3	A	25	24	160	40	-	9
AHU-1026×160-C25	3	A	26	25	160	40	-	9
AHU-1030×160-C25	3	C	30	25	160	40	-	9
AHU-1030×200-C25	3	C	30	25	200	50	-	9
AHU-1030×250-C25	3	C	30	25	250	50	-	9
AHU-1525×160	2	A	25	25	160	50	-	14
AHU-1525×160-C24	2	A	25	24	160	50	-	14
AHU-1525×200	2	A	25	25	200	75	-	14
AHU-1525×200-C24	2	A	25	24	200	50	-	14
AHU-1526×160-C25	2	A	26	25	160	50	-	14
AHU-1526×200-C25	2	A	26	25	200	50	-	14
AHU-1530×160-C25	2	C	30	25	160	50	-	14
AHU-1530×200-C25	2	C	30	25	200	50	-	14
AHU-1530×250-C25	2	C	30	25	250	50	-	14
AHU-1532×160-C25	2/3	C	32	25	160	50	-	14
AHU-1532×200-C25	2/3	C	32	25	200	50	-	14
AHU-1532×160	2/3	A	32	32	160	80	-	14
AHU-1532×200	2/3	A	32	32	200	80	-	14
AHU-1532×250-C25	2/3	C	32	25	250	50	-	14
AHU-1532×250	2/3	B	32	32	250	60	115	14
AHU-1532×300	2/3	B	30	32	300	60	165	14
AHU-1535×200-C32	3	C	35	32	200	50	-	14
AHU-1535×250-C32	3	C	35	32	250	50	-	14
AHU-1535×300-C32	3	C	35	32	300	50	-	14
AHU-1535×350-C32	3	C	35	32	350	50	-	14
AHU-1540×200-C32	3/4	C	40	32	200	50	-	14
AHU-1540×250-C32	3/4	C	40	32	250	50	-	14
AHU-1540×300-C32	3/4	C	40	32	300	50	-	14
AHU-1540×350-C32	3/4	C	40	32	350	50	-	14

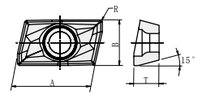


Feature

- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Suit for heavy cutting, rotary and feed volume is 3 times the normal cutter.
- Blade sharp, strong.
-Tilt can be processed.
-Machinable generally difficult to cut steel and steel products, most suitable for machining turbine blades.

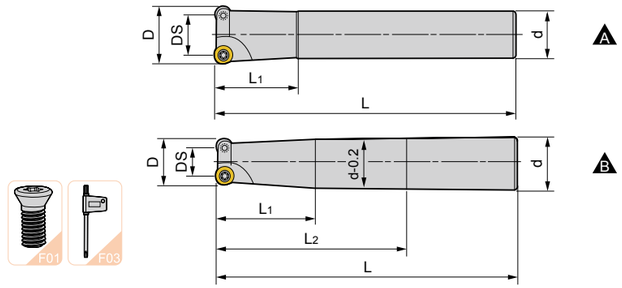
Accessories

Code No.	Insert	Screw	Wrench
AHU10	JDMT 1003□□R	M2.5×6	T8
AHU15	JDMT 1505□□R	M6×9	T15

Code No.	SH8020	RTH30E	TB6045	RTH40H	PTH13S	Insert shape	Size(mm)				
							A	B	T	R	
JDMT100208R-FW	●	●					11	6.1	3.5	0.4	HITACHI
JDMT100304R	●	●	●		●		11	6.1	3.5	0.4	
JDMT100308R	●	●	●	●	●		11	6.1	3.5	0.8	
JDMT100320R	●	●					11	6.1	3.5	2.0	
JDMT150504R	●	●	●		●		16	9.12	5	0.4	
JDMT150508R	●	●	●	●	●		16	9.12	5	0.8	
JDMT150520R	●	●					16	9.12	5	2.0	
JDMT150530R	●	●		●			16	9.12	5	3.0	

Cutting Material		HB	Cutting Speed	Feed per Tooth FZ(mm/teeth) Feed
Mild steel		under 180HD	120-200	0.05-0.2
Carbon steel		180-280HD	100-200	0.05-0.25
Alloy steel		280-350HD	80-160	
Hardened steel		beyond 40HRC	50-100	0.05-0.15
Stainless steel		under 200HB	80-160	0.05-0.25
Common cast steel FC250		Tensile Strength under350N/mm^2	100-160	0.1-0.25
Under FCD450	Cast steel	Tensile Strength under450N/mm^2	80-140	
Under FCD450	Cast iron	Tensile Strength500-800N/mm^2	60-120	0.05-0.25

JRC Corner Rounding End Mills



Feature

-Use Sandvik Coromill high precession insert, more efficiency on finish machining.
-After Heat treatment, rigidity on HRC50°. That can avoid tooling body distortion after heat treatment.
It ensure the exact tolerance and the higher rigidity.

Code No.	Teeth	Figure	Size(mm)						Insert	Screw	Wrench
			D	DS	d	L1	L2	L			
JCR-C20-5R25-150	2	A	25	15	20	40	-	150	RC*T10T3	M3.5X7	T15
JCR-C20-5R25-200								200			
JCR-C25-5R25-150					25	60		150			
JCR-C25-5R25-200		B				70	100	200			
JCR-C25-5R25-250						60	115	250			
JCR-C25-5R25-200						70	100	200			
JCR-C25-5R25-250						80	115	250			
JCR-C25-6R32-150	2	A	32	20	25	50	-	150	RC*T1204	M3.5X7	T15
JCR-C25-6R32-200								200			
JCR-C25-6R62-250								250			
JCR-C32-6R40-150	3		40	28	32	60		150			
JCR-C32-6R40-200								200			
JCR-C32-6R40-250								250			
JCR-C32-6R40-300								300			
JCR-C32-6R50-200	4		50	38				200			
JCR-C32-6R50-250								250			

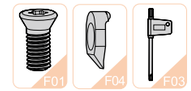
SUITABLE:SANDVIK INSERT

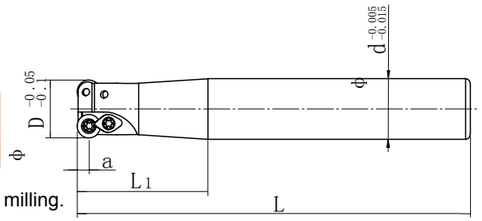
Special Specification

Code No.	Teeth	Figure	Size(mm)						Insert	Screw	Wrench
			D	DS	d	L1	L2	L			
JCR-C24-5R25-150	2	A	25	15	24	60	-	150	RC*T10T3	M3.5X7	T15
JCR-C24-5R25-200						70		200			
JCR-C24-5R25-250						80		250			
JCR-C25-5R26-150			26	16	25	60		150			
JCR-C25-5R26-200						70		200			
JCR-C25-5R26-250						80		250			

SUITABLE:SANDVIK INSERT

EMR Corner Rounding End Mills





Feature

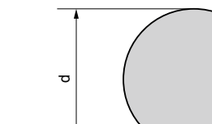
- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Fit a variety of economic-type blade, cost-effective.

Code No.	Teeth	Size(mm)					
		D	d	L	L1	L2	a
EMR-4R×12×120	1	12	12	120	40	-	4
EMR-4R×13×120-C12	1	13	12	120	40	-	4
EMR-4R×16×120	2	16	16	120	40	-	4
EMR-4R×16×160	2	16	16	160	40	-	4
EMR-4R×16×160-C15	2	16	15	160	40	-	4
EMR-4R×16×200	2	16	16	200	40	100	4
EMR-4R×16×200-C15	2	16	15	200	50	-	4
EMR-4R×17×160-C16	2	17	16	160	40	-	4
EMR-4R×17×200-C16	2	17	16	200	50	-	4
EMR-4R×20×160	2	20	20	160	50	-	4
EMR-4R×20×160-C19	2	20	19	160	50	-	4
EMR-4R×20×200	2	20	20	200	50	100	4
EMR-4R×20×200-C19	2	20	19	200	50	-	4
EMR-4R×21×160-C20	2	21	20	160	50	-	4
EMR-4R×21×200-C20	2	21	20	200	50	-	4
EMR-5R×20×160	2	20	20	160	50	-	5
EMR-5R×20×200	2	20	20	200	50	100	5
EMR-5R×21×160-C20	2	21	20	160	50	-	5
EMR-5R×21×200-C20	2	21	20	200	50	-	5
EMR-5R×25×160-C25	2	25	25	160	50	-	5
EMR-5R×25×160-C20	2	25	20	160	50	-	5
EMR-5R×25×160-C24	2	25	24	160	50	-	5
EMR-5R×25×200-C25	2	25	25	200	75	-	5
EMR-5R×25×250-C25	2	25	25	250	60	115	5
EMR-5R×25×200-C20	2	25	20	200	50	-	5
EMR-5R×25×200-C24	2	25	24	200	50	-	5
EMR-5R×25×250-C25	2	25	24	250	50	-	5
EMR-5R×30×110-C20	2	30	20	110	40	-	5
EMR-5R×30×110-C3/4	2	30	19.05	110	40	-	5
EMR-5R×30×160-C25	2	30	25	160	50	-	5
EMR-5R×30×200-C25	2	30	25	200	50	-	5
EMR-5R×30×250-C25	2	30	25	250	60	-	5
EMR-5R×30×300-C25	2	30	25	300	60	-	5
EMR-5R×30×300-C32	2	30	32	300	60	-	5
EMR-5R×35×160-C32	2/3	35	32	160	50	-	5
EMR-5R×35×200-C32	2/3	35	32	200	50	-	5
EMR-5R×35×250-C32	2/3	35	32	250	60	-	5
EMR-5R×35×200-C32	3	35	32	300	60	-	5
EMR-5R×35×350-C32	3	35	32	350	60	-	5
EMR-5R×35×400-C32	3	35	32	400	60	-	5
EMR-5R×40×160-C32	3/4	40	32	160	50	-	5
EMR-5R×40×200-C32	4	40	32	200	50	-	5
EMR-5R×40×250-C32	4	40	32	250	60	-	5
EMR-5R×40×300-C32	4	40	32	300	60	-	5
EMR-5R×40×350-C32	4	40	32	350	60	-	5

Accessories

Code No.	Insert	Clamp	Screw	Wrench
EMR-4R×12	RPMW0802MO	Y-4R	M3×7	T10
EMR-4R×17	RPMW0802MO	Y-4R	M3.5×10	T15
EMR-5R×30	RPMT10T3MOE	Y-5R	M3.5×10	T15

Suitable Inserts

Code No.	UP20M	NX2525	UTI20T	F7030	VP15TF	SH8020	JC3535	NIT	NAT	UMS	DX25	KT9	Insert shape	Size(mm) L1	Size(mm) L2	Chip Groove	
RPMW1003MO	●	●	●											10	3.18	No	MITSUBISHI
RPMT10T3MOE				●	●									10	3.97	Yes	
RPMW1003MOEN						●								10	3.18	No	HITACHI
RPMW0802MO							●	●	●	●	●	●		8	2.38	No	DIJET
RPMW1003MO							●	●	●	●	●	●		10	3.18	No	

Suggest Cutting Data

Cutting Material	HB	Cuated F7030	Cuated VP15TF	Carbide UTI20T
Mild steel	<180HB	200-300	200-300	100-200
Carbon steel	HB180-280	130-200	130-200	100-160
Alloy steel	HB280-350	110-180	110-180	70-120
Stainless steel	HBC35-45	80-140	80-140	60-100
High Alloy steel	300HB	90-160	90-160	70-120
Hardened steel	45-60HRC	-	50-100	40-70
SUS420	<260HB	130-220		
Common casr iron	Strength 350N/mm^2	-	130-220	100-170
Cast iron	Strength 360-500N/mm^2		100-180	80-140
	Strength 500-800N/mm^2		80-140	70-110

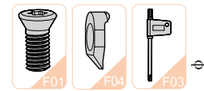
Feed Rate per Tooth(mm/Tooth)

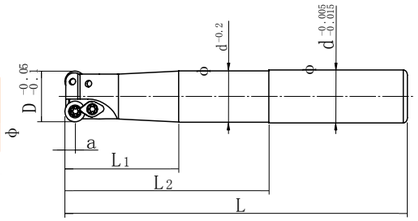
Insert's Dia	Depth of Cut(mm) 1	2	3	4	5	6	7	8
08	0.40	0.30	0.20	0.10	-	-	-	-
10		0.35	0.30	0.20	0.10			
12	0.50	0.40		0.25	0.23	0.20		
16	0.6	0.5	0.45	0.40	0.33	0.30	0.25	0.20

$$\text{Rotating Speed} = \frac{1000 \times \text{Speed of Cut}}{3.15 \times \text{Insert Dia}}$$

Feed Rate=FZXTooth NumberXS

EMRW Corner Rounding End Mill





Feature

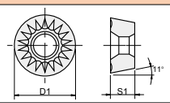
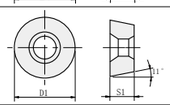
- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Blase economy, the high applicability.
- Capacity chip a large space, good chip removal.

Code No.	Teeth	Size(mm) D	d	L	L1	L2	a
EMRW-6R×32×160-C25	2	32	25	160	50	-	6
EMRW-6R×32×160	2	32	32	160	50	-	6
EMRW-6R×32×200-C25	2	32	25	200	50	-	6
EMRW-6R×32×200	2	32	32	200	80	-	6
EMRW-6R×32×250-C25	2	32	25	250	60	-	6
EMRW-6R×32×250	2	32	32	250	100	-	6
EMRW-6R×35×160-C32	3	35	32	160	50	-	6
EMRW-6R×35×200-C32	3	35	32	200	50	-	6
EMRW-6R×35×250-C32	3	35	32	250	60	-	6
EMRW-6R×35×300-C32	3	35	32	300	60	-	6
EMRW-6R×35×350-C32	3	35	32	350	60	-	6
EMRW-6R×35×400-C32	3	40	32	400	60	-	6
EMRW-6R×40×160-C32	3	40	32	160	50	-	6
EMRW-6R×40×200-C32	3	40	32	200	50	-	6
EMRW-6R×40×250-C32	3	40	32	250	60	-	6
EMRW-6R×40×300-C32	3	40	32	300	60	-	6
EMRW-6R×40×350-C32	3	40	32	350	60	-	6
EMRW-6R×50×200-C32	4	50	32	200	60	-	6
EMRW-6R×50×250-C32	4	50	32	250	60	-	6

Accessories

Code No.	Insert	Clamp	Screw	Wrench
EMRW-6R×32×250	RPMW\T1204MO	Y-6R	M4×10	T15

Suitable Inserts

Code No.	F7030	F620	VP15TF	NX4545	UTI120T	TN100M	PR510	PR660	PR730	KW10	Insert shape	Size(mm) L1	Size(mm) L2	Chip Groove	
RPMT08T2MOE-JS	●	●	●									8	2.78	Yes	MITSUBISHI
RPMT1204MOE-JS	●		●									12	4.76	Yes	
RPMT1204MO							●	●	●	●		12	4.76	Yes	KYOCERA
RPMT1204MO-H						●	●	●	●	●		12	4.76	Yes	
RPMW08T2MOE	●			●								8	2.78	No	MITSUBISHI
RPMW08T2MOT			●									8	2.78	No	
RPMW1204MOE	●	●		●	●							12	4.76	No	
RPMW1204MOT			●									12	4.76	No	

Suggest Cutting Data

Cutting Speed

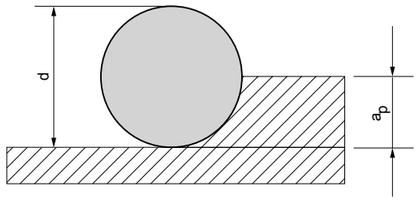
Cutting Material	HB	Cuated		Carbide
		F7030	VP15TF	UTI20T
Mild steel	<180HB	200-300	200-300	100-200
Carbon steel	HB180-280	130-200	130-200	100-160
Alloy steel	HB280-350	110-180	110-180	70-120
Stainless steel	HBC35-45	80-140	80-140	60-100
High Alloy steel	300HB	90-160	90-160	70-120
Hardened steel	45-60HRC	-	50-100	40-70
SUS420	<260HB	130-220		
Common casr iron	Strength 350N/mm^2		130-220	100-170
Cast iron	Strength 360-500N/mm^2	-	100-180	80-140
	Strength 500-800N/mm^2		80-140	70-110

Feed Rate per Tooth(mm/Tooth)

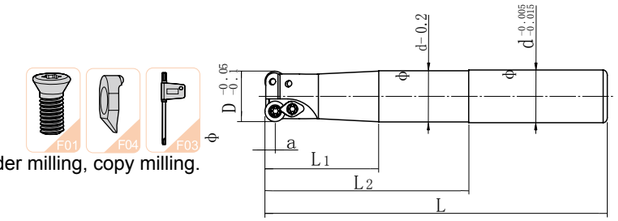
Insert's Dia	Depth of Cut(mm)							
	1	2	3	4	5	6	7	8
08	0.40	0.30	0.20	0.10	-	-	-	-
10		0.35	0.30	0.20	0.10			
12	0.50	0.40		0.25	0.23	0.20		
16	0.6	0.5	0.45	0.40	0.33	0.30	0.25	0.20

$$\text{Rotating Speed}=\frac{1000\times\text{Speed of Cut}}{3.15\times\text{Insert Dia}}$$

Feed Rate=FZXTooth NumberXS



TRS Corner Rounding End Mills



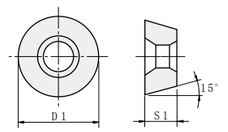
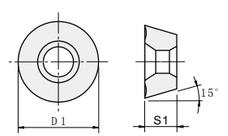
Feature

- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Blase economy, the high applicability.
- Capacity chip a large space, good chip removal.

Code No.	Teeth	Size(mm)					
		D	d	L	L1	L2	a
TRS-2.5R×8×80	1	8	8	80	30	-	2.5
TRS-2.5R×10×120	2	10	10	120	40	-	2.5
TRS-2.5R×12×120	2	12	12	120	40	-	2.5
TRS-3.5R×10×120	1	10	10	120	40	-	3.5
TRS-3.5R×12×120	1	12	12	120	40	-	3.5
TRS-3.5R×16×120	2	16	16	120	40	-	3.5
TRS-3.5R×16×160	2	16	16	160	40	-	3.5
TRS-4R×12×120	1	12	12	120	40	-	4
TRS-4R×13×120-C12	1	13	12	120	40	-	4
TRS-4R×16×160	2	16	16	160	40	-	4
TRS-4R×16×160-C15	2	16	15	160	40	-	4
TRS-4R×16×200	2	16	16	200	40	100	4
TRS-4R×16×200-C15	2	16	15	200	50	-	4
TRS-4R×17×160-C16	2	17	16	160	40	-	4
TRS-4R×17×200-C16	2	17	16	200	50	-	4
TRS-4R×20×160	2	20	20	160	50	-	4
TRS-4R×20×160-C19	2	20	19	160	50	-	4
TRS-4R×20×200	2	20	20	200	50	100	4
TRS-4R×20×200-C19	2	20	19	200	50	-	4
TRS-4R×21×160-C20	2	21	20	160	50	-	4
TRS-4R×21×200-C20	2	21	20	200	50	-	4
TRS-5R×20×160	2	20	20	160	50	-	5
TRS-5R×20×200	2	20	20	200	50	100	5
TRS-5R×25×160	2	25	25	160	50	-	5
TRS-5R×25×160-C20	2	25	20	160	50	-	5
TRS-5R×25×160-C24	2	25	24	160	50	-	5
TRS-5R×25×200	2	25	25	200	75	-	5
TRS-5R×25×250	2	25	25	250	60	115	5
TRS-5R×30×160-C25	2	30	25	160	50	-	5
TRS-5R×30×200-C25	2	30	25	200	50	-	5
TRS-5R×30×250-C25	2	30	25	250	60	-	5
TRS-5R×35×160-C32	3	35	32	160	50	-	5
TRS-5R×35×200-C32	3	35	32	200	50	-	5
TRS-5R×35×250-C32	3	35	32	250	60	-	5
TRS-5R×35×300-C32	3	35	32	300	60	-	5
TRS-6R×32×160-C25	2	32	25	160	50	-	6
TRS-6R×32×200-C25	2	32	25	200	50	-	6
TRS-6R×32×250-C25	2	32	25	250	60	-	6

Accessories

Code No.	Insert	Clamp	Screw	Wrench
TRS-2.5R×8	RDMW0501MO	-	M1.8×4	T6
TRS-3.5R×10	RDMW0702MO	-	M2.5×6	T8
TRS-4R×12	RDMT0802MO	-	M3×7	T8
TRS-4R×16	RDMT0802MO	Y-4R	M3×7	T8
TRS-5R×25	RDMT10T3MO	Y-5R	M3.5×10 M4×9	T15
TRS-6R×32	RDMT1204MO	Y-6R	M4×10	T15

Code No.	CY100H	CY15	CY25	CY150	CY250	GF30	TB6005	TB6020	TB6045	TB6060	PTH08M	WH10	Insert shape	Size(mm) D1	Size(mm) S1	Size(mm) Chip Groove	
RDMW0501MOEN					●						●			5	1.59	No	HITACHI
RDMW0702MOEN					●						●			7	2.38	No	
RDHW0802MOTN				●	●	●			●	●				8	2.38	No	
RDHW10T3MOTN				●	●	●			●					10	3.97	No	
RDHW1204MOTN				●	●	●			●					12	4.76	No	
RDHW1604MOTN				●	●	●			●					16	4.76	No	
RDMT0802MOTN			●	●	●	●	●	●	●	●				8	2.38	Yes	
RDMT0802MOEN	●											●		8	2.38	Yes	
RDMT10T3MOTN			●	●	●	●	●	●	●	●				10	3.97	Yes	
RDMT10T3MOEN	●											●		10	3.97	Yes	
RDMT1204MOTN				●	●	●	●	●	●	●				12	4.76	Yes	
RDMT1204MOEN												●		12	4.76	Yes	

Suggest Cutting Data

Cutting Speed

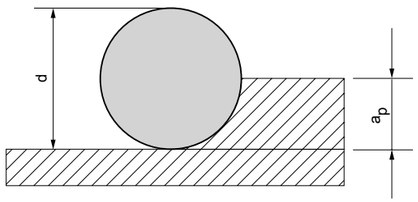
Cutting Material	HB	Insert material CY150	CY250	CY25	CF30	CY100H	WH10
Steel	<200HB	-	150-250	-	-	-	-
Carbon steel Alloy steel	<30HRC		120-230				
	30-40HRC		100-200				
	35-40HRC		60-150				
	45-55HRC	60-100	-				
Stainless steel	extend intension 350N/mm^2	-	150-240		150-240		
Common casr iron	FC FCD		-			100-220	100-220

Feed Rate per Tooth(mm/Tooth)

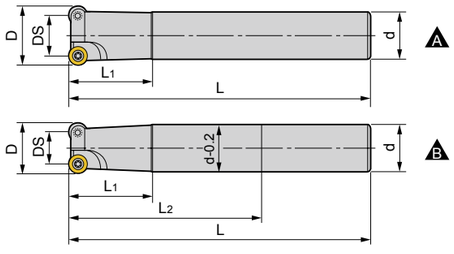
Insert's Dia	Depth of Cut(mm) 1	2	3	4	5	6	7	8
08	0.40	0.30	0.20	0.10	-	-	-	-
10		0.35	0.30	0.20	0.10			
12	0.50	0.40		0.25	0.23	0.20		
16	0.6	0.5	0.45	0.40	0.33	0.30	0.25	0.20

$$\text{Rotating Speed} = \frac{1000 \times \text{Speed of Cut}}{3.15 \times \text{Insert Dia}}$$

Feed Rate=FZXTooth NumberXS



JRD Corner Rounding End Mills



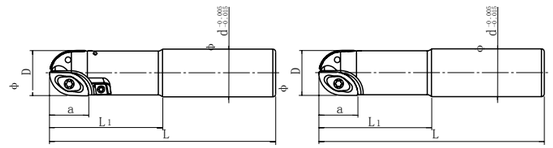
Code No.	Teeth	Figuer	Size(mm) D	DS	d	L1	L2	L	Insert	Screw	Wrench
JRD-C12-4R12-130	1	A	12	4	12	30	-	130	RD**0803	M2.5X6	T8
JRD-C16-4R16-150	2		16	8	16	40		150			
JRD-C20-4R20-150			20	12	20	60					
JRD-C20-4R20-200		B				70	100	200			
JRD-C20-5R25-150	2	A	25	15	20	40	-	150	RD**10T3	M3X7	T8
JRD-C20-5R25-200								200			
JRD-C25-5R25-150					25	60	100	150			
JRD-C25-5R25-200		B				70	115	200			
JRD-C25-5R25-250						80		250			
JRD-C25-5R30-150	3	A	30	20	25	35	-	150			
JRD-C25-5R30-200								200			
JRD-C32-5R35-150			35	25	32			150			
JRD-C32-5R35-200								200			
JRD-C32-5R35-250								250			
JRD-C32-5R35-300								300			
JRD-C25-6R32-200	2		32	20	25			200			
JRD-C25-6R32-250								250			
JRD-C32-6R40-150	3	A	40	28	32	35	-	150	RD**1204	M4X8	T15
JRD-C32-6R40-200								200			
JRD-C32-6R40-250								250			
JRD-C32-6R40-300								300			
JRD-C32-6R50-200	4		50	38				200			
JRD-C32-6R50-250								250			

SUITABLE:SECO INSERT

Code No.	Teeth	Figuer	Size(mm) D	DS	d	L1	L	Insert	Screw	Wrench
JRDC15-4R16-150	2	A	16	8	15	40	150	RD**0803	M2.5X6	T8
JRDC15-4R16-200						60	200			
JRDC19-4R20-150			20	12	19		150			
JRDC19-4R20-200						70	200			
JRDC24-5R25-150			25	15	24	60	150	RD**10T3	M3X7	
JRDC24-5R25-200						70	200			
JRDC24-5R25-250						80	250			

SUITABLE:SECO INSERT

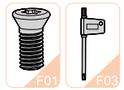
BCF/BCFL Copy Rough Mill



BC FL - Õ
BC FL type

BC F - Õ
BC F type

Feature

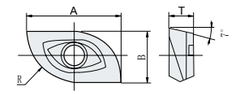
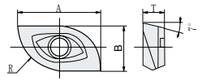
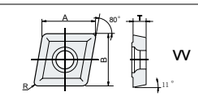


- For plane finishing, copy milling.
- Use of available high precision machining precision blade surface.
- Blade surface of convex design, and reduces not only the sharp cutting edge Vibration noise.

Code No.	Teeth	Size(mm)				
		D	d	L	L1	a
10R×150-C20	2	20	20	150	70	30
10R×150-C25	2	20	25	150	70	30
10R×180-C25	2	20	25	180	80	30
10R×220-C25	2	20	25	220	100	30
10R×300-C25	2	20	25	300	150	30
12.5R×150-C25	2	25	25	150	70	39
12.5R×150-C32	2	25	32	150	70	39
12.5R×220-C25	2	25	25	220	100	39
12.5R×220-C32	2	25	32	220	100	39
12.5R×250-C32	2	25	32	250	150	39
12.5R×300-C32	2	25	32	300	150	39
15R×160-C32	2	30	32	160	70	43
15R×200-C32	2	30	32	200	100	43
15R×250-C32	2	30	32	250	150	43
15R×300-C32	2	30	32	300	150	43
15R×350-C32	2	30	32	350	200	43
16R×160-C32	2	32	32	160	70	43
16R×200-C32	2	32	32	200	100	43
16R×250-C32	2	32	32	250	150	43
16R×300-C32	2	32	32	300	150	43
16R×350-C32	2	32	32	350	200	43
20R×200-C42	2	40	42	200	100	50
20R×250-C42	2	40	42	250	150	50
20R×300-C42	2	40	42	300	150	50
20R×350-C42	2	40	42	350	200	50
25R×200-C42	2	50	42	200	100	50
25R×250-C42	2	50	42	250	150	50
25R×300-C42	2	50	42	300	150	50
25R×350-C42	2	50	42	350	200	50

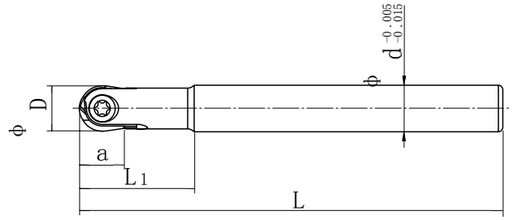
Accessories

Code No.	Insert			Screw	Wrench
	Pro-edge (1Teeth)	Sub-edge (1Teeth)	Peripheral edge (2Teeth)		
10R×150-C20	ZCEW\T100CE	ZCEW\T100CE	CPMT080204	M3×9.5 M2.5×6	T10 T8
12.5R×150-C25	ZCEW\T125CE	ZCEW\T125CE	CPMT090308	M4×9	T15
15R×160-C32	ZCEW\T150CE	ZCEW\T150CE	CPMT090308	M5×12 M4×9	T20 T15
16R×160-C32	ZCET160CE	ZCET160CE	CPMT090308	M5×12 M4×9	T20 T15
20R×200-C42	ZCEW200CE	ZCEW200CE	CPMT090308	M6×18 M4×9	T30 T15
25R×200-C42	ZCEW250CE	ZCEW250CE	CPMT090308	M6×18 M4×9	T30 T15

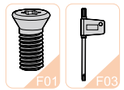
Code No.	CY250	CY9020	HC844	EX40	WH10	WH20	Insert shape	Size(mm)				
								R	A	B	T	Chip Groove
ZCET100CE		●						10	18.3	10.0	4.74	Yes
ZCET125CE		●						12.5	23.1	12.3	6.1	Yes
ZCET150CE		●						15	28.3	14.9	7.59	Yes
ZCET160CE		●						16	28.8	15.4	7.45	Yes
ZCEW100CE	●		●	●		●		10	18.3	10.0	4.74	No
ZCEW125CE	●		●	●		●		12.5	23.1	12.3	6.1	No
ZCEW150CE	●		●	●		●		15	28.3	14.9	7.59	No
ZCEW160CE	●		●	●		●		16	35.4	20.1	8.0	No
ZCET100SE		●						10	16.7	8.1	4.24	Yes
ZCET125SE		●						12.5	20.8	9.3	5.40	Yes
ZCET150SE		●						15	25.7	11.8	7.09	Yes
ZCET160SE		●						16	26.3	12.4	6.96	Yes
ZCEW100SE	●		●	●		●		10	16.7	8.1	4.24	No
ZCEW125SE	●		●	●		●		12.5	20.8	9.3	5.40	No
ZCEW150SE	●		●	●		●		15	25.7	11.8	7.09	No
ZCEW160SE	●		●	●		●		16	31.9	15.7	7.0	No
CPMT080206	●		●	●		●	 VV	0.4	7.94		2.38	Yes
CPMT090308	●		●	●	●	●		0.8	9.525		3.18	Yes

HITACHI

T2139 Copy Fine End Mill



Feature

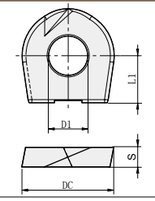


- For plane finishing, should milling, copy milling .
- High-performance alloy structural steel.
- Blade cutting edge sharp, can process different materials.
- Precision to ensure this high-performance, high-speed cutting also keeps stable.

Code No.	Size(mm)				
	D	d	L	L1	a
T2139-4R×110-C8	8	8	110	25	5
T2139-4R×110-C10	8	10	110	25	5
T2139-4R×140-C12	8	12	140	55	5
T2139-5R×130-C10	10	10	130	30	7
T2139-5R×160-C12	10	12	160	30	7
T2139-6R×130-C12	12	12	130	32	8
T2139-6R×160-C16	12	16	160	58.5	8
T2139-8R×160-C16	16	16	160	65	10
T2139-8R×200-C20	16	20	200	65	10
T2139-10R×160-C20	20	20	160	45	12.5
T2139-10R×200-C20	20	20	200	76	12.5
T2139-10R×250-C25	20	25	250	120	12.5
T2139-12.5R×160-C25	25	25	160	45	15
T2139-12.5R×200-C25	25	25	200	76	15
T2139-12.5R×200-C32	25	32	200	98	15
T2139-12.5R×250-C32	25	32	250	120	15
T2139-15R×200-C32	30	32	200	80	18
T2139-15R×250-C40	30	40	250	121	18
T2139-16R×200-C32	32	32	200	80	19
T2139-16R×250-C40	32	40	250	121	19

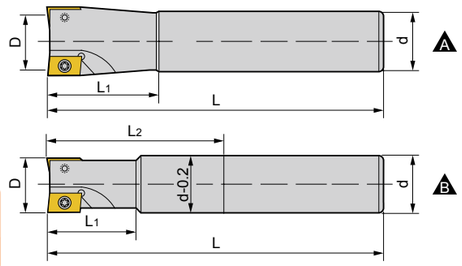
Accessories

Code No.	Insert	Screw	Wrench
T2139-4R×110	P320□L-D08	T2139-4R	T8
T2139-5R×130	P320□L-D10	T2139-5R	T15
T2139-6R×130	P320□L-D12	T2139-6R	T20
T2139-8R×160	P320□L-D16	T2139-8R	T20
T2139-10R×160	P320□L-D20	T2139-10R	T20
T2139-12.5R×200	P320□L-D25	T2139-12.5R	T30
T2139-15R×200	P320□L-D30	T2139-15R/16R	T30
T2139-16R×200	P320□L-D32	T2139-15R/16R	T30

Code No.	WTA61	WAP25	WAP35	WXM35	WAK15	NX2525	WXH15	WCB50	WCB80	Insert shape	Size(mm) DC	D1	L1	S	
P320-D08	●	●	●	●	●	●	●	●	●		8	3	4	2.0	WALTER
P320-D10	●	●	●	●	●	●	●	●	●		10	4	5	2.5	
P320-D12	●	●	●	●	●	●	●	●	●		12	5	6	2.5	
P320-D16	●	●	●	●	●	●	●	●	●		16	5	6	3.0	
P320-D20	●	●	●	●	●	●	●	●	●		20	5	6	3.0	
P320-D25	●	●	●	●	●	●	●				25	6	9	4.0	
P320-D30	●	●	●	●	●		●				30	8	10	5.0	
P320-D32	●	●	●	●	●		●				32	8	10	5.0	

Workpiece Material	Insert Material	Speed of Cut Cutting speed	Feed RateFeed FZ(mm/tool)	ap(mm)
Mild steel<200HB	WAK15 WAP25 WAP35 WXM254 WXK15	60-180	0.10-0.25	0.5-1.0
Alloy steel<30HRC				
Alloy steel30-40HRC		50-120	0.10-0.20	
Stainless steel SUS			0.10-0.25	
Cast iron SUS	WTA21 WTA51 WEC20 WPM	80-180	0.10-0.40	
Aluminum&alloys Copper		200-400		

UEX High Speed End Mills



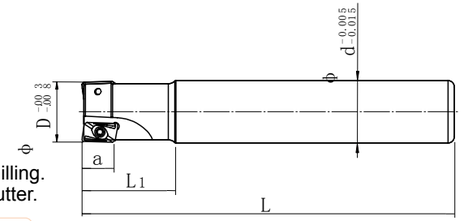
Feature

-Suited for precision cutting .
-Can instead of carbide tools to gain precision machining requirement.

Code No.	Teeth	Figuer	Size(mm)					Insert	Screw	Wrench
			D	d	L1	L2	L			
UEX-C16-14-130	1	A	14	16	30	-	130	APET120204	M3.5X6	T15
UEX-C20-18-130	2		18	20						
UEX-C10-20-130			20							
UEX-C10-20-150					35		150			
UEX-C10-20-200		B			40	100	200			
UEX-C10-20-220						110	220			
UEX-C10-20-250					50	115	250			
UEX-C25-25-150	2	A	25	25	35	-	150	ADET160308	M4X8	T15
UEX-C25-25-200		B			40	100	200			
UEX-C25-25-230					45	110	230			
UEX-C25-25-250					50	115	250			
UEX-C25-25-300					55	165	300			
UEX-C32-30-150		A	30	32	40	-	150			
UEX-C32-32-150			32							
UEX-C32-32-200		B			45	100	200			
UEX-C32-32-250					50	115	250			
UEX-C32-32-300					60	165	300			
UEX-C32-32-400					70		400			
UEX-C42-32-400		A		42	90	-				
UEX-C32-35-150	3		35	32	40		150			
UEX-C32-35-200					50		200			
UEX-C32-35-250							250			
UEX-C32-35-300							300			
UEX-C32-35-350							350			
UEX-C32-35-400							400			
UEX-C42-35-250				42	150		250			
UEX-C42-40-150			40		45		150			

SUITABLE:HITACHI INSERT

BAP 300R/400R High Speed End Mills



Feature

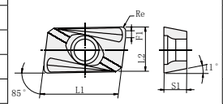
- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Suitable for heavy cutting, rotary and feed volume is 3 times the normal cutter.
- Adapter blade economy, cost-effective.

Code No.	Teeth	Size(mm)					
		D	d	L	L1	L2	a
BAP300R-10-120	1	10	10	120	30	-	9
BAP300R-12-130	1	12	12	120	30	-	9
BAP300R-13-130-C12	1	13	12	120	30	-	9
BAP300R-16-120	2	16	16	120	40	-	9
BAP300R-16-160	2	16	16	160	40	-	9
BAP300R-16-200	2	16	16	200	40	100	9
BAP300R-16160-C15	2	16	15	160	40	-	9
BAP300R-17-160-C16	2	17	16	160	40	-	9
BAP300R-17-200-C16	2	17	16	200	40	-	9
BAP300R-20-120	2/3	20	20	120	40	-	9
BAP300R-20-160	2/3	20	20	160	50	-	9
BAP300R-20-160-C19	2/3	20	19	160	50	-	9
BAP300R-20-200	2/3	20	20	200	50	100	9
BAP300R-20-200-C19	2/3	20	19	200	50	-	9
BAP300R-21-160-C20	2/3	21	20	160	50	-	9
BAP300R-21-200-C20	2/3	21	20	200	50	-	9
BAP400R-25-160	2	25	25	160	50	-	14
BAP400R-25-160-C24	2	25	24	160	40	-	14
BAP400R-25-200	2	25	25	200	75	-	14
BAP400R-25-200-C24	2	25	24	200	50	-	14
BAP400R-25-250	2	25	24	250	50	-	14
BAP400R-26-160-C25	2	26	25	160	40	-	14
BAP400R-26-200-C25	2	26	25	200	50	-	14
BAP400R-32-160-C25	2/3	32	25	160	50	-	14
BAP400R-32-200-C25	2/3	32	25	200	50	-	14
BAP400R-32-200	2/3	32	32	200	80	-	14
BAP400R-32-250	2/3	32	25	250	60	-	14
BAP400R-32-300	2/3	32	32	250	60	115	14
BAP400R-35-200-C32	3	35	32	200	60	-	14
BAP400R-35-250-C32	3	35	32	250	60	-	14
BAP400R-35-300-C32	3	35	32	300	60	-	14
BAP400R-35-350-C32	3	35	32	350	60	-	14
BAP400R-35-400-C32	3	35	32	400	60	-	14
BAP400R-40-200-C32	3	40	32	200	60	-	14
BAP400R-40-250-C32	3	40	32	250	60	-	14
BAP400R-40-300-C32	3	40	32	300	60	-	14
BAP400R-40-350-C32	3	40	32	350	60	-	14
BAP400R-40-400-C32	3	40	32	400	60	-	14

Accessories

Code No.	Insert	Screw	Wrench
BAP300R-12×130	APMT1135PDER	M2.5×5	T8
BAP300R-20×120	APMT1135PDER	M2.5×6.5	T8
BAP400R-25×200	APMT1604PDER	M4×9	T15

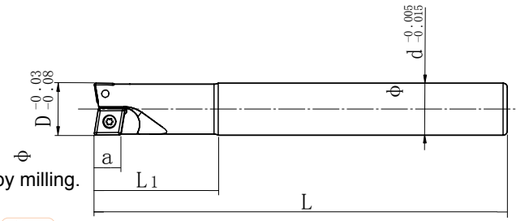
Code No.	F7030	F620	VP15TF	UP20M	NX2525	NX4545	UT120T	HTI10	NCM325	PC3535	PC3545	PC3530	PC6510	PD2000	H01	Insert shape	Size(mm) L1	L2	S1	F1	Re	
APMT1135PDER-H	●	●	●	●	●	●	●	●									11	6.35	3.5	1.5	0.4	
APMT1135PDER-H	●	●	●	●	●	●	●	●									11	6.35	3.5	1.2	0.8	
APMT1135PDER-H	●	●		●			●										11	6.35	3.5	0.8	1.2	
APMT1135PDER-H	●	●		●			●										11	6.35	3.5	0.4	1.6	
APMT1135PDER-H	●	●		●			●										11	6.35	3.5	0.4	1.4	
APMT1135PDER-M	●																11	6.35	3.5	1.8	0.2	
APMT1135PDER-M	●																11	6.35	3.5	1.5	0.4	
APMT1135PDER-M	●	●	●			●											11	6.35	3.5	1.2	0.8	
APGT1135PFHR-G								●									11	6.35	3.5	1.2	0.8	
APMT1604PDER-H	●		●				●										16.5	9.525	4.76	1.7	0.4	
APMT1604PDER-H	●	●	●	●	●	●	●	●									16.5	9.525	4.76	1.7	0.8	
APMT1604PDER-H	●						●										16.5	9.525	4.76	1.7	1.6	
APMT1604PDER-H	●						●										16.5	9.525	4.76	1.7	2.4	
APMT1604PDER-H	●						●										16.5	9.525	4.76	1.7	3.2	
APMT1604PDER-M	●	●	●			●											16.5	9.525	4.76	1.7	0.8	
APGT1604PFHR-G	●							●									16.5	9.525	4.76	1.7	0.8	
APKT1604PDSR									●	●	●	●	●				16.5	9.525	4.76	-	0.8	KORLOY (INSERT)
APKT1604PDFR-MA														●	●		16.5	9.525	4.76	-	0.8	



MITSUBISHI

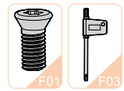
Cutting Material		HB	Speed of Cut Cutting Speed	Feed per Tooth FZ(mm/teeth) Feed
Mild steel		<180HB	120-200	0.05-0.2
Carbon steel		180-280HB	100-200	0.05-0.25
Alloy steel		280-350HB	80-160	
Hardened steel		>40HRC	50-100	0.05-0.15
Stainless stell		under<200HB	80-160	0.05-0.25-
Common cast steel FC250		Flexstrength<350N/mm^2	100-160	0.1-0.25
<FCD450	Cast steel	Flexstrength<450N/mm^2	80-140	
<FCD500	Cast iron	Flexstrength500-800N/mm^2	60-120	0.05-0.25

TJU Drill End Mills



Feature

- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Drilling and milling shared wide scope of application.
- Cutting resistance, the load light

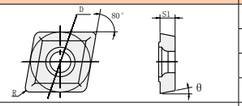


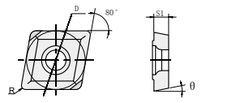
Code No.	Teeth	Size(mm) D	d	L	L1	L2	a
TJU-10×120	1	10	10	120	30	-	6
TJU-12×120	1	12	12	120	30	-	6
TJU-16×120	2	16	16	120	30	-	6
TJU-16×160	2	16	16	160	40	-	6
TJU-16×200	2	16	16	200	40	100	6
TJU-20×120	2	20	20	120	30	-	6
TJU-20×160	2	20	20	160	40	-	6
TJU-20×200	2	20	20	200	50	100	6
TJU-25×160	2	25	25	160	50	-	9
TJU-25×200	2	25	25	200	75	-	9
TJU-25×250	2	25	25	250	60	115	9
TJU-32×160	2	32	32	160	60	-	12
TJU-32×200	2	32	32	200	80	-	12
TJU-32×250	2	32	32	250	115	-	12
TJU-32×300	2	32	32	300	60	165	12

Accessories

Code No.	Insert	Screw	Wrench
TJU-10×120	CCMT060204 CPMT080204Z	M2.5×6	T8
TJU-20×120	CCMT060204 CPMT090204Z	M2.5×6/M3.5×8	T8/T15
TJU-25×160	CPMT090308 CPMT120308Z	M4×9	T15
TJU-32×160	CPMT120408 CPMT160408Z	M5×12	T20

Code No.	CY250	HC844	GX30	EX40	WH10	WH20	Insert shape	Size(mm) D	S1	θ	R	
CCMT060204	●	●		●	●			6.35	2.38	7	0.4	
CPMT090308	●	●		●	●	●		9.525	3.18	11	0.8	
CPMT120408	●	●	●	●	●			12.7	4.76	11	0.8	
CPMT120430	●							12.7	4.76	11	3.0	
CPMT080204Z	●	●		●	●			7.94	2.38	11	0.4	HITACHI
CPMT090204Z	●	●		●	●			9.525	2.38	11	0.4	
CPMT120308Z	●							12.7	3.18	11	0.8	
CPMT160408Z	●	●		●	●			15.875	4.76	11	0.8	
CPMT160430Z	●							15.875	4.76	11	3.0	

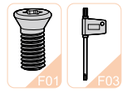


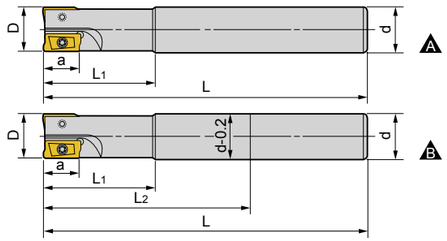


Suggest Cutting Data

Cutting Material	Insert Material	Cutting Speed	Processing Situation	Ø16		Ø20		Ø25		Ø32		Ø40		Ø50	
				Rotating Speed r/min	Feed mm/min	Rotating Speed r/min	Feed mm/min	Rotating Speed r/min	Feed mm/min	Rotating Speed r/min	Feed mm/min	Rotating Speed r/min	Feed mm/min	Rotating Speed r/min	Feed mm/min
Mild Steel under HB22	HC844 EX35	80-150	Shoulder cut	2980	420	2400	384	1910	382	1500	450	1200	430	960	290
			Cavity Mill		1200		1150		1150		1350		1290		870
			Drilling and Milling	1600	130	1600	130	1270	130		150		120		96
Carbon Steel Alloy Steel under30HRC		65-120	Shoulder cut	2980	420	2400	384	1910	382		450		430		290
			Cavity Mill		1200		1150		1150		1350		1290		870
			Drilling and Milling	1280	100	1280	100		100	1200	120	960	100	770	80
Carbon Steel Alloy Steel 30-40HRC		40-80	Shoulder cut	1600	224	1270	203	1025	204	800	240	640	220	510	150
			Cavity Mill		660		530		640		700		670		460
			Drilling and Milling	700	60	720	60	570	60	680	70	540	55	430	45
Stainless steel	HC844	60-110	Shoulder cut	2000	280	1600	265	1270	254		320		300		200
			Cavity Mill		800		770		770	1050	960	840	900	670	600
			Drilling and Milling	1120	90	1120	90	890	90		100		80		70
Cast iron	WH10	40-80	Shoulder cut	3000	600	2400	480	1910	380	14500	450	1200	360	960	290
			Cavity Mill		1250		1000		1200		1320		1270		870
			Drilling and Milling	700	60	720	60	570	60	680	70	540	55	430	45

R390 Corner Rounding End Mills





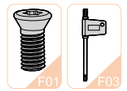
Feature

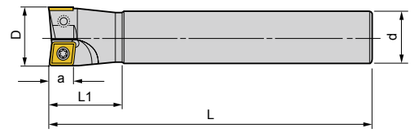
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Adapter grinding blade Sandvik
- High precision, suitable for finishing.

Code No.	Teeth	Figuer	Size(mm)						Insert	Screw	Wrench
			D	d	a	L1	L2	L			
R390-C15-16-150	2	A	16	15	10	25	-	150	R390–11T308	M2.5X6	T8
R390-C15-16-180								180			
R390-C15.6-16-150				15.6				150			
R390-C15.6-16-180								180			
R390-C16-16-150				16				150			
R390-C16-16-180		B					90	180			
R390-C19-20-150		A	20	19			-	150			
R390-C19-20-180								180			
R390-C20-20-150				20				150			
R390-C20-20-200		B					100	200			
R390-C25-25-160	2	A	25	25	17	60	-	160	R390–170408	M3.5X8	T15
R390-C25-25-200		B					100	200			
R390-C25-25-250								250			
R390-C24-25-160		A		24		50	-	160			
R390-C24-25-200								200			
R390-C24-25-250								250			

SUITABLE:SANDVIK INSERT

TCP Power End Mills

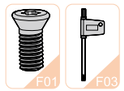


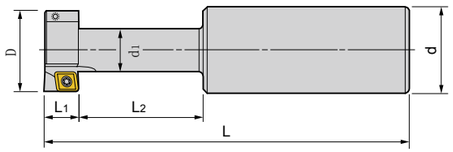


Code No.	Teeth	Size(mm)					Insert	Screw	Wrench
		D	d	a	L1	L			
TCP-C16-16-150	2	16	16	6	50	150	CCMT060204	M2.5	T8
TCP-C16-16-200					60	200			
TCP-C20-20-150	2	20	20	8	60	150	CPMT080204	M2.5	T8
TCP-C20-20-200					70	200			
TCP-C25-25-150	2	25	25	9	80	150	CPMT090308	M4	T15
TCP-C25-25-200					70	200			
TCP-C25-30-150	2	30	25	12	48	150	CPMT120408	M5	T20
TCP-C25-30-200						200			
TCP-C25-30-250						250			
TCP-C32-32-150		32	32			150			
TCP-C32-32-200						200			
TCP-C32-32-250						250			
TCP-C32-35-150		35				150			
TCP-C32-35-200						200			
TCP-C32-35-250						250			
TCP-C32-35-150	2					150			
TCP-C32-35200						200			
TCP-C32-35-250						250			

SUITABLE:HITACHI INSERT

ATS T-Slot End Mills





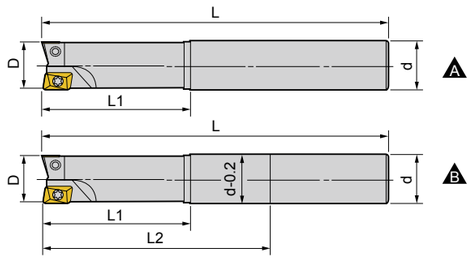
Feature

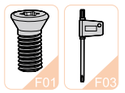
- For roughing, plane finishing, sloot plunge milling, shoulder milling.

Code No.	Teeth	Size(mm)						Insert	Screw	Wrench
		D	d	d1	L1	L2	L			
ATS-C25-25-11-110	2	25	25	12.5	11	21	110	CCMT060204	M2.5	T8
ATS-C32-32-14-120	4	32	32	16	14	30	120	CCMT080204	M2.5	T8
ATS-C32-40-18-130	4	40	32	20	18	32	130	CCMT09T308	M4	T15
ATS-C32-50-22-140	4	50	32	26	22	39	140	CCMT120408	M5	T20
SUITABLE:HITACHI INSERT										

Insert Material	Cast Iron
MP37	stainless stell alloy steel
NL92	

ASL Drilling End Mills Cutter





Feature

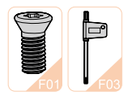
-Drilling on the plate vertically or cutting horizontally.
-The end of cutting edge angle is bigger. Processing drag light.

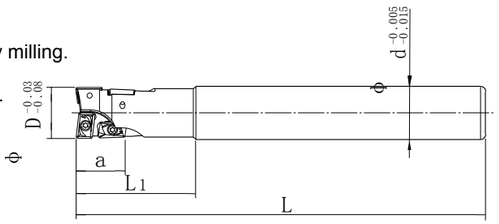
Code No.	Teeth	Figuer	Size(mm)					Insert	Screw	Wrench
			D	d	L1	L2	L			
ASL-C20-20-150	2	A	20	20	35	-	150	ACMT100308R	M2.5	T8
ASL-C20-20-200	2	B	20	20	35	100	200	ADMT100308L	M2.5	T8
ASL-C25-25-150	2	A	25	25	40	-	150	APMT12T308R ADMT12T308L	M3	T8
ASL-C25-25-200		B				100	200			
ASL-C25-25-250						115	250			
ASL-C32-32-150	2	A	32	32	50	-	150	APMT150408R	M4	T15
ASL-C32-32-200	2	B	32	32	50	100	200	APMT160408L	M4	T15
SUITABLE:HITACHI INSERT										

ASJ-4P Drilling Mills

Feature

- For roughing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
- Bottom-free state from drilling to milling process.
- At the end of blade edge angle of greater resistance to light processing.
- Four -edge blade, do the deep rough milling.



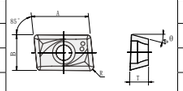
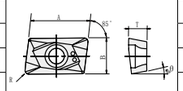


Code No.	Teeth	Size(mm)					
		D	d	L	L1	L2	a
ASJ-20×120	4	20	20	120	40	-	20
ASJ-20×160	4	20	20	160	50	-	20
ASJ-20×200	4	20	20	200	50	100	20
ASJ-21×120-C20	4	21	21	120	35	-	20
ASJ-21×160-C20	4	21	21	160	35	-	20
ASJ-21×200-C20	4	21	21	200	35	-	20
ASJ-25×160	4	25	25	160	50	-	25
ASJ-25×200	4	25	25	200	75	-	25
ASJ-25×250	4	25	25	250	80	115	25
ASJ-26×160-C25	4	26	26	160	40	-	25
ASJ-26×200-C25	4	26	26	200	40	-	25
ASJ-26×250-C25	4	26	26	250	50	-	25
ASJ-32×160	4	32	32	160	50	-	32
ASJ-32×200	4	32	32	200	80	-	32
ASJ-32×250	4	32	32	250	100	-	32
ASJ-32×300	4	32	32	300	120	-	32
ASJ-33×160-C32	4	33	33	160	50	-	32
ASJ-33×200-C32	4	33	33	200	50	-	32
ASJ-33×250-C32	4	33	33	250	50	-	32
ASJ-33×300-C32	4	33	33	300	50	-	32

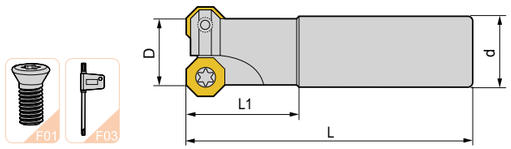
Accessories

Code No.	Insert	Screw	Wrench
ASJ-20×120	ADMT1003□□L ADMT1003□□R	M2.5×6	T8
ASJ-25×160	ADMT12T3□□L ADMT12T3□□R	M3×7.5	T10
ASJ-32×200	ADMT1604□□L ADMT1604□□R	M4×9	T15

Insert

Code No.	Flute diameter	CY250	GF30	CY100H	Insert shape	Size(mm) A	B	T	θ	R	
ADMT080308L	16	●	●	●		7.8	6.2	3.0	15	0.8	HITACHI
ADMT100308L	20	●	●	●		10.4	6.35	3.18	15	0.8	
ADMT100320L	20	●	●	●		10.4	6.35	3.18	15	2.0	
ADMT12T308L	25	●	●	●		12.6	7.93	3.9	15	0.8	
ADMT12T320L	25	●	●	●		12.6	7.93	3.9	15	2.0	
ADMT12T330L	25	●	●	●		12.6	7.93	3.9	15	3.0	
APMT160408L	32	●	●	●		16.45	9.53	4.76	11	0.8	
APMT160430L	32	●	●	●		16.45	9.53	4.76	11	3.0	
APMT170408L	35	●	●	●		17.6	9.53	4.76	11	0.8	
APMT170430L	35	●	●	●		17.6	9.53	4.76	11	3.0	
APMT190508L	40	●	●	●		19.6	10	5.0	11	0.8	
APMT190530L	40	●	●	●		19.6	10	5.0	11	3.0	
APMT250508L	50	●	●	●		25.4	11	5.5	11	0.8	
APMT250530L	50	●	●	●		25.4	11	5.5	11	3.0	
APMT090208R	16	●	●	●		9.1	5.1	2.6	11	0.8	
ACMT100308R	20	●	●	●		10.1	6.35	3.4	7	0.8	
ACMT100320R	20	●	●	●		10.1	6.35	3.4	7	2.0	
APMT12T308R	25	●	●	●		13.14	7.93	3.9	11	0.8	
APMT12T320R	25	●	●	●		13.14	7.93	3.9	11	2.0	
APMT12T330R	25	●	●	●		13.14	7.93	3.9	11	3.0	
APMT150408R	25	●	●	●		15.88	4.76	4.76	11	0.8	
APMT150430R	32-50	●	●	●		15.88	4.76	4.76	11	3.0	

SKM High Speed Milling Cutter



Feature

-The inserts blade by eight face designs, high economical benefit,also can use for chamfering.

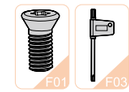
Code No.	Teeth	Size(mm) D	d	L1	L	Insert	Screw	Wrench
SKM-C20-25-120	2	25	20	40	120	ODMT040408	M4	T15
SKM-C25-25-120			25					
SKM-C25-32-120	3	32						
SKM-C32-32-120			32					
SKM-C32-40-120	4	40		50				

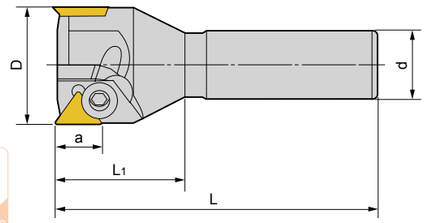
SUITABLE: STEELRAM INSERT

TP Indexable Square Milling Cutter

Feature

- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling, copy milling.
-Equipped with a tradition blade, cutting low-cost

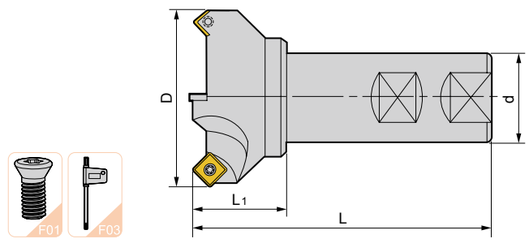




Code No.	Teeth	Size(mm) D	d	a	L1	L	Insert	Umbrella Clamp	Wrench
TP-C20-20-90	2	20	20	9	30	90	TP-MN110204	M5	L3
TP-C20-25-100	2	25	20	9	30	100	TP-MN110304	M5	L3
TP-C20-32-130	2	32	20	9	30	130	TP-MN160308	M6	L4
TP-C20-35-130		35		14	40				
TP-C20-35-150			25			150			
TP-C20-35-200						200			
TP-C25-35-150						150			
TP-C25-35-200						200			
TP-C32-35-150			32			150			
TP-C32-35-200						200			
TP-C20-40-150	3	40	20			150			
TP-C25-40-130			25			130			
TP-C25-40-150						150			
TP-C25-40-200						200			
TP-C32-40-150			32			150			
TP-C32-40-200						200			
TP-C20-50-150		50	20			150			
TP-C25-50-150			25						
TP-C25-50-200						200			
TP-C32-50-150			32			150			
TP-C32-50-200						200			
TP-C20-63-150	4	63	20	20	40	150	TP-MN220412	M8	L5
TP-C25-63-150			25						
TP-C32-63-150			32						
TP-C32-63-200					45	200			

SUITABLE:MITSUBISHI INSERT

KE45°Fast Milling Cutter



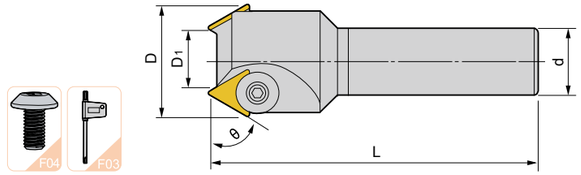
Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	L1	L			
KE45-C20-50-120	4	50	20	50	120	SEKT1204	M5	T20
KE45-C25-50-120			25					
KE45-C32-50-120			32					
KE45-C25-63-120	5	63	25					
KE45-C32-63-120			32					

SUITABLE:STEELRAM OR KOLOY INSERT

TP30°45°60° Straight Handle Chamfer Mills

Feature

-For cutting by 30°,45°,60°chamfering.
-For general milling machine and machine center.



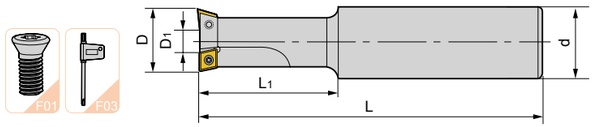
Code No.	Teeth	Size(mm)					Insert	Screw	Wrench
		D	d	L1	L	θ			
TP30-C25-40-120	2	40	24	25	120	30	TPMN1603	M6	L4
TP45-C20-20-120	1	20	3	20		45			
TP45-C20-32-120	2	32	12						
TP45-C25-50-150	3	50	22	25	150	45	TPMN2204	M8	L5
TP60-C25-40-120	2	40	24	25	120	60	TPMN1603	M6	L4
TP60-C32-55-150	3	55	22	32	150	60	TPMN2204	M8	L5

SUITABLE:MITSUBISHI INSERT

CH Counter-Sink Hole On Screw Of Mills Cutter

Feature

- For roughing, pocket milling.
-A tool that combines conventional drilling tools and counter -sink chamfering tool in one, for machining in one process.
- Designed for upgrading machining efficiency of counter-sink hole on screw



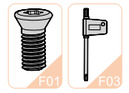
Code No.	Teeth	Size(mm)					Insert	Screw	Wrench
		D	D1	d	L1	L			
CH-C8-14-25	1	14	2.9	25	21	108	CCMT060204	M2.5	T8
CH-C10-17.5-25	2	17.5	5.3		26	115			
CH-C12-20-25		20	7.8		30	120			
CH-C14-23-25		23	10.8		34.5	126			
CH-C16-26-32	2	26	8.5	32	39	132	CPMT090308	M3.5	T15
CH-C18-29-32		29	11.5		43.5	138			
CH-C20-32-32		32	14.5		59	144			

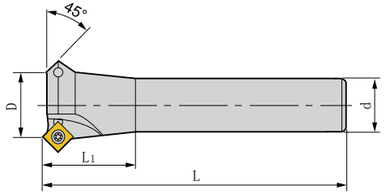
SUITABLE:HITACHI INSERT

EM45° In And Out Chamfer Mills

Feature

- For roughing, plane finishing, plane milling, copy milling.
- For internal and external chamfering processing, end-groove.
-High ragidity design, suited for large cutting.
-Blade shape is in square shape, can displace 4 times, much more economy .





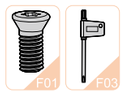
Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	L1	L			
EM45-C3/4-25-110	2	25	19.05	45	110	SPMW090304	M4	T15
EM45-C20-25-110			20					
EM45-C25-25-150					150			
EM45-C25-30-150		30	25					

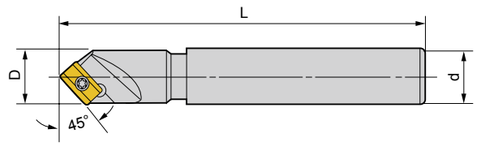
SUITABLE:MITSUBISHI INSERT

SSK45° Indexable Chamfer Mills

Feature

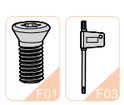
- For roughing, plane milling, sloot plunge milling
- For cutting by 45° cutting, chamfering can be done,
-suitable for general milling machine, integrated machining center.

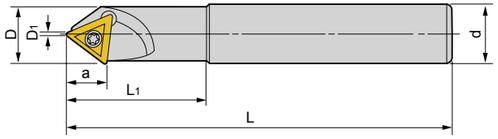




Code No.	Teeth	Size(mm)			Chamfering Range	Insert	Screw	Wrench
		D	d	L				
SSK-C20-20-130	1	20	20	130	3-20	ADNT160308	M4	T15
SUITABLE:HITACHI INSERT								

SSP45°Spot Chamfer Mills





Feature

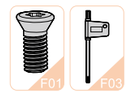
-For cutting by 45° and chamfering,V-slot cutting, center spot drill.
-For general milling machine, CNC milling machine, CNC lathe, chamfering for drill press.

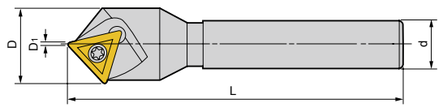
Code No.	Size(mm)						Chamfering Range	Insert	Screw	Wrench
	D	D1	d	a	L1	L				
SSP-C20-20-130	20	0	20	11.3	20	130	0-20	TCMX16T308E-ZR	M4	T15
SUITABLE:SANDVIK DIJET OR KOLOY INSERT										

TCM45° Chamfer Mills

Feature

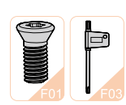
-For roughing, plane milling.

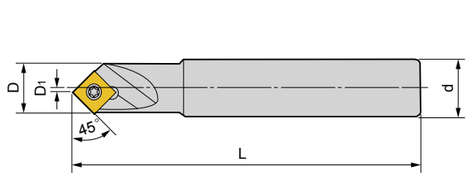




Code No.	Size(mm)				Insert	Screw	Wrench
	D	d	a	H			
TCM-C20-25-110	25	3	20	110	TCMT16T304	M4	T15
SUITABLE:MITSUBISHI INSERT							

SB New Chamfer Mills



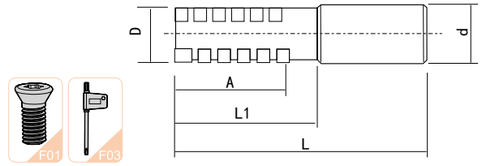


Feature

-Each insert have 4 blade that can used urable and much more economy.
-Chamfering ,cut end cover slot.

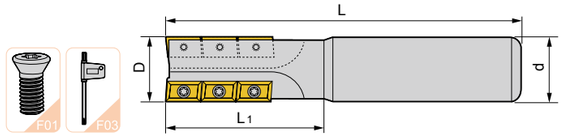
Code No.	Size(mm)				Chamfering Range	Insert	Screw	Wrench
	D	D1	d	L				
SBC16-16-100	16	1.5	16	100	1.5-16	SPMW090304	M4	T15
SUITABLE:MITSUBISHI INSERT								

RGH Rough Cutting End Mills



Code No.	D	d	A	L1	L	FLUTE	INSERT	PCS	INSERT	PCS	Screw	Wrench
RGH-2527×120	25	25	27	50	120	2	P27215-00	1	P28415-00	5	SCR-RGH2.5	T8
RGH-3042×150	30	32	42	70	150	2	P27215-3	1	P28415-0	5	SCR-RGH4	T15
RGH-3242×150	32	32	42	70	150	2		1		5		
RGH-4050×155	40	32	50	75	155	4		2		12		
RGH-4056×175	40	42	56	90	175	2	EVL-15	1	EVS-12	5	SCR-RGH5	T20
RGH-5077×205	50	50.8	77	115	205	4		2		14		
RGH-5097×225	50	50.8	97	135	225	4		2		18		
RGH-50127×255	50	50.8	127	165	255	4		2		24		
RGH-50157×285	50	50.8	157	195	285	4		2		30		

APE Rough Cutting End Mills



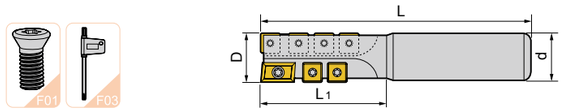
Code No.	Teeth	Teeth	Size(mm)				Insert	Screw	Wrench
			D	d	L1	H			
APE-C20-20-110	2	5	20	20	28	110	APKT1003	M2.5	T8
APE-C25-25-150		8	25	25	37	150			
APE-C32-32-150	3	15	32	32	46				

SUITABLE:STELLRAM INSERT

Suitable Inserts

Code No.	Insert Material	Cutting Material	d	i	s	r
APKT1003PDER	SK15	Cast iron Aluminium & alloy	6.73	10.54	3.18	-
APKT1003PDER-47 APKT1003PDER-M01	MP91M, SP6564PTE25	Titanum alloyStainless steel Alloy steel Refractory alloy				
APKTPHRJ-3M	GH1	Aluminium & alloy				

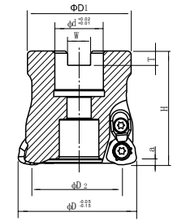
SPE Rough Cutting End Mills



Code No.	Figure	Teeth	Size(mm)				Insert				Screw	Wrench
			D	d	L1	L	T		T			
SPE-C42-40-180	A	2	40	42	56	180	1	LPMT1504	5	SPMT1204	M5	T20
SPE-C42-40-150	A	4	40	32	50	150	2	P27215-3	12	SDMT090308	M4	T15
SPE-C42-50-200	B	4	50	42	77	200	2	LPMT1504	14	SPMT1204	M5	T20
SPE-C42-50-200					97				18			
SPE-C42-50-250					158	250			30			
SPE-C42-50-200	A	3	50	42	75	200	-	-	21	SPMT1204	M5	T20

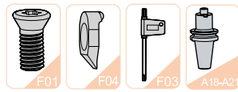
SUITABLE:ISO INSERT

AJX Rough Feed Mill Head



Feature

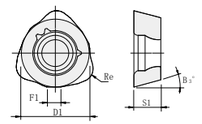
- Low rotating speed, high feed
- Cutting efficiency of an ordinary cutter round nose and face plate 3times
- For roughing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The use of 15° positive angle blade.
- Double clamping body rigidity.
- The most suitable for large-feed cutting.
- With standard cooling holes.
- 3 for special shaped blade edge angle.



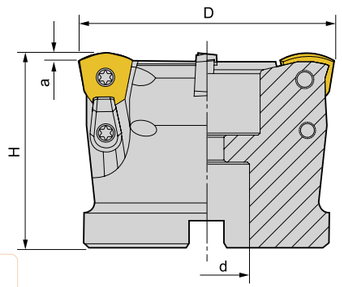
Code No.	Size(mm)							
	D	D1	D2	d	H	W	T	a
AJX12-50-22-3T	50	47	38.3	22	50	10.4	6.3	1.5
AJX12-50-22-4T	50	47	38.3	22	50	10.4	6.3	1.5
AJX12-63-22-4T	63	60	51.3	22	50	10.4	6.3	1.5
AJX14-63-22-3T	63	60	51.1	22	50	10.4	6.3	2
AJX14-63-22-4T	63	60	51.1	22	50	10.4	6.3	2
AJX14-80-27-3T	80	76	68.1	27	50	12.4	7	2
AJX14-100-32-5T	100	96	88.1	32	50	14.4	8	2

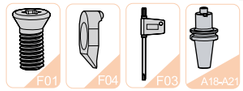
Accessories

Code No.	Insert	Clamp	Screw	Wrench
AJX12-50	JDMW120420ZDSR-FT	AJX-12	M4×10	T15
AJX14-63	JDMW140520ZDSR-FT	AJX-14	M5×12	T20

Code No.	FH7020	VP15TF	VP30RT	Insert shape	Size(mm)						
					B3°	D1	S1	F1	Re	Chip Groove	
JDMW120420ZDSR-FT	●	●	●		15	12	4.76	5	2	No	MITSUBISHI
JDMW140520ZDSR-FT	●	●	●		15	14	5.56	5	2	No	
JDMT120420ZDSR-ST	●	●	●		15	12	4.76	5	2	Yes	
JDMT120420ZDSR-JM	●	●	●		15	12	4.76	5	2	Yes	
JDMT140520ZDSR-ST	●	●	●		15	14	5.56	5	2	Yes	
JDMT140520ZDSR-JM	●	●	●		15	14	5.56	5	2	Yes	

TXP Rough Feed Face Mill Head





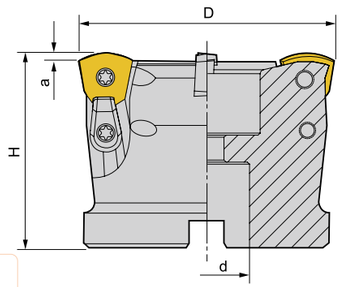
Feature

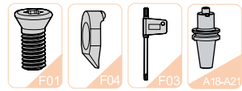
- Low rotating speed, high feed.
- Cutting efficiency of an ordinary cutter round nose and face plate 3 times.
- Cone design, high rigidity
- For roughing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The Use of 11° positive angle blade.
- Double clamping body rigidity.
- The most suitable for large-feed cutting.
- With standard cooling holes.
- 3 for special shaped blade edge angle.

Code No.	Size(mm)				Insert	Screw	Wrench
	D	d	a	H			
TXP06-50-22-4T	50	22	1.5	50	WPMW06X415ZPR	M4	T15
TXP06-50-25.4-4T		25.4					
TXP08-50-22-3T	50	22	1.5	50	WPMT080615ZPR	M5	T20
TXP08-63-22-4T	63						
TXP08-80-27-4T	80	27					
TXP08-80-27-5T							
TXP08-100-32-6T	100	32					
TXP08-50-25.4-3T	50	25.4					
TXP08-63-25.4-4T	63						
TXP08-80-25.4-4T	80						
TXP08-80-25.4-5T							
TXP08-100-31.75-6T	100	31.75					

SUITABLE:TOSHIBA INSERT

SKS Rough Feed Face Mill Head





Feature

- Low rotating speed, high feed.
- Cutting efficiency of an ordinary cutter round nose and face plate 3 times.
- Cone design, high rigidity
- For roughing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The Use of 15° positive angle blade.
- Double clamping body rigidity.
- The most suitable for large-feed cutting.
- With standard cooling holes.
- 3 for special shaped blade edge angle.

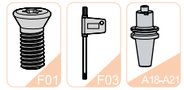
Code No.	Size(mm)				Insert	Screw	Wrench
	D	d	a	H			
SKS50-22-3T	50	22	2	50	WDMW080520ZTR WDMT080520ZER WDHW080520ZTR	M4.5	T20
SKS50-22-4T							
SKS63-22-3T	63						
SKS63-22-4T							
SKS80-27-5T	80	27					
SKS100-32-6T	100	32					
SKS63-22-4T	63	22	2.5	50	WDMW10X620ZTR WDM10X620ZER	M4.5	T20
SKS80-27-5T	80	27					
SKS100-32-6T	100	32					
SKS63-25.4-3T	63	25.4	2	50	WDMW080520ZTR WDMT080520ZER WDHW080520ZTR	M4.5	T20
SKS63-25.4-4T							
SKS80-25.4-5T	80						
SKS100-31.75-6T	100	31.75					
SKS63-25.4-4T	63	25.4	2.5	50	WDMW10X620ZTR WDM10X620ZER	M4.5	T20
SKS80-25.4-5T	80						
SKS100-31.75-6T	100	31.75					

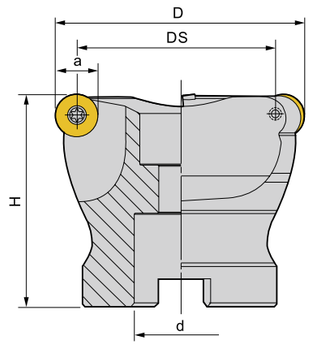
SUITABLE: DIJET INSERT

JRC Rounding Face Mill Head

Feature

-Use SANDVIK coromill high precession insert, more efficiency on finish machining.





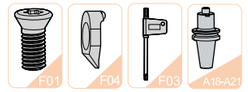
Code No.	Size(mm)					Insert	Clamp	Screw	Wrench
	D	DS	d	H	a				
JRC-5R50-22-4T	50	40	22	50	10	RC*T10T3	-	M3.5	T15
JRC-5R50-25.4-4T			25.4						
JRC-6R50-22-3T	50	38	22	50	12	RC*T1204	-	M3.5	T15
JRC-6R50-22-4T									
JRC-6R50-22-4Twith clamp							Y-6R		
JRC-6R50-25.4-4T			25.4				-		
JRC-5R63-22-4T	63	53	22	50	10	RC*T10T3	-	M3.5	T15
JRC-5R63-25.4-4T			25.4						
JRC-6R63-22-4T	63	51	22	50	12	RC*T1204	-	M3.5	T15
JRC-6R63-22-4Twith clamp							Y-6R		
JRC-6R63-25.4-4T			25.4				-		

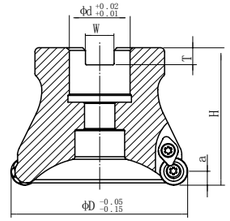
SUITABLE:SANDVIK INSERT

EMR Rounding Face Mill Head

Feature

- Circular blade cutting edge strength is high.
- Series of products rich variety.
- The most suitable mold material processing
- The most suitable mold material processing
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The Use of 11° positive angle blade.
- Blade economy , the applicability of high
- Capacity ship a large space, good chip disposal.
- Cone design, high rigidity

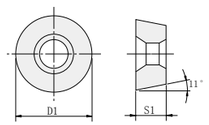




Code No.	Size(mm)					
	D	d	H	W	T	a
EMR-5R-50-22-4T	50	22	50	10.4	6.3	5
EMR-5R-63-22-4T	63	22	50	10.4	6.3	5
EMR-5R-63-22-5T	63	22	50	10.4	6.3	5
EMR-5R-80-27-6T	80	27	50	12.4	7	5
EMR-5R-100-32-6T	100	32	50	14.4	7	5

Accessories

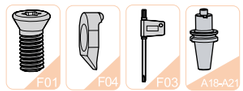
Code No.	Insert	Clamp	Screw	Wrench
EMR-5R	RPMW 1003MO RPMT 10T3MOE	Y-5R	M4×10/M3.5×10	T15

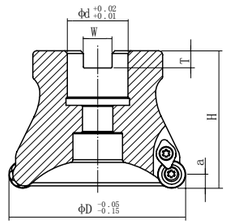
Code No.	UP20M	NX2525	UTI20T	F7030	VP15TF	SH8020	SH8250	JC3535	NIT	NAT	UMS	DX25	KT9	Insert shape	Size(mm)			
															L1	L2	Chip Groove	
RPMW1003MO	●	●	●												10	3.18	No	MITSUBISHI
RPMT10T3MOE				●	●										10	3.97	Yes	
RPMW1003MOEN						●	●								10	3.18	No	HITACHI
RPMW1003MO								●	●	●	●	●	●		10	3.18	No	DIJET

EMRW Rounding Face Mill Head

Feature

- Circular blade cutting edge strength is high.
- Series of products rich variety.
- The most suitable mold material processing
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The Use of 11° positive angle blade.
- Blade economy , the applicability of high
- Capacity ship a large space, good chip disposal.
- Cone design, high rigidity



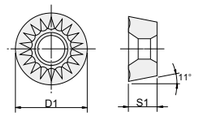
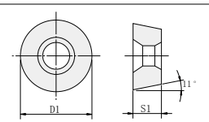


Code No.	Size(mm)					
	D	d	H	W	T	a
EMRW-6R-50-22-4T	50	22	50	10.4	6.3	6
EMRW-6R-63-22-4T	63	22	50	10.4	6.3	6
EMRW-6R-63-22-5T	63	22	50	10.4	6.3	6
EMRW-6R-80-27-6T	80	27	50	12.4	7	6
EMRW-6R-100-32-6T	100	32	50	14.4	8	6
EMRW-6R-125-40-6T	125	40	50	14.4	8	6

Accessories

Code No.	Insert	Clamp	Screw	Wrench
EMRW-6R	RPMW\T1204MO	Y-6R	M4×10	T15

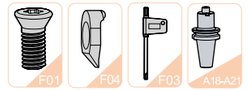
Suitable Inserts

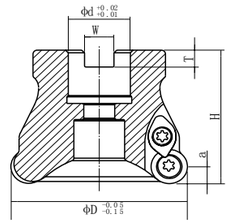
Code No.	F7030	F620	VP15TF	NX4545	UTI120T	TN100M	PR510	PR660	PR730	KW10	Insert shape	Size(mm)			
												L1	L2	Chip Groove	
RPMT1204MOE-JS	●	●	●									12	4.76	Yes	MITSUBISHI
RPMT1204MO							●	●	●	●		12	4.76	Yes	
RPMT1204MO-H						●	●	●	●	●		12	4.76	Yes	KYOCERA
RPMT1204MOE	●	●		●	●							12	4.76	No	MITSUBISHI
RPMT1204MOT			●									12	4.76	No	

TRS Rounding Face Mill Head

Feature

- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- The Use of 15° positive angle blade.
- Blade economy , the applicability of high
- Capacity ship a large space, good chip disposal.
- Cone design, high rigidity

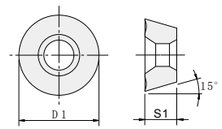




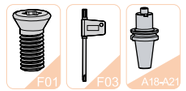
Code No.	Size(mm)					
	D	d	H	W	T	a
TRS-5R-50-22-4T	50	22	50	10.4	6.3	5
TRS-5R-63-22-4T	63	22	50	10.4	6.3	5
TRS-5R-63-22-5T	63	22	50	10.4	6.3	5
TRS-5R-80-27-6T	80	27	50	12.4	7	5
TRS-5R-100-32-6T	100	32	50	14.4	8	5
TRS-6R-50-22-4T	50	22	50	10.4	6.3	6
TRS-6R-63-22-4T	63	22	50	10.4	6.3	6
TRS-6R-80-27-6T	80	27	50	12.4	7	6
TRS-6R-100-32-6T	100	32	50	14.4	8	6
TRS-8R-63-22-4T	63	22	50	10.4	6.3	8
TRS-8R-80-27-5T	80	27	50	12.4	7	8
TRS-8R-100-32-6T	100	32	50	14.4	8	8

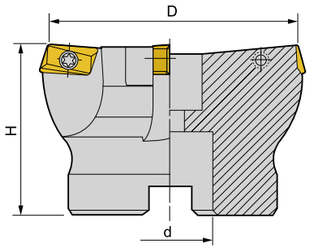
Accessories

Code No.	Insert	Clamp	Screw	Wrench
TRS-5R	RD□□10T3MO	Y-5R	M4×9/M3.5×10	T15
TRS-6R	RD□□1204MO	Y-6R	M4×10	T15
TRS-8R	RD□□1604MO	Y-8R	M5×11.5	T20

Code No.	CY100H	CY15	CY25	CY150	CY250	GF30	TB6005	TB6020	TB6045	TB6060	WH10	Insert shape	Size(mm)			
													L1	L2	Chip Groove	
RDMT10T3MOTN		●	●	●	●	●	●	●	●	●			10	3.97	Yes	HITACHI
RDMT10T3MOEN	●										●		10	3.97	Yes	
RDMT1204MOTN			●	●	●	●	●	●	●	●			12	4.76	Yes	
RDMT1204MOEN											●		12	4.76	Yes	
RDMX1604MOTN		●	●	●	●	●	●	●	●	●			16	4.76	Yes	
RDMX1604MOEN	●										●		16	4.76	Yes	

PE75° Square Face Mill Head





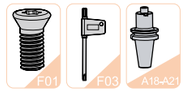
Feature

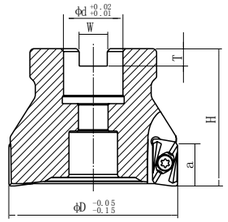
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- abandoned the use of APMT1604 blade. Cost saved.

Code No.	Size(mm)			Insert	Screw	Wrench
	D	d	H			
PE63-25.4-4	63	25.4	50	APMT1604	M4	T15
PE80-31.75-5	80	31.75				
PE63-22-4	63	22				
PE80-27-5	80	27				

SUITABLE:MITSUBISHI INSERT

BAP Square face Mill Head





Feature

- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- 11° positive angle blade.
- Adaptive multi-material blade, applicable to aluminum steel milling.
- Screw locking, allow a large space debris, a good chip disposal.
- Cutting briskly, small the resistance.

Code No.	Size(mm)					
	D	d	H	W	T	a
BAP400R-50-22-4T	50	22	50	10.4	6.3	14
BAP400R-63-22-4T	63	22	50	10.4	6.3	14
BAP400R-80-27-6T	80	27	50	12.4	7	14
BAP400R-100-32-6T	100	32	50	14.4	8	14
BAP400R-125-40-8T	125	40	50	14.4	8	14
BAP400R-160-40-8T	160	40	50	14.4	8	14

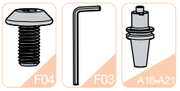
Code No.	Insert	Screw	Wrench
BAP400R	APMT1604PDER	M4×10	T15

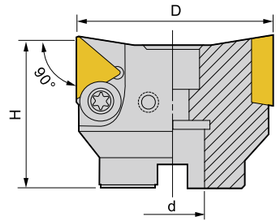
Code No.	F7030	F620	VP15TF	UP20M	NX2525	NX4545	UT120T	HTI10	NCM325	PC3535	PC3545	PC3530	PC6510	PD2000	H01	Insert shape	Size(mm) L1	L2	S1	F1	Re	
APMT1604PDER-H1	●		●				●										16.5	9.525	4.76	1.7	0.4	MITSUBISHI
APMT1604PDER-H2	●	●	●	●	●	●	●	●									16.5	9.525	4.76	1.7	0.8	
APMT1604PDER-H4	●						●										16.5	9.525	4.76	1.7	1.6	
APMT1604PDER-H6	●						●										16.5	9.525	4.76	1.7	2.4	
APMT1604PDER-H8	●						●										16.5	9.525	4.76	1.7	3.2	
APMT1604PDER-M2	●	●	●			●											16.5	9.525	4.76	1.7	0.8	
APGT1604PFHR-G2	●							●									16.5	9.525	4.76	1.7	0.8	
APKT1604PDSR									●	●	●	●	●				16.4	9.525	4.76	-	0.8	KORLOY (INSERT)
APKT1604PDSR-MA														●	●		16.4	9.525	4.76	-	0.8	

TP90° Square Face Mill Head

Feature

-Fit for high speed processing of cutting and milling machine of machine center with horse power.
-Angle:90°





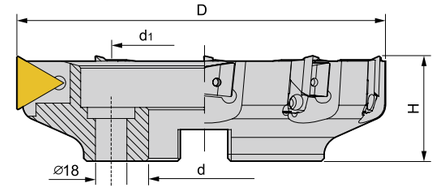
Code No.	Teeth	Size(mm)			Insert	Screw	Wrench
		D	d	H			
TP90-50-22	3	50	22	50	TPMN1603	M6	WRN-M3T
TP90-63-22	3	63	22		TPMN2204	M8	WRN-M4T
TP90-80-27	4	80	27				
TP90-100-32	4	100	32				
TP90-125-40	6	125	40	63			

SUITABLE:MITSUBISHI INSERT

TP90° Square Face Mill Head

Feature

- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- Equipped with a traditional blade, low cutting cost.
-Fit for high speed processing of cutting and milling machine of machine center with horse power .
-Angle:90°



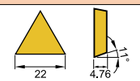
Code No.	Teeth	Size(mm)			
		D	d	d1	H
TP90-160-50.8	8	160	50.8	-	63
TP90-200-47.625	10	200	47.625	101.6	
TP90-250-47.625	12	250			
TP90-300-47.625	14	300			

Replacing fittings



Code No.	Teeth	Size(mm)			
		D	d	d1	H
TP90-160-40	8	160	40	-	63
TP90-200-60	10	200	60	101.6	
TP90-250-60	12	250			
TP90-300-60	14	300			

Insert specification

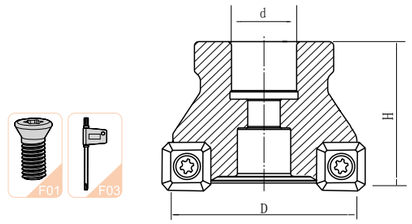


TPKN2204

SFM Square Face Mill Head

Feature

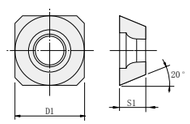
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- Can be used to insert milling, flat, level surface, groove.
- Low cutting force, large rake angle , cutting briskly.
- High productivity, high-precision.



Code No.	Size(mm)				
	D	d	H	W	T
SFM09-50-22-4T	50	22	50	10.4	6.3
SFM09-63-22-5T	63	22	50	10.4	6.3
SFM09-80-27-6T	80	27	50	12.4	7
SFM09-100-32-8T	100	32	50	14.4	8

Accessories

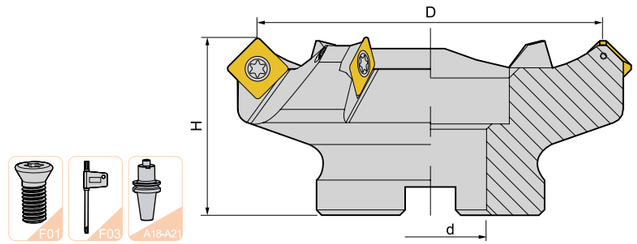
Code No.	Insert	Screw	Wrench
FM09	SE□T09T308	M3×7	T8

Code No.	WAP25	WAP35	WTP35	WXP45	WPM	WXM35	WAK15	WAK25	WKM	WK10	P201	Insert shape	Size(mm) D1	S1	Chip Groove	
SEET09T308PDER		●	●	●		●				●			10	3.97	Yes	WALTER
SEET09T308PDER	●	●	●		●	●	●	●	●				10	3.97	Yes	
SEET09T308PDER											●		12	4.76	Yes	ROSS

SE45° High Speed Face Mill Head

Feature

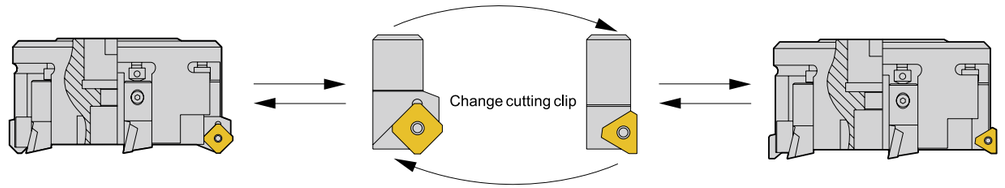
- For roughing, plane finishing, pocket milling, sloot plunge milling, shoulder milling ,copy milling.
- Using the blade angle is 11°
-High-right alloy knife pad.



Code No.	Teeth	Size(mm) D	d	H	Insert	Screw	Wrench
SE45-50-22	4	40	22	50	SEKT1204	M5	T20
SE45-63-22	5	63	22				
SE45-63-25.4			25.4				
SE45-80-27		80	27				
SE45-80-31.75			31.75				
SE45-100-31.75	6	100	31.75				
SE45-100-32			32				
SE45-125-38.1		125	38.1	63			
SE45-125-40			40				

SUITABLE:STEELRAM OR KOLOY INSERT

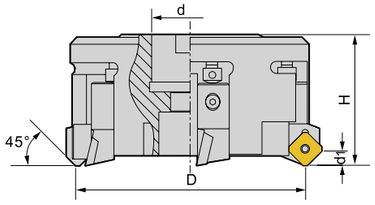
FM ALUMINUM ALLOY OF FACE MILL HEAD



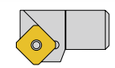
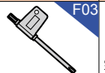
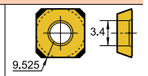
●The structural design is large anterior horn, easily for cutting, and well suited to the finish-cutting for nonferrous metals.
●The insert use compress structure of screw-type, there will be larger chip space and more fluent chip removal.
●Having a dynamic balancing adjust structure.
●The light alloy materials are adopted, so the cutting tools feel light when the knife strength is satisfied , it is good for the quasi high speed milling process.
●Whether the main declination is 45°or 90°, the matrix of face milling of aluminum alloy is the same. It can meet the demands of different main declination by replacing tooling holder.
●Indexable aluminum alloy milling cutter is also suited to finish machining of the gray cast iron.

FM45°Aluminum Alloy Of Face Mill Head



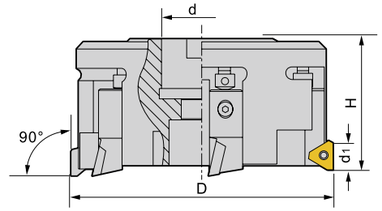


Code No.	Teeth	Size(mm)				Cutting Clip	Insert	Highest Speed	Weight
		D	d	d1	H				
FM45-80-27	4	80	27	6	63	SSSHR16CA-12AI	SEHT1204	6000	0.90
FM45-100-32	5	100	32					4800	1.00
FM45-125-40	6	125	40					3800	1.90
FM45-160-40	8	160						3000	2.70
FM45-200-60	10	200	60					2400	4.60
FM45-250-60	12	250						2000	7.20
FM45-300-60	14	315						400	10.20

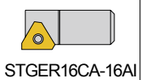
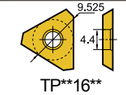
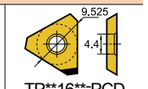
Replacing Fittings						Insert Specification	
							
SSSHR16CA-12AI	M5*16	M4	M5	TH-40	T20	SEHT1204	SEHT1204-PCD

FM90°Aluminum Alloy Of Face Mill Head



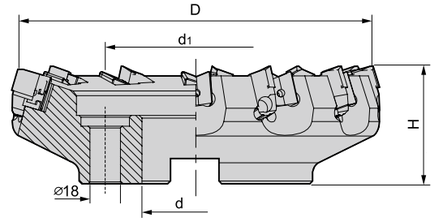


Code No.	Teeth	Size(mm)				Cutting Clip	Insert	Highest Speed	Weight
		D	d	d1	H				
FM90-80-27	4	80	27	6	63	STGER16CA-16AI	TP**16**	4000	0.90
FM90-100-32	5	100	32					3200	1.00
FM90-125-40	6	125	40					2500	1.90
FM90-160-40	8	160						2000	2.70
FM90-200-60	10	200	60					1600	4.60
FM90-250-60	12	250						1300	7.20
FM90-300-60	14	315						400	10.20

Replacing Fittings						Insert Specification	
							
STGER16CA-16AI	M5*16	M4	M5	TH-40	T20	TP**16**	TP**16**-PCD

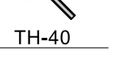
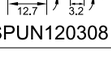
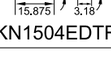
FP45°Face Milling Cutter





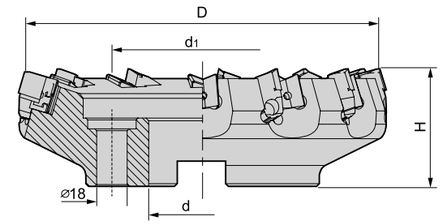
Code No.	Teeth	Size(mm)				Insert	Highest Speed	Weight
		D	d	d1	H			
FP45-80-25.4	5	80	25.4	-	50	SEHT1204	6000	0.90
FP45-100-31.75		100	31.75				4800	1.00
FP45-125-38.1	6	125	38.1		63		3800	1.90
FP45-160-50.8	8	160	50.8				3000	2.70
FP45-200-47.625	10	200	47.625	101.6			2400	4.60
FP45-250-47.625	12	250					2000	7.20
FP45-300-47.625	14	300					400	10.20

Code No.	Teeth	Size(mm)				Cutting Clip	Insert	Highest Speed	Weight
		D	d	d1	H				
FP45-80-27	5	80	27	-	50	SSSHR16CA-12AI	SEHT1204	6000	0.90
FP45-100-32		100	32					4800	1.00
FP45-125-40	6	125	40		63			3800	1.90
FP45-160-40	8	160						3000	2.70
FP45-200-60	10	200	60	101.6				2400	4.60
FP45-250-60	12	250						2000	7.20
FP45-300-60	14	315						400	10.20

Replacing Fittings				Insert Specification	
					
M5*16	FC2550	SV-128170-15	TH-40	SEKN1203	SEKN1504

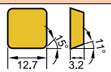
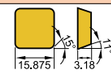
FP75°Face Mill Head



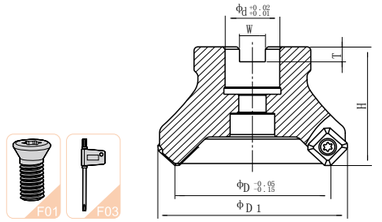


Code No.	Teeth	Size(mm)				Insert	Highest Speed	Weight
		D	d	d1	H			
FP75-80-25.4	5	80	25.4	-	50	TP**16**	4000	0.90
FP75-100-31.75	6	100	31.75				3200	1.00
FP75-125-38.1	8	125	38.1		63		2500	1.90
FP75-160-50.8	10	160	50.8				2000	2.70
FP75-200-47.625	12	200	47.625	101.6			1600	4.60
FP75-250-47.625	14	250					1300	7.20
FP75-300-47.625	16	300					400	10.20

Code No.	Teeth	Size(mm)				Cutting Clip	Insert	Highest Speed	Weight
		D	d	d1	H				
FP75-80-27	5	80	27	-	50	STGER16CA-16AI	TP**16**	4000	0.90
FP75-100-32	6	100	32					3200	1.00
FP75-125-40	8	125	40		63			2500	1.90
FP75-160-40	10	160						2000	2.70
FP75-200-60	12	200	60	101.6				1600	4.60
FP75-250-60	14	250						1300	7.20
FP75-300-60	16	300						400	10.20

Replacing Fittings				Insert Specification	
					
M5*16	FC2550	SV-128170-15	TH-40	SPUN120308	SPKN1504EDTR-20

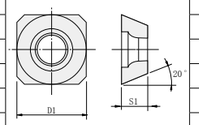
KM-45°Face Mill Head



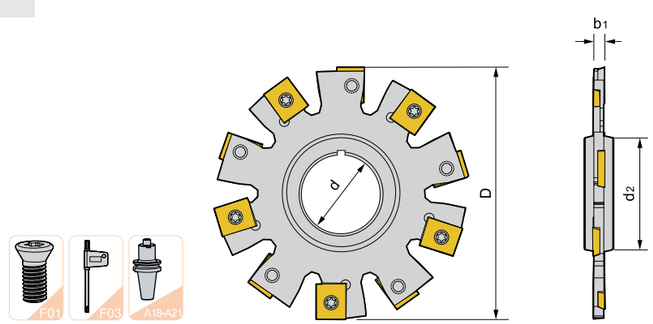
Code No.	Size(mm)					
	D	d	H	W	T	a
KM12-50-22-4T	50	64	22	50	10.4	6.3
KM12-63-22-4T	63	77	22	50	10.4	6.3
KM12-80-27-5T	80	94	27	50	12.4	7
KM12-100-32-5T	100	114	32	50	14.4	8
KM12-125-40-6T	125	139	40	63	16.4	9
KM12-160-40-6T	160	174	40	63	16.4	9
KM12-200-40-6T	200	174	40	63	16.4	9

Accessories

Code No.	Insert	Screw	Wrench
KM12-63	SEKT 1204	M5×11	T20

Code No.	WAP25	WAP35	WTP35	WXP45	WPM	WXM35	WAK15	WAK25	WKM	WK10	NCM325	PC3535	PC9530	PC6510	PC230	CN30	H01	Insert shape	Size(mm)			
																			D1	S1	Chip Groove	
SEHT1204AFN		●	●	●		●				●									12.7	4.76	Yes	WALTER
SEHT1204AFN-K88										●									12.7	4.76	Yes	
SEHW1204AFN	●	●	●		●	●	●	●	●										12.7	4.76	No	
SECA1204AFSN											●	●							12.7	4.76	No	KORLOY (INSERT)
SECA1204AFTN													●		●	●			12.7	4.76	No	
SECA1204AFFN														●					12.7	4.76	No	
SECA1204AFEN											●								12.7	4.76	No	
SEHT1204AFFN-M																	●		12.7	4.76	No	

SDC Indexable Side Cutter



Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	d2	b1			
SDC-100×04	6×2	100	25.4/27	45	04	SNF×1102	SDC-M3×3.5	T8
SDC-100×05	6×2	100	25.4/27	45	05	SNF×1103	SDC-M3×4.2	T8
SDC-100×06	5×2	100	25.4/27	45	06	SNF×1203	SDC-M3×5.2	T15
SDC-100×07	3×3				07			
SDC-100×08					08			
SDC-100×10	5×2	100	25.4/27	45	10	SNF×1205	SDC-M3×8.2	T15
SDC-125×04	7×2	125	25.4/40	58	04	SNF×1102	SDC-M3×3.5	T8
SDC-125×05	7×2	125	25.4/40	58	05	SNF×1103	SDC-M3×4.2	T8
SDC-125×06	6×2	125	25.4/40	58	06	SNF×1203	SDC-M3×5.2	T15
SDC-125×07	4×3				07			
SDC-125×08					08			
SDC-125×09	6×2	125	25.4/40	58	09	SNF×1205	SDC-M3×8.2	T15
SDC-125×10					10			
SDC-160×04	9×2	160	25.4/40	58	04	SNF×1102	SDC-M3×3.5	T8
SDC-160×05	9×2	160	25.4/40	58	05	SNF×1103	SDC-M3×4.2	T8
SDC-160×06	8×2	160	25.4/40	58	06	SNF×1203	SDC-M3×5.2	T15
SDC-160×07	5×3				07			
SDC-160×08					08			
SDC-160×09	8×2	160	25.4/40	58	09	SNF×1205	SDC-M3×8.2	T15
SDC-160×10					10			

SUITABLE:ISO INSERT

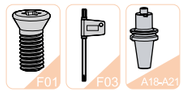
Code No.	Figure	Cutting Material	Size(mm)		
			d1	L	s
SNF×1102		Stainless steel Alloy steel	3.7	11	2.3
SNF×1103					2.7
SNF×1203		Cast iron Aluminium & alloy	5	12.7	3.18
SNF×1205					5.4

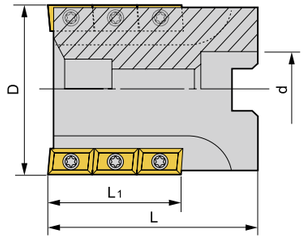
NOTICE:Customer can order another side cutter with different size of installation hole and external diameter.

AMC Shell Type Rough Cutting End Mills

Feature

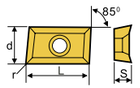
-With high efficiency, it can process on deep hole workpieces.
-By the changing of depth, if can achieve high effciency.



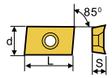


Code No.	Teeth	Size(mm)				Insert	Screw	Wrench
		D	d	L1	L			
AMC63-25.4-45L	12	63	25.4	45	64	APKT1604	M4	T15
AMC63-25.4-68L	20			68	90			
AMC63-22-45L	12		22	45	64			
AMC63-22-68L	20			68	90			

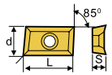
SUITABLE:ISO INSERT

Code No.	Insert Material	Cutting Material	Figure
APKT160408A-2C	MP91M	Stainless steel Alloy steel Mild steel Cast steel	

d	L	s	r
9.52	16.66	4.76	0.80

Code No.	Insert Material	Cutting Material	Figure
APEX1604PDFR-701	GH1-GH05	Aluminium & alloy	

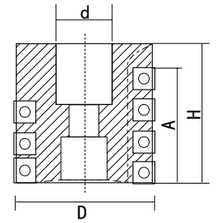
d	L	s	r
9.52	16.66	4.76	0.80

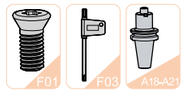
Code No.	Insert Material	Cutting Material	Figure
APKT160408A-2C	PFZ	Titanum alloy Alloy steel Stainless steel Refractory alloy	

d	L	s	r
9.52	16.66	4.76	0.80

Indexable Cutting Tools - End Mill Head

RGH Shell Type Rough Cutting End Mills





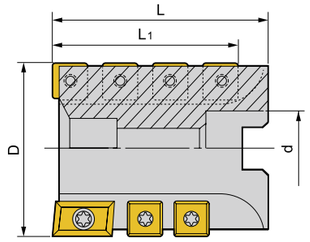
Code No.	D	A	H	d	FLUTE	INSERT	PCS	INSERT	PCS
RHG-80X31.75	80	67	80	31.75	6	EVL-15	3	EVS-12	18
RHG-80X32	80	67	80	32					

PMC Shell Type Rough Cutting End Mills

Feature

-With high efficiency, it can process on deep hole workpieces.
-By the changing of depth, if can achieve high effciency.

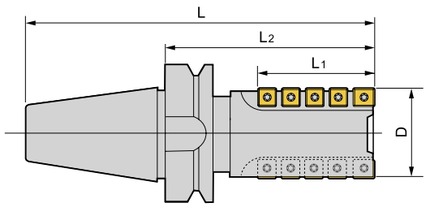


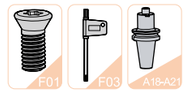


Code No.	Teeth	Size(mm)				Insert				Screw	Wrench
		D	d	L1	L	T		T			
PMC80-31.75	6	80	31.75	67	80	3	LPMT1504	18	SPMT1204	M5	T20
PMC80-32			32								
PMC100-38.1	8	100	38.1	77	100	4		28			
PMC100-40			40								

SUITABLE:ISO INSERT

BT-BMC Rough Cutting End Mills

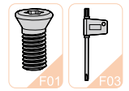


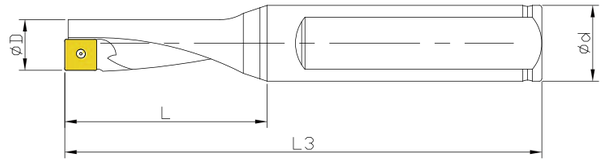


Code No.	Size(mm)				Number of Groove T	Insert LPMT1504	Insert SPMT1204
	D	L1	L2	L	Z	a(T)	b(T)
BT50-BMC-50-56L	50	56	126	228	4	2	10
BT50-BMC-50-77L		77	146	248			14
BT50-BMC-50-97L		97	166	268			18
BT50-BMC-63-67L	63	67	136	238			12
BT50-BMC-63-87L		87	156	258			16
BT50-BMC-63-107L		107	176	278			20

SUITABLE:ISO INSERT

XC-Funciton Drill



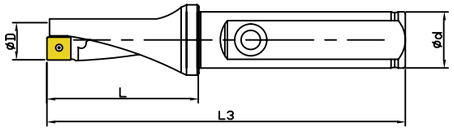


Code No.	Size(mm)			
	D	d	L	L3
XC-08R-3D-80-C12	8	12	24	80
XC-08L-3D-80-C12	8	12	24	80
XC-10R-3D-85-C12	10	12	30	85
XC-10L-3D-85-C12	10	12	30	85
XC-12R-3D-95-C16	12	16	36	95
XC-12L-3D-95-C16	12	16	36	95
XC-14R-3D-100-C16	14	16	42	100
XC-14L-3D-100-C16	14	16	42	100
XC-16R-3D-110-C20	16	20	48	110
XC-16L-3D-110-C20	16	20	48	110
XC-20R-3D-130-C25	20	25	60	130
XC-20L-3D-130-C25	20	25	60	130
XC-25R-3D-150-C32	25	32	75	150
XC-08R-4D-95-C12	8	12	32	95
XC-08L-4D-95-C12	8	12	32	95
XC-10R-4D-100-C12	10	12	40	100
XC-10L-4D-100-C12	10	12	40	100
XC-12R-4D-110-C16	12	16	48	110
XC-12L-4D-110-C16	12	16	48	110
XC-14R-4D-120-C16	14	16	56	120
XC-14L-4D-120-C16	14	16	56	120
XC-16R-4D-130-C20	16	20	64	130
XC-16L-4D-130-C20	16	20	64	130
XC-20R-4D-150-C25	20	25	80	150
XC-20L-4D-150-C25	20	25	80	150
XC-21R-4D-150-C25	21	25	84	150
XC-22R-4D-160-C25	22	25	88	160
XC-24R-4D-175-C32	24	32	96	175
XC-25R-4D-175-C32	25	32	100	175

Accessories

Code No.	Insert	Clamp Screw	Wrench
XC-08R-3D-80-C12	XCMT0401	M1.8×4	T6
XC-10R-3D-85-C12	XCMT0502	M2.0×5	T6
XC-12R-3D-95-C16	XCMT0602	M2.2×5	T7
XC-14R-3D-100-C16	XCMT0703	M2.5×6	T8
XC-18R-3D-110-C20	XCMT0803	M3.0×7	T10
XC-20R-3D-130-C25	XCMT10T3	M3.5×8	T15
XC-25R-3D-150-C32	XCMT1705	M4.5×10	T20
XC-08R-4D-95-C12	XCMT0401	M1.8×4	T6
XC-10R-4D-100-C12	XCMT0502	M2.0×5	T6
XC-12R-4D-110-C16	XCMT0602	M2.2×5	T7
XC-14R-4D-120-C16	XCMT0703	M2.5×6	T8
XC-15R-4D-130-C20	XCMT0803	M3.0×7	T10
XC-20R-4D-150-C25	XCMT10T3	M3.5×8	T15
XC-24R-4D-175-C32	XCMT1705	M4.5×10	T20

SP Indexable High Speed Drilling Tools





Code No.	Size(mm)						
	D	D1	D2	L3	L2	L1	L
SP12.5-C20-4D-05	12.5	20	25	50	70	52	120
SP13-C20-4D-05	13			50	70	52	120
SP13.5-C20-4D-05	13.5			50	74	56	124
SP14-C20-4D-05	14			50	74	56	124
SP14.5-C20-4D-05	14.5			50	79	60	129
SP15-C20-4D-05	15			50	79	60	129
SP15.5-C25-4D-05	15.5	25	32	56	84	64	140
SP16-C25-4D-06	16			56	84	64	140
SP16.5-C25-4D-06	16.5			56	88	68	144
SP17-C25-4D-06	17			56	88	68	144
SP17.5-C25-4D-06	17.5			56	93	72	149
SP18-C25-4D-06	18			56	93	72	149
SP18.5-C25-4D-06	18.5			56	97	76	153
SP19-C25-4D-06	19			56	97	76	153
SP19.5-C25-4D-06	19.5			56	103	80	159
SP20-C25-4D-06	20			56	103	80	159
SP20.5-C25-4D-06	20.5			56	107	84	163
SP21-C25-4D-06	21			56	107	84	163
SP21.5-C25-4D-06	21.5			56	111	88	167
SP22-C25-4D-07	22	25	32	56	111	88	168
SP22.5-C25-4D-07	22.5	25	45	56	117	92	173
SP22.5-C32-4D-07	22.5	32		60	117	92	177
SP23-C25-4D-07	23	25		56	117	92	173
SP23-C32-4D-07	23	32		60	117	92	177
SP23.5-C25-4D-07	23.5	25		56	122	96	178
SP23.5-C32-4D-07	23.5	32		60	122	96	182
SP24-C25-4D-07	24	25		56	122	96	178
SP24-C32-4D-07	24	32		60	122	96	182
SP24.5-C25-4D-07	24.5	25		56	127	100	183
SP24.5-C32-4D-07	24.5	32		60	127	100	187
SP25-C25-4D-07	25	25		56	127	100	183
SP25-C32-4D-07	25	32		60	127	100	187
SP25.5-C25-4D-07	25.5	25		56	131	104	187
SP25.5-C32-4D-07	25.5	32		60	131	104	187
SP26-C25-4D-07	26	25		56	131	104	187
SP26-C32-4D-07	26	32		60	131	104	191
SP26.5-C25-4D-07	26.5	25		56	135	108	191
SP26.5-C32-4D-07	26.5	32		60	135	108	195
SP27-C25-4D-07	27	25		56	135	108	191
SP27-C32-4D-07	27	32		60	135	108	195
SP27.5-C25-4D-07	27.5	25		56	140	112	196
SP27.5-C32-4D-07	27.5	32		60	140	112	200

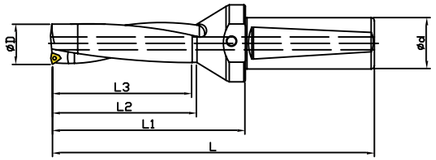
High Speed Power Drill

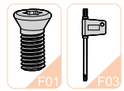
Code No.	Size(mm)						
	D	D1	D2	L3	L2	L1	L
SP28-C25-4D-09	28	25	45	56	140	112	196
SP28-C32-4D-09	28	32		60	140	112	200
SP28.5-C25-4D-09	28.5	25		56	144	116	200
SP28.5-C32-4D-09	28.5	32		60	144	116	204
SP29-C25-4D-09	29	25		56	144	116	204
SP29-C32-4D-09	29	32		60	144	116	204
SP29.5-C32-4D-09	29.5	32	55	60	151	120	211
SP29.5-C40-4D-09	29.5	40		70	151	120	221
SP30-C32-4D-09	30	32		60	151	120	211
SP30-C40-4D-09	30	40		70	151	120	221
SP31-C32-4D-09	31	32		60	156	124	216
SP31-C40-4D-09	31	40		70	156	124	226
SP32-C32-4D-09	32	32		60	160	128	220
SP32-C40-4D-09	32	40		70	160	128	230
SP33-C32-4D-09	33	32		60	165	132	225
SP33-C40-4D-09	33	40		70	165	132	235
SP34-C32-4D-11	34	32	55	60	169	136	229
SP34-C40-4D-11	34	40		70	169	136	239
SP35-C32-4D-11	35	32		60	174	140	234
SP35-C40-4D-11	35	40		70	174	140	244
SP36-C32-4D-11	36	32		60	179	144	239
SP36-C40-4D-11	36	40		70	179	144	249
SP37-C32-4D-11	37	32		60	184	148	244
SP37-C40-4D-11	37	40		70	184	148	254
SP38-C32-4D-11	38	32		60	189	152	249
SP38-C40-4D-11	38	40		70	189	152	259
SP39-C32-4D-11	39	32	60	60	193	156	256
SP39-C40-4D-11	39	40		70	193	156	263
SP40-C32-4D-11	40	32		60	198	160	258
SP40-C40-4D-11	40	40		70	198	160	268
SP41-C40-4D-11	41	40		70	203	164	273
SP42-C40-4D-14	42	40	80	70	207	168	277
SP43-C40-4D-14	43	40		70	212	172	282
SP44-C40-4D-14	44	40		70	216	176	286
SP45-C40-4D-14	45	40		70	222	180	292
SP46-C40-4D-14	46	40		70	227	184	297
SP47-C40-4D-14	47	40		70	231	188	304
SP48-C40-4D-14	48	40		70	238	192	306
SP49-C40-4D-14	49	40		70	240	196	310
SP50-C40-4D-14	50	40		70	245	200	315

Accessories

Code No.	Insert	Clamp Screw	Wrench
SP12.5-SP15	SPMG050204 DG	M2.0×4	T6
SP15.5-SP21.5	SPMG060204 DG	M2.2×5	T7
SP22-SP27.5	SPMG06T308 DG	M2.5×6	T8
SP28-SP33	SPMG090408 DG	M3.5×8	T15
SP34-SP41	SPMG110408 DG	M4×9	T15
SP42-SP50	SPMG140512 DG	M5×10	T20

WC Indexable High Speed Drilling Tools





D×3

Code No.	Size(mm)					
	D	L	L1	L2	L3	d
WC14-42-C25-3D	14	139	79	59	42	25
WC15-45-C25-3D	15	143	83	62	45	
WC16-48-C25-3D	16	146	90	69	48	
WC17-51-C25-3D	17	150	94	73	51	
WC18-54-C25-3D	18	155	99	77	54	
WC19-57-C25-3D	19	159	103	81	57	
WC20-60-C32-3D	20	165	108	86	60	32
WC21-63-C32-3D	21	169	113	89	63	
WC22-66-C32-3D	22	173	117	93	66	
WC23-69-C32-3D	23	178	122	97	69	
WC24-72-C32-3D	24	183	128	102	72	
WC25-75-C32-3D	25	188	132	106	75	
WC26-78-C32-3D	26	196	136	109	78	
WC27-81-C32-3D	27	200	140	113	81	
WC28-84-C32-3D	28	205	145	117	84	
WC29-87-C32-3D	29	209	149	121	87	
WC30-90-C32-3D	30	215	155	126	90	
WC31-93-C32-3D	31	220	160	130	93	
WC32-96-C32-3D	32	224	164	134	96	
WC33-99-C32-3D	33	229	169	138	99	
WC34-102-C32-3D	34	233	173	142	102	
WC35-105-C32-3D	35	238	178	146	105	
WC36-108-C32-3D	36	241	181	149	108	
WC37-111-C32-3D	37	244	184	152	111	
WC38-114-C32-3D	38	247	187	155	114	
WC39-117-C32-3D	39	256	196	162	117	
WC40-120-C40-3D	40	260	200	166	120	40
WC41-123-C40-3D	41	265	206	170	123	
WC42-126-C40-3D	42	269	209	174	126	
WC43-129-C40-3D	43	274	214	178	129	
WC44-132-C40-3D	44	289	219	182	132	

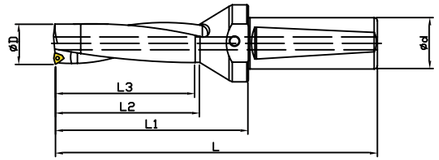
D×3

Code No.	Size(mm)					
	D	L	L1	L2	L3	d
WC45-135-C40-3D	45	294	223	186	136	40
WC46-138-C40-3D	46	299	227	190	138	
WC47-141-C40-3D	47	303	231	194	141	
WC48-144-C40-3D	48	307	235	198	144	
WC49-147-C40-3D	49	313	239	202	147	
WC50-150-C40-3D	50	315	243	206	150	
WC51-153-C40-3D	51	319	247	210	153	
WC52-156-C40-3D	52	323	251	214	156	
WC53-159-C40-3D	53	327	255	218	159	
WC54-162-C40-3D	54	331	259	222	162	
WC55-165-C40-3D	55	335	263	226	165	
WC56-168-C40-3D	56	339	267	230	168	
WC57-171-C40-3D	57	343	271	234	171	
WC58-174-C40-3D	58	347	275	238	174	
WC59-177-C40-3D	59	351	279	242	177	
WC60-180-C40-3D	60	355	283	246	180	

Accessories

Code No.	Insert	Clamp Screw	Wrench
WC14-WC20	WCMX030208	M2.5×6.5	T8
WC21-WC25	WCMX040208	M2.5×6.5	T8
WC26-WC30	WCMX050308	M3×7	T8
WC31-WC41	WCMX06T308	M3.5×8	T15
WC42-WC60	WCMX080408	M4×11.5	T15

WC Indexable High Speed Drilling Tools





D×4

Code No.	Size(mm)					
	D	L	L1	L2	L3	d
WC14-56-C25-4D	14	139	79	59	56	25
WC15-60-C25-4D	15	143	83	62	60	
WC16-64-C25-4D	16	146	90	69	64	
WC17-68-C25-4D	17	150	94	73	68	
WC18-72-C25-4D	18	155	99	77	72	
WC19-76-C25-4D	19	159	103	81	76	
WC20-80-C32-4D	20	165	108	86	80	32
WC21-84-C32-4D	21	169	113	89	84	
WC22-88-C32-4D	22	173	117	93	88	
WC23-92-C32-4D	23	178	122	97	92	
WC24-96-C32-4D	24	183	128	102	96	
WC25-100-C32-4D	25	188	132	106	100	
WC26-104-C32-4D	26	196	136	109	104	
WC27-108-C32-4D	27	200	140	113	108	
WC28-112-C32-4D	28	205	145	117	112	
WC29-116-C32-4D	29	209	149	121	116	
WC30-120-C32-4D	30	215	155	126	120	
WC31-124-C32-4D	31	220	160	130	124	
WC32-128-C32-4D	32	224	164	134	128	
WC33-132-C32-4D	33	229	169	138	132	
WC34-136-C32-4D	34	233	173	142	136	
WC35-140-C32-4D	35	238	178	146	140	
WC36-144-C32-4D	36	241	181	149	144	
WC37-148-C32-4D	37	244	184	152	148	
WC38-152-C32-4D	38	247	187	155	152	
WC39-156-C32-4D	39	256	196	162	156	
WC40-160-C40-4D	40	260	200	166	160	40
WC41-164-C40-4D	41	265	206	170	164	
WC42-168-C40-4D	42	269	209	174	168	
WC43-172-C40-4D	43	274	214	178	172	
WC44-176-C40-4D	44	289	219	182	176	

D×4

Code No.	Size(mm)					
	D	L	L1	L2	L3	d
WC45-180-C40-4D	45	294	223	186	180	40
WC46-184-C40-4D	46	299	227	190	184	
WC47-188-C40-4D	47	303	231	194	188	
WC48-192-C40-4D	48	307	235	198	192	
WC49-196-C40-4D	49	313	239	202	196	
WC50-200-C40-4D	50	315	243	206	200	
WC51-204-C40-4D	51	319	247	210	204	
WC52-208-C40-4D	52	323	251	214	208	
WC53-212-C40-4D	53	327	255	218	212	
WC54-216-C40-4D	54	331	259	222	216	
WC55-220-C40-4D	55	335	263	226	220	
WC56-224-C40-4D	56	339	267	230	224	
WC57-228-C40-4D	57	343	271	234	228	
WC58-232-C40-4D	58	347	275	238	232	
WC59-236-C40-4D	59	351	279	242	236	
WC60-240-C40-4D	60	355	283	246	240	

D×4 POINT SPECIFICATION

Code No.	Size(mm)					
	D	L	L1	L2	L3	d
WC16.5-64-C25-4D	16	146	90	69	64	25
WC17.5-68-C25-4D	17	150	94	73	68	
WC18.5-72-C25-4D	18	155	99	77	72	
WC19.5-76-C25-4D	19	159	103	81	76	
WC20.5-80-C32-4D	20	165	108	86	80	32
WC21.5-84-C32-4D	21	169	113	89	84	
WC22.5-88-C32-4D	22	173	117	93	88	
WC23.5-92-C32-4D	23	178	122	97	92	
WC24.5-96-C32-4D	24	183	128	102	96	
WC25.5-100-C32-4D	25	188	132	106	100	
WC26.5-104-C32-4D	26	196	136	109	104	

Accessories

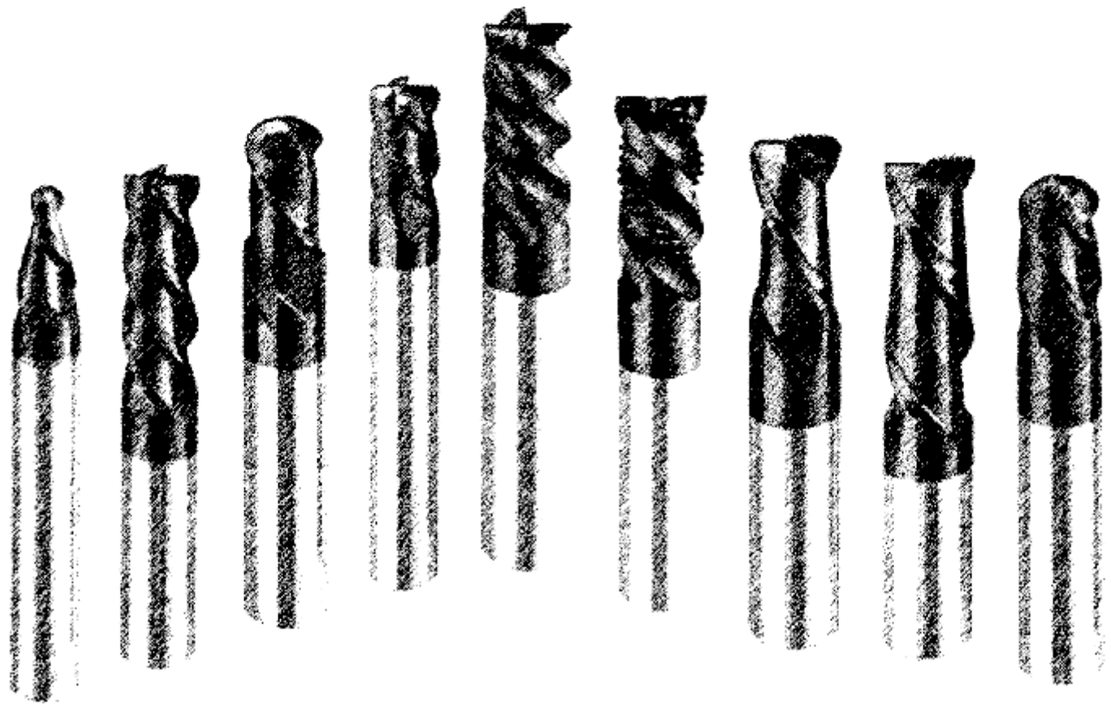
Code No.	Insert	Clamp Screw	Wrench
WC14-WC20	WCMX030208	M2.5×6.5	T8
WC21-WC25	WCMX040208	M2.5×6.5	T8
WC26-WC30	WCMX050308	M3×7	T8
WC31-WC41	WCMX06T308	M3.5×8	T15
WC42-WC60	WCMX080408	M4×11.5	T15

Recommended Cutting Conditions

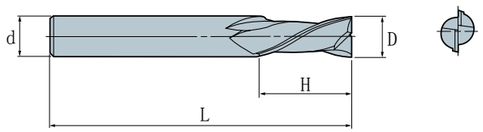
Material	Speed Of Cut (m/min)	Feed (mm/rev)						
		Φ14-Φ22	Φ23-Φ29	Φ30-Φ36	Φ37-Φ43	Φ44-Φ50	Φ51-Φ54	Φ60-Φ70
Low Alloy Steel (~0.3%C)	180-250	0.05~0.08	0.06~0.10	0.06~0.12	0.07~0.13	0.08~0.15	0.08~0.16	0.08~0.12
Carbon Steel (0.3%C~)	160-220	0.06~0.12	0.08~0.15	0.10~0.18	0.12~0.18	0.12~0.24	0.13~0.25	0.12~0.18
Low Carbon Steel (~HRC32)	150-220	0.06~0.12	0.08~0.14	0.10~0.18	0.12~0.18	0.12~0.23	0.13~0.24	0.10~0.18
High Alloy Steel (HRC32~)	130-180	0.06~0.10	0.08~0.15	0.10~0.20	0.12~0.20	0.12~0.24	0.13~0.25	0.10~0.15
Stainless Steel	170-240	0.05~0.10	0.06~0.12	0.08~0.15	0.09~0.15	0.10~0.17	0.11~0.19	0.08~0.15
Cast Iron	180-250	0.06~0.12	0.08~0.16	0.12~0.20	0.15~0.20	0.16~0.28	0.18~0.30	0.15~0.22
Ductile Cast Iron	130-200	0.06~0.10	0.08~0.15	0.10~0.18	0.12~0.18	0.15~0.23	0.16~0.25	0.10~0.20
Aluminium	330-380	0.06~0.14	0.08~0.15	0.10~0.20	0.12~0.20	0.14~0.23	0.15~0.26	0.15~0.25
Ti6Al	30-60	0.05~0.10	0.06~0.14	0.08~0.18	0.11~0.18	0.14~0.23	0.15~0.24	0.12~0.16

■Intial drilling,to recommend the use of cutting conditions in the middle range,followedby (in accordance with wear) to adjust the cutting parameters to achieve the best cuttingeffect.
■The above cutting parameters is for 3D,4D drilling tools,the cutting parameters need to decrease 15%.
■Cooling mode using only cold outside,cutting speed should be reduced by 10%.
■It must adopt inner colling mode for austenitic stainless steel maching.
■Drilling on the slope or the parts have pre-drilling hole or intersection hole,The drilling feedrate must decrease to 1/3of the recommended data.

TUNGSTEN STEEL END MILL



Tungsten Steel Flat End Mill with 2 Flutes

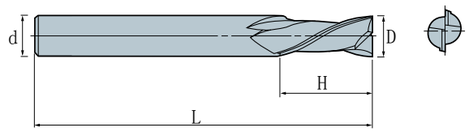


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AM2E01004050	1.0	4.0	3	50	2
AM2E01504050	1.5	4.0	4	50	2
AM2E02004050	2.0	4.0	6	50	2
AM2E02504050	2.5	4.0	8	50	2
AM2E03004050	3.0	4.0	8	50	2
AM2E04004050	4.0	4.0	11	50	2
AM2E03006050	3.0	6.0	8	50	2
AM2E03506050	3.5	6.0	10	50	2
AM2E04006050	4.0	6.0	11	50	2
AM2E04506050	4.5	6.0	11	50	2
AM2E05006050	5.0	6.0	13	50	2
AM2E05506050	5.5	6.0	16	50	2
AM2E06006050	6.0	6.0	16	50	2
AM2E07008060	7.0	8.0	20	60	2
AM2E08008060	8.0	8.0	20	60	2
AM2E09010075	9.0	10.0	22	75	2
AM2E10010075	10.0	10.0	25	75	2
AM2E11012075	11.1	12.0	26	75	2
AM2E12012075	12.0	12.0	30	75	2
AM2E14014075	14.0	14.0	32	75	2
AM2E16016100	16.0	16.0	45	100	2
AM2E18018100	18.0	18.0	45	100	2
AM2E20020100	20.0	20.0	45	100	2

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50.
-tolerance of mill D.
-tolerance of shank d

Tungsten Steel Flat End Mill with 2 Flutes(Lengthen Style)

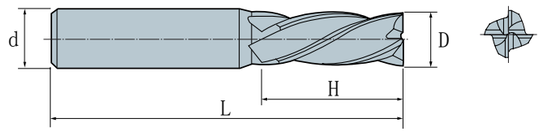


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AM2EL03006075	3.0	6.0	12	75	2
AM2EL04006075	4.0	6.0	15	75	2
AM2EL05006075	5.0	6.0	20	75	2
AM2EL06006075	6.0	6.0	20	75	2
AM2EL08008100	8.0	8.0	25	100	2
AM2EL10010100	10.0	10.0	30	100	2
AM2EL12012100	12.0	12.0	35	100	2
AM2EL14014100	14.0	14.0	40	100	2
AM2EL16016150	16.0	16.0	50	150	2
AM2EL20020150	20.0	20.0	55	150	2

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50.
-tolerance of mill D.
-tolerance of shank d

Tungsten Steel Flat End Mill with 4 Flutes

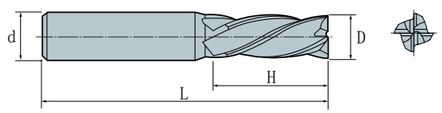


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AM4E01004050	3.0	4.0	3	50	4
AM4E01504050	4.0	4.0	4	50	4
AM4E02004050	2.0	4.0	6	50	4
AM4E02504050	2.5	4.0	8	50	4
AM4E03004050	3.0	4.0	8	50	4
AM4E04004050	4.0	4.0	11	50	4
AM4E03006050	3.0	6.0	8	50	4
AM4E03506050	3.5	6.0	10	50	4
AM4E04006050	4.0	6.0	11	50	4
AM4E04506050	4.5	6.0	11	50	4
AM4E05006050	5.0	6.0	13	50	4
AM4E05506050	5.5	6.0	16	50	4
AM4E06006050	6.0	6.0	16	50	4
AM4E07008060	7.0	8.0	20	60	4
AM4E08008060	8.0	8.0	20	60	4
AM4E09010075	9.0	10.0	22	75	4
AM4E10010075	10.0	10.0	25	75	4
AM4E11012075	11.1	12.0	26	75	4
AM4E12012075	12.0	12.0	30	75	4
AM4E14014075	14.0	14.0	32	75	4
AM4E16016100	16.0	16.0	45	100	4
AM4E18018100	18.0	18.0	45	100	4
AM4E20020100	20.0	20.0	45	100	4

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50.
-tolerance of mill D.
-tolerance of shank d

Tungsten Steel Flat End Mill with 4 Flutes (Lengthen Style)

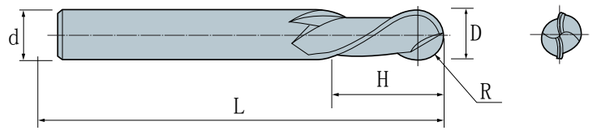


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AM4EL03006075	3.0	6.0	12	75	4
AM4EL04006075	4.0	6.0	15	75	4
AM4EL05006075	5.0	6.0	20	75	4
AM4EL06006075	6.0	6.0	20	75	4
AM4EL08008100	8.0	8.0	25	100	4
AM4EL10010100	10.0	10.0	30	100	4
AM4EL12012100	12.0	12.0	35	100	4
AM4EL14014100	14.0	14.0	40	100	4
AM4EL16016150	16.0	16.0	50	150	4
AM4EL20020150	20.0	20.0	55	150	4

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50.
-tolerance of mill D.
-tolerance of shank d

Tungsten Steel Ball End Mill with 2 Flutes

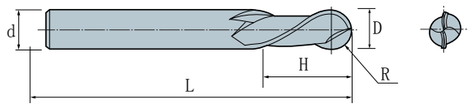


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
AM2BR0.5	1.0	0.5	4.0	2	50	2
AM2BR0.75	1.5	0.75	4.0	3	50	2
AM2BR1.0	2.0	1.00	4.0	4	50	2
AM2BR1.25	2.5	1.25	4.0	5	50	2
AM2BR1.55	3.0	1.50	4.0	6	50	2
AM2BR2.0S	4.0	2.00	4.0	8	50	2
AM2BR1.5	3.0	1.50	6.0	6	50	2
AM2BR1.75	3.5	1.75	6.0	8	50	2
AM2BR2.0	4.0	2.00	6.0	8	50	2
AM2BR2.5	5.0	2.5	6.0	10	50	2
AM2BR2.75	5.5	2.75	6.0	12	50	2
AM2BR3.0	6.0	3.00	6.0	12	50	2
AM2BR3.5	7.0	3.50	8.0	14	60	2
AM2BR4.0	8.0	4.00	8.0	16	60	2
AM2BR4.5	9.0	4.50	10.0	18	75	2
AM2BR5.0	10.0	5.00	10.0	20	75	2
AM2BR6.0	12.0	6.00	12.0	24	75	2
AM2BR7.0	14.0	7.00	14.0	28	75	2
AM2BR8.0	16.0	8.00	16.0	32	100	2
AM2BR10.0	20.0	10.00	20.0	40	100	2

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

Tungsten Steel Ball End Mill with 2 Flutes (Lengthen Style)

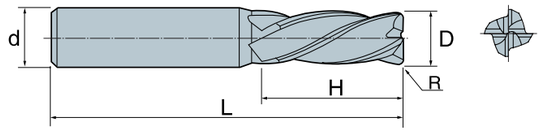


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
AM2BLR1.0	2.0	1.00	6.0	4	75	2
AM2BLR1.25	2.5	1.25	6.0	5	75	2
AM2BLR1.5	3.0	1.50	6.0	6	75	2
AM2BLR1.75	3.5	1.75	6.0	8	75	2
AM2BLR2.0	4.0	2.00	6.0	8	75	2
AM2BLR2.5	5.0	2.50	6.0	10	75	2
AM2BLR2.75	5.5	2.75	6.0	12	75	2
AM2BLR3.0	6.0	3.00	6.0	12	75	2
AM2BLR3.5	7.0	3.50	8.0	14	75	2
AM2BLR4.0	8.0	4.00	8.0	16	100	2
AM2BLR4.5	9.0	4.50	10.0	18	100	2
AM2BLR5.0	10.0	5.00	10.0	20	100	2
AM2BLR6.0	12.0	6.00	12.0	24	100	2
AM2BLR7.0	14.0	7.00	14.0	28	100	2
AM2BLR8.0	16.0	8.00	16.0	32	150	2
AM2BLR10.0	20.0	10.00	20.0	40	150	2

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

Tungsten Steel Round Nose End Mill with 4 Flutes

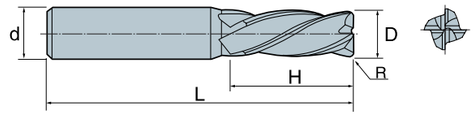


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
AM4RD3.0R0.2	1.0	0.2	4.0	8	50	4
AM4RD4.0R0.3	3.0	0.3	4.0	10	50	4
AM4RD4.0R0.5	4.0	0.5	4.0	10	50	4
AM4RD5.0R0.5	4.0	0.5	6.0	13	50	4
AM4RD5.0R1.0	5.0	1.0	6.0	13	50	4
AM4RD6.0R0.5	5.0	0.5	6.0	16	50	4
AM4RD6.0R1.0	6.0	1.0	6.0	16	50	4
AM4RD8.0R0.5	6.0	0.5	8.0	20	60	4
AM4RD8.0R1.0	8.0	1.0	8.0	20	60	4
AM4RD10.0R0.5	8.0	0.5	10.0	25	75	4
AM4RD10.0R1.0	10.0	1.0	10.0	25	75	4
AM4RD10.0R2.0	10.0	2.0	10.0	25	75	4
AM4RD10.0R3.0	10.0	3.0	10.0	25	75	4
AM4RD12.0R0.5	10.0	0.5	12.0	30	75	4
AM4RD12.0R1.0	12.0	1.0	12.0	30	75	4
AM4RD12.0R2.0	12.0	2.0	12.0	30	75	4
AM4RD12.0R3.0	12.0	3.0	12.0	30	75	4

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

Tungsten Steel Round Nose End Mill with 4 Flutes (Length Style)

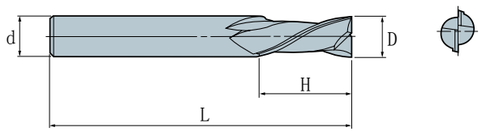


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
AM4RLD6.0R0.5	6.0	0.5	6.0	16	75	4
AM4RLD6.0R1.0	6.0	1.0	6.0	16	75	4
AM4RLD8.0R0.5	8.0	0.5	8.0	20	100	4
AM4RLD8.0R1.0	8.0	1.0	8.0	20	100	4
AM4RLD10.0R0.5	10.0	0.5	10.0	25	100	4
AM4RLD10.0R1.0	10.0	1.0	10.0	25	100	4
AM4RLD10.0R2.0	10.0	2.0	10.0	25	100	4
AM4RLD12.0R0.5	12.0	0.5	12.0	30	100	4
AM4RLD12.0R1.0	12.0	1.0	12.0	30	100	4
AM4RLD12.0R2.0	12.0	2.0	12.0	30	100	4
AM4RLD16.0R1.0	16.0	1.0	16.0	45	150	4
AM4RLD16.0R2.0	16.0	2.0	16.0	45	150	4

Feature

-Designed for machine tool steel, alloy steel, mold steel and other highly hardened materials up to HRC50
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 2 Flutes

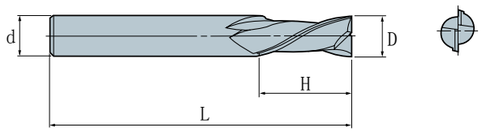


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
BM2ED1.0	1.0	4.0	3	50	2
BM2ED1.5	1.5	4.0	4	50	2
BM2ED2.0	2.0	4.0	6	50	2
BM2ED2.5	2.5	4.0	8	50	2
BM2ED3.0S	3.0	4.0	8	50	2
BM2ED4.0S	4.0	4.0	11	50	2
BM2ED3.0	3.0	6.0	8	50	2
BM2ED3.5	3.5	6.0	10	50	2
BM2ED4.0	4.0	6.0	11	5	2
BM2ED4.5	4.5	6.0	11	50	2
BM2ED5.0	5.0	6.0	13	50	2
BM2ED5.5	5.5	6.0	16	50	2
BM2ED6.0	6.0	6.0	16	50	2
BM2ED7.0	7.0	8.0	20	60	2
BM2ED8.0	8.0	8.0	20	60	2
BM2ED9.0	9.0	10.0	22	75	2
BM2ED10.0	10.0	10.0	25	75	2
BM2ED11.0	11.1	12.0	26	75	2
BM2ED12.0	12.0	12.0	30	75	2
BM2ED14.0	14.0	14.0	32	75	2
BM2ED16.0	16.0	16.0	45	100	2
BM2ED18.0	18.0	18.0	45	100	2
BM2ED20.0	20.0	20.0	45	100	2

Feature

Feature:
-Designed for high hardened materials up to HRC65
-tolerance of mill D.
-tolerance of shank d

High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 2 Flutes (Lengthen Style)

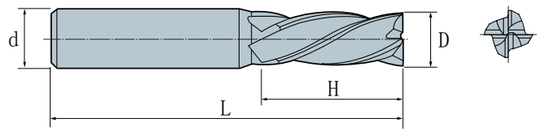


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
BM2ELD3.0	3.0	6.0	12	75	2
BM2ELD4.0	4.0	6.0	15	75	2
BM2ELD5.0	5.0	6.0	20	75	2
BM2ELD6.0	6.0	6.0	20	75	2
BM2ELD8.0	8.0	8.0	25	100	2
BM2ELD10.0	10.0	10.0	30	100	2
BM2ELD12.0	12.0	12.0	35	100	2
BM2ELD14.0	14.0	14.0	40	100	2
BM2ELD16.0	16.0	16.0	50	150	2
BM2ELD20.0	20.0	20.0	55	150	2

Feature

Feature:
-Designed for high hardened materials up to HRC65
-tolerance of mill D.
-tolerance of shank d

High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 4 Flutes

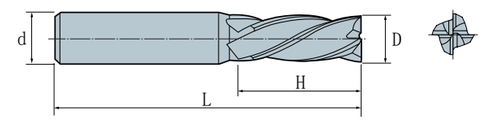


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
BM4ED1.0	1.0	4.0	3	50	4
BM4ED1.5	1.5	4.0	4	50	4
BM4ED2.0	2.0	4.0	6	50	4
BM4ED2.5	2.5	4.0	8	50	4
BM4ED3.0S	3.0	4.0	8	50	4
BM4ED4.0S	4.0	4.0	11	50	4
BM4ED3.0	3.0	6.0	8	50	4
BM4ED3.5	3.5	6.0	10	50	4
BM4ED4.0	4.0	6.0	11	50	4
BM4ED4.5	4.5	6.0	11	50	4
BM4ED5.0	5.0	6.0	13	50	4
BM4ED5.5	5.5	6.0	16	50	4
BM4ED6.0	6.0	6.0	16	50	4
BM4ED7.0	7.0	8.0	20	60	4
BM4ED8.0	8.0	8.0	20	60	4
BM4ED9.0	9.0	10.0	22	75	4
BM4ED10.0	10.0	10.0	25	75	4
BM4ED11.0	11.1	12.0	26	75	4
BM4ED12.0	12.0	12.0	30	75	4
BM4ED14.0	14.0	14.0	32	75	4
BM4ED16.0	16.0	16.0	45	100	4
BM4ED18.0	18.0	18.0	45	100	4
BM4ED20.0	20.0	20.0	45	100	4

Feature

Feature:
-Designed for high hardened materials up to HRC65
-tolerance of mill D.
-tolerance of shank d

High Hardness, High Speed Machining Tungsten Steel Flat End Mill with 4 Flutes (Lengthen Style)

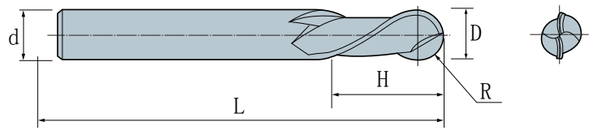


Code No.	Size(mm)				
	D	d	H	L	Fluet Number
BM4ELD3.0	3.0	6.0	12	75	4
BM4ELD4.0	4.0	6.0	15	75	4
BM4ELD5.0	5.0	6.0	20	75	4
BM4ELD6.0	6.0	6.0	20	75	4
BM4ELD8.0	8.0	8.0	25	100	4
BM4ELD10.0	10.0	10.0	30	100	4
BM4ELD12.0	12.0	12.0	35	100	4
BM4ELD14.0	14.0	14.0	40	100	4
BM4ELD16.0	16.0	16.0	50	150	4
BM4ELD22.0	20.0	20.0	55	150	4

Feature

Feature:
-Designed for high hardened materials up to HRC65
-tolerance of mill D.
-tolerance of shank d

High Hardness, High Speed Machining Tungsten Steel Ball End Mill with 2 Flutes

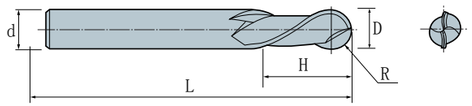


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
BM2BR0.5	1.0	0.5	4.0	2	50	2
BM2BR0.75	1.5	0.75	4.0	3	50	2
BM2BR1.0	2.0	1.00	4.0	4	50	2
BM2BR1.25	2.5	1.25	4.0	5	50	2
BM2BR1.55	3.0	1.50	4.0	6	50	2
BM2BR2.0S	4.0	2.00	4.0	8	50	2
BM2BR1.5	3.0	1.50	6.0	6	50	2
BM2BR1.75	3.5	1.75	6.0	8	50	2
BM2BR2.0	4.0	2.00	6.0	8	50	2
BM2BR2.5	5.0	2.5	6.0	10	50	2
BM2BR2.75	5.5	2.75	6.0	12	50	2
BM2BR3.0	6.0	3.00	6.0	12	50	2
BM2BR3.5	7.0	3.50	8.0	14	60	2
BM2BR4.0	8.0	4.00	8.0	16	60	2
BM2BR4.5	9.0	4.50	10.0	18	75	2
BM2BR5.0	10.0	5.00	10.0	20	75	2
BM2BR6.0	12.0	6.00	12.0	24	75	2
BM2BR7.0	14.0	7.00	14.0	28	75	2
BM2BR8.0	16.0	8.00	16.0	32	100	2
BM2BR10.0	20.0	10.00	20.0	40	100	2

Feature

-Designed for high hardened materials up to HRC65
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

High Hardness, High Speed Machining Tungsten Steel Ball End Mill with 2 Flutes (Lengthen Style)

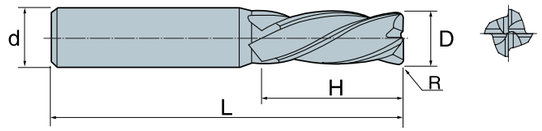


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
BM2BLR1.0	2.0	1.00	6.0	4	75	2
BM2BLR1.25	2.5	1.25	6.0	5	75	2
BM2BLR1.5	3.0	1.50	6.0	6	75	2
BM2BLR1.75	3.5	1.75	6.0	8	75	2
BM2BLR2.0	4.0	2.00	6.0	8	75	2
BM2BLR2.5	5.0	2.50	6.0	10	75	2
BM2BLR2.75	5.5	2.75	6.0	12	75	2
BM2BLR3.0	6.0	3.00	6.0	12	75	2
BM2BLR3.5	7.0	3.50	8.0	14	75	2
BM2BLR4.0	8.0	4.00	8.0	16	100	2
BM2BLR4.5	9.0	4.50	10.0	18	100	2
BM2BLR5.0	10.0	5.00	10.0	20	100	2
BM2BLR6.0	12.0	6.00	12.0	24	100	2
BM2BLR7.0	14.0	7.00	14.0	28	100	2
BM2BLR8.0	16.0	8.00	16.0	32	150	2
BM2BLR10.0	20.0	10.000	20.0	40	150	2

Feature

-Designed for high hardened materials up to HRC65
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

High Hardness, High Speed Machining Tungsten Steel Round Nose End Mill with 4 Flutes

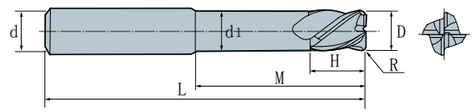


Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
BM4RD3.0R0.2	3.0	0.2	4.0	8	50	4
BM4RD4.0R0.3	4.0	0.3	4.0	10	50	4
BM4RD4.0R0.5	4.0	0.5	4.0	10	50	4
BM4RD5.0R0.5	5.0	0.5	6.0	13	50	4
BM4RD5.0R1.0	5.0	1.0	6.0	13	50	4
BM4RD6.0R0.5	6.0	0.5	6.0	16	50	4
BM4RD6.0R1.0	6.0	1.0	6.0	16	50	4
BM4RD8.0R0.5	8.0	0.5	8.0	20	60	4
BM4RD8.0R1.0	8.0	1.0	8.0	20	60	4
BM4RD10.0R0.5	10.0	0.5	10.0	25	75	4
BM4RD10.0R1.0	10.0	1.0	10.0	25	75	4
BM4RD10.0R2.0	10.0	2.0	10.0	25	75	4
BM4RD10.0R3.0	10.0	3.0	10.0	25	75	4
BM4RD12.0R0.5	12.0	0.5	12.0	30	75	4
BM4RD12.0R1.0	12.0	1.0	12.0	30	75	4
BM4RD12.0R2.0	12.0	2.0	12.0	30	75	4
BM4RD12.0R3.0	12.0	3.0	12.0	30	75	4

Feature

-Designed for high hardened materials up to HRC65
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

High Hardness, High Speed Machining Tungsten Steel Round Nose End Mill with 4 Flutes (Lengthen Style)

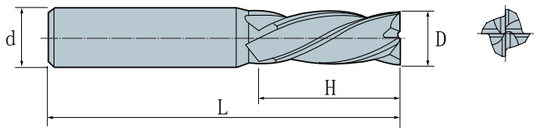


Code No.	Size(mm)							
	D	R	d	d1	H	M	L	Fluet Number
BM4RPD6.0R0.5	6.0	0.5	6.0	5.8	6	18	75	4
BM4RPD6.0R1.0	6.0	1.0	6.0	5.8	6	18	75	4
BM4RPD8.0R0.5	8.0	0.5	8.0	7.8	8	24	100	4
BM4RPD8.0R1.0	8.0	1.0	8.0	7.8	8	24	100	4
BM4RPD10.0R0.5	10.0	0.5	10.0	9.6	10	30	100	4
BM4RPD10.0R1.0	10.0	1.0	10.0	9.6	10	30	100	4
BM4RPD10.0R2.0	10.0	2.0	10.0	9.6	10	30	100	4
BM4RPD12.0R0.5	12.0	0.5	12.0	11.5	12	36	100	4
BM4RPD12.0R1.0	12.0	1.0	12.0	11.5	12	36	100	4
BM4RPD12.0R2.0	12.0	2.0	12.0	11.5	12	36	100	4
BM4RPD16.0R1.0	16.0	1.0	16.0	15.5	16	40	150	4
BM4RPD16.0R2	16.0	2.0	16.0	15.5	16	40	150	4

Feature

-Designed for high hardened materials up to HRC65
-suitable for copy milling
-tolerance of mill D.
-tolerance of shank d
-Corner radius against chipping in high speed machining

Aluminum Machining Tungsten Steel Flat End Mill with 2 Flutes



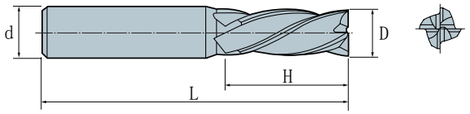
Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AL2ED1.0	1.0	4.0	3	50	2
AL2ED1.5	1.5	4.0	4	50	2
AL2ED2.0	2.0	4.0	6	50	2
AL2ED2.5	2.5	4.0	7	50	2
AL2ED3.0	3.0	6.0	9	50	2
AL2ED4.0	4.0	6.0	12	50	2
AL2ED5.0	5.0	6.0	15	50	2
AL2ED6.0	6.0	6.0	18	60	2
AL2ED8.0	8.0	8.0	20	60	2
AL2ED10.0	10.0	10.0	30	75	2
AL2ED12.0	12.0	12.0	32	75	2
AL2ED16.0	16.0	16.0	45	100	2
AL2ED20.0	20.0	20.0	45	100	2

Feature

-Designed for aluminum
-tolerance of mill D.
-tolerance of shank d
superior workpiece finishes

Aluminum Machining Tungsten Steel Flat End Mill with 2 Flutes (Lengthen Style)

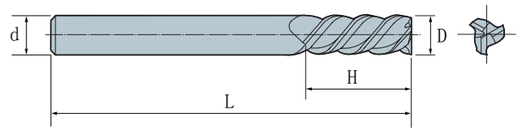
Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AL2ELD3.0	3.0	6.0	12	60	2
AL2ELD4.0	4.0	6.0	16	60	2
AL2ELD5.0	5.0	6.0	20	60	2
AL2ELD6.0	6.0	6.0	25	75	2
AL2ELD8.0	8.0	8.0	32	75	2
AL2ELD10.0	10.0	10.0	45	100	2
AL2ELD12.0	12.0	12.0	45	100	2
AL2ELD16.0	16.0	16.0	65	150	2
AL2ELD20.0	20.0	20.0	75	150	2



Feature

-Designed for aluminum
-tolerance of mill D.
-tolerance of shank d
superior workpiece finishes

Aluminum Machining Tungsten Steel Flat End Mill with 3 Flutes



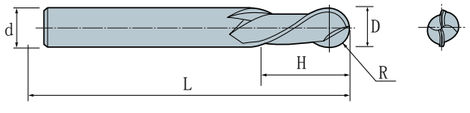
Code No.	Size(mm)				
	D	d	H	L	Fluet Number
AL3ED1.0	1.0	4.0	3	50	3
AL3ED1.5	1.5	4.0	4	50	3
AL3ED2.0	2.0	4.0	6	50	3
AL3ED2.5	2.5	40	7	50	3
AL3ED3.0	3.0	6.0	9	50	3
AL3ED4.0	4.0	6.0	12	50	3
AL3ED5.0	5.0	6.0	15	50	3
AL3ED6.0	6.0	6.0	18	60	3
AL3ED8.0	8.0	8.0	20	60	3
AL3ED10.0	10.0	10.0	30	75	3
AL3ED12.0	12.0	12.0	32	75	3
AL3ED16.0	16.0	16.0	45	100	3
AL3ED20.0	20.0	20.0	45	100	3

Feature

-Designed for aluminum
-tolerance of mill D.
-tolerance of shank d
superior workpiece finishes

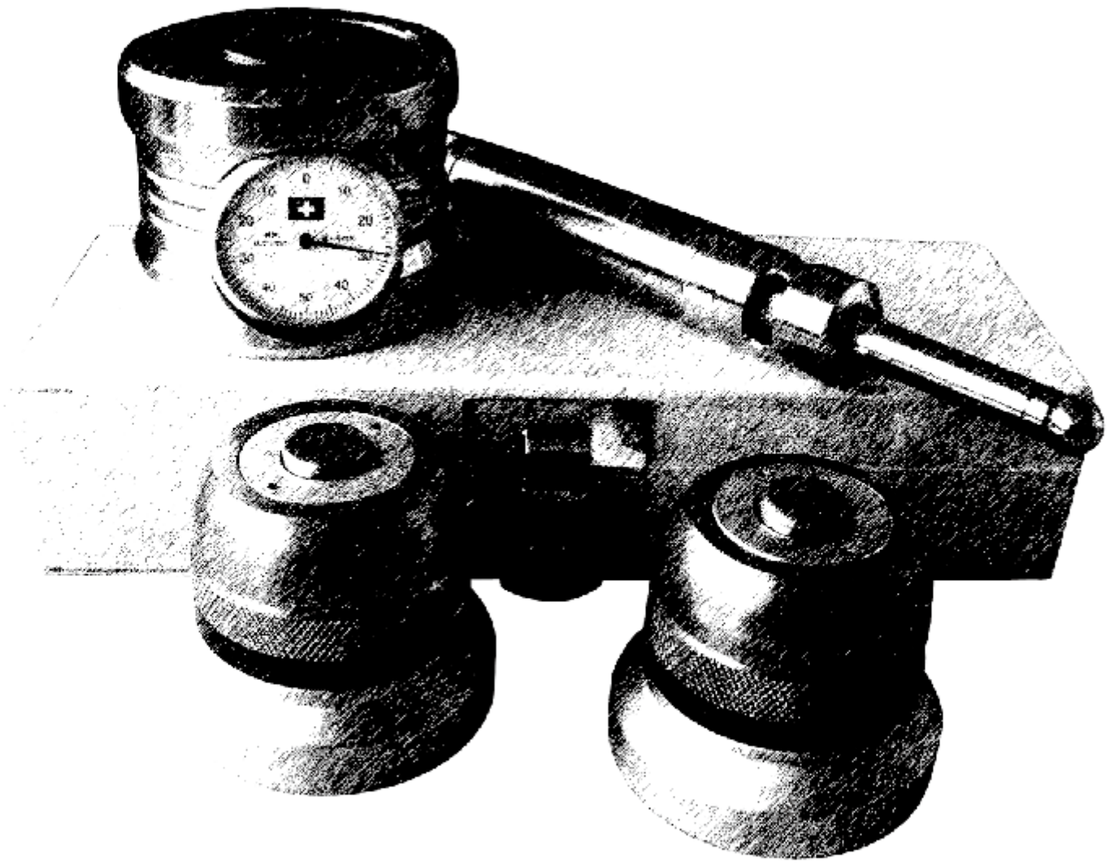
Aluminum Machining Tungsten Steel Ball End Mill with 2 Flutes

Code No.	Size(mm)					
	D	R	d	H	L	Fluet Number
AL2BR1.0	2.0	1.0	6.0	4	60	2
AL2BR1.5	3.0	1.5	6.0	6	60	2
AL2BR2.0	4.0	2.0	6.0	8	60	2
AL2BR2.5	5.0	2.5	6.0	10	60	2
AL2BR3.0	6.0	3.0	6.0	12	60	2
AL2BR4.0	8.0	4.0	8.0	16	75	2
AL2BR5.0	10.0	5.0	10.0	20	75	2
AL2BR6.0	12.0	6.0	12.0	24	75	2



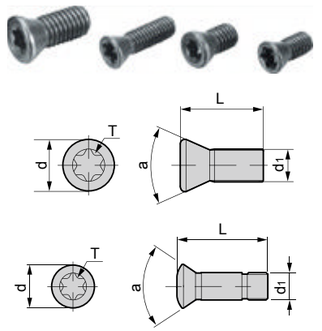
Feature

-Designed for aluminum
-tolerance of mill D.
-tolerance of shank d
superior workpiece finishes



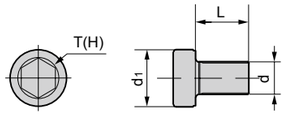
ACCESSORIES

General Screw



Code No.	Size(mm)				
	d	d1	L	a	T(H)
M2*4	2.7	2	3.7	55°	6
M2*5	2.7	2	5	55°	6
M2.2*5	3	2.2	4.8	55°	8
M2.5*5	3.5	2.5	5.5	55°	8
M2.5*6	3.5	2.5	6	55°	8
M3*6	4	3	6.5	55°	10
M3*7	4	3	7	55°	10
M3.5*8	5.2	3.5	8.5	55°	15
M4*8	5.5	4	8.5	55°	15
M4*9	5.5	4	9	55°	15
M4*10	6	4	10	55°	15
M4*11	5.5	4	11	55°	15
M5*11	7.2	5	11	55°	15
M5*12	7.2	5	12	55°	20
M3*7B	4.5	3	7	60°	8
M3*10B	4.5	3	10	60°	8
M3.5*8B	5.2	3.5	8	60°	15
M4*8B	5.7	4	8.2	60°	15
M4*10B	5.7	4	10	60°	15
M5*12B	7.2	5	12	60°	20
M4.5*11C	7	4.5	11	50°	15
M5*11X	7	5	11	45°	20
M3*7Z	4	3	7.2	38°	10
M4*8Z	5	4	8.2	38°	15
M4*9Z	5	4	9	38°	15
M5*11Z	6.6	5	11	38°	20
R4*	4.18	3	7.00	58°	8
R5*	5.95	4	8.65	58°	15
R6*	6.80	5	9.15	58°	20
R8*	7.48	5	12.89	58°	20
R10*	7.97	5	15.30	58°	20
R12.5*	9.55	6	20.43	58°	30
R15*	12	8	24.70	58°	30

General Hexagon Screw

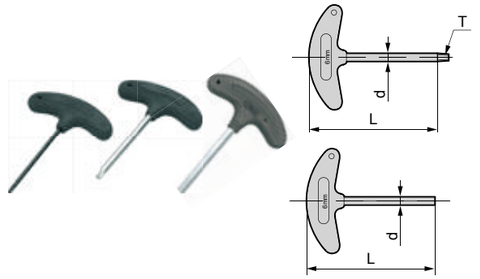


Code No.	Size(mm)			
	d	d1	L	T(H)
HTH0308	3	5.5	8	2.5
HTH0410	4	7	10	3
HTH0416	4	7	16	3
HTH0512	5	8.5	12	4
HTH0516	5	8.5	16	4
HTH0520	5	8.5	20	4
HTH0616	6	10	16	5
HTH0620	6	10	20	5
HTH0625	6	10	25	5
HTH0630	6	10	30	5
HTH0820	8	12.5	20	6
HTH0825	8	12.5	25	6
HTH0830	8	12.5	30	6
HTH0835	8	12.5	35	6
HTH1020	10	15	20	8
HTH1030	10	15	30	8
HTH1225	12	18	25	10
HTH1230	12	18	30	10
HTH1240	12	18	40	10
HTH1250	12	18	50	10
HTH1635	16	24	35	12
HTH1640	16	24	40	12
HTH1650	16	24	50	12

Wrench



Code No.	Size(mm)		
	d	L	T
T6	2.5	84	6
T8	3	86	8
T10	3	90	10
T15	5	94	15
T20	5	94	20

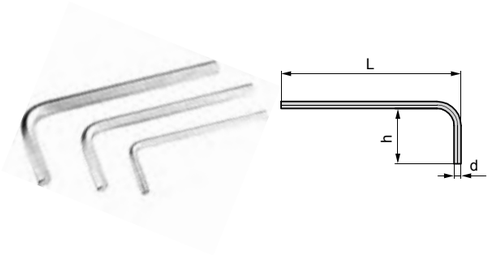


Code No.	Size(mm)		
	d	L	T
T30T	6	120	30

Code No.	Size(mm)		
	d	L	T
TH-20	2	58	2
TH-25	2.5	66	2.5
TH-30	3	72	3
TH-40	4	76	4
TH-50	5	92	5
TH-60	6	102	6

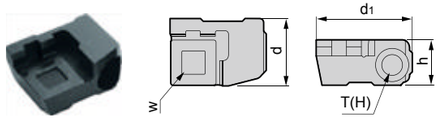


Code No.	Size(mm)		
	d	L	T
T6A	2.5	92	6
T8A	3	94	8
T10A	3	98	10
T15A	5	102	15
T20A	5	102	20

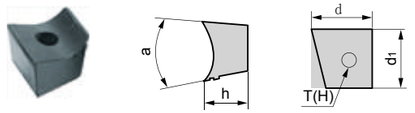


Code No.	Size(mm)		
	d	L	T
L2	2	52	12
L2.5	2.5	60	15
L3	3	65	20
L4	4	70	25
L5	5	78	28
L6	6	85	32

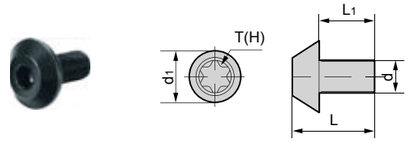
Clamp



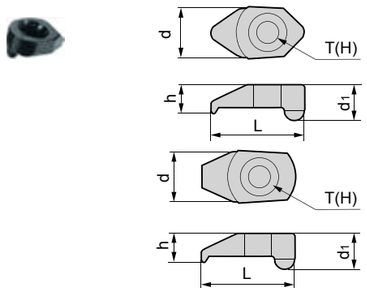
Code No.	Size(mm)				
	d1	d	h	w	T(H)
FC2550-SP1203-45	25	18	12	SPG1203	4
FC2550-SP1504-45	25	18	12	SPG1504	4
FC3050-SP2204-75	30	20	12	TPG2204	4



Code No.	Size(mm)				
	d1	d	L	a	T(H)
SV-128170-15-45	17	12.8	17.5	15°	6
SV-128170-15-75	17	12.8	19.5	15°	8

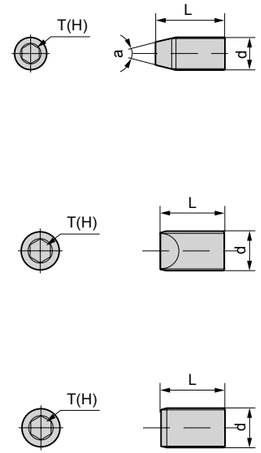


Code No.	Size(mm)				
	d1	d	L1	L	T(H)
HRP-5080T15	5	9	8	12.5	T15
HRP-6080H40	6	13.5	8	13	4
HRP-80120H50	8	18	12	16.5	5
HRP-80160H50	8	18	16	21	5



Code No.	Size(mm)				
	d1	d	L1	h	T(H)
ER-30T10	4	7.2	10	2.8	10
ER-40T15	6	8	12	4	15
ER-50T20	6.3	8.5	13	5	20
EM-35T15	5.7	8.5	14.3	4.5	15
EM-50T20	5.8	9.6	16.2	4	20

Screw for Boring



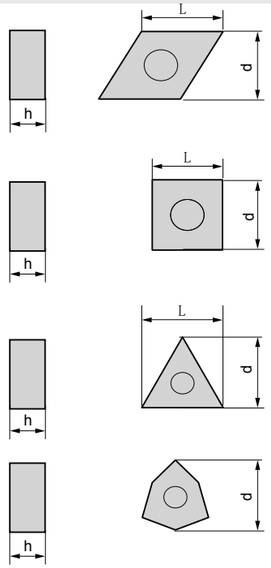
Code No.	Size(mm)			
	d1	L	a	T(H)
AHV0.507-2.5	5	7	60°	2.5
AHV0608-3	6	8	60°	3
AHV0811-4	8	11	60°	4
AHV1014-5	10	14	60°	5
AHV1218-6	12	18	60°	6

Code No.	Size(mm)		
	d	d1	T(H)
AH00815-4	15	8	4

Code No.	Size(mm)		
	d	L	T(H)
AHL0650	6	50	3
AHL0808	8	8	4
AHL0810	8	10	4
AHL0812	8	12	4
AHL0816	8	16	4
AHL0820	8	20	4
AHL0825	8	25	4
AHL0830	8	30	4
AHL1010	10	10	5
AHL1012	10	12	5
AHL1016	10	16	5
AHL1020	10	20	5
AHL1025	10	25	5
AHL1030	10	30	5
AHL1212	12	12	6
AHL1214	12	14	6
AHL1216	12	16	6
AHL1220	12	20	6
AHL1225	12	25	6
AHL1230	12	30	6
AHL1416-6	14	16	6
AHL1615-8	16	15	6
AHL1819-10	18	19	8
AHL2018-10	20	18	10

Code No.	Size(mm)		
	d	L	T(H)
AHL0306	3	6	1.5
AHL0308	3	8	1.5
AHL0404	4	4	2
AHL0405	4	5	2
AHL0406	4	6	2
AHL0408	4	8	2
AHL0410	4	10	2
AHL0412	4	12	3
AHL0416	4	16	2
AHL0420	4	20	2
AHL0506	5	6	2.5
AHL0508	5	8	2.5
AHL0510	5	10	2.5
AHL0512	5	12	2.5
AHL0516	5	16	2.5
AHL0520	5	20	2.5
AHL0525	5	25	2.5
AHL0530	5	30	2.5
AHL0605	6	5	3
AHL0606	6	6	3
AHL0608	6	8	3
AHL0610	6	10	3
AHL0612	6	12	3
AHL0616	6	16	3

Knives Cushion For Lathe



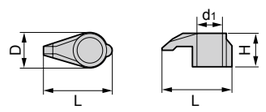
Code No.	Size(mm)		
	d	h	L
MD1103	6	3	11
MD1504	6	4	15
MD1506	6	6	15
MC1204	8	4	12
MC1604	8	4	16
MC1904	8	4	19
MV1603	8	3	16

Code No.	Size(mm)		
	d	h	L
MS1204	6	4	12
MS1504	8	4	15
MS1904	8	4	19

Code No.	Size(mm)		
	d	h	L
MT1603	6	3	16
MT2204	6	4	22

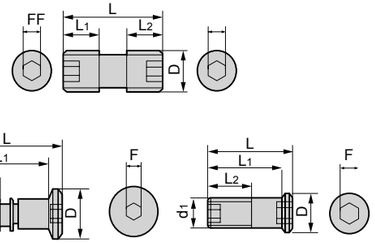
Code No.	Size(mm)		
	d	h	L
MW0603	6	3	12
MW0804	6	4	16

Plate For Lathe



Code No.	Size(mm)			
	D	d1	L	H
MY0619	8.60	6.00	18.15	7.70

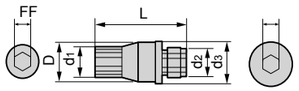
Plate Screw For Lathe



Code No.	Size(mm)				
	D	L1	L2	L	F
ML0625	M6*1.0	8.3	8.3	25.0	3
ML0828	M8*1.0	12.0	10.0	24.7	4

Code No.	Size(mm)					
	D	d1	L1	L2	L	F
CL0515	6.5	M5*0.8	14.0	5.7	15.5	3
DL0517	8.54	M5*0.8	13.3	5.5	15.45	3
DL0520	8.50	M5*0.8	18.6	10.9	20.55	3
DL0525	9.92	M6*1.0	22.1	12.3	26.55	4

Center Screw For Lathe



Code No.	Size(mm)				
	D	d1	d2	d3	L
MX0513	6.20	3.65	M5*0.8	5.46	12.88
MX0613	7.83	5.00	M6*1.0	7.07	15.50
MX0617	7.76	5.00	M6*1.0	7.17	17.20
MX0822	10.20	6.17	M8*1.0	9.45	21.80
MX1022	11.95	7.95	M10*1	11.00	22.10

Optical Electronic Edge Finder

Code No.	Type	Shank Dia	Total Length	Test Tip Dia
OP-20	Illumination but without beep as illustrated pic	3/4"(20mm)	6.3"(160mm)	0.4"(10mm)
OP-32		5/4"(32mm)	6.1"(155mm)	0.4"(10mm)
ES-20	Illumination and beep as illustrated pic	3/4"(20mm)	6.3"(160mm)	0.4"(10mm)
ES-32		5/4"(32mm)	6.3"(160mm)	0.4"(10mm)

Optical Edge Finder

Quick locate working edges.
Save time to find positions,for milling machine, jig borers, and other machine tools.
Is a high sensible position measuring
Uses dry batteries to light the red lamp.
The scope of application includes edge surface, inside and out side diameters and high efficiency.
There is a safety spring puller, which will put a ball precisely back to the position when ball breaks away from ball seat.

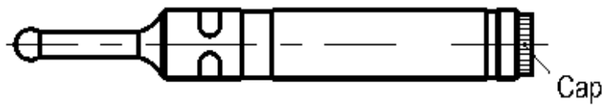


ES Optical Edge Finder

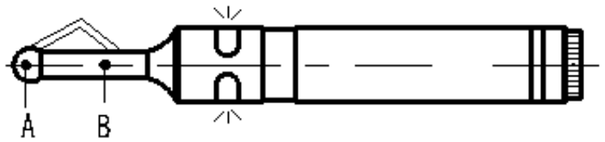
- the red lamp can concentrate light and resist water.
- It will beep at the same time when the red lamp is on.
- When probe is in a deep hole you can't see the red light, but you can hear the sound.

How to use the optical edge finder:

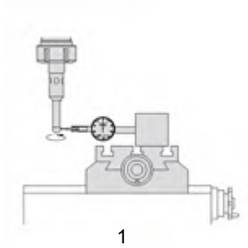
1. Insert the batteries
Take off the batteries' cap and insert batteries correctly. Do not insert batteries upside down.

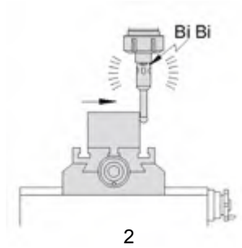


2. Confirmation of the light
Confirm the lighting of red lamp with touching A-B part with a metal material (clip,L-mench,etc.)

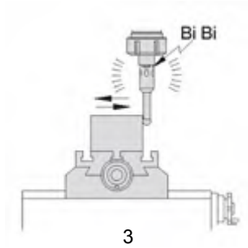


3. Mount the edge finder into tool holder and check if its concentricity is within 0.005mm.
4. Do not place Edge Finder's body below work surface. Be sure that ball center is approximately 1/32" or 1mm below work surface.
5. Move the work table to make the edge of work piece touch the ball of edge finder until the red lamp is illuminate.
6. Mark the reading dial of table movement, backward the table a little and re-touch the work piece to edge finder slightly until the red lamp is on again to make sure of the correct dial reading
1. Zero the reading dial and move the table to the desired position by adding 5mm to the desired dimension X.
2. Take off the edge finer and remount the desired tooling for the machining
T.I.R within 0.0002"-0.005mm.

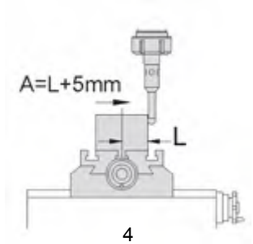

1



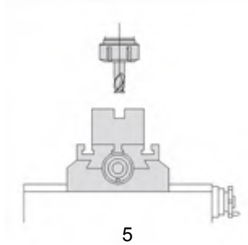
2



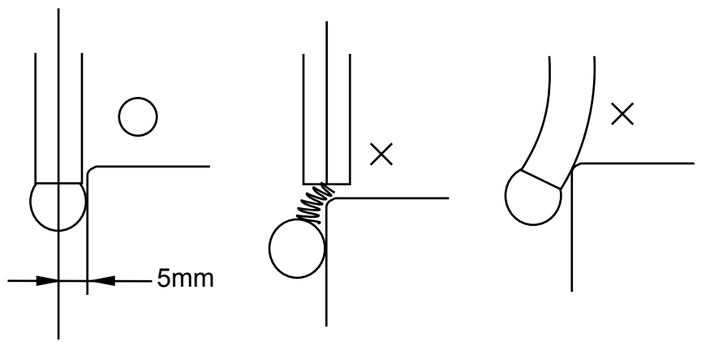
3



4


5

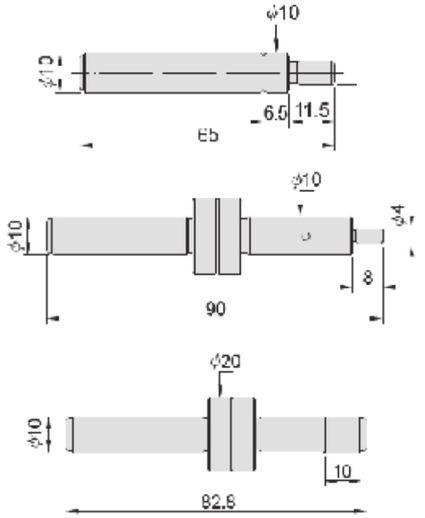
This Edge Finder is damage-free with spring-sustained ball. In case of over-travel, move backward and feed carefully.



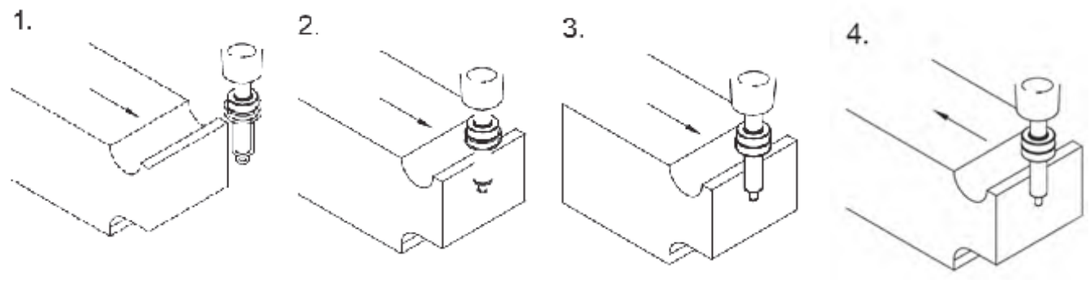
Mechanical Edge Finder

Code No.	Type	Test Dia	Shank Dia	Total Length	Precision
ME-610	SCM-21 steel with Magnetism	Ø6mm	0.4"(10mm)	2.56"(65mm)	0.002mm
ME-1020		Ø10mm	0.4"(10mm)	3.26"(82.8mm)	0.002mm
ME-1020×3/8		Ø10mm	0.4"(10mm)	3.26"(82.8mm)	0.002mm
ME-420		Ø4mmØ10mm	3/8"(9.5mm)	3.54"(90mm)	0.002mm
ME-420×3/8		Ø4mmØ10mm	3/8"(9.5mm)	3.54"(90mm)	0.002mm
HME-420	Hard anodic coating without magnetism	Ø4mmØ10mm	0.4"(10mm)	3.54"(90mm)	0.002mm
HME-1020		Ø10mm	0.4"(10mm)	3.26"(82.8mm)	0.002mm

-Φ10 straight shank head installed in the folder to light that the stator fingers to eccentricity of about 0.5mm.
-The speed of rotation to 400-600/min, so that determination of sub-structures in the processing side face contact, to touch
a little bit of movement, so that child is no longer measured vibration, like a static state.
-And then feed in touch fretting determined child would slip in one direction, the slip is a necessary starting point to find the
location of the base.
-Processing of the end itself, the location of objects is determined with the coordinates of the location of sub-radius.
-Not suitable for use in cross-type device.



-Accuracy of the point to point is within 0.002mm.
-R.P.M. Within-400-600
-Max. Flange is clear for our sight
-4mm is the min. Hole that could be tested.



-suitable for milling machine, drilling machine,boring machine.

Analog Axial Preset Gauge



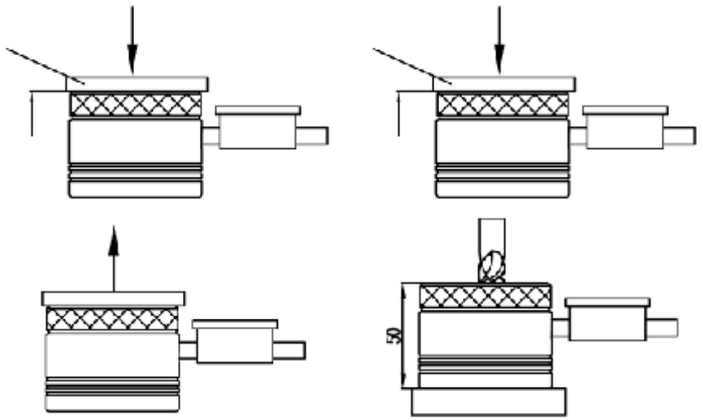
HIP50-B



HVP50-B

Feature

Analog Axial preset gauge features
Accuracy 0.0002"
Easy to measure tool depth
Height 50mm
Instructions
1. Use the gauge pin included to press down on the spring-loaded center piece as illustrated. Please be sure the gauge pin is placed on the shiny surface.
2. Turning the indicator to read"0", then remove the gauge pin.
3. Put the unit on the workpiece and carefully jog the tool down to make contact with the gauge face. When the gauge reads"0" the tools is 2"above the workpiece



Code No.	Type	Chief Height
HIP50-B	Analog internal as illustrated HIP50-B.	50mm
HVP50-B	Analog external as illustrated HVP50-B.	50mm

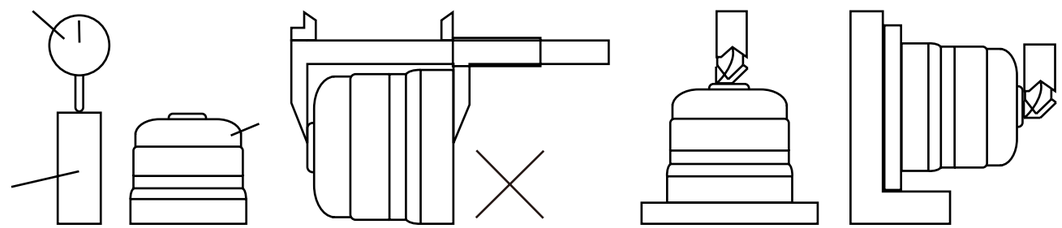
Touch Lamp Axial Preset Gauge



ZOP-50

Feature

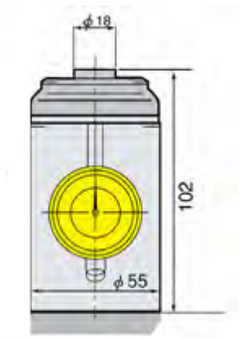
Accuracy 0.0002"
360°red lamp lights up when touched
Chief height (50mm)
Magnetic base(use vertically or horizontally)
Instructions
1. Check height of unit with a gauge block and dial indicator. Turn allen screw on the side of the unit if adjustment is needed.
2. Do not use calipers for presetting unit, only use gauge block.
3. Move the cutting tool tip towards the sensor button until the unit lights up, then reverse direction until the light goes off .
4. When presetting diameter, rotate tool slowly for higher precision.

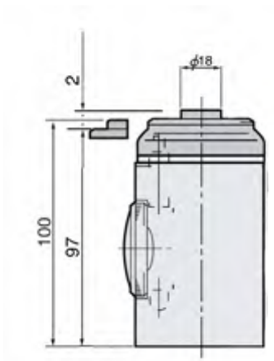


Code No.	Type	Chief Height
ZOP-50	Touch Lamp as inllustrated ZOP-50	50mm

100MM Height Presetter

No need to test cut!
Reference point of work piece can be measured very quickly and accurately without damage of tool teeth.

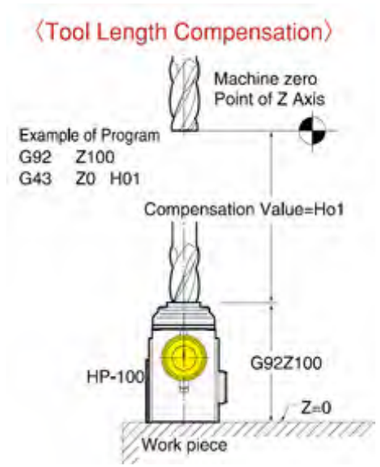




Feature

- High precision measurement
- Easy to accurately measure tooling off-set values on the machine.
- Hard wearing powerful magnetic base.
- It's powerful magnetic base makes it suitable for use on manual machine as well as vertical/Horizontal Machining Centres and NC Lathes.
- Swarf removal
  The magnetic base can keep the reference face clean.
- Plunger Head is given a Anti-rust Rubber seal.

Adjustment of reference point
No setting gauge plate is required to adjust zero point. Push plunger down by hand, and adjust the large hand to the zero scale of dial gauge. The small hand indicated"-3" at this time.



Universal 3D-Sensors

Code No.	Shank Dia	Needle Dia
3D-D	20mm	4mm



Test Bar

Code No.
BT30-TA250
BT40-TA300
BT50-TA400



Benchtop Mount Fixtures

- For BT,HSK spindles
- Bolts right to workbench

Code No.
LK-BT30
LK-BT40
LK-BT50
LK-HSK63A
LK-HSK80A



Tool Holder Locking Device

Code No.		
LD-BT30	LD-BT40	LD-BT50



Tooling Sheath

Code No.		
TS-30	TS-40	TS-50



Spindle Taper Wiper

Code No.	Weight (KGS)
BT30	0.05
BT40	0.06
BT50	0.13



Clamping Kit

Code No.
CA-12-58P
CA-16-58P
PA-1/2-58P
PA-5/8-58P



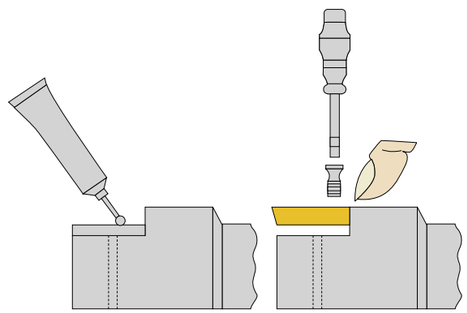
Tool Trolley

Code No.	Number of Each Row
TC-30	4×7=28
TC-35	4×7=28
TC-40	4×7=28
TC-45	4×6=24
TC-50	4×5=20



Installation Instructions of Screw and Insert

1.During installation of the insert, anti-seize lubricant must be oiled on the thread of the cutting tools' screw holes.
2.Before locking screws, hands should hold back to make sure the lower surface of the insert to be fitted with the shim.
3.It is not correct to pull the inserts on the position through locking screws which will make it misplaced and failure in locking.
4.When locking the screws, we suggest using our wrench or torque wrench to avoid any damage and make sure the right installation.
5.The above mentioned installation method is suitable for all the cutting tools which are used the center screws to fix the inserts.



Notes

Notices about tooling assembling and disassembling.

-Please fix the tooling into tool-locking device, the following is tooling assembling and disassembling.
-Please don't touch the cutting edge when assembled tooling holders in order to protect the hands.
-In order to ensure security, you should use the fastening wrench we offered.
Make sure that all the fasteners are fixed when assembling the tooling holders in the machine.

Notices of processing

-Do not touch the rotating tool holder or cutting tools.
-Please wear the protective clothing and eyepiece when processing in order to protect you from the damage of flying high-temperature chips.
-Please do not open the protection door of the machine when you rotate the cutting tools in order to prevent accidents in the proccssing.

Notices of the ling-term maintenance of the cutting tools.

-Please remove the cutting tools from tool holder when it is not used for a lang time,or the clamping force and precision gripping of the tool holder will be a decline and the connecting surface will be ternished.
-Please clean the chip cutting fluid of cutting tools and tool holder before preservation,and also can deal with a proper rust prevention treatment,such as anti-rust oil coating.