AHB

TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

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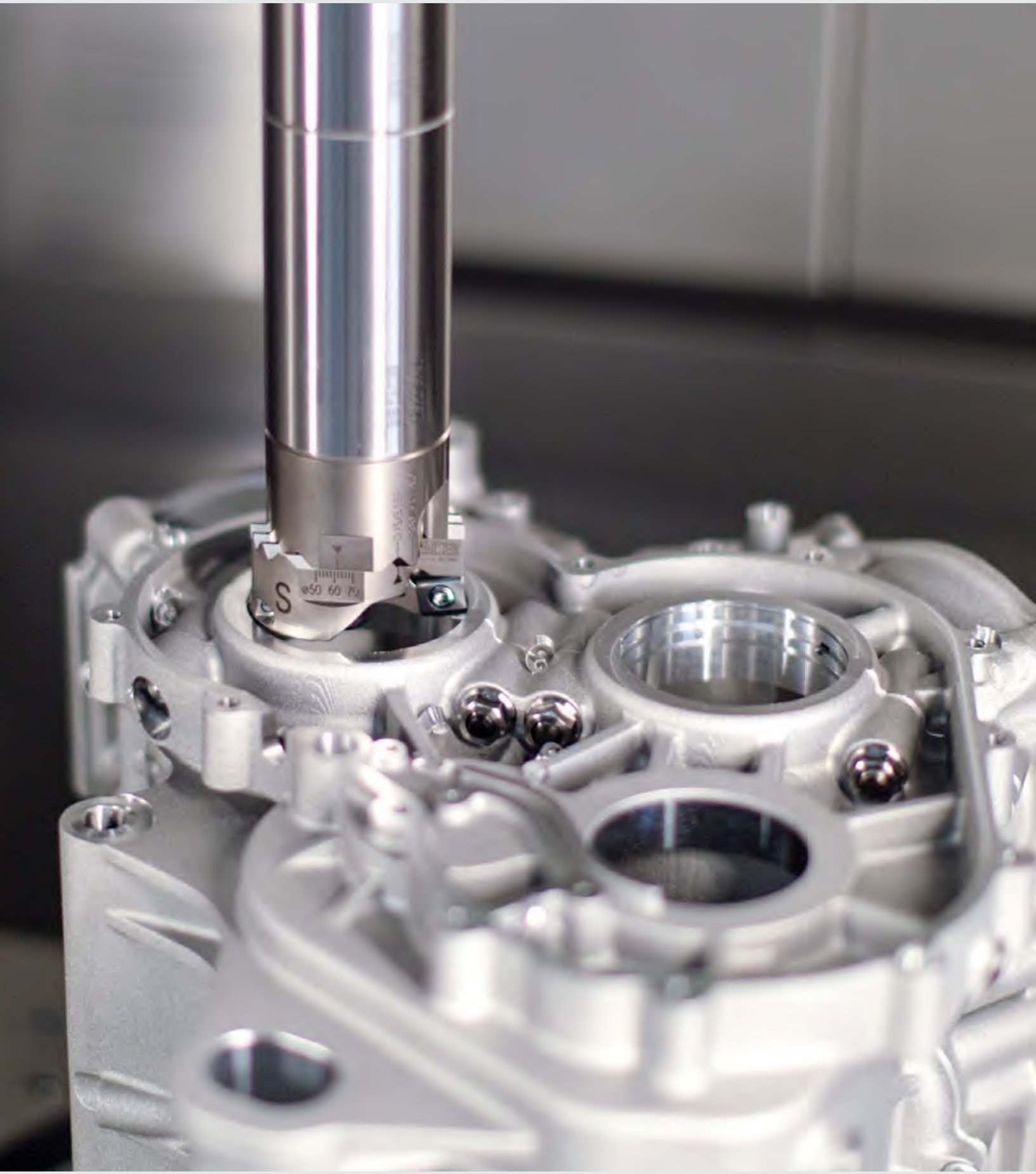
BIG DAISHOWA

HIGH PERFORMANCE TOOLING SOLUTIONS

VOL. 5

BIG DAISHOWA



BIG DAISHOWA

TOOL HOLDERS

BORING TOOLS

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COLLET CHUCKS

CLAMPING RANGE:
Ø.018"-.317"
(Ø.45-8.05mm)

MAX 50,000 RPM

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MEGA MICRO CHUCK

COLLET CHUCKS

CLAMPING RANGE:
Ø.010"-1.000"
(Ø.25-25.4mm)

MAX 40,000 RPM

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MEGA NEW BABY CHUCK

COLLET CHUCKS

CLAMPING RANGE:
Ø.075"-.787"
(Ø1.9-20mm)

MAX 35,000 RPM

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MEGA ER GRIP

COLLET CHUCKS

CLAMPING RANGE:
Ø.125"-.500"
(Ø3-12mm)

MAX 40,000 RPM

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MEGA E CHUCK

COLLET CHUCKS

CLAMPING RANGE:
Ø.010"-.787"
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NEW BABY CHUCK

MILLING CHUCKS

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MEGA DOUBLE POWER CHUCK

MILLING CHUCKS

CLAMPING RANGE:
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MILLING CHUCKS

CLAMPING RANGE:
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(Ø16-42mm)

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NEW Hi-POWER MILLING CHUCK

HYDRAULIC CHUCKS

CLAMPING RANGE:
Ø.125"-1.250"
(Ø3-32mm)

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HYDRAULIC CHUCK

BIG DAISHOWA

BASIC ARBORS

CLAMPING RANGE: Ø.250"-1.250" (Ø4-20mm)

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BASIC ARBORS

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BASIC ARBORS

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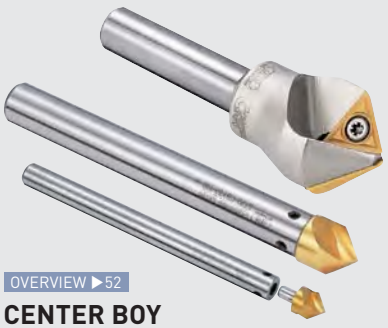
C-CUTTER MICRO

C-CENTERING CUTTER

CHAMFER MILLS



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CENTER BOY

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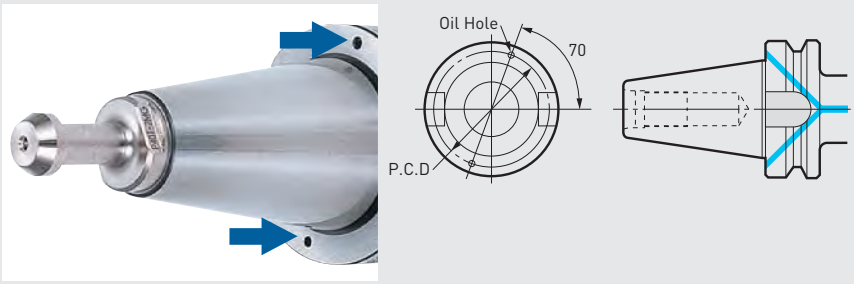
TABLE CLEANING

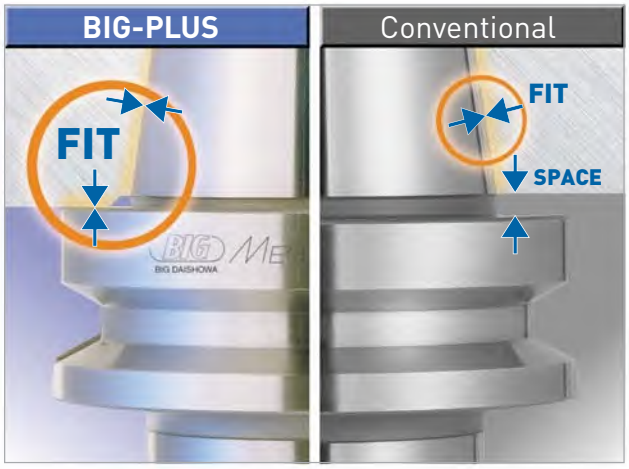
FLANGE THROUGH COOLANT

We offer DIN69871/B flange through coolant upon request.



Tool holders modified for flange through coolant must use proper pullstud to seal backflow of coolant into the spindle.

BIG-PLUS DUAL CONTACT



BIG-PLUS® SPINDLE SYSTEM DUAL CONTACT
BCV | BBT | BDV

SIMULTANEOUS TAPER & FLANGE FIT

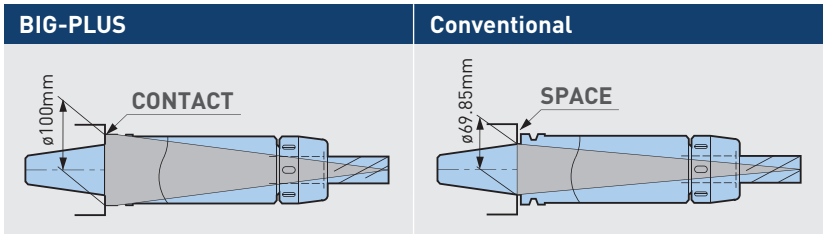
BIG-PLUS surpasses all other spindle concepts while offering interchangeability with existing machines and tool holders.

- Improved surface finish & dimensional accuracy
- Extended tool life
- Improvement of ATC repeatability
- Elimination of Z-axial movement at high speeds
- Improved roundness of boring operations

BASIC CONCEPT

The BIG-PLUS Spindle System is based on the most current available standards in ASME B5.50, JIS B6339 and DIN 69871. A conventional steep taper tool holder is supported on a reference diameter called the gage line. On the contrary, a BIG-PLUS tool holder is supported on the flange face, which brings remarkable improvement to rigidity.

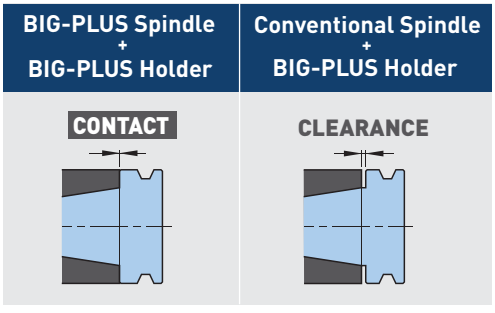
Increased Contact Diameter (Example of BT50)

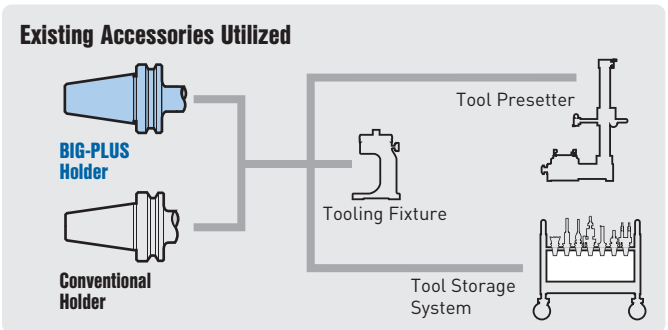


Taper No.	Conventional	BIG-PLUS
CV50	ø2.750	ø3.875
CV40	ø1.750	ø2.500
BT30	ø1.250	ø1.811

PERFECT INTERCHANGEABILITY

BIG-PLUS tool holders can be used on existing standard machine spindles. Existing standard tool holders can also be used on BIG-PLUS spindles. In this case, however, simultaneous contact cannot be attained. Although other simultaneous contact systems require exclusive new accessories, BIG-PLUS tooling uses existing accessories such as a tool presetter and tool holder fixture as it is based on a conventional steep taper shank. Further, it is not necessary to modify tool magazines and ATC devices of existing machines.





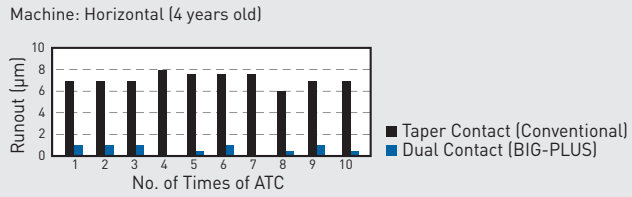
THE BIG-PLUS SPINDLE SYSTEM IS AN ORIGINAL DEVELOPMENT OF BIG DAISHOWA SEIKI CO., LTD.

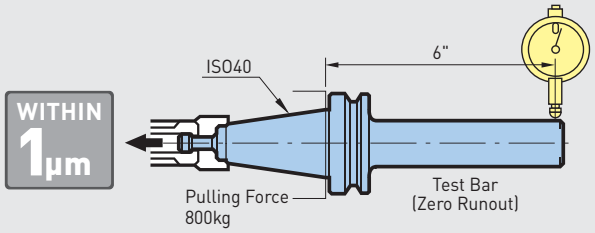
BIG-PLUS spindles have been adopted by licensed machine and spindle builders around the world under strictly controlled dimensions using BIG's master gage. In order to protect the spindle or prevent possible accident, only use tool holders with the BIG-PLUS trademark.

IMPROVEMENT OF ATC REPEATABILITY

The BIG-PLUS Spindle System ensures the highest precision location of the tool holder in the spindle when using the ATC for loading tools as a result of the dual contact, which precisely positions the tool holder within 1 micron.

ATC Repeatability

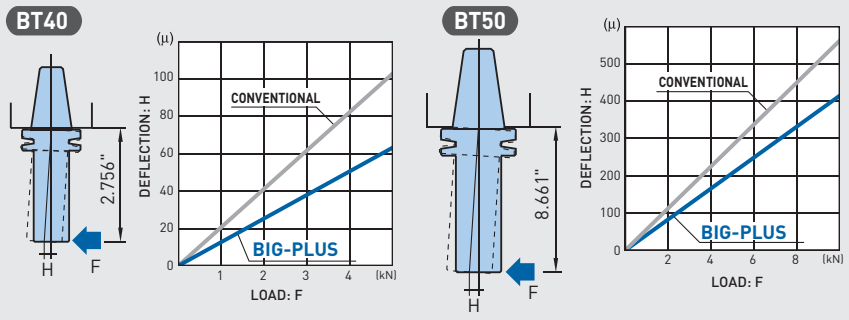




MINIMIZED DEFLECTION FOR MAXIMUM MACHINING ACCURACY & SUPERIOR FINISH

BIG-PLUS simultaneous contact enhances machining rigidity with the larger contact diameter of the tool holder flange face, reducing deflection and improving accuracy and finish.

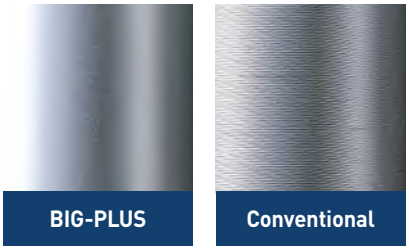
Comparison Of Deflection



Deflection of a machine spindle is shown. A vertical machine was used for the test.

Deflection of a machine spindle is shown. A vertical machine was used for the test.

Strict Gage Control



Cutting Conditions

Machine: 40 Taper (Horizontal Machining Center)
Cutter: Face Mill ø5" (6 cutting edges)
Work Material: A2017 Duralumin
Cutting Depth: .094"

STRICT GAGE CONTROL

BIG-PLUS spindles produced by the licensed machine and spindle builders are strictly controlled in dimensions by the original BIG master gage. Only BIG-PLUS trademarked tool holders can achieve the optimal performance fully and safely.

Gages for Machine Spindle

Master Gage

Measuring Device

Master Arbor

BIG-PLUS Spindle System Machine Builders

The BIG-PLUS Spindle System is offered by many of the world's leading manufacturers of machining centers. Some of the machine and spindle builders who have produced BIG-PLUS spindles are as follows:

ACCUWAY, **ADVANCED MACHINE**, ALEX-TECH, AMS, ANCA, AONO GIKEN, ARES, ASADA SEIKI, ASA TECH, AWEA, BERG SPANNTECHNIK, BFW, BOST, BROTHER, CERI, CHEVALIER, CHUO-SEIKI, CITIZEN, COLGAR, D.S.TECHNOLOGIE, DAH LIH, DAITO, DAIYA SEIKI, DIXI, DMC, DMG MORI PRECISION BORING, DMG MORI SEIKI, DOOSAN, EGIN-HEINISCH, EGURO, EMCO, ENSHU, FADAL, ANUC, FEELER, FEMCO, FIRST, FIRST, **FISCHER**, FOREST-LINÉ, FPT, FRANZ KESSLER, GIDDINGS & LEWIS, GMN, GROB, **GTI**, HAIDE, HARDINGE, HARTFORD, HEYLIGENSTAEDT, HISION, HNK, HOMMA, HORKOS, HOWA, HSD, HST, HURCO, HWACHEON, IBAG, IBARMIA INNOVATEK, IKEGAI, INOUE KOSOKU KIKAI, JHENG TAI, JOBS, JOHNFORD, JTEKT MACHINE SYSTEMS, JTEKT, JUNGWOO M.S., JYOTI, KARATS, KASHIFUJI, KASWIN, KENTURN, KIRA, KITAMURA, KIWA, KMT, KOMATSU NTC, KONDIA, KOYO, KPTEC, LAZZATI, LMW, MAG, MAGNIX, MAKINO, MAKINO SEIKI, MANDELLI, MATSUURA, MAZAK, MCM, MECTRON, MILLTRONICS, MITSUI SEIKI, MOTOKUBO, MTE, MYL, N.S.S, NACHI, NAKAMURA, NEWAY, NICOLÀS CORREA, NIDEC MACHINE TOOL, NIDEC OKK, NIIGATA, NIPPON BEARING, NISHIJIMAX, NISSIN-MFG, NOMURA, **NORTHLAND TOOL**, NSK, NUMEN, O-M, OBATAKE, OHTORI, OKUMA, OMLAT, OMV, OVERMACH, PAMA, **PDS**, PIETRO CARNAGHI, PMC, QUASER, REIDEN, ROKU ROKU, ROYAL, RS TEC, SAJO, SEMA, SEMPUCO, **SETCO**, SHAN RONG, SHIBAURA, SHODA, SHW, SKF USA, SKG, SKODA, SKYNC, SMEC, SNK, SODICK, SORALUCE, SPINDER, SPINTEC, SPINTRUE, **SPS**, STARRAGHECKERT, STUDER, SUFENG, SUGINO, SUNWOO, **SUPERIOR SPINDLE SERVICE**, SWIFT, TAJMAC-ZPS, TAKAMAZ KIKAI KOUGYOU, TAKISAWA, TANABE, THETA, TONGTAI, TOS KURIM, TOS VARNSDORF, TOYO SEIKI, TSUDAKOMA, TSUGAMI, UGINT, UTSUNOMIYA, VICTOR TAICHUNG, VTEC, VYU CHENG, WALDRICH COBURG, WELE, WIA, YAMASAKI GIKEN, YAMASHINA SEIKI, YASDA, YASUNAGA, YCM, YU HUNG, ZAYER

(As of September 2025)

• Bold company names are North American licensed BIG-PLUS spindle rebuilders

HSK TOOLING SYSTEM

ISO 12164/DIN 69893/ASME B5.62

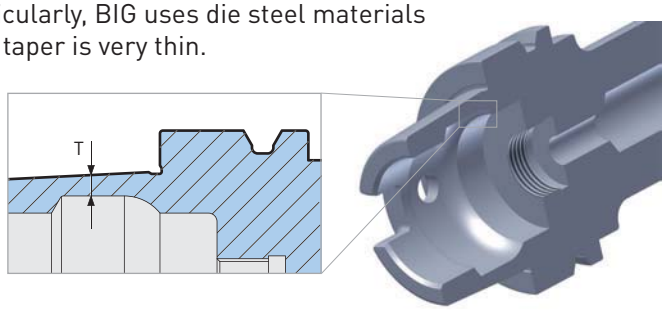
Selected materials and strict control of dimensional accuracy for the optimum quality. Wide range of standard holders to meet all production requirements.

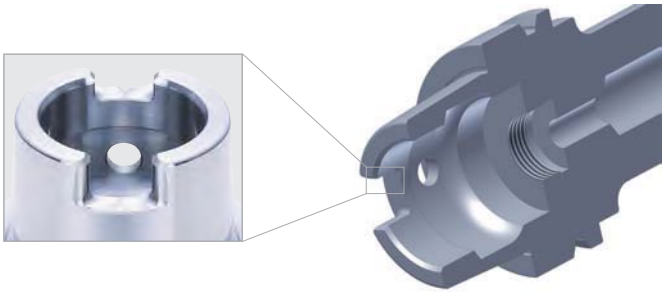
AVAILABLE IN
HSK TYPE A/E/F
HSK SIZES
25/32/40/50/63/80/100/125

PREMIUM MATERIAL SELECTION

Since HSK is a hollow taper shank, the material has a critical role for optimum performance. BIG uses carefully selected high-grade alloy steels. Particularly, BIG uses die steel materials for HSK40 and smaller where the cross section of shank taper is very thin.

HSK Type	HSK Size						
	25	32	40	50	63	100	.125
T	.043	.049	.076	.102	.137	.204	.254



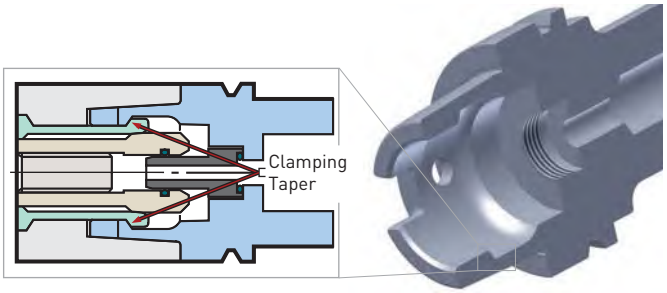


DRIVE KEY FORM

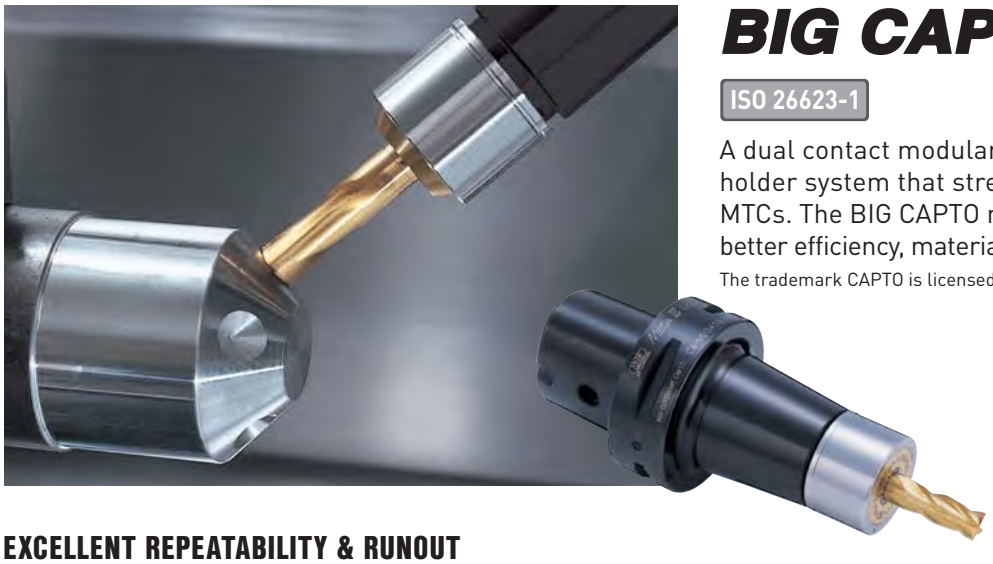
HSK Shanks according to Form A are designed to carry out torque transmission by the round shaped key-way at the end of the taper. Because of the importance of this round shaped geometry, BIG finishes this feature after heat treatment.

IMPORTANT TOOL RETENTION FEATURE

Internal clamping of HSK tools is defined by the location of highly concentrated forces from the machine tool. Accuracy and position of this form will affect the rigidity, repeatability and precision of tool holders. BIG provides finish machining of this area after heat treatment.



AVAILABLE IN
TURNING TOOLS
HSK FORM T
HSK-T50/63/T100
(ISO 12164-3)

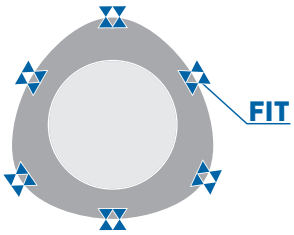


BIG CAPTO

ISO 26623-1

A dual contact modular turning and rotating tool holder system that strengthens the performance of MTCs. The BIG CAPTO modular tooling system offers better efficiency, material selection and heat treatment.

The trademark CAPTO is licensed from Sandvik Coromant.



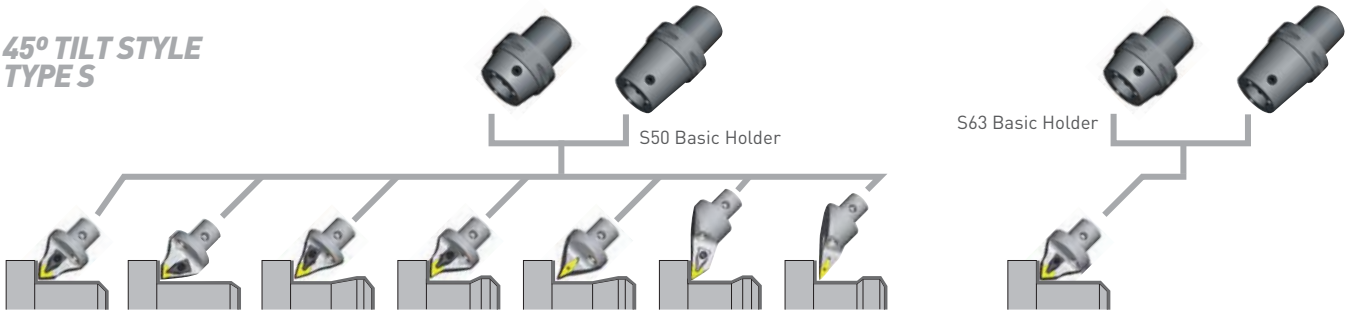
EXCELLENT REPEATABILITY & RUNOUT

High repeatability is achieved due to the perfect fit of the polygon taper to drive spindle rotation. The combination of a self-centering 1:20 taper and the long taper edge ensures stable runout accuracy.

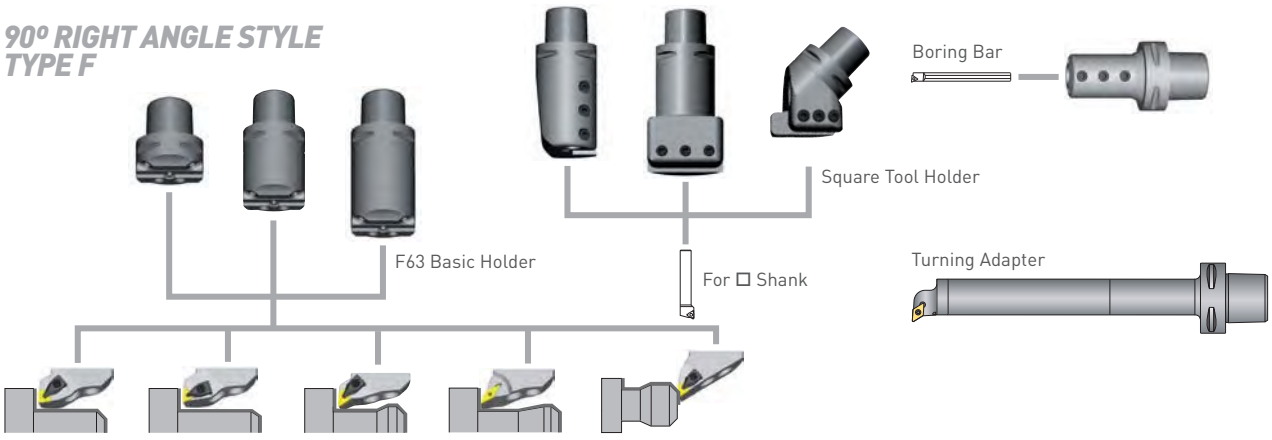
Wider Range of Rotating BIG CAPTO Tooling than Any Other Provider

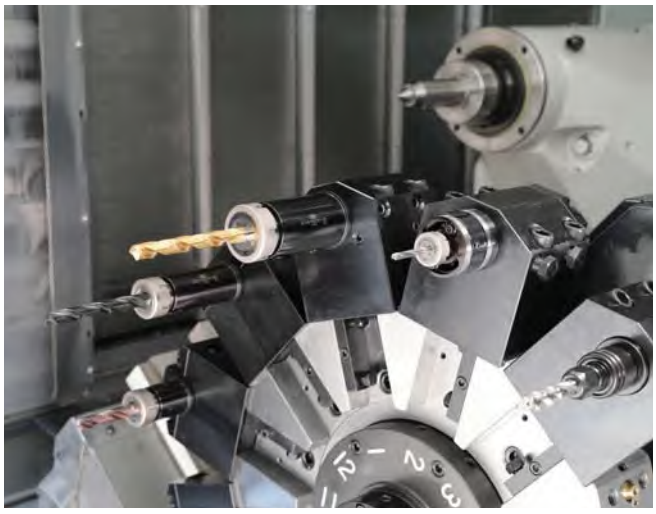
Since 2000, licensed manufacturer BIG DAISHOWA has offered the most extensive range of rotating BIG CAPTO tooling. Their extended-reach collet chucks feature the NEW BABY collet system, guaranteeing <3 microns accuracy at 4xD. Additional BIG CAPTO solutions include, HYDRAULIC CHUCKS, MEGA E CHUCKS, MEGA DOUBLE POWER CHUCKS for maximum rigidity in end milling, MEGA MICRO CHUCKS for tight spaces, and more.

45° TILT STYLE TYPE S



90° RIGHT ANGLE STYLE TYPE F





N/C LATHE TOOLING

IMPROVING THE EFFICIENCY OF NC LATHES AND SUPPORTING PRODUCTIVITY THROUGH RELIABLE TECHNOLOGY

SERIES INCLUDES HOLDERS FOR SMALL LATHES AND TAPPING ATTACHMENTS

MEGA MICRO CHUCK

Ideal for small lathes with limited space.

NEW BABY CHUCK

Ideal as a basic holder for lathes.

MEGA ER GRIP

Achieves stable machining with highly accurate chucking repeatability.

CENTERING HOLDER

Easy and reliable compensation of center of sleeve holder in turret lathe.

HYDRAULICS CHUCK FOR SWISS-TYPE AUTOMATIC LATHES

High-precision hydraulic chuck that allows easy tool change using a single wrench.

MEGA SYNCHRO TAPPING HOLDER

Improves thread quality and tap life by reducing thrust loads to 1/10.

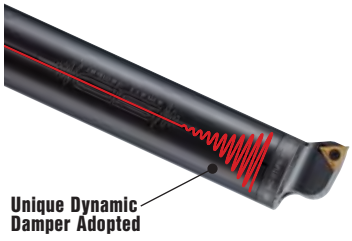
LATHE MASTER

Setup of tool offset position.

SMART DAMPER BORING BAR (FOR INTERNAL TURNING)

Internal Turning Tool with Built-In Damper

The heaviest damper in the series of Smart Dampers instantly absorbs chatter in both rough and finish operations.



SDM® smart damper

CENTERING TOOL (FOR SMALL LATHES)

Efficient Centering Of Turning Tool Holder

With a dial gage always facing front, tool holder centering can be done with an eye on the gage.

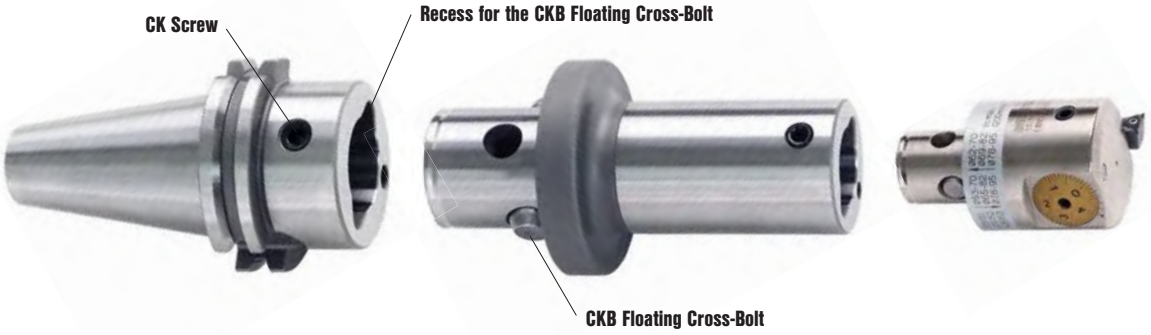
Unique centering tool for lathes with superior visibility.

CTL-90

CK/CKB TOOLING SYSTEM

VARIOUS CONNECTIONS – ONE SYSTEM

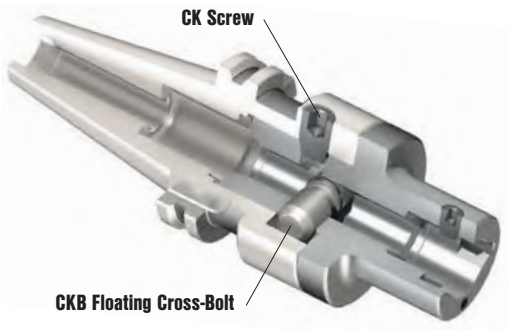
Based on a cylindrical connection with radial locking screw, the world-famous modular precision tool system by KAISER has continuously been improved over the years, and has adapted to customer's needs and the increases in machine tool performance. Compatibility to existing tools has always been a requirement for newer designs. This means that all KAISER connections are almost 100% compatible, and all the components are in stock.

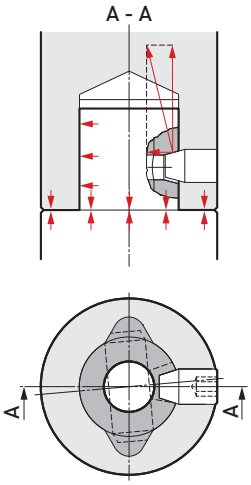


CKB CONNECTION: HIGHLY EFFICIENT AND EASY TO HANDLE

The modular components are clamped with the lateral locking screw (CK-screw). The floating cross bolt is automatically centered in the trapezoid-shaped recesses in the mating part and ensures an absolutely uniform distribution of the torque forces.

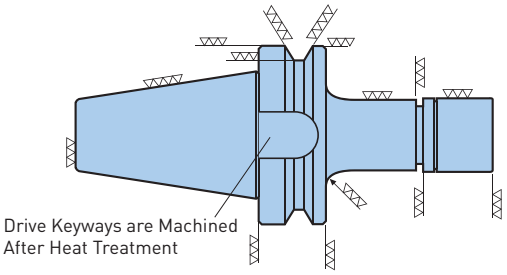
- Simple, efficient operation — no special equipment or tools needed
- Maximum rigidity due to high preloading forces and large contact surfaces
- Precise cutting edge location even when using several adapters
- High interchange accuracy, maximum radial change error is .0001"





MEGA CHUCK® SERIES

Wide variety of collets and chuck bodies to cover all high-speed ultra-precision machining applications.

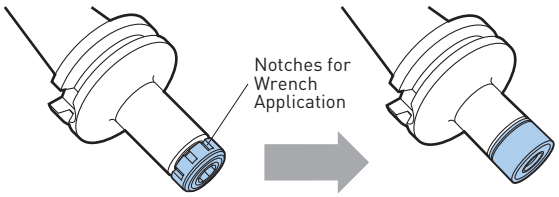


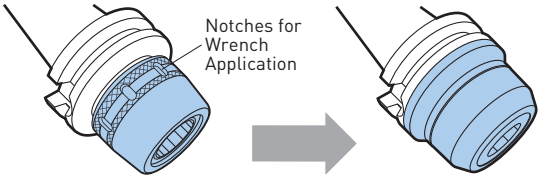
Precision Ground and Balanced for High Speed Machining

MEGA CHUCKS are micro-mirror finished on all surfaces to ensure perfect concentricity for high-speed machining. The MEGA CHUCKS are then balanced with a high-precision dynamic balancing machine.

NOTCH-FREE DESIGN MEGA NUT PREVENTS VIBRATION & REDUCES NOISE

Vibration at high speeds is eliminated with the use of notch-free nuts, which offer superior balance and concentricity. This ideal nut design not only reduces whistling noise and splattering coolant, but also ensures increased strength of the nut itself.





EASY & FIRM CLAMPING WITH THE MEGA WRENCH

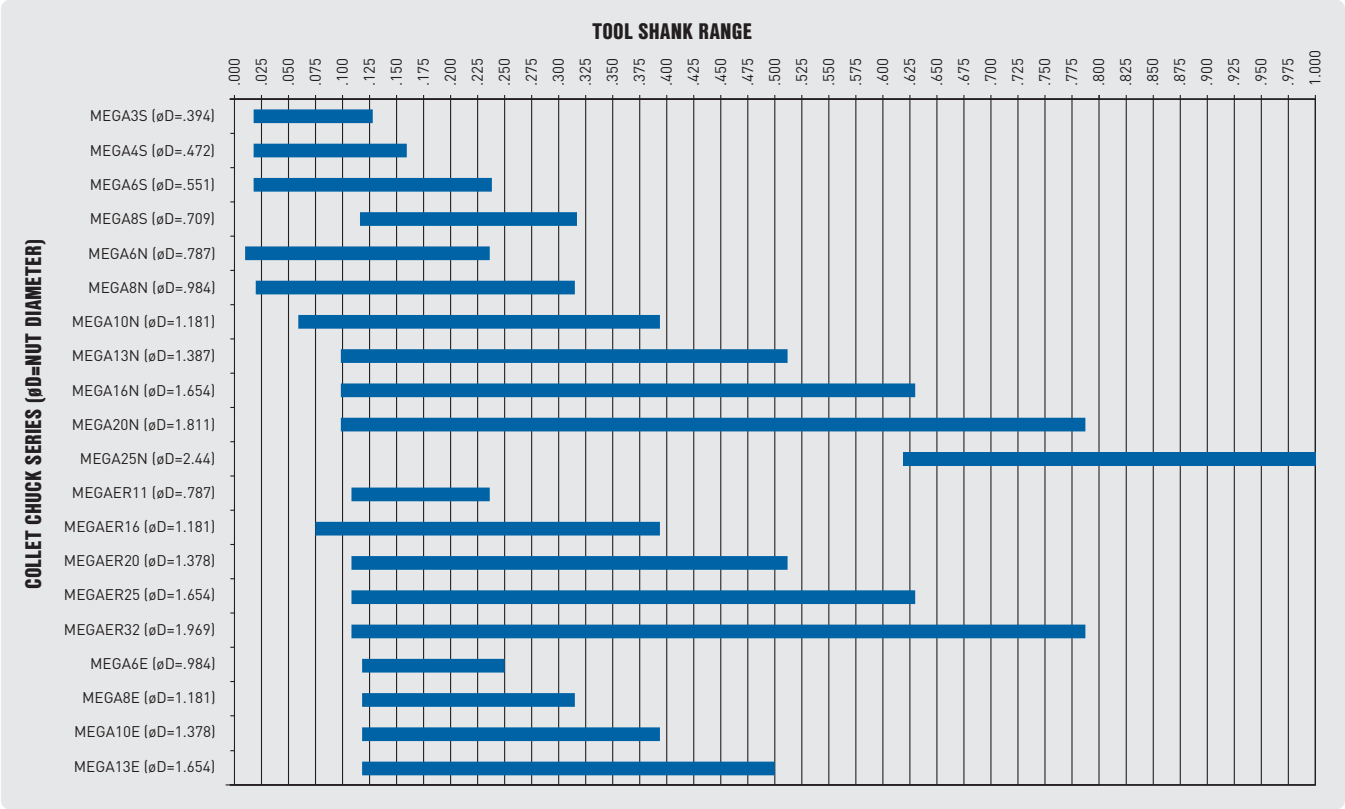
The unique MEGA WRENCH has a one-way clutch system with roller bearings and a ratchet function which is capable of safely and evenly applying force to the entire nut periphery.

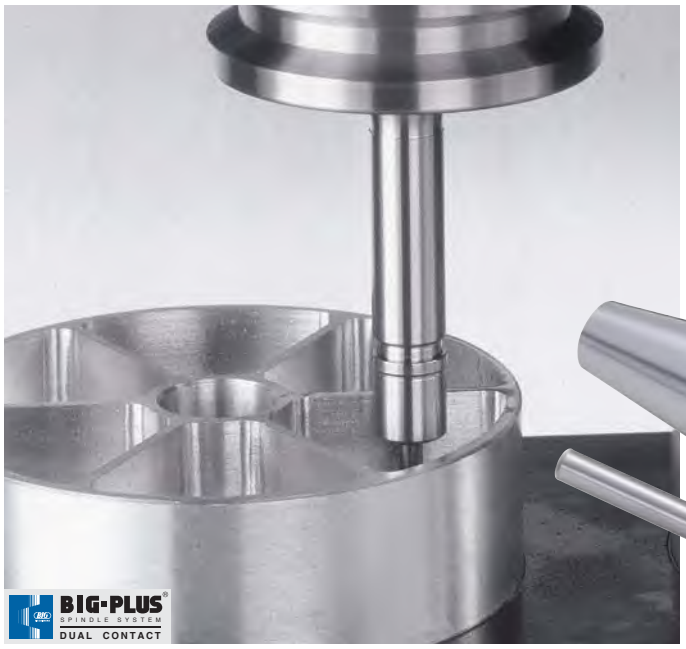
A Variety of MEGA CHUCKS Available

MEGA MICRO CHUCK | MEGA NEW BABY CHUCK | MEGA ER GRIP | MEGA E CHUCK | MEGA DOUBLE POWER CHUCK

COLLET CHUCK PROGRAM OVERVIEW

Collet Chuck Series	Taper Type																			
	BCV		BBT			HSK										BIG CAPTO				
	40	50	30	40	50	A40	A50	A63	A100	A125	E25	E32	E40	E50	F63	C3	C4	C5	C6	C8
MEGA3S	•		•	•		•	•	•			•	•	•	•			•	•	•	
MEGA4S	•		•	•		•	•	•			•	•	•	•	•			•	•	
MEGA6S	•		•	•		•	•	•			•	•	•	•	•	•	•	•	•	
MEGA8S	•		•	•				•				•								
MEGA6N	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
MEGA8N	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
MEGA10N	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•
MEGA13N	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•
MEGA16N	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•	•	•
MEGA20N	•	•	•	•	•	•	•	•	•	•				•	•		•	•	•	•
MEGA25N	•	•	•	•	•		•	•	•											
MEGAER11	•																			
MEGAER16	•	•	•																	
MEGAER20	•	•	•																	
MEGAER25	•	•	•																	
MEGAER32	•	•	•																	
MEGA6E	•		•	•	•	•	•	•	•						•		•	•	•	•
MEGA8E	•		•	•	•	•	•	•	•						•		•	•	•	•
MEGA10E	•		•	•	•	•	•	•	•						•		•	•	•	•
MEGA13E	•	•	•	•	•	•	•	•	•				•	•	•		•	•	•	•

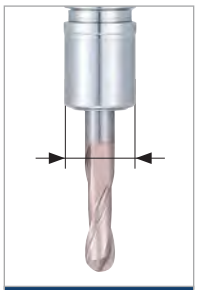




MEGA MICRO CHUCK®

CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

Extremely slim design of body and nut provides superior balance and concentricity and is ideal for reaching into confined areas.



ø.394"
Full Scale
(3S Type)

EXTREMELY SLIM DESIGN NUT

ø.394"/.472"/.551"/.709"
3S/4S/6S/8S Type

Slim design avoids interference. Ideal for small moldmaking, combining speed and high precision capability.

Sealed Nut for Through-Tool Coolant (available for 6S & 8S only)

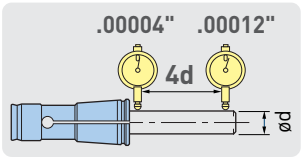
Strict Gage Control

HIGH CONCENTRICITY

HIGH PRECISION

MEGA MICRO COLLET

100% concentricity inspection. Guaranteed runout within .00004" at the nose. Available for higher precision in steps of ø.004" (ø.1mm)



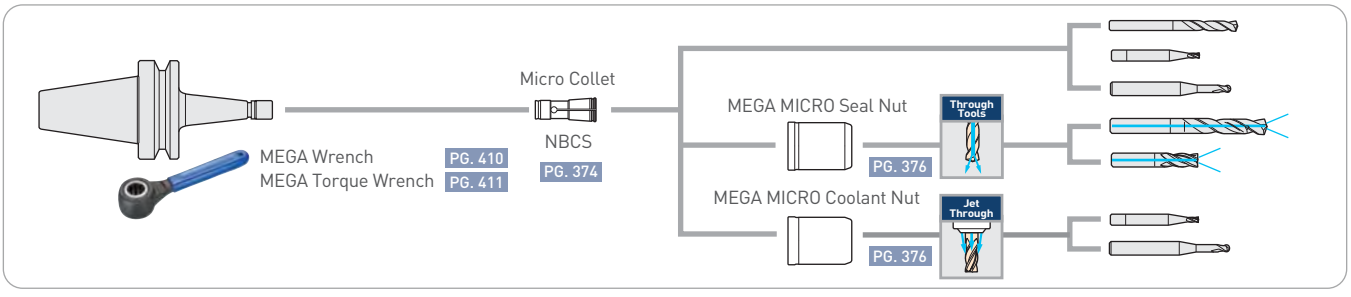
All BIG Collets are AA Grade and inspected twice for accuracy

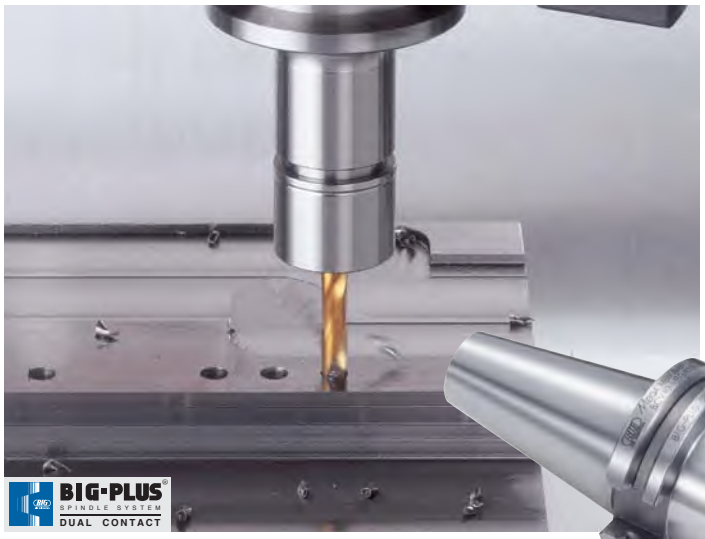
A Variety of Interfaces for High-Speed Machining

MEGA MICRO COOLANT NUT PAT. PENDING

Provides a more efficient coolant supply for micro cutting tools. Ideal design for high-speed micro machining up to ø6mm.

Up to 35% higher tool lifetime compared to standard nut



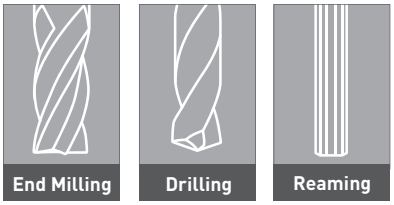


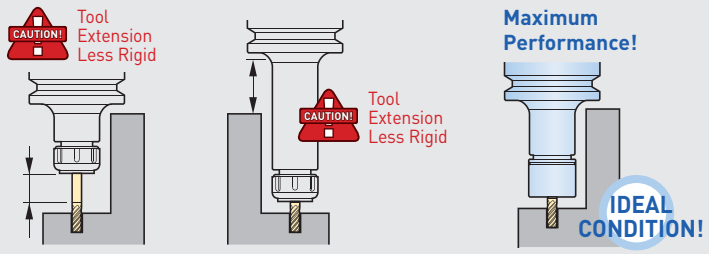
MEGA NEW BABY CHUCK®

CLAMPING RANGE: ø.010"-1.000" (ø.25-25.4mm)

High-speed design, offered in six different collet series sizes. Utilizes ultra precise NEW BABY COLLETS which guarantee a runout at the collet nose of less than .00004".

MAX 50,000 RPM





Wide Range Available as Standard

Ideal length and diameter of the holder is the key to precision machining. If selection is limited, an increased tool extension reduces performance.

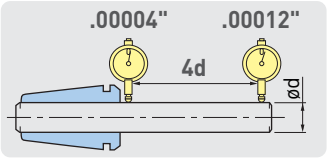
HIGH PRECISION COLLET, CLOSE TO SUBMICRON

HIGH PRECISION

NEW BABY COLLET

The NBC collet is 100% inspected to guarantee accuracy. Material, production, heat treatment... everything is selected for precision.

Strict Gage Control



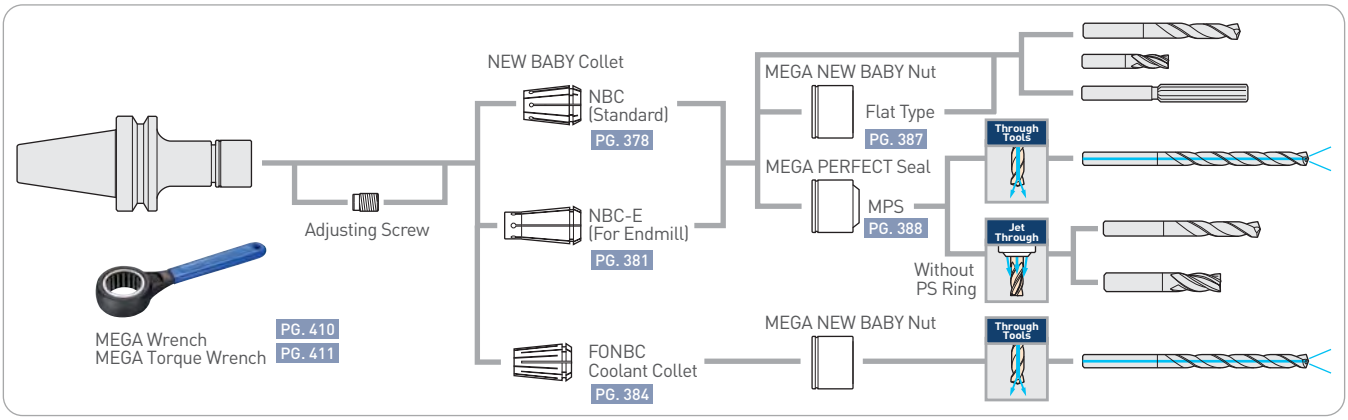
1µm AT COLLET NOSE
3µm at end of test bar

All BIG Collets are AA Grade and inspected twice for accuracy

TWO-WAY COOLANT SEALED COLLET NUT

MEGA PERFECT SEAL

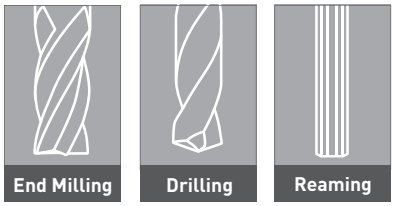
- Standard NBC collet is used
- High dust resistance

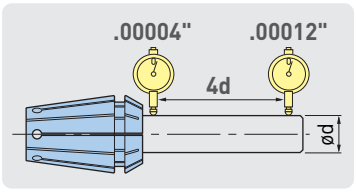


MEGA ER® GRIP

CLAMPING RANGE: ø.075"-.787" (ø1.9-20mm)

High precision collet, nut and body that outperforms standard ER systems. Reliable and stable runout accuracy will also contribute to improving machining capability and cost reduction.





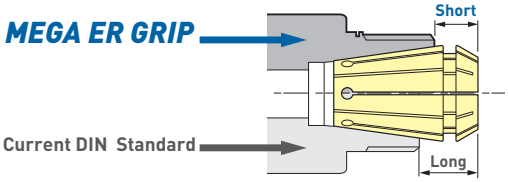
ER COLLET with the Best Runout Accuracy in the World

Measurement standards in accordance with DIN 6499 and ISO 15488

Clamping Range	DIN/ISO		BIG DAISHOWA MEGA ER® GRIP
	Class 1	Class 2	
ø.079 - ø.394	.0004	.0006	Within .00012
ø.394 - ø.787	.0006	.0008	

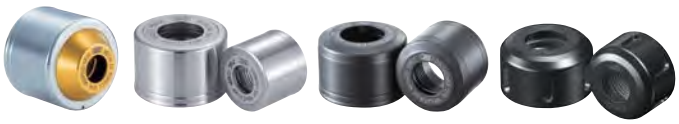
HIGH RIGIDITY BODY THAT INCREASES COLLET CONTACT AREA

By increasing the contact length of the internal taper of chuck bodies, the undesired overhang of the collet is reduced. This modification of the standard improves 3 of the most important requirements for the collet chuck: rigidity, runout accuracy and clamping force. (Conventional DIN collets can also be used)

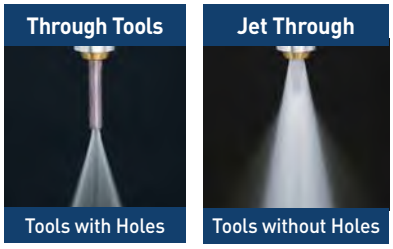


Variety Of Nuts Available

Two types of ER nut as well as sealing nut offer the most suitable solution for your demand. These nuts can also be used for conventional ER chuck models.

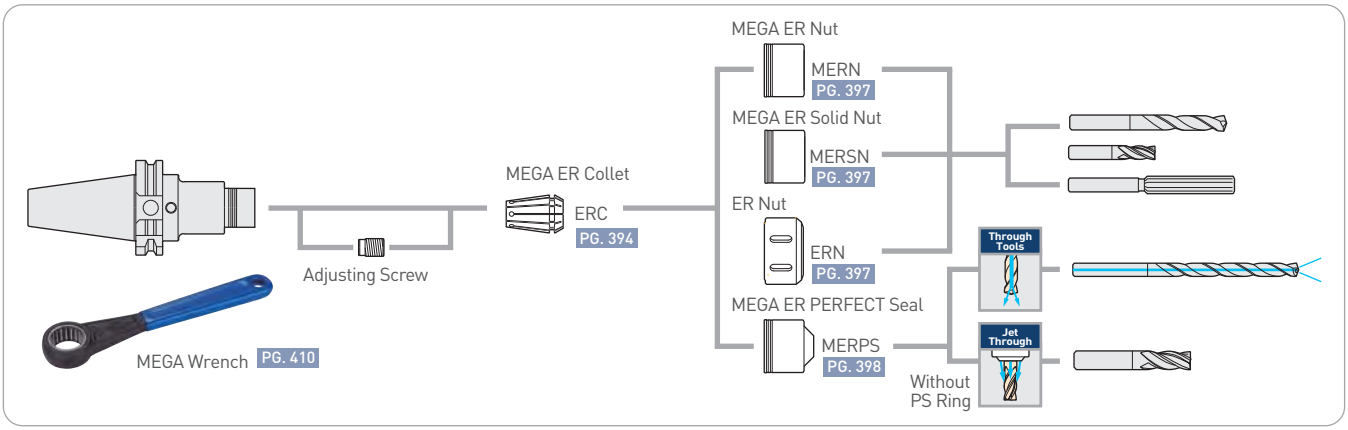


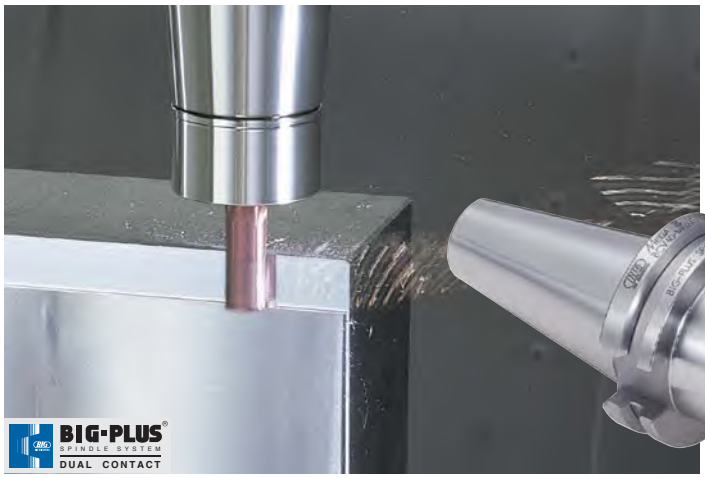
MEGA ER PERFECT SEAL | MEGA ER NUT | MEGA ER SOLID NUT | ER NUT



2-Way Coolant Supply

Sealed nut MEGA PERFECT SEAL offers two coolant solutions.



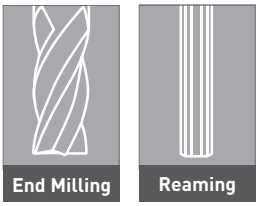


MEGA E CHUCK®

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Collet chuck designed exclusively for end milling up to ø.500" with high concentricity & rigidity.

MAX 40,000 RPM



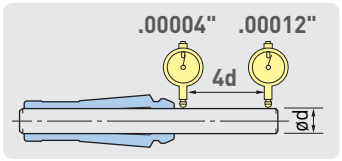
HIGH CONCENTRICITY

HIGH PRECISION

MEGA E COLLET

100% concentricity inspection. Runout within 1µm at nose is guaranteed.

Guaranteed Max Runout



1µm AT COLLET NOSE
3µm at end of test bar

All BIG Collets are AA Grade and inspected twice for accuracy

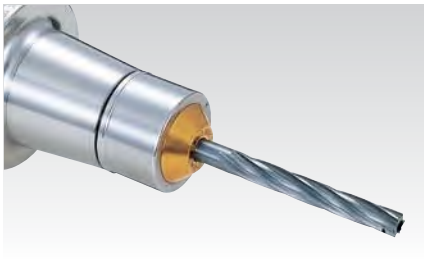
- Use only cutting tool shanks with the exact same diameter as the collet bore diameter.

SEALED COLLET NUT

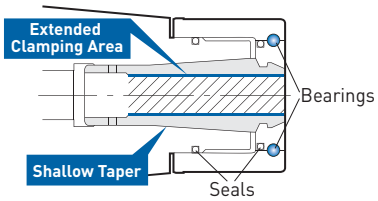
MEGA E PERFECT SEAL

Sealed collet nut to supply coolant reliably through cutting tool. Ideal for burnishing drills and reamers due to the extended gripping length of the MEGA E CHUCK.

MAX COOLANT PRESSURE 1,000 PSI



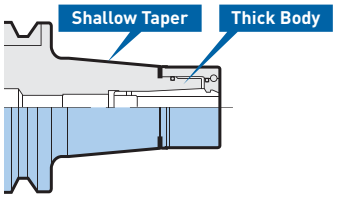
HIGH GRIPPING STRENGTH COLLET

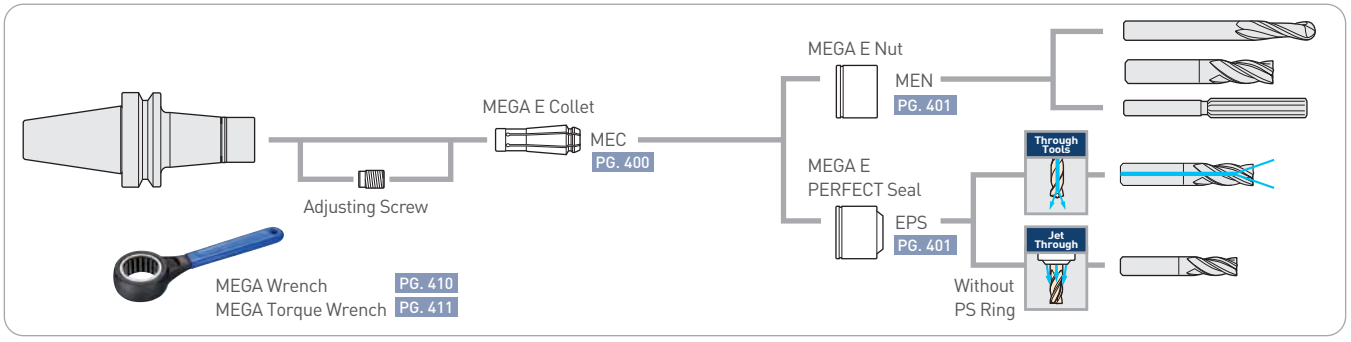


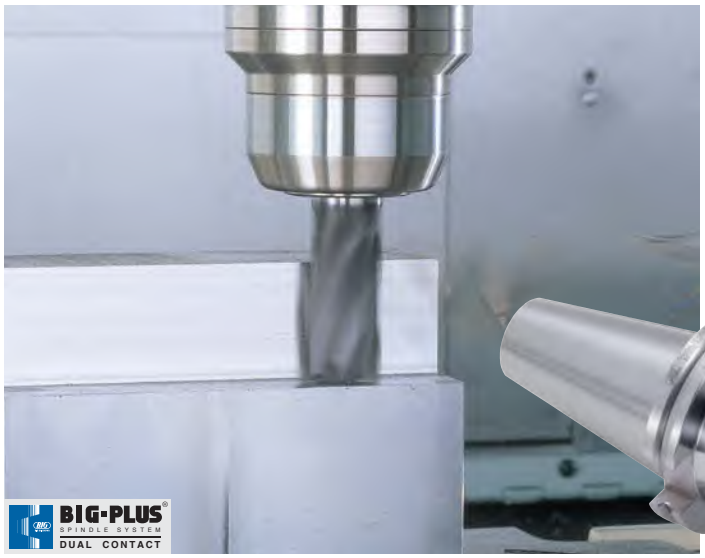
Gripping force is an important element for end milling with a collet chuck. The long gripping length of the collet in the MEGA E series provides a powerful gripping force. The shallower taper of the collet improves concentricity in order to achieve better surface finishes and longer cutting tool life.

SUBSTANTIAL AND TAPERED BODY DESIGN

Thick body eliminates chatter and deflection. Tapered extension provides the rigidity to prevent vibration.







MEGA DOUBLE POWER CHUCK®

CLAMPING RANGE: ø.500"-1.500" (ø12-50mm)

High rigidity design for heavy cutting. Flange contacting nut and simultaneous taper & flange contact ensure highest rigidity.

MAX 30,000 RPM

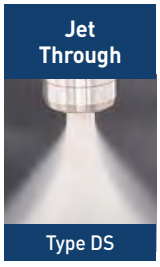
STABILIZING CONTACT BETWEEN FLANGE & NUT PROVIDES EXCEPTIONAL RIGIDITY

The expanded contact diameter of the nut of the MEGA DOUBLE POWER CHUCK to the flange provides the highest rigidity as if the chuck and nut were one solid piece. This superior rigidity ensures heavier duty machining without chatter.

BIG-PLUS	Conventional
	
BBT50-MEGA32D-105 Radial d= .551" (14mm) Power= 20.3hp (15.2kW)	Other Manufacturer (L=90) Radial d= .374" (9.5mm) Power= 12.3hp (9.2kW)

Cutting Conditions

Cutter: Coated Carbide End Mill ø32mm, 4-flutes
Work Material: A36 Steel (JIS SS400)
Cutting Speed: 925 SFM (282 m/min)
Spindle Speed: 2,800 RPM
Feed Rate: 44 IPM (1,120 mm/min)



SECURE COOLANT SUPPLY

Two types are individually designed for the most effective coolant supply.

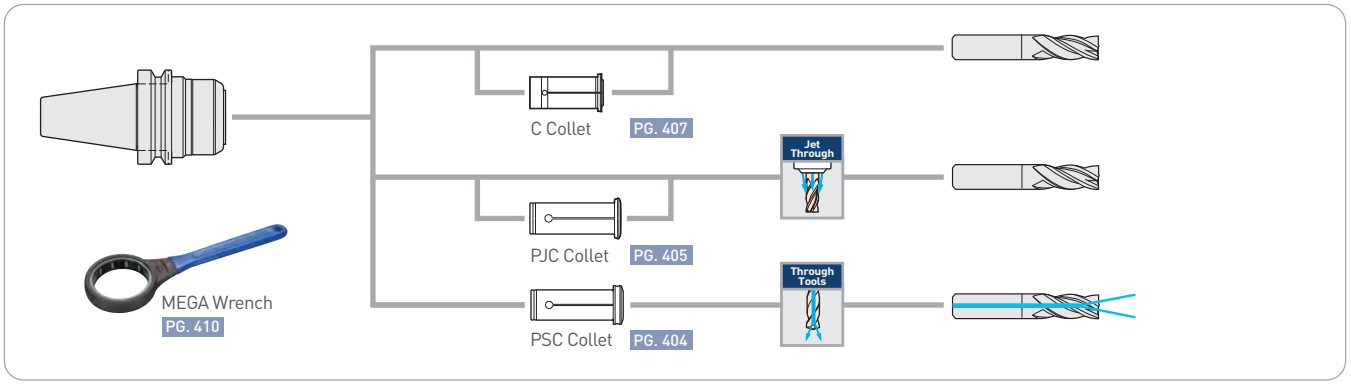
- Improved surface finish
- Smoother chip evacuation
- Extended tool life
- Cooling & lubrication of tools

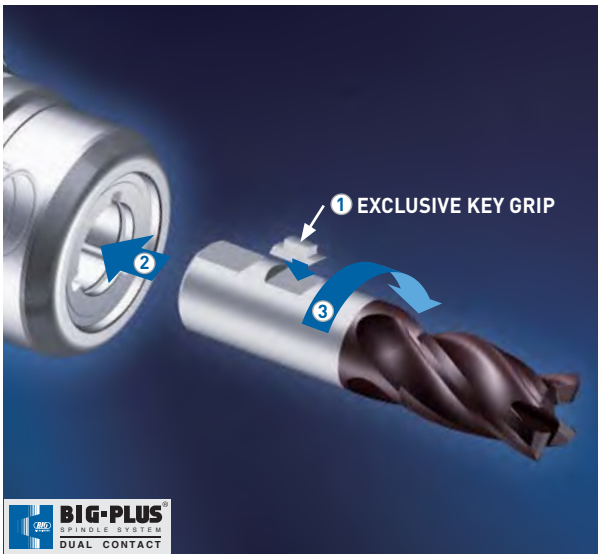
A Variety of Straight Collets Available

For Jet Through
PJC Collet

For Through Tools
PSC Collet

For Through Tools
OCA Collet





MEGA Perfect GRIP®

CLAMPING RANGE: ø.750"-1.250" (ø16-32mm)

100% SECURITY AGAINST END MILL SLIP OR PULLOUT UNDER ANY TORQUE LOAD

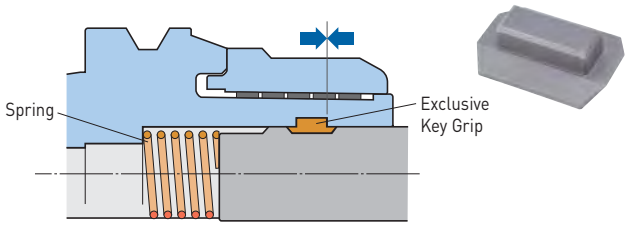
- A unique lock mechanism using a Key Grip prevents the slip and pullout of the tool during heavy cutting
- By simply using straight shank cutters with a Weldon flat, no special cutter is required. If your cutter doesn't have a flat, adding your own flat according to the general Weldon standard allows its use in the MEGA PERFECT GRIP

Simple, Easy Handling with Secure Clamping

1. Place the exclusive Key Grip into the Weldon flat of the end mill shank.
2. Insert the end mill with the Key Grip in alignment with one of the three Key Grip grooves inside the milling chuck.
3. Rotate the end mill approximately 20° clockwise until the Key Grip stops securely against the stopper pin.
4. Finish clamping the tool until the clamping nut contacts the positive stop of the chuck body.

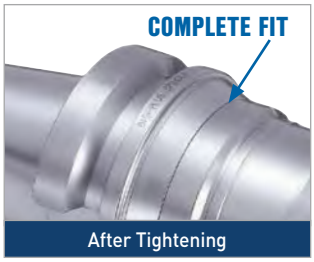
NON-PULLOUT MECHANISM

The Key Grip engages in the groove of the chuck body to ensure no tool pullout.



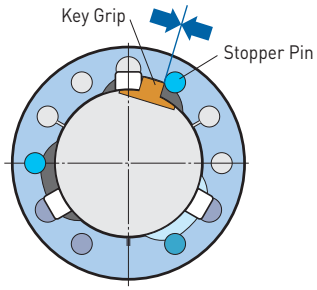
COMPLETE FIT OF NUT AND BODY

Tightening the nut achieves dual contact between the nut and body for rigidity close to that of an integral cutter.



NON-SLIP MECHANISM

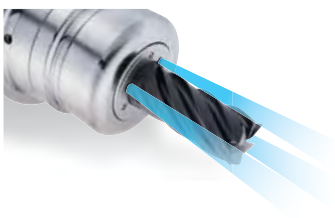
The Key Grip maintains contact with the stopper pin to prevent any slip under high torque.



FLOOD JET-THROUGH COOLANT

The Key Grip grooves provide channels for high volume coolant to the cutter.

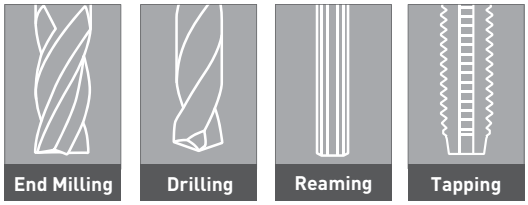
Effective end milling of HRSAs requires a high volume of coolant to the cutting edge to dissipate heat and aid in the removal of chips.



NEW BABY CHUCK

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

High-precision collet chuck system with an accuracy of 1 micron at the nose.



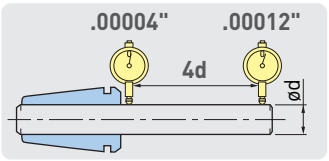
HIGH PRECISION COLLET, CLOSE TO SUBMICRON

HIGH PRECISION

NEW BABY COLLET

The NBC collet is 100% inspected to guarantee accuracy. Material selection, production, and heat treatment are all carefully managed to achieve the highest precision.

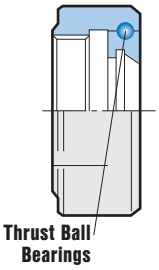
Strict Gage Control



All BIG Collets are AA Grade and inspected twice for accuracy

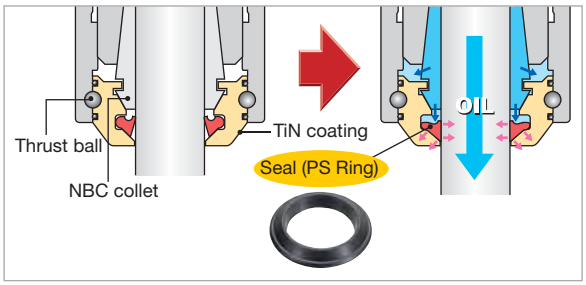
ENSURES HIGH ACCURACY

The double effect of precision threads finished after heat treatment and the smooth tightening of the thrust balls without torsion on the collet achieves stable high-precision collet tightening. Furthermore, the mechanism acts to prevent the thrust ball from jumping out due to centrifugal force generated by high speed rotation, promising stable machining.



COOLANT-THROUGH TOOLS (BPS)

The sealing functionality of the PERFECT SEAL means that the higher the coolant pressure is, the tighter the PS Ring adheres to the tool shank, increasing the sealing effect. The secure sealing function allows coolant to be securely supplied to the tip for high-pressure machining in high-speed applications. A sealing nut is used with a standard collet.



COOLANT METHODS TO SUIT THE APPLICATION

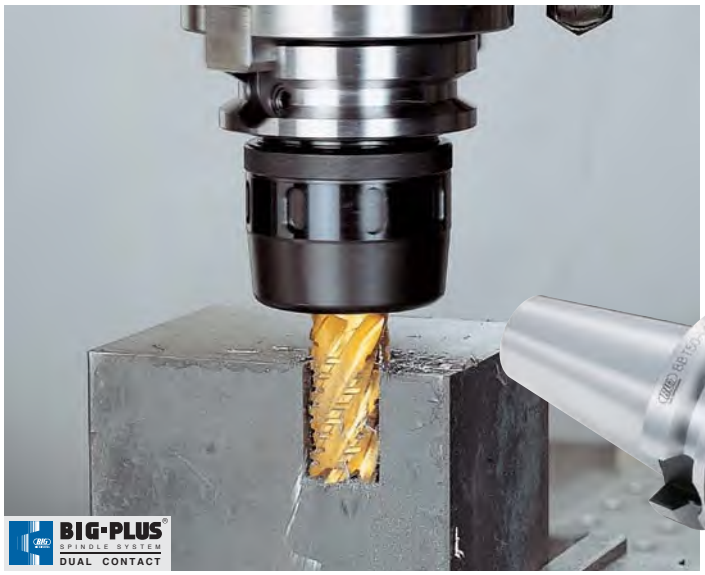
BABY PERFECT SEAL

A Coolant Nut with Oil Sealing Functionality

Removing the internal PS Ring allows jet-through coolant-through supply.

MAX COOLANT PRESSURE 1,000 PSI

The runout accuracy heavily affects finish quality and tool life. For holding an end mill, we recommend the use of an E Collet.



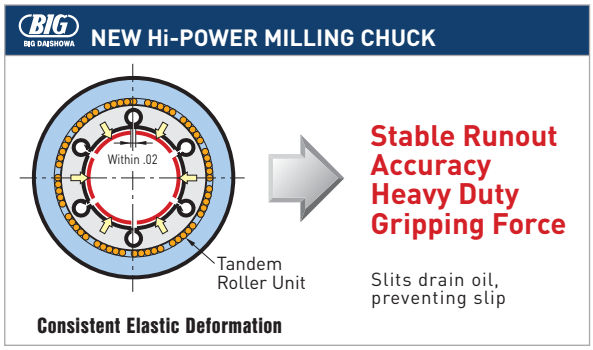
NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.500"-1.500" (ø12-42mm)

Highly rigid chuck for resistance against chatter. Supports end milling with its heavy duty gripping force and high runout accuracy.

RELIABLE SLIT DESIGN ENSURES HIGH ACCURACY

A unique BIG slit shape is adopted to achieve both the essential runout accuracy and gripping force which are the key elements of a milling chuck. Stable clamping is possible due to sufficient elastic deformation and the ability to remove oil film from the tool shank.

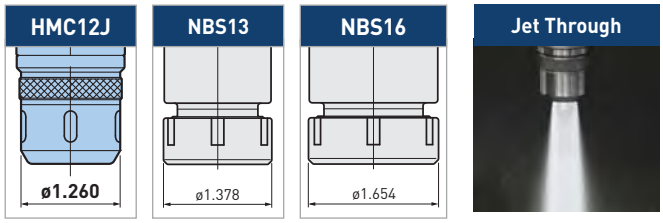


RELIABLE SLIT DESIGN ENSURES HIGH ACCURACY

CLAMPING DIAMETER: ø12mm & .500"

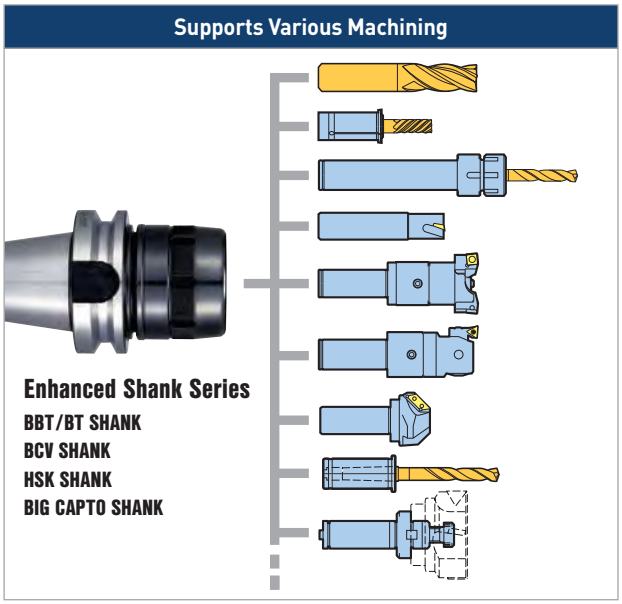
Slim Nut Diameter of ø1.260" Reduces Interference

Diameter Slimmer than Collet Chucks



THE MILLING CHUCK IS ALSO IDEAL AS A BASIC HOLDER

Allows the reliable use of straight collets as well as boring bars and arbors such as face milling cutters.



TOOL EDGE RUNOUT <2µm

RUNOUT ADJUSTABLE RA HOLDER

Simple Structure Allows for Easy Adjustment of Runout Accuracy

Compensates for increased runout of machine tool spindles caused by extended use. Simple structure allows for easy adjustment in the machine.

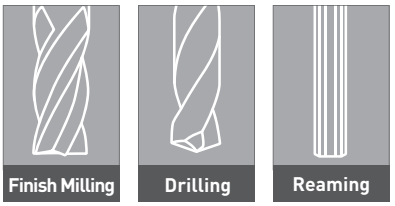
- Consistent hole diameter
- Improved surface roughness
- Increased tool life

HYDRAULIC CHUCK

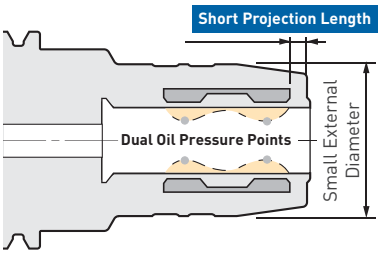
CLAMPING RANGE: ø.125"-1.250" (ø3-32mm)

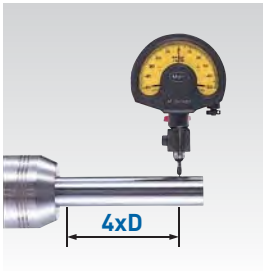
For high precision machining. Ideal tool holders for machining processes that require high accuracy such as drills, reamers, ball mills, end mills, diamond reamers and grinding tools.

MAX 40,000 RPM



A Wide Variety of Clamping Diameters & Projections Available





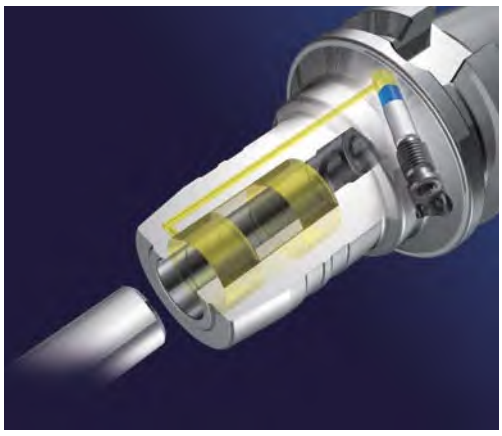
RUNOUT ACCURACY LESS THAN .00012"

High precision runout accuracy less than .00012" at 4xD improves the workpiece surface finish and extends tool life.

HIGH RUNOUT ACCURACY <3µm

INTERNAL STRUCTURE WITH INCREASED ACCURACY AND RIGIDITY

The integrated structure of the body and clamp sleeve gives greater rigidity and achieves better accuracy compared to the traditional two-part construction sealed with O-rings. 2-point tightening with dual hydraulic chambers and a short overhang area where the tool is not clamped give improved runout accuracy.



EASY CLAMPING WITH 1 WRENCH

The cutting tool can be clamped or unclamped easily and securely with just 1 wrench.

Allowable Shank Tolerance of Cutting Tools (h6)

Reference Information "h6" Inch Series		Reference Information "h6" Metric Series	
Cutting Tool Shank ø	Allowable Tolerance	Cutting Tool Shank ø	Allowable Tolerance (µm)
1/8, 1/4, 3/8	+0, -.00035	3, 4, 6, 8, 10mm	+0, -8µm
1/2, 5/8	+0, -.00043	12, 14, 16, 18mm	+0, -11µm
3/4, 1, 1 1/4	+0, -.0005	20, 25, 32mm	+0, -13µsm

Meets a variety of machining applications. Extensive offering of length and clamping diameters.

SUPER SLIM TYPE

MIN. BODY DIAMETER: ø.551"

MAX 60,000 RPM

Slim design eliminates interference. Ideal for high precision 5-axis machining.

Cylindrical Shank Series

HSK-E25/E32/E40/E50/F63 SERIES

Ultra-Compact and High Precision

Hydraulic chuck suitable for small machining centers.

PREBALANCING HSK-E25 <.5G.MM

SUPER SLIM UP SERIES (HSK-E25/E32/E40 TYPE)

The Ultimate Precision Hydraulic Chuck

Amazing runout accuracy within 1µm at 4D.

RUNOUT ACCURACY 1µm at 4D

1µm ULTRA PRECISION

JET THROUGH TYPE

MIN. BODY DIAMETER: .79"

Securely supplies coolant or oil mist to the tool periphery. Delivers outstanding results with high accuracy finishing in 5-axis machines.

MAX 35,000 RPM

SHRINK FIT TYPE

NEW

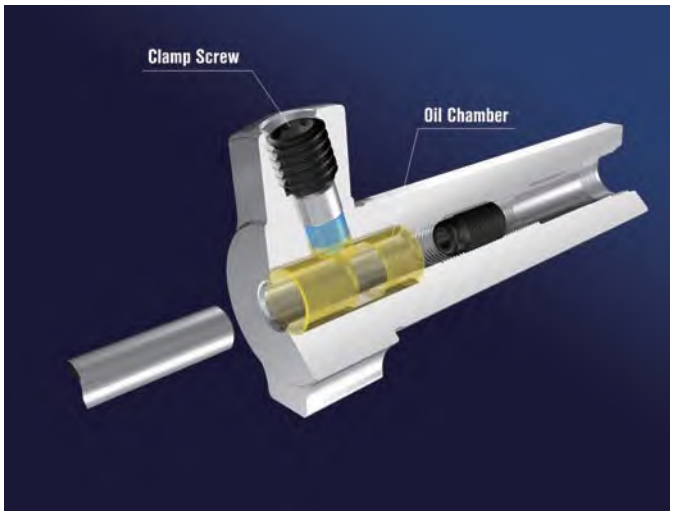
Achieve maximum flexibility by combining the SF HYDRAULIC CHUCK with an SF SLEEVE. This modular setup allows easy adaptation to various machining configurations.

HYDRAULIC CHUCKS FOR SWISS-TYPE AUTOMATIC LATHES

Hydraulic chuck system provides high accuracy and easy tool changes.

IMPROVED ACCURACY AND RIGIDITY

The lathe type hydraulic chuck was developed from decades of knowledge accumulated on milling machines. In addition to high accuracy and rigidity, the slim design helps avoid interference with adjacent tools.



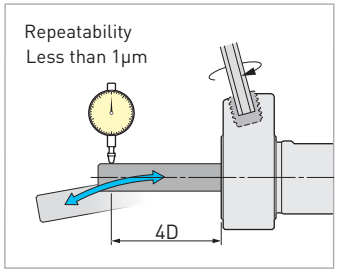
SAFE AND QUICK OPERATION

The ability to change cutting tools with a single T-wrench drastically reduces the time required for tool changes.

It also reduces the need to work in extremely limited spaces and improves operator safety.

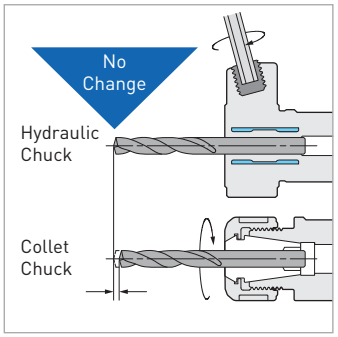
±1μm Repeatability

Even changing the tool, the repeatability at 4D is stable at ±1μm or less. In addition, the tightening is completed when the clamping screw hits the bottom, controlling tightening torque is not needed.

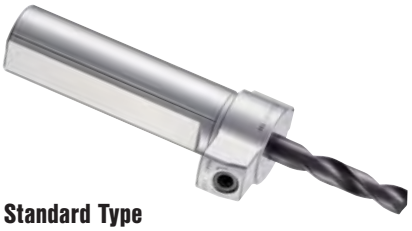


No Change in Tool Length

Since the tool projection length does not change after the clamping, it is easy to control the tool projection length in the machine.



THREE TYPES FOR DIFFERENT TOOL POSTS



Standard Type

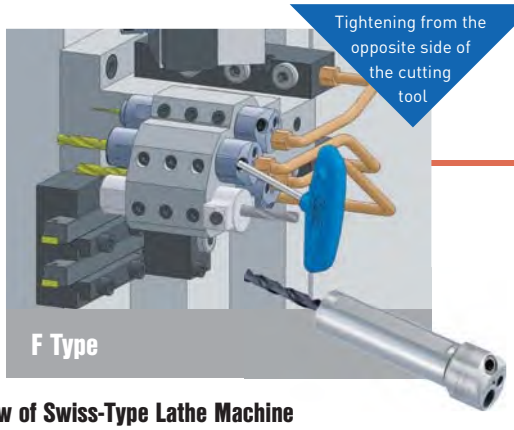
- Tighten from the tool side
- Coolant delivery is possible with Rc(PT)1/8 screw
- An adjusting screw can also be fitted (some models)
- Length can be adjusted by cutting the shank
- Easy to install in various tool posts

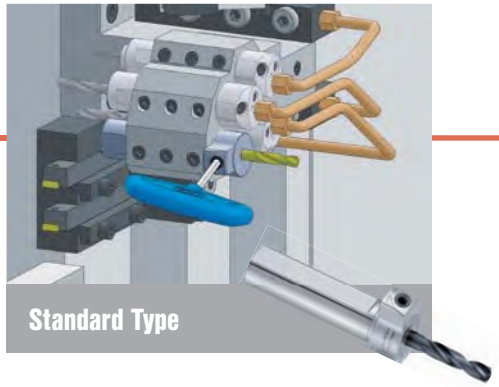
F Type

- Tighten from the opposite side of the tool
- Coolant delivery is possible with Rc(PT)1/8 screw
- Optimum overall length for easy use
- Ideal for use on a front tool post

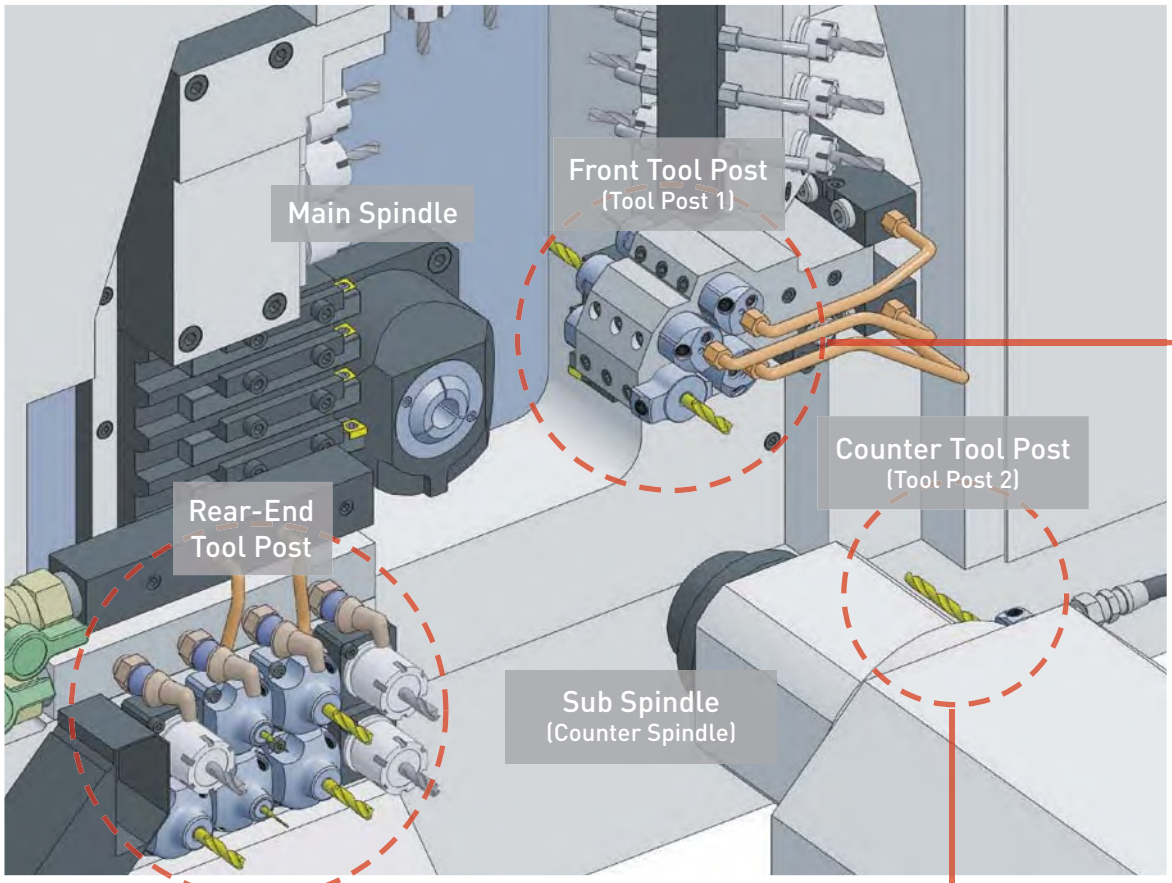
R/B Type

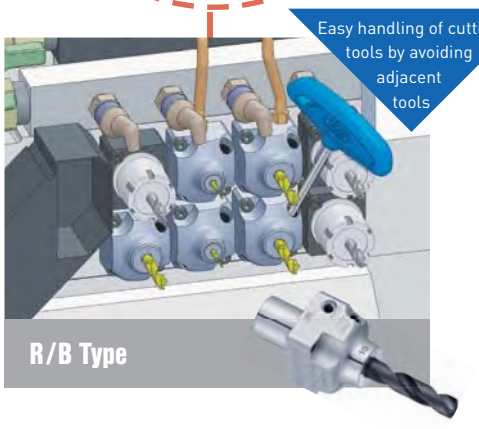
- Unique design for use with both upper and lower sections without interference
- Tightening at an offset position in the tool side
- Coolant delivery with M6 is possible when mounted on the upper section

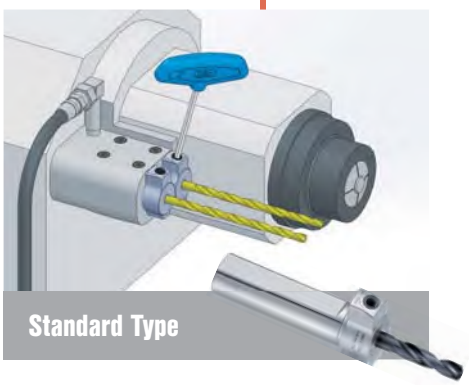


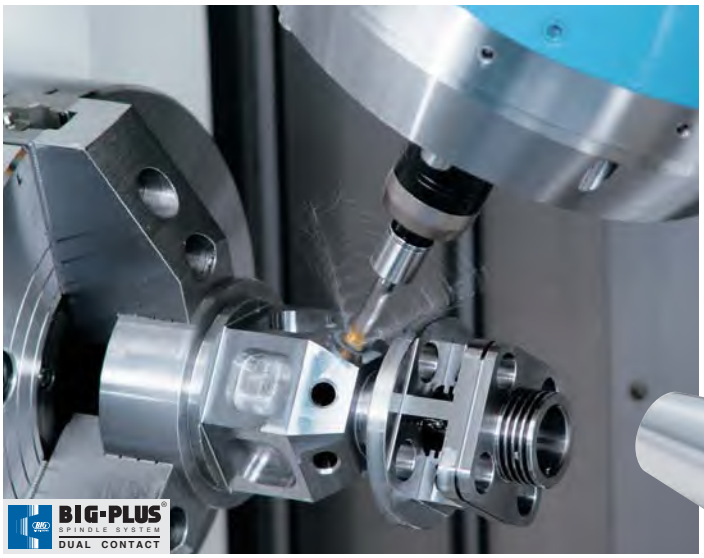


View of Swiss-Type Lathe Machine







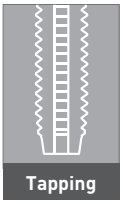


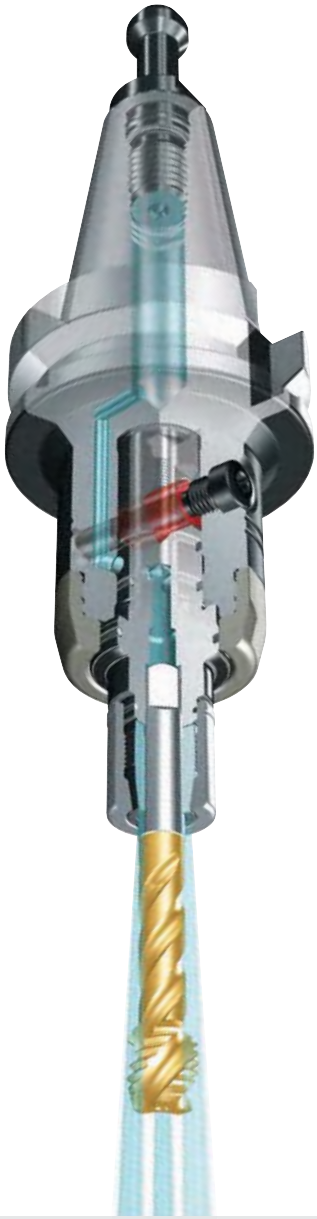
MEGA SYNCHRO® Tapping Holder

TAPPING RANGE: ANSI: No.0-NPT1", JIS/DIN/ISO: M1-M36

Tool holder for rigid tapping compensates for synchronization errors during tapping. Improves thread quality and tool life by reducing thrust loads caused by synchronization errors up to 90%.

- Patent is licensed from EMUGE



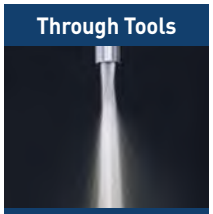


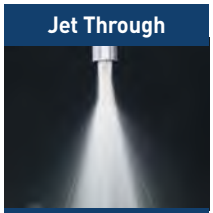
54 Body Models and 276 Tap Holder Models are Available

Large tap series achieves a maximum of NPT1". An extensive variety of bodies suitable for many spindle types. Short, middle & long tap holders are standardized to cover between No.2 and NPT1" (M2 and M36). The slim design avoids interference.

SECURE DRIVE

The body and Tap Holder are fixed with a drive key in the rotation direction as well as the square of the tap.





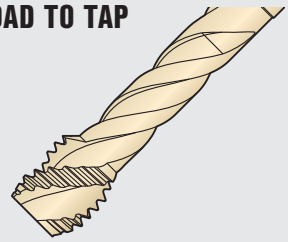
COOLANT-THROUGH CENTER CAPABILITY FOR ALL MODELS

Coolant is supplied both through the tool and to the tool periphery simultaneously.

BIG MEGA SYNCHRO tapping holder compensates for synchronization errors with any type of tap.

Minimized thrust load to both the tap and workpiece improves thread quality and tap life.

LOAD TO TAP

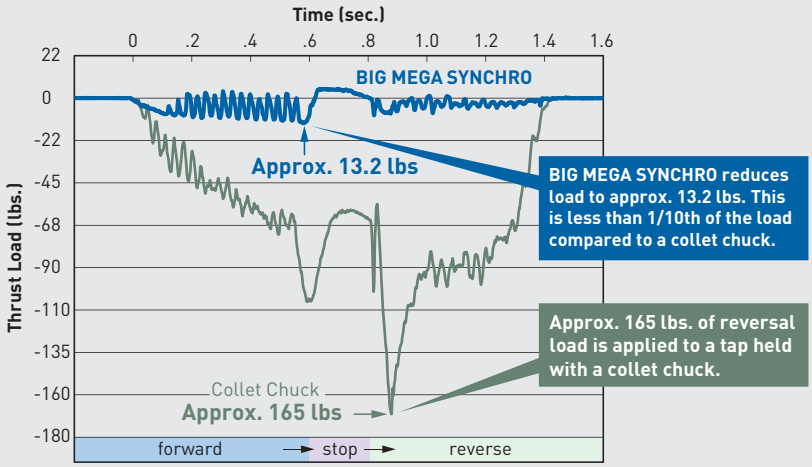


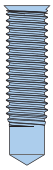
SPIRAL TAP

AU:1/4-20, N=1,000 RPM

Spiral grooves on spiral tap cause loading in the reverse direction, similar to an end mill.

• Measured by Kistler Dynamometer





Cutting Conditions

Spiral Tap
No.10-24
Material: 4130

Tapping of difficult-to-cut materials with a collet chuck tends to cause a compressed burr on the thread surface. BIG MEGA SYNCHRO compensates for synchronization errors and minimizes cutting load. Fine surface finish of threads is achieved.

Abundant Lineup from Small to Large Diameter Tapping

PATENT # 9446463

MGT3

Wide Range of Tapping Sizes from Small to Large Diameter

TAPPING RANGE: ANSI: No.0-No.6, JIS/DIN/ISO: M1-M3

Compensation mechanism eliminates synchronization errors and controls dynamic runout accuracy at high speed, providing stable thread quality and extended tap life.

• BBT Shank • HSK Shank • Cylindrical Shank • N/C Lathe Tooling

MGT36

For Large Diameter Tap

TAPPING RANGE:
ANSI: AU13/16-AU1-1/2, JIS/DIN/ISO: M20-M36

Compensation for synchronization error eliminates heavy thrust loads of large diameter tapping.

• BBT Shank • HSK Shank • CK Shank

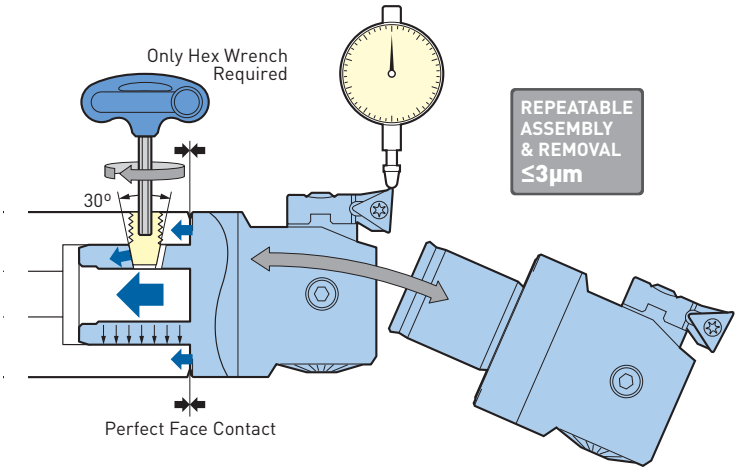
KAISER BORING SYSTEM

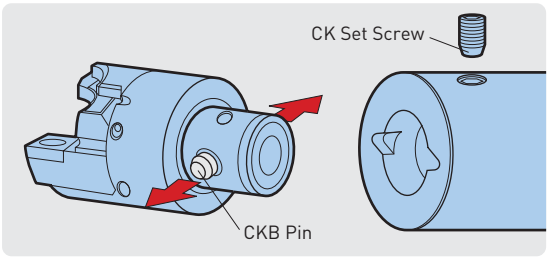
Supports various applications from rough to fine boring with a large assortment of boring heads and accessories. Secure contact using a single wrench.

THE SIMPLEST MODULAR BORING CLAMPING SYSTEM

Secure Contact Using a Single Wrench

The CK modular system provides a simple way to securely and powerfully clamp multiple components with a single wrench. Even when the same boring head is repeatedly attached and removed, the cutting edge position remains consistent within 2 microns (.00008"). This high clamping accuracy allows boring diameter setup to be completed using only the boring head, increasing machine utilization and significantly reducing labor.



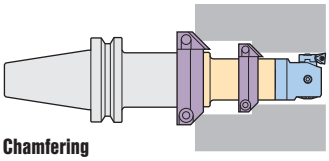


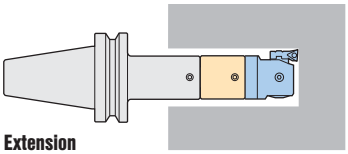
SAFE STRUCTURE AT HIGH TORQUE

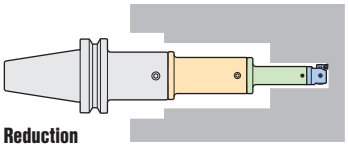
CKB improves upon the CK design by adding a floating pin. Under loads from heavier cuts, the connection rotates slightly until the pin is engaged to handle the torque load and prevent damage to the CK screw.

RAPID ADAPTATION TO SPECIAL TOOLS

Modular system that can be used to assemble special tools with standard items allows for flexibility.


Chamfering


Extension

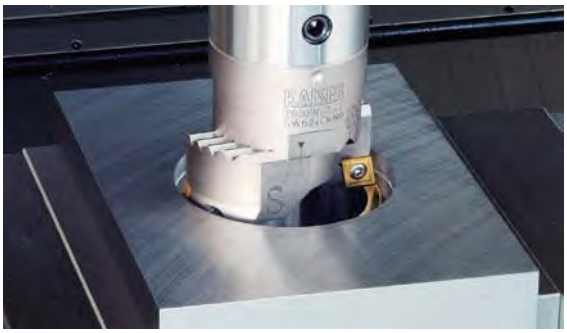

Reduction

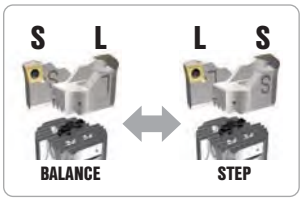
ROUGH BORING HEADS
Designed for Ultimate Performance and Versatility

SW BORING HEAD
High Rigidity

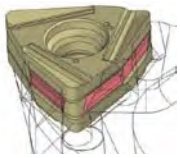
RANGE: ø.787"-8.000" (ø20-203mm)

- Serrated for high connection rigidity





Adapted for both balance and step cutting by simple replacement of standard cartridges (for blind holes).



SW CARTRIDGE (TYPE N)
NEW

Strong Contact Mechanism

The cartridge's original mechanism securely supports the insert's side-strip, providing high-strength and dependable clamping for reliable machining performance.

SMART DAMPER®

SW BORING HEAD SMART DAMPER
PATENT # 9027720

Roughing Head with Built-In Damper

- Close location of damping mechanism to cutting edge optimizes the ability to absorb cutting vibrations and reduce chatter marks on part surfaces.

ZN INSERT
NEW

Highly Efficient 6-Corner Insert

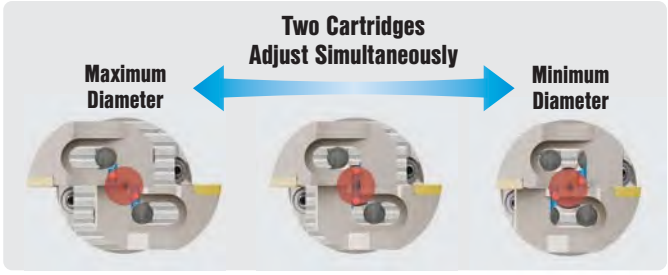
Featuring unique double-sided negative-positive inserts with 6 cutting edges, this design maximizes insert usage economy. The thick insert also offers enhanced resistance to edge chipping, especially during interrupted cuts.

SWS BORING HEAD
NEW

E Type for Blind Holes (To shape flat surfaces)

Range: ø1.614"-4.331"

The KAISER SWS Boring Head is ideal for setups without a presetter, allowing quick, precise diameter adjustments. The Synchro Setter links both cartridges for simultaneous adjustment, with final diameter setting done using a basic measuring tool like a micrometer or caliper.

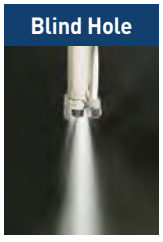


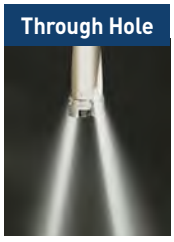
MW BORING HEAD

Boring Tool for Small-Diameter 2-Flute Roughing

RANGE: ø.630"-.827" (ø16-21mm)

- Versatile straight shank
- Spiral groove for improved chip evacuation





CENTER THROUGH

In blind hole situations, center-through coolant aids in chip evacuation. The coolant hole can be closed by the stop screw when required.

FINE BORING HEADS (INSERT HOLDER TYPE)
Quick Micron-Level Adjustment

EWN BORING HEAD
Prebalanced Design/Multifunction Head

RANGE: ø.787"-8.000" (ø20-203mm)

- Prebalanced design supports high-speed boring
- Abundance of insert holders

Back Boring Available as Standard

Supports back boring by simply reversing the Insert Holder.

Resolution: .00005"/Ø (.001mm/Ø)

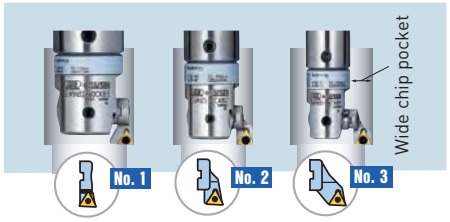
EWE BORING HEAD
Digital Boring Head

RANGE: ø1.614"-8.000" (ø41-203mm)

- Digital display allows the adjustment amount to be read at a glance
- Fully waterproof and dustproof structure (IP69K equivalent)

Emphasis on Chip Evacuation Properties

Replacing the Insert Holder makes it possible to secure sufficient clearance for chips.



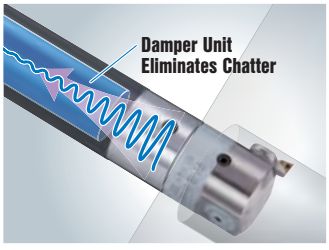
WSD® smart damper

PATENT # 9027720

EWN BORING HEAD SMART DAMPER
Built-In Damper

RANGE: ø.787"-8.000" (ø20-203mm)

- Close location of damping mechanism to cutting edge optimizes the ability to absorb cutting vibrations and reduce chatter marks on part surfaces.



Chatter Suppressing Mechanism

Patented counterweight maximizes effect of the friction damper. Chatter is absorbed effectively and higher machining accuracy is achieved.

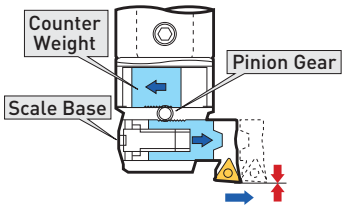
EWB BORING HEAD
High Speed

RANGE: ø1.260"-4.134" (ø32-105mm)

- .0005"/ø scale

Built-In Automatic Precision Balancing Unit

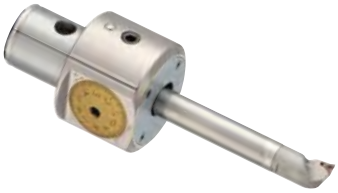
The counter weight moves as the diameter is adjusted, allowing the balance to be automatically compensated.



No Change to "Z" Dimension Even If Diameter is Adjusted

FINE BORING HEADS (CENTRIC BORING BAR TYPE)

Expansive Tool Holder Series



EWN BORING HEAD

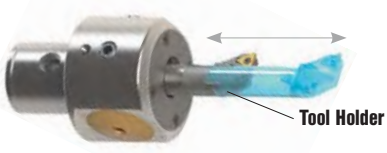
High Precision

RANGE: ø.039"-2.126" (ø1-54mm)

- .0002"/ø scale plus .00005"/ø vernier
- Combine with carbide shank for stable deep-hole boring

Variable Tool Length Adjustment of the Tool Holder

Best cutting results are only reachable if the tool holder is as short as possible. The EWN features variable length adjustment of the tool holders which ensures the shortest and therefore the most rigid tool assembly.



EWN04-15

Compact High Precision Boring Head

RANGE: ø.039"-.591" (ø1-15mm)

- O.D. ø.728"
- Max 30,000min-1

Resolution: .00005"/ø (.001mm/ø)

EWE BORING HEAD

Digital Boring Head

RANGE: ø.787"-2.126" (ø2-54mm)

- Digital display allows the adjustment amount to be read at a glance
- Fully waterproof and dustproof structure (IP69K equivalent)

Electronic Components – Made by KAISER

All electronic components are entirely developed and manufactured in the electronic lab of KAISER in Switzerland. Before shipping, every digital boring head is calibrated and tested.

EWA BORING HEAD

NEW

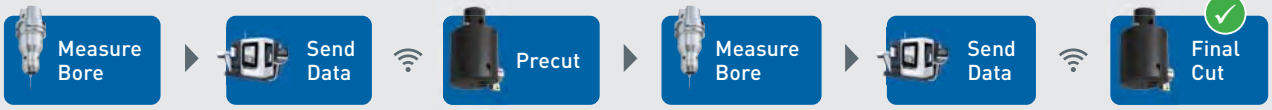
Fully Automatic

RANGE: ø68-134mm (with standard insert holders)

The EWA is a fully automatic fine boring tool that performs closed-loop boring operations. With the EWA, there's no need to stop the machine tool to take measurements or manually adjust the boring tool, leading to significant time savings and reduced scrap.

- Up to ø861mm with bridge tools
- Boring precision of IT3
- Stroke: 22mm/ø
- Absolute linear sensor: precision 2µm

Fully Automatic Measuring and Cutting Process

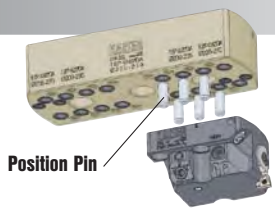


CK7 LARGE DIAMETER BORING SERIES

TW200 BORING HEAD (FOR ROUGHING)

RANGE: ø7.874"-32.677"

- Large-diameter boring series compatible with high-speed



Using the position pin fastens the head or clamp base to the slide. Prevents the head from flying off due to high-speed rotation caused by programming errors.

EWN200 BORING HEAD (FOR FINISHING)

RANGE: ø7.874"-34.646"

- Precision head with outstanding operability
- Back boring available

LIGHTER WEIGHT FOR GREATER SPEED

Aluminum High Speed Type

Uses hardened aluminum components, tough yet lightweight. (Slide/Clamp Base)

CENTER THROUGH SUPPORTED

Reliable coolant supply to finishing and roughing cutting tool peripheries.

PIN TURNING HEAD

RANGE: ø.020"-27.008" (ø.5-686mm)

- Achieve finishing accuracy not possible with interpolation.

ACCESSORIES

SMART DAMPER PAT.

Built-In Damper

- Reliable coolant supply to finishing and roughing cutting tool peripheries.
- Unique dynamic damper eliminates chatter.

Various Shanks and Accessories

Combine with a CK Shank for a wide range of applications not limited to boring.

SMART DAMPER

UNIQUE DYNAMIC DAMPER ELIMINATES CHATTER

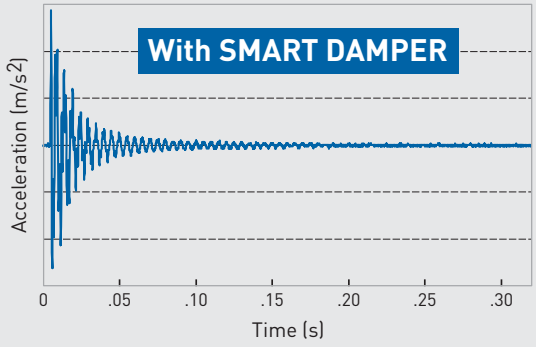
Achieves high speed and high efficiency machining for work requiring a long projection length.

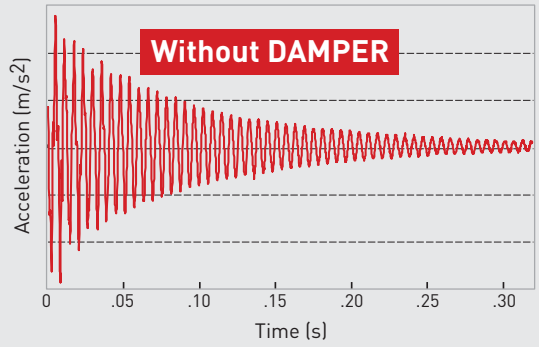
PATENT # 9027720

WSD smart damper

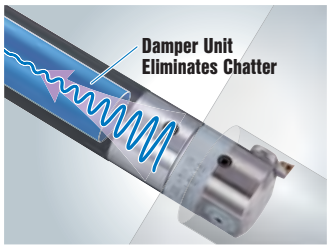
Comparison of Oscillatory Waveforms

The SMART DAMPER incorporates a damping mechanism and reduces chatter instantly. The SMART DAMPER solves various problems caused by chatter due to long projection, such as poor surface roughness, unacceptable cutting time, and shortened tool life.





CHATTER SUPPRESSING MECHANISM



An incorporated unique damper that functions as both a counterdamper and friction damper.

Patented counterweight maximizes effect of the friction damper. Chatter is absorbed effectively and higher machining accuracy is achieved.

FINE BORING OF DUCTILE CAST IRON (FCD500)

Tool Holder	Cutting Speed (SFM)				Result
	80	165	325	500	
Competitor (w/o damping system)	○	×	×		Outperforms competitor's holder by 6X higher productivity. Superior surface finish and better tool life due to the increased cutting speed.
SMART DAMPER Built-in damping mechanism	○	○	○		

× = Vibration ○ = Acceptable ◎ = Excellent Surface Finish

Cutting Conditions

Machine: HMC (BBT50) BIG-PLUS
Boring Dia: ø2.677"
Depth of Hole: 16" (L/D=6:1)
Insert Nose Radius: R .016"
Feed Rate: .008"/rev.
Depth of Cut: .012"/ø

SERIES AVAILABLE FOR VARIOUS MACHINING REQUIREMENTS

CK BORING SERIES (WITH BUILT-IN DAMPER)

High-Efficiency Deep Hole Finish Boring Is Available

EWN BORING HEAD TYPE

The EWN Boring Head functions are maintained, featuring integrated damper.

SW BORING HEAD TYPE PAT.

Damper located closer to the cutting edge provides greater damping effect.

CK SHANK TYPE PAT.

A damper is built into the CK Shank.
L/D = 6x

CK EXTENSION TYPE PAT.

Just combine it with your standard CK Boring Head/ Shank to achieve damping countermeasures.

FACE MILL (ARBOR TYPE WITH BUILT-IN DAMPER)

For Face Milling with Long Projection Length

Basic holders of different lengths can be used with one damper head (for BBT/BDV/ HSK Shank in common).

SCREW-ON

Tapered Body Maximizes Rigidity While Minimizing Interference

The tapered body design maximizes rigidity while minimizing interference.

INTERNAL TURNING TOOL
(BORING BAR WITH BUILT-IN DAMPER)

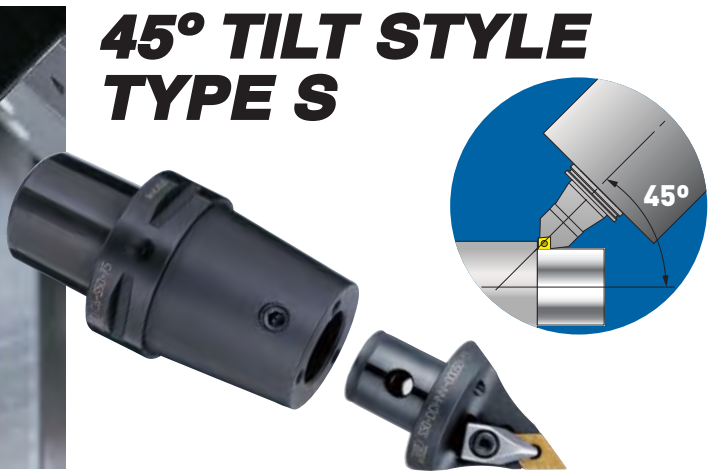
Boring Bar For Internal Turning

Eliminates Chatter in Internal Turning

The heaviest damper in the SMART DAMPER series instantly absorbs chatter in both rough and finish operations.

THE FIRST MODULAR TOOLING SYSTEM FOR TURNING APPLICATIONS ON MILL-TURN MACHINES

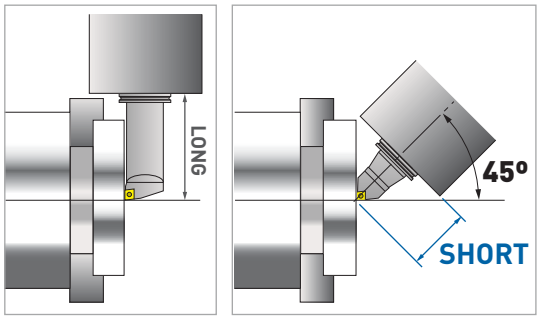
A modular tooling system offers better efficiency, material selection, heat treatment and optimal tool lengths. Easily replace broken inserts. Boring bar & square tool holder options also available.



MINIMIZED CUTTING FORCES

Tilting the B axis 45º helps to minimize the cutting forces transmitted to the machine spindle. This force reduction increases the life of the machine spindle & insert life.

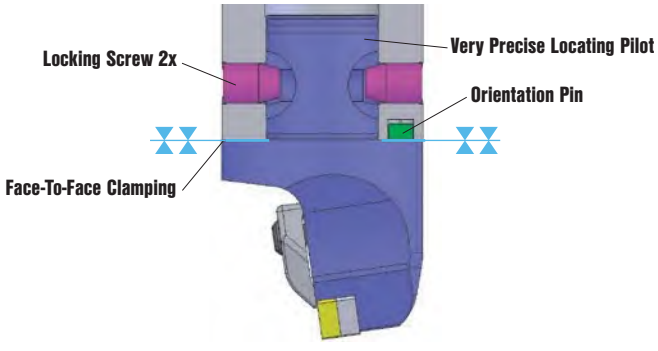
15 Cartridges for 45º Tilt Style Type S

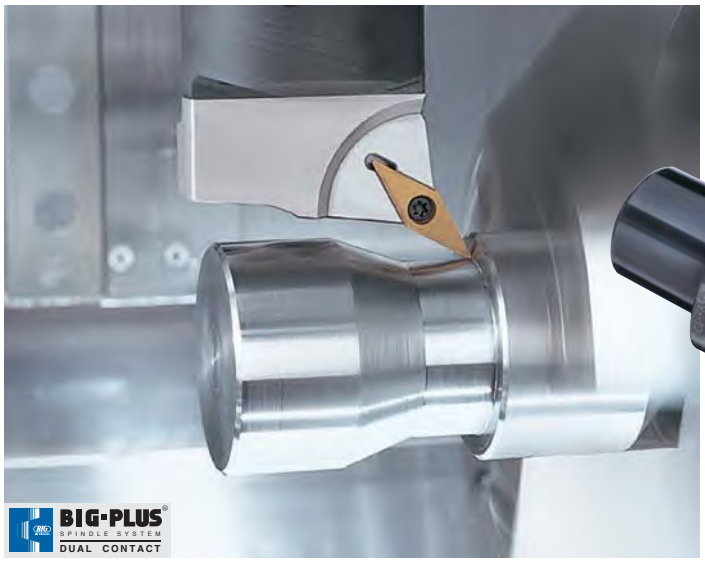


With the B axis at 45º, accessibility problems with the chuck or tailstock are overcome to minimize tool length.

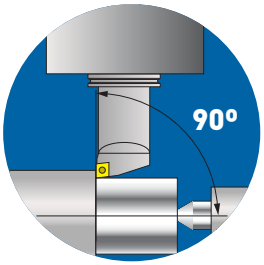
SECURE AND RIGID TYPE S CARTRIDGE CLAMPING SYSTEM

Using highly sophisticated and modern machine tools, Type S cartridges are made to very close tolerances required for turning accuracy and repeatability. The cartridge is located in the basic holder by means of a precision ground pilot and secured by 2 opposing radial screws with a 15º taper. With a slight offset to locating sockets, high face-to-face clamping force of the two components is generated. To maintain precise locations and orientation, an additional locating pin is included for positive transfer of cutting torque.



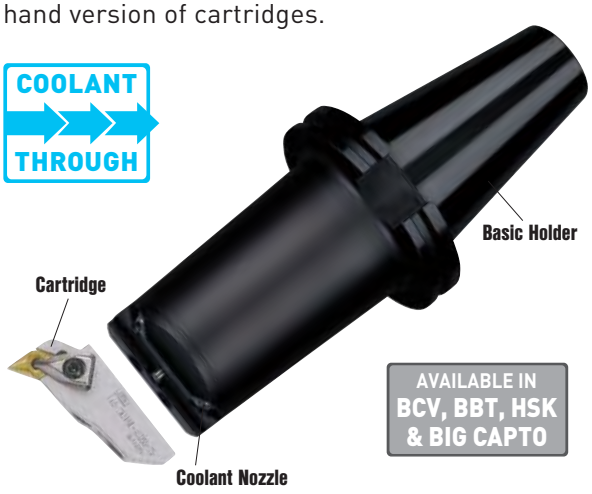


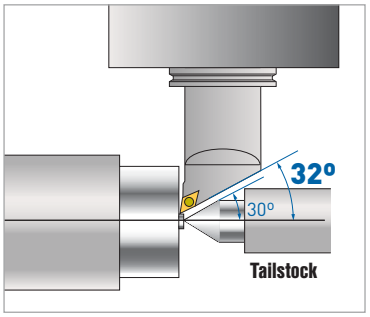
90º RIGHT ANGLE STYLE TYPE F



RIGHT OR LEFT HAND VERSIONS AVAILABLE

Two different basic holders are available and all can be assembled with either the right or left hand version of cartridges.

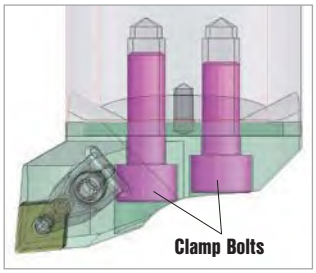


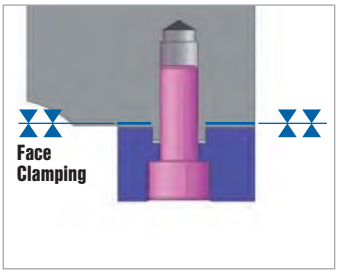


Center proximity type cartridge is also available, minimizing tailstock interference.

SIMPLE AND POSITIVE CLAMPING

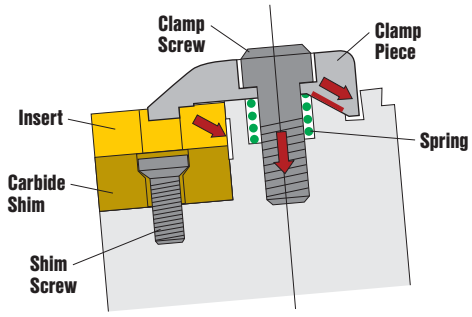
Type F uses two clamping bolts that press the cartridge onto the basic holder. The torque is transmitted by an interlocking drive slot.





SAFE AND EASY CLAMPING OF INSERTS

The double-clamping system simultaneously pushes an insert downward and draws it into the contact faces to achieve secure and rigid clamping.



24 Cartridges for 90º Right Angle Style Type F

ANGLE HEAD

Eliminate multiple set-ups and combine vertical, horizontal and angular operations on one machine. One original set-up saves time, speeds production and guarantees better accuracy.

A Variety of Compact and Rigid Heads Suitable for all Kinds of Machining Applications

AG90 SERIES

NBS Type
High precision collet chuck system

Twin Head

Long Type

HMC Type
ø1.25" high power design

Compact Type
For drilling tapping

Build-Up Type
Interchangeable adapter system

Slender Drive
Min ø1.18" bore

NEW

Also Available in Center Through Type
TAG90 HMC Type
TAG90 Build-Up Type

AGU SERIES

Universal Type
Angle adjustment by 1° increments

AGU30 Type
30° limited version

AG45 SERIES

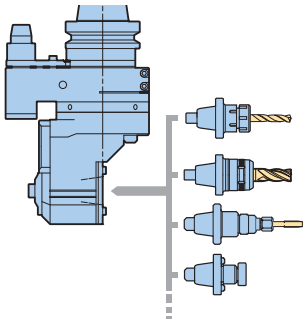
NBS Type
45° spindle angle

Special Versions Available

We are able to design and manufacture special ANGLE HEADS such as custom angles or long type models to address every machining condition.

A wide range of compact and rigid heads, from milling chuck types to universal types, suitable for all kinds of machining applications.

BUILD-UP & HMC TYPE

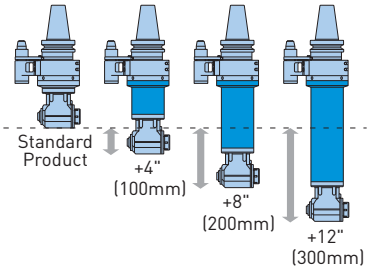


Overhang is minimized for increased strength and rigidity, resulting in a shorter cutting tool projection that reduces load on the angle head and enhances cutting performance. This design also prevents interference with the ATC and tool magazine storage. A High Rigidity S-Type with a steel housing and reinforced locating pin assembly is available.

- ATC may not be utilized for some machining centers.

LONG TYPE ANGLE HEADS

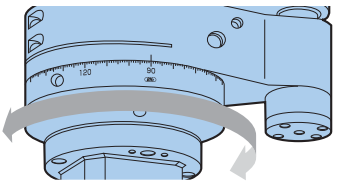
Any 50 taper or HSK-A100 size NBS head can be extended for long reach requirements.



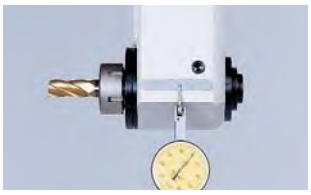
SUPERIOR QUALITY COMPONENTS

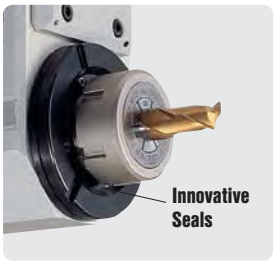
For smooth and powerful operation and to minimize noise and vibration, all angle heads are equipped with hardened and ground chrome-nickel steel spiral bevel gears, super precision hardened and ground spindles, and high precision angular contact ball bearings.

CUTTER HEAD ADJUSTABLE 360°



Reference faces are provided on both sides of all heads for easier setting of cutter directions.





INNOVATIVE SEALING METHOD

The advanced no contact sealing method prevents coolant and particle contamination better than any other sealing method.

MAX COOLANT PRESSURE 150 PSI

UNIQUE COOLANT JACKET

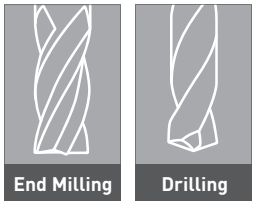
Jacket allows coolant coming through the stop block to be efficiently directed to the cutting tool edge while simultaneously cooling the angle head.

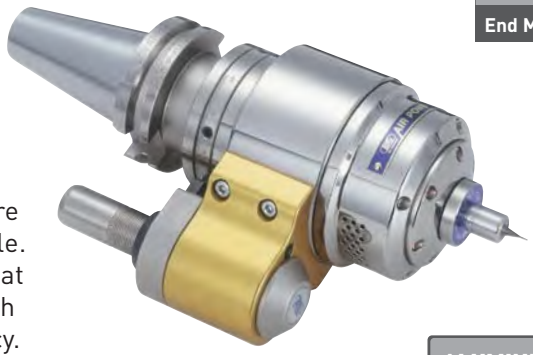
AIR POWER SPINDLE

Type RBX

ULTRA HIGH-SPEED AND PRECISION

High-speed micro-machining can be done on a normal machining center, eliminating the need for an expensive high-speed machine.



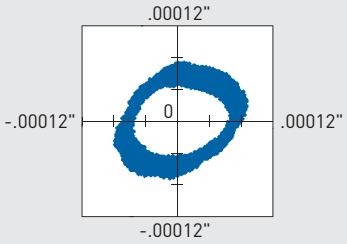


MAX 80,000 RPM

DYNAMIC RUNOUT ACCURACY

Most problems associated with micro-machining are caused by poor dynamic runout of a machine spindle. We have established a runout measuring system that can detect spindle movement during rotation at high speed and achieved the best dynamic runout accuracy.

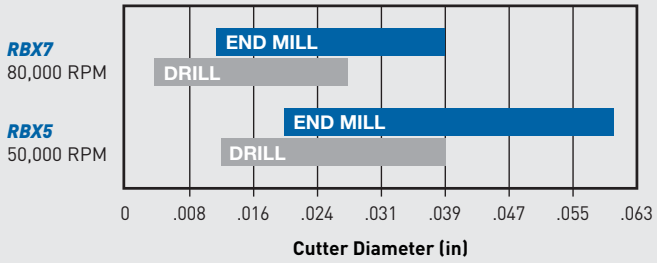
RBX (80,000 RPM)



Plotted Position of a Test Bar at the Max Spindle Speed

- Improved machining accuracy
- Extended tool life
- Superior surface finish

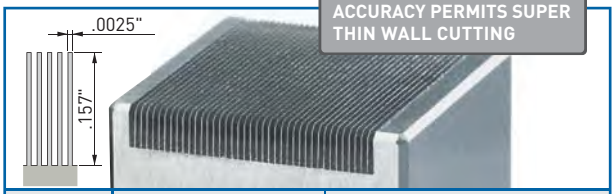
Recommended Clamping Range



- The table is for reference only. Machining range may change according to material, cutting conditions and cutting tools

Application Example

ALUMINUM A2017
OUTSTANDING RUNOUT ACCURACY PERMITS SUPER THIN WALL CUTTING

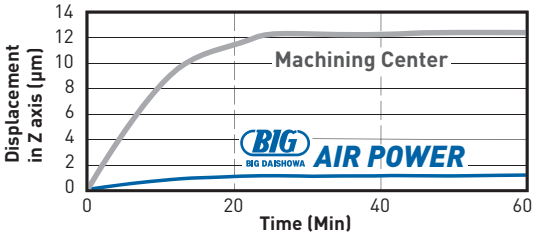


RBX7	Cutter	ø.02" (ø.5mm) Rib-End Mill
	Spindle speed	70,000 RPM
	Feed	59 IPM (1,500 mm/min)
	D.O.C	Ad= .0008" (.02mm)

MINIMIZED SPINDLE EXPANSION

Air turbine drive prevents thermal expansion of the spindle, essential for high accuracy micro-machining.

Axial Displacement Compared to Operating Time



Automatic Tool Change

ATC type is available by supplying air via a stop block to enhance productivity with unmanned operation.

Air Pressure: 87 PSI
Air Consumption: 10.6 CFM

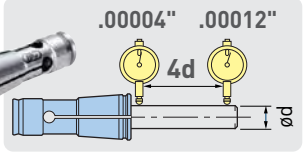
HIGH PRECISION

MEGA MICRO COLLET

NBC4S COLLET

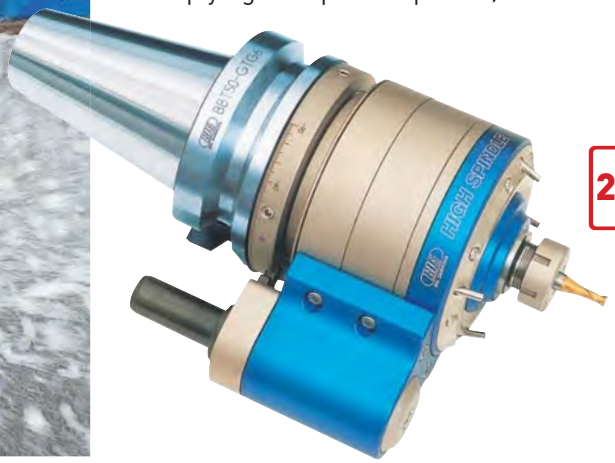
Max Cutter Shank: .157"

Guaranteed Max Runout



HIGH SPINDLE

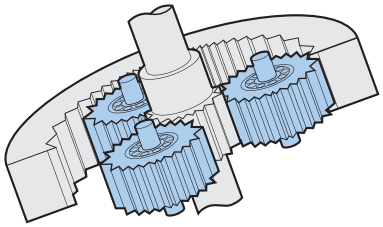
HIGH SPINDLE improves drilling and end milling performance on existing machining centers by multiplying the spindle speed 4, 5 or 6 times.



MAX 20,000 RPM

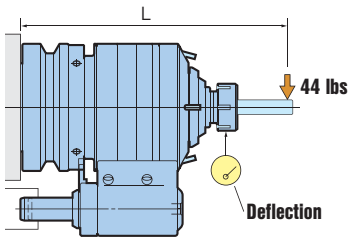
REINFORCED GEAR DRIVING SYSTEM

The planetary gears, which have been constantly upgraded since the development of our first HIGH SPINDLE back in 1970, achieve smooth operation with minimal heat generation and high torque transmission.



RIGIDITY INCREASED 1.7 TIMES

Larger diameter body and spindle with double angular contact bearings and reinforced locating pin assembly greatly increase rigidity.



Catalog Number	L	Deflection	Comparison
BBT40-GTG5-10-140-65	7.87	.0014	58% less
BBT50-GTG6-10-158-80	8.66	.0010	78% less
BBT50-GTG4-16-177-80	9.45	.0004	93% less

REDUCE LOAD TO MACHINE SPINDLE

Continuous use at high spindle speeds will reduce the life of a machine spindle due to the excessive load to the motor and bearings. The HIGH SPINDLE reduces this load and greatly extends the life of a costly machine spindle.

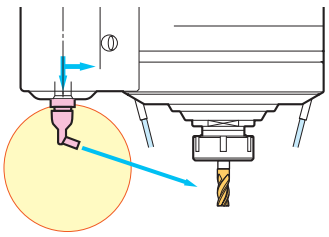
MULTI-DIRECTIONAL COOLANT SUPPLY

Universal coolant nozzles are capable of being adjusted to suit the length of the cutting tool for maximum coolant delivery to the cutting edge.

- HIGH SPINDLE can be operated without coolant running through the housing

PINPOINT COOLANT JET FOR SHORTER CUTTING TOOLS

A 1/8 pipe tap thread is provided in the HIGH SPINDLE so various types of coolant-jet nozzles can be utilized which will provide pinpoint delivery to the cutting edge of short tools (BCV/BBT taper models only).

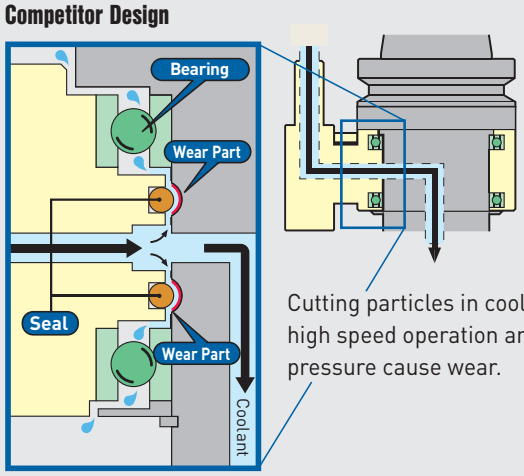


HI-JET HOLDER

Coolant feed for water-soluble coolant only. Bearings are in a separate housing from the coolant for extended life.

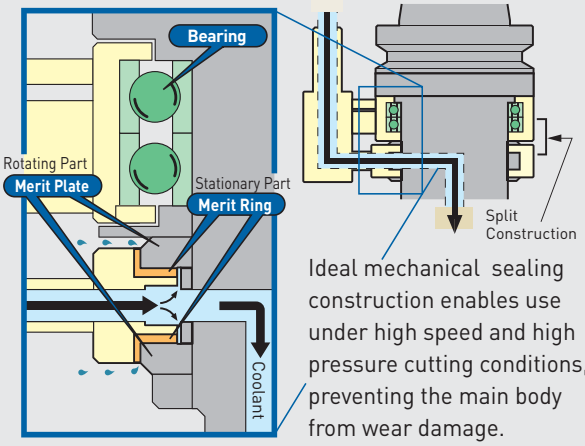
Non-Contact Seal Design Eliminates Wear Damage to Body

Competitor Design



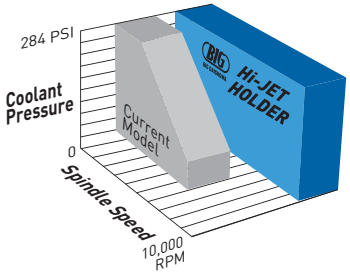
Cutting particles in coolant, high speed operation and high pressure cause wear.

BIG Hi-JET HOLDER



Ideal mechanical sealing construction enables use under high speed and high pressure cutting conditions, preventing the main body from wear damage.

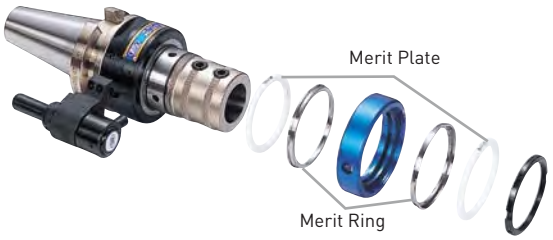
SUITABLE FOR SMALL DIAMETER CUTTERS DUE TO HIGH SPEED AND PRESSURE



Small diameter cutters require high spindle speeds to maintain high cutting speed and high coolant pressure due to their small diameter coolant holes. The Hi-JET HOLDER accepts even smaller diameter shanks, providing high spindle speeds (Max 10,000 RPM) and high coolant pressures (Max 284 PSI).

EASY MAINTENANCE

Easily replaceable Merit Sets consist of Merit Plates, Merit Rings and O-Rings.



A Variety of Hi-JET HOLDERS Available

NEW BABY Chuck Type

Collet Chuck Type

CK Shank Type

Side Lock Type

FULLCUT MILL

SHARP CUTTING EDGE BY BOTH HIGH RADIAL AND AXIAL RAKE ANGLES

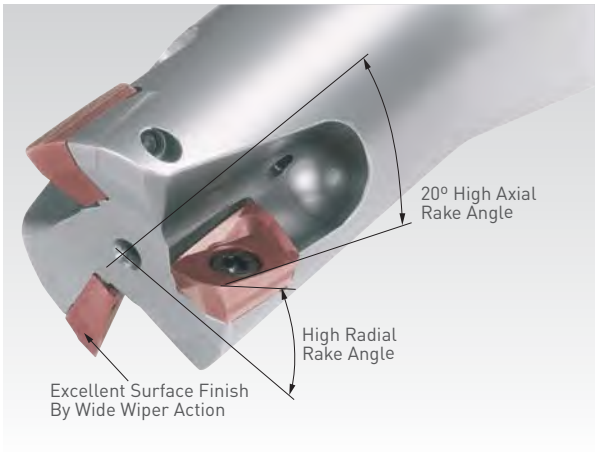
Positive high rake cutting edge for both radial and axial directions achieves smooth and quiet end milling.

LOW CUTTING RESISTANCE

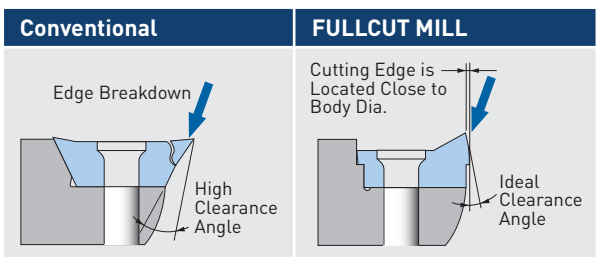
TYPE FCR

Ramping & Helical Milling Cutter

Unique inserts designed for ramping make multi-functional cutting possible. For ramping, helical milling, peck-milling, grooving & shoulder milling.



Positive Rake Angle Offers High Toughness– Strong Cutting Edge Reduces Edge Chipping

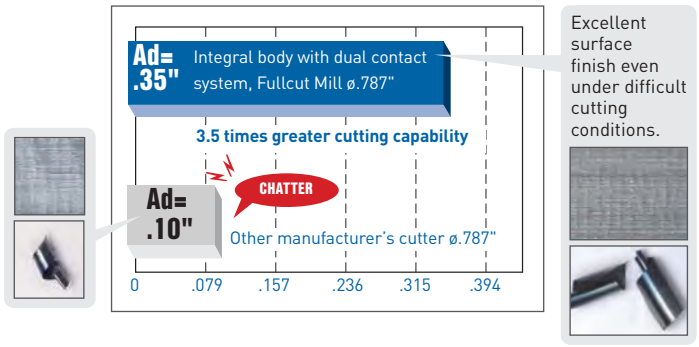


TYPE FCM

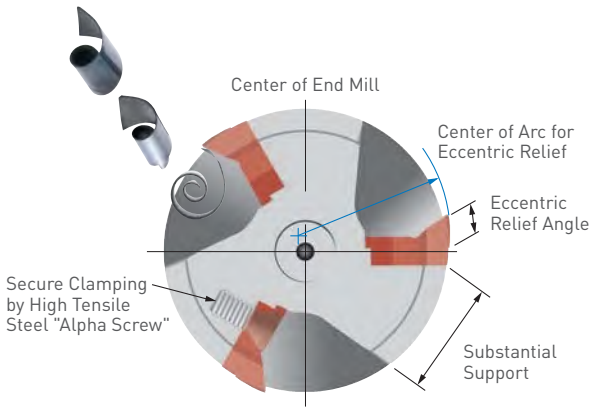
Square Shoulder & Slot Milling Cutter

Low resistance, high efficiency cutter especially for cross-feed machining. For grooving & shoulder milling.

Amazing Cutting Performance on a 40 Taper Machine



FIRST INDEXABLE END MILL WITH ECCENTRIC RELIEF ANGLE



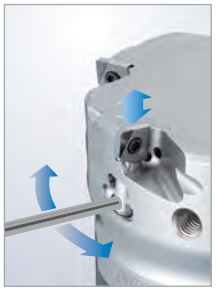
SPEED Finisher

CUTTER DIAMETER: ø50, ø63, ø80, ø100, ø125, ø160mm

HIGH SPEED CUTTER FOR ALUMINUM AND CAST IRON

Greatly Improves the Surface Finish in Ultra-High-Speed Machining

Achieves Rz = .55µm for die-cast aluminum ADC12 and Rz = .67µm for gray cast iron FC250.



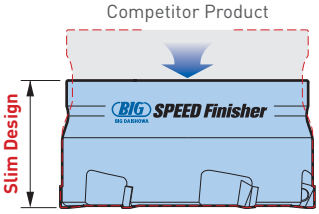
QUICKLY ADJUST THE CUTTING EDGE HEIGHT

It has a simple and highly operable mechanism in which the cutting edge height is adjusted after clamping the insert by turning the lifting nut from the side, then directly pushing up the insert with the lifting screw. Since the lifting screw has a fine pitch (.25mm), accurate adjustment is possible.

COMBINES LIGHT WEIGHT AND HIGH RIGIDITY

The slim body allows increased rigidity and reduced vibration and deflection. Therefore, height difference of the machined surface is minimized.

Also, as it is lighter than other cutters, it can be safely used with a small 30 taper machining center.



DIRECT COOLANT SUPPLY TO THE CUTTING EDGE

Use in combination with the Face Mill Arbor Type FMH for coolant delivery directly to the cutting edge.

This prevents welding and re-cutting of chips in aluminum workpieces.

Application Advice

Not only has the finishing surface roughness been improved, but by correctly aligning the cutting edge height, feed per tooth can also be increased for the same surface roughness, allowing high-efficiency machining. As the insert uniformly touches the workpiece, the life can also be extended.

FULLCUT MILL

CUTTER DIAMETER: ø50, ø63, ø80, ø100mm

INDEXABLE INSERT END MILL (ARBOR TYPE)

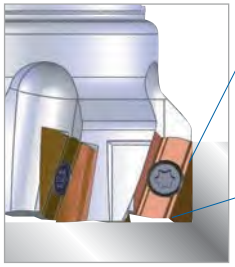
Sharp and Powerful Cutting

Exhibits incredible cutting capacity even with 40 taper machining centers or mill-turn machines.

Compatible with new-standard Face Mill Arbor type FMH.

PERPENDICULARITY AND SURFACE FINISH UNMATCHED IN INDEXABLE INSERT CUTTERS

Machined with holder BBT40-FMH22-47-45 and FULLCUT MILL FMH22-FCM63116-40



Perpendicularity	
Cutting Speed Vc (m/min)	150
Feed Rate fz (mm/blade)	.1
Axial DOC ap (mm)	5
Radial DOC ae (mm)	.1

BIG DAISHOWA	10µm
General Cutter	40µm

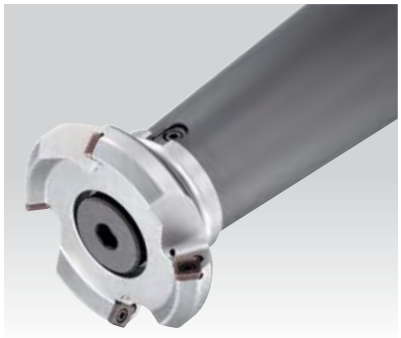
Wiper Flat	
Cutting speed Vc (m/min)	250
Feed rate fz (mm/t)	.2
Axial DOC ap (mm)	.1
Radial DOC ae (mm)	50

	Ra	Rz
BIG DAISHOWA	**.51**	**2.89**
General Cutter	1.56	7.77

- The perpendicularity & surface roughness will vary depending on the cutting conditions, material, machine tool & workpiece rigidity.

Application Advice

In 90º corner milling, the insert with a positive shape and large rake angle reliably curls the cutting chips, increasing the evacuation performance. The high rake insert used in the FULLCUT MILL will be helpful.



SURFACE MILL

CUTTER DIAMETER: ø50, ø63, ø80, ø100mm

FACE MILL CUTTER

Exhibits difference in the top surface finish of the workpiece.

Surface Finish Comparison with a General Cutter

Workpiece Material	1050
Cutting Speed Vc (SFM)	660
Feed Rate fz (in/insert)	.008"
Axial DOC ap	.118"
Radial DOC ae	3"
Cutting Method	Dry

BIG DAISHOWA SURFACE MILL (FM25.4-SFM804-40)		General Cutter	
Rz=1.42		Rz=9.04	

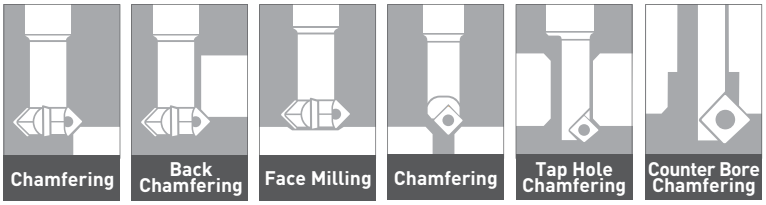
Application Advice

Glossiness of the machined surface with a face cutter is affected by the sharpness of the insert. By using different cutters between roughing and finishing operations, not only can a smooth surface finish be achieved, but the life of the insert can also be easily managed to obtain stable quality.

C-CUTTER mini

ULTRA HIGH FEED CHAMFER MILL

Compact design with 4 inserts & small cutting diameter.
High performance chamfer cutter achieves ultra high feed rate by reducing the cutting diameter to the lowest limit.



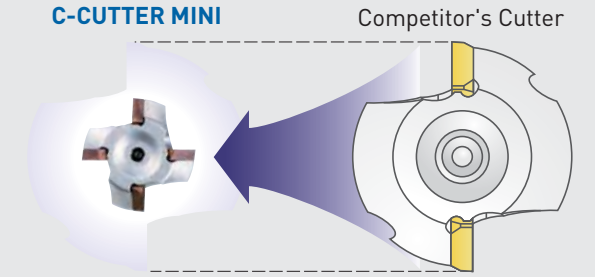
A Variety of Interfaces Available

FOUR INSERTS, SMALL DIAMETER AND NEW COATING ACHIEVE A TRIPLE EFFECT

EFFECT 1 – Maverick Design with Ultra High Feed by 4 Inserts
Compared with 1 or 2 inserts per cutter, a 4 insert cutter multiplies the feed rate.

EFFECT 2 – Increased Spindle Speed by Ultra Compact Diameter
A smaller tool diameter means faster spindle speeds.

EFFECT 3 – Latest Coatings [ACP200/300] Increases the Cutting Speed
Wear resistant multi-layer PVD coating increases the cutting speed.



Considerably Improved!

$$\text{Feed Rate} = \underset{\text{UP}}{\text{Spindle Speed}} \times \text{Feed Per Tooth} \times \underset{\text{UP}}{\text{No. of Teeth}}$$

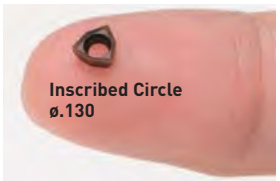
$$\underset{\text{UP}}{\text{Spindle Speed}} = \frac{\underset{\text{UP}}{\text{Cutting Speed}}}{\pi \times \text{Cutting Diameter}_{\text{Small dia.}}}$$

8 TIMES GREATER CUTTING EFFICIENCY

Cutting Conditions

Workpiece: S55C
Chamfering Amount: C1
Feed Per Tooth fz: .1mm/t

	General Products	C-CUTTER MINI (ST12-C116-45B-25)
Chamfering diameter	ø29	ø13.5 Small Diameter
Number of inserts	2	4 UP
Cutting speed Vc (m/min)	150	300 UP
Spindle speed n (min-1)	1,646	7,040 UP
Feed Vf (mm/min)	329	2,820 Much Higher!



HEX INSERT

Highly-efficient back chamfering from 5mm starting hole diameter.

C-CUTTER

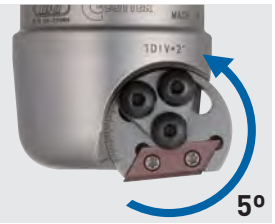
CHAMFERING TOOL

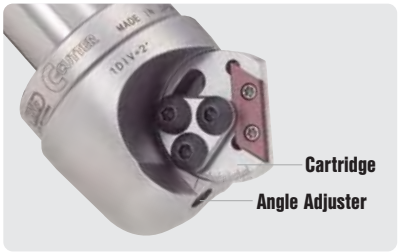
HOLE DIAMETER: ø.200"-4.000"

Wide chamfering range reduces number of tools and ATC.

CHAMFERING ANGLE CAN BE EASILY ADJUSTED BY 5º TO 85º (UNIVERSAL TYPE)

The cartridge swings when the angle adjuster is turned.



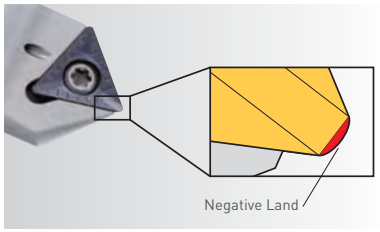


C-CENTERING CUTTER

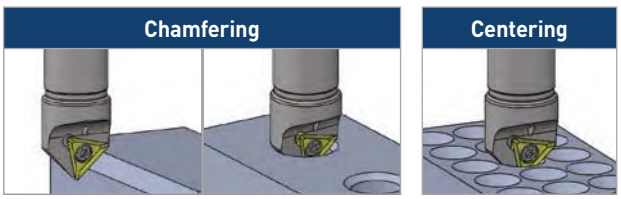
A multifunction cutter capable of both spot drilling and chamfering.
Negative insert tip shape dramatically improves tool life.

PREVENTS CHIPPING DURING SPOT DRILLING

As the nose radius on the insert forms negative land, it has high chipping resistance, and the tool life is significantly extended.



Capable of Both Spot Drilling and Chamfering



3 INSERT

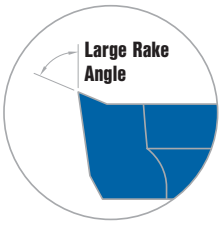
Immediate Evacuation of Chips with Coolant Supply

By providing coolant holes, it is possible to cool the cutting edge and immediately discharge the chips.

R-CUTTER

ULTRA HIGH FEED RADIUS CHAMFER MILL

Automates rounded chamfering for both the front and back.



EXCELLENT SHARPNESS

High Rake Angle with 4 Indexes

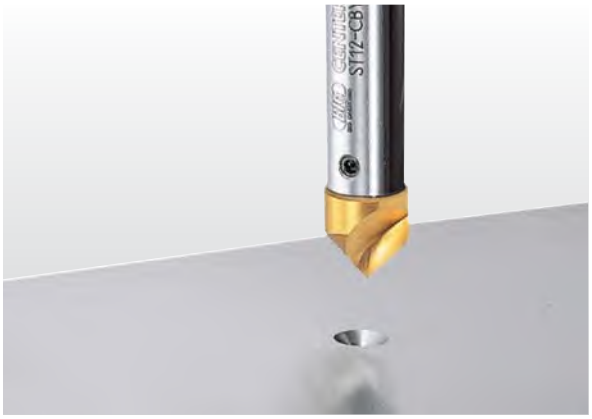
Unique insert geometry with excellent sharpness. High rake angle reduces cutting resistance and minimizes the generation of burrs.

Four Corners Can Be Used For Better Economic Efficiency

A throw-away insert that allows all four corners to be used, making cost reduction possible.

Application Advice

It is well known that changing the chamfer of the workpiece from the C-plane to the R-plane will considerably change the texture of the workpiece. This can be considered an added value.



CENTER BOY

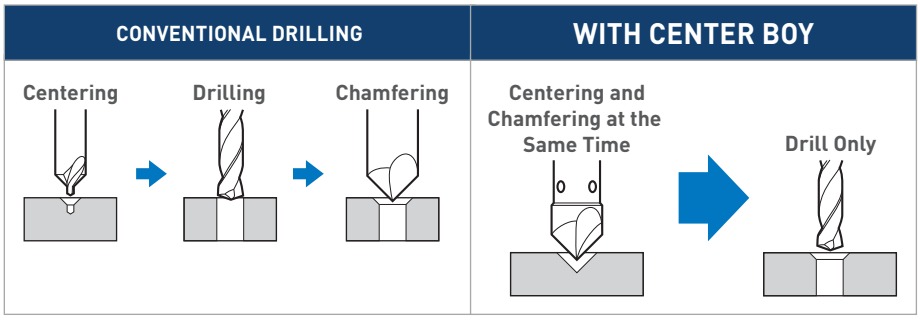
CENTERING AND CHAMFERING TOOL

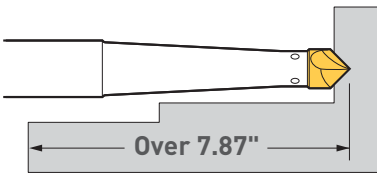
Accurate positioning in drilling and chamfering can be performed simultaneously.

HIGHLY ACCURATE REPLACEABLE INSERT

- Sharp cutting with optimum cutting edge
- No more regrinding
- Minimum interference with a slim, extended shank
- 90º and 120º

EASE OF OPERATION SHORTENS CYCLE TIME





Long Type Avoids Interference

The long type covers workpieces with maximum depth of 200mm or more.

Application Advice

Centering before drilling can be considered the most important process in determining the center of the compass. Correct centering has a great effect in extending tool life.

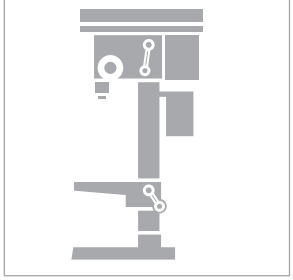
C CUTTER BOY

CHAMFERING TOOL

HOLE DIAMETER: ø.20"-1.00"

The carbide guide prevents chatter on bench drilling machines. Economical three-corner insert.

CHAMFERING TOOL FOR DRILL PRESS



Carbide Guide

CARBIDE GUIDE ALLOWS STABLE CUTTING

Carbide guide allows stable cutting and prevents triangular chamfering. It does not damage the body, extending the life.

Insert Does Not Need to be Reground

Inserts do not require regrinding. Moreover, the carbide coating insert with 3 usable corners offers lower cost and extended tool life.

Application Advice

Although the C-CUTTER BOY has been developed for chamfering using a drill press, it is also capable of stable chamfering without chattering even in low-rigidity conditions such as horizontal machining with long projection, thanks to the carbide guide.

BF-CUTTER

BACK SPOT FACER

CAP BOLT SIZE: M6-M30

- Economical insert type
- Optimal design that matches the cap bolt size

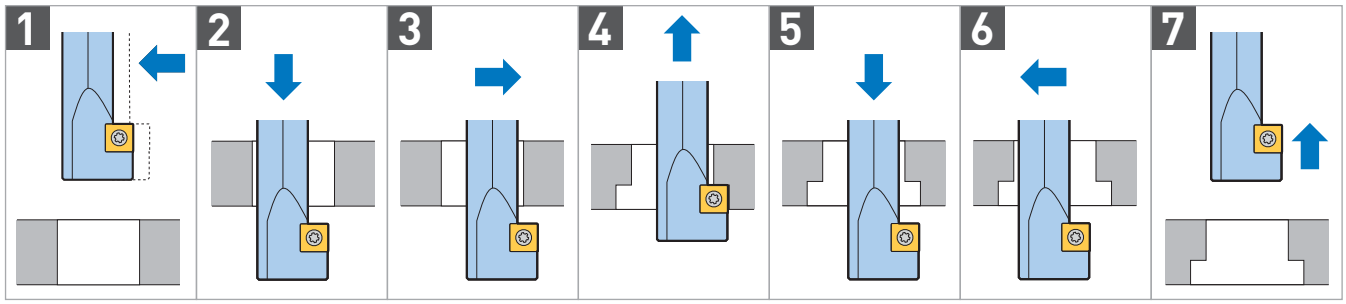
RELIABLE COOLING THROUGH OIL HOLE

Coolant can be Supplied to Cutting Edges

It securely supplies coolant even in places that are hard to reach such as when machining a rear surface, contributing to the extension of tool life.

EASY NC PROGRAMMING

Offset the machine spindle and starting hole centers before inserting the BF-CUTTER into the hole.

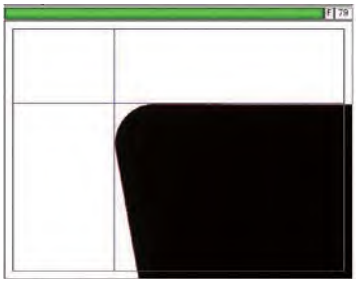


Application Advice

There is no official standard spot facing diameter for the cap bolt. Unifying the cap bolt spot facing diameter is one of the ways to reduce costs. In doing so, consider the spot facing diameter of the BF-CUTTER.

AUTOMATIC DETECTION OF X AND Z MEASUREMENT VALUES

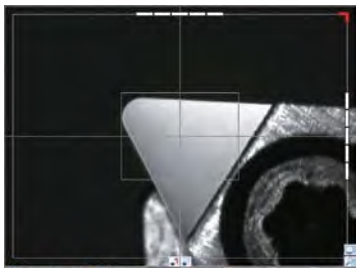
When the cutting edge appears on the screen, the maximum position is displayed. Can automatically detect and measure tool diameter and tool length.



HIGH-PRECISION CAMERA/IMAGE PROCESSING METHOD

Utilizing non-contact measurement, this method ensures the safety of cutting edges, particularly for small-diameter and diamond tools. The measurement process does not cause any damage to the cutting edge.

(Minimum measurable tool diameter: ø1mm)



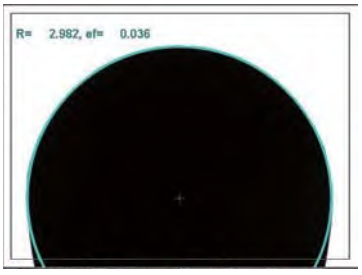
MAGIS

elegantly simple

The SPERONI MAGIS is a high-precision presetting is ideal for precision machining environments looking to optimize workflow and maintain cutting-edge tool performance.

CORNER RADIUS AND CHAMFER ANGLE MEASUREMENT

Our advanced technology effortlessly handles specific and complex measurements, ensuring unparalleled accuracy and efficiency for your tooling needs.



Ball End Mill

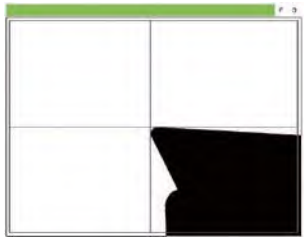
BLADE RUNOUT MEASUREMENT FUNCTION

Simply rotate the tool once, and the system displays the X and Z values for each blade in a graph. Easily monitor the blade runout condition at a glance.

STP ESSENTIA

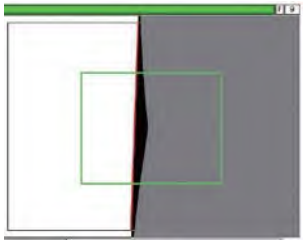
The SPERONI ESSENTIA is a high-precision tool presetter effortlessly enhance accuracy and efficiency in your tool management process with advanced technology designed for seamless operation and precise measurements.

VARIOUS MEASUREMENT FUNCTIONS DEPENDING ON THE APPLICATION



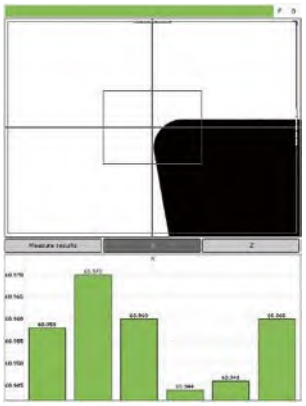
Automatic Detection of X and Z Measurement Values

The maximum shadow on the preset screen is automatically measured with high precision using advanced image processing.



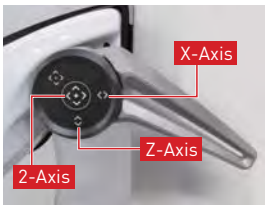
Contour Extraction Function

The maximum projected image is displayed on the preset screen as a fixed view. This feature allows you to inspect the rotation trajectory of twisted blades and other tools with precision.



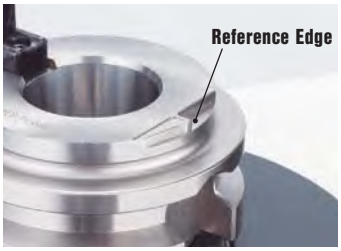
Cutting Edge Runout Measurement Function

The X and Z values of each cutting edge in multi-edged tools are measured and displayed graphically. This visual representation highlights the runout of each blade, allowing you to assess the condition at a glance with ease and precision.



RAPID AXIS MOVEMENT

Press the button, turn the handle grip, and move the axis. Enjoy independent movement of the X and Z axes, with the added capability of dynamic and simultaneous 2-axis operation.



CALIBRATION REFERENCE EDGE

The X and Z axes can be zeroed directly on the spindle itself. A dedicated reference edge is provided for setting, eliminating the need for a master gage.

QUICK DETECTION OF REFERENCE POSITION

Sensor series minimizes machine down time.

3-DIMENSIONAL TOUCH SENSOR SERIES

POINT MASTER PRO

3-D Touch Probe

For all cutting tools, workpieces and machine tools.

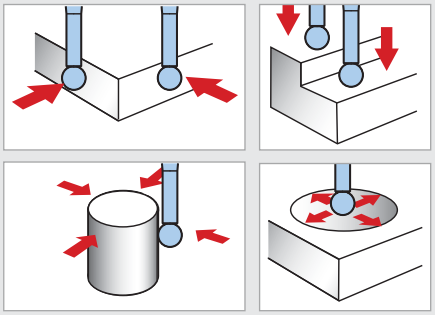
POINT MASTER

For use with conductive cutting tools, workpieces, and machine tools.

Detection with LED and sound.

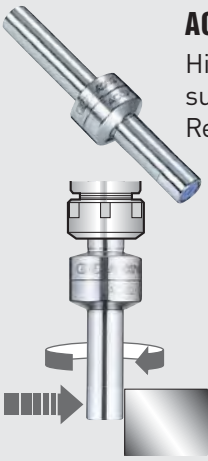
3D MASTER RED

Dial indicator 3-D measuring instrument.



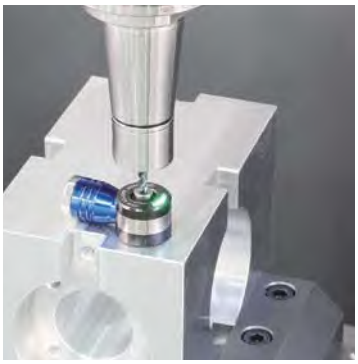
ACCU CENTER

High precision edge finder suitable for all materials. Repeatability within 3µm.



Application Advice

Make sure to check the coating material on the cutting tool before using conductive compact sensors. TiN coatings are conductive, but some multi-layer coatings do not conduct electricity. High-speed machine tool spindles often use non-conductive ceramic bearings. Select sensors available for any material for use under nonconductive environments.



INSTANTLY DETECT POSITION OF THE CUTTING EDGE AND THE WORKPIECE

Series available for various tool materials and diameters.

BASE MASTER SERIES

BM-2H / BM-50H

Measures 2" or 50mm from cutting edge and workpiece top surface.

For use with conductive cutting tools, workpieces and machine tools.

BM-2GH / BM-50GH

Electronic detection of cutting edge position.

For all cutting tools, workpieces and machine tools.

BM-100GH

BM-2MH / BM-50MH

Cutting edge position detection for ø.002" tool diameters.

For all cutting tools, workpieces and machine tools.

TOOL DIAMETER
.002" +

BMM-20D

World's smallest tool offset sensor with diameter of ø.787" (ø20mm).

With Loupe
(5x Magnification)

BMM-20H

Compact and lightweight design.

For all cutting tools, workpieces and machine tools.

BMM-10H

10mm ultra-thin design

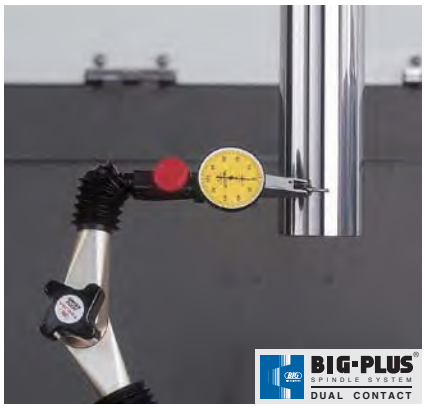
For all cutting tools, workpieces and machine tools.

TOOL MASTER

Detects tool position for all materials including non-conductive tools and workpieces.

For all cutting tools, workpieces and machine tools.

Notifies the Height
with LED and Buzzer



DynaTest

STATIC

Static precision test bar with a focus on superb quality and accuracy. Prevents trouble through the periodic inspection of machine runout accuracy.

- A high-precision test bar developed with BIG's precise machining technology
- Periodic accuracy evaluation eliminates machining defects
- Abundant variation to suit the standards of each holder

Precision Standards of BIG DAISHOWA Test Arbors	
Runout	.002mm (.00008)
Roundness	.001mm (.00004)
Cylindricity	.003mm (.00012)
Roughness	Ra: .1μm (.000004)
Taper Contact	AT1
Diameter Tol.	±.005mm (.0002)

Aluminum Case

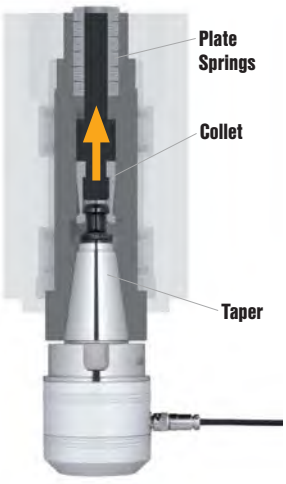
An aluminum case is provided to protect and store the test bars.

• BIG DAISHOWA provides high quality test bars produced under a strict quality control system

DYNAMIC

Measures dynamic runout of machine spindle during rotation. Knowing the dynamic accuracy of the machine tool spindle affected by centrifugal forces, vibrations and heat will aid in finding the appropriate cutting parameters for actual machining.

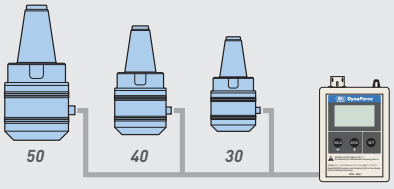
DYNA FORCE



Tool clamp measuring device for measuring pulling force of machine tool spindle, a vital factor of machine tool performance. The pulling force produced by the clamping device of machine tools could deteriorate due to degradation of disc springs or wear of the components of the amplifier.

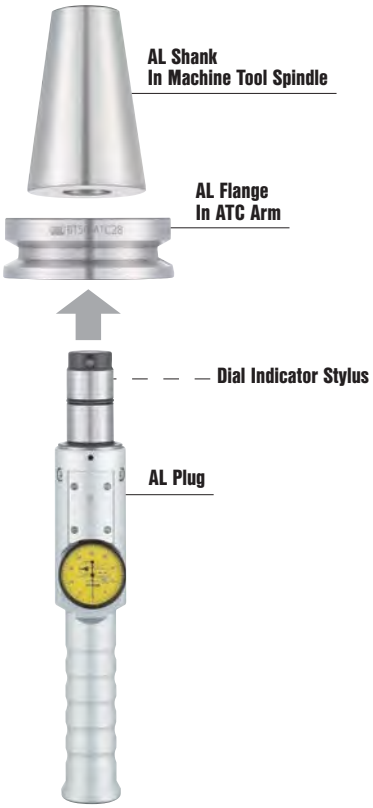
Pulling force is especially vital when it comes to dual face contact spindle interface, thus regular inspection is recommended.

Only One Display for All Taper Sizes



Application Advice

The spindle is the most essential part of a machine tool. Maintaining the accuracy of the spindle is almost equal to extending the life of the machine tool itself. Even periodical inspection of the runout accuracy makes a difference.



ATC ALIGNMENT TOOL

Misalignment of the center between the machine tool spindle and ATC gripper may cause damage to the spindle taper. A clamped tool holder under misalignment leads to increased runout, resulting in shorter life of machine tools and tool holders. The ATC Alignment Tool can also be used for re-aligning the ATC gripper and tool magazine pots.

How To Use

1. Load the AL Shank in the machine spindle and mount the AL Flange on the ATC arm.
2. Insert the AL Plug into the AL Flange.
3. Rotate the AL Plug and read the highest and lowest values of the dial indicator. This direction is the eccentric direction. Half of the gap of the values is the eccentric amount.
4. Adjust the position of the ATC arm so that the front end of the AL Plug will be inserted into the AL Flange fully.

Provided with ATC Alignment Tool & Plastic Storage Case

DYNA CONTACT

CERAMIC TAPER GAGE

Engineered to outperform traditional steel taper gages in machine spindle taper inspection. Lighter, more durable, and resistant to wear, it's the ultimate tool for superior accuracy and longevity.

- Allows even a thin coating of Prussian blue to show up clearly
- Scratch resistance
- Rustproof
- Non-magnetizing
- No aging deterioration
- 10x the wear resistance of steel
- Same linear expansion coefficient as steel

Taper Angle: 8° 17' 50" ±1"

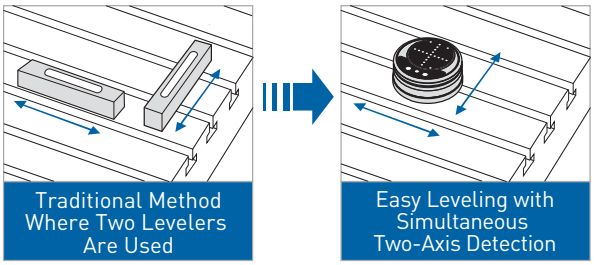
Compatible Spindles
BCV(CV)30/40/50
BBT(BT)30/40/50

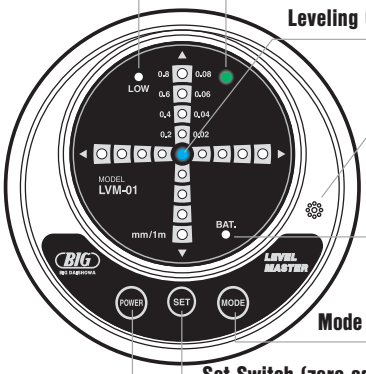
Provided with an Aluminum Case

LEVEL MASTER

FOR THE LEVELING OF MACHINE TOOL TABLES

- Simultaneous two-axis detection leveler
- LED and buzzer indication when leveling is complete
- Uses optical level sensor technology
- 10 micron per meter precision (.01mm/m)





Mode Display

Leveling Complete LED (blue)

Buzzer

Battery Alarm

Indication blinks when battery is low

Mode Switch (high or low)

Set Switch (zero adjustment function)

Used to calibrate the unit

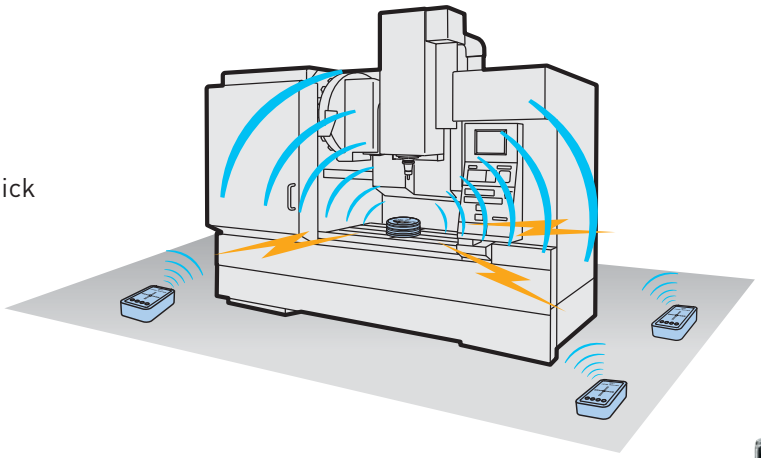
Power Switch (auto on/off function)

Power is automatically turned off 30 minutes after turned on

Standard Type

Wireless Type

Remote work solution for easy and quick leveling with a single operator.



Provided with Level Master, Aluminum Storage Case, Manual, Guarantee Certificate & Inspection Sheet. Batteries not included. (Requires 4 AAA batteries.)

ACCU STAND

DIAL INDICATOR STANDS

Articulated stands for the demanding user, offering the highest positioning precision and exact measurements in the µm range.

- High clamping force thanks to a strong internal cam structure
- Extremely flexible with 360 degrees freedom of positioning controlled by one progressive clamping star grip
- Ideal design for use in measurement, inspection (quality control) and machining
- Ultra strong earth magnet holds stand firmly in place

Magnetic Base

Rigid Type

Mini Rigid Type

Mini Type

MINI-MINI

Short Arm

Long Arm

Standard

TOOL PRO

TOOL HOLDING DEVICE FOR THE ASSEMBLY OF TOOLING

Depressing the large gold button permits the adapter to rotate 180° and lock in 45° increments. Integral taper units and modular taper units for nearly all shank styles.

VARIO

Quick-change system uses one permanently mounted base unit and multiple adapters for different types and sizes of tool shanks.

SPIN

Full 360° radial tool rotation permits easy access to tools.

KOMBI GRIP

TWO-WAY CLUTCH AND NEEDLE ROLLER CLAMPING SYSTEM

Ensures secure clamping at the tool flange periphery of HSK and polygon tapers.

TOOLING MATE

Replaceable adapters that feature drive keys to secure steep taper shanks, or a two-way clutch needle and roller clamping system.

ST LOCK

Ideal fixture for the set-up of cylindrical shank tool holders. Clamps ø20, 25 & 32mm shanks by replacing the sleeve.

TORQUE FIT

TIGHTENING FIXTURE FOR COLLET CHUCKS WITH TORQUE INDICATOR

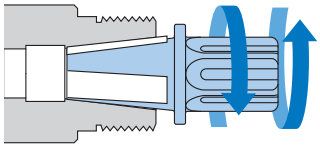
- Torque values of all BIG DAISHOWA collet chucks are preset
- Notification by buzzer near the correct torque
- User Mode allows setting of desired torque value
- Notification by ERROR LED of overtightening
- Exchangeable adapters matched to various holder interfaces

High-Precision Machining Starts With Correct Tightening

Insufficient Tightening → Tool Tip Position Change → Machining Defects / Dimensional Defects

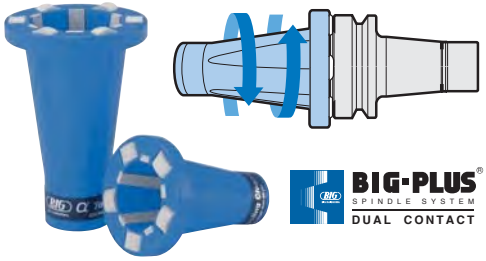
Over-Tightening → Collet Deformation Runout Problems → Shortened Tool Life / Shortened Holder Life

TOOLING CLEANERS



α Taper Cleaner

Maintain the accuracy of collet chucks by cleaning the internal collet taper.



α Tooling Cleaner

For the cleaning of both mating surfaces of BIG-PLUS 30 and 40 taper tool holders.

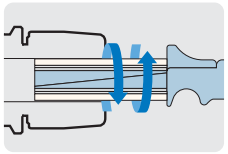
BIG-PLUS® SPINDLE SYSTEM DUAL CONTACT

HSK External Taper Cleaner

Cleaning strips will remove even large residual particles.

TK Cleaner

Perfectly cleans the clamping bore of a tool holder.

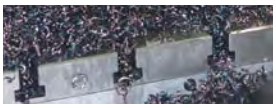


α Wiper Cleaner

Easy cleaning of smaller cylindrical bores.

T-SLOT CLEAN

Save the time required to clean T-slots packed with chips.

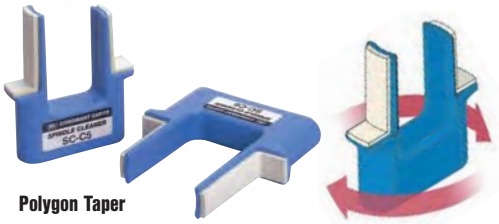


T-Slots Packed With Difficult to remove chips

T-Slots Protected & Clear by T-Slot Clean

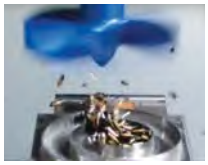
SPINDLE CLEANERS

Ensures absolute cleanliness of tapered spindles.



Polygon Taper

CHIP & COOLANT FAN



ChipFan

Fast, safe chip and coolant cleaning without stopping production.

- Made from high strength aluminum

Chip Blower

Air pressure removes cutting chips and coolant.

- Can be used with vertical and horizontal machining centers

BIG DAISHOWA BALANCING ACCORDING TO ISO 16084

WHAT DOES BALANCING, UNBALANCE AND BALANCE QUALITY MEAN?

BIG DAISHOWA tool holders are designed for high-speed machines. If a rotating tool holder (Fig. 1) is not rotationally symmetrical, imbalance occurs (Fig. 2). As a result, when the rotational speed is increased, non-symmetrical centrifugal forces occur at the tool holder and the cutting tool, causing vibration and premature spindle bearing failure. To correct for the imbalance, the tool is balanced by various methods such as drilling (Fig. 3), milling, or grinding a flat, moving the center of mass as close as possible to the center of the axis of rotation.

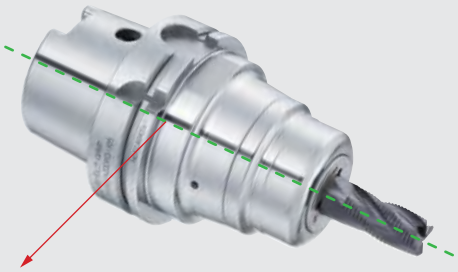


Fig. 1

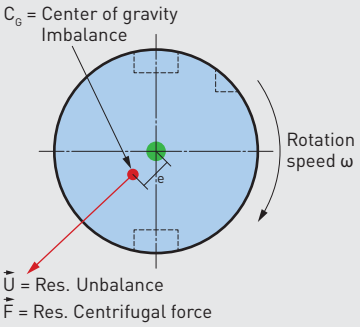


Fig. 2: Unbalanced

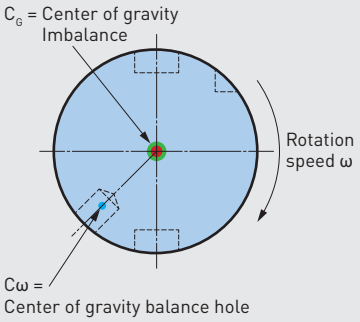


Fig. 3: Balanced

BALANCING REQUIREMENTS IN PRACTICE USING G2.5

The balancing quality G2.5 is widely used in the industry and is described in the ISO 1940-1 standard, issued in 2003. However, this quality class is often overspecified, and, is in many cases, not economically or technically feasible, especially when applied to smaller and lighter tools. The standard described above is designed for rigid rotors and is practical in a broader use for balancing. However, it cannot be applied to a complete system of spindles, tool holders and tools adequately and within technical constraints. For example, for a tool to be compliant, it will need to be balanced to less than 1 gmm/kg at a speed of 25,000 rpm, which in turn, corresponds to a mass eccentricity of less than 1 µm. This allowable tolerance is less than the interchange accuracy for even HSK, essentially negating all the cost and time for balancing the tool to such a strict tolerance.

BIG DAISHOWA BALANCING POLICY

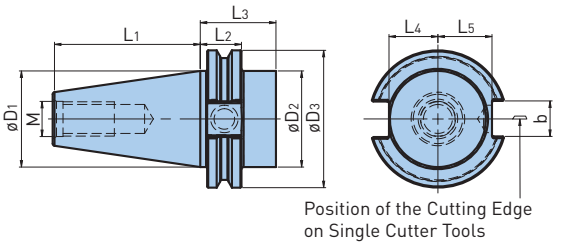
For this reason, all BIG DAISHOWA tool holders are balanced according to ISO 16084 (issued in 2017), specifically developed for rotating tool systems. ISO 16084 focuses on the interaction between spindle and tool, factoring in the allowable load on the spindle bearings generated by the tool's imbalance. This load must not exceed 1% of the dynamic load capacity of the spindle bearings. According to ISO 16084, the allowable unbalance tolerance is specified in [gmm], and is not expressed using a special quality grade [G].

In conclusion, BIG DAISHOWA does not indicate any G-values for balancing quality, but rather the maximum rotational speeds of the individual tool holder. The values shown for each item number in our catalog are in compliance with the requirements for standard balance quality according to ISO 16084.

Steep Taper Shanks (ASME B5.50, CV/BCV)

Taper	øD1	øD2	øD3	L1	L2	L3	L4	L5	b	M
CV40	2.50	2.50	2.50	2.57	.98	.89	.89	.98	.63	5/8"-11
CV50	2.75	2.75	3.88	4.01	1.38	1.39	1.14	1.23	1.01	1"-8

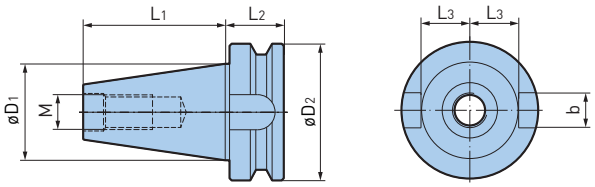
• For high rigidity information see pg. 84



Position of the Cutting Edge on Single Cutter Tools

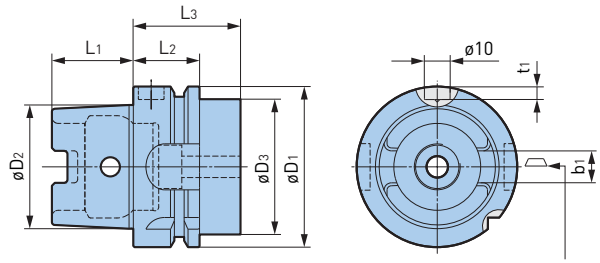
Steep Taper Shanks (JIS B6339, BT/BBT)

Taper	øD1	øD2	L1	L2	L3	b	M
BT30	1.25	1.81	1.91	.79	.64	.63	M12
BT40	1.75	2.48	2.57	.98	.89	.63	M16
BT50	2.75	3.94	4.01	1.38	1.39	1.01	M24



Hollow Taper Shanks (DIN 69893, Form A)

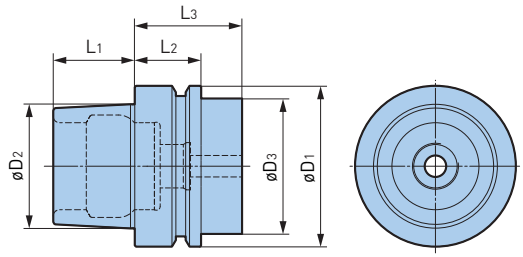
Taper	øD1	øD2	øD3 Max	L1	L2	L3 Min	b1	t1
HSK-A32	1.26	9.5	1.02	.63	.79	1.38	.28	.21
HSK-A40	1.57	1.18	1.34	.79	.79	1.38	.32	.20
HSK-A50	1.97	1.50	1.65	.98	1.02	1.65	.41	.20
HSK-A63	2.48	1.89	2.09	1.26	1.02	1.65	.49	.20
HSK-A80	3.15	2.36	2.68	1.57	1.02	1.65	.63	.19
HSK-A100	3.94	2.95	3.46	1.97	1.14	1.77	.79	.19
HSK-A125	4.92	3.74	4.37	2.48	1.14	1.77	.99	.19



Position of the Cutting Edge on Single Cutter Tools

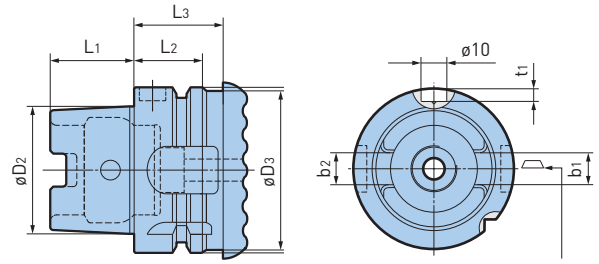
Hollow Taper Shanks (DIN 69893, Form E)

Taper	øD1	øD2	øD3 Max	L1	L2	L3 Min
HSK-E25	.98	.75	.79	.51	.79	.79
HSK-E32	1.26	.95	1.02	.63	.79	1.38
HSK-E40	1.57	1.18	1.34	.79	.79	1.38
HSK-E50	1.97	1.50	1.65	.98	1.02	1.65
HSK-E63	2.48	1.89	2.07	1.26	1.02	1.65



Hollow Taper Shanks (ISO 12164-3, Form T)

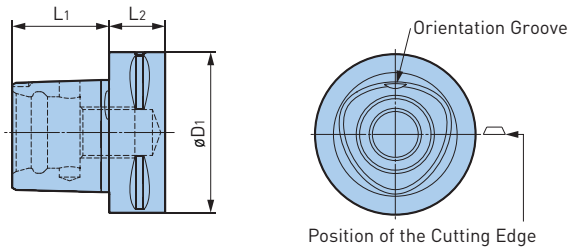
Taper	øD1	øD2	øD3 Max	L1	L2	L3 Min	b1	b2	t1
HSK-T50	1.97	1.50	1.93	.98	1.02	1.18	.41	.410	.20
HSK-T63	2.48	1.89	2.44	1.26	1.02	1.18	.49	.489	.20
HSK-T80	3.15	2.36	3.11	1.57	1.02	1.18	.63	.627	.19
HSK-T100	3.93	2.95	3.90	1.97	1.14	1.34	.79	.784	.19



Position of the Cutting Edge on Single Cutter Tools

BIG CAPTO (ISO 26623-1, Polygon Hollow Shank Taper with Face Contact)

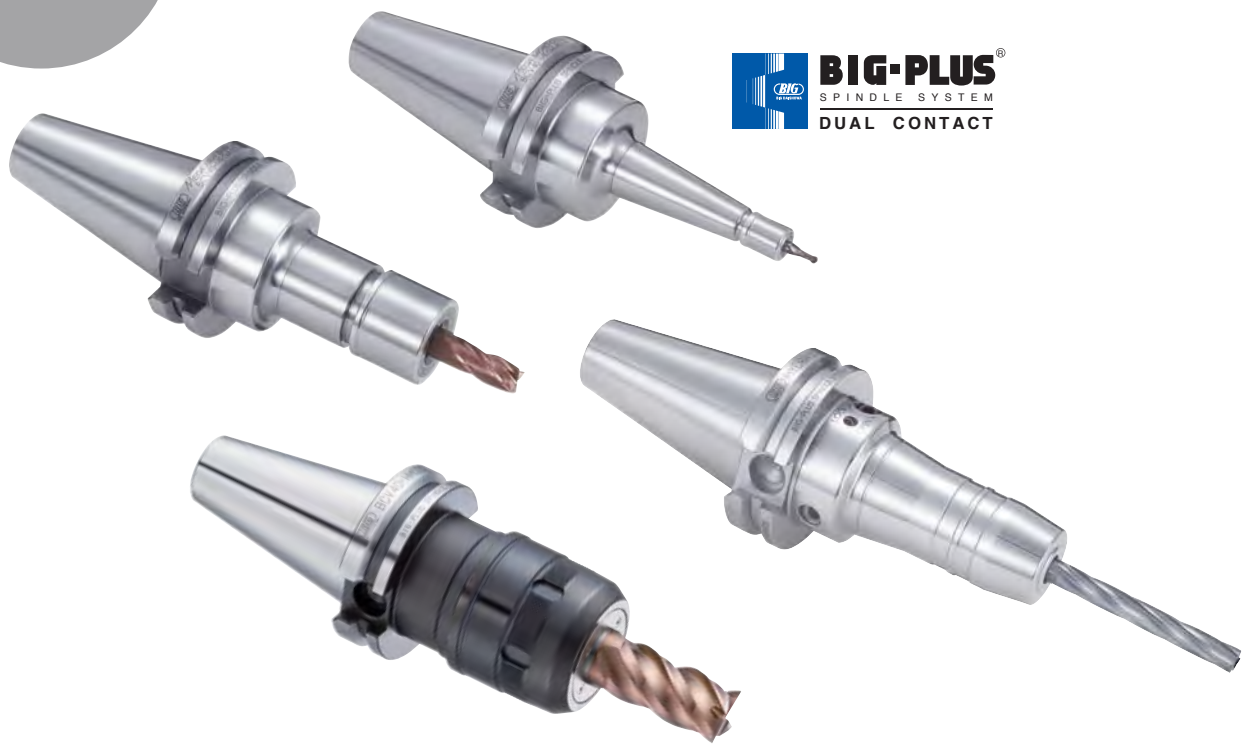
Taper	øD1	L1	L2
C3	1.26	.75	.59
C4	1.57	.94	.79
C5	1.97	1.18	.79
C6	2.48	1.50	.87
C8	3.15	1.89	1.18



Position of the Cutting Edge on Single Cutting Tools

BCV/CV SHANKS

A.1



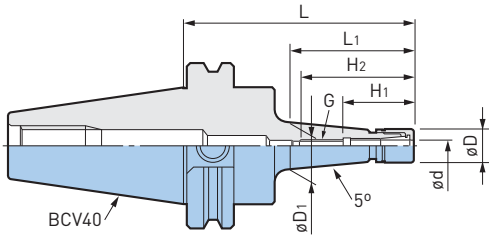
BIG-PLUS®
SPINDLE SYSTEM
DUAL CONTACT

MEGA MICRO CHUCK (TYPE T)

CLAMPING RANGE: ø.018"-.317" For Micro Drill & End Mill Applications

MAX 35,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BCV40-MEGA3S-2.5T	.018-.128	.394	.47	2.50	1.01	.87	1.50	M4 P0.7	NBC3S-□	MGN3S	MGR10	35,000	2.2
BCV40-MEGA3S-4T			.76	4.00	2.38							25,000	2.4
BCV40-MEGA4S-2.5T	.018-.159	.472	.54	2.50	1.01	1.04	1.85	M5 P0.8	NBC4S-□	MGN4S	MGR12	35,000	2.2
BCV40-MEGA4S-4T			.78	4.00	2.38							25,000	2.4
BCV40-MEGA6S-2.5T	.018-.238	.551	.60	2.50	1.01	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	35,000	2.2
BCV40-MEGA6S-4T			.84	4.00	2.38							25,000	2.4
BCV40-MEGA8S-3.5T	.116-.317	.709	.91	3.50	1.93	1.22	1.99	M9 P0.75	NBC8S-□	MGN8S	MGR18	30,000	2.4
BCV40-MEGA8S-6T			1.35	6.00	4.50							15,000	3.1

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376

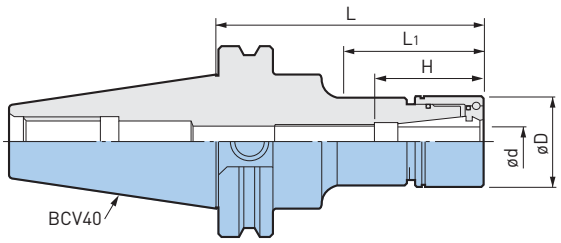

MEGA WRENCH PG. 410

MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-1.000" For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BCV40-MEGA6N-2.5	.010-.236	.787	2.50	1.04	.91-1.69	NBC6-□	MGN6	MGR20	35,000	2.3
BCV40-MEGA6N-4			4.00	2.22					30,000	2.5
BCV40-MEGA6N-5			5.00	3.22					20,000	2.7
BCV40-MEGA6N-6			6.00	4.22					15,000	2.8
BCV40-MEGA8N-2.5	.020-.315	.984	2.50	1.04	1.02-1.77	NBC8-□	MGN8	MGR25	35,000	2.4
BCV40-MEGA8N-4			4.00	2.30					30,000	2.7
BCV40-MEGA8N-5			5.00	3.30					20,000	2.9
BCV40-MEGA8N-6			6.00	4.30					15,000	3.1
BCV40-MEGA10N-2.5	.059-.394	1.181	2.50	1.05	1.50-1.89	NBC10-□	MGN10	MGR30	35,000	2.5
BCV40-MEGA10N-4			4.00	2.38					25,000	3.0
BCV40-MEGA10N-5			5.00	3.38					20,000	3.2
BCV40-MEGA10N-6			6.00	4.38					15,000	3.5
BCV40-MEGA13N-2.5	.098-.512	1.387	2.50	1.17	1.73-2.48	NBC13-□	MGN13	MGR35	30,000	2.7
BCV40-MEGA13N-4			4.00	2.46					25,000	3.2
BCV40-MEGA13N-5			5.00	3.46					20,000	3.5
BCV40-MEGA13N-6			6.00	4.46					15,000	4.0
BCV40-MEGA16N-2.5	.098-.630	1.654	2.50	1.18	1.89-2.48	NBC16-□	MGN16	MGR42	30,000	2.9
BCV40-MEGA16N-4			4.00	2.62	1.89-2.68				20,000	3.6
BCV40-MEGA16N-5			5.00	3.62					15,000	4.2
BCV40-MEGA16N-6			6.00	4.62					12,000	4.7
BCV40-MEGA20N-2.5	.098-.787	1.811	2.50	1.75	2.01	NBC20-□	MGN20	MGR46	30,000	3.0
BCV40-MEGA20N-4			4.00	3.25	2.01-2.68				20,000	4.0
BCV40-MEGA20N-5			5.00	4.25					15,000	4.6
BCV40-MEGA20N-6			6.00	5.25					12,000	5.3
BCV40-MEGA25N-3	.610-1.000	2.362	3.00	2.25	2.52-2.91	NBC25-□	MGN25	MGR60L	25,000	3.2
BCV40-MEGA25N-4			4.00	3.25					20,000	4.1

- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410

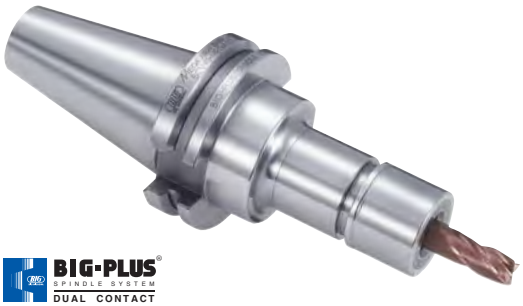

SCREW PG. 433

MEGA NEW BABY CHUCK

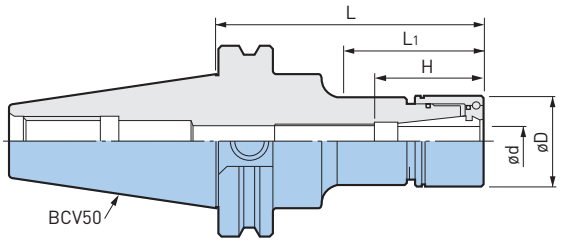
CLAMPING RANGE: ø.010"-1.000" For Drills, Reamers, Taps & Finishing End Mills

MAX 20,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BCV50-MEGA6N-3.5	.010-.236	.787	3.50	1.72	.91-1.69	NBC6-□	MGN6	MGR20	20,000	7.0
BCV50-MEGA6N-5			5.00	3.03					20,000	7.1
BCV50-MEGA6N-6			6.00	4.03					15,000	7.3
BCV50-MEGA8N-3.5	.020-.315	.984	3.50	1.72	1.02-1.77	NBC8-□	MGN8	MGR25	20,000	7.1
BCV50-MEGA8N-5			5.00	3.03					20,000	7.4
BCV50-MEGA8N-6			6.00	4.03					15,000	7.6
BCV50-MEGA10N-3.5	.059-.394	1.181	3.50	1.72	1.50-1.89	NBC10-□	MGN10	MGR30	20,000	7.3
BCV50-MEGA10N-5			5.00	3.03					20,000	7.7
BCV50-MEGA10N-6			6.00	4.03					15,000	7.9
BCV50-MEGA10N-8			8.00	6.03					12,000	8.6
BCV50-MEGA13N-3.5	.098-.512	1.378	3.50	1.72	1.73-2.48	NBC13-□	MGN13	MGR35	18,000	7.5
BCV50-MEGA13N-5			5.00	3.22					18,000	8.1
BCV50-MEGA13N-6			6.00	4.03					16,000	8.5
BCV50-MEGA13N-8			8.00	6.03					12,000	9.3
BCV50-MEGA16N-3.5	.098-.630	1.654	3.50	1.72	1.89-2.68	NBC16-□	MGN16	MGR42	17,000	7.8
BCV50-MEGA16N-5			5.00	3.22					17,000	8.7
BCV50-MEGA16N-6			6.00	4.22					16,000	9.3
BCV50-MEGA16N-8			8.00	6.22					13,000	10.4
BCV50-MEGA20N-3.5	.098-.787	1.811	3.50	1.80	2.01-2.68	NBC20-□	MGN20	MGR46	16,000	8.1
BCV50-MEGA20N-5			5.00	3.22					16,000	9.0
BCV50-MEGA20N-6			6.00	4.22					15,000	9.7
BCV50-MEGA20N-8			8.00	6.22					13,000	11.0
BCV50-MEGA25N-4	.610-1.000	2.362	4.00	2.50	2.52-2.91	NBC25-□	MGN25	MGR60L	15,000	8.8
BCV50-MEGA25N-6			6.00	4.50					13,000	10.9

- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410

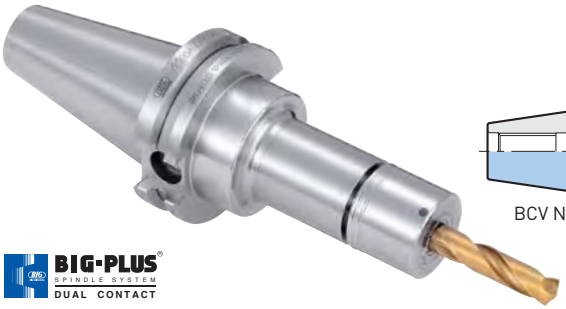

SCREW PG. 433

MEGA ER GRIP

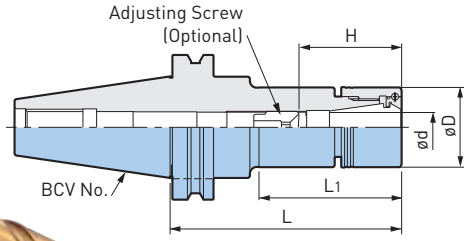
CLAMPING RANGE: ø.075"-.787" For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

Catalog Number	ød	øD	L	L1	H	Collet	Nut (NOT Included)	Wrench	Max RPM	Weight (lbs.)
BCV40-MEGAER11-4NL	.108-.236	.787	4.00	2.48	.91-1.69	ERC11-□	MERN11*	MGR20	30,000	2.5
BCV40-MEGAER16-3NL	.075-.394	1.181	3.00	1.50	1.38-1.85	ERC16-□	MERN16*	MGR30L	35,000	3.1
BCV40-MEGAER16-4NL			4.00	2.48					25,000	3.3
BCV40-MEGAER16-5NL			5.00	3.46					20,000	3.5
BCV40-MEGAER16-6NL			6.00	4.49					15,000	4.0
BCV40-MEGAER20-3NL	.108-.512	1.378	3.00	1.50	1.65-2.44	ERC20-□	MERN20*	MGR35L	30,000	3.3
BCV40-MEGAER20-4NL			4.00	2.48					25,000	3.5
BCV40-MEGAER20-5NL			5.00	3.50					20,000	4.0
BCV40-MEGAER20-6NL			6.00	4.49					15,000	4.2
BCV40-MEGAER25-3NL	.108-.630	1.654	3.00	1.61	1.73-2.56	ERC25-□	MERN25*	MGR42L	30,000	3.5
BCV40-MEGAER25-4NL			4.00	2.60	1.73-2.64				20,000	4.0
BCV40-MEGAER25-5NL			5.00	3.58					15,000	4.4
BCV40-MEGAER25-6NL			6.00	4.61					12,000	4.8
BCV40-MEGAER32-3.25NL	.108-.787	1.969	3.25	—	1.97-2.68	ERC32-□	MERN32*	MGR50L	30,000	3.7
BCV40-MEGAER32-4NL			4.00						20,000	4.4
BCV40-MEGAER32-5NL			5.00						15,000	5.1
BCV40-MEGAER32-6NL			6.00						12,000	5.9
BCV50-MEGAER16-3.5NL	.075-.394	1.181	3.50	1.85	1.39-1.84	ERC16-□	MERN16*	MGR30L	20,000	8.4
BCV50-MEGAER16-5NL			5.00	3.35					20,000	8.8
BCV50-MEGAER16-6NL			6.00	4.33					15,000	9.0
BCV50-MEGAER20-3.5NL	.108-.512	1.378	3.50	1.85	1.65-2.43	ERC20-□	MERN20*	MGR35L	18,000	8.6
BCV50-MEGAER20-5NL			5.00	3.35					18,000	9.0
BCV50-MEGAER20-6NL			6.00	4.33					16,000	9.5
BCV50-MEGAER25-3.5NL	.108-.630	1.654	3.50	1.85	1.74-2.65	ERC25-□	MERN25*	MGR42L	17,000	8.8
BCV50-MEGAER25-5NL			5.00	3.35					17,000	9.5
BCV50-MEGAER25-6NL			6.00	4.33					16,000	9.9
BCV50-MEGAER32-3.5NL	.108-.787	1.969	3.50	1.89	1.97-2.68	ERC32-□	MERN32*	MGR50L	16,000	9.0
BCV50-MEGAER32-5NL			5.00	3.39					16,000	10.1
BCV50-MEGAER32-6NL			6.00	4.37					15,000	11.0

***Nut, adjusting screw, collet and wrench are NOT included**

- Weight does not include collet
- MEGA ER GRIP is not able to use DIN6499 Form-A collets and ESX collets
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES

***MEGA NUT is the recommended nut to achieve high accuracy and clamping force**

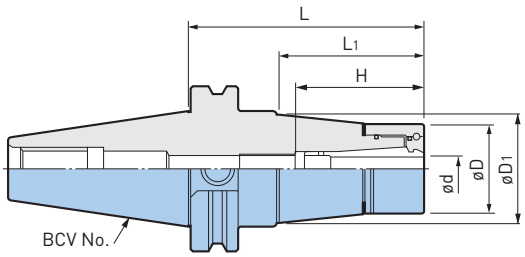
MEGA E CHUCK

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Exclusively for High Speed Finish End Milling

MAX 35,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BCV40-MEGA6E-3	.125-.250 (3-6mm)	.984	1.09	3.00	1.50	1.45-1.77	MEC6-□	MEN6	MGR25	35,000	2.5
BCV40-MEGA6E-4			1.25	4.00	2.42					29,000	3.0
BCV40-MEGA6E-5			1.45	5.00	3.54					29,000	3.4
BCV40-MEGA6E-6			1.50	6.00	4.54					20,000	3.8
BCV40-MEGA8E-3	.125-.250 (3-8mm)	1.181	1.28	3.00	1.50	1.65-2.00	MEC8-□	MEN8	MGR30	30,000	2.8
BCV40-MEGA8E-4			1.46	4.00	2.54					29,000	3.2
BCV40-MEGA8E-5			1.55	5.00	3.58					29,000	3.6
BCV40-MEGA8E-6			1.69	6.00	4.58					20,000	4.3
BCV40-MEGA10E-3	.125-.375 (3-10mm)	1.378	1.48	3.00	1.54	1.89-2.28	MEC10-□	MEN10	MGR35	30,000	2.9
BCV40-MEGA10E-4			1.65	4.00	2.58					29,000	3.4
BCV40-MEGA10E-5			1.65	5.00	3.58					29,000	3.9
BCV40-MEGA10E-6			1.65	6.00	4.58					22,000	4.5
BCV40-MEGA10E-8			1.65	8.00	6.62					16,000	5.2
BCV40-MEGA13E-3	.125-.500 (3-12mm)	1.654	1.65	3.00	1.62	1.96-2.36	MEC13-□	MEN13	MGR42	30,000	3.2
BCV40-MEGA13E-4			1.65	4.00	2.62					29,000	3.8
BCV40-MEGA13E-5			1.65	5.00	3.62					29,000	4.3
BCV40-MEGA13E-6			1.65	6.00	4.62					22,000	4.9
BCV40-MEGA13E-8			1.65	8.00	6.62					16,000	6.1
BCV50-MEGA13E-4	.125-.500 (3-12mm)	1.654	1.90	4.00	2.42	1.96-2.36	MEC13-□	MEN13	MGR42	18,000	8.5
BCV50-MEGA13E-5			2.07	5.00	3.42					18,000	9.3
BCV50-MEGA13E-6			2.25	6.00	4.42					16,000	10.6
BCV50-MEGA13E-8			2.42	8.00	6.50					12,000	12.8

- MEGA E NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 400


MEGA NUT PG. 401


PERFECT SEAL PG. 401


MEGA WRENCH PG. 410


SCREW PG. 433

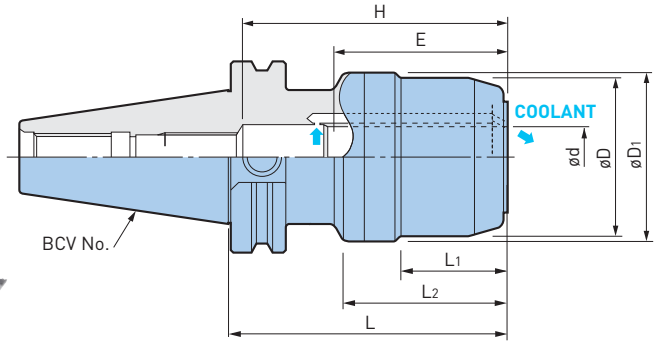
MEGA DOUBLE POWER CHUCK

CLAMPING RANGE: ø.500"-1.500"

For Heavy Duty End Milling

MAX 30,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	L2	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
BCV40-MEGA.500DS-2.5	.500	1.496	1.700	2.54	.98	1.77	2.24	1.70	MGR38L	30,000	2.6
BCV40-MEGA.625DS-3.5A	.625	1.654	2.071	3.59	1.06	2.01	2.88	2.13	MGR42L	30,000	3.9
BCV40-MEGA.750DS-3.5A	.750	1.969	2.193	3.59	1.40	2.09	3.44	2.25	MGR50L	30,000	4.0
BCV40-MEGA1.000DS-3.5A	1.000	2.441	2.469	3.59	1.61	2.09	3.44	2.50	MGR62L	27,000	4.6
BCV40-MEGA1.250DS-4A	1.250	2.756	2.783	4.09	1.42	2.36	3.63	2.75	MGR70L	26,000	5.1
BCV50-MEGA.625DS-4	.625	1.811	2.165	4.09	1.02	1.42	2.88	2.13	MGR46L	21,000	8.8
BCV50-MEGA.625DS-6				6.09		1.42				19,000	10.8
BCV50-MEGA.750DS-4	.750	2.362	2.717	4.09	1.10	2.72	3.44	2.25	MGR60L	20,000	9.9
BCV50-MEGA.750DS-6				6.09		4.72				17,000	13.0
BCV50-MEGA1.000DS-4	1.000	2.756	3.031	4.09	1.34	2.58	3.63	2.50	MGR70L	20,000	10.6
BCV50-MEGA1.000DS-6				6.09		4.58				17,000	14.3
BCV50-MEGA1.250DS-4	1.250	3.150	3.386	4.09	1.65	2.53	4.22	2.75	MGR80L	20,000	11.3
BCV50-MEGA1.250DS-6				6.09		4.53				15,000	15.9
BCV50-MEGA1.500DS-4.5	1.500	3.898	3.925	4.58	1.65	2.86	4.29	2.75	MGR99L	15,000	14.6

- Wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- MEGA.625DS requires the hex socket head screw (M8) for axial adjustment, however, please contact us if using for center-through applications
- DS types have jet-through coolant supply, thus tools with holes cannot be used

ACCESSORIES


COLLET PG. 407


PERFECT SEAL/ JET COLLET PG. 404


MEGA WRENCH PG. 410


SCREW PG. 434

MEGA DOUBLE POWER CHUCK

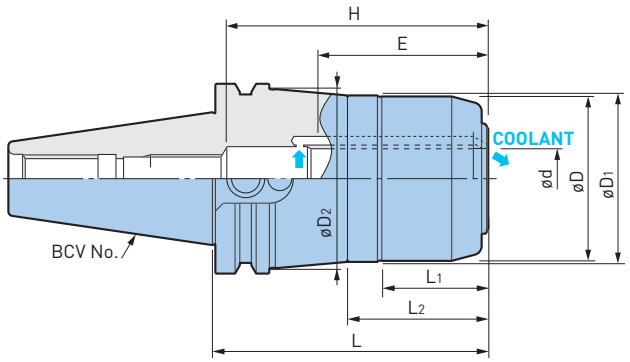
CLAMPING RANGE: ø.625"-1.500"

High Rigidity Type for Heavy Duty End Milling

HIGHER RIGIDITY

MAX 30,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	øD2	L	L1	L2	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
BCV40H-MEGA.625DS-3.5A	.625	1.654	2.071	2.39	3.59	1.06	1.42	2.87	2.25	MGR42L	30,000	3.6
BCV40H-MEGA.750DS-3.5A	.750	1.969	2.193	2.39	3.59	1.40	1.85	3.44	2.29	MGR50L	30,000	4.0
BCV40H-MEGA1.000DS-3.5A	1.000	2.441	2.469	—	3.59	1.61	—	3.42	2.33	MGR62L	27,000	4.6
BCV40H-MEGA1.250DS-4A	1.250	2.756	2.783	—	4.09	1.42	—	3.63	2.64	MGR70L	26,000	5.1
BCV50H-MEGA.750DS-4	.750	2.362	2.717	2.99	4.09	1.10	1.51	3.44	2.29	MGR60L	20,000	9.9
BCV50H-MEGA1.000DS-4	1.000	2.756	3.031	3.32	4.09	1.34	1.87	3.63	2.64	MGR70L	20,000	10.6
BCV50H-MEGA1.250DS-4	1.250	3.150	3.386	3.57	4.09	1.65	2.23	4.22	2.88	MGR80L	20,000	11.3
BCV50H-MEGA1.500DS-4.5	1.500	3.898	3.925	—	4.58	1.65	—	4.29	2.88	MGR99L	15,000	14.6

- Wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- MEGA.625DS requires the hex socket head screw (M8) for axial adjustment, however, please contact us if using for center-through applications
- DS types have jet-through coolant supply, thus tools with holes cannot be used

H type conforms to ASME B5.50-2015 standard for safe zone. Interference with tool changer may occur on machines made to an older standard. Consult engineering for specific information about the intended machine.

ACCESSORIES


COLLET PG. 407


PERFECT SEAL/ JET COLLET PG. 404

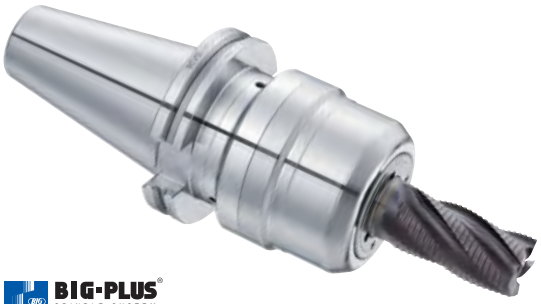

MEGA WRENCH PG. 410

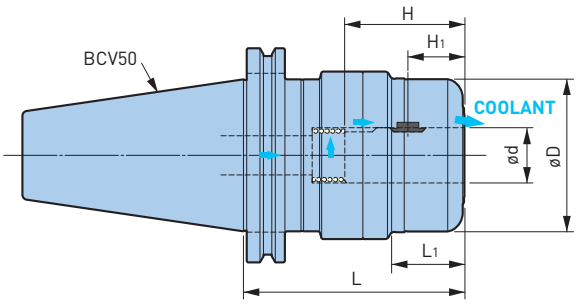

SCREW PG. 434

MEGA PERFECT GRIP

CLAMPING RANGE: ø.750"-1.250"

COOLANT THROUGH





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H	H1	Wrench	Weight (lbs.)
BCV50-MEGA.750DPG-4	.750	2.362	4.000	1.062	1.929	.913	MGR60L	9.9
BCV50-MEGA1.000DPG-4	1.000	2.756	4.000	1.299	2.165	1.024	MGR70L	10.6
BCV50-MEGA1.250DPG-4.25	1.250	3.150	4.250	1.614	2.244	1.102	MGR80L	12.3

- Key grip and spring are included; wrench must be ordered separately
- "H" indicates the adjustment length with an adjusting screw
- "H1" is the dimension from the center of the Key Grip to the front end of the chuck

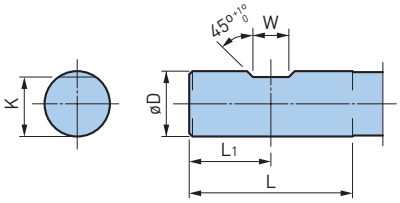
Always replace worn or damaged key grips immediately for safe operation.

Clamping ø	Key Grip (2 pcs.)	Spring
.750	**PKG.750-2P**	**PSP1823**
1.000	**PKG1.000-2P**	**PSP2420**
1.250	**PKG1.250-2P**	**PSP3128**

- Spare key grips are available in 2 pcs. per set

CYLINDRICAL SHANK (WITH FLAT SECTION)

The following standard shank is required for MEGA PERFECT GRIP.



øD		L	L1	W		K	
Nominal	Tolerance			Nominal	Tolerance	Nominal	Tolerance
.750	-.0001 -.0005	2.032	1.016	.455	+.002 -0	.675	+0 -.016
1.000		2.281	1.141	.515		.925	
1.250						1.156	

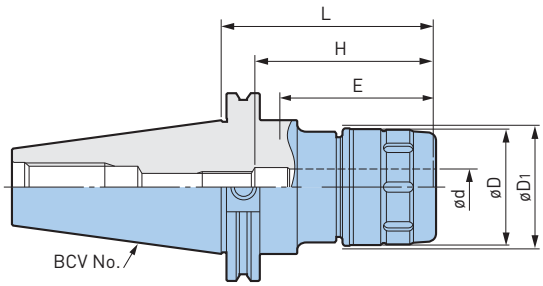
In case you are adding your own flat, the tool projection length in the MEGA PERFECT GRIP will be decided by the flat position. Refer to H1 in the MEGA PERFECT GRIP chart, decide the flat position to add, and then cut the cutter at L1 on cutter shank.

NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.750"-1.500" (ø20-32mm)

For Heavy Duty End Milling

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	H	Min Clamping Length E	Wrench	Weight (lbs.)
BCV40-HMC.750S-3.5	.750	1.969	2.008	3.50	3.34	2.25	FK45-50L	3.4
BCV40-HMC1.000S-3.5	1.000	2.323	2.362	3.50	3.42	2.50	FK58-62L	4.2
BCV40-HMC1.250S-4	1.250	2.677	2.717	4.00	3.54	2.75	FK68-75L	4.7
BCV40-HMC20S-85	20mm	1.969	1.996	3.35	2.72-3.11	2.20	FK45-50L	3.4
BCV40-HMC32S-100	32mm	2.677	2.705	3.94	3.03-3.42	2.52	FK68-75L	4.4
BCV50-HMC.750-4	.750	2.362	2.402	4.00	3.34	2.25	FK58-62	9.3
BCV50-HMC1.000-4	1.000	2.441	2.480	4.00	3.54	2.50	FK58-62	8.9
BCV50-HMC1.250-4	1.250	3.150	3.189	4.00	4.13	2.75	FK80-90	10.2
BCV50-HMC1.500-4.5	1.500	3.898	3.937	4.50	4.21	2.75	FK92-100	13.2
BCV50-HMC20S-105	20mm	1.969	1.996	4.13	2.72-3.11	2.20	FK45-50L	8.4
BCV50-HMC32S-105	32mm	2.677	2.705	4.13	3.46-3.86	2.83	FK68-75L	9.6

- Wrench and axial adjusting screw must be ordered separately
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 407

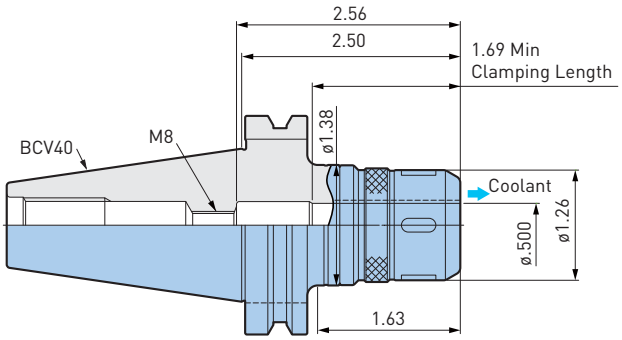

PERFECT SEAL/ JET COLLET PG. 404


WRENCH PG. 409

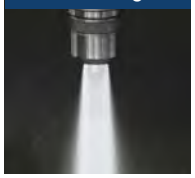

SCREW PG. 434

NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.500"



Jet Through



COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Wrench	Weight (lbs.)
BCV40-HMC.500J-2.5	FK31-33	2.4

• Wrench must be ordered separately

ACCESSORIES

PERFECT SEAL/ JET COLLET
PG. 404

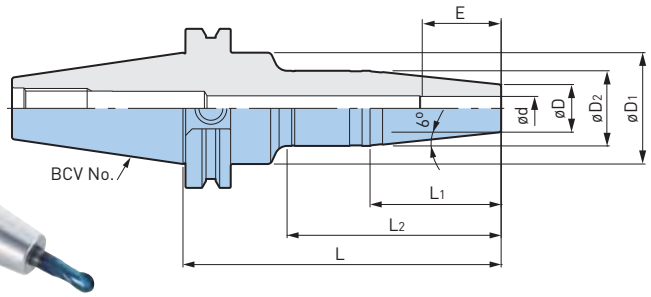
WRENCH
PG. 409

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø.250"-.500" (ø6-12mm)

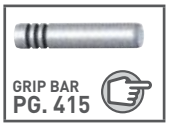
For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

ACCESSORIES



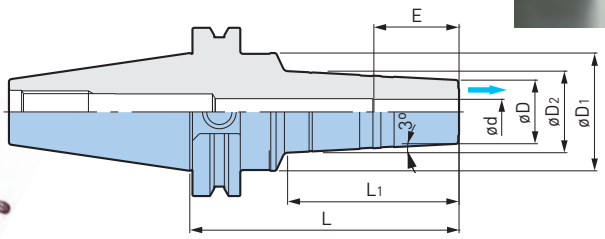
Catalog Number	ød	øD	øD1	øD2	L	L1	L2	Min Clamping Length E	Max RPM	Weight (lbs.)
BCV40-HDC.250S-5	.250	.56	1.75	1.03	5.00	2.24	3.32	.99	30,000	2.8
BCV40-HDC.375S-5	.375	.75		1.99		2.06	3.36	1.30	28,000	3.0
BCV40-HDC.500S-5	.500	.87		1.30			3.44	1.42	28,000	3.1
BCV40-HDC6S-125	6mm	.551		1.024	4.92	2.24	3.34	.99	30,000	2.9
BCV40-HDC8S-125	8mm	.669		1.102		2.05	3.38	1.18	30,000	2.9
BCV40-HDC10S-125	10mm	.748		1.181				1.26	28,000	3.1
BCV40-HDC12S-125	12mm	.827		1.260			3.42	1.38	28,000	3.1
BCV50-HDC6S-150	6mm	.551	2.75	1.024	5.91	2.24	3.54	.99	20,000	7.7
BCV50-HDC8S-150	8mm	.669		1.102		2.05		1.18	20,000	7.9
BCV50-HDC10S-150	10mm	.748		1.181			3.66	1.26	20,000	7.9
BCV50-HDC12S-150	12mm	.827		1.260			3.74	1.38	20,000	8.1

• Adjusting screw cannot be used

(JET COOLANT TYPE)

CLAMPING RANGE: ø.250"-.500" Coolant Holes Through Body of Holder

COOLANT THROUGH

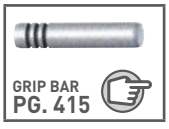


BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	øD2	L	L1	Min Clamping Length E	Weight (lbs.)
BCV40-HDC.250J-4	.250	.79	1.75	1.06	4.00	2.50	.99	2.7
BCV40-HDC.375J-4	.375	.95		1.22		2.54	1.30	2.8
BCV40-HDC.500J-4	.500	1.07		1.34		2.57	1.42	2.9

• Adjusting screws cannot be used

ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK CLAMPING RANGE: ø.250"-1.250" (ø6-20mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

COOLANT THROUGH

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

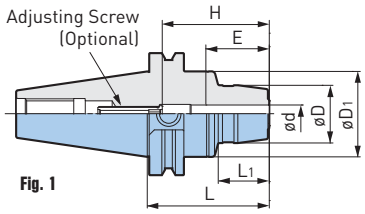


Fig. 1

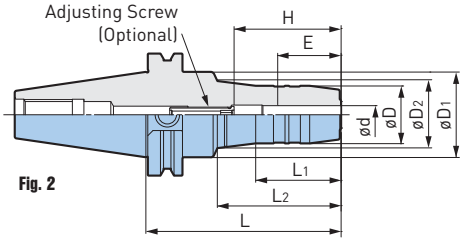


Fig. 2

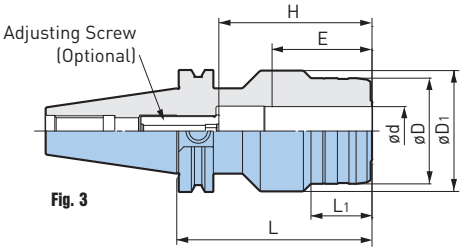


Fig. 3

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BCV40-HDC.250-2.5	1	.250	1.024	1.750	—	2.50	1.02	—	1.10-1.97	1.10	HDA6-05032	2.4
BCV40-HDC.250-4	2				1.20	4.00	1.75	2.48				3.1
BCV40-HDC.250-5.5					1.75	5.50		4.09				3.8
BCV40-HDC.375-2.5	1	.375	1.181	1.750	—	2.50	1.04	—	1.30-2.17	1.30	HDA10-08032	2.7
BCV40-HDC.375-4	2				1.37	4.00	1.75	2.52				3.1
BCV40-HDC.375-5.5					1.75	5.50		4.09				4.0
BCV40-HDC.500-2.5	1	.500	1.299	1.750	—	2.50	.98	—	1.50-2.36	1.50	HDA12-10032	2.7
BCV40-HDC.500-4	2				1.75	4.00	1.75	2.60				3.3
BCV40-HDC.500-5.5					—	5.50		4.09				4.0
BCV40-HDC.625-3	1	.625	1.496	1.750	1.75	3.00	1.54	—	1.69-2.76	1.69	HDA16-12030	2.9
BCV40-HDC.625-4	2					4.00	2.00	2.60			HDA16-12037	3.3
BCV40-HDC.625-5.5						5.50		—				4.2
BCV40-HDC.750-3	1	.750	1.654	1.750	—	3.00	1.57	2.60	1.69-2.76	1.69	HDA16-12030	3.1
BCV40-HDC.750-4	2				1.75	4.00	2.00	4.09			HDA16-12037	3.6
BCV40-HDC.750-5.5						5.50		4.13				4.4
BCV40-HDC1.000-3	3	1.000	2.165	2.480	—	3.00	.61	—	2.05-3.15	2.05	HDA16-12015	4.0
BCV40-HDC1.000-4						4.00	1.25				HDA25-16039	4.7
BCV40-HDC1.000-5						5.00	1.75					5.8
BCV40-HDC1.250-4	3	1.250	2.677	2.953	—	4.00	1.25	—	2.20-3.15	2.20	HDA25-16039	5.8
BCV40-HDC6-90	1	6mm	1.024	1.750	—	3.54	1.89	—	1.10-1.97	1.10	HDA6-05032	2.8
BCV40-HDC8-90		8mm	1.102				1.72				HDA8-06032	
BCV40-HDC10-90		10mm	1.181				1.75		1.30-2.17	1.30	HDA10-08032	2.9
BCV40-HDC12-90		12mm	1.260				1.76		1.50-2.36	1.50	HDA12-10032	
BCV40-HDC20-90	2	20mm	1.653	1.750	—	3.54	1.58	—	1.69-2.76	1.69	HDA16-12037	4.4

• Adjustable cutter length H is the adjustable length in the use of adjusting screw

ACCESSORIES

PERFECT SEAL/ JET COLLET PG. 404

GRIP BAR PG. 415

SCREW PG. 415

HYDRAULIC CHUCK CLAMPING RANGE: ø.250"-1.250" (ø32mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

COOLANT THROUGH

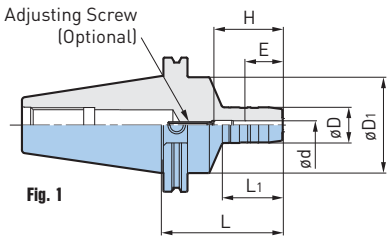


Fig. 1

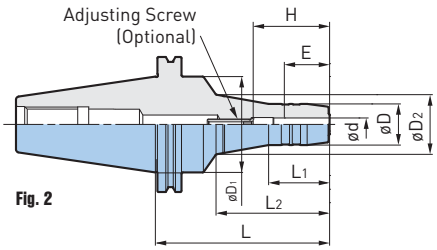


Fig. 2

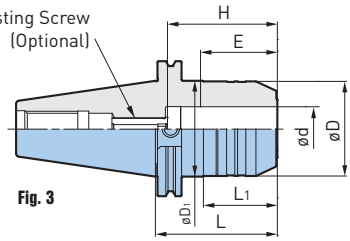


Fig. 3

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BCV50-HDC.250-3.5	1	.250	1.024	2.750	—	3.50	1.75	—	1.10-1.97	1.10	HDA6-05032	7.3
BCV50-HDC.250-5	2				1.53	5.00		3.19				8.0
BCV50-HDC.250-6.5					2.13	6.50		4.92				9.1
BCV50-HDC.375-3.5	1	.375	1.181	2.750	—	3.50	1.75	—	1.30-2.17	1.30	HDA10-08032	7.3
BCV50-HDC.375-5	2				1.71	5.00		3.27				8.0
BCV50-HDC.375-6.5					2.31	6.50		4.96				9.3
BCV50-HDC.500-3.5	1	.500	1.299	2.750	—	3.50	1.75	—	1.50-2.36	1.50	HDA12-10032	7.6
BCV50-HDC.500-5	2				1.85	5.00		3.31				8.2
BCV50-HDC.500-6.5					2.45	6.50		5.00				9.6
BCV50-HDC.625-3.5	1	.625	1.496	2.750	—	3.50	1.75	—	1.69-2.76	1.69	HDA16-12037	7.8
BCV50-HDC.625-5	2				1.97	5.00	2.00	3.35				8.7
BCV50-HDC.625-6.5					2.57	6.50		—				10.2
BCV50-HDC.750-3.5	1	.750	1.654	2.750	—	3.50	1.75	3.43	1.69-2.76	1.69	HDA16-12037	8.0
BCV50-HDC.750-5	2				2.15	5.00	2.00	5.04				8.9
BCV50-HDC.750-6.5					2.75	6.50		5.12				10.7
BCV50-HDC1.000-3.5	3	1.000	2.480	2.750	—	3.50	2.03	—	2.05-3.15	2.05	HDA25-16039	8.9
BCV50-HDC1.000-5						5.00	3.54					10.7
BCV50-HDC1.000-6.5						6.50	5.04					12.7
BCV50-HDC1.250-3.5	3	1.250	2.717	2.750	—	3.50	2.09	—	2.20-3.15	2.20	HDA25-16039	10.6
BCV50-HDC1.250-5						5.00	3.58					11.8
BCV50-HDC1.250-6.5						6.50	5.08					14.4
BCV50-HDC32-90	3	32mm	2.677	2.953	—	3.54	2.13	—	2.20-3.15	2.20	HDA25-16039	9.6

- "H" indicates the adjustment length with an adjusting screw

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

ACCESSORIES


PERFECT SEAL/ JET COLLET PG. 404


GRIP BAR PG. 415


SCREW PG. 415

SHRINK FIT HOLDER (JET COOLANT TYPE)

CLAMPING RANGE: ø.250"-1.250" (ø8-12mm)

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

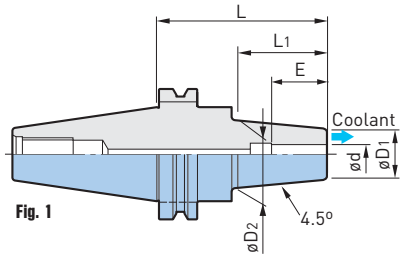


Fig. 1

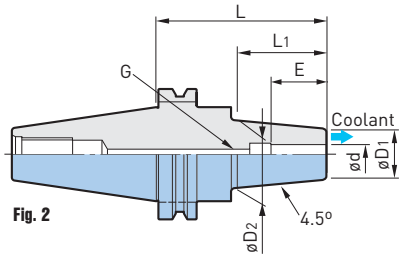


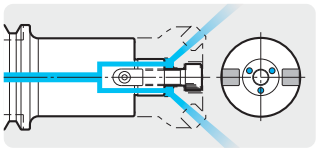
Fig. 2

Catalog Number	Fig.	ød	øD1	øD2	L	L1	Min Clamping Length E	G	Weight (lbs.)
BCV40-SFC.250-3.5	1	.250	.827	1.06	3.50	1.50	.87	—	2.6
BCV40-SFC.375-3.5		.375	.945	1.26		2.00	1.22		2.7
BCV40-SFC.500-3.5	2	.500					1.42	M10 P1	2.7
BCV40-SFC.500-6					6.00				3.4
BCV40-SFC.625-3.5		.625	1.063	1.34	3.50	1.50	1.54	M12 P1	2.7
BCV40-SFC.625-6					6.00				3.6
BCV40-SFC.750-4		.750	1.299	1.65	4.00	2.25	1.85	M16 P1	3.1
BCV40-SFC.750-6					6.00				4.2
BCV40-SFC1.000-4		1.000	1.732	2.09	4.00			M16 P1	3.8
BCV40-SFC1.000-6					6.00				5.6
BCV40-SFC8-80	1	8mm	.827	1.06	3.15	2.17	1.02	—	2.2
BCV40-SFC10-80		10mm	.945	1.26	3.15	2.17	1.22		2.4
BCV40-SFC12-80		12mm	.945	1.26	3.15	2.17	1.42		2.4
BCV50-SFC.500-4	2	.500	.945	1.26	4.00	2.00	1.42	M10 P1	7.2
BCV50-SFC.625-4		.625	1.063	1.34	4.00	1.75	1.54	M12 P1	7.5
BCV50-SFC.750-4		.750	1.299	1.65	4.00	2.27	1.61	M16 P1	7.7
BCV50-SFC.750-6					6.00				8.8
BCV50-SFC1.000-4		1.000	1.732	2.09	4.00		1.85	M16 P1	8.4
BCV50-SFC1.000-6					6.00				10.2
BCV50-SFC1.250-4		1.250			4.00		2.01	M16 P1	8.1
BCV50-SFC1.250-6					6.00				9.8

- Use a carbide shank cutter within a tolerance of h6
- Center-through coolant supply is available with tools with oil holes
- Allows jet-through coolant to be switched to center-through by assembling the accessory plug screw; applies to inch sizes only

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHELL/FACE MILL HOLDER



COOLANT THROUGH

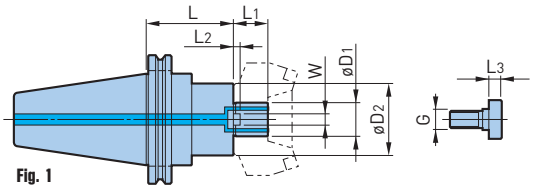


Fig. 1

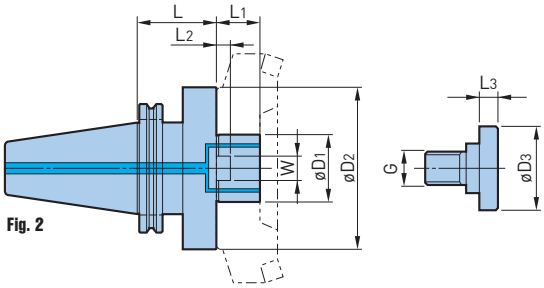


Fig. 2

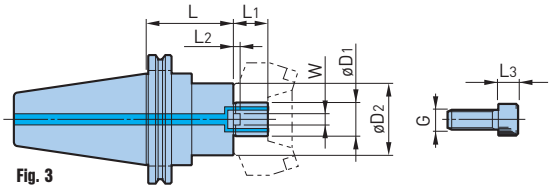


Fig. 3

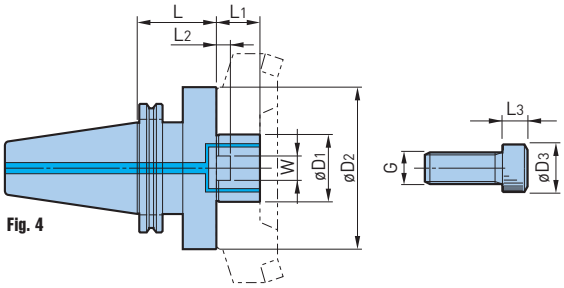


Fig. 4

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

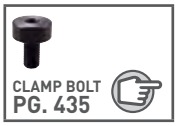
Catalog Number	Fig.	øD1	øD2	øD3	L	L1	L2	L3	W	G	Weight (lbs.)
BCV40-SMC.750-2	1	.750	1.689	.88	2.00	.69	.16	.38	.313	3/8"-24	2.7
BCV40-SMC.750-4					4.00						4.0
BCV40-SMC.750-6					6.00						5.2
BCV40-SMC1.000-2	2	1.000	2.189	1.12	2.00		.22		.375	1/2"-20	3.1
BCV40-SMC1.000-4					4.00						4.4
BCV40-SMC1.000-6					6.00						5.6
BCV40-SMC1.250-2		1.250	2.752	1.50	2.00		.28	.50	.500	5/8"-18	3.6
BCV40-SMC1.500-2		1.500	3.626	1.86		.93	.38		.625	3/4"-16	4.8
BCV40-FMH22-47-50	3	22mm	1.850	.63	1.97	.71	.20	.39	.394	M10x1.5	2.8
BCV40-FMH22-60-50	4		2.362								3.1
BCV40-FMH27-76-50		27mm	2.992	.71		.79	.24	.47	.472	M12x1.75	3.5
BCV40-FMH32-76-50		32mm	2.992	.94		.87	.28	.63	.551	M16x2	3.5

Catalog Number	Fig.	øD1	øD2	øD3	L	L1	L2	L3	W	G	Weight (lbs.)
BCV50-SMC.750-2	1	.750	1.689	.88	2.00	.69	.16	.38	.313	3/8"-24	7.4
BCV50-SMC.750-4					4.00						8.7
BCV50-SMC.750-6					6.00						9.9
BCV50-SMC1.000-2		1.000	2.189	1.12	2.00		.22		.375	1/2"-20	7.6
BCV50-SMC1.000-4					4.00						9.6
BCV50-SMC1.000-6					6.00						11.7
BCV50-SMC1.000-8					8.00						13.7
BCV50-SMC1.000-10					10.00						15.7
BCV50-SMC1.000-12					12.00						17.7
BCV50-SMC1.250-2		1.250	2.752	1.50	2.00		.28		.500	5/8"-18	8.2
BCV50-SMC1.250-4					4.00						11.4
BCV50-SMC1.250-6					6.00						14.6
BCV50-SMC1.250-8					8.00						17.8
BCV50-SMC1.250-10					10.00						20.5
BCV50-SMC1.250-12					12.00						23.7
BCV50-SMC1.500-2	2	1.500	3.626	1.88	2.00	.93	.38	.50	.625	3/4"-16	9.2
BCV50-SMC1.500-4					4.00						12.8
BCV50-SMC1.500-6					6.00						16.0
BCV50-SMC1.500-8					8.00						25.5
BCV50-SMC1.500-10					10.00						31.1
BCV50-SMC1.500-12					12.00						37.0
BCV50-SMC2.000-2.5❖		2.000	4.874	2.50	2.50		.44		.750	1"-14	11.1
BCV50-SMC2.000-4❖					4.00						16.0
BCV50-SMC2.000-6❖					6.00						25.5
BCV50-SMC2.500-2.5❖		2.500	4.874	3.13	2.50	1.13			1.000	1"-14	13.7
BCV50-FMH22-47-50	3	22mm	1.850	.63	1.97	.71	.20	.39	.394	M10x1.5	7.4
BCV50-FMH22-60-50			2.362								7.7
BCV50-FMH27-76-50	4	27mm	2.992	.71		.79	.24	.47	.472	M12x1.75	8.0
BCV50-FMH32-76-50		32mm	2.992	.94		.87	.28	.63	.551	M16x2	8.0

- Clamp bolt is included
- The weight does not include the cutter
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435
- øD2 indicates the smallest mounting surface diameter of the cutter that can be mounted on the arbor; be careful when using a cutter with the mounting diameter considerably smaller than the cutting diameter, as it may not fit
- Models marked ❖ includes 4x AU5/8-11 threads on a 4" bolt circle for cutter mounting

For high speed applications, shell mill holders should be balanced together with the cutters.

ACCESSORIES



SHELL MILL HOLDER (HIGH RIGIDITY TYPE)

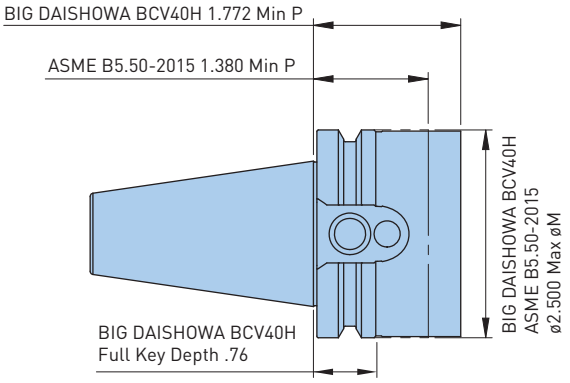
BIG DAISHOWA Offers Tool Holders that are Compatible with the 2015 revision of the ASME B5.50 (CAT) Standard

The elimination of the reduced section past the v-groove greatly improves radial rigidity for higher performance milling applications.

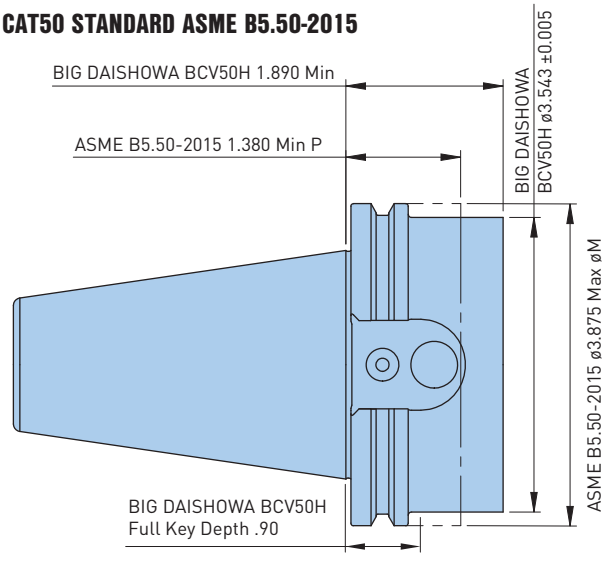
Not all machining centers are capable of accepting the 2015 revision and caution should be taken before installing these high rigidity tool holders. Always consult your machine tool manual or the machine tool builder for information about tool change requirements.

High Rigidity CAT Tapers

CAT40 STANDARD ASME B5.50-2015

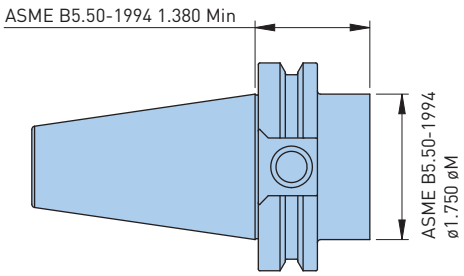


CAT50 STANDARD ASME B5.50-2015

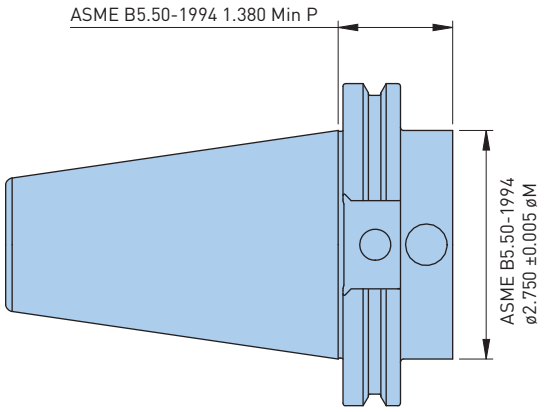


Standard CAT Tapers

CAT40 STANDARD ASME B5.50-1994

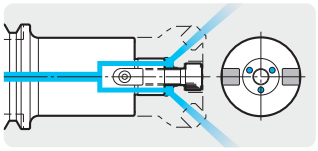


CAT50 STANDARD ASME B5.50-1994



SHELL MILL HOLDER (HIGH RIGIDITY TYPE)

COOLANT THROUGH



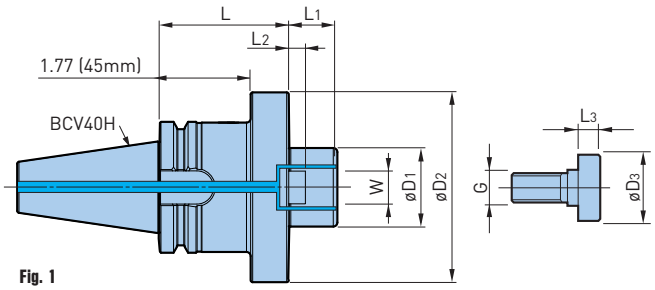


Fig. 1

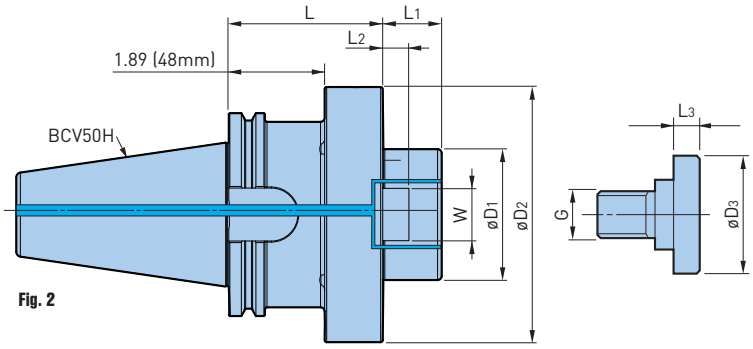


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	øD1	øD2	øD3	L	L1	L2	L3	W	G	Weight (lbs.)
BCV40H-SMC1.000-2	1	1.000	2.189	1.12	2.000	.69	.22	.38	.375	1/2"-20	3.3
BCV40H-SMC1.250-2.5		1.250	2.752	1.50	2.500		.28	.50	.500	5/8"-18	4.7
BCV40H-SMC1.500-2.5		1.500	3.626	1.88		.93	.38		.625	3/4"-16	6.0
BCV50H-SMC1.500-4	2	1.500	3.626	1.88	4.000	.93	.38	.50	.625	3/4"-16	15.2
BCV50H-SMC2.000-4❖		2.000	4.874	2.50			.44		.750	1"-14	19.4
BCV50H-SMC2.500-3❖		2.500		3.13	3.000	1.13			1.000	1"-14	16.6
BCV50H-FMH60-90◆		60mm	5.512	—	3.54	1.58	.44	—	1.000	M20 P2.5	20.0

- Clamp bolt is included
- The weight does not include the cutter
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435
- øD2 indicates the smallest mounting surface diameter of the cutter that can be mounted on the arbor; be careful when using a cutter with the mounting diameter considerably smaller than the cutting diameter, as it may not fit
- Models marked ❖ includes 4x AU5/8-11 threads on a 4" bolt circle for cutter mounting
- Models marked ◆ includes 4x M16 threads on a 4" bolt circle for cutter mounting

H Type conforms to ASME B5.50-2015 standard for safe zone. Interference with tool changer may occur on machines made to an older standard. Consult engineering for specific information about the intended machine.

END MILL HOLDER

CLAMPING RANGE: ø.375"-2.500"

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

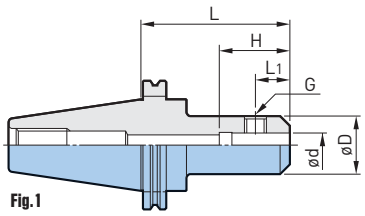


Fig.1

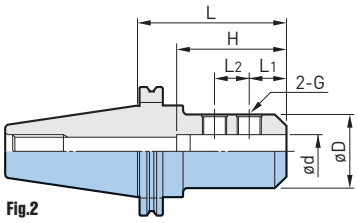


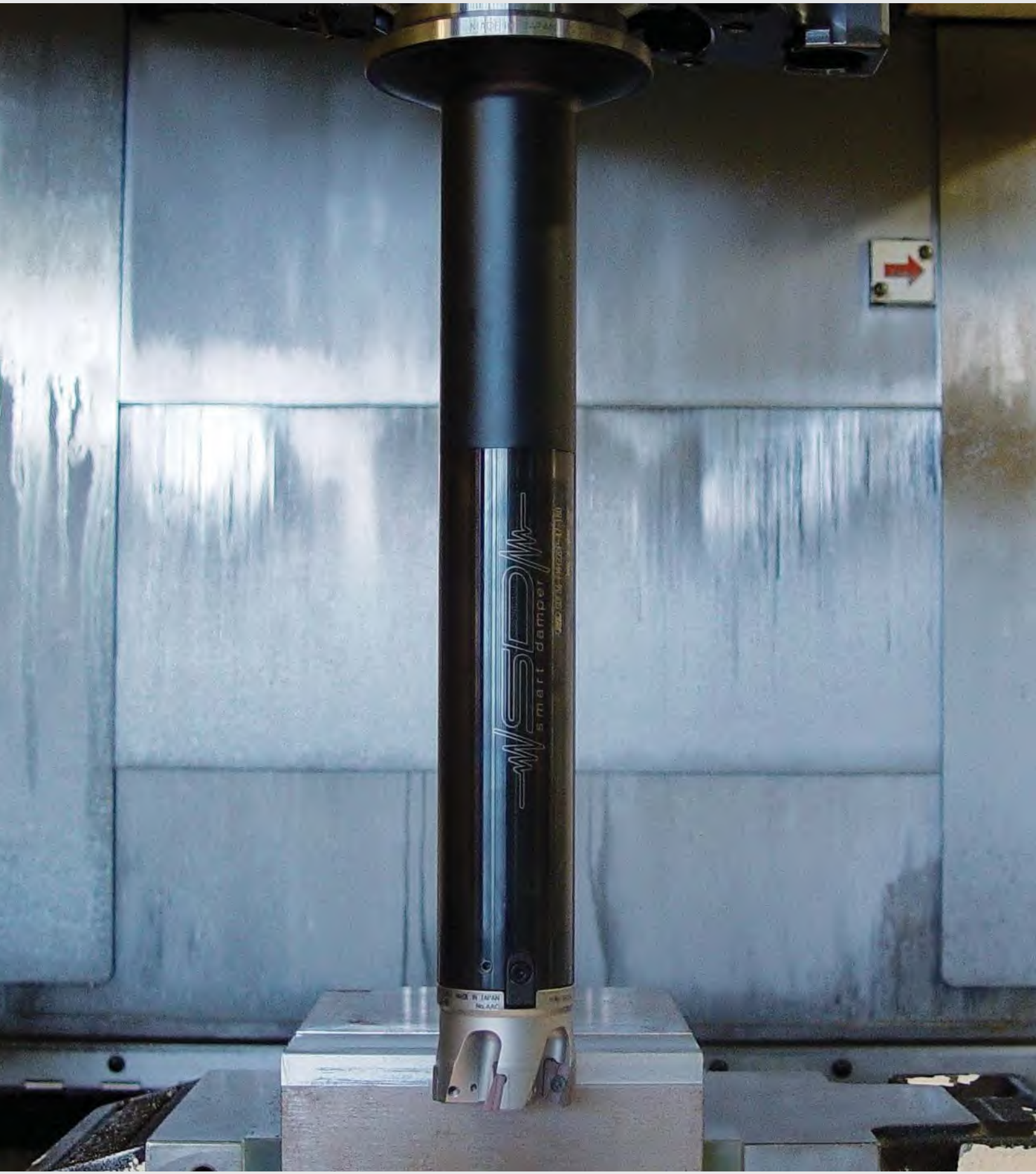
Fig.2

Catalog Number	Fig.	ød	øD	L	L1	L2	H	G	Weight (lbs.)
BCV40-EM.500-3	1	.500	1.375	3.00	.87	—	3.00	7/16"-20	2.7
BCV40-EM.500-4.5				4.50					3.3
BCV40-EM.625-3		.625	1.625	3.00	.94		3.50	9/16"-18	2.8
BCV40-EM.625-4.5				4.50					3.6
BCV40-EM.750-1.5		.750	1.750	1.50	1.13		2.25	5/8"-18	2.0
BCV40-EM.750-3				3.00	1.00		3.88		2.8
BCV40-EM.750-4.5	1			4.50					3.8
BCV40-EM1.000-3	2	1.000	2.252	3.00	1.13	1.00	3.13	3/4"-16	3.2
BCV40-EM1.000-4.5				4.50					4.8
BCV40-EM1.250-4.5		1.250	2.750						6.1
BCV40-EM1.500-5		1.500	2.750	5.00					6.4
BCV50-EM.375-6	1	.375	1.000	6.00	.75	—	3.00	3/8"-24	7.4
BCV50-EM.500-4.5		.500	1.375	4.50	.87		3.00	7/16"-20	7.7
BCV50-EM.500-6				6.00					8.3
BCV50-EM.625-4.5		.625	1.625	4.50	.94		3.50	9/16"-18	8.0
BCV50-EM.625-6				6.00					8.8
BCV50-EM.750-4.5		.750	1.750	4.50	1.00		3.88	5/8"-18	8.2
BCV50-EM.750-6				6.00					9.0
BCV50-EM1.000-4.5	2	1.000	2.252	4.50	1.13	1.00	3.13	3/4"-16	9.1
BCV50-EM1.000-6				6.00					10.5
BCV50-EM1.000-8				8.00					12.5
BCV50-EM1.250-4.5		1.250	2.750	4.50					10.3
BCV50-EM1.250-6				6.00					12.6
BCV50-EM1.250-8				8.00					15.6
BCV50-EM1.500-4.5		1.500		4.50					9.9
BCV50-EM1.500-6				6.00					12.2
BCV50-EM1.500-8				8.00					15.2
BCV50-EM2.000-6		2.000	3.500	6.00	1.38	1.38	4.33	1"-14	14.4
BCV50-EM2.500-6		2.500	3.937	6.00	1.56	1.56	3.74	1"-14	16.3

• For high speed applications MEGA DOUBLE POWER CHUCKS are recommended instead of End Mill Holders

ACCESSORIES

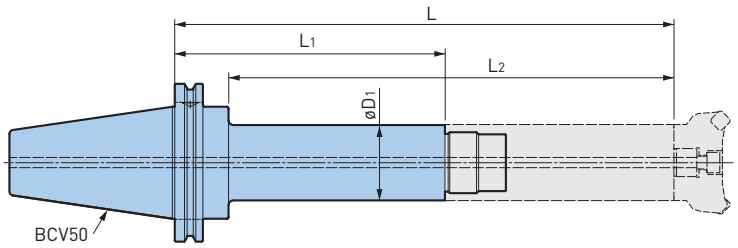
SET SCREW PG. 434


smart damper

SMART DAMPER MILLING (FACE MILL ARBOR TYPE)

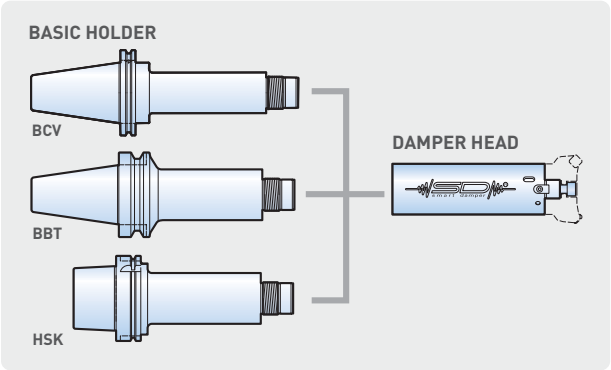
PATENT # 9027720

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

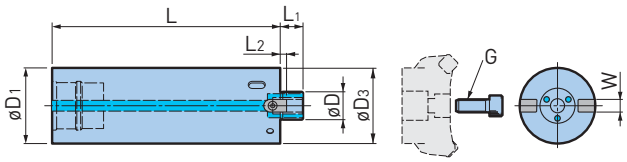
Catalog Number	øD1	L	L1	L2	Weight (lbs.)	Damper Head Model
BCV50-SDF36-47-70	47mm	9.843	2.756	8.465	8.6	FMH□□DP-47 SMC□□DP-47
BCV50-SDF36-47-170		13.780	6.693	12.402	12.3	
BCV50-SDF36-60-120	60mm	11.811	4.724	10.433	11.5	FMH□□DP-60 SMC□□DP-60
BCV50-SDF36-60-220		15.748	8.661	14.370	17.2	
BCV50-SDF57-72-270	72mm	17.717	10.63	15.63	26.5	SMC□□DP-72



SMART DAMPER MILLING (DAMPER HEAD)

NEW Sizes

COOLANT THROUGH



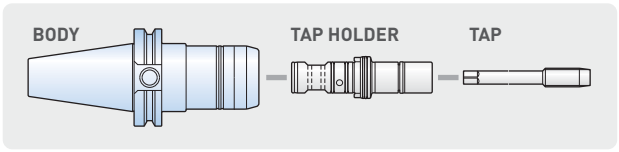
Catalog Number	øD	øD1	øD3	L	L1	L2	W	G	Weight (lbs.)
SDF36-FMH22DP-47-180	22mm	47mm	1.850	7.087	.709	.197	.394	M10	6.6
SDF36-FMH22DP-60-180		60mm	2.362						9.9
SDF36-FMH27DP-60-180	27mm	60mm	2.362	7.087	.787	.236	.472	M12	9.9
SDF57-FMH27DP-76-180		76mm	2.992						17.6
SDF36-FMH22.225DP-47-180	.875	47mm	1.850	7.087	.669	.138	.315	M10	6.6
SDF36-SMC.750DP-47-180	.750	47mm	1.850	7.087	.689	.160	.313	3/8"-24	6.6
SDF36-SMC1.000DP-60-180	1.000	60mm	2.362		.689	.220	.375	1/2"-20	9.9
SDF57-SMC1.000DP-72-180	1.000	72mm	2.835						16.3

- Hook wrench and clamp bolt are included
- The weight does not include the cutter
- Refer to the operation manual regarding the mounting method to the basic holder
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435

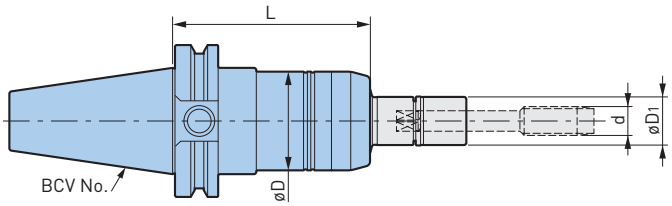
Be careful when using a cutter with the mounting diameter considerably smaller than the cutting diameter, as it may not fit.

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.2-AU3/4



COOLANT THROUGH



PATENT # 8226337

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Tapping Range d (Inch)	Tapping Range d (Metric)	øD	øD1	L	Weight (lbs.)	Wrench
BCV40-MGT6-3.25	No.2-No.12	M2-M6	1.42	.63	3.25	2.9	MGR16
BCV40-MGT12-3.25	AU1/4-AU7/16	M6-M12	1.61	.79	3.25	3.1	MGR20L
BCV40-MGT20-4.5	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.50	4.0	MGR30L
BCV50-MGT6-3.25	No.2-No.12	M2-M6	1.42	.63	3.25	8.6	MGR16
BCV50-MGT12-3.25	AU1/4-AU7/16	M6-M12	1.61	.79	3.25	8.8	MGR20L
BCV50-MGT20-4	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.00	9.7	MGR30L

***AU3/8 is included in the MGT20 series**

- MGT set screw is included; tap holder and wrench must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES


TAP HOLDER PG. 416


MEGA NUT PG. 423


SYNCHRO ADJUSTER PG. 423


O-RING PG. 423

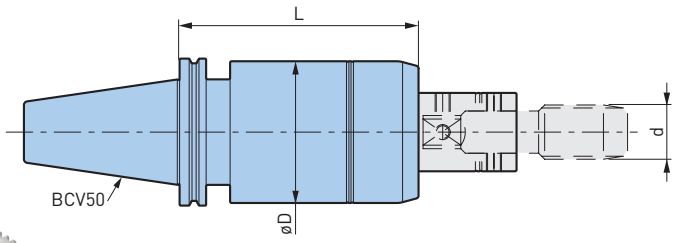

MEGA WRENCH PG. 410


SCREW PG. 423

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: AU13/16-AU1-1/2

COOLANT THROUGH



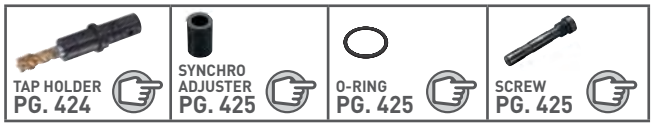
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Tapping Range d (Inch)	Tapping Range d (Metric)	øD	L	Weight (lbs.)
BCV50-MGT36-6.5	AU13/16-AU1-1/2 AP3/8-AP1	M20-M36	3.70	6.50	15.8

- MGT set screw is included; tap holder must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES



CKB SHANK

COOLANT THROUGH

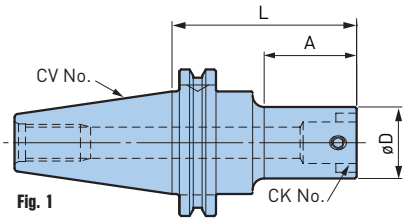


Fig. 1

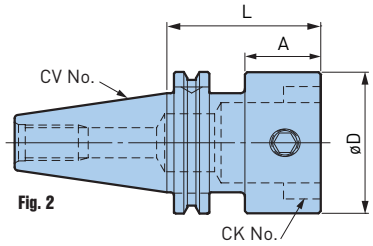


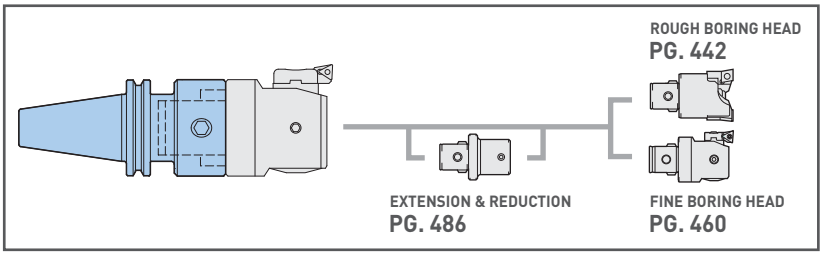
Fig. 2

Catalog Number	Reference Number	Fig.	CK No.	ØD	L	A	Weight (lbs.)
CV40-CKB1-48	11.326.410	1	CK1	.748	1.870	.315	2.2
CV40-CKB1-91	11.326.411				3.563	1.988	2.5
CV40-CKB2-53	11.326.420	1	CK2	.945	2.067	.492	2.3
CV40-CKB2-85	11.326.421				3.327	1.752	2.5
CV40-CKB2-105	11.326.422				4.114	2.539	3.0
CV40-CKB3-54	11.326.430	1	CK3	1.220	2.126	.551	2.5
CV40-CKB3-80	11.326.431				3.150	1.575	3.0
CV40-CKB3-130	11.326.433				5.118	3.543	3.5
CV40-CKB4-38	11.326.440	1	CK4	1.535	1.496	.039	2.5
CV40-CKB4-73	11.326.441				2.874	1.417	3.0
CV40-CKB4-153	11.326.444				6.024	4.567	5.0
CV40-CKB5-63	11.326.451	2	CK5	1.969	2.480	1.102	3.0
CV40-CKB5-143	11.326.454				5.630	4.252	6.0
CV40-CKB6-69	11.326.462	2	CK6	2.250	2.717	1.339	3.0
CV40-CKB6-129	11.326.464				5.079	3.701	6.5

Catalog Number	Reference Number	Fig.	CK No.	ØD	L	A	Weight (lbs.)
CV50-CKB1-48	11.326.610	1	CK1	.748	1.870	.295	6.2
CV50-CKB1-91	11.326.611				3.563	1.988	7.0
CV50-CKB2-53	11.326.620	1	CK2	.945	2.067	.492	6.5
CV50-CKB2-105	11.326.622				4.114	2.539	7.5
CV50-CKB2-135	11.326.623				5.295	3.720	7.6
CV50-CKB3-54	11.326.630	1	CK3	1.220	2.126	.551	7.0
CV50-CKB3-100	11.326.632				3.937	2.362	7.5
CV50-CKB3-130	11.326.633				5.118	3.543	7.8
CV50-CKB3-160	11.326.634				6.299	4.724	8.0
CV50-CKB4-93	11.326.642	1	CK4	1.535	3.661	2.087	8.0
CV50-CKB4-153	11.326.644				6.024	4.449	8.3
CV50-CKB4-193	11.326.645				7.598	6.024	8.8
CV50-CKB5-83	11.326.652	1	CK5	1.969	3.268	1.693	7.5
CV50-CKB5-143	11.326.654				5.630	4.055	9.2
CV50-CKB5-183	11.326.655				7.205	5.630	11.0
CV50-CKB5-243	11.326.656				9.567	7.992	12.8
CV50-CKB6-69	11.326.662	1	CK6	2.500	2.717	1.220	7.6
CV50-CKB6-129	11.326.664				5.079	3.583	10.5
CV50-CKB6-169	11.326.665				6.654	5.157	13.0
CV50-CKB6-229	11.326.666				9.016	7.520	15.8
CV50-CKB6-289	11.326.667				11.378	9.882	18.5
CV50-CKB7-83	11.326.674	2	CK7	3.543	3.268	1.890	9.8
CV50-CKB7-135	11.326.675				5.315	3.937	15.7
CV50-CKB7-183	11.326.676				7.205	5.827	21.0

• KL type available for special orientations

ACCESSORIES



CKB SHANK (BIG-PLUS)

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

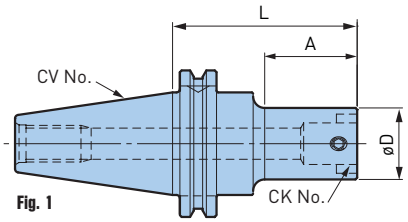


Fig. 1

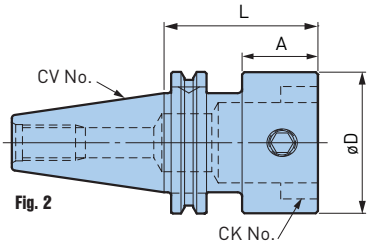
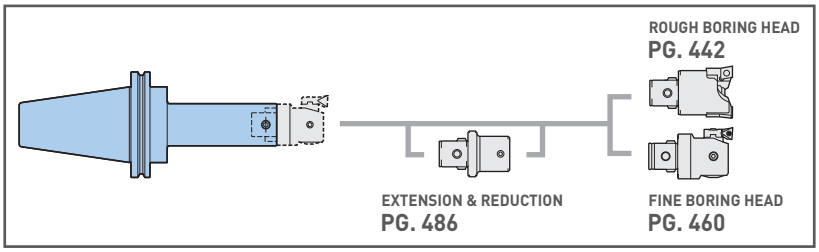


Fig. 2

Catalog Number	Reference Number	Fig.	CK No.	øD	L	A	Weight (lbs.)
BCV40-CKB4-73	11.368.441	1	CK4	1.535	2.874	1.417	3.0
BCV40-CKB4-153	11.368.444				6.024	4.567	5.0
BCV40-CKB5-63	11.368.451	2	CK5	1.969	2.480	1.102	3.0
BCV40-CKB5-143	11.368.454				5.630	4.252	6.0
BCV40-CKB6-69	11.368.462	2	CK6	2.520	2.717	1.339	3.0
BCV40-CKB6-129	11.368.464				5.079	3.701	6.5
BCV50-CKB4-93	11.368.642	1	CK4	1.535	3.661	2.087	8.0
BCV50-CKB4-153	11.368.644				6.024	4.449	8.3
BCV50-CKB4-193	11.368.645				7.598	6.024	8.8
BCV50-CKB5-83	11.368.652	1	CK5	1.969	3.268	1.693	7.5
BCV50-CKB5-143	11.368.654				5.630	4.055	9.2
BCV50-CKB5-183	11.368.655				7.205	5.630	11.0
BCV50-CKB5-243	11.368.656				9.567	7.992	12.8
BCV50-CKB6-69	11.368.662	1	CK6	2.520	2.717	1.220	7.6
BCV50-CKB6-129	11.368.664				5.079	3.583	10.5
BCV50-CKB6-169	11.368.665				6.654	5.157	13.0
BCV50-CKB6-229	11.368.666				9.016	7.520	15.8
BCV50-CKB6-289	11.368.667				11.378	9.882	18.5
BCV50-CKB7-83	11.368.674	2	CK7	3.543	3.268	1.890	9.8
BCV50-CKB7-135	11.368.675				5.315	3.937	15.7
BCV50-CKB7-183	11.368.676				7.205	5.827	21.0

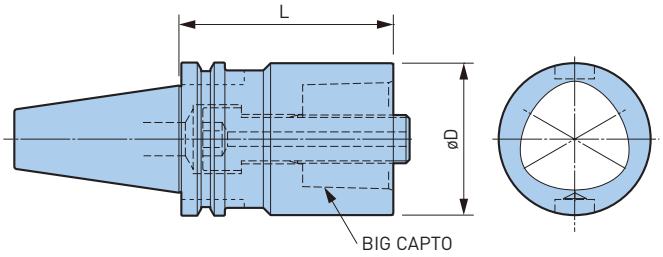
ACCESSORIES

SPARE PARTS
PG. 516



BIG CAPTO SHANK

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	BIG CAPTO	øD	L	Clamp Bolt			Weight (lbs.)
				Thread Size	Hex	Tightening Torque	
BCV40Y-C5-3	C5	1.969	3.000	M16xP1.5	10mm	70 ft-lbs	3.6
BCV40Y-C6-3.5	C6	2.480	3.500	M20xP2	10mm	125 ft-lbs	4.2
BCV50Y-C5-1.5	C5	1.969	1.500	M16xP1.5	10mm	70 ft-lbs	7.5
BCV50Y-C6-2	C6	2.480	2.000	M20xP2	14mm	125 ft-lbs	7.5
BCV50Y-C8-3	C8	3.150	3.000				8.9

- Clamp bolt is included

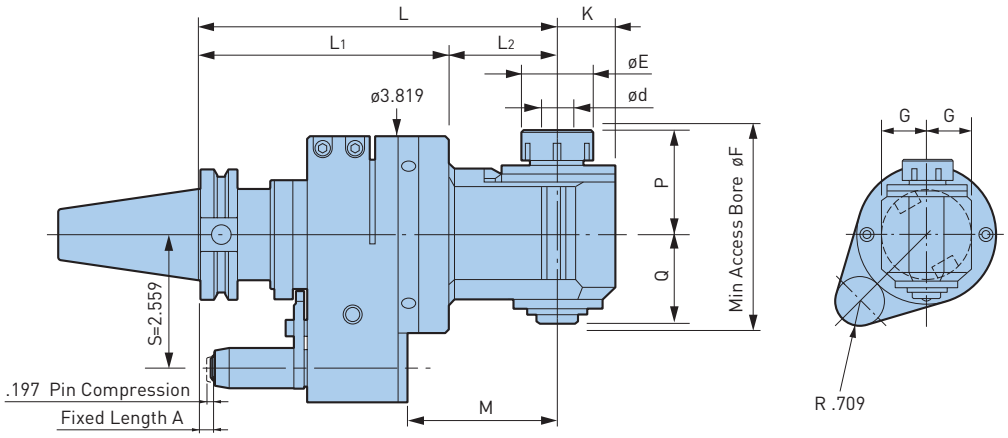
Y Style BCV tool holders include a tight tolerance drive key for turning applications. Does not conform to older ASME B5.50 safe zone standard. Interference with tool change may occur on machines made to an older standard. Consult engineering for specific information about the intended machine.

EXTENSION & REDUCTION
PG. 291

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BCV40-AG90/NBS6-180	.010-.236	.787	.827	.669	7.09	4.92	2.17	3.03	1.30	1.14	2.638	NBC6	6,000	11.2
BCV40-AG90/NBS6-210					8.27		3.35	4.21						11.7
BCV40-AG90/NBS6-240					9.45		4.53	5.39						12.1
BCV40-AG90/NBS6-270					10.63		5.71	6.58						12.5
BCV40-AG90/NBS10-180	.059-.394	1.181	1.181	.984	7.09	4.92	2.17	3.03	1.77	1.69	3.583	NBC10	6,000	12.1
BCV40-AG90/NBS10-210					8.27		3.35	4.21						13.0
BCV40-AG90/NBS10-240					9.45		4.53	5.39						13.7
BCV40-AG90/NBS13-180	.098-.512	1.378	1.220	1.102	7.09	4.92	2.17	3.03	2.05	1.77	3.976	NBC13	6,000	12.3
BCV40-AG90/NBS13-210					8.27		3.35	4.21						13.2
BCV40-AG90/NBS13-240					9.45		4.53	5.39						13.9
BCV40-AG90/NBS20S-175S	.098-.787	1.811	1.378	1.299	6.89	4.80	2.09	2.84	2.56	2.44	5.197	NBC20	3,000	17.6

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

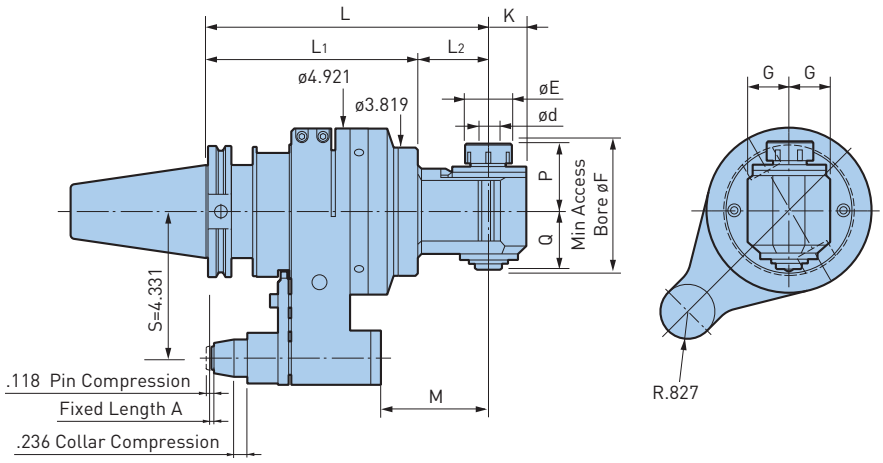
ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BCV50-AG90/NBS6-215	.010-.236	.787	.827	.669	8.47	6.30	2.17	3.23	1.30	1.14	2.638	NBC6	6,000	27.8
BCV50-AG90/NBS6-245					9.65		3.35	4.41						28.2
BCV50-AG90/NBS6-275					10.83		4.53	5.59						28.7
BCV50-AG90/NBS6-305					12.01		5.71	6.77						29.1
BCV50-AG90/NBS10-215	.059-.394	1.181	1.181	.984	8.47	6.30	2.17	3.23	1.77	1.69	3.583	NBC10	6,000	28.7
BCV50-AG90/NBS10-245					9.65		3.35	4.41						29.5
BCV50-AG90/NBS10-275					10.83		4.53	5.59						30.2
BCV50-AG90/NBS13-215	.098-.512	1.378	1.220	1.102	8.47	6.30	2.17	3.23	2.05	1.77	3.976	NBC13	6,000	28.9
BCV50-AG90/NBS13-245					9.65		3.35	4.41						29.8
BCV50-AG90/NBS13-275					10.83		4.53	5.59						30.4
BCV50-AG90/NBS20-230	.098-.787	1.811	1.378	1.378	9.06	6.30	2.76	3.82	2.56	2.44	5.197	NBC20	3,000	31.3

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

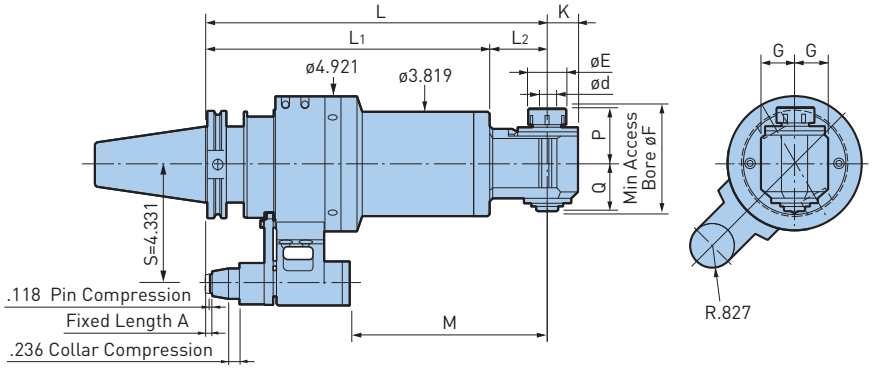
ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS EXTRA LONG TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BCV50-AG90/NBS6-315LS	.010-.236	.787	.827	.669	12.40	10.24	2.17	7.17	1.30	1.14	2.638	NBC6	6,000	41.7
BCV50-AG90/NBS6-345LS					13.58		3.35	8.35						42.1
BCV50-AG90/NBS6-375LS					14.76		4.53	9.53						42.5
BCV50-AG90/NBS6-405LS					15.95		5.71	10.71						43.0
BCV50-AG90/NBS6-415LS					16.34	14.17	2.17	11.10			2.638			51.4
BCV50-AG90/NBS6-445LS					17.52		3.35	12.28						51.8
BCV50-AG90/NBS6-475LS					18.70		4.53	13.47						52.2
BCV50-AG90/NBS6-505LS					19.88		5.71	14.65						52.7
BCV50-AG90/NBS6-515LS					20.28	18.11	2.17	15.04			2.638			61.1
BCV50-AG90/NBS6-545LS					21.46		3.35	16.22						61.5
BCV50-AG90/NBS6-575LS					22.64		4.53	17.40						61.9
BCV50-AG90/NBS6-605LS					23.82		5.71	18.58						62.4

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BCV50-AG90/NBS10-315LS	.059-.394	1.181	1.181	.984	12.40	10.24	2.17	7.17	1.77	1.69	3.583	NBC10	6,000	42.5
BCV50-AG90/NBS10-345LS					13.58		3.35	8.35						43.4
BCV50-AG90/NBS10-375LS					14.76		4.53	9.53						44.1
BCV50-AG90/NBS10-415LS					16.34	14.17	2.17	11.10						52.2
BCV50-AG90/NBS10-445LS					17.52		3.35	12.28						53.1
BCV50-AG90/NBS10-475LS					18.70		4.53	13.47						53.8
BCV50-AG90/NBS10-515LS					20.28	18.11	2.17	15.04						61.9
BCV50-AG90/NBS10-545LS					21.46		3.35	16.22						62.8
BCV50-AG90/NBS10-575LS					22.64		4.53	17.40						63.5
BCV50-AG90/NBS13-315LS	.098-.511	1.378	1.220	1.102	12.40	10.24	2.17	7.17	2.05	1.77	3.976	NBC13	6,000	42.8
BCV50-AG90/NBS13-345LS					13.58		3.35	8.35						43.7
BCV50-AG90/NBS13-375LS					14.76		4.53	9.53						44.3
BCV50-AG90/NBS13-415LS					16.34	14.17	2.17	11.10						52.5
BCV50-AG90/NBS13-445LS					17.52		3.35	12.28						53.4
BCV50-AG90/NBS13-475LS					18.70		4.53	13.47						54.0
BCV50-AG90/NBS13-515LS					20.28	18.11	2.17	15.04						62.2
BCV50-AG90/NBS13-545LS					21.46		3.35	16.22						63.1
BCV50-AG90/NBS13-575LS					22.64		4.53	17.40						63.7
BCV50-AG90/NBS20-330LS	.098-.787	1.811	1.378	1.378	12.99	10.24	2.76	7.76	2.56	2.44	5.197	NBC20	3,000	45.2
BCV50-AG90/NBS20-430LS					16.93	14.17	2.76	11.69						54.9
BCV50-AG90/NBS20-530LS					20.87	18.11	2.76	15.63						64.6

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

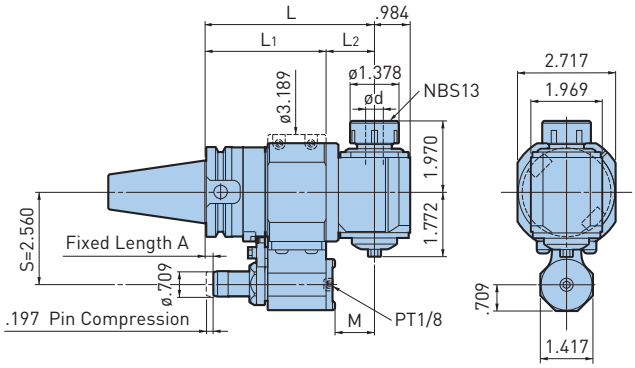
AG90 (COMPACT TYPE)

CLAMPING RANGE: ø.098"-.512"

For Drilling Only—Ideal Size for Small Machining Centers

MAX 5,000 RPM

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	L	L1	L2	M	Collet	Speed Ratio	Weight (lbs.)
BCV40-AG90-13-120	.098-.512	4.72	3.39	1.34	1.10	NBC13	1:1	10.0

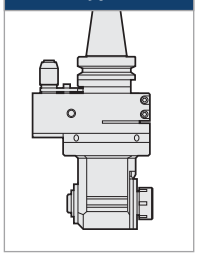
- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- A tapped hole (PT1/8) is prepared at the bottom cover of the locating pin housing so that a pipe for coolant can be connected
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

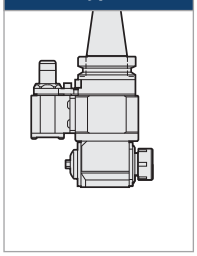
COLLET PG. 378 | WRENCH PG. 392 | STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).
AG90 Compact Type is for drilling only.

Standard Type



Compact Type



Case & Head Sizes are Substantially Reduced

- High precision NEW BABY COLLET
- Spiral bevel gears and angular contact bearings
- Advanced non-contact sealing structure

Application Example

Stable machining is obtained due to high rigidity and good runout.

DRILLING	
Cutter	ø.472" (12mm) Carbide Drill
Workpiece	1050 Steel
Cutting Speed	230 SFM
Cutting Feed	14.6 IPM
	.008 IPR
Spindle Speed	1,860 RPM

AG90 (TWIN HEAD)

CLAMPING RANGE: ø.059"-.394"

Compact design. Symmetrical machining can be performed using one unit.

MAX 6,000 RPM

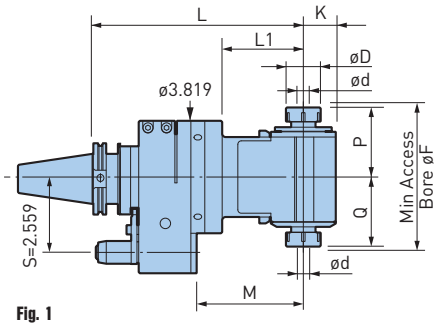


Fig. 1

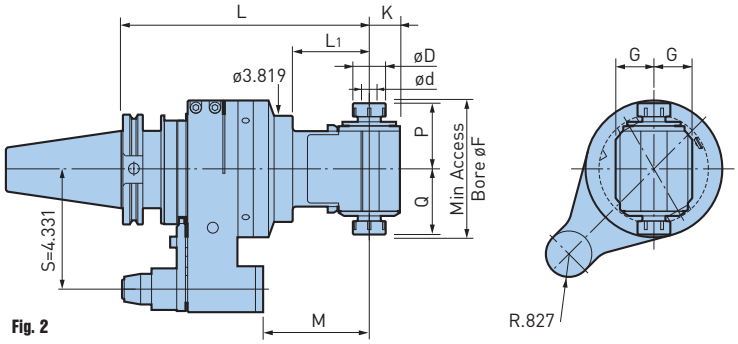


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	K	L	L1	M	P	Q	øF	Collet	Weight (lbs.)
BCV40-AG90/NBS10W-195	1	.059-.394	1.181	1.220	1.102	7.68	2.76	3.62	2.36	2.36	4.88	NBC10	13.9
BCV50-AG90/NBS10W-230	2	.059-.394	1.181	1.220	1.102	9.06	2.76	3.81	2.36	2.36	4.88	NBC10	30.4

- Nut and wrench are included; collet must be ordered separately
- Output spindles do not rotate in forward direction simultaneously
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378


WRENCH PG. 392


STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG45 (NBS TYPE)

CLAMPING RANGE: ø.060"-.512"

MAX 6,000 RPM

Exclusive fixing housing allows for secure diagonal machining.

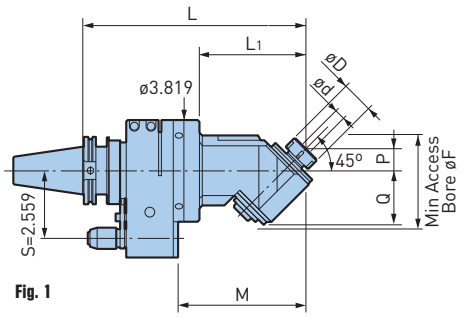


Fig. 1

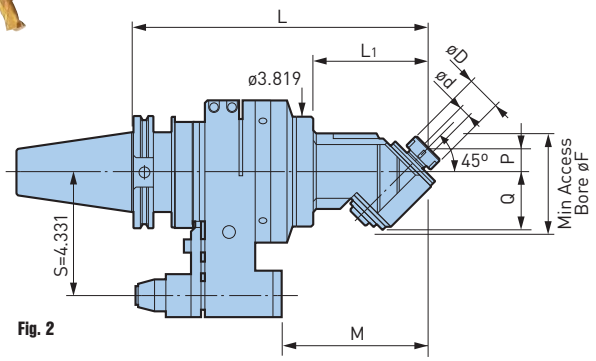
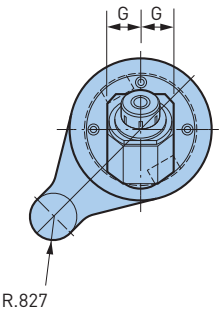


Fig. 2



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	L	L1	M	P	Q	øF	Collet	Weight (lbs.)
BCV40-AG45/NBS10-225	1	.060-.394	1.181	1.181	8.86	3.94	4.80	.79	2.03	3.54	NBC10	12.6
BCV40-AG45/NBS13-230		.098-.512	1.378		9.06	4.13	5.00	.98			NBC13	12.8
BCV50-AG45/NBS10-260	2	.060-.394	1.181	1.181	10.24	3.94	5.00	.79	2.03	3.54	NBC10	29.1
BCV50-AG45/NBS13-265		.098-.512	1.378		10.43	4.13	5.20	.98			NBC13	29.3

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378

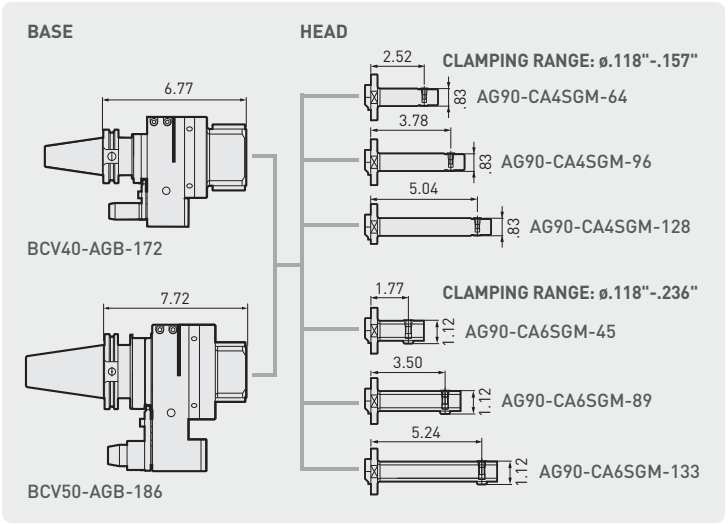

WRENCH PG. 392


STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (SLENDER DRIVE)

CLAMPING RANGE: ø.118"-.236" For Angular Operations within a ø1.181 Inch Bore



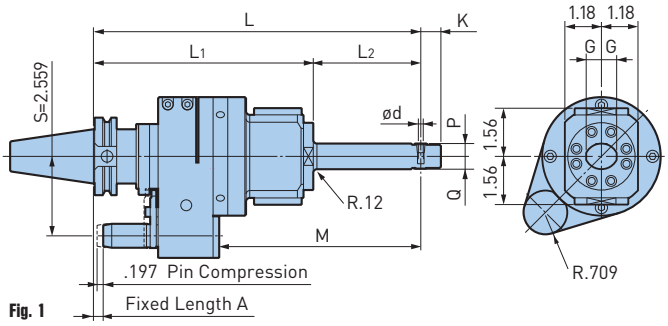


Fig. 1

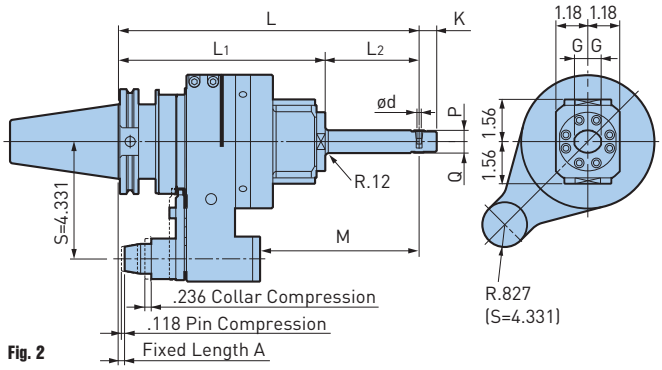


Fig. 2

Base	Head	Fig.	ød	G	K	L	L1	L2	M	P	Q	Speed Ratio	Weight (lbs.)
BCV40-AGB-172	**AG90-CA4SGM-64**	1	.118-.157	.492	.650	9.29	7.09	2.21	5.24	.41	.41	1:1.06 (Increase)	12.3
	AG90-CA4SGM-96					10.55		3.47	6.50				12.6
	AG90-CA4SGM-128					11.81		4.72	7.76				12.9
	AG90-CA6SGM-45	1	.118-.236	.591	.787	8.54	7.09	1.46	4.49	.49	.63	1:0.77 (Decrease)	12.6
	AG90-CA6SGM-89					10.28		3.19	6.22				13.0
	AG90-CA6SGM-133					12.01		4.92	7.95				13.5
BCV50-AGB-186	**AG90-CA4SGM-64**	2	.118-.157	.492	.650	9.84	7.64	2.21	4.61	.41	.41	1:1.06 (Increase)	26.2
	AG90-CA4SGM-96					11.10		3.47	5.87				26.5
	AG90-CA4SGM-128					12.36		4.72	7.13				26.7
	AG90-CA6SGM-45	2	.118-.236	.591	.787	9.09	7.64	1.46	3.86	.49	.63	1:0.77 (Decrease)	26.5
	AG90-CA6SGM-89					10.83		3.19	5.59				26.9
	AG90-CA6SGM-133					12.56		4.92	7.32				27.3

- Collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately

ACCESSORIES

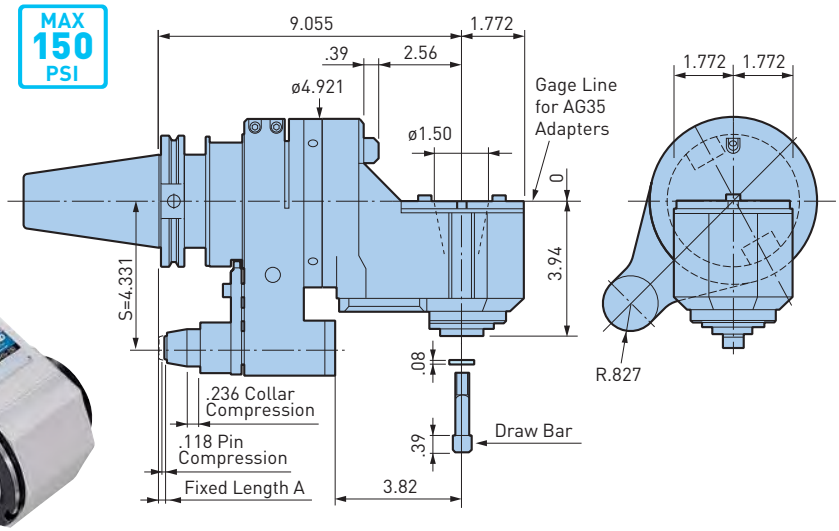
The rotation of the cutting tool is in same direction of the machine spindle.

AG90 (BUILD-UP TYPE)

For All Machinery Applications

MAX 3,000 RPM

MAX 150 PSI



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

The rotation of the cutting tool is in same direction of the machine spindle.

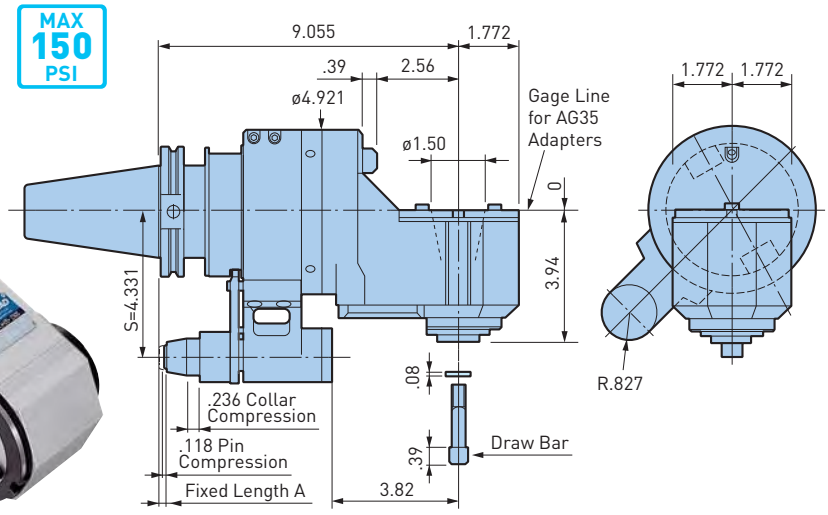
Catalog Number	Weight (lbs.)
BCV50-AG90/AGH35-230	33.1

- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

(HIGH RIGIDITY BUILD-UP TYPE)

MAX 3,000 RPM

MAX 150 PSI



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

The rotation of the cutting tool is in same direction of the machine spindle.

Catalog Number	Weight (lbs.)
BCV50-AG90/AGH35-230S	35.9

- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

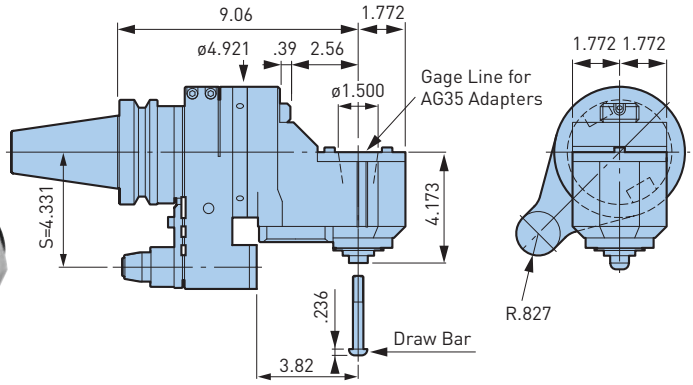
ACCESSORIES

TAG90

(BUILD-UP CENTER THROUGH TYPE)

By changing the adapter, it can be used for various types of processing.

MAX 3,000 RPM | MAX 1,000 PSI | COOLANT THROUGH



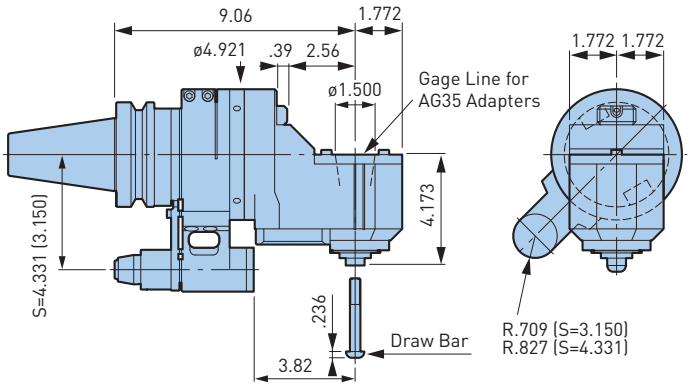
Catalog Number	Weight (lbs.)
BCV50-TAG90/AGH35-230	34.4

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included

(HIGH RIGIDITY BUILD-UP CENTER THROUGH TYPE)



Catalog Number	Weight (lbs.)	
	S=4.331	S=3.150
BCV50-TAG90/AGH35-230S	37.3	35.7

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

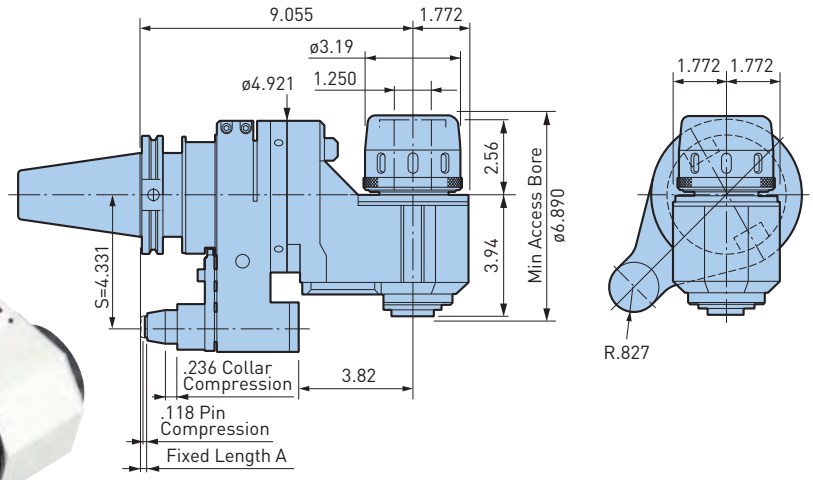
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included

ACCESSORIES

AG90 (HMC TYPE)

For Heavy Duty End Milling

MAX 3,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

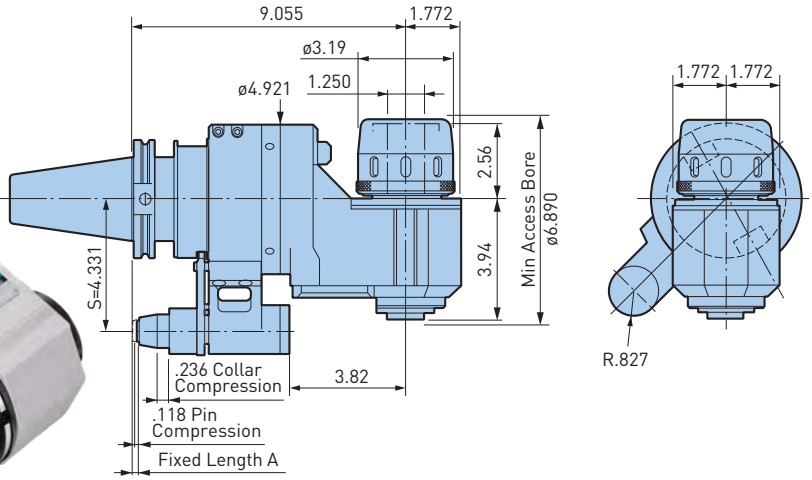
The rotation of the cutting tool is in same direction of the machine spindle.

Catalog Number	Weight (lbs.)
BCV50-AG90/HMC1.250-230	37.0

- Wrench is included
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

(HIGH RIGIDITY HMC TYPE)

MAX 3,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

The rotation of the cutting tool is in same direction of the machine spindle.

Catalog Number	Weight (lbs.)
BCV50-AG90/HMC1.250-230S	39.9

- Wrench is included
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

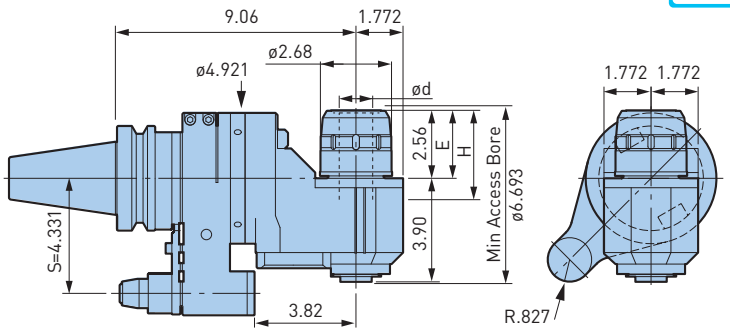
TAG90 (HMC CENTER THROUGH TYPE)

NEW Product

COOLANT THROUGH

MAX 3,000 RPM

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	Max Insertion Length H	Min Insertion Length E	Weight (lbs.)
BCV50-TAG90/HMC32S-230	32mm	3.740	2.559	37.0
BCV50-TAG90/HMC1.250S-230	1.250			

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

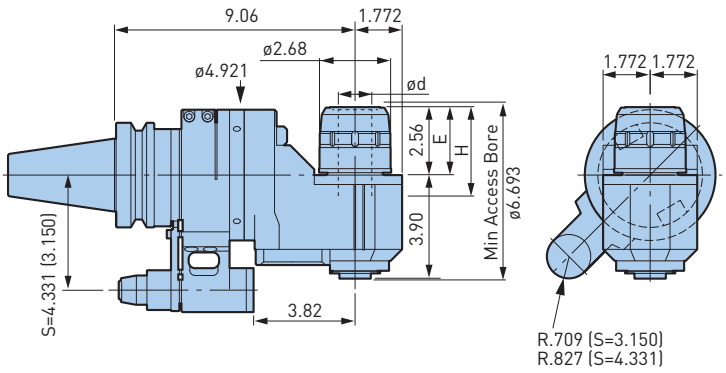
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included (Model: FK68-75L)

(HIGH RIGIDITY HMC CENTER THROUGH TYPE)

NEW Product

MAX 3,000 RPM

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	Max Insertion Length H	Min Insertion Length E	Weight (lbs.)	
				S=4.331	S=3.150
BCV50-TAG90/HMC32S-230S	32mm	3.740	2.559	39.9	38.4
BCV50-TAG90/HMC1.250S-230S	1.250				

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

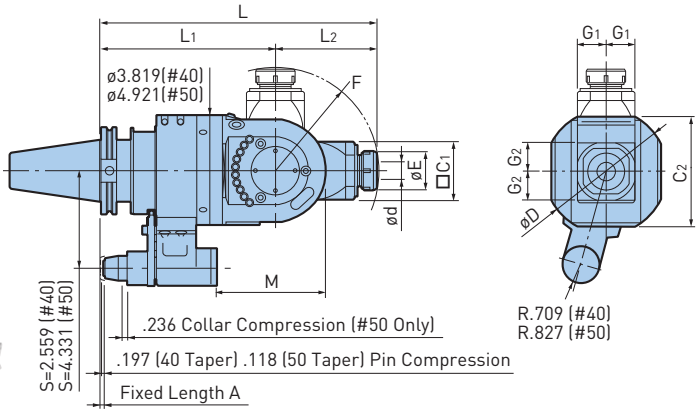
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included (Model: FK68-75L)

ACCESSORIES

AGU (UNIVERSAL TYPE)

CLAMPING RANGE: ø.098"-.787" For Angular Operations

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

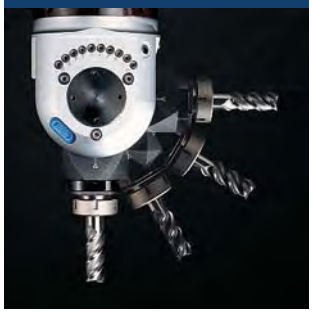
Catalog Number	ød	øE	øD	□C1	C2	G1	G2	L	L1	L2	M	F	Collet	Max RPM	Weight (lbs.)
BCV40-AGU/NBS13-280	.098-.512	1.378	4.53	2.00	3.82	1.024	1.014	11.02	7.09	3.94	4.88	4.02	NBC13	6,000	21.4
BCV50-AGU/NBS20-315	.098-.787	1.811	5.51	2.56	4.92	1.299	1.280	12.40	7.87	4.53	4.92	4.65	NBC20	4,000	44.1

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

Easily Adjust Spindle Angle From 0° to 90°



Precise Angle Adjustment

Unique setting mechanism enables the spindle angle to be precisely set at 1° increments.

Exclusive Clamping Bolts and Nuts

Specially selected materials and special design for clamping the head guarantees rigidity even for end milling applications.

Application Example

Adjustable AGU Universal Series expands ANGLE HEAD capabilities to accomplish various angular machining applications.

Drilling Or End Milling On An Angled Surface

Corner Rounding

Profiling

Machining Draft Angle Of A Mold

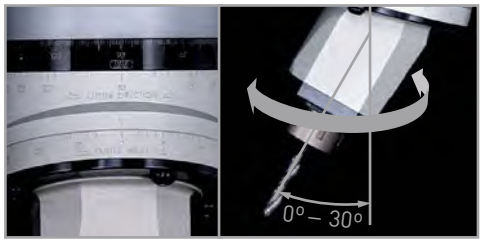
AGU30

CLAMPING RANGE: ø.098"-.787"

For Angular Operations

Angle Adjustment by Aligning Divisions

Spindle angle is easily adjustable from 0° to 30° using the scale indication on the body.



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

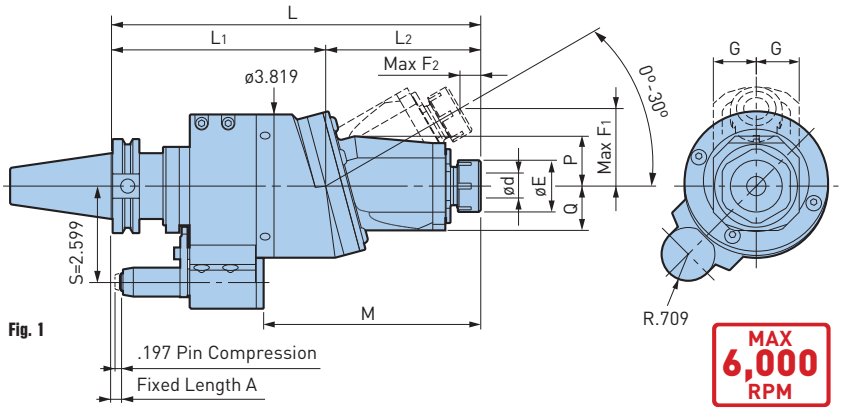


Fig. 1

MAX 6,000 RPM

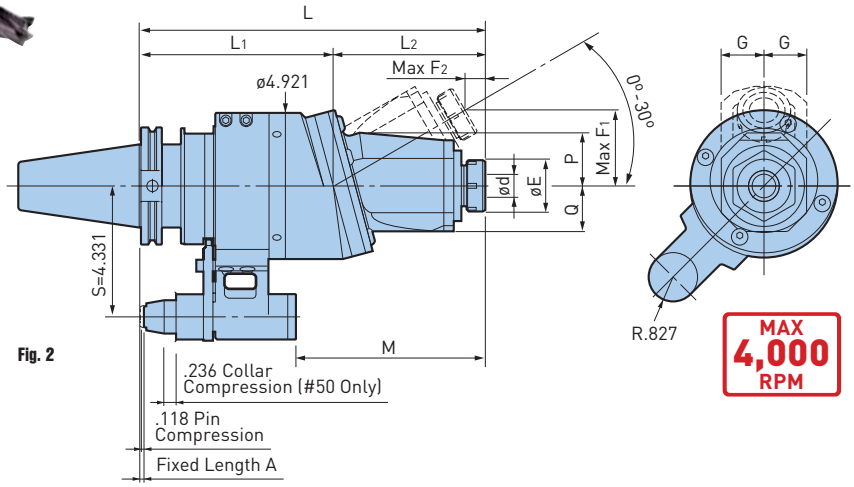


Fig. 2

MAX 4,000 RPM

Catalog Number	Fig.	ød	øE	G	L	L1	L2	M	P	Q	F1	F2	Collet	Max RPM	Weight (lbs.)
BCV40-AGU30/NBS13-250	1	.098-.512	1.378	1.142	9.84	5.71	4.13	5.79	1.34	1.18	2.07	.55	NBC13	6,000	15.3
BCV50-AGU30/NBS20-295	2	.098-.787	1.811	1.437	11.61	6.50	5.12	6.38	1.77	1.54	2.56	.67	NBC20	4,000	35.8

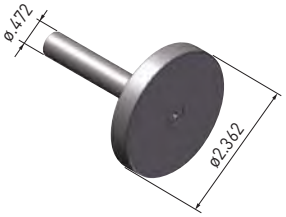
- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models
- When supplied through the stop block, coolant can be ejected from the housing

ACCESSORIES

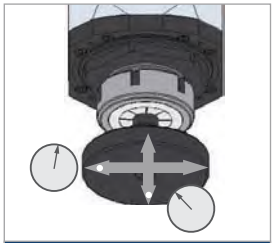
The rotation of the cutting tool is in same direction of the machine spindle.

SETTING DISC (INCLUDED)

For the precise adjustment of spindle angle or direction.



Clamp the Setting Disc Into the Angled Spindle



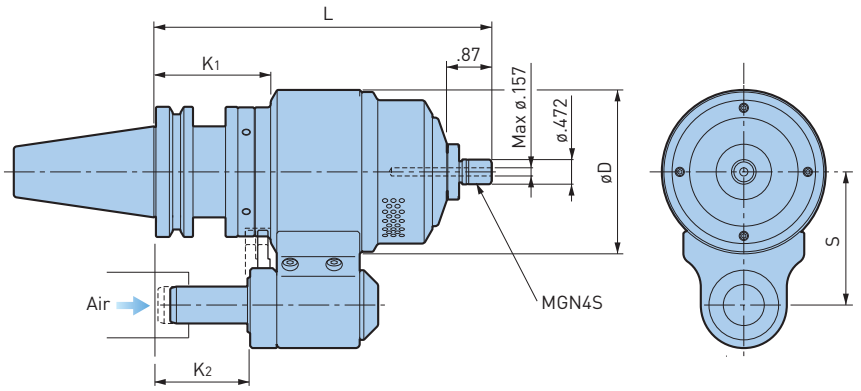
Check the Cutter Alignment and the Setting Angle

AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Automatic Tool Change

ZERO MACHINE SPINDLE ROTATION

MAX 80,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Practical Spindle Speed (RPM)	Cutting Diameter	L	øD	K1	K2	S	Collet	Nut	Weight (lbs.)
BCV40-RBX7-4S-165-65	60,000-80,000	ø.039 or smaller	6.50	3.150	2.24	1.85	2.559	NBC4S	MGN4S	8.8
BCV40-RBX5-4S-165-65	40,000-50,000	ø.059 or smaller		3.780						11.0
BCV50-RBX7-4S-170-80	60,000-80,000	ø.039 or smaller	6.69	3.937	2.44	2.05	3.150	NBC4S	MGN4S	19.1
BCV50-RBX5-4S-170-80	40,000-50,000	ø.059 or smaller								21.3

- Nut and wrench are included; collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

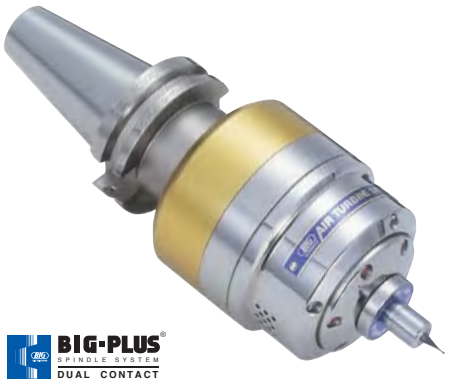
Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES

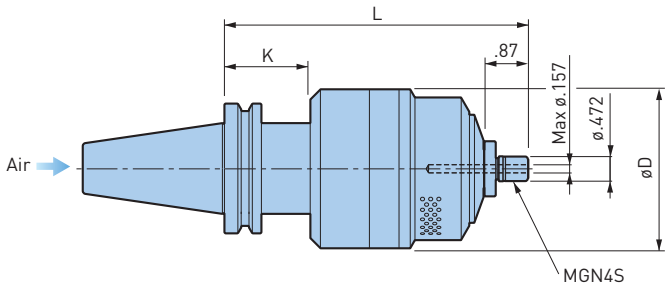
AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Compressed Air Through the Machine Spindle

MAX 80,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

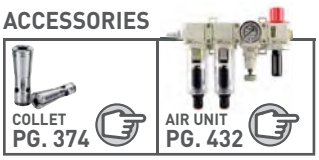


Catalog Number	Practical Spindle Speed (RPM)	Cutting Diameter	L	øD	K1	Collet	Nut	Weight (lbs.)
BCV40H-RBX7C-4S-150	60,000-80,000	ø.039 or smaller	5.91	3.150	1.69	NBC4S	MGN4S	6.8
BCV40H-RBX5C-4S-150	40,000-50,000	ø.059 or smaller		3.780				9.0
BCV50-RBX7C-4S-145	60,000-80,000	ø.039 or smaller	5.71	3.150	1.50	NBC4S	MGN4S	12.8
BCV50-RBX5C-4S-145	40,000-50,000	ø.059 or smaller		3.780				15.0

- Nut and wrench are included; collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES

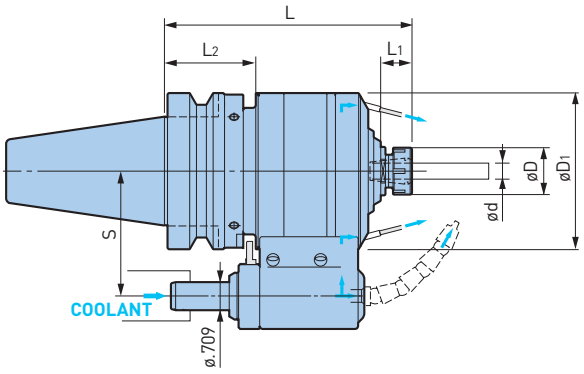


HIGH SPINDLE

CLAMPING RANGE: ø.059"-.630" For Higher Spindle Speeds

MAX 20,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

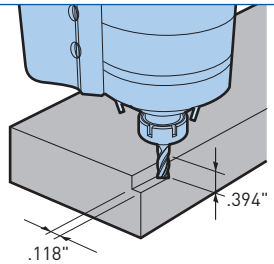
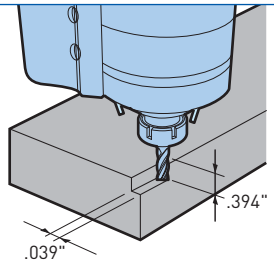
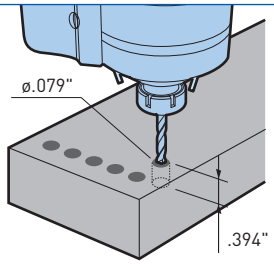
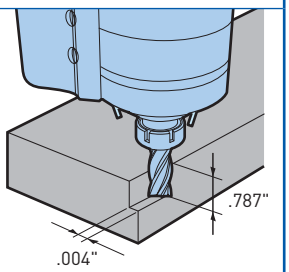
Catalog Number	ød	øD	øD1	L	L1	L2	S	Collet	Speed Ratio	Max RPM	Weight (lbs.)
BCV40-GTG5-10-155-65	.059-.394	1.181	3.150	6.10	.79	2.28	2.559	NBC10	4.67	20,000	11.0
BCV50-GTG6-10-163-80	.059-.394	1.181	3.937	6.42	.79	2.48	3.150	NBC10	5.67	20,000	19.8
BCV50-GTG4-16-182-80	.098-.630	1.654	4.331	7.17	1.00	2.48	3.150	NBC16	3.80	15,000	23.8

- Max size NEW BABY COLLET (NBC10-10AA for GTG5/GTG6 | NBC16-16AA for GTG4), nut and 2 tightening wrenches are included; other size collets must be ordered separately
- The allowable torque is a calculated value of the drive system, and not the actual torque in cutting
- The maximum diameter when using an end mill is ø8mm (GTG5, GTG6) and ø12 (GTG4)
- A stop block is required when mounting on machines
- For continuous rotation of over 30 minutes, the spindle speed should be set within 80% of the maximum speed

A stop block is required.

ACCESSORIES

Application Example

	GTG5	GTG6	GTG6	GTG4
Cutter	Solid carbide end mill ø.315"/ 2 flutes	Solid carbide end mill ø.236"/ 2 flutes	Solid carbide drill ø.079"	Solid carbide end mill ø.630"
Workpiece	Duralumin (A-2017)	1055	Duralumin (A-2017)	Duralumin (A-2017)
Spindle Speed	20,000 RPM	16,000 RPM	20,000 RPM	15,000 RPM
Cutting Feed	118.1 IPM	137.8 IPM	78.7 IPM	39.4 IPM
Results	High metal removal rate 5.5 cu.in./min.	High metal removal rate 137.8 IPM	Extended tool life 1,200 holes by 1 drill	Surface roughness RMS max .00008"
				

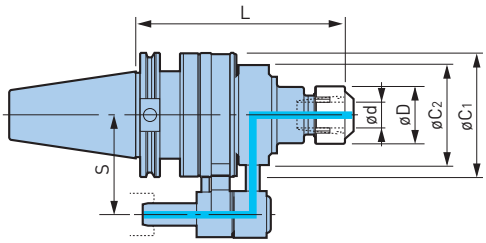
- Results will vary depending on workpiece, cutting tool, machine model and other conditions
- The rigidity and concentricity are often affected by the projection length of a cutting tool; it is recommended to keep the projection as short as possible

HI-JET HOLDER (NBS TYPE)

CLAMPING RANGE: ø.118"-.787" For Small Diameter Drills, Gun Drills & End Mills

MAX 10,000 RPM

COOLANT THROUGH



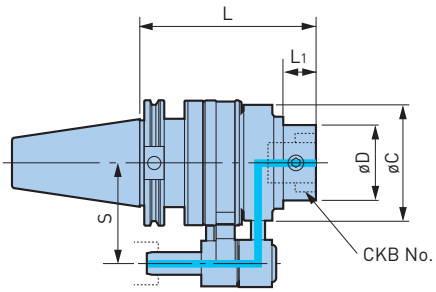
Catalog Number	ød	øD	L	øC1	øC2	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Collet	Perfect Seal	Weight (lbs.)
CV40-0NBS13N-165	.118-.512	1.378	6.61	3.213	2.87	2.559	10,000	MES-40	NBC13	BPS13	8.8
CV40-0NBS20N-165	.118-.787	1.811			3.15		8,000	MES-50	NBC20	BPS20	9.5
CV50-0NBS13N-165	.118-.512	1.378	6.61	3.921	3.15	3.150	8,000	MES-50	NBC13	BPS13	16.1
CV50-0NBS20N-165	.118-.787	1.811			3.15		8,000		NBC20	BPS20	16.5

- Collet, adjusting screw and wrench must be ordered separately
- Max coolant pressure is 284 PSI
- Clamping nut is sold separately, please order BABY PERFECT SEAL (BPS) for your application

A stop block is required.

ACCESSORIES

(CKB TYPE)



MAX 5,000 RPM

COOLANT THROUGH

Catalog Number	CK	øD	L	L1	øC	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
CV40-0CKB6N-144	CKB6	2.520	5.67	1.102	3.92	2.559	6,000	MES-65	13.4
CV50-0CKB6N-142	CKB6	2.520	5.59	1.063	3.92	3.150	6,000	MES-65	15.9
CV50-0CKB7N-165	CKB7	3.543	6.50	1.358	5.10	3.150	4,000	MES-90	27.0

- Max coolant pressure is 284 PSI

A stop block is required.

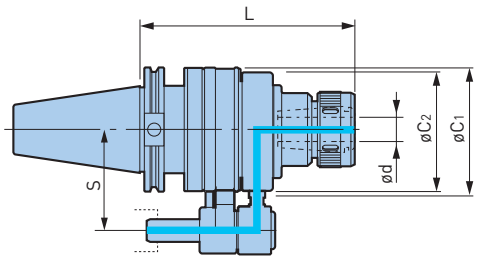
ACCESSORIES

HI-JET HOLDER (TG TYPE)

CLAMPING RANGE: ø.093"-1.000" For TG100 Single Angle Style Collets

MAX 8,000 RPM

COOLANT THROUGH



ACCESSORIES

STOP BLOCK PG. 429

Catalog Number	Collet Series	ød	L	øC1	øC2	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
CV40-OHC1.000N-175	TG100	.093-1.000	6.89	3.213	3.15	2.559	8,000	MES-50	11.1
CV50-OHC1.000N-172	TG100	.093-1.000	6.77	3.921	3.86	3.150	6,000	MES-65	16.5

- Max coolant pressure is 284 PSI
- Collets and nuts are not included or available from BIG DAISHOWA

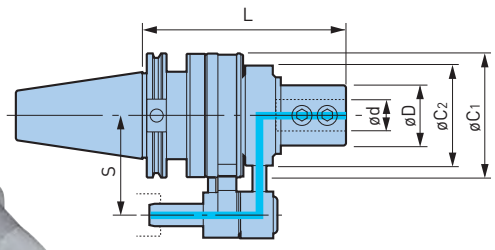
A stop block is required.

(OSL TYPE)

CLAMPING RANGE: ø.750"-2.000" For Straight Shanks with Flat

MAX 8,000 RPM

COOLANT THROUGH



ACCESSORIES

REDUCTION COLLET PG. 409

STOP BLOCK PG. 429

Catalog Number	ød	øD	L	øC1	øC2	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
CV40-OSL1.000N-165	1.000	1.890	6.50	3.213	3.15	2.559	8,000	MES-50	9.7
CV40-OSL1.250N-160	1.250	2.283	6.30	3.921	3.86		6,000	MES-65	12.6
CV50-OSL.750N-150	.750	1.890	5.91	3.921	3.15	3.150	8,000	MES-50	16.3
CV50-OSL1.000N-165	1.000		6.50						16.5
CV50-OSL1.250N-165	1.250	2.283			3.86		6,000	MES-65	17.4
CV50-OSL1.500N-165	1.500	2.500							17.6
CV50-OSL2.000N-180	2.000	3.307	7.09	5.079	4.76		4,000	MES-90	26.2

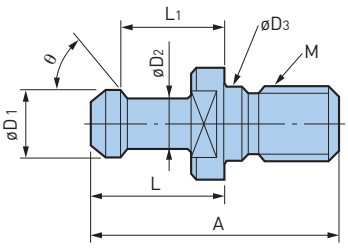
- Max coolant pressure is 284 PSI

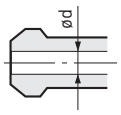
A stop block is required.

PULLSTUD BOLTS

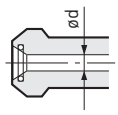
Before Ordering

Be sure to check the dimensions of the required pullstud bolt by referring to the specification sheet of the machine tool. In the case of machines with coolant-through spindle capability, provide us a copy of the pullstud bolt drawing, as the sealing method may vary even among machines with the same model number.

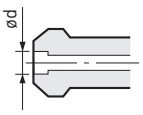




Hole Type 1



Hole Type 2



Hole Type 3

CAT40

Catalog Number	øD1	øD2	øD3	A	L	L1	θ	M	Hole Type	ød	Standard or Machine Make
P40T-1CMGHA	.591	.394	—	2.126	1.266	.990	45°	5/8"-11	1	.118	MAS -1 CAT with Hole
P40T-1CMGH2			.641	2.250					2		JTEKT
P40T-1C1MGH											OKUMA
P40T-2CH	.591	.394	—	2.126	1.266	.990	60°		1	.118	MAS-2 CAT with Hole
PVD40CMGH1	.748	.551	.641	2.008	1.024	.787	75°		1	.276	KITAMURA
40PCMGH	.748	.551	.641	2.126	1.029	.793	75°		1	.276	JIS CAT with Hole
PMO40CMG	.748	.551	—	1.887	1.029	.793	75°		2	.276	DMG MORI
POM40CFMG	.591	.394		2.244	1.266	.990	90°		None	—	DMG MORI
PYN40CMG	.740	.490	.641	1.500	.640	.440	45°		1	.276	MAZAK
PMK40CMG	.748	.551	—	1.882	1.024	.787	75°		1	.276	MATSUURA
PCV40MGH2	.740	.490	.641	1.624	.640	.440	45°		1	.158	OKUMA (Ground Face)

- Machine tool builders have used many various shapes and sizes of retention knobs
- The use of the incorrect knob may result in injury or property damage for your machining center

CAT50

Catalog Number	øD1	øD2	øD3	A	L	L1	θ	M	Hole Type	ød	Standard or Machine Make
P50T-1CH	.906	.669	—	3.346	1.780	1.386	45°	1"-8	1	.315	MAS-1 CAT with Hole
P50T-1CH4				3.346	1.780	1.386			2	.236	JTEKT
P50T-2CH	.906	.669	—	3.346	1.780	1.386	60°		1	.315	MAS-2 CAT with Hole
P50T-2CH2				3.071	1.771	1.377			1	.158	SNK
P50T-2CH11				3.346					2	.237	OKUMA
P50T-2CH14	.906	.669	—	3.256	1.780	1.386	60°		2	.237	OKUMA (Ground Face)
PVD50CH2	1.102	.826	1.031	2.919	1.344	.990	75°		1	.453	KITAMURA
POM50CH1	.906	.669	—	3.346	1.780	1.386	90°		2	.315	DMG MORI
POM50CF									None	—	DMG MORI
PYN50C5	1.140	.820	1.031	2.303	1.000	.700	45°		1	.394	MAZAK
PYK50CH1	.906	.669	1.031	3.071	1.771	1.377	45°		2	.217	YASDA
PMK50CH	1.102	.827	—	2.598	1.347	.988	75°		1	.394	MATSUURA
PCV50H1	1.140	.820	1.031	2.300	1.500	.700	45°		2	.237	OKUMA (Ground Face)

- Machine tool builders have used many various shapes and sizes of retention knobs
- The use of the incorrect knob may result in injury or property damage for your machining center

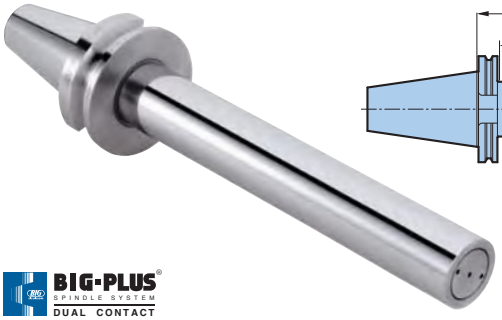
TOOL STEEL

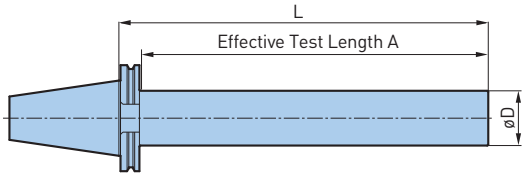
MEGA PULLSTUD BOLT

MG in the model numbers stand for MEGA PULLSTUD BOLT. Tensile strength is improved by utilizing tool steel. Especially recommended for BIG-PLUS dual contact applications.

DYNA TEST

Helps identify potential problems, and can reduce downtime and costly repairs of the machine tool spindle.





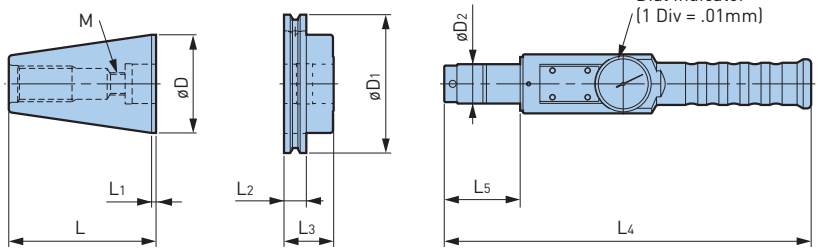
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	L	A	øD
BCV40-2.000-L13.5SD	13.500	12.500	2.000
BCV50-2.000-L13.5SD	13.500	12.500	2.000

- Drive keys are symmetrical to allow indexing of DYNA TEST 180 degrees

ATC ALIGNMENT TOOL

For re-aligning the center between the machine tool spindle and ATC gripper. It can also be used for re-aligning the ATC gripper and tool magazine pots. More detailed information on pg. 608.

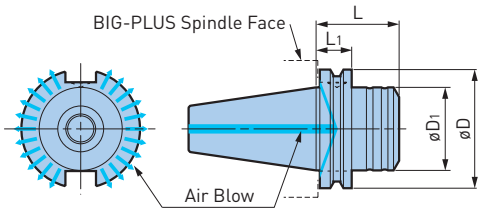


Catalog Number	øD	øD1	øD2	L	L1	L2	L3	L4	L5	M
CV40-ATC20	1.750	2.500	.787	2.812	.125	.625	.958	9.882	1.732	1/2"-13
CV50-ATC28	2.750	3.875	1.102	4.125	.125	.625	1.391	10.276	2.126	5/8"-11

Machine tool builders use various shapes and sizes of retention knobs. The use of the incorrect knob may result in injury or property damage for your machining center.

BIG-PLUS CLEANER

Blowing air cleans the BIG-PLUS machine spindle face of all debris.

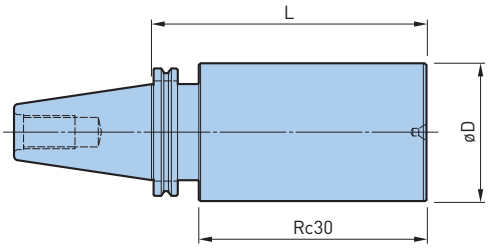


BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øD	øD1	L	L1
SCV40-ASC-1.75T	2.480	1.750	1.750	.750
SCV50-ASC-2.5T	3.875	2.750	2.500	.750

- When the cleaner is clamped into a BIG-PLUS machine spindle, faces have 1mm (.039") clearance

BLANK BAR



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øD	L
BCV40-BB2.500-8	2.50	8.00
BCV40-BB4.000-6	4.00	6.00
BCV50-BB4.000-8	4.00	8.00
BCV50-BB6.000-8	6.00	

- Do not heat treat after machining

BIG DAISHOWA

BBT/BT SHANKS

A.2

BIG-PLUS®
SPINDLE SYSTEM
DUAL CONTACT

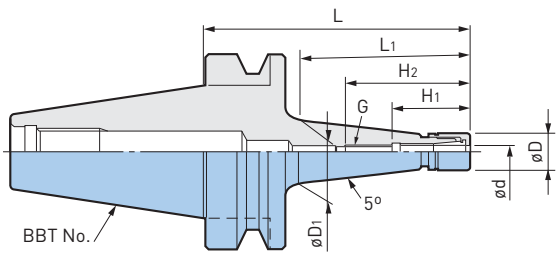
MEGA MICRO CHUCK (TYPE T)

CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm) For Micro Drill & End Mill Applications

NEW Sizes

MAX 40,000 RPM

HIGHER RIGIDITY



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT30-MEGA3S-45T	.018-.128	.394	.45	1.77	.79	.87	1.50	M4 P0.70	NBC3S-□	MGN3S	MGR10	40,000	.8
BBT30-MEGA3S-75T			.62	2.95	1.89							40,000	.9
BBT30-MEGA3S-90T			.72	3.54	2.48							35,000	1.0
BBT30-MEGA3S-105T			.83	4.13	3.07							30,000	1.1
BBT30-MEGA4S-60T	.018-.159	.472	.58	2.36	1.30	1.04	1.85	M5 P0.80	NBC4S-□	MGN4S	MGR12	40,000	.9
BBT30-MEGA4S-75T			.69	2.95	1.89							40,000	1.0
BBT30-MEGA4S-90T			.79	3.54	2.48							35,000	1.0
BBT30-MEGA4S-105T			.89	4.13	1.89							30,000	1.1
BBT30-MEGA4S-120T			1.00	4.72	3.66							25,000	1.2
BBT30-MEGA6S-60T	.018-.238	.551	.64	2.36	1.30	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	40,000	.9
BBT30-MEGA6S-75T			.74	2.95	1.89							40,000	1.0
BBT30-MEGA6S-90T			.85	3.54	2.48							35,000	1.0
BBT30-MEGA6S-105T			.95	4.13	3.07							30,000	1.2
BBT30-MEGA6S-120T			1.06	4.72	3.66							25,000	1.3
BBT30-MEGA8S-75T	.116-.317	.709	.89	2.95	1.89	1.22	1.99	M9 P0.75	NBC8S-□	MGN8S	MGR18	40,000	1.1
BBT30-MEGA8S-105T			1.10	4.13	3.07							30,000	1.3
BBT30-MEGA8S-120T ●			1.22	4.72	3.66							25,000	1.5
BBT40-MEGA3S-60T	.018-.128	.394	.48	2.36	1.10	.87	1.50	M4 P0.70	NBC3S-□	MGN3S	MGR10	35,000	2.2
BBT40-MEGA3S-90T			.69	3.54	2.28							28,000	2.3
BBT40-MEGA3S-120T			.89	4.72	3.46							22,000	2.5
BBT40-MEGA4S-60T	.018-.159	.472	.55	2.36	1.10	1.04	1.85	M5 P0.80	NBC4S-□	MGN4S	MGR12	35,000	2.2
BBT40-MEGA4S-75T			.65	2.95	1.69							32,000	2.3
BBT40-MEGA4S-90T			.75	3.54	2.28							28,000	2.3
BBT40-MEGA4S-105T			.86	4.13	2.87							25,000	2.4
BBT40-MEGA4S-120T			.96	4.72	3.46							22,000	2.5
BBT40-MEGA4S-135T			1.06	5.31	4.06							20,000	2.7
BBT40-MEGA6S-60T	.018-.238	.551	.61	2.36	1.10	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	35,000	2.2
BBT40-MEGA6S-75T			.71	2.95	1.69							32,000	2.3
BBT40-MEGA6S-90T			.81	3.54	2.28							28,000	2.3
BBT40-MEGA6S-105T			.92	4.13	2.87							25,000	2.4
BBT40-MEGA6S-120T			1.02	4.72	3.46							22,000	2.5
BBT40-MEGA6S-135T			1.13	5.31	4.06							20,000	2.7
BBT40-MEGA8S-90T	.116-.317	.709	.96	3.54	2.28	1.22	1.99	M9 P0.75	NBC8S-□	MGN8S	MGR18	30,000	2.5
BBT40-MEGA8S-120T			1.17	4.72	3.46							22,000	2.6
BBT40-MEGA8S-135T ●			1.28	5.31	4.06							20,000	2.9

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES

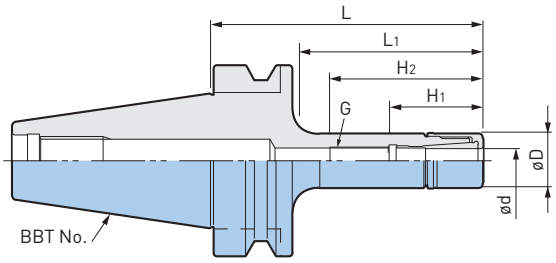
COLLET PG. 374 | MEGA NUT PG. 376 | SEAL NUT PG. 376 | MEGA WRENCH PG. 410

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.317"

For Micro Drill & End Mill Applications

MAX 40,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT30-MEGA4S-90	.018-.159	.472	3.54	2.44	1.04	1.85	M5 P.08	NBC4S-☐	MGN4S	MGR12	40,000	.9
BBT30-MEGA6S-60	.018-.238	.551	2.36	1.26	1.12	1.93	M7 P0.75	NBC6S-☐	MGN6S	MGR14	40,000	.9
BBT30-MEGA6S-90			3.54	2.44							40,000	1.0
BBT30-MEGA6S-105			4.13	2.87							40,000	1.0
BBT30-MEGA8S-90	.116-.317	.709	3.54	2.36	1.22	1.99	M9 P0.75	NBC8S-☐	MGN8S	MGR18	35,000	1.1
BBT40-MEGA4S-90	.018-.159	.472	3.54	2.09	1.04	1.85	M5 P0.8	NBC4S-☐	MGN4S	MGR12	35,000	2.2
BBT40-MEGA6S-90	.018-.238	.551	3.54	2.09	1.12	1.93	M7 P0.75	NBC6S-☐	MGN6S	MGR14	35,000	2.2
BBT40-MEGA8S-90	.116-.317	.709	3.54	2.17	1.22	1.99	M9 P0.75	NBC8S-☐	MGN8S	MGR18	30,000	2.4

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376


MEGA WRENCH PG. 410

MEGA NEW BABY CHUCK

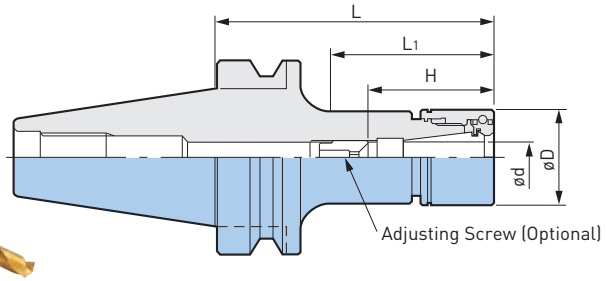
CLAMPING RANGE: ø.010"-1.000" (ø.25-25.4mm)

For Drills, Reamers, Taps & Finishing End Mills

MAX 40,000 RPM

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT30-MEGA6N-60	.010-.236	.787	2.36	1.26	.91-1.69	NBC6-□	MGN6	MGR20	40,000	1.0
BBT30-MEGA6N-75			2.95	1.85					35,000	1.1
BBT30-MEGA6N-90			3.54	2.44					30,000	1.2
BBT30-MEGA6N-105			4.13	3.03					20,000	1.2
BBT30-MEGA6N-120			4.72	3.54					18,000	1.3
BBT30-MEGA8N-60	.059-.394	.984	2.36	1.34	1.02-1.77	NBC8-□	MGN8	MGR25	40,000	1.1
BBT30-MEGA8N-75			2.95	1.93					35,000	1.2
BBT30-MEGA8N-90			3.54	2.52					30,000	1.4
BBT30-MEGA8N-105			4.13	3.11					20,000	1.5
BBT30-MEGA8N-120			4.72	3.70					18,000	1.6
BBT30-MEGA10N-60	.059-.394	1.181	2.36	1.34	1.50-1.89	NBC10-□	MGN10	MGR30	40,000	1.2
BBT30-MEGA10N-75			2.95	1.93					30,000	1.4
BBT30-MEGA10N-90			3.54	2.52					25,000	1.5
BBT30-MEGA10N-105			4.13	3.11					18,000	1.7
BBT30-MEGA10N-120			4.72	3.62					15,000	1.8
BBT30-MEGA13N-60	.098-.512	1.378	2.36	1.34	1.73-2.48	NBC13-□	MGN13	MGR35	40,000	1.2
BBT30-MEGA13N-75			2.95	1.93					30,000	1.4
BBT30-MEGA13N-90			3.54	2.52					25,000	1.6
BBT30-MEGA13N-105			4.13	3.11					18,000	1.8
BBT30-MEGA13N-120			4.72	3.70					15,000	2.0
BBT30-MEGA16N-60	.098-.630	1.654	2.36	1.46	1.89-2.48	NBC16-□	MGN16	MGR42	35,000	1.5
BBT30-MEGA16N-75			2.95	2.05	1.89-2.68				25,000	1.8
BBT30-MEGA16N-90			3.54	2.64					20,000	2.1
BBT30-MEGA16N-105			4.13	3.23					18,000	2.4
BBT30-MEGA20N-60❖	.098-.787	1.811	2.36	—	2.01	NBC20-□	MGN20	MGR46	30,000	1.6
BBT30-MEGA20N-75			2.95	—	2.01-2.68				20,000	1.9
BBT30-MEGA20N-90			3.54	—					15,000	2.2
BBT30-MEGA20N-105			4.13	—					13,000	2.5
BBT30-MEGA25N-85❖	.610-1.000	2.362	3.35	—	3.15	NBC25-□	MGN25	MGR60	12,000	2.5
BBT40-MEGA6N-60	.010-.236	.787	2.36	1.06	1.91-1.69	NBC6-□	MGN6	MGR20	35,000	2.2
BBT40-MEGA6N-75			2.95	1.50					35,000	2.3
BBT40-MEGA6N-90			3.54	2.09					35,000	2.4
BBT40-MEGA6N-105			4.13	2.68					20,000	2.5
BBT40-MEGA6N-120			4.72	3.27					20,000	2.6
BBT40-MEGA6N-135			5.31	3.86					20,000	2.7
BBT40-MEGA6N-165			6.50	5.04					14,000	2.7
BBT40-MEGA6N-200			7.87	6.42					9,000	2.9

Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT40-MEGA8N-60	.020-.315	.984	2.36	1.06	1.02-1.77	NBC8-□	MGN8	MGR25	35,000	2.2
BBT40-MEGA8N-75			2.95	1.50					35,000	2.3
BBT40-MEGA8N-90			3.54	2.09					35,000	2.4
BBT40-MEGA8N-105			4.13	2.68					20,000	2.5
BBT40-MEGA8N-120			4.72	3.27					20,000	2.6
BBT40-MEGA8N-135			5.31	3.86					20,000	2.9
BBT40-MEGA8N-165			6.50	5.04					14,000	2.9
BBT40-MEGA8N-200			7.87	6.42					9,000	3.1
BBT40-MEGA10N-60	.059-.394	1.181	2.36	1.02	1.50-1.89	NBC10-□	MGN10	MGR30	35,000	2.4
BBT40-MEGA10N-75			2.95	1.50					35,000	2.5
BBT40-MEGA10N-90			3.54	2.09					35,000	2.7
BBT40-MEGA10N-105			4.13	2.68					20,000	2.8
BBT40-MEGA10N-120			4.72	3.27					20,000	3.0
BBT40-MEGA10N-135			5.31	3.86					20,000	3.1
BBT40-MEGA10N-165			6.50	5.04					15,000	3.3
BBT40-MEGA10N-200			7.87	6.50					10,000	3.8
BBT40-MEGA13N-60	.098-.512	1.378	2.36	1.22	1.73-2.48	NBC13-□	MGN13	MGR35	35,000	2.4
BBT40-MEGA13N-75			2.95	1.57					35,000	2.7
BBT40-MEGA13N-90			3.54	2.17					35,000	2.9
BBT40-MEGA13N-105			4.13	2.76					20,000	3.1
BBT40-MEGA13N-120			4.72	3.35					20,000	3.3
BBT40-MEGA13N-135			5.31	3.94					20,000	3.5
BBT40-MEGA13N-165			6.50	5.12					15,000	4.0
BBT40-MEGA13N-200			7.87	6.50					10,000	4.4
BBT40-MEGA16N-60	.098-.630	1.654	2.36	1.22	1.89-2.68	NBC16-□	MGN16	MGR42	30,000	2.7
BBT40-MEGA16N-75			2.95	1.57					30,000	2.9
BBT40-MEGA16N-90			3.54	2.17					30,000	3.1
BBT40-MEGA16N-105			4.13	2.76					20,000	3.5
BBT40-MEGA16N-120			4.72	3.35					20,000	3.8
BBT40-MEGA16N-135			5.31	3.94					20,000	4.0
BBT40-MEGA16N-165			6.50	5.12					15,000	4.4
BBT40-MEGA16N-200			7.87	6.50					10,000	5.1

- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

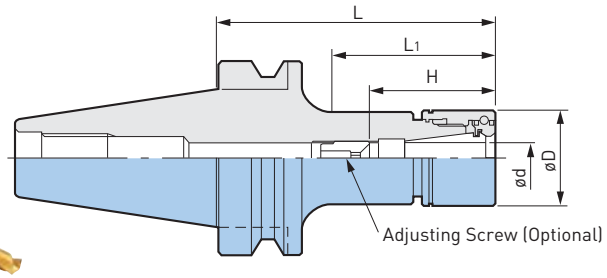
MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-1.000" (ø.25-25.4mm)

For Drills, Reamers, Taps & Finishing End Mills

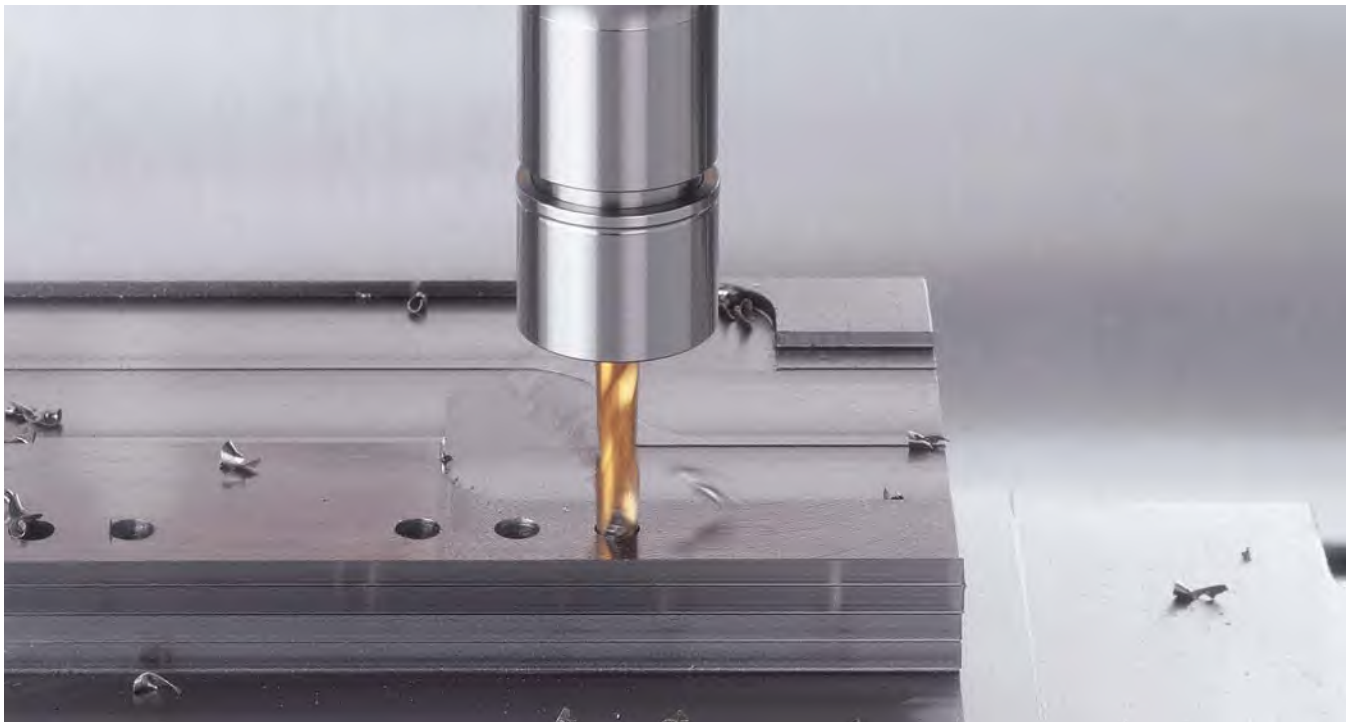
MAX 40,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT40-MEGA20N-60	.098-.787	1.811	2.36	1.22	2.01-2.68	NBC20-□	MGN20	MGR46	30,000	2.4
BBT40-MEGA20N-75			2.95	1.65					30,000	2.8
BBT40-MEGA20N-90			3.54	2.24					30,000	3.1
BBT40-MEGA20N-105			4.13	2.83					20,000	3.5
BBT40-MEGA20N-120			4.72	3.43					20,000	4.0
BBT40-MEGA20N-135			5.31	4.02					20,000	4.2
BBT40-MEGA20N-165			6.50	5.20					15,000	4.6
BBT40-MEGA20N-200			7.87	6.57					10,000	5.5
BBT40-MEGA25N-75	.610-1.000	2.362	2.95	1.85	2.52-2.91	NBC25-□	MGN25	MGR60L	24,000	3.5
BBT40-MEGA25N- 90			3.54	2.44					20,000	4.2
BBT40-MEGA25N-105			4.13	3.03					19,000	4.8
BBT40-MEGA25N-120			4.72	3.62					17,000	5.5



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
BBT50-MEGA6N-90	.010-.236	.787	3.54	1.06	.91-1.69	NBC6-□	MGN6	MGR20	20,000	8.2
BBT50-MEGA6N-120			4.72	1.50					20,000	8.4
BBT50-MEGA6N-165			6.50	2.09					14,000	8.6
BBT50-MEGA6N-200			7.87	2.68					9,000	8.8
BBT50-MEGA8N-90	.020-.315	.984	3.54	1.06	1.02-1.77	NBC8-□	MGN8	MGR25	20,000	8.4
BBT50-MEGA8N-120			4.72	1.50					20,000	8.6
BBT50-MEGA8N-165			6.50	2.09					16,000	9.0
BBT50-MEGA8N-200			7.87	2.68					11,000	9.3
BBT50-MEGA10N-90	.059-.394	1.181	3.54	1.02	1.50-1.89	NBC10-□	MGN10	MGR30	20,000	8.6
BBT50-MEGA10N-120			4.72	1.50					20,000	8.8
BBT50-MEGA10N-165			6.50	2.09					16,000	9.5
BBT50-MEGA10N-200			7.87	2.68					13,000	10.4
BBT50-MEGA10N-250			9.84	3.27					8,000	10.4
BBT50-MEGA10N-300			11.81	3.86					5,500	10.8
BBT50-MEGA13N-90	.098-.512	1.378	3.54	1.22	1.73-2.48	NBC13-□	MGN13	MGR35	18,000	8.8
BBT50-MEGA13N-120			4.72	1.57					18,000	9.3
BBT50-MEGA13N-165			6.50	2.17					16,000	9.9
BBT50-MEGA13N-200			7.87	2.76					12,000	10.4
BBT50-MEGA13N-250			9.84	3.35					8,000	11.0
BBT50-MEGA13N-300			11.81	3.94					5,500	11.7
BBT50-MEGA16N-75	.098-.630	1.654	2.95	1.22	1.89-2.68	NBC16-□	MGN16	MGR42	17,000	8.8
BBT50-MEGA16N-90			3.54	1.57					17,000	9.3
BBT50-MEGA16N-120			4.72	2.17					17,000	9.7
BBT50-MEGA16N-165			6.50	2.76					16,000	10.6
BBT50-MEGA16N-200			7.87	3.35					13,000	11.2
BBT50-MEGA16N-250			9.84	3.94					10,000	12.1
BBT50-MEGA20N-75	.098-.787	1.811	2.95	1.22	2.01-2.68	NBC20-□	MGN20	MGR46	16,000	9.0
BBT50-MEGA20N-90			3.54	1.65					16,000	9.3
BBT50-MEGA20N-120			4.72	2.24					16,000	9.9
BBT50-MEGA20N-165			6.50	2.83					15,000	10.8
BBT50-MEGA20N-200			7.87	3.43					13,000	11.7
BBT50-MEGA20N-250			9.84	4.02					10,000	12.6
BBT50-MEGA25N-90	.610-1.000	2.362	3.54	1.81	2.52-2.91	NBC25-□	MGN25	MGR60L	19,000	9.5
BBT50-MEGA25N-120			4.72	2.83					17,000	10.8
BBT50-MEGA25N-165			6.50	4.61					15,000	12.8
BBT50-MEGA25N-200			7.87	5.98					13,000	14.1

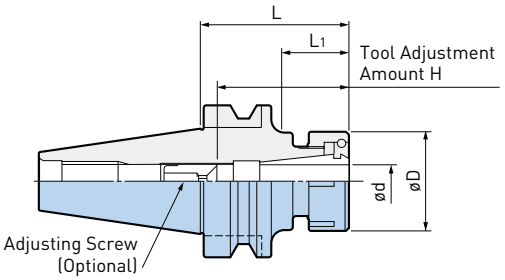
- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES

NEW BABY CHUCK

CLAMPING RANGE: ø.059"-.630" (ø1.5-16mm)

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H	Collet	Weight (lbs.)
BBT30-NBS10-45	.059-.394	1.181	1.772	.787	1.378-1.772	NBC10-□	1.0
BBT30-NBS13-45	.098-.512	1.378		.827	1.614-2.087	NBC13-□	.9
BBT30-NBS16-45	.098-.630	1.654			1.772-2.087	NBC16-□	.9

- NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 378


NUT PG. 392


PERFECT SEAL PG. 390


WRENCH PG. 392

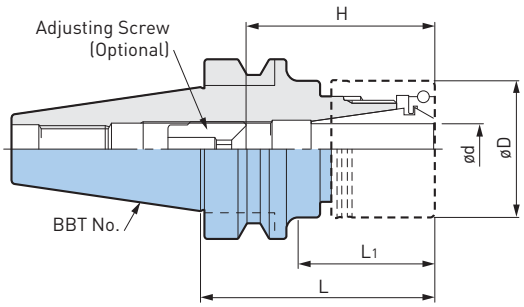

SCREW PG. 433

MEGA ER GRIP

CLAMPING RANGE: ø.075"-.787" (ø1.9-20mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	L	L1	H	Collet	Nut (NOT Included)	Wrench
BBT30-MEGAER16-60NL	.075-.394	1.181	2.36	1.38	1.38-1.85	ERC16-□	MERN16	MGR30L
BBT30-MEGAER16-75NL			2.95	1.93				
BBT30-MEGAER16-90NL			3.54	2.52				
BBT30-MEGAER20-60NL	.108-.512	1.378	2.36	1.38	1.65-2.36	ERC20-□	MERN20	MGR35L
BBT30-MEGAER20-75NL			2.95	1.97	1.65-2.44			
BBT30-MEGAER20-90NL			3.54	2.56				
BBT30-MEGAER25-60NL	.108-.630	1.654	2.36	1.46	1.73-2.24	ERC25-□	MERN25	MGR42L
BBT30-MEGAER25-75NL			2.95	2.05	1.73-2.64			
BBT30-MEGAER25-90NL			3.54	2.64				
BBT30-MEGAER32-60NL	.108-.787	1.969	2.36	1.50	1.97	ERC32-□	MERN32	MGR50L
BBT30-MEGAER32-75NL			2.95	2.09	1.97-2.68			
BBT30-MEGAER32-90NL			3.54	2.68				

- Nut, adjusting screw, collet and wrench are not included
- Weight does not include collet
- MEGA ER GRIP is not able to use DIN6499 Form-A collets and ESX collets
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

ACCESSORIES

***MEGA NUT is the recommended nut to achieve high accuracy and clamping force**

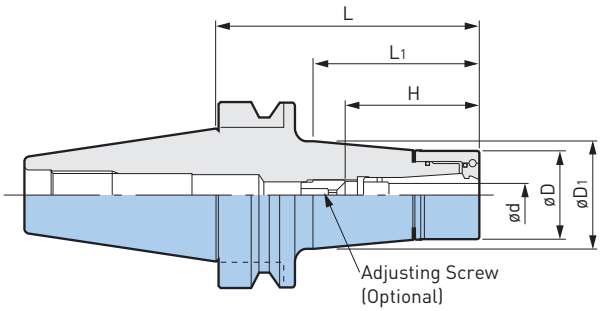
MEGA E CHUCK

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Exclusively for High Speed Finish End Milling

MAX 40,000 RPM

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	H		Collet	Nut	Wrench	Max RPM	Weight (lbs.)
						Min	Max					
BBT30-MEGA6E-50	.125-.250 (3-6mm)	.984	1.01	1.97	.98	1.46	1.77	MEC6-□	MEN6	MGR25	40,000	1.2
BBT30-MEGA6E-75			1.18	2.95	1.97						35,000	1.4
BBT30-MEGA6E-90			1.28	3.54	2.56						25,000	1.6
BBT30-MEGA6E-105			1.38	4.13	3.15						25,000	1.8
BBT30-MEGA8E-50	.125-.250 (3-8mm)	1.181	1.20	1.97	.98	1.65	2.01	MEC8-□	MEN8	MGR30	40,000	1.2
BBT30-MEGA8E-75			1.36	2.95	1.97						35,000	1.6
BBT30-MEGA8E-90			1.47	3.54	2.60						25,000	1.8
BBT30-MEGA8E-105			1.58	4.13	3.19						25,000	2.1
BBT30-MEGA10E-50	.125-.375 (3-10mm)	1.378	1.39	1.97	.98	1.89	2.28	MEC10-□	MEN10	MGR35	39,000	1.3
BBT30-MEGA10E-75			1.56	2.95	2.01						35,000	1.8
BBT30-MEGA10E-90			1.61	3.54	2.62						25,000	2.1
BBT30-MEGA10E-105			1.62	4.13	3.23						25,000	2.3
BBT30-MEGA13E-50	.125-.500 (3-12mm)	1.654	1.67	1.97	1.06	1.97	2.38	MEC13-□	MEN13	MGR42	38,000	1.4
BBT30-MEGA13E-75			1.65	2.95	2.05	1.97	2.36				34,000	2.0
BBT30-MEGA13E-90			1.65	3.54	2.64						25,000	2.3
BBT30-MEGA13E-105			1.65	4.13	3.23						25,000	2.7
BBT40-MEGA6E-60	.125-.250 (3-6mm)	.984	1.03	2.36	1.10	1.46	1.77	MEC6-□	MEN6	MGR25	30,000	2.4
BBT40-MEGA6E-75			1.13	2.95	1.69						30,000	2.5
BBT40-MEGA6E-90			1.23	3.54	2.28						30,000	2.7
BBT40-MEGA6E-105			1.33	4.13	2.87						29,000	2.9
BBT40-MEGA6E-120			1.44	4.72	3.46						29,000	3.1
BBT40-MEGA6E-135			1.54	5.31	4.06						27,000	3.4
BBT40-MEGA6E-165			1.75	6.50	5.24						20,000	4.1
BBT40-MEGA6E-200			2.00	7.87	6.65						15,000	5.1
BBT40-MEGA8E-60	.125-.250 (3-8mm)	1.181	1.22	2.36	1.10	1.65	1.89	MEC8-□	MEN8	MGR30	30,000	2.5
BBT40-MEGA8E-75			1.31	2.95	1.69	1.65	2.01				30,000	2.7
BBT40-MEGA8E-90			1.42	3.54	2.28						30,000	2.9
BBT40-MEGA8E-105			1.52	4.13	2.87						29,000	3.2
BBT40-MEGA8E-120			1.63	4.72	3.46						29,000	3.6
BBT40-MEGA8E-135			1.73	5.31	4.06						27,000	3.9
BBT40-MEGA8E-165			1.93	6.50	5.24						20,000	4.6
BBT40-MEGA8E-200			2.20	7.87	6.73						15,000	5.6

Catalog Number	ød	øD	øD1	L	L1	H		Collet	Nut	Wrench	Max RPM	Weight (lbs.)
						Min	Max					
BBT40-MEGA10E-60	.125-.375 (3-10mm)	1.378	1.42	2.36	1.14	1.89	2.28	MEC10-□	MEN10	MGR35	30,000	2.7
BBT40-MEGA10E-75			1.51	2.95	1.69						30,000	3.0
BBT40-MEGA10E-90			1.61	3.54	2.28						30,000	3.2
BBT40-MEGA10E-105			1.72	4.13	2.87						29,000	3.6
BBT40-MEGA10E-120			1.82	4.72	3.46						29,000	3.9
BBT40-MEGA10E-135			1.92	5.31	4.06						27,000	4.4
BBT40-MEGA10E-165			2.14	6.50	5.31						22,000	5.2
BBT40-MEGA10E-200			2.19	7.87	6.73						16,000	6.8
BBT40-MEGA13E-60	.125-.500 (3-12mm)	1.654	1.68	2.36	1.14	1.97	2.36	MEC13-□	MEN13	MGR42	30,000	2.9
BBT40-MEGA13E-75			1.77	2.95	1.69						30,000	3.2
BBT40-MEGA13E-90			1.89	3.54	2.32						30,000	3.6
BBT40-MEGA13E-105			1.99	4.13	2.95						29,000	4.1
BBT40-MEGA13E-120			2.10	4.72	3.58						29,000	4.6
BBT40-MEGA13E-135			2.20	5.31	4.17						26,000	5.2
BBT40-MEGA13E-165			2.26	6.50	5.39						22,000	6.2
BBT40-MEGA13E-200			2.46	7.87	6.77						16,000	8.0
BBT50-MEGA6E-90	.125-.250 (3-6mm)	.984	1.20	3.54	1.85	1.46	1.77	MEC6-□	MEN6	MGR25	20,000	8.4
BBT50-MEGA6E-120			1.40	4.72	3.03						20,000	8.8
BBT50-MEGA6E-165			1.71	6.50	4.80						14,000	9.7
BBT50-MEGA6E-200			1.95	7.87	6.18						9,000	10.8
BBT50-MEGA8E-90	.125-.250 (3-8mm)	1.181	1.38	3.54	1.85	1.65	2.01	MEC8-□	MEN8	MGR30	20,000	5.6
BBT50-MEGA8E-120			1.59	4.72	3.03						20,000	9.0
BBT50-MEGA8E-165			1.90	6.50	4.80						16,000	10.1
BBT50-MEGA8E-200			2.14	7.87	6.18						11,000	11.4
BBT50-MEGA10E-90	.125-.375 (3-10mm)	1.378	1.57	3.54	1.85	1.89	2.28	MEC10-□	MEN10	MGR35	20,000	8.8
BBT50-MEGA10E-120			1.79	4.72	3.03						20,000	9.2
BBT50-MEGA10E-165			2.09	6.50	4.76						16,000	10.8
BBT50-MEGA10E-200			2.33	7.87	6.14						13,000	12.1
BBT50-MEGA13E-90	.125-.500 (3-12mm)	1.654	1.83	3.54	1.85	1.97	2.36	MEC13-□	MEN13	MGR42	18,000	8.8
BBT50-MEGA13E-120			2.05	4.72	3.03						18,000	9.7
BBT50-MEGA13E-165			2.32	6.50	4.76						16,000	11.4
BBT50-MEGA13E-200			2.55	7.87	6.14						12,000	13.2

- MEGA E NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES

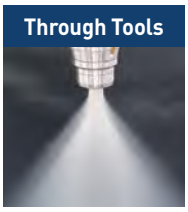
MEGA DOUBLE POWER CHUCK

CLAMPING RANGE: ø.625"-1.500" (ø12-50mm)

For Heavy Duty End Milling

MAX 30,000 RPM

COOLANT THROUGH



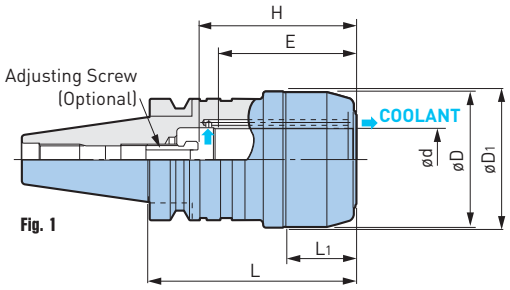


Fig. 1

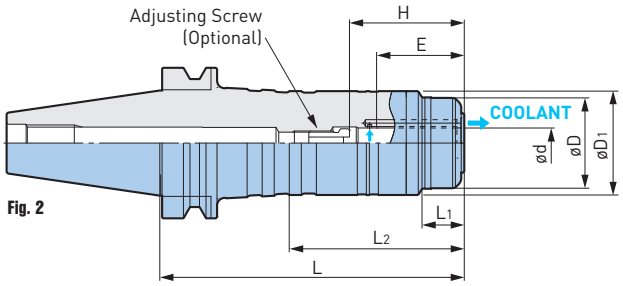


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
BBT30-MEGA.750DS-2.5	1	.750	1.969	2.00	2.59	1.26	1.48	2.36	1.97	MGR50L	30,000	1.8
BBT30-MEGA12DS-58	1	12mm	1.496	1.693	2.32	.98	1.30	2.40	1.69	MGR38L	30,000	1.4
BBT30-MEGA16DS-60		16mm	1.811	1.85	2.46	1.10	—	2.52	1.89	MGR46L	30,000	1.7
BBT30-MEGA20DS-65		20mm	1.969	2.00	2.66	1.30		2.36	1.97	MGR50L	25,000	1.8
BBT40-MEGA.625DS-3A	2	.625	1.654	2.09	3.08	1.06	1.57	2.87	1.89	MGR42L	30,000	3.5
BBT40-MEGA.625DS-5A					5.08						25,000	5.6
BBT40-MEGA.750DS-3A	2	.750	1.969	2.17	3.08	1.42	1.81	2.80-3.19	1.97	MGR50L	30,000	3.5
BBT40-MEGA.750DS-5A					5.08						25,000	5.7
BBT40-MEGA1.000DS-3.5A	1	1.000	2.441	2.48	3.58	1.61	1.85	2.87-3.27	2.20	MGR62L	27,000	4.5
BBT40-MEGA1.000DS-5A					5.08						24,000	6.4
BBT40-MEGA1.250DS-3.5A	1	1.250	2.756	2.78	3.58	1.38	1.87	3.19-3.58	2.36	MGR70L	26,000	4.8
BBT40-MEGA1.250DS-5A					5.08						22,000	6.6
BBT40-MEGA12DS-75	1	12mm	1.496	1.693	2.99	.98	1.30	2.56	1.69	MGR38L	30,000	3.1
BBT40-MEGA12DS-105					4.17						30,000	4.0
BBT40-MEGA16DS-75A	2	16mm	1.654	2.09	3.03	1.06	1.57	2.87	1.89	MGR42L	30,000	3.3
BBT40-MEGA16DS-105A					4.21						30,000	4.6
BBT40-MEGA16DS-135A					5.39						25,000	5.7
BBT40-MEGA16DS-165A					6.57						22,000	7.3
BBT40-MEGA16DS-200A					7.87						18,000	9.0
BBT40-MEGA20DS-75A	2	20mm	1.969	2.17	3.03	1.42	1.81	2.80-3.19	1.97	MGR50L	30,000	3.5
BBT40-MEGA20DS-105A					4.21						30,000	4.4
BBT40-MEGA20DS-120A					4.80						27,000	5.1
BBT40-MEGA20DS-135A					5.39						25,000	5.7
BBT40-MEGA20DS-165A					6.57						22,000	7.0
BBT40-MEGA20DS-200A					7.87						15,000	9.0

Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
BBT40-MEGA25DS-75A	1	25mm	2.441	2.48	3.03	1.61	—	2.95-3.35	2.20	MGR62L	27,000	4.4
BBT40-MEGA25DS-105A					4.21			2.87-3.27			26,000	5.1
BBT40-MEGA25DS-135A					5.39						24,000	6.6
BBT40-MEGA25DS-165A					6.57						21,000	8.1
BBT40-MEGA25DS-200A					7.95						12,000	10.3
BBT40-MEGA32DS-90A	1	32mm	2.756	2.80	3.62	1.38	—	2.87-3.27	2.36	MGR70L	26,000	4.6
BBT40-MEGA32DS-105A					4.21			3.19-3.58			26,000	5.3
BBT40-MEGA32DS-135A					5.39						22,000	6.8
BBT40-MEGA32DS-165A					6.57						20,000	8.1
BBT40-MEGA32DS-200A					7.95						10,000	9.9
BBT50-MEGA.750DS-4	2	.750	2.362	2.72	4.09	1.10	1.50	2.80-3.19	1.97	MGR60L	20,000	10.0
BBT50-MEGA1.000DS-4		1.000	2.756	3.03	4.09	1.34	1.85	3.07-3.46	2.26	MGR70L	20,000	10.6
BBT50-MEGA1.250DS-4		1.250	3.150	3.39	4.09	1.65	2.24	3.03-3.70	2.36	MGR80L	20,000	11.3
BBT50-MEGA1.500DS-4.5	1	1.500	3.898	3.94	4.58	1.65	—	3.54-4.21	2.48	MGR99L	15,000	14.6
BBT50-MEGA12DS-105	1	12mm	1.496	1.693	4.17	.98	1.30	2.56	1.69	MGR38L	23,000	9.3
BBT50-MEGA12DS-135					5.35						21,000	10.4
BBT50-MEGA12DS-165					6.54						19,000	11.5
BBT50-MEGA16DS-105	2	16mm	1.811	2.17	4.23	1.02	1.42	2.87	1.89	MGR46L	21,000	10.1
BBT50-MEGA16DS-135					5.41						21,000	11.4
BBT50-MEGA16DS-165					6.59						19,000	12.5
BBT50-MEGA16DS-200					7.97						15,000	14.5
BBT50-MEGA16DS-250					9.94						13,000	15.4
BBT50-MEGA20DS-105	2	20mm	2.362	2.72	4.23	1.10	1.50	2.79-3.19	1.97	MGR60L	20,000	11.2
BBT50-MEGA20DS-135					5.41						19,000	13.2
BBT50-MEGA20DS-165					6.59						17,000	15.0
BBT50-MEGA20DS-200					7.97		4.57				14,000	16.9
BBT50-MEGA20DS-250					9.94		5.43				12,000	20.0
BBT50-MEGA25DS-105	2	25mm	2.756	3.03	4.23	1.34	1.80	3.07-3.46	2.20	MGR70L	20,000	11.9
BBT50-MEGA25DS-135					5.41						19,000	14.3
BBT50-MEGA25DS-165					6.59						17,000	16.7
BBT50-MEGA25DS-200					7.97		4.76				12,000	19.6
BBT50-MEGA25DS-250					9.94		5.43				10,000	23.8
BBT50-MEGA32DS-90	2	32mm	3.150	3.39	3.72	1.65	2.24	3.15-3.82	2.36	MGR80L	20,000	10.6
BBT50-MEGA32DS-105					4.23						20,000	11.9
BBT50-MEGA32DS-135					5.41						18,000	15.4
BBT50-MEGA32DS-165					6.59						15,000	18.7
BBT50-MEGA32DS-200					7.97		5.16				12,000	21.8
BBT50-MEGA32DS-250					9.94		6.73				10,000	26.6
BBT50-MEGA32DS-300					11.91		7.20				5,000	31.5
BBT50-MEGA42DS-105	1	42mm	3.898	3.93	4.21	1.65	—	3.54-4.21	2.48	MGR99L	15,000	13.2
BBT50-MEGA42DS-135					5.39						15,000	17.2
BBT50-MEGA42DS-165					6.57						14,000	21.1
BBT50-MEGA50DS-120	1	50mm	4.134	4.61	4.80	1.93	—	3.78-4.41	3.03	MGR105L	13,000	16.1

- Wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- MEGA16DS/MEGA.625DS requires the hex socket head screw (M8) for axial adjustment, however, please contact us if using for center-through applications
- "H" indicates the adjustment length with an adjusting screw
- DS types have jet-through coolant supply, thus tools with holes cannot be used

ACCESSORIES


COLLET PG. 407


PERFECT SEAL/ JET COLLET PG. 404


MEGA WRENCH PG. 410


SCREW PG. 434

MEGA PERFECT GRIP

CLAMPING RANGE: ø16-32mm

The unique key grip locking mechanism prevents the tool from slipping or pulling out during heavy machining.

COOLANT THROUGH

Jet Through

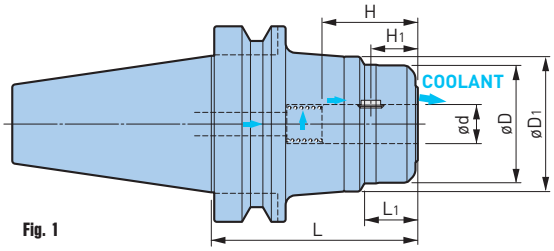


Fig. 1

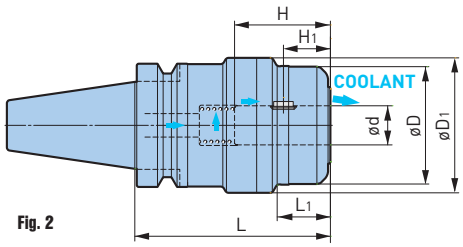


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	H1	MEGA WRENCH	Weight (lbs.)
BBT40-MEGA16DPG- 75	1	16mm	1.811	2.165	2.95	.945	1.85	.91	MGR46L	3.7
BBT40-MEGA20DPG-100	2	20mm	2.362	2.717	3.94	1.063	1.93	.94	MGR60L	5.7
BBT50-MEGA16DPG-105	1	16mm	1.811	2.165	4.13	.945	1.85	.91	MGR46L	10.1
BBT50-MEGA16DPG-165					6.50					12.8
BBT50-MEGA20DPG-105		20mm	2.362	2.717	4.13	1.063	1.93	.94	MGR60L	11.2
BBT50-MEGA20DPG-165					6.50					15.2
BBT50-MEGA25DPG-105		25mm	2.756	3.031	4.13	1.299	2.17	.91	MGR70L	11.9
BBT50-MEGA25DPG-165					6.50					17.0
BBT50-MEGA32DPG-105		32mm	3.150	3.386	4.13	1.614	2.32	.91	MGR80L	12.3
BBT50-MEGA32DPG-165					6.50					18.5

- Key grip and spring are included, wrench must be ordered separately
- H1 is the dimension from the center of the Key Grip to the front end of the chuck
- When coolant supply is from the cutting edge a seal bush is necessary, use instead of the spring; seal bush must be ordered separately

Always replace worn or damaged key grips immediately for safe operation.

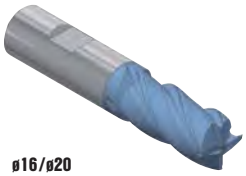
Clamping ø	Key Grip (2 pcs.)	Spring
ø16	**PKG16-2P**	**PSP1519**
ø20	**PKG20-2P**	**PSP1823**
ø25	**PKG25-2P**	**PSP2420**
ø32	**PKG32-2P**	**PSP3128**

- Spare key grips are available in 2 pcs. per set

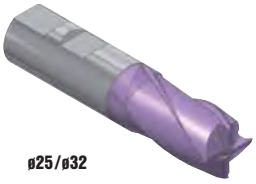
CYLINDRICAL SHANK (WITH FLAT SECTION JIS B 4005)

ISO3338-2

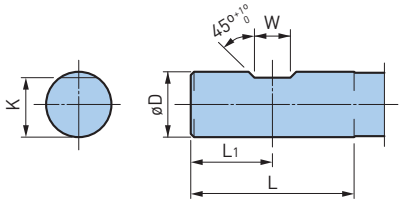
The following standard shank is required for MEGA PERFECT GRIP.



ø16/ø20



ø25/ø32

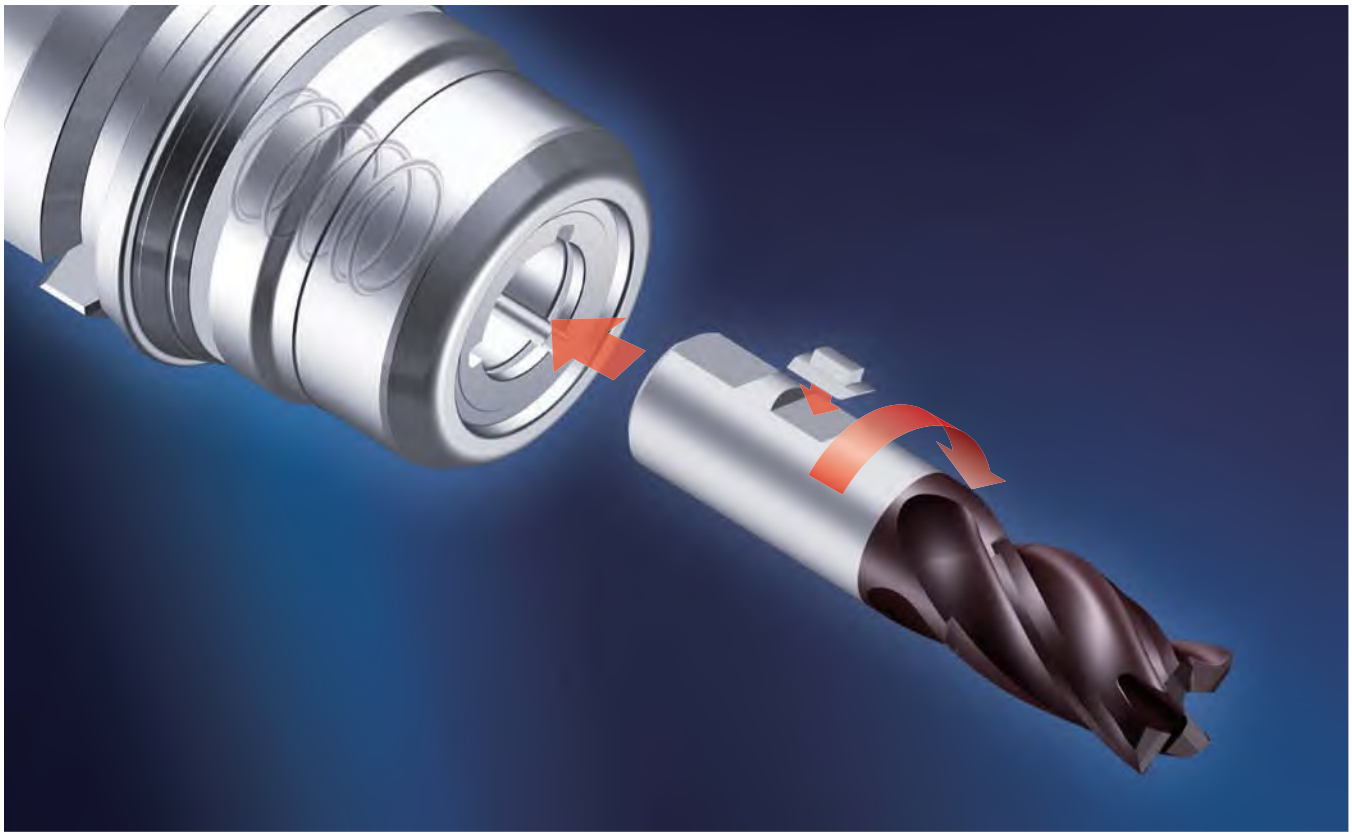


Unit: mm

øD		L	L_1	W		K	
Nominal	Tolerance			Nominal	Tolerance	Nominal	Tolerance
16	0 -.011	48mm	24mm	10	+.2 0	14.2	0 -.4
20	0 -.013	50mm	25mm	11		18.2	
25		56mm	32mm	12		23	
32	0 -.016	60mm	36mm	14		30	

- JIS Standards require sizes ø25 or higher to be double-flat types. The MEGA PERFECT GRIP does not use a rear flat surface, but is capable of clamping double flat shanks
- JIS B4005 has the same dimensions as International Standard ISO3338-2 and German Standard DIN1835-1

If adding your own flat, the tool projection length in the MEGA PERFECT GRIP will be decided by the flat position. Refer to H_1 in the MEGA PERFECT GRIP chart, decide the flat position to add, and then cut the cutter at L_1 on cutter shank.



NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.750"-1.250" (ø16-42mm)

For Heavy Duty End Milling

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

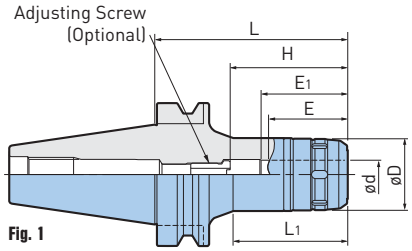


Fig. 1

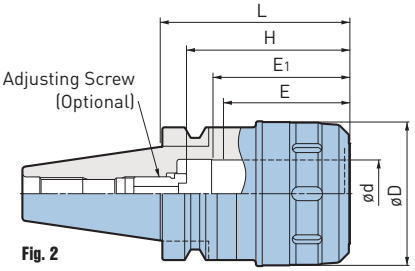


Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	H	Min Clamping Length		Wrench	Weight (lbs.)
							E	E1		
BBT30-HMC.750S-3	2	.750	1.969	3.00	—	2.16-2.55	1.97	2.21	FK45-50L	2.1
BBT30-HMC16S-70❖	1	16mm	1.693	2.76	1.85	2.80	1.89	2.17	FK45-50L	1.5
BBT30-HMC20S-75	2	20mm	1.969	2.95	—	2.20-2.59	1.97	2.21		2.0
BBT30-HMC25S-90		25mm	2.165	3.54	—	2.52-2.91	2.20	2.24	FK52-55	2.6
BBT30-HMC32S-105		32mm	2.441	4.13	—	2.75-3.15	2.28	2.28	FK58-62L	3.3
BBT40-HMC.750S-3.5	1	.750	1.969	3.50	2.31	2.71-3.11	1.97	2.21	FK45-50L	4.1
BBT40-HMC1.000S-3.5		1.000	2.323	3.50	2.42	2.87-3.26	2.20	2.24	FK58-62L	4.7
BBT40-HMC1.250S-4	2	1.250	2.677	4.00	—	3.11-3.50	2.36	2.52	FK68-75L	5.9
BBT40-HMC16S-75❖	1	16mm	1.693	2.95	1.77	2.80	1.89	2.17	FK45-50L	2.9
BBT40-HMC16S-120❖				4.72	3.54					4.0
BBT40-HMC20S-75	1	20mm	1.969	2.95	1.81	2.72-3.11	1.97	2.21		3.1
BBT40-HMC20S-105				4.13	2.95					4.2
BBT40-HMC20S-120				4.72	3.54					4.6
BBT40-HMC25S-75	1	25mm	2.323	2.95	1.85	2.87-3.27	2.20	2.24	FK58-62L	3.3
BBT40-HMC25S-105				4.13	303					4.6
BBT40-HMC25S-135				5.31	4.21					6.2
BBT40-HMC32S-90	2	32mm	2.677	3.54	—	2.80-3.19	2.36	2.52	FK68-75L	4.4
BBT40-HMC32S-105				4.13	—	3.11-3.50				5.1
BBT40-HMC32S-135				5.31	—					6.6
BBT50-HMC.750-4	1	.750	2.360	4.00	2.36	2.71-3.11	1.97	2.21	FK58-62	10.5
BBT50-HMC1.000-4		1.000	2.440	4.00	2.32	2.99-3.38	2.20	2.56	FK58-62	10.7
BBT50-HMC1.250-4		1.250	3.150	4.00	2.48	3.07-3.74	2.96	2.80	FK80-90	12.4
BBT50-HMC16S-105❖	1	16mm	1.693	4.13	2.24	2.80	1.89	2.17	FK45-50L	9.3
BBT50-HMC16S-135❖				5.31	3.15					10.1
BBT50-HMC16S-165❖				6.50	3.94					11.0
BBT50-HMC16S-200❖				7.87	4.72					12.8
BBT50-HMC16S-250❖				9.84	6.10					14.8
BBT50-HMC20S-105	1	20mm	1.969	4.13	2.24	2.72-3.11	1.97	2.21	FK45-50L	9.5
BBT50-HMC20S-135				5.31	3.15					10.6
BBT50-HMC20S-165				6.50	3.94					11.9
BBT50-HMC20S-200				7.87	4.92					13.2
BBT50-HMC20S-250				9.84	6.30					15.7
BBT50-HMC20S-300				11.81	7.87					18.3
BBT50-HMC25S-105	1	25mm	2.323	4.13	2.24	2.99-3.39	2.20	2.24	FK58-62L	9.9
BBT50-HMC25S-135				5.31	3.43					11.5
BBT50-HMC25S-165				6.50	4.13					13.0
BBT50-HMC25S-200				7.87	4.92					16.5
BBT50-HMC25S-250				9.84	6.30					17.9

Catalog Number	Fig.	ød	øD	L	L1	H	Min Clamping Length		Wrench	Weight (lbs.)
							E	E1		
BBT50-HMC32S-105	1	32mm	2.677	4.13	2.52	3.46-3.86	2.36	2.83	FK68-75L	10.1
BBT50-HMC32S-135				5.31	3.50					11.9
BBT50-HMC32S-165				6.50	4.13					14.1
BBT50-HMC32S-200				7.87	5.12					16.3
BBT50-HMC32S-250				9.84	6.50					20.1
BBT50-HMC32S-300				11.81	7.87					25.4
BBT50-HMC32S-350				13.78	9.45					26.7
BBT50-HMC42S-105	1	42mm	3.346	4.13	2.56	3.66-4.13	2.48	2.87	FK80-90L	11.5
BBT50-HMC42S-135				5.31	3.70					13.7
BBT50-HMC42S-165				6.50	4.84					16.3
BBT50-HMC42S-200				7.87	5.12					21.2
BBT50-HMC42S-300				11.81	7.87					31.1
BBT50-HMC42S-400				15.75	11.81					40.1

- Wrench and axial adjusting screw must be ordered separately
- When using center-through coolant:
  - Set screw with sealing compound applied (standard accessory) should be used to plug an air bleed hole
  - Oil hole type should be chosen when straight collet is required
- "H" indicates the adjustment length with an adjusting screw
- When using center-through coolant, insert tool shank into E1 or more
- HMC16S requires the hex socket head screw (M8) for axial adjustment, however, please contact us if using for center-through applications; models marked ❖

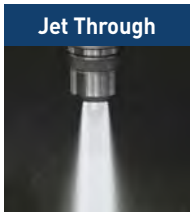
ACCESSORIES

COLLET PG. 407 | PERFECT SEAL/ JET COLLET PG. 404 | WRENCH PG. 409 | SCREW PG. 434

(JET COOLANT TYPE)

CLAMPING RANGE: ø.500" (ø12mm)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



COOLANT THROUGH

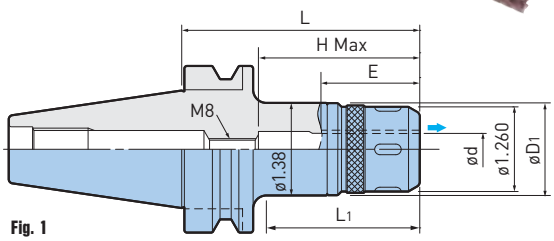


Fig. 1

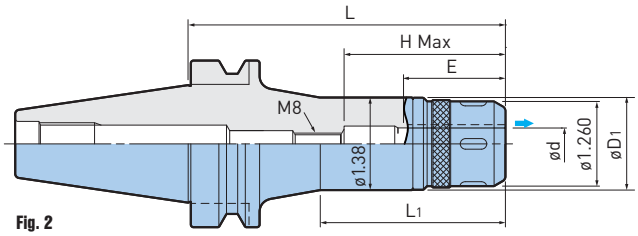


Fig. 2

Catalog Number	Fig.	ød	øD1	L	L1	H Max	Min Clamping Length E	Wrench	Weight (lbs.)
BBT30-HMC.500J-2.5	1	.500	1.38	2.50	1.55	2.56	1.69	FK31-33	1.3
BBT30-HMC12J-60	1	12mm	1.38	2.36	1.50	2.56	1.69	FK31-33	1.3
BBT40-HMC12J-90	1	12mm	1.38	3.54	2.48	2.56	1.69	FK31-33	3.1
BBT40-HMC12J-120	2			4.72	2.75				3.5
BBT50-HMC12J-105	1	12mm	1.38	4.13	2.64	2.56	1.69	FK31-33	8.8
BBT50-HMC12J-135	2			5.31	2.75				9.5
BBT50-HMC12J-165				6.50	3.54				10.3

- Wrench must be ordered separately

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø.125" (ø3mm-12mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

COOLANT THROUGH

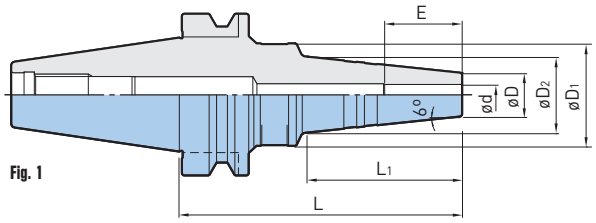


Fig. 1

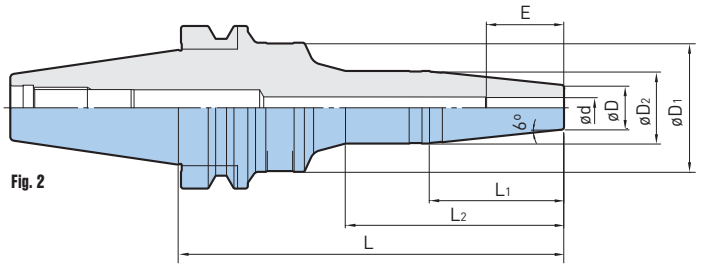


Fig. 2

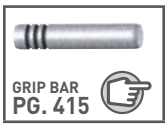
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	Min Clamping Length E	Max RPM	Weight (lbs.)
BBT30-HDC3S-60❖	1	3mm	.551	1.65	.71	2.36	.75	—	.63	35,000	1.3
BBT30-HDC3S-90❖					.98	3.54	1.97			35,000	1.4
BBT30-HDC3.175S-60❖	1	.125	.551	1.63	.71	2.36	.75	—		35000	1.3
BBT30-HDC3.175S-90❖				1.65	.98	3.54	1.97			35,000	1.4
BBT30-HDC4S-60	1	4mm	.551	1.81	.79	2.36	1.10	—	.75	35,000	1.1
BBT30-HDC4S-90				1.65	.98	3.54	1.97	—		35,000	1.4
BBT30-HDC5S-90	1	5mm	.551						.87	35,000	1.3
BBT30-HDC6S-60	1	6mm	.551	1.65	.75	2.36	.75	—	.98	35,000	1.3
BBT30-HDC6S-90					.98	3.54	1.97			35,000	1.5
BBT30-HDC6S-120					1.02	4.72	2.24			33,000	1.7
BBT30-HDC8S-90	1	8mm	.669	1.65	1.10	3.54	1.97	—	1.18	35,000	1.5
BBT30-HDC 8S-120						4.72	2.05			33,000	1.8
BBT30-HDC10S-90	1	10mm	.748	1.73	1.18	3.54	1.97	—	1.26	35,000	1.5
BBT30-HDC10S-120						4.72	2.05			33,000	1.9
BBT30-HDC12S-90	1	12mm	.827	1.81	1.26	3.54	1.97	—	1.38	35,000	1.8
BBT30-HDC12S-120						4.72	2.05			33,000	1.9

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	Min Clamping Length E	Max RPM	Weight (lbs.)
BBT40-HDC3S-90❖	1	3mm	.551	1.50	.94	3.54	1.73	—	.63	35,000	2.9
BBT40-HDC3S-135❖				1.73	1.02	5.31	2.24	84		30,000	3.1
BBT40-HDC4S-60	1	4mm	.551	1.50	.75	2.36	.87	—	.75	30,000	2.6
BBT40-HDC4S-90					.94	3.54	1.77	3.31		30,000	2.9
BBT40-HDC4S-135	2				1.02	5.31	2.24	3.31		30,000	3.1
BBT40-HDC5S-90	1	5mm	.551	1.50	.94	3.54	1.81	—	.83	30,000	2.9
BBT40-HDC6S-110	1	6mm	.551	1.50	1.06	4.33	2.36	—	.98	30,000	2.9
BBT40-HDC6S-150	2			1.89	1.02	5.91	2.24	3.35		28,000	3.5
BBT40-HDC6S-180						7.09		3.94		25,000	3.7
BBT40-HDC8S-110	1	8mm	.669	1.57	1.18	4.33	2.36	—	1.18	30,000	3.1
BBT40-HDC8S-150	2			1.97	1.10	5.91	2.05	3.35		28,000	3.8
BBT40-HDC8S-180						7.09		3.94		25,000	4.0
BBT40-HDC10S-110	1	10mm	.748	1.65	1.26	4.33	2.36	—	1.26	30,000	3.1
BBT40-HDC10S-150	2			1.97	1.18	5.91	2.05	3.35		25,000	3.8
BBT40-HDC10S-180						7.09		3.94		23,000	4.2
BBT40-HDC12S-110	1	12mm	.827	1.73	1.34	4.33	2.36	—	1.38	30,000	3.1
BBT40-HDC12S-150	2			1.97	1.26	5.91	2.05	3.35		25,000	4.0
BBT40-HDC12S-180						7.09		3.94		23,000	4.4
BBT50-HDC4S-150	2	4mm	.551	2.05	1.02	5.91	2.24	3.27	.75	20,000	9.3
BBT50-HDC4S-200				2.20		7.87		3.94		15,000	10.1
BBT50-HDC6S-150		6mm	.551	2.05	1.02	5.91	2.24	3.27	.98	20,000	9.3
BBT50-HDC6S-200				2.20		7.87		3.94		15,000	10.1
BBT50-HDC8S-150		8mm	.669	2.12	1.10	5.91		3.27	1.18	20,000	9.5
BBT50-HDC8S-200				2.28		7.87		3.94		15,000	10.4
BBT50-HDC10S-150		10mm	.748	2.20	1.18	5.91	2.05	3.27	1.26	20,000	9.5
BBT50-HDC10S-200				2.36		7.87		3.94		15,000	10.6
BBT50-HDC12S-150		12mm	.827	2.28	1.26	5.91		3.27	1.38	20,000	9.7
BBT50-HDC12S-200				2.44		7.87		3.94		15,000	10.6

- Adjusting screw cannot be used
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK

CLAMPING RANGE: ø.250"-1.000" (ø6-32mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

COOLANT THROUGH

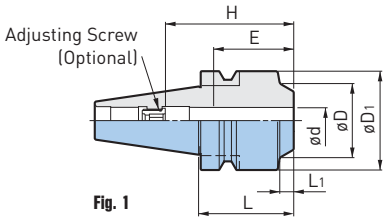


Fig. 1

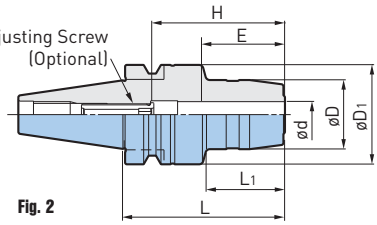


Fig. 2

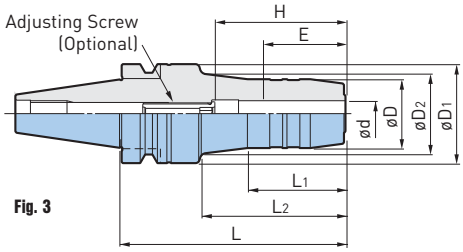


Fig. 3

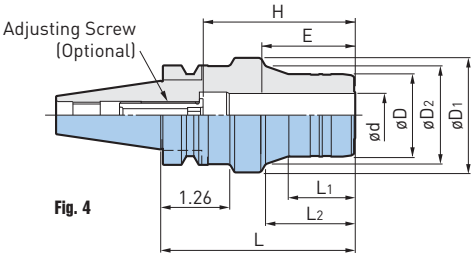


Fig. 4

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

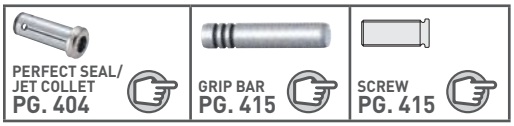
Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BBT30-HDC.250-2.5	1	.250	1.024	1.79	—	2.50	1.14	—	1.10-1.97	1.10	HDA6-05032	1.3
BBT30-HDC.250-4	2				1.18	4.00	1.69	2.70				1.8
BBT30-HDC.375-2.5	1	.375	1.181	1.81	—	2.50	.96	—	1.77-2.17	1.30	HDA10-08015	1.6
BBT30-HDC.375-4	2				1.34	4.00	1.77	2.48	1.30-2.17		HDA10-08032	2.0
BBT30-HDC.500-2.5	1	.500	1.299	1.81	—	2.50	.98	—	1.57-2.36	1.50	HDA12-10025	1.6
BBT30-HDC.500-4	2				1.46	4.00	1.77	2.52	1.50-2.36		HDA12-10032	2.0
BBT30-HDC.625-2.5❖	1	.625	1.496	1.81	—	2.50	.94	—	2.83	1.69	—	1.8
BBT30-HDC.625-4	2				1.81	4.00	1.85	2.52	1.69-2.76		HDA16-12037	2.4
BBT30-HDC.750-2.5◆	3	.750	1.496	2.09	—	2.50	.55	—	1.69-2.24	1.69	HDA16-12030	2.0
BBT30-HDC.750-4					1.77	4.00	1.22	2.09	1.69-2.95		HDA16-12037	2.4
BBT30-HDC1.000-4	3	1.000	2.165	2.48	2.48	4.00	1.61	1.73	2.05-3.15	2.05	HDA25-16039	3.8
BBT30-HDC6-45	1	6mm	1.181	1.81	—	1.77	.28	—	1.38-1.97	1.10	HDA6-05020	1.5
BBT30-HDC6-75	2		1.024	1.79		2.95	1.57		1.10-1.97		HDA6-05032	1.8
BBT30-HDC6-90	3				1.22	3.54	1.69	2.24				
BBT30-HDC6-105						4.13		2.83				2.0
BBT30-HDC7-75	2	7mm	1.063	1.81	—	2.95	1.61	—	1.10-1.97	1.10	HDA6-05032	1.4
BBT30-HDC8-45	1	8mm	1.260	1.81	—	1.77	.28	—	1.38-1.97	1.10	HDA8-06020	1.5
BBT30-HDC8-75	2		1.102	1.79		2.95	1.61		1.10-1.97		HDA8-06032	1.8
BBT30-HDC8-90	3				1.30	3.54	1.73	2.24				2.0
BBT30-HDC8-105						4.13		2.83				
BBT30-HDC9-75	2	9mm	1.142	1.81	—	2.95	1.61	—	1.10-1.97	1.10	HDA8-06032	1.5

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BBT30-HDC10-45	1	10mm	1.339	1.81	—	1.77	.28	—	1.77-2.17	1.30	HDA10-08015	1.5
BBT30-HDC10-75	2		1.181			2.95	1.42		1.30-2.17		HDA10-08032	2.0
BBT30-HDC10-90	3				1.30	3.54		2.01				2.2
BBT30-HDC10-105					1.42	4.13		2.60				
BBT30-HDC11-90	3	11mm	1.220	1.81	1.34	3.54	2.01	1.77	1.30-2.17	1.30	HDA10-08032	1.8
BBT30-HDC12-45	1	12mm	1.417	1.81	—	1.77	.28	—	2.17-2.36	1.50	HDA12-10010●	1.5
BBT30-HDC12-75	2		1.260			2.95	1.42		1.50-2.36		HDA12-10032	1.8
BBT30-HDC12-90	3				1.38	3.54	1.77	2.01				2.0
BBT30-HDC12-105					1.50	4.13		2.64				2.2
BBT30-HDC13-90	3	13mm	1.299	1.81	1.42	3.54	1.77	2.01	1.50-2.36	1.50	HDA12-10032	1.8
BBT30-HDC14-90	3	14mm	1.339	1.81	1.46	3.54	1.81	2.05	1.50-2.36	1.50	HDA12-10032	2.0
BBT30-HDC15-90	2	15mm	1.457	1.81	—	3.54	1.85	—	1.69-2.76	1.69	HDA16-12037	1.9
BBT30-HDC16-45❖	1	16mm	1.654	1.81	—	1.77	.28	—	2.76	1.69	—	1.5
BBT30-HDC16-75	2		1.496			2.95	1.38		1.69-2.76		HDA16-12030	2.0
BBT30-HDC16-90	3					3.54	1.85				HDA16-12037	2.2
BBT30-HDC16-105						4.13						2.3
BBT30-HDC18-90	4	18mm	1.417	2.01	1.73	3.54	1.22	1.61	1.69-2.76	1.69	HDA16-12037	2.0
BBT30-HDC20-60◆	4	20mm	1.496	2.09	—	2.36	—	.55	1.69-2.13	1.69	HDA16-12030	2.0
BBT30-HDC20-75					1.81	2.95	.63	1.02	1.81-2.76			
BBT30-HDC20-90						3.54	1.22	1.61	1.69-2.76		HDA16-12037	2.4
BBT30-HDC20-105	3			1.81	—	4.13	1.57	—				2.2
BBT30-HDC25-105	4	25mm	2.165	2.48	—	4.13	1.73	—	2.05-3.15	2.05	HDA25-16039	3.8
BBT30-HDC32-105	4	32mm	2.362	2.95	—	4.13	1.54	—	2.20-3.15	2.20	HDA25-16039	4.0

- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖
- Straight collets cannot be used with models marked ◆
- In case the projection length needs to be adjusted from the shank side, add the letter "W" to adjusting screw model number for hexagon sockets on both sides (ex: HDA6-05020W), adjusting screw with ● indication is not available in W type

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

ACCESSORIES



HYDRAULIC CHUCK

CLAMPING RANGE: ø.250"-1.250" (ø6-20mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

MAX 40,000 RPM

COOLANT THROUGH

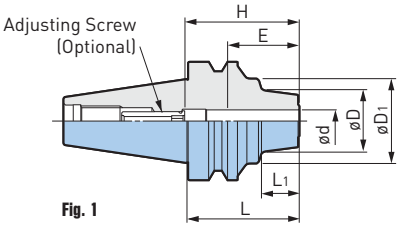


Fig. 1

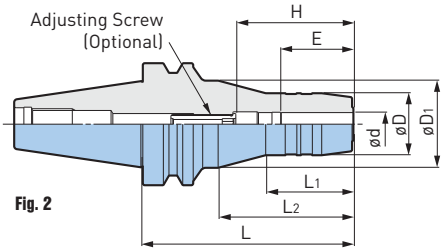


Fig. 2

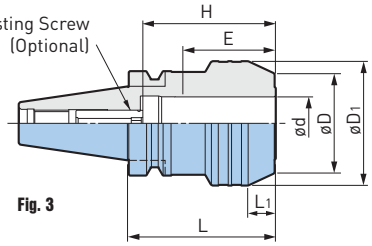


Fig. 3

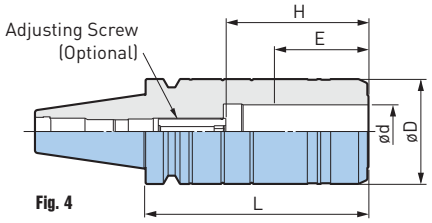


Fig. 4

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

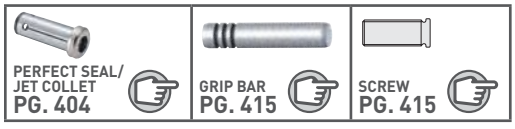
Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BBT40-HDC.250-2.5	1	.250	1.024	1.77	2.50	.91	—	1.10-1.97	1.10	HDA6-05032	2.7
BBT40-HDC.250-4	2				4.00	1.73	2.44				3.3
BBT40-HDC.250-5.5					5.50		3.94				4.0
BBT40-HDC.375-2.5	1	.375	1.260	1.77	2.50	.94	—	1.30-2.17	1.30	HDA10-08032	2.9
BBT40-HDC.375-4	2		1.181		4.00	1.77	2.44				3.3
BBT40-HDC.375-5.5					5.50		3.94				4.2
BBT40-HDC.500-2.5	1	.500	1.299	1.77	2.50	.71	—	1.50-2.36	1.50	HDA12-10032	2.9
BBT40-HDC.500-4	2				4.00	1.81	2.44				3.6
BBT40-HDC.500-5.5					5.50		3.94				4.2
BBT40-HDC.625-3	1	.625	1.496	1.77	3.00	1.42	—	1.69-2.76	1.69	HDA16-12037	3.1
BBT40-HDC.625-4	2				4.00	1.85	2.40				3.6
BBT40-HDC.625-5.5					5.50		3.90				4.2
BBT40-HDC.750-3	2	.750	1.654	2.09	3.00	1.34	—	1.69-2.76	1.69	HDA16-12037	3.3
BBT40-HDC.750-4				1.97	4.00	1.85	2.44				3.8
BBT40-HDC.750-5.5					5.50		3.94				4.7
BBT40-HDC1.000-3	2	1.000	2.165	2.48	3.00	.98	1.10	2.05-3.15	2.05	HDA25-16033	4.2
BBT40-HDC1.000-5					5.00					HDA25-16039	6.4
BBT40-HDC1.250-3.5	3	1.250	2.953	—	3.50	.63	—	2.20-3.15	2.20	HDA25-16039	5.1
BBT40-HDC1.250-5	4		2.480		5.00	—					6.2
BBT40-HDC6-60	1	6mm	1.063	1.77	2.36	.75	—	1.10-1.97	1.10	HDA6-05032	2.7
BBT40-HDC6-90	2		1.024		3.54	1.73	1.97				3.0
BBT40-HDC6-110					4.33		2.76				3.3
BBT40-HDC6-135					5.31		3.74				3.6
BBT40-HDC6-165					6.50		4.69				4.2

Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BBT40-HDC7-90	2	7mm	1.063	1.77	3.54	1.73	1.97	1.10-1.97	1.10	HDA6-05032	2.9
BBT40-HDC8-60	1		1.142		2.36	.75	—				2.7
BBT40-HDC8-90					3.54		1.97				3.0
BBT40-HDC8-110	2	8mm	1.102	1.77	4.33	1.73	2.76	1.10-1.97	1.10	HDA8-06032	3.3
BBT40-HDC8-135					5.31		3.74				3.8
BBT40-HDC8-165					6.50		4.69				4.3
BBT40-HDC9-90	2	9mm	1.142	1.77	3.54	1.77	1.97	1.10-1.97	1.10	HDA8-06032	3.1
BBT40-HDC10-60	1		1.220		2.36	.79	—				2.7
BBT40-HDC10-90					3.54		1.97				3.0
BBT40-HDC10-110	2	10mm	1.181	1.77	4.33	1.77	2.76	1.30-2.17	1.30	HDA10-08032	3.3
BBT40-HDC10-135					5.31		3.74				3.8
BBT40-HDC10-165					6.50		4.69				4.3
BBT40-HDC11-90	2	11mm	1.220	1.77	3.54	1.77	1.97	1.30-2.17	1.30	HDA10-08032	3.1
BBT40-HDC12-60	1		1.299		2.36	.79	—				2.7
BBT40-HDC12-90					3.54		1.93				3.0
BBT40-HDC12-110	2	12mm	1.260	1.77	4.33	1.77	2.72	1.50-2.36	1.50	HDA12-10032	3.4
BBT40-HDC12-135					5.31		3.70				3.9
BBT40-HDC12-165					6.50		4.69				4.3
BBT40-HDC13-90	2	13mm	1.299	1.77	3.54	1.85	1.93	1.50-2.36	1.50	HDA12-10032	3.1
BBT40-HDC14-90					3.54		1.93				3.0
BBT40-HDC14-110	2	14mm	1.339	1.77	4.33	1.81	2.72	1.50-2.36	1.50	HDA12-10032	3.4
BBT40-HDC14-135					5.31		3.70				3.9
BBT40-HDC15-90	2	15mm	1.457	1.77	3.54	1.85	1.93	1.69-2.76	1.69	HDA16-12037	3.1
BBT40-HDC16-75					2.95	1.38	1.42				2.9
BBT40-HDC16-90				1.77	3.54		1.93				3.1
BBT40-HDC16-110	2	16mm	1.496		4.33	1.85	2.72	1.70-2.76	1.70	HDA16-16037	3.5
BBT40-HDC16-135					5.31		3.70				4.1
BBT40-HDC16-165				1.97	6.50		4.69				5.1
BBT40-HDC18-90					3.54		1.93				3.2
BBT40-HDC18-110	2	18mm	1.575	1.77	4.33	1.89	2.72	1.70-2.76	1.70	HDA16-12037	3.5
BBT40-HDC18-135					5.31		3.70				4.1
BBT40-HDC20-90				1.77	3.54		1.97				3.1
BBT40-HDC20-110	2	20mm	1.654		4.33	1.89	2.76	1.70-2.76	1.70	HDA16-12037	3.8
BBT40-HDC20-135				1.97	5.31		3.74				4.3
BBT40-HDC20-165					6.50		4.69				5.2

• In case the projection length needs to be adjusted from the shank side, add the letter "W" to adjusting screw model number for hexagon sockets on both sides

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

ACCESSORIES



HYDRAULIC CHUCK (HIGH RIGIDITY TYPE)

CLAMPING RANGE: ø20-32mm

Substantial body design to allow high-feed end milling, achieving highly reliable machining.

COOLANT THROUGH

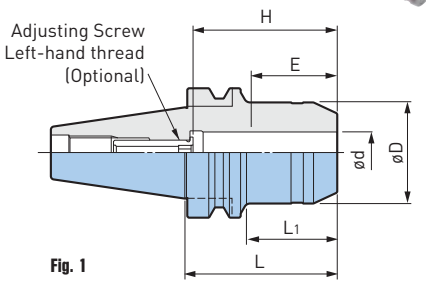


Fig. 1

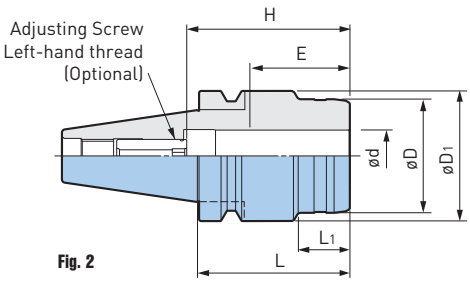


Fig. 2

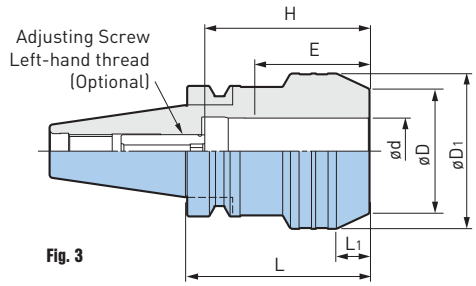


Fig. 3

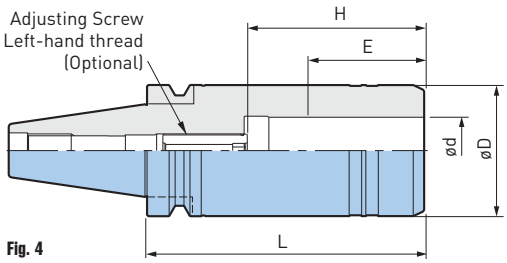


Fig. 4

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
BBT40-HDC20E-75	1	20mm	1.929	—	2.95	1.77	1.70-2.76	1.70	HDA16-12037	3.1
BBT40-HDC25E-75	2	25mm	2.165	2.48	2.95	.98	2.05-3.15	2.05	HDA25-16033	4.0
BBT40-HDC25E-110					4.33				HDA25-16039	5.2
BBT40-HDC25E-135					5.31					6.5
BBT40-HDC25E-165					6.50					7.8
BBT40-HDC32E-90	3	32mm	2.362	2.95	3.54	.63	2.20-3.17	2.20	HDA25-16039	4.8
BBT40-HDC32E-110	2				4.33					5.6
BBT40-HDC32E-135	4		2.480	—	5.31	—	2.20-3.35			6.2
BBT40-HDC32E-165				2.48	6.50					7.1

- "H" indicates the adjustment length with an adjusting screw
- In case the projection length needs to be adjusted from the shank side, add the letter "W" to adjusting screw model number for hexagon sockets on both sides

ACCESSORIES

PERFECT SEAL/ JET COLLET PG. 404

GRIP BAR PG. 415

SCREW PG. 415

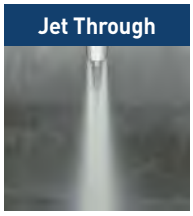
Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".


Min.30mm
LOCK

HYDRAULIC CHUCK (JET COOLANT TYPE)

CLAMPING RANGE: ø.250"-.500" (ø4-32mm)

Coolant Holes Through Body of Holder



COOLANT THROUGH

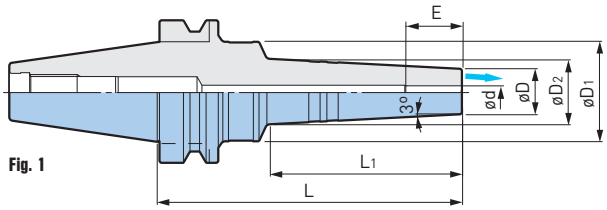


Fig. 1

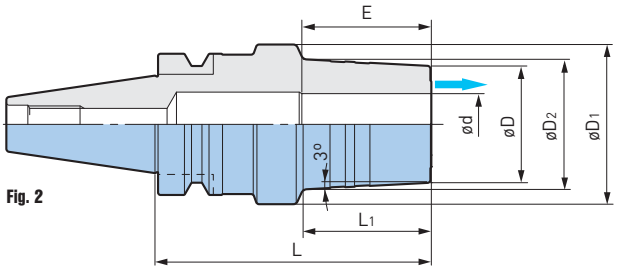


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

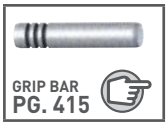
Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	Min Clamping Length E	Weight (lbs.)
BBT30-HDC.250J-3.5	1	.250	.790	1.66	1.00	3.50	1.92	.99	1.5
BBT30-HDC.375J-3.5		.375	.950	1.74	1.16		1.93	1.30	1.6
BBT30-HDC.500J-3.5		.500	1.070	1.82	1.28		1.94	1.42	1.7
BBT30-HDC4J-60		4mm	.787	1.81	.91	2.36	1.10	.75	1.3
BBT30-HDC4J-90				1.65	1.02	3.54	1.97	.75	1.5
BBT30-HDC6J-90		6mm			1.02			.98	1.5
BBT30-HDC8J-90		8mm	.866		1.10			1.18	1.5
BBT30-HDC10J-90		10mm	.945	1.73	1.18			1.26	1.8
BBT30-HDC12J-90		12mm	1.024	1.81	1.26			1.38	1.8
BBT30-HDC16J-90		16mm	1.339		1.57		1.93	1.65	2.0
BBT30-HDC20J-90	2	20mm	1.496	2.05	1.69		1.57		2.4

• HDC6J (.250") to HDC12J (.500") models allow jet through coolant to be switched to center-through by assembling accessory plug screw

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	Min Clamping Length E	Weight (lbs.)
BBT40-HDC4J-90	1	4mm	.787	1.50	.98	3.54	1.77	.75	2.9
BBT40-HDC4J-135				1.73	1.18	5.31	3.35		3.3
BBT40-HDC6J-90		6mm	.787	1.50	.98	3.54	1.77	.98	2.9
BBT40-HDC6J-135				1.73	1.14	5.31	3.35		3.3
BBT40-HDC6J-165				1.81	1.26	6.50	4.13		3.7
BBT40-HDC8J-90		8mm	.866	1.57	1.06	3.54	1.77	1.18	2.9
BBT40-HDC8J-135				1.81	1.22	5.31	3.35		3.5
BBT40-HDC8J-165				1.89	1.34	6.50	4.13		4.0
BBT40-HDC10J-90		10mm	.945	1.65	1.14	3.54	1.77	1.26	2.9
BBT40-HDC10J-135				1.89	1.30	5.31	3.35		3.5
BBT40-HDC10J-165				1.97	1.42	6.50	4.13		4.2
BBT40-HDC12J-90		12mm	1.024	1.73	1.22	3.54	1.77	1.38	2.9
BBT40-HDC12J-135				1.97	1.38	5.31	3.35		3.7
BBT40-HDC12J-165				2.05	1.50	6.50	4.13		4.4
BBT40-HDC16J-90		16mm	1.339	1.81	1.57	3.54	1.81	1.65	3.1
BBT40-HDC16J-135				1.97	1.73	5.31	3.50		4.2
BBT40-HDC20J-90		20mm	1.496	1.89	1.73	3.54	1.85	1.65	3.3
BBT40-HDC20J-135				2.09	1.89	5.31	3.54		4.4
BBT40-HDC25J-90		25mm	2.008	2.48	2.20	3.54	1.61	1.93	4.2
BBT40-HDC32J-90	2	32mm	2.322	2.95	—		.79	2.20	5.1
BBT50-HDC4J-120	1	4mm	.787	1.89	1.02	4.72	2.17	.75	8.8
BBT50-HDC6J-120		6mm	.787	1.89	1.02			.98	9.0
BBT50-HDC8J-120		8mm	.866	1.97	1.10			1.22	9.0
BBT50-HDC10J-120		10mm	.945	2.05	1.18			1.30	9.3
BBT50-HDC12J-120		12mm	1.024	2.13	1.26			1.42	9.3
BBT50-HDC16J-120		16mm	1.339	2.28	1.61		2.20	1.69	9.7
BBT50-HDC20J-120		20mm	1.496	2.44	1.77				9.9
BBT50-HDC25J-120		25mm	1.890	2.76	2.28		2.32	1.93	11.5
BBT50-HDC32J-120		32mm	2.283	3.07	2.64		2.36	2.20	12.3

• Adjusting screws cannot be used

ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

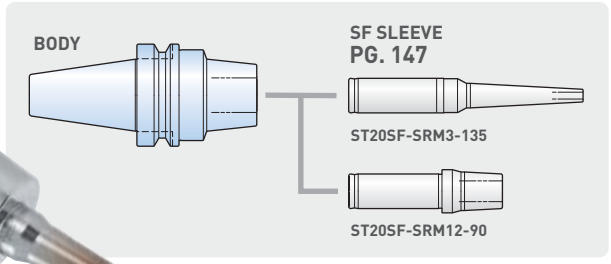
SF HYDRAULIC CHUCK

HYDRAULIC CHUCK + SF SLEEVE (Shrink Fit Type)

Achieve maximum flexibility by combining the SF HYDRAULIC CHUCK with an SF SLEEVE. This modular setup allows easy adaptation to various machining configurations. It is especially effective for reducing interference in mold applications and 5-axis machining, where space is limited.

NEW Product

COOLANT THROUGH



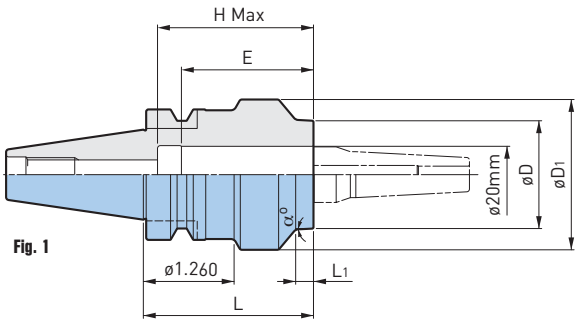


Fig. 1

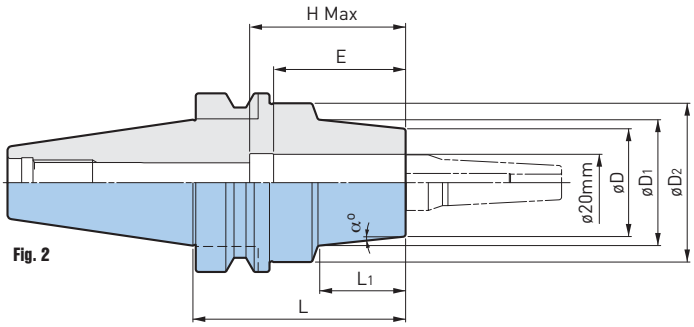


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	øD	øD1	øD2	L	L1	H Max	Min Clamping Length E	α°	Weight (lbs.)
BBT30-HDC20SF-60	1	1.496	2.087	—	2.362	.197	2.16	1.89	3	1.6
BBT40-HDC20SF-75	2	1.496	1.772	2.205	2.953	1.181	2.16	1.89	6	3.1

Do not tighten the clamping screw without first inserting a SF SLEEVE into the tool holder. Always insert the SF SLEEVE into the hydraulic tool holder beyond min. clamping length.

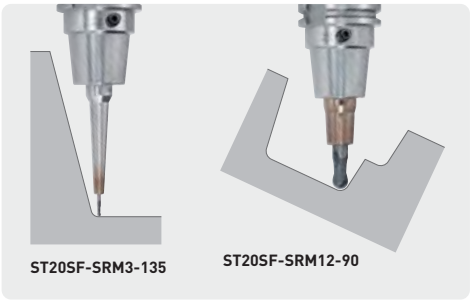
ACCESSORIES

SF SLEEVE

Stainless Steel: ø3mm-4mm

Die Steel: ø6mm-12mm

NEW Product



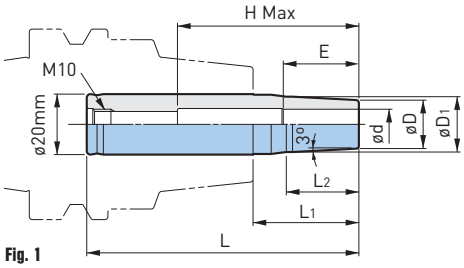


Fig. 1

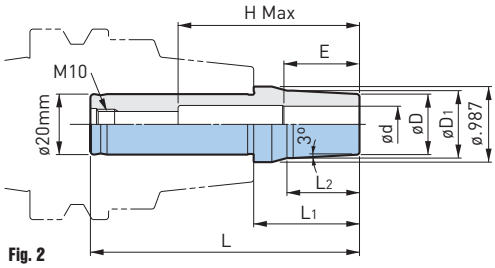


Fig. 2

Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H Max	Min Clamping Length E	Weight (lbs.)
ST20SF-SRM3-90❖	1	3mm	.295	.38	3.54	1.38	.87	—	.35	.3
ST20SF-SRM3-110❖				.46	4.33	2.17	1.65			.4
ST20SF-SRM3-135❖				.56	5.31	3.15	2.64			.4
ST20SF-SRM4-90❖		4mm	.394	.48	3.54	1.38	.87		.47	.3
ST20SF-SRM4-110❖				.56	4.33	2.17	1.65			.4
ST20SF-SRM4-135❖				.66	5.31	3.15	2.64			.5
ST20SF-SRM6-90		6mm	.472	.56	3.54	1.38	.87		.71	.3
ST20SF-SRM6-110				.64	4.33	2.17	1.65			.4
ST20SF-SRM6-135				—	5.31	3.15	—			.5
ST20SF-SRM8-90		8mm	.551	.63	3.54	1.38	.87		.79	.3
ST20SF-SRM8-110				.72	4.33	2.17	1.65			.4
ST20SF-SRM8-135				—	5.31	3.15	—			.5
ST20SF-SRM10-90		10mm	.630	.72	3.54	1.38	.94	2.36	.98	.3
ST20SF-SRM10-110				—	4.33	2.17	—			.4
ST20SF-SRM10-135					5.31	3.15	—			.5
ST20SF-SRM12-90	2	12mm	.787	.88	3.50	1.38	.94			.4
ST20SF-SRM12-110				—	4.29	2.17	—			.5
ST20SF-SRM12-135					5.28	3.15	—			.7

- Use a carbide tool shank with a tolerance of h6 or less
- Models marked ❖ are made of stainless steel
- L_1 is the dimension when the SF Sleeve is inserted into the SF HYDRAULIC CHUCK until it bottoms out

Do not heat SF SLEEVE while it is clamped with a hydraulic chuck.
Please refer to the operation manual of heating / cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER

CLAMPING RANGE: ø4-20mm

COOLANT THROUGH

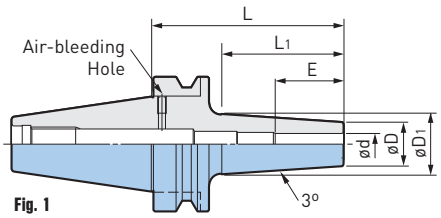


Fig. 1

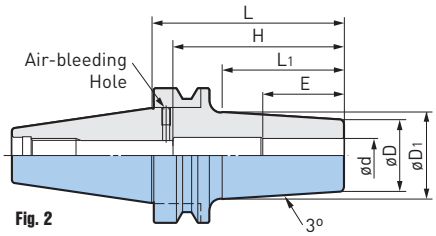


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	Min Clamping Length E	G	Weight (lbs.)
BBT30-SRC4-75❖	1	4mm	.394	.57	3.00	1.73	—	.63	—	1.0
BBT30-SRC6-75		6mm	.551	.75		1.85		1.02		1.0
BBT30-SRC8-75		8mm	.709	.91						1.1
BBT30-SRC10-75	2	10mm	.866	1.06			2.44	1.26	—	1.2
BBT30-SRC12-75		12mm	.945	1.14			2.83	1.42		1.3
BBT30-SRC16-75		16mm	1.102	1.30		1.89	3.15	1.50		1.4
BBT40-SRC4-90❖	1	4mm	.394	.61	3.54	2.05	—	.63	—	2.3
BBT40-SRC6-90		6mm	.551	.79		2.24		1.02		2.4
BBT40-SRC6-150				1.02	5.91	4.49				2.8
BBT40-SRC8-90		8mm	.709	.94	3.54	2.24				2.5
BBT40-SRC8-150				1.18	5.91	4.49				3.0
BBT40-SRC10-90		10mm	.866	1.10	3.54	2.24		1.26		2.6
BBT40-SRC10-150				1.34	5.91	4.57				3.3
BBT40-SRC12-90		12mm	1.102	1.18	3.54	2.24		1.42		2.6
BBT40-SRC12-150				1.42	5.91	4.57				3.4
BBT40-SRC16-90	2	16mm	1.102	1.34	3.54	2.24	3.15	1.50	—	2.8
BBT40-SRC16-165				1.65	6.50	5.20				4.0
BBT40-SRC20-90		20mm	1.339	1.57	3.54	2.24	3.94	1.65		3.0
BBT40-SRC20-165				1.89	6.50	5.20				4.6

- Use a carbide shank cutter within a tolerance of h6
- Use a carbide shank cutter within a tolerance of h5 with models marked ❖
- Center-through coolant supply is available with tools with oil holes
- Allows jet-through coolant to be switched to center-through by assembling the accessory plug screw; applies to inch sizes only
- "H" dimension is the Max tool shank length that can be inserted into the holder

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER (JET THROUGH TYPE)

CLAMPING RANGE: ø.250"-1.000"

COOLANT THROUGH

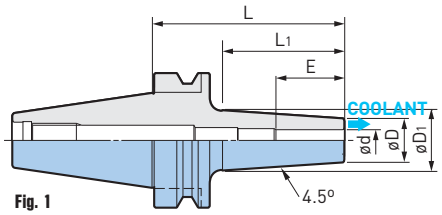


Fig. 1

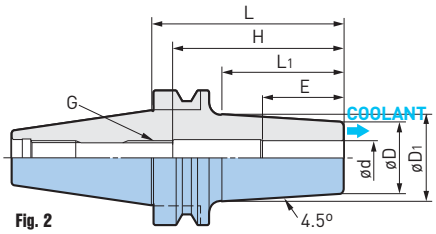


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	Min Clamping Length E	G	Weight (lbs.)
BBT30-SFC.250-3	1	.250	.827	1.06	3.00	2.06	—	.61	—	1.2
BBT30-SFC.375-3		.375	.945	1.26				1.22		1.3
BBT30-SFC.500-3	2	.500					1.81	1.42	M10 P1	1.3
BBT30-SFC.625-3		.625	1.063	1.34			1.93	1.54	M12 P1	1.3
BBT30-SFC.750-3		.750	1.299	1.63		2.10	2.24	1.84	M12 P1	1.6
BBT40-SFC.250-3.5	1	.250	.827	1.06	3.50	2.40	—	.87	—	2.6
BBT40-SFC.375-3.5		.375	.945	1.26				1.22		2.7
BBT40-SFC.500-3.5	2	.500	.945	1.26			1.81	1.42	M10 P1	2.7
BBT40-SFC.625-3.5		.625	1.063	1.34			1.93	1.54	M12 P1	2.8
BBT40-SFC.750-4		.750	1.299	1.65	4.00	2.90	2.24	1.85	M16 P1	3.2
BBT40-SFC1.000-4		1.000	1.732	2.09					M16 P1	4.0

- Use a carbide shank cutter within a tolerance of h6
- Use a carbide shank cutter within a tolerance of h5 with models marked ❖
- Center-through coolant supply is available with tools with oil holes
- Allows jet-through coolant to be switched to center-through by assembling the accessory plug screw; applies to inch sizes only
- "H" dimension is the Max tool shank length that can be inserted into the holder

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER (SLIM TYPE)

CLAMPING RANGE: ø6-12mm

COOLANT THROUGH

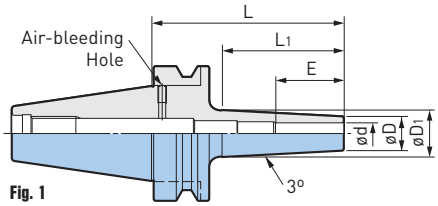


Fig. 1

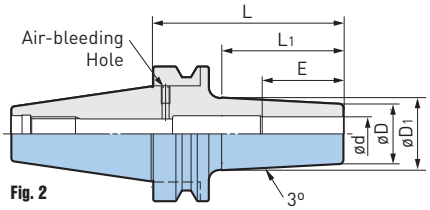


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	øD1	L	L1	Min Clamping Length E	Weight (lbs.)
BBT30-SRC6S-105	1	6mm	.394	.71	4.13	3.03	1.02	1.1
BBT30-SRC8S-105		8mm	.512	.83				1.1
BBT30-SRC10S-105	2	10mm	.630	.94			1.26	1.2
BBT30-SRC12S-105		12mm	.748	1.06			1.42	1.3
BBT40-SRC6S-120	1	6mm	.394	.75	4.72	3.39	1.02	2.4
BBT40-SRC6S-165				.93	6.50	5.00		2.7
BBT40-SRC8S-120		8mm	.512	.87	4.72	3.39		2.5
BBT40-SRC8S-165				1.04	6.50	5.08		2.8
BBT40-SRC10S-120		10mm	.630	.98	4.72	3.39	1.26	2.6
BBT40-SRC10S-165				1.16	6.50	5.08		3.0
BBT40-SRC12S-120		12mm	.748	1.10	4.72	3.43	1.42	2.7
BBT40-SRC12S-165				1.30	6.50	5.16		3.2

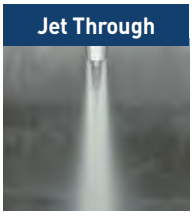
- Use a carbide shank cutter within a tolerance of h6
- Center-through coolant supply is available with tools with oil holes

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

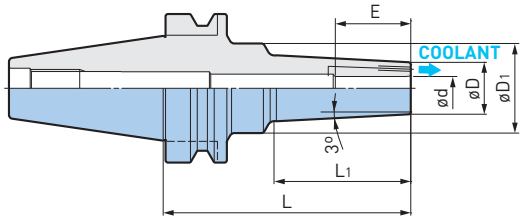
SHRINK FIT HOLDER (SLIM JET THROUGH TYPE)

CLAMPING RANGE: ø.236"-.472"

Coolant is securely supplied to cutting edge periphery from chuck nose.



COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	øD1	L	L1	Min Clamping Length E	Weight (lbs.)
BBT40-SRC6J-105	.236	.630	1.26	4.13	2.17	1.02	2.9
BBT40-SRC8J-105	.315	.748	1.38				2.9
BBT40-SRC10J-105	.394	.866	1.50		2.28	1.26	3.1
BBT40-SRC12J-105	.472	.945	1.57		2.48	1.42	3.1
BBT50-SRC6J-165	.236	.630	1.65	6.50	3.66	1.02	9.0
BBT50-SRC8J-165	.315	.748	1.77		3.90		9.3
BBT50-SRC10J-165	.394	.866	1.89		4.06	1.26	9.5
BBT50-SRC12J-165	.472	.945	1.97		4.25	1.42	9.5

• Use a carbide shank cutter within a tolerance of h6

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

END MILL HOLDER

CLAMPING RANGE: ø.250"-1.250" (ø6-32mm)

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

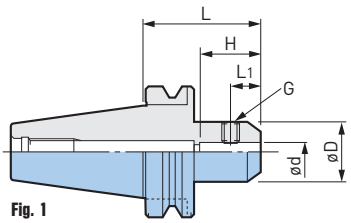


Fig. 1

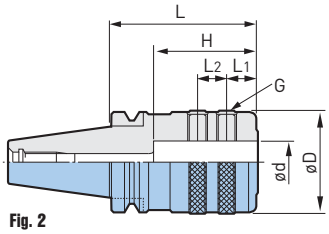


Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	L2	H	G	Weight (lbs.)
BBT30-EM.250-2.5	1	.250	.88	2.50	.44	—	1.10	1/4"-28	1.3
BBT30-EM.375-2.5		.375	1.00		.75		1.77	3/8"-24	1.5
BBT30-EM.500-2.5		.500	1.38		.87		3.00	7/16"-20	1.8
BBT30-EM.625-2.5		.625	1.63		.94		2.69	916"-18	1.8
BBT30-EM.750-3		.750	1.75	3.00	1.00		2.75	5/8"-18	1.8
BBT30-ISL6-60	1	6mm	.98	2.36	.71	—	3.35	M6	1.3
BBT30-ISL8-60		8mm	1.10					M8	1.3
BBT30-ISL10-60		10mm	1.38		.79		1.77	M10	1.5
BBT30-ISL12-60		12mm	1.65		.89		1.89	M12	1.8
BBT30-ISL16-60		16mm	1.89		.94		2.09	M14	1.8
BBT40-EM.500-3	1	.500	1.38	3.00	.87	—	3.00	7/16"-20	2.8
BBT40-EM.625-3		.625	1.63		.94		3.50	9/16"-18	2.9
BBT40-EM.750-4		.750	1.75	4.00	1.00		3.88	5/8"-18	3.6
BBT40-EM1.000-4	2	1.000	2.25		1.13	1.00	3.13	3/4"-16	4.5
BBT40-EM1.250-4		1.250	2.75		1.13				5.6
BBT40-ISL6-75	1	6mm	.98	2.95	.71	—	3.54	M6	2.6
BBT40-ISL8-75		8mm	1.10			—		M8	2.6
BBT40-ISL10-75		10mm	1.38		.79	—		M10	2.6
BBT40-ISL12-75		12mm	1.65		.89	—	4.33	M12	3.3
BBT40-ISL16-75		16mm	1.89		.94		2.09	M14	3.3
BBT40-ISL20-75		20mm	2.05		.98		2.17	M16	3.5
BBT40-ISL25-90	2	25mm	2.50	3.54	.94	.98	2.36	M18 P2.0	4.6
BBT40-ISL32-105		32mm	2.83	4.13	.94	1.10	3.23	M20 P2.0	6.4

- For high speed applications MEGA DOUBLE POWER CHUCKS are recommended instead of end mill holders

BIG genuine side lock screws must be used as they are made to an exclusive design and different from other screws on the market.

ACCESSORIES

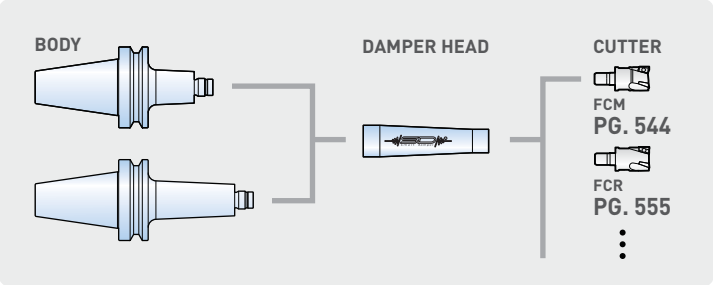
SET SCREW PG. 434

SMART DAMPER SCREW-ON HOLDER

The dynamic damper ensures effective vibration damping even with screw-on tool assembly. The tapered body design maximizes rigidity while minimizing interference.

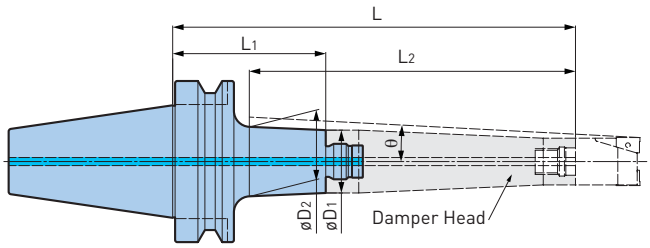
NEW Product

COOLANT THROUGH



Damper head becomes unremovable from the basic holder once they are used for machining after assembled.

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	øD1	øD2	L	L1	L2	θ	Weight (lbs.)	Damper Head Model
BBT50-SDF20-39-95T	1.535	1.697	9.843	3.740	7.969	2°	9.3	SDF20-M16DP-29-155T
BBT50-SDF20-39-145T		1.870	11.811	5.709	9.937		10.6	
BBT50-SDF28-50-70T	1.969	2.051	9.843	2.756	8.043	2°	9.3	SDF28-M16DP-38-180T
BBT50-SDF28-50-120T		2.217	11.811	4.724	9.937		11.2	
BBT50-SDF28-50-170T		2.390	13.780	6.693	11.906		13.7	

(DAMPER HEAD)

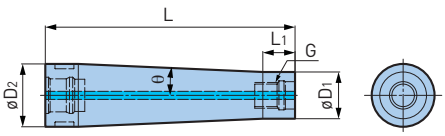


Fig. 1

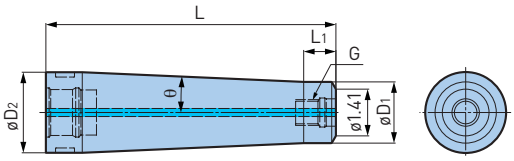


Fig. 2

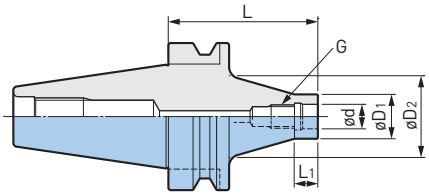
Catalog Number	Fig.	øD1	øD2	L	L1	θ	G	Weight (lbs.)
SDF20-M16DP-29-155T	1	1.142	1.535	6.102	.787	2.5°	M16	2.6
SDF28-M16DP-38-180T	2	1.496	1.969	7.087	.787	2.5°	M16	3.3

- For how to mount the basic holder, see the operation manual
- The weight does not include the cutter
- Using cutter with cutting diameter more bigger than the øD1 in the table
- Hook wrench for damper head tightening is included
- The spanner for cutter head is not included

SCREW-ON HOLDER

Arbor for General Screw-On Type Cutters

COOLANT THROUGH



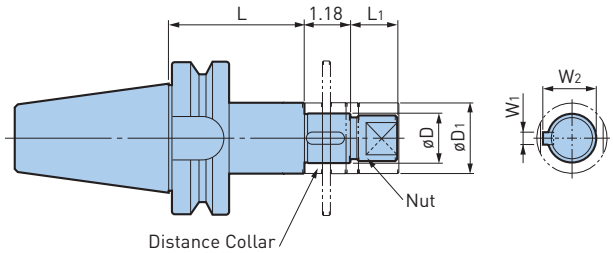
Catalog Number	ød	øD1	øD2	L	L2	G	Weight (lbs.)
BBT30-M8-15-50	.335	.591	1.181	1.969	.394	M8	1.0
BBT30-M10-19-45	.413	.748	1.378	1.772		M10	1.0
BBT30-M12-24-40	.492	.945	1.575	1.575		M12	1.0
BBT30-M16-29-35	.669	1.142		1.378		M16	.9
BBT40-M8-15-70	.335	.591	1.181	2.756	.394	M8	2.4
BBT40-M8-15-115			1.260	4.528			2.9
BBT40-M10-19-65	.413	.748	1.378	2.559		M10	2.4
BBT40-M10-19-110				4.331			2.9
BBT40-M12-24-60	.492	.945	1.575	2.362		M12	2.4
BBT40-M12-24-105				4.134			3.1
BBT40-M16-29-55	.669	1.142	1.772	2.165		M16	2.6
BBT40-M16-29-100				3.937			3.3

ACCESSORIES

FULLCUT MILL SCREW-ON
PG. 544/555

SIDE CUTTER ARBOR

Arbor for JIS Standard Side Cutters and Slitting Saws



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øD (h6)	øD1	W2	W1	L	L1	Weight (lbs.)
BBT40-SCA25.4-75	1.000	1.575	1.094	.250	2.95	.98	4.2
BBT40-SCA25.4-120					4.72		5.1
BBT40-SCA31.75-75	1.250	1.811	1.375	.312	2.95	1.18	5.3
BBT50-SCA25.4-90	1.000	1.575	1.094	.250	3.54	.98	10.4
BBT50-SCA25.4-135					5.31		11.2
BBT50-SCA31.75-90	1.250	1.811	1.375	.312	3.54	1.18	11.2
BBT50-SCA31.75-135					5.31		12.6
BBT50-SCA38.1-90	1.500	2.165	1.656	.375	3.54	1.42	12.8
BBT50-SCA38.1-135					5.31		15.0

- Nut is included
- Distance collars of 5mm, 8mm, 10mm and 12mm are included

DISTANCE COLLAR

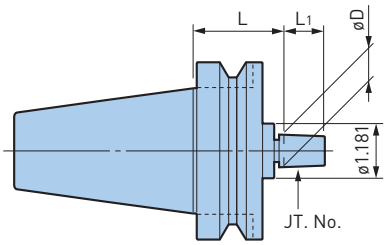
For Side Cutter Arbor

Body Model	**SCA25.4**	**SCA31.75**	**SCA38.1**
Thickness	Distance Collar Model		
.197 (5mm)	**SC254C5**	**SC3175C5**	**SC381C5**
.315 (8mm)	**SC254C8**	**SC3175C8**	**SC381C8**
.394 (10mm)	**SC254C10**	**SC3175C10**	**SC381C10**
.472 (12mm)	**SC254C12**	**SC3175C12**	**SC381C12**

JACOBS TAPER ARBOR

CLAMPING RANGE: ø.630"-1.969" (ø16-50mm)

Holder for mounting keyless chuck or rubber chuck.



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

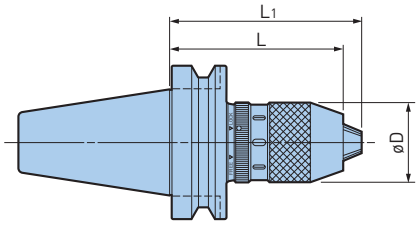
Catalog Number	JT.No.	øD	L	L1	Weight (lbs.)
BBT30-JTA1-30	.039	.384	1.181	.591	1.0
BBT30-JTA6-30	.236	.676		.945	1.1
BBT40-JTA1-45	.039	.384	1.772	.591	2.6
BBT40-JTA1-105			4.134		3.3
BBT40-JTA6-45	.236	.676	1.772	.945	2.6
BBT40-JTA6-105			4.134		3.5
BBT50-JTA6-45	.236	.676	1.772	.945	8.8
BBT50-JTA6-105			4.134		9.3

- Drill chuck is not included

SUPER KEYLESS CHUCK (INTEGRAL HOLDER TYPE)

CLAMPING RANGE: ø.020"-.512" (ø.5-13mm)

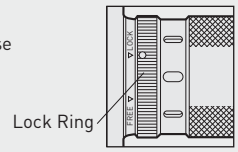
Securely chucks the drill with simple operation.



Reverse Lock Mechanism (SKL13)

No loosening even when the main spindle suddenly stops, by the reverse lock mechanism using a lock ring.

Runout Accuracy Within .05mm



Catalog Number	Clamping Diameter	øD	L	L1	Weight (lbs.)	Wrench
BBT30-SKL13-110	ø.020-ø.512	2.008	4.331	4.823	3.2	FS13LC
BBT40-SKL13-105			4.173	4.665	4.2	
BBT50-SKL13-115			4.528	5.020	9.7	
BBT30-KLC6.5-70	ø.020-ø.256	1.339	2.756	3.012	1.4	FS6.5LC
BBT40-KLC6.5-75			2.953	3.209	2.6	

- Hook wrench is included
- KLC type does not have the reverse lock mechanism

SIDE LOCK DRILL HOLDER

CLAMPING RANGE: ø.630"-1.575" (ø16-40mm)

COOLANT THROUGH

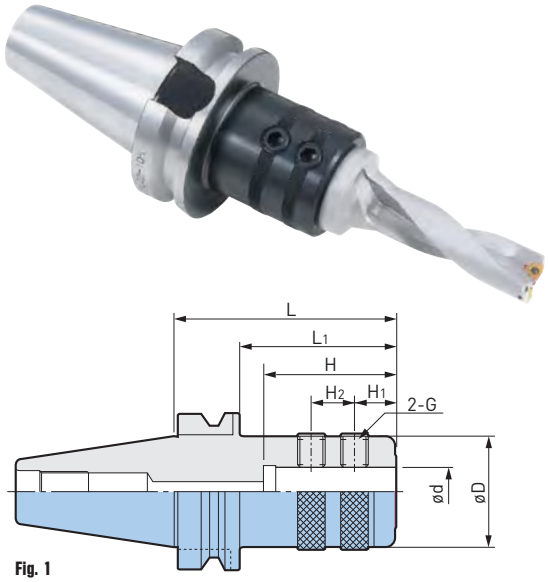


Fig. 1

BIG-PLUS Taper Catalog Number	Standard Taper Catalog Number	ød	øD	L	L1	H	H1	H2	G	Weight (lbs.)
BBT30-TSL16-75	—	16mm	1.890	2.953	—	1.890	.551	.551	M10	2.3
BBT30-TSL20-75		20mm				1.969				2.2
BBT30-TSL25-80		25mm		3.150		2.205	.591	.787	M16	2.1
BBT30-TSL32-85		32mm	2.480	3.346		2.362				3.0
BBT40-TSL16-90	**BT40-TSL16-90**	16mm	1.890	3.543	2.480	1.890	.551	.551	M10	3.7
BBT40-TSL16-105	—			4.134	3.071					4.2
BBT40-TSL20-90	**BT40-TSL20-90**	20mm	1.890	3.543	2.480	1.969	.551	.551	M10	3.7
BBT40-TSL20-105	—			4.134	3.071					4.2
BBT40-TSL25-90	**BT40-TSL25-90**	25mm	1.890	3.543	2.480	2.205	.591	.787	M16	3.5
BBT40-TSL25-105	**BT40-TSL25-105**			4.134	3.071					4.0
BBT40-TSL32-105	**BT40-TSL32-105**	32mm	2.480	4.134	3.071	2.362	.591	.787	M16	5.3
BBT40-TSL32-135	—			5.315	4.252					6.6
BBT40-TSL40-105	**BT40-TSL40-105**	40mm	2.677	4.314	—	2.756	.591	.984	M16	5.3

- BT shank models with "—" are not available; please choose BBT shank models
- Not compatible with Weldon DIN 1835B

ACCESSORIES

REDUCTION COLLET PG. 409

MORSE TAPER HOLDER

Precise finish of the Morse taper bore provides stable runout accuracy.

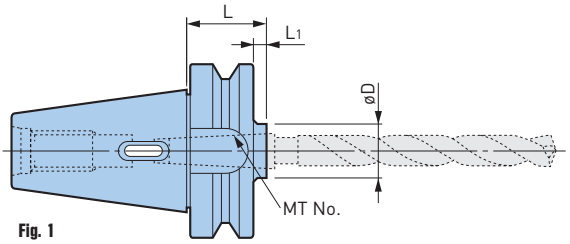


Fig. 1

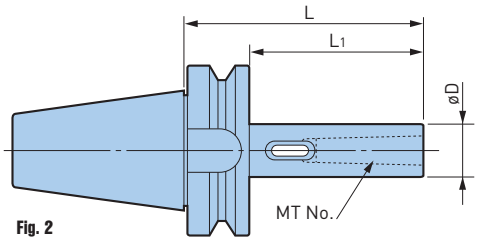


Fig. 2

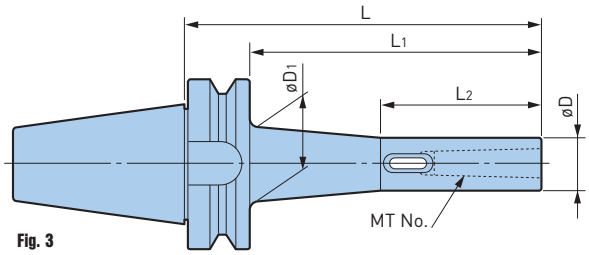


Fig. 3

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

BIG-PLUS Taper Catalog Number	Standard Taper Catalog Number	Fig.	MT	øD	øD1	L	L1	L2	Weight (lbs.)	Reference Drill Dia. (JIS B4302 1)
BBT30-MTA1-60	**BT30-MTA1-60**	1	1	.984	—	2.36	1.50	—	1.1	.118-.551
BBT30-MTA2-60	**BT30-MTA2-60**		2	1.260		2.36	1.50		1.2	.571-.906
BBT30-MTA3-80	**BT30-MTA3-80**		3	1.575		3.15	2.28		1.6	.925-1.240
BBT40-MTA1-45	**BT40-MTA1-45**	1	1	.984	—	1.77	.71	—	2.2	.118-.551
BBT40-MTA1-120	**BT40-MTA1-120**	2				4.72	3.66		2.9	
BBT40-MTA2-45	**BT40-MTA2-45**	1	2	1.260	—	1.77	.71	—	2.2	.571-.906
BBT40-MTA2-120	**BT40-MTA2-120**	2				4.72	3.66		3.5	
BBT40-MTA3-75	**BT40-MTA3-75**	1	3	1.575	—	2.95	1.89	—	2.2	.925-1.240
BBT40-MTA3-135	**BT40-MTA3-135**	2				5.31	4.25		3.7	
BBT40-MTA4-90	**BT40-MTA4-90**	2	4	1.969	—	3.54	2.48	—	3.5	1.260-1.969

BIG-PLUS Taper Catalog Number	Standard Taper Catalog Number	Fig.	MT	øD	øD1	L	L1	L2	Weight (lbs.)	Reference Drill Dia. (JIS B4302 1)
BBT50-MTA1-45	**BT50-MTA1-45**	1	1	.984	—	1.77	.28	—	8.6	.118-.551
BBT50-MTA1-120	**BT50-MTA1-120**	2				4.72	3.23		9.3	
BBT50-MTA1-180	**BT50-MTA1-180**					7.09	5.59		9.5	
BBT50-MTA1-210	—	3			1.614	8.27	6.77	3.35	9.7	
BBT50-MTA1-250					1.693	9.84	8.35		10.6	
BBT50-MTA2-45	**BT50-MTA2-45**	1	2	1.260	—	1.77	.28	—	8.6	.571-.906
BBT50-MTA2-135	**BT50-MTA2-135**	2				5.31	3.82		9.5	
BBT50-MTA2-180	**BT50-MTA2-180**					7.09	5.59		10.1	
BBT50-MTA2-210	—	3			1.791	8.27	6.77	3.74	10.6	
BBT50-MTA2-250					1.909	9.84	8.35		11.5	
BBT50-MTA2-300					1.949	11.81	10.31		12.8	
BBT50-MTA3-45	**BT50-MTA3-45**	1	3	1.575	—	1.77	.28	—	8.4	.925-1.240
BBT50-MTA3-75	—					2.95	1.46		8.6	
BBT50-MTA3-150	**BT50-MTA3-150**	2				5.91	4.41		10.1	
BBT50-MTA3-180	**BT50-MTA3-180**					7.09	5.59		10.8	
BBT50-MTA3-210	—					8.27	6.77		11.2	
BBT50-MTA3-250		3			1.988	9.84	8.35	4.53	12.3	
BBT50-MTA3-300						11.81	10.31		13.9	
BBT50-MTA4-75	**BT50-MTA4-75**	1	4	1.969	—	2.95	1.46	—	8.6	1.260-1.969
BBT50-MTA4-180	**BT50-MTA4-180**	2				7.09	5.59		11.9	
BBT50-MTA4-210	—					8.27	6.77		12.3	
BBT50-MTA4-250						9.84	8.35		13.7	
BBT50-MTA4-300						11.81	10.31		15.4	
BBT50-MTA5-105	**BT50-MTA5-105**	1	5	2.559	—	4.13	2.64	—	9.9	2.008-2.992
BBT50-MTA5-210	**BT50-MTA5-210**	2				8.27	6.77		15.9	

FACE MILL

Type A

Type B

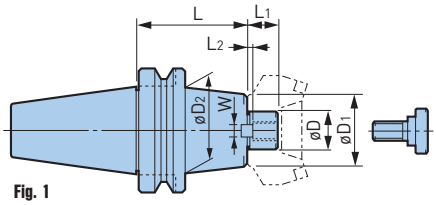


Fig. 1

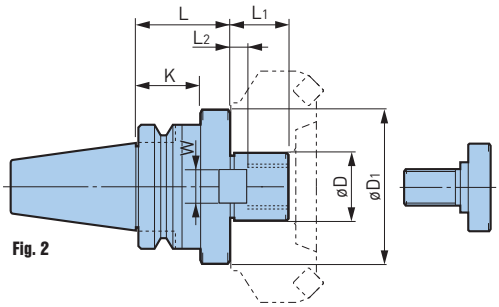


Fig. 2

(ARBOR TYPE A)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

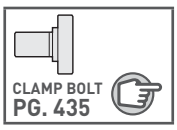
BIG-PLUS Taper Catalog Number	Standard Taper Catalog Number	Fig.	øD (h6)	øD1	øD2	L	L1	Drive Key		Clamp Bolt	Weight (lbs.)
								L2	W		
BBT30-FMA22.225-45	—	1	.875	1.654	—	1.772	.709	.157	.327	M10-40L	1.6
BBT30-FMA25.4-45		2	1.000	1.969	—	1.772	.866	.197	.374	MBA-M12	1.9
—	BT30-FMA31.75-45	2	1.250	2.362	—	1.772	1.181	.276	.500	MBA-M16	2.4
BBT40-FMA25.4-45	BT40-FMA25.4-45	1	1.000	1.969	—	1.772	.866	.197	.374	MBA-M12	3.3
BBT40-FMA25.4-90	BT40-FMA25.4-90				2.362	3.543					5.1
BBT40-FMA25.4-150❖	—					5.906					7.5
BBT40-FMA31.75-45	BT40-FMA31.75-45		1.250	2.362	—	1.772	1.181	.276	.500	MBA-M16	3.7
BBT40-FMA31.75-75	BT40-FMA31.75-75					2.953					5.3
BBT40-FMA31.75-105❖	—					4.134					6.6
BBT40-FMA31.75-150○						5.906					8.8
BBT40-FMA38.1-60○	BT40-FMA38.1-60○	2	1.500	3.150	—	2.362	1.339	.354	.626	MBA-M20	5.5

(ARBOR TYPE B)

BIG-PLUS Taper Catalog Number	Fig.	øD (h6)	øD1	L	L1	Drive Key		Clamp Bolt	Weight (lbs.)
						L2	W		
BBT40-FMB38.1-60○	2	1.500	3.346	2.362	1.024	.354	.626	MBA-M20	5.1
BBT40-FMB38.1-75				2.953					6.4
BBT40-FMB38.1-105				4.134					7.5
BBT40-FMB40-60○		40mm	3.346	2.362		.335	.630	MBA-M20	5.1
BBT40-FMB40-75				2.953					6.0

- BT shank models with "—" are not standard products
- Models with ❖ do not have a through hole
- The weight does not include the cutter
- Clamp bolt is included
- Depending on the cutter, a hex socket head screw may be required for clamping.
- A clamp screw with oil hole must be ordered separately for use with center-through coolant/air
- The ATC arm interference zone K of the model with "O" is 45mm

ACCESSORIES



FACE MILL (ARBOR TYPE C)

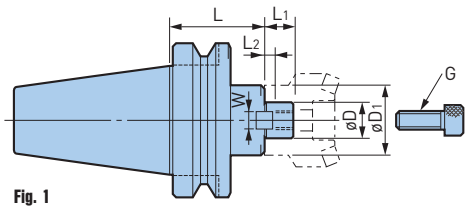


Fig. 1

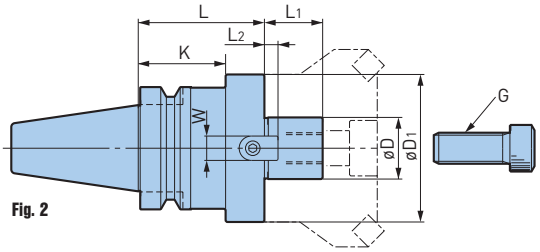
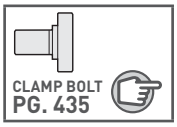


Fig. 2

BIG-PLUS Taper Catalog Number	Standard Taper Catalog Number	Fig.	øD (h6)	øD1	L	L1	Drive Key		G	Weight (lbs.)
							L2	W		
BBT30-FMC16-45	—	1	16mm	1.260	1.772	.630	.197	.315	M8	1.3
BBT30-FMC22-45		1	22mm	1.772		.709	.197	.394	M10	1.7
BBT30-FMC27-45		2	27mm	2.756		.787	.236	.472	M12	2.3
BBT40-FMC22-45	**BT40-FMC22-45**	1	22mm	1.772	1.772	.709	.197	.394	M10	2.9
BBT40-FMC22-90	**BT40-FMC22-90**				3.543					3.7
BBT40-FMC22-150❖	—				5.906					5.5
BBT40-FMC27-60○	—	2	27mm	2.756	2.362	.787	.236	.472	M12	4.4
BBT40-FMC27-90					3.543					5.7
BBT40-FMC27-150❖					5.906					9.0
BBT40-FMC32-60○	—	2	32mm	3.346	2.362	.866	.276	.551	M16	4.6
BBT40-FMC32-75					2.953					5.5
BBT40-FMC32-105					4.134					7.3

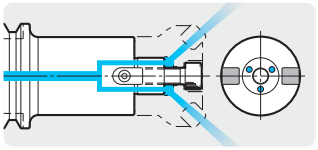
- BT shank models with "-" are not available; please choose BBT shank models
- Models with ❖ do not have a through hole
- The weight does not include the cutter
- Clamp bolt is included
- The ATC arm interference zone K of the model with "○" is 45mm

ACCESSORIES



SHELL/FACE MILL HOLDER

NEW Sizes



COOLANT THROUGH

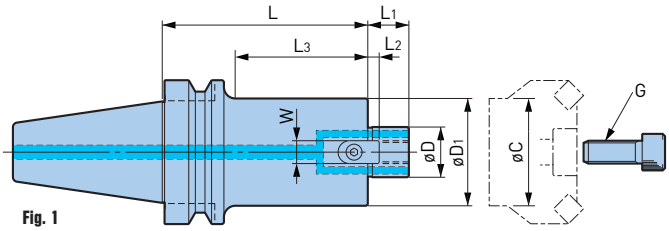


Fig. 1

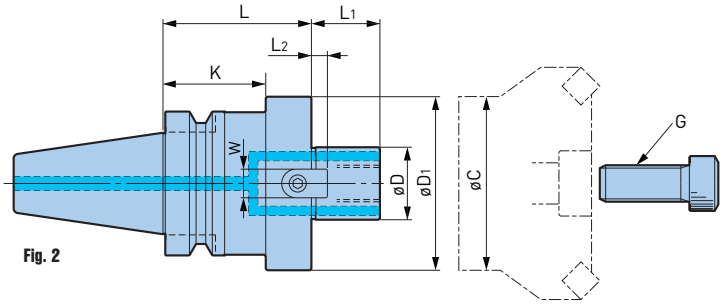


Fig. 2

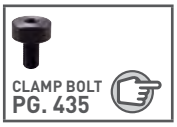
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	øD	øD1	L	L1	L3	Drive Key		G	Weight (lbs.)	Min øC
							L2	W			
BBT30-SMC.750-2	1	.750	1.689	2.00	.69	—	.16	.313	3/8"-24	1.6	—
BBT30-SMC1.000-2		1.000	2.189		.69	—	.22	.375	1/2"-20	2.0	—
BBT30-FMH22-45-35 🔴	1	22mm	1.772	1.38	.71	.47	.20	.394	M10	1.3	1.496
BBT30-FMH25.4-46-35	1	25.4mm	1.811	1.38	.87	12	.20	.375	M12	1.4	.658
BBT30-FMH25.4-50-45●	2	25.4mm	1.969	1.77	.87	—	.20	.375	M12	1.8	1.417
BBT30-FMH27-45-35 🔴	1	27mm	1.063	1.77	.79	12	.47	.472	M12	1.4	1.496
BBT30-FMH31.75-60-45●	2	31.75mm	2.362	1.77	1.18	—	.26	.500	M16	2.0	2.283
BBT30-FMH16-37-35	1	16mm	1.457	1.38	.63	11	.20	.315	M8	1.2	
BBT30-FMH22-47-45●	2	22mm	1.850	1.77	.71	—	.20	.394	M10	1.6	1.496
BBT30-FMH22-60-45●			2.362	1.77		—					
BBT30-FMH27-60-45●	2	27mm	2.362	1.77	.79	—	.24	.472	M12	2.0	1.811

Catalog Number	Fig.	øD	øD1	L	L1	L3	Drive Key		G	Weight (lbs.)	Min øC
							L2	W			
BBT40-SMC.750-2	1	.750	1.689	2.00	.69	—	.16	.313	3/8"-24	2.9	—
BBT40-SMC1.000-2		1.000	2.189		.69	—	.22	.375	1/2"-20	3.3	—
BBT40-SMC1.250-2		1.250	2.752		.69	—	.28	.500	5/8"-18	4.0	—
BBT40-SMC1.500-2		1.500	3.626		.93	—	.38	.625	3/4"-16	5.3	—
BBT40-FMH22.225-47-60	2	22.225mm	1.850	2.36	.67	30	.14	.315	M10	3.3	1.535
BBT40-FMH22.225-47-90				3.54		60				4.2	
BBT40-FMH25.4-70-60●		25.4mm	2.756	2.36	.87	—	.20	.374	M12	4.4	1.811
BBT40-FMH25.4-70-90				3.54						5.9	
BBT40-FMH25.4-70-105				4.13						6.8	
BBT40-FMH31.75-76-60●		31.75mm	2.992	2.36	1.18	—	.28	.500	M16	4.8	2.205
BBT40-FMH31.75-76-90				3.54						6.4	
BBT40-FMH31.75-96-60●		31.75mm	3.780	2.36	1.18	—	.28	.500	M16	5.5	
BBT40-FMH16-37-40	2	16mm	1.457	1.57	.63	10	.20	.315	M8	2.4	1.102
BBT40-FMH22-47-45		22mm	1.850	1.77	.71	15	.20	.394	M10	2.9	1.496
BBT40-FMH22-47-60				2.36		30				3.3	1.417
BBT40-FMH22-47-90				3.54		60				4.2	
BBT40-FMH22-47-150				5.91		120				5.9	
BBT40-FMH22-60-45		22mm	2.362	1.77	.71	17	.20	.394	M10	3.3	1.496
BBT40-FMH22-60-60				2.36		32				4.0	
BBT40-FMH22-60-90				3.54		62				5.5	
BBT40-FMH27-60-45		27mm	2.480	1.77	.79	17	.24	.472	M12	3.3	1.811
BBT40-FMH27-60-60				2.36		32				4.0	
BBT40-FMH27-60-90				3.54		62				5.5	
BBT40-FMH27-76-60●		27mm	2.992	2.36	.79	—	.24	.472	M12	4.6	1.890
BBT40-FMH27-76-90				3.54						6.2	
BBT40-FMH32-96-60●		32mm	3.780	2.36	.87	—	.28	.551	M16	5.3	2.283

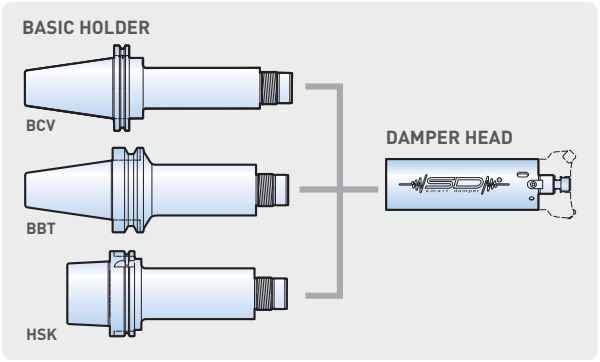
- Clamp bolt is included
- The weight does not include the cutter
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435
- The ATC arm interference zone K is 30mm for BBT30 and 45mm for BBT40 with models marked ●

ACCESSORIES



For high speed applications, shell mill holders should be balanced together with the cutters.

SMART DAMPER MILLING
(FACE MILL ARBOR TYPE)



NEW Sizes

COOLANT THROUGH

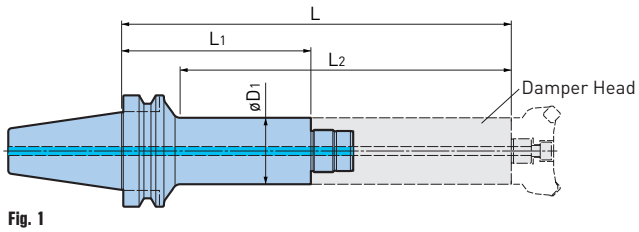


Fig. 1

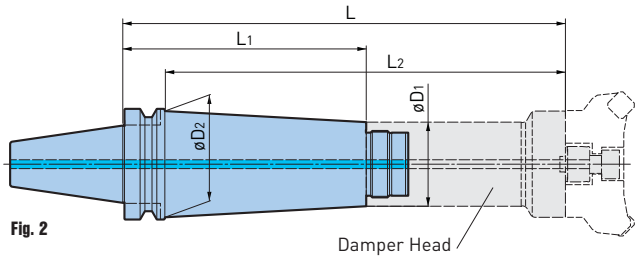


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	øD1	øD2	L	L1	L2	Weight (lbs.)	Damper Head
BBT40-SDF28-38-30	1	38mm	—	7.874	1.181	6.732	2.4	FMH□□DP-38
BBT40-SDF28-38-80				9.843	3.150	8.661	3.3	
BBT40-SDF36-47-30	1	47mm	—	8.268	1.181	7.126	2.9	FMH□□DP-47 SMC□□DP-47
BBT40-SDF36-47-70				9.843	2.756	8.661	4.0	
BBT50-SDF28-38-80	1	38mm	—	9.843	3.150	7.677	9.3	FMH□□DP-38
BBT50-SDF28-38-130				11.811	5.118	9.646	10.4	
BBT50-SDF28-38-180				13.780	7.087	11.614	11.2	
BBT50-SDF36-47-70	1	47mm	—	9.843	2.756	7.756	9.5	FMH□□DP-47 SMC□□DP-47
BBT50-SDF36-47-120				11.811	4.724	9.724	11.0	
BBT50-SDF36-47-170				13.78	6.693	11.693	12.3	
BBT50-SDF36-47-220				15.748	8.661	13.661	13.9	
BBT50-SDF36-60-70	1	60mm	—	9.843	2.756	7.756	10.1	FMH□□DP-60 SMC□□DP-60
BBT50-SDF36-60-120				11.811	4.724	9.724	12.6	
BBT50-SDF36-60-170				13.78	6.693	11.693	14.8	
BBT50-SDF36-60-220				15.748	8.661	13.661	17.2	
BBT50-SDF57-76-70	1	76mm	—	9.843	2.756	7.756	11.7	FMH□□DP-76 FMH□□DP-100 SMC□□DP-72
BBT50-SDF57-76-120				11.811	4.724	9.724	15.4	
BBT50-SDF57-76-170				13.78	6.693	11.693	19.4	
BBT50-SDF57-76-220				15.748	8.661	13.661	23.1	
BBT50-SDF57-76-170T	2	76mm	3.780	13.780	6.693	12.205	22.5	FMH□□DP-76 FMH□□DP-100 SMC□□DP-72
BBT50-SDF57-76-220T				15.748	8.661	14.173	27.6	
BBT50-SDF57-76-270T				17.717	10.630	16.142	32.4	

SMART DAMPER MILLING (DAMPER HEAD)

NEW Sizes

COOLANT THROUGH

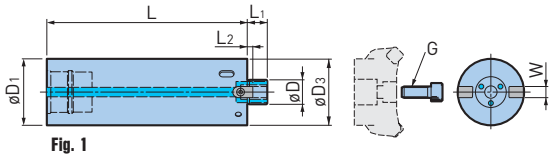


Fig. 1

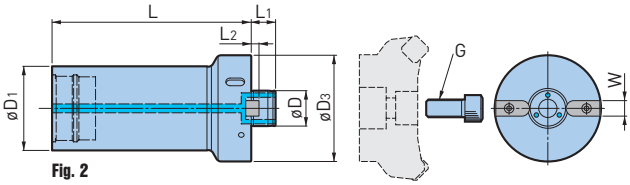


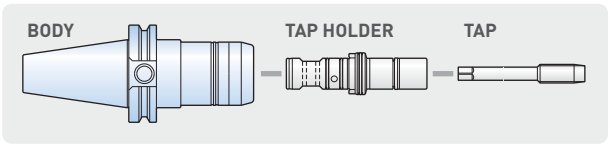
Fig. 2

Catalog Number	Fig.	øD	øD1	øD3	L	L1	L2	W	G	Weight (lbs.)
SDF28-FMH16DP-38-170	1	16mm	38mm	1.496	6.693	.630	.197	.315	M8	4.2
SDF36-FMH22DP-47-180	1	22mm	47mm	1.850	7.087	.709	.197	.394	M10	6.6
SDF36-FMH22DP-60-180			60mm	2.362						9.9
SDF36-FMH27DP-60-180	1	27mm	60mm	2.362	7.087	.787	.236	.472	M12	9.9
SDF57-FMH27DP-76-180			76mm	2.992						17.6
SDF57-FMH31.75DP-76-180	1	1.250	76mm	2.992	7.087	1.181	.276	.500	M16	17.6
SDF57-FMH31.75DP-96-180	2			3.780						19.2
SDF57-FMH32DP-96-180	2	32mm	76mm	3.780	7.087	.866	.276	.551	M16	19.2
SDF57-FMH38.1DP-100-180	2	1.500	76mm	3.937	7.087	1.339	.354	.626	M20	20.1
SDF57-FMH40DP-100-180	2	40mm	76mm	3.937	7.087	1.024	.335	.630	M20	20.1
SDF36-SMC.750DP-47-180	1	.750	47mm	1.850	7.087	.689	.160	.313	3/8"-24	6.6
SDF36-SMC1.000DP-60-180	1	1.000	60mm	2.362		.689	.220	.375	1/2"-20	9.9
SDF57-SMC1.000DP-72-180		1.000	72mm	2.835						16.3

- Hook wrench and cutter clamp bolt are included
- The weight does not include the cutter
- Refer to the operation manual regarding the mounting method to the basic holder
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435
- The damper head cannot be removed after the basic holder and damper head have been attached and used for processing

MEGA SYNCHRO TAPPING HOLDER

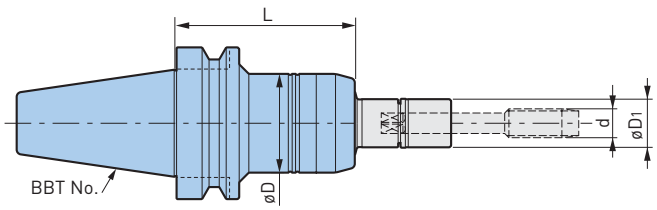
TAPPING RANGE: No.2-AU3/4 (M2-M20)



COOLANT THROUGH

PATENT # 8226337

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	Tapping Range d* (Inch)	Tapping Range d* (Metric)	øD	øD1	L	Wrench	Weight (lbs.)
BBT30-MGT6-70	No.2-No.12	M2-M6	1.42	.63	2.76	MGR16	1.5
BBT30-MGT12-70	AU1/4-AU7/16	M6-M12	1.61	.79	2.76	MGR20L	1.8
BBT30-MGT20-110	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.33	MGR30L	3.3
BBT40-MGT6-75	No.2-No.12	M2-M6	1.42	.63	2.95	MGR16	2.9
BBT40-MGT12-75	AU1/4-AU7/16	M6-M12	1.61	.79	2.95	MGR20L	3.1
BBT40-MGT20-95	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	3.74	MGR30L	4.0
BBT50-MGT6-90	No.2-No.12	M2-M6	1.42	.63	3.54	MGR16	8.6
BBT50-MGT12-90	AU1/4-AU7/16	M6-M12	1.61	.79	3.54	MGR20L	8.8
BBT50-MGT20-105	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.13	MGR30L	9.7

***AU3/8 is included in the MGT20 series**

- MGT set screw is included; tap holder and wrench must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES


TAP HOLDER PG. 416


MEGA NUT PG. 423


SYNCHRO ADJUSTER PG. 423


O-RING PG. 423


MEGA WRENCH PG. 410

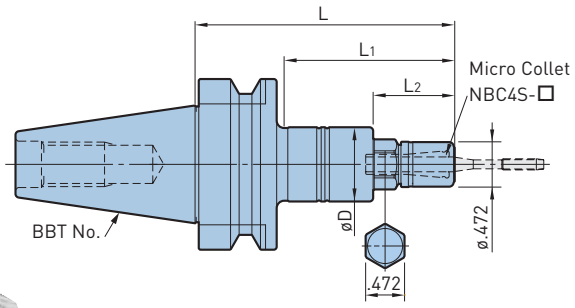

SCREW PG. 423

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.0-No.6 (M1-M3)

PATENT # 9446463

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	Tapping Range d* (Inch)	Tapping Range d* (Metric)	øD	L	L1	L2	Wrench	Weight (lbs.)
BBT30-MGT3-70	No.0-No.6	M1-M3	.787	2.76	1.81	.87	MGR12	1.5
BBT40-MGT3-90	No.0-No.6	M1-M3	.787	3.54	2.40	.87	MGR12	2.6

- Nut is included; collet and wrench must be ordered separately
- When attaching or detaching the tap, a commercially available flat wrench (12mm width) is also required
- Not capable of supplying coolant through the holder body

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376

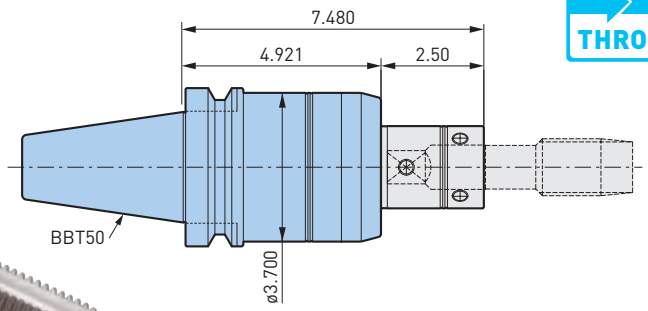

MEGA WRENCH PG. 410

Cannot be used with machining center without synchronized tapping function.

TAPPING RANGE: AU13/16-AU1-1/2 (M20-M36)

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	Tapping Range d (Inch)	Tapping Range d (Metric)	Weight (lbs.)
BBT50-MGT36-125	AU13/16-AU1-1/2 AP3/8-AP1	M20-M36	15.8

- MGT set screw is included; tap holder must be ordered separately

ACCESSORIES


TAP HOLDER PG. 424


SYNCHRO ADJUSTER PG. 425


O-RING PG. 425


SCREW PG. 425

Cannot be used with machining center without synchronized tapping function.

CKB SHANK

COOLANT THROUGH

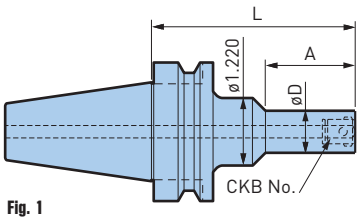


Fig. 1

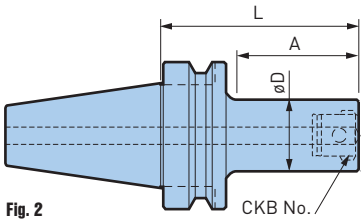


Fig. 2

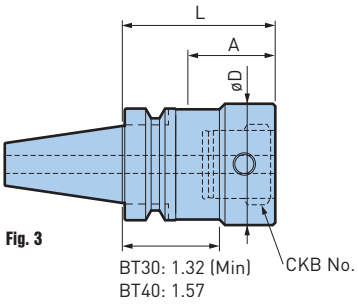


Fig. 3

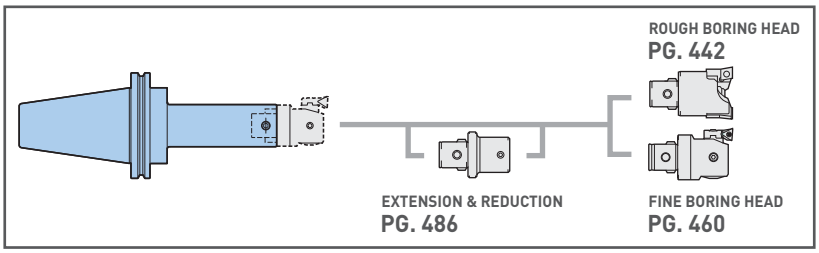
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

BIG-PLUS BBT Shank Catalog Number	BT Shank Catalog Number	Fig.	CK No.	øD	L	A	Weight (lbs.)
BBT30-CKB1-72	**BT30-CKB1-72**	1	CK1	.748	2.835	1.575	1.1
BBT30-CKB2-38	**BT30-CKB2-38**	2	CK2	.945	1.476	.433	.9
BBT30-CKB2-83	**BT30-CKB2-83**				3.248	2.165	1.2
BBT30-CKB3-39	**BT30-CKB3-39**	2	CK3	1.220	1.535	.512	1.0
BBT30-CKB3-79	**BT30-CKB3-79**				3.110	2.047	1.4
BBT30-CKB4-38	**BT30-CKB4-38**	2	CK4	1.535	1.496	.512	1.0
BBT30-CKB4-73	**BT30-CKB4-73**				2.874	1.890	1.7
BBT30-CKB5-63	**BT30-CKB5-63**	3	CK5	1.969	2.480	1.614	1.7
BBT30-CKB6-64	**BT30-CKB6-64**	3	CK6	2.520	2.520	1.654	2.0
BBT40-CKB1-72	**BT40-CKB1-72**	2	CK1	.748	2.835	1.575	2.4
BBT40-CKB2-43	**BT40-CKB2-43**	2	CK2	.945	1.673	.413	2.2
BBT40-CKB2-83	**BT40-CKB2-83**				3.248	1.988	2.6
BBT40-CKB3-44	**BT40-CKB3-44**	2	CK3	1.220	1.732	.472	2.4
BBT40-CKB3-94	**BT40-CKB3-94**				3.701	2.441	2.9
BBT40-CKB3-124	—				4.882	3.622	3.3
BBT40-CKB4-43	**BT40-CKB4-43**	2	CK4	1.535	1.693	.433	2.6
BBT40-CKB4-88	**BT40-CKB4-88**				3.465	2.205	3.3
BBT40-CKB4-118	—				4.646	3.386	4.0
BBT40-CKB4-148	—				5.827	4.567	4.6
BBT40-CKB5-48	**BT40-CKB5-48**	2	CK5	1.969	1.890	.630	2.6
BBT40-CKB5-78	**BT40-CKB5-78**				3.071	1.811	3.5
BBT40-CKB5-108	—				4.252	2.992	4.6
BBT40-CKB5-138	—				5.433	4.173	5.5
BBT40-CKB6-64	**BT40-CKB6-64**	3	CK6	2.520	2.520	1.457	3.5
BBT40-CKB6-64/90❖	—				2.520	1.457	3.5
BBT40-CKB6-94	—				3.701	2.638	5.1
BBT40-CKB6-124	—				4.882	3.819	6.8

BIG-PLUS BBT Shank Catalog Number	BT Shank Catalog Number	Fig.	CK No.	øD	L	A	Weight (lbs.)
BBT50-CKB1-72	—	1	CK1	.748	2.835	.472	8.2
BBT50-CKB1-102	**BT50-CKB1-102**				4.016	1.535	8.8
BBT50-CKB2-53	**BT50-CKB2-53**	2	CK2	.945	2.067	.354	8.4
BBT50-CKB2-113	**BT50-CKB2-113**				4.429	2.717	8.8
BBT50-CKB3-54	**BT50-CKB3-54**	2	CK3	1.220	2.126	.433	8.6
BBT50-CKB3-124	**BT50-CKB3-124**				4.882	3.189	9.3
BBT50-CKB3-154	—				6.063	4.370	9.5
BBT50-CKB4-58	**BT50-CKB4-58**	2	CK4	1.535	2.283	.591	9.5
BBT50-CKB4-118	**BT50-CKB4-118**				4.646	2.953	9.9
BBT50-CKB4-178	**BT50-CKB4-178**				7.008	5.315	10.8
BBT50-CKB4-208	—				8.189	6.496	11.2
BBT50-CKB5-63	**BT50-CKB5-63**	2	CK5	1.969	2.480	.787	8.8
BBT50-CKB5-108	**BT50-CKB5-108**				4.252	2.559	10.4
BBT50-CKB5-183	**BT50-CKB5-183**				7.205	5.512	13.0
BBT50-CKB5-228	**BT50-CKB5-228**				8.976	7.283	14.3
BBT50-CKB5-263	—				10.354	8.661	15.4
BBT50-CKB6-94	**BT50-CKB6-94**	2	CK6	2.520	3.701	2.008	10.6
BBT50-CKB6-169	**BT50-CKB6-169**				6.654	4.961	14.8
BBT50-CKB6-229	**BT50-CKB6-229**				9.016	7.323	18.1
BBT50-CKB6-289	—				11.378	9.685	21.4
BBT50-CKB7-93	**BT50-CKB7-93**	2	CK7	3.543	3.661	2.047	12.3
BBT50-CKB7-183	**BT50-CKB7-183**				7.205	5.591	21.8
BBT50-CKB7-243	**BT50-CKB7-243**				9.567	7.953	28.0

- Cutting edge and drive key grooves are located in the same orientation
- Model with ❖ has a cutting edge and a drive key offset by 90°

ACCESSORIES

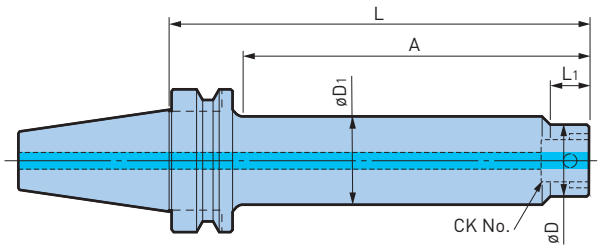


CK LONG SHANK (RIGID TYPE)

For Deep Boring

Designed with a highly rigid structure and an enlarged shank diameter to minimize deflection during operation.

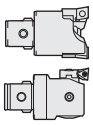
COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	CK No.	Diameter	øD	øD1	L	L1	A	Weight (lbs.)
BBT50-CKB4-48-193	CK4	1.969-2.913	1.535	1.890	7.598	.748	5.906	12.1
BBT50-CKB4-48-238					9.370		7.677	13.4
BBT50-CKB5-62-243	CK5	2.559-3.740	1.969	2.441	9.567	.945	7.874	17.9
BBT50-CKB5-62-303					11.929		10.236	20.9
BBT50-CKB6-72-259	CK6	2.953-7.992	2.520	2.835	10.197	1.142	8.504	22.7
BBT50-CKB6-72-314					12.362		10.669	26.5
BBT50-CKB6-80-289		3.346-7.992		3.150	11.378		9.685	28.4
BBT50-CKB6-80-349					13.740		12.047	33.5

ROUGH BORING HEAD
PG. 442



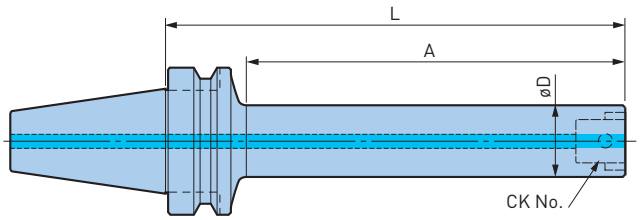
FINE BORING HEAD
PG. 460

- The diameter range is a reference value when using an EWN Boring Head. Note that due to interference with øD1, this differs from the EWN range
- Cutting edges and drive keys are aligned with boring heads mounted
- Head and inserts must be ordered separately

SMART DAMPER BORING (BBT SHANK TYPE)

Built-in damper eliminates chatter in deep hole boring.

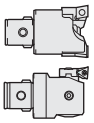
COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	CK No.	øD	L	A	Weight (lbs.)
BBT50-CKB4DP-252	CK4	1.535	9.921	7.835	12.6
BBT50-CKB5DP-314	CK5	1.969	12.362	10.276	17.2
BBT50-CKB6DP-380	CK6	2.520	14.961	13.268	27.1

ROUGH BORING HEAD
PG. 442

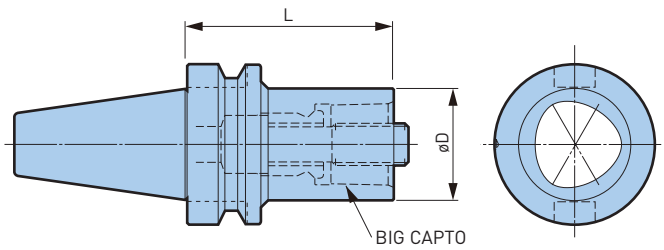


FINE BORING HEAD
PG. 460

- Cutting edges and drive keys are aligned with boring heads mounted
- Head and inserts must be ordered separately
- Extension should not be used due to possible chatter

BIG CAPTO SHANK

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	BIG CAPTO	øD	L	Clamp Bolt			Weight (lbs.)
				Thread Size	Hex	Tightening Torque	
BBT40-C3-30	C3	1.260	1.181	M12 P1.5	8mm	30 ft-lbs	2.2
BBT40-C4-40	C4	1.575	1.575	M14 P1.5	8mm	35 ft-lbs	2.4
BBT40-C5-50	C5	1.969	1.969	M16 P1.5	10mm	70 ft-lbs	4.9
BBT40-C6-75	C6	2.480	2.953	M20 P2		125 ft-lbs	3.7
BBT50-C3-40	C3	1.260	1.575	M12 P1.5	8mm	30 ft-lbs	7.9
BBT50-C4-40	C4	1.575		M14 P1.5		35 ft-lbs	7.9
BBT50-C5-40	C5	1.969		M16 P1.5	10mm	70 ft-lbs	7.7
BBT50-C6-50	C6	2.480	1.969	M20 P2	14mm	125 ft-lbs	7.7
BBT50-C8-70	C8	3.150	2.756				8.8

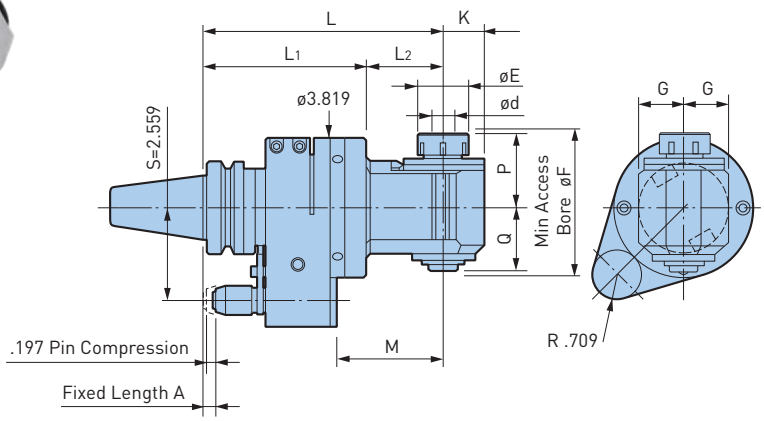
EXTENSION & REDUCTION
PG. 291

- Clamping screws are included

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BBT40-AG90/NBS6-170	.010-.236	.787	.827	.669	6.69	4.53	2.17	3.03	1.30	1.14	2.638	NBC6	6,000	11.2
BBT40-AG90/NBS6-200					7.87		3.35	4.21						11.7
BBT40-AG90/NBS6-230					9.06		4.53	5.39						12.1
BBT40-AG90/NBS6-260					10.24		5.71	6.58						12.5
BBT40-AG90/NBS10-170	.059-.394	1.181	1.181	.984	6.69	4.53	2.17	3.03	1.77	1.69	3.583	NBC10	6,000	12.1
BBT40-AG90/NBS10-200					7.87		3.35	4.21						13.0
BBT40-AG90/NBS10-230					9.06		4.53	5.39						13.7
BBT40-AG90/NBS13-170	.098-.512	1.378	1.220	1.102	6.69	4.53	2.17	3.03	2.05	1.77	3.976	NBC13	6,000	12.3
BBT40-AG90/NBS13-200					7.87		3.35	4.21						13.2
BBT40-AG90/NBS13-230					9.06		4.53	5.39						13.9
BBT40-AG90/NBS20-185	.098-.787	1.811	1.378	1.378	7.28	4.53	2.76	3.62	2.56	2.44	5.197	NBC20	3,000	14.8
BBT40-AG90/NBS20S-165S	.098-.787	1.811	1.378	1.299	6.50	4.41	2.09	2.84	2.56	2.44	5.197	NBC20	3,000	17.6

- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378


WRENCH PG. 392

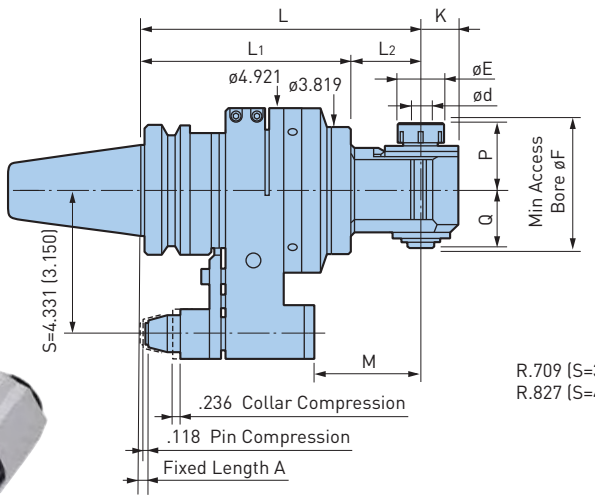

STOP BLOCK PG. 429

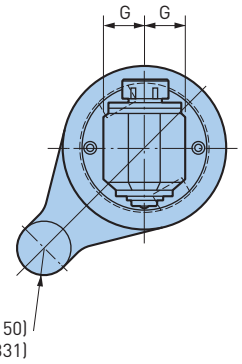
The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BBT50-AG90/NBS6-215	.010-.236	.787	.827	.669	8.47	6.30	2.17	3.23	1.30	1.14	2.638	NBC6	6,000	27.8
BBT50-AG90/NBS6-245					9.65		3.35	4.41						28.2
BBT50-AG90/NBS6-275					10.83		4.53	5.59						28.7
BBT50-AG90/NBS6-305					12.01		5.71	6.77						29.1
BBT50-AG90/NBS10-215	.059-.394	1.181	1.181	.984	8.47	6.30	2.17	3.23	1.77	1.69	3.583	NBC10	6,000	28.7
BBT50-AG90/NBS10-245					9.45		3.35	4.41						29.5
BBT50-AG90/NBS10-275					10.83		4.53	5.59						30.2
BBT50-AG90/NBS13-215	.098-.512	1.378	1.220	1.102	8.47	6.30	2.17	3.23	2.05	1.77	3.976	NBC13	6,000	28.9
BBT50-AG90/NBS13-245					9.45		3.35	4.41						29.8
BBT50-AG90/NBS13-275					10.83		4.53	5.59						30.4
BBT50-AG90/NBS20-230	.098-.787	1.811	1.378	1.378	9.06	6.30	2.76	3.82	2.56	2.44	5.197	NBC20	3,000	31.3

- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378


WRENCH PG. 392


STOP BLOCK PG. 429

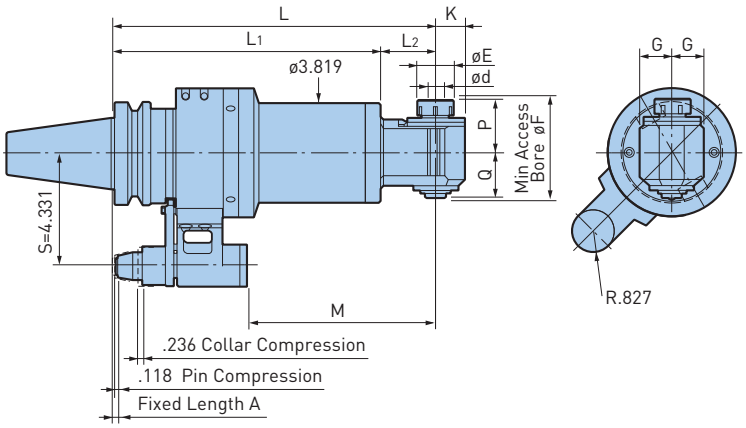
The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS EXTRA LONG TYPE)

CLAMPING RANGE: ø.010"-.787"

For Drilling & Key Slotting in Deep Holes of Large Workpieces

MAX 6,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BBT50-AG90NBS6-315LS	.010-.236	.787	.827	.669	12.40	10.24	2.17	7.17	1.30	1.14	2.638	NBC6	6,000	41.7
BBT50-AG90NBS6-345LS					13.58		3.35	8.35						42.1
BBT50-AG90NBS6-375LS					14.76		4.53	9.53						42.5
BBT50-AG90NBS6-405LS					15.94		5.71	10.71						43.0
BBT50-AG90NBS6-415LS					16.34	14.17	2.17	11.10						51.4
BBT50-AG90NBS6-445LS					17.52		3.35	12.28						51.8
BBT50-AG90NBS6-475LS					18.70		4.53	13.46						52.2
BBT50-AG90NBS6-505LS					19.88		5.71	14.65						52.7
BBT50-AG90NBS6-515LS					20.28	18.11	2.17	15.04						61.1
BBT50-AG90NBS6-545LS					21.46		3.35	16.22						61.5
BBT50-AG90NBS6-575LS					22.64		4.53	17.40						61.9
BBT50-AG90NBS6-605LS					23.82		5.71	18.58						62.4

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
BBT50-AG90/NBS10-315LS	.059-.394	1.181	1.181	.984	12.40	10.24	2.17	7.17	1.77	1.69	3.583	NBC10	6,000	42.5
BBT50-AG90/NBS10-345LS					13.58		3.35	8.35						43.4
BBT50-AG90/NBS10-375LS					14.76		4.53	9.53						44.1
BBT50-AG90/NBS10-415LS					16.34	14.17	2.17	11.10						52.2
BBT50-AG90/NBS10-445LS					17.52		3.35	12.28						53.1
BBT50-AG90/NBS10-475LS					18.70		4.53	13.46						53.8
BBT50-AG90/NBS10-515LS					20.28	18.11	2.17	15.04						61.9
BBT50-AG90/NBS10-545LS					21.46		3.35	16.22						62.8
BBT50-AG90/NBS10-575LS					22.64		4.53	17.40						63.5
BBT50-AG90/NBS13-315LS	.098-.512	1.378	1.220	1.102	12.40	10.24	2.17	7.17	2.05	1.77	3.976	NBC13	6,000	42.8
BBT50-AG90/NBS13-345LS					13.58		3.35	8.35						43.7
BBT50-AG90/NBS13-375LS					14.76		6.10	9.53						44.3
BBT50-AG90/NBS13-415LS					16.34	14.17	2.17	11.10						52.5
BBT50-AG90/NBS13-445LS					17.52		3.35	12.28						53.4
BBT50-AG90/NBS13-475LS					18.70		6.10	13.46						54.0
BBT50-AG90/NBS13-515LS					20.28	18.11	2.17	15.04						62.2
BBT50-AG90/NBS13-545LS					21.46		3.35	16.22						63.1
BBT50-AG90/NBS13-575LS					22.64		6.10	17.40						63.7
BBT50-AG90/NBS20-330LS	.098-.787	1.811	1.378	1.378	12.99	10.24	2.76	7.76	2.56	2.44	5.197	NBC20	3,000	45.2
BBT50-AG90/NBS20-430LS					16.93	14.17	2.76	11.69						54.9
BBT50-AG90/NBS20-530LS					20.87	18.11	2.76	15.63						64.6

- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (COMPACT TYPE)

CLAMPING RANGE: ø.098"-.512"

For Drilling Only—Ideal Size for Small Machining Centers

MAX 5,000 RPM

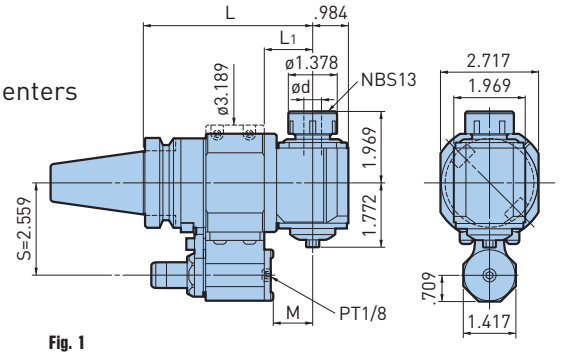


Fig. 1

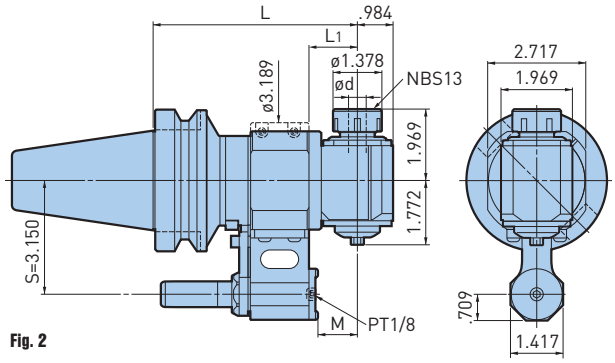


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	L	L1	M	Collet	Speed Ratio	Weight (lbs.)
BBT40-AG90-13-120	1	.098-.512	4.72	3.39	1.10	NBC13	1:1	9.9
BBT40-AG90-13-170			6.70	3.31	3.06			12.1
BBT50-AG90-13-145	2	.098-.512	5.71	1.34	1.10	NBC13	1:1	16.8
BBT50-AG90-13-195			7.68	3.31	3.06			19.0

- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- A tapped hole (PT1/8) is prepared at the bottom cover of the Locating Pin housing so that a pipe for coolant can be connected
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378


WRENCH PG. 392


STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).
AG90 Compact Type is for drilling only.

Application Example

Stable machining is obtained due to high rigidity and good runout.

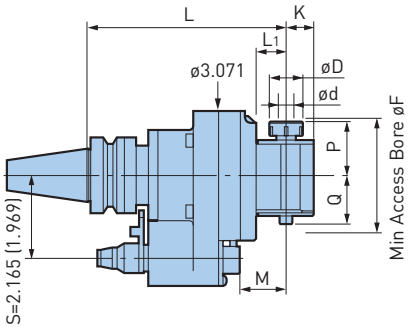
DRILLING	
Cutter	ø.472" (12mm) Carbide Drill
Workpiece	1050 Steel
Cutting Speed	230 SFM
Cutting Feed	14.6 IPM
	.008 IPR
Spindle Speed	1,860 RPM

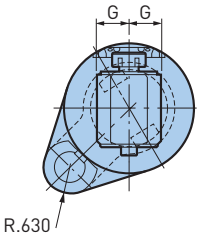
AG90 (NEW BABY CHUCK TYPE)

CLAMPING RANGE: ø.010"-.512"

MAX 10,000 MIN-1 RPM

Streamline your workflow with multilateral machining that significantly reduces work time.
Achieve exceptional runout accuracy with the high-precision NEW BABY Chuck.





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	øD	G	K	L	L1	M	P	Q	øF	Collet	Weight (lbs.)
BBT30-AG90-6-120	.010-.236	.787	.768	.669	4.724	.748	1.142	1.299	1.142	2.559	NBC6	5.1
BBT30-AG90-8-125	.020-.315	.984	.846	.827	4.921	.945	1.339	1.654	1.614	3.307	NBC8	5.5
BBT30-AG90-10-125	.059-.394	1.181	.965	.984				1.772	1.693	3.622	NBC10	5.7
BBT30-AG90-13-125	.098-.512	1.378						2.047	1.772	4.016	NBC13	6.0

- Nut and wrench are included, collet must be ordered separately
- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the Stop Block; coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (TWIN HEAD)

CLAMPING RANGE: ø.059"-.394"

MAX 6,000 RPM

Compact design. Symmetrical machining can be performed using one unit.

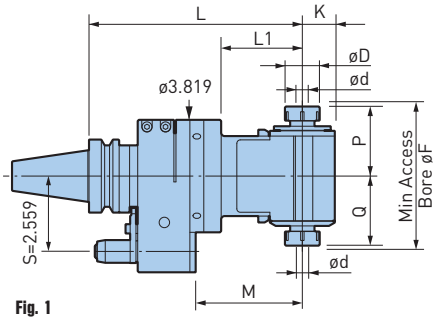
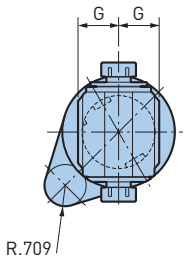


Fig. 1



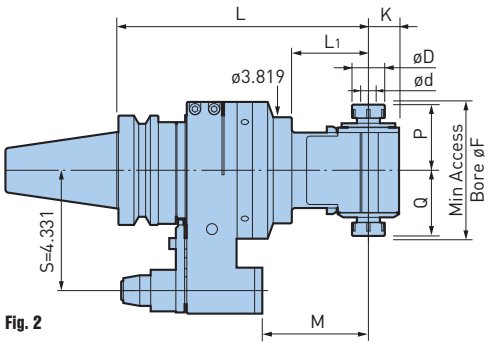
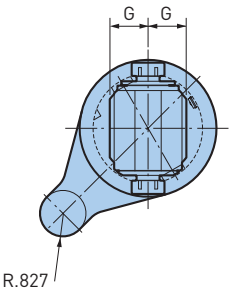


Fig. 2



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	K	L	L1	M	P	Q	øF	Collet	Weight (lbs.)
BBT40-AG90/NBS10W-185	1	.059-.394	1.181	1.220	1.102	7.28	2.76	3.62	2.36	2.36	4.88	NBC10	13.9
BBT50-AG90/NBS10W-230	2	.059-.394	1.181	1.220	1.102	9.06	2.76	3.81	2.36	2.36	4.88	NBC10	30.4

- Nut and wrench are included; collet must be ordered separately
- Output spindles do not rotate in forward direction simultaneously
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES


COLLET PG. 378


WRENCH PG. 392


STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG45 (NBS TYPE)

CLAMPING RANGE: ø.060"-.512"

Exclusive fixing housing allows for secure diagonal machining

MAX 6,000 RPM

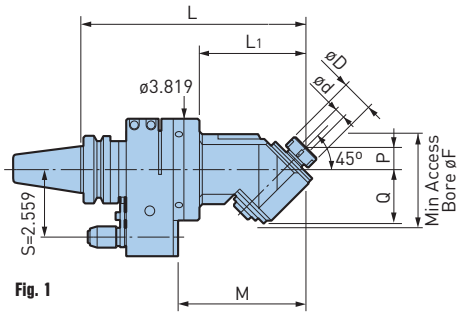


Fig. 1

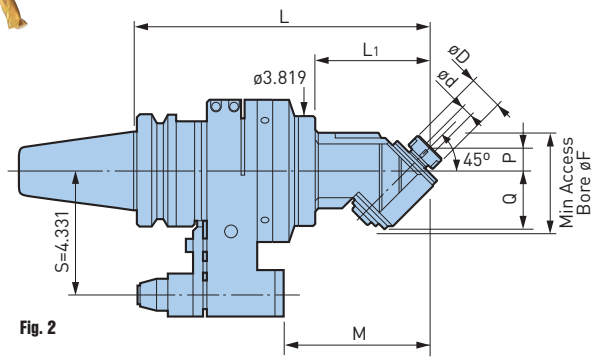
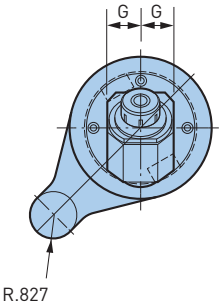


Fig. 2



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	L	L1	M	P	Q	øF	Collet	Weight (lbs.)
BBT40-AG45/NBS10-215	1	.060-.394	1.181	1.181	8.46	3.94	4.80	.79	2.03	3.54	NBC10	12.6
BBT40-AG45/NBS13-220		.098-.512	1.378		8.66	4.13	5.00	.98			NBC13	12.8
BBT50-AG45/NBS10-260	2	.060-.394	1.181	1.181	10.24	3.94	5.00	.79	2.03	3.54	NBC10	29.1
BBT50-AG45/NBS13-265		.098-.512	1.378		10.43	4.13	5.20	.98			NBC13	29.3

- Nut and wrench are included; collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

COLLET PG. 378

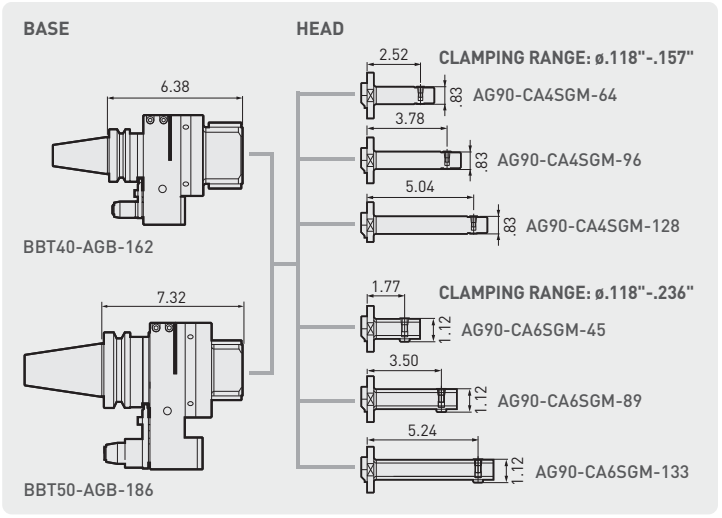
WRENCH PG. 392

STOP BLOCK PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (SLENDER DRIVE)

CLAMPING RANGE: ø.118"-.236" For Angular Operations Within a ø1.181 Inch Bore



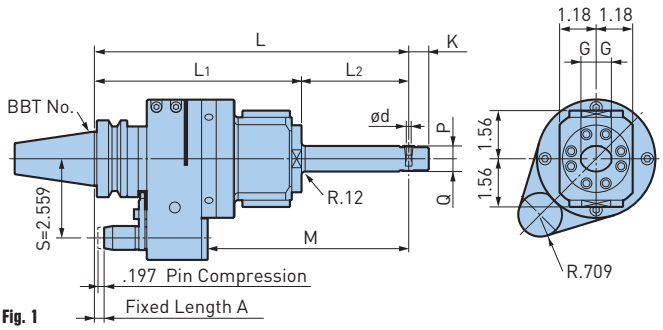


Fig. 1

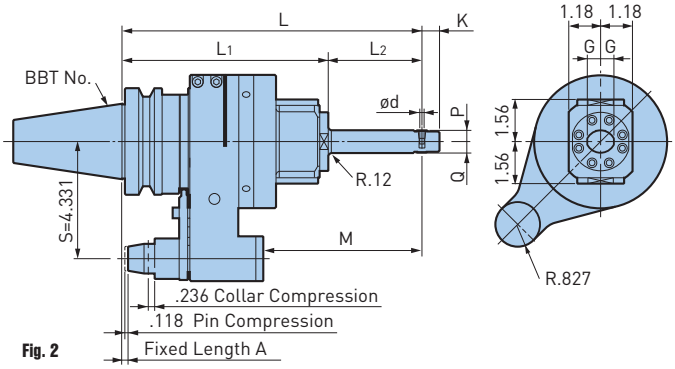


Fig. 2

Base	Head	Fig.	ød	G	K	L	L1	L2	M	P	Q	Speed Ratio	Weight (lbs.)
BBT40-AGB-162	AG90-CA4SGM-64	1	.118-.157	.492	.650	8.90	6.69	2.21	5.24	.41	.41	1:1.06 (Increase)	12.3
	AG90-CA4SGM-96					10.16		3.47	6.50				12.6
	AG90-CA4SGM-128					11.42		4.72	7.76				12.9
	AG90-CA6SGM-45	1	.118-.236	.591	.787	8.15	6.69	1.46	4.49	.49	.63	1:0.77 (Decrease)	12.6
	AG90-CA6SGM-89					9.88		3.19	6.22				13.0
	AG90-CA6SGM-133					11.61		4.92	7.95				13.5
BBT50-AGB-186	AG90-CA4SGM-64	2	.118-.157	.492	.650	9.84	7.64	2.21	4.61	.41	.41	1:1.06 (Increase)	26.2
	AG90-CA4SGM-96					11.10		3.47	5.87				26.5
	AG90-CA4SGM-128					12.36		4.72	7.13				26.7
	AG90-CA6SGM-45	2	.118-.236	.591	.787	9.09	7.64	1.46	3.86	.49	.63	1:0.77 (Decrease)	26.5
	AG90-CA6SGM-89					10.83		3.19	5.59				26.9
	AG90-CA6SGM-133					12.56		4.92	7.32				27.3

- Collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately

ACCESSORIES

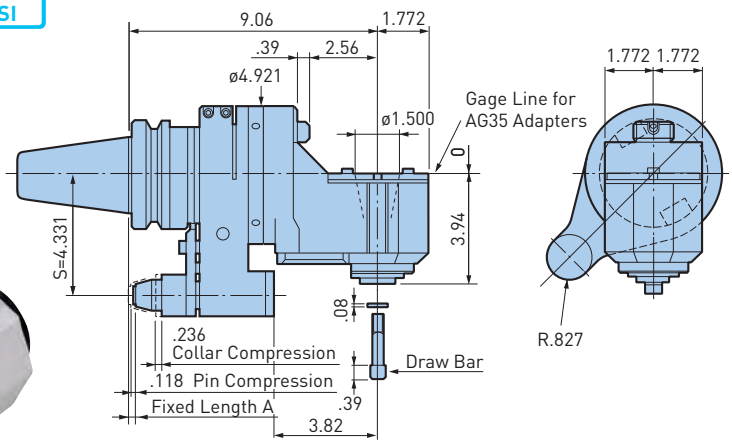
The rotation of the cutting tool is in same direction of the machine spindle.

AG90 (BUILD-UP TYPE)

For All Machinery Applications

MAX 3,000 RPM

MAX 150 PSI



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

The rotation of the cutting tool is in same direction of the machine spindle.

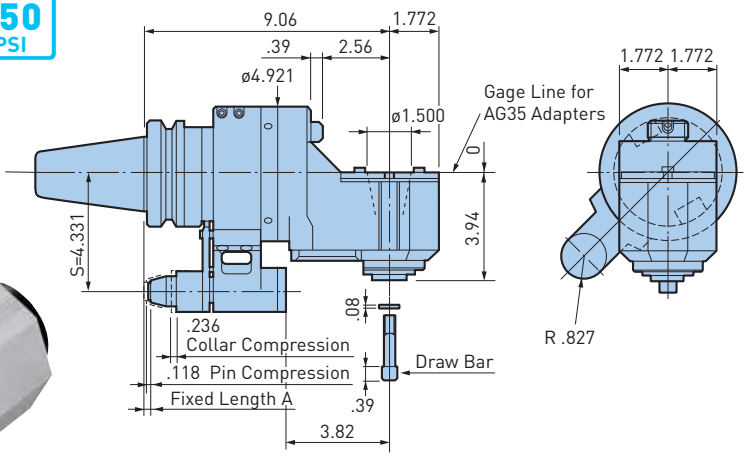
Catalog Number	Weight (lbs.)
BBT50-AG90/AGH35-230	33.1

- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

(HIGH RIGIDITY BUILD-UP TYPE)

MAX 3,000 RPM

MAX 150 PSI



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

The rotation of the cutting tool is in same direction of the machine spindle.

Catalog Number	Weight (lbs.)
BBT50-AG90/AGH35-230S	35.9

- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

ADAPTERS PG. 426

WRENCH PG. 409

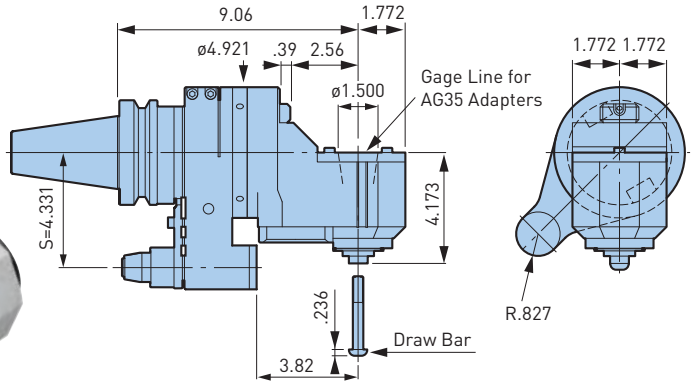
STOP BLOCK PG. 429

TAG90

(BUILD-UP CENTER THROUGH TYPE)

MAX 3,000 RPM | MAX 1,000 PSI | COOLANT THROUGH

By changing the adapter, it can be used for various types of processing.



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

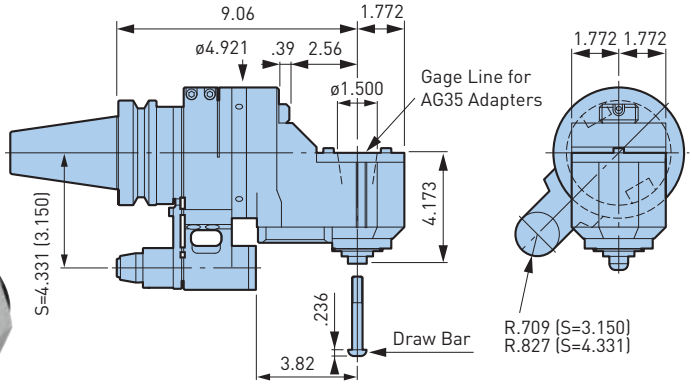
Catalog Number	Weight (lbs.)
BBT50-TAG90/AGH35-230	34.4

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included

(HIGH RIGIDITY BUILD-UP CENTER THROUGH TYPE)



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Weight (lbs.)	
	S=4.331	S=3.150
BBT50-TAG90/AGH35-230S	37.3	35.7

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

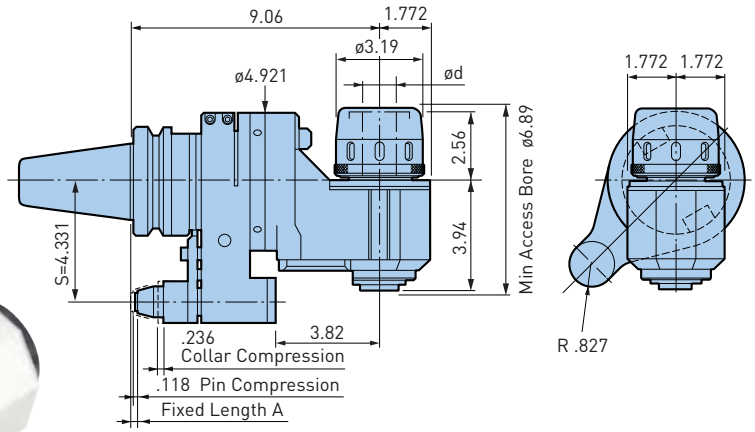
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included

ACCESSORIES

AG90 (HMC TYPE)

For Heavy Duty End Milling

MAX 3,000 RPM



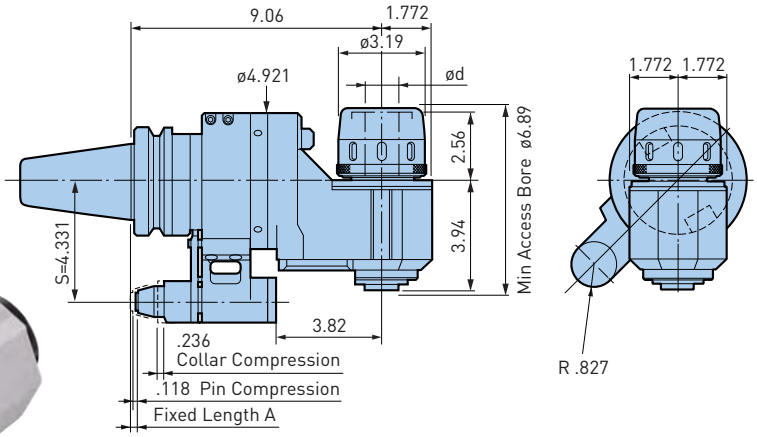
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	Weight (lbs.)
BBT50-AG90/HMC1.250-230	1.25	37.0
BBT50-AG90//HMC32-230	32mm	

The rotation of the cutting tool is in same direction of the machine spindle.

- Wrench is included
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

MAX 3,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	ød	Weight (lbs.)
BBT50-AG90/HMC1.250-230S	1.25	39.9
BBT50-AG90//HMC32-230S	32mm	

The rotation of the cutting tool is in same direction of the machine spindle.

- Wrench is included
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

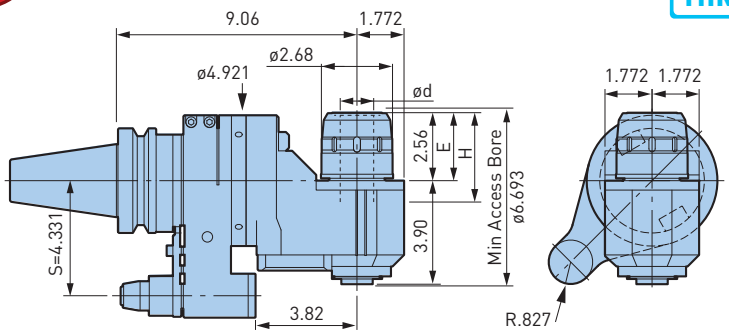
TAG90 (HMC CENTER THROUGH TYPE)

NEW Product

COOLANT THROUGH

MAX 3,000 RPM

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	Max Insertion Length H	Min Insertion Length E	Weight (lbs.)
BBT50-TAG90/HMC32S-230	32mm	3.740	2.559	37.0

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

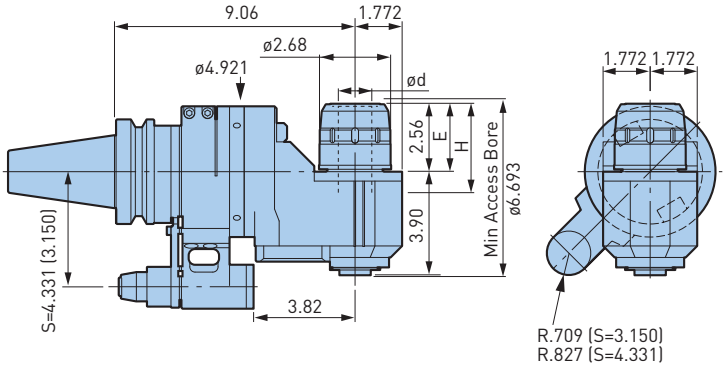
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included (Model: FK68-75L)

(HIGH RIGIDITY HMC CENTER THROUGH TYPE)

NEW Product

MAX 3,000 RPM

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	ød	Max Insertion Length H	Min Insertion Length E	Weight (lbs.)	
				S=4.331	S=3.150
BBT50-TAG90/HMC32S-230S	32mm	3.740	2.559	39.9	38.4

The rotation of the cutting tool is in same direction of the machine spindle.

***HSK shank type is also available; please contact us for details**

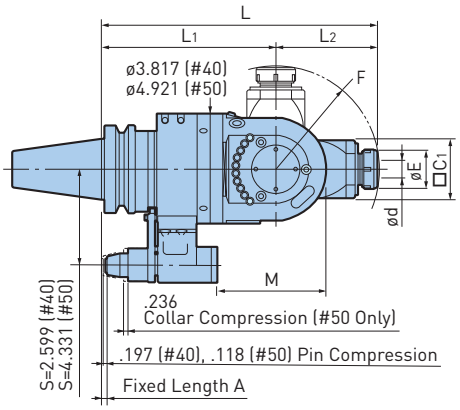
- The tool rotates in the forward direction relative to the machine spindle
- The angle of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines; must order separately
- Coolant cannot be supplied through the stop block and locating pin
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI
- Do not rotate the tool without supplying coolant
- Automatic tool change may not be available depending on machine tool models
- Wrench included (Model: FK68-75L)

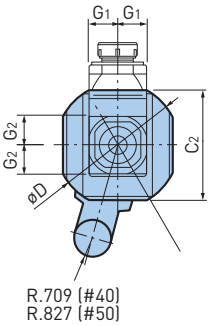
ACCESSORIES

AGU (UNIVERSAL TYPE)

CLAMPING RANGE: ø.098"-.787" For Angular Operations

MAX 6,000 RPM





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

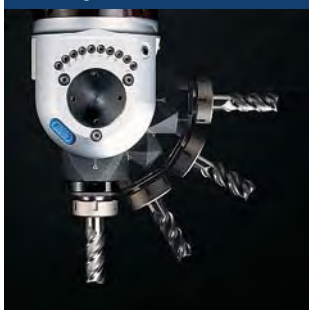
Catalog Number	ød	øE	øD	C1	C2	G1	G2	L	L1	L2	M	F	S	Collet	Max RPM	Weight (lbs.)
BBT40-AGU/NBS13-270	.098-.512	1.378	4.53	2.00	3.82	1.024	1.014	10.63	6.70	3.94	4.88	4.02	2.559	NBC13	6,000	21.4
BBT50-AGU/NBS20-315	.098-.787	1.811	5.51	2.56	4.92	1.299	1.280	12.40	7.87	4.53	4.92	4.65	4.331	NBC20	4,000	44.1

- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

Easily Adjust Spindle Angle From 0º to 90º



Precise Angle Adjustment

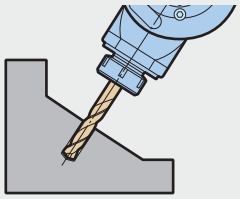
Unique setting mechanism enables the spindle angle to be precisely set at 1º increments.

Exclusive Clamping Bolts and Nuts

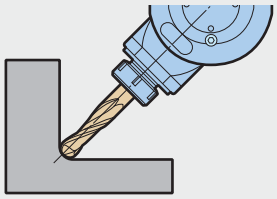
Specially selected materials and special design for clamping the head guarantees rigidity even for end milling applications.

Application Example

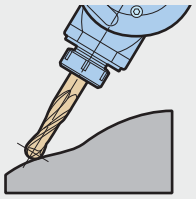
Adjustable AGU Universal Series expands ANGLE HEAD capabilities to accomplish various angular machining applications.



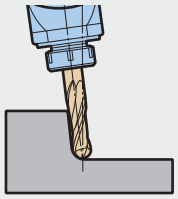
Drilling Or End Milling On An Angled Surface



Corner Rounding



Profiling



Machining Draft Angle Of A Mold

AGU30

CLAMPING RANGE: ø.098"-.787" For Angular Operations

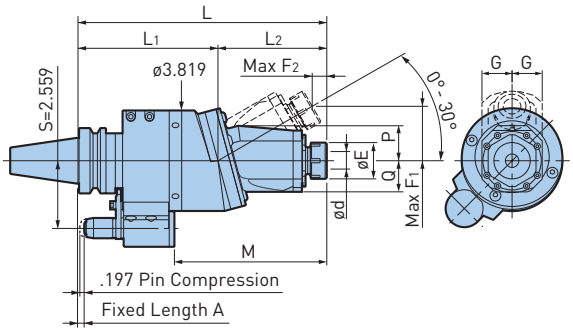
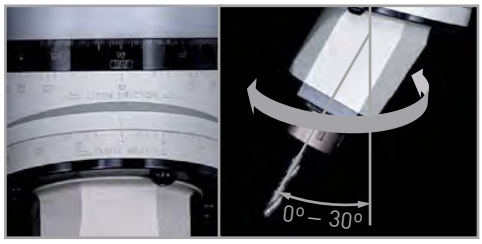


Fig. 1

MAX 6,000 RPM

Angle Adjustment by Aligning Divisions

Spindle angle is easily adjustable from 0º to 30º using the scale indication on the body.



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

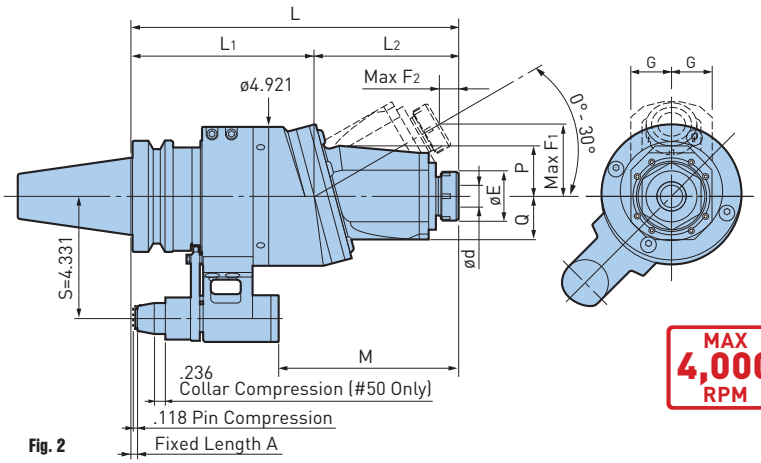


Fig. 2

MAX 4,000 RPM

Catalog Number	Fig.	ød	øE	G	L	L1	L2	M	P	Q	F1	F2	Collet	Max RPM	Weight (lbs.)
BBT40-AGU30/NBS13-240	1	.098-.512	1.378	1.142	9.45	5.32	4.12	5.79	1.34	1.18	2.07	.55	NBC13	6,000	15.3
BBT50-AGU30/NBS20-295	2	.098-.787	1.811	1.437	11.61	6.50	5.12	6.38	1.77	1.54	2.56	.67	NBC20	4,000	35.8

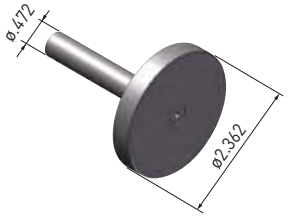
- Nut and wrench are included, collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models
- When supplied through the stop block, coolant can be ejected from the housing

ACCESSORIES

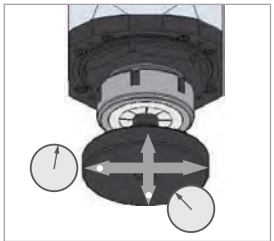
The rotation of the cutting tool is in same direction of the machine spindle.

SETTING DISC (INCLUDED)

For the precise adjustment of spindle angle or direction.



Clamp the Setting Disc Into the Angled Spindle



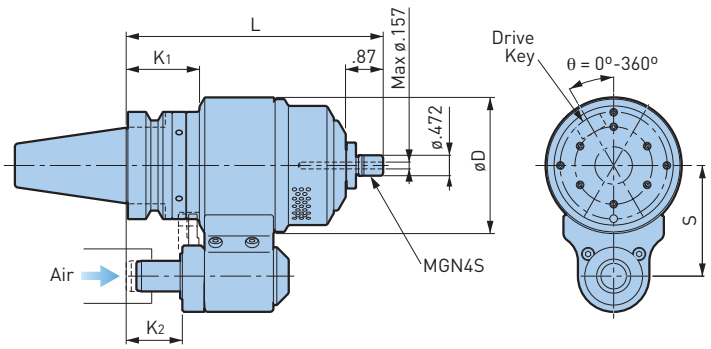
Check the Cutter Alignment and the Setting Angle

AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Automatic Tool Change

ZERO MACHINE SPINDLE ROTATION

MAX 80,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Practical Spindle Speed (RPM)	Cutting Diameter	L	øD	K1	K2	S	Collet	Nut	Weight (lbs.)
BBT30-RBX7-4S-152-55	60,000-80,000	ø.039 or smaller	5.98	3.150	1.10	1.30	2.165	NBC4S	MGN4S	6.0
BBT40-RBX7-4S-151-65	60,000-80,000	ø.039 or smaller	5.95	3.150	1.69	1.30	2.559	NBC4S	MGN4S	8.8
BBT40-RBX5-4S-151-65	40,000-50,000	ø.059 or smaller		3.780						11.0
BBT50-RBX7-4S-166-80	60,000-80,000	ø.039 or smaller	6.54	3.937	2.28	1.89	3.150	NBC4S	MGN4S	19.2
BBT50-RBX5-4S-166-80	40,000-50,000	ø.059 or smaller								21.4

- Nut and wrench are included, collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES


COLLET PG. 374

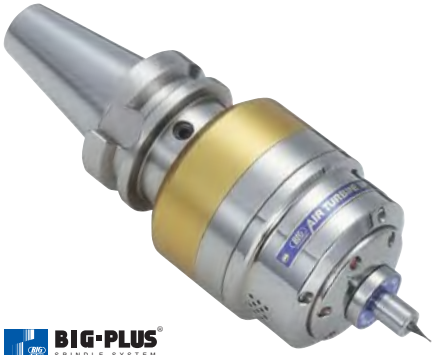

STOP BLOCK PG. 429


AIR UNIT PG. 432

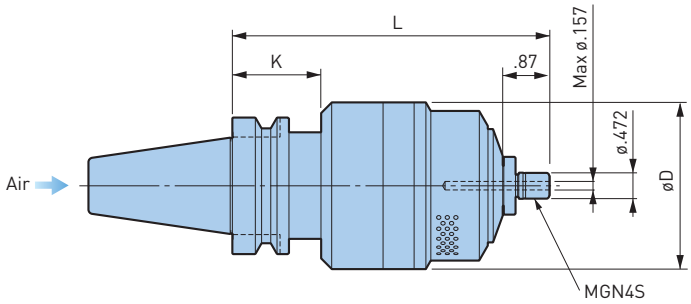
AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Compressed Air Through the Machine Spindle

MAX 80,000 RPM



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	Practical Spindle Speed (RPM)	Cutting Diameter	L	øD	K	Collet	Nut	Weight (lbs.)
BBT40-RBX7C-4S-150	60,000-80,000	ø.039 or smaller	5.91	3.071	1.69	NBC4S	MGN4S	6.8
BBT40-RBX5C-4S-150	40,000-50,000	ø.059 or smaller		3.780				9.0
BBT50-RBX7C-4S-160	60,000-80,000	ø.039 or smaller	6.30	3.071	2.09	NBC4S	MGN4S	13.9
BBT50-RBX5C-4S-160	40,000-50,000	ø.059 or smaller		3.780				16.1

- Nut and wrench are included, collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES

COLLET PG. 374

AIR UNIT PG. 432

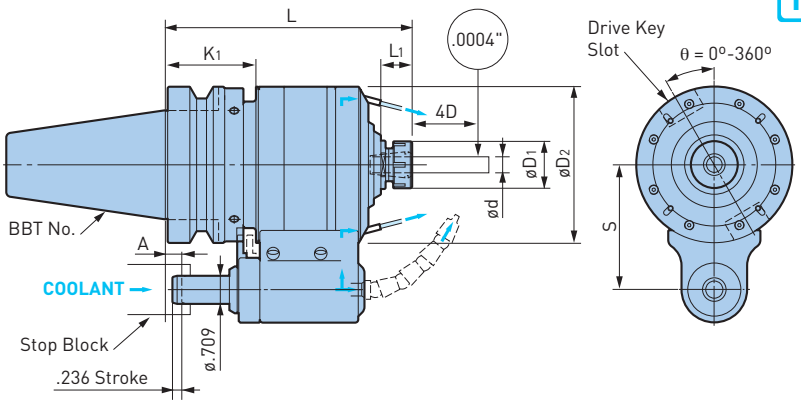
HIGH SPINDLE

CLAMPING RANGE: ø.059"-.630" For Higher Spindle Speeds

MAX 20,000 RPM

COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



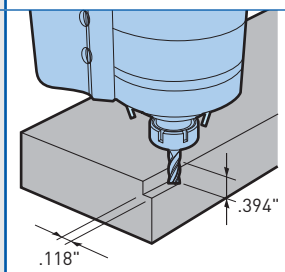
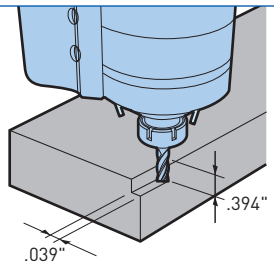
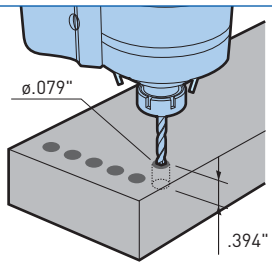
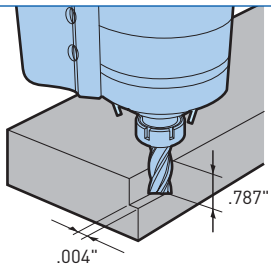
Catalog Number	ød	L	L1	øD1	øD2	K1	S	A	Collet	Speed Ratio	Max RPM	Weight (lbs.)
BBT40-GTG5-10-140-65	.059-.394	5.51	.79	1.181	3.150	1.69	2.559	-.354 +.236	NBC10	4.67	20,000	10.6
BBT50-GTG6-10-158-80	.059-.394	6.22	.79	1.181	3.937	2.28	3.150	-.354 +.236	NBC10	5.67	20,000	19.4
BBT50-GTG4-16-177-80	.098-.630	6.97	1.00	1.654	4.331	2.28	3.150	-.354 +.236	NBC16	3.80	15,000	23.4

- Max size NEW BABY COLLET (NBC10-10AA for GTG5/GTG6 | NBC16-16AA for GTG4), nut and 2 tightening wrenches are included; other size collets must be ordered separately
- The allowable torque is a calculated value of the drive system, and not the actual torque in cutting
- The maximum diameter when using an end mill is ø8mm (GTG5, GTG6) and ø12 (GTG4)
- A Stop Block is required when mounting on machines
- For continuous rotation of over 30 minutes, the spindle speed should be set within 80% of the maximum speed

A Stop Block is required.

ACCESSORIES

Application Example

	GTG5	GTG6	GTG6	GTG4
Cutter	Solid carbide end mill ø.315"/ 2 flutes	Solid carbide end mill ø.236"/ 2 flutes	Solid carbide drill ø.079"	Solid carbide end mill ø.630"
Workpiece	Duralumin (A-2017)	1055	Duralumin (A-2017)	Duralumin (A-2017)
Spindle Speed	20,000 RPM	16,000 RPM	20,000 RPM	15,000 RPM
Cutting Feed	118.1 IPM	137.8 IPM	78.7 IPM	39.4 IPM
Results	High metal removal rate 5.5 cu.in./min.	High metal removal rate 2.1 cu.in./min.	Extended tool life 1,200 holes by 1 drill	Surface roughness RMS max .00008"
				

- Results will vary depending on workpiece, cutting tool, machine model and other conditions
- The rigidity and concentricity are often affected by the projection length of a cutting tool; it is recommended to keep the projection as short as possible

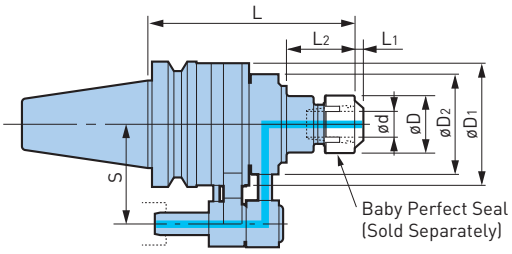

GEAR DRIVING SYSTEM
SPEED RATIO

Hi-JET HOLDER (NBS TYPE)

CLAMPING RANGE: ø.118"-.787" For Small Diameter Drills, Gun Drills & End Mills

MAX 10,000 RPM

COOLANT THROUGH



A Stop Block is required.

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

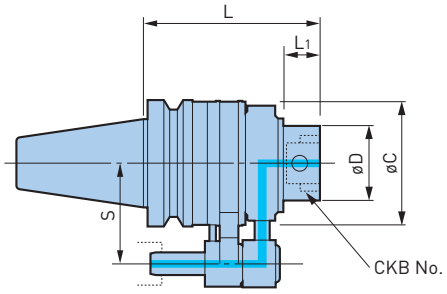
Catalog Number	ød	øD	øD1	øD2	L	L2	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)	Perfect Seal	Collet
BBT30-0NBS10N-135-55	.118-.512	1.378	2.598	2.56	5.43	.709	10,000	MES-40	2.7	BPS10	NBC10
BBT30-0NBS13N-140-55	.118-.787	1.811			5.63	.906				BPS13	NBC13
BBT30-0NBS16N-140-55	.118-.512	1.378				.945			2.6	BPS16	NBC16
BBT30-0NBS20N-140-55	.118-.787	1.811				.945				BPS20	NBC20
BBT40-0NBS13N-165	.118-.512	1.378	3.213	2.87	6.61	1.850	10,000	MES-40	8.8	BPS13	NBC13
BBT40-0NBS20N-165	.118-.787	1.811		3.15		1.890	8,000	MES-50	9.5	BPS20	NBC20
BBT50-0NBS13N-165	.118-.512	1.378	3.921	3.15	6.61	1.850	8,000	MES-50	16.1	BPS13	NBC13
BBT50-0NBS20N-165	.118-.787	1.811		3.15		2.008			16.5	BPS20	NBC20

- Collet, adjusting screw, clamping nut and wrench must be ordered separately; order the appropriate size Baby Perfect Seal
- Adjustment screw (included for BBT30)
- Max coolant pressure is 284 PSI
- For L1 refer to Baby Perfect Seal pg. 390
- The standard S pitch dimensions are BBT40=65, BBT50=80, and BBT30 varies depending on the machine, so please specify.
- Other sizes available upon request

ACCESSORIES

COLLET PG. 378 | BABY PERFECT SEAL PG. 390 | WRENCH PG. 392 | STOP BLOCK PG. 429

Hi-JET HOLDER (CKB TYPE)



MAX 6,000 RPM

COOLANT THROUGH

A Stop Block is required.

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	CK	øD	L	L1	øC	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
BBT40-0CKB5N-138	CKB5	1.969	3.213	5.433	.906	2.559	8,000	MES-50	9.3
BBT40-0CKB6N-149	CKB6	2.520	5.87	1.102	3.92	2.559	6,000	MES-65	13.4
BBT50-0CKB6N-139	CKB6	2.520	5.47	1.063	3.92	3.150	6,000	MES-65	15.9
BBT50-0CKB7N-165	CKB7	3.543	6.50	1.358	5.10	3.150	4,000	MES-90	27.0

- Max coolant pressure is 284 PSI

ACCESSORIES

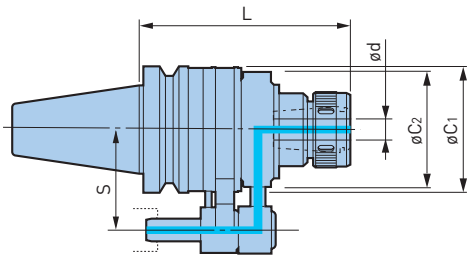
STOP BLOCK PG. 429

Hi-JET HOLDER (TG TYPE)

CLAMPING RANGE: ø.093"-1.000" For TG100 Single Angle Style Collets

MAX 8,000 RPM

COOLANT THROUGH



Catalog Number	Collet Series	ød	L	øC1	øC2	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
BT40-OHC1.000N-175	.093-1.000	TG100	6.89	3.213	3.15	2.559	8,000	MES-50	11.1

- Max coolant pressure is 284 PSI
- Collets and nuts are not included or available from BIG DAISHOWA

A Stop Block is required.

ACCESSORIES

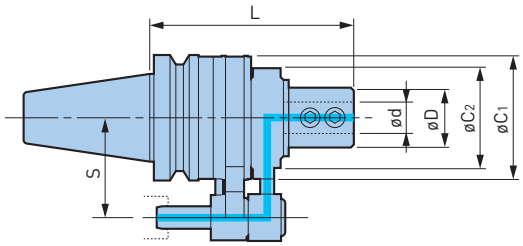
STOP BLOCK PG. 429

Hi-JET HOLDER (OSL TYPE)

CLAMPING RANGE: ø.750"-1.500" For Straight Shanks with Flat

MAX 8,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	øC1	øC2	S	Max RPM	Merit Set (2 pcs. of Merit Ring) (2 pcs. of Merit Plate)	Weight (lbs.)
BT40-OSL1.000N-165	1.000	1.890	6.50	3.213	3.15	2.559	8,000	MES-50	9.7
BT40-OSL1.250N-165	1.250	2.283		3.921	3.86		6,000	MES-65	12.6
BT50-OSL.750N-150	.750	1.890	5.91	3.921	3.15	3.150	8,000	MES-50	16.3
BT50-OSL1.000N-165	1.000								16.5
BT50-OSL1.250N-165	1.250	2.283	6.50		3.86		6,000	MES-65	17.4
BT50-OSL1.500N-165	1.500	2.500							17.6

- Max coolant pressure is 284 PSI

A Stop Block is required.

ACCESSORIES

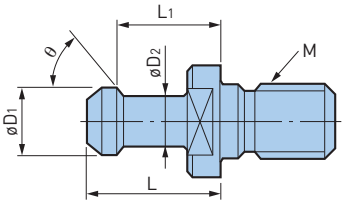
REDUCTION COLLET PG. 409

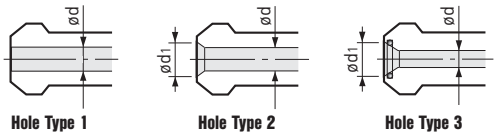
STOP BLOCK PG. 429

PULLSTUD BOLTS

Before Ordering

Be sure to check the dimensions of the required pullstud bolt by referring to the specification sheet of the machine tool. In the case of machines with coolant-through spindle capability, provide us a copy of the pullstud bolt drawing, as the sealing method may vary even among machines with the same model number.





Spindle Type	Catalog Number	Standard	øD1	øD2	L	L1	θ	ød	ød1	Hole Type	Standard or Machine Make
30 (M12)	**30PMG**	JIS	.472	.31	.92	.724	75	None	—	—	JIS BT30
	30PMGH							.16	—	1	JIS BT30 With Hole
	30PMGH2							.10	.22	3	YASDA
	P30T-1MG	MAS-I	.433	.28	.91	.709	45	None	—	—	MAS-1 BT30
	P30T-1MGH							.10	—	1	MAS-1 BT30 With Hole
	P30T-2MG	MAS-II					60	None	—	—	MAS-2 BT30
	P30T-2MGH							.10	—	1	MAS-2 BT30 With Hole
	30P-1MGH	Original	.433	.31	.91	.709	45	.10	—	1	FANUC
	P30T-2MGH3		.433	.30	.91	.709	60	.16	—	1	BROTHER
	PMO30MG		.433	.28	.91	.709	45	.10	.26	3	DMG MORI
40 (M16)	**40PMG**	JIS	.748	.55	1.14	.906	75	None	—	—	JIS BT40
	40PMGH							.28	—	1	JIS BT40 With Hole
	40PMGH2							.28	—	1	MAKINO (Ground Face)
	40PMGH7							.16	.20	2	OKUMA (Ground Face)
	40PMGH4A							.28	—	1	YASDA ø3 Side Hole
	40PMGH11							.28	.39	3	YASDA
	40PMGH12							.20	—	1	MITSUI
	P40T-1MG	MAS-I	.591	.39	1.38	1.102	45	None	—	—	MAS-1 BT40
	P40T-1MGHA							.12	—	1	MAS-1 BT40 With Hole
	P40T-1MGH4							.12	.28	3	OKUMA
	P40T-1MGH1							.14	.22	2	MAS-1 BT40
	P40T-1MGH7							.16	—	1	MAKINO (Ground Face)
	P40T-1MGH11							.12	.28	3	JTEKT
	P40T-2MG	MAS-II	.591	.39	1.38	1.102	60	None	—	—	MAS-2 BT40
	P40T-2MGHA							.12	—	1	MAS-2 BT40 With Hole
	P40T-2MGH8							.14	.22	2	
	P40T-2MGH1							.12	.28	3	OKUMA
	MP40MG	Original	.591	.39	.98	.709	90	None	—	—	MITSUI SEIKI
	POM40MG		.591	.39	1.38	1.102	90	None	—	—	DMG MORI Form B
	PMO40MG		.748	.55	1.14	.906	75	.28	.39	3	DMG MORI With Hole
	PYN40MG		.740	.57	.75	.552	45	.28	—	1	MAZAK

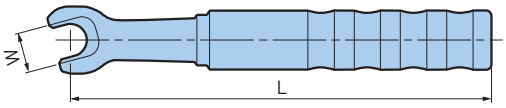
- Machine tool builders have used various shapes and sizes of retention knobs
- The use of the incorrect knob may result in injury or property damage for your machining center
- Other sizes available upon request

TOOL STEEL

MEGA PULLSTUD BOLT

MG in the model numbers stand for MEGA PULLSTUD BOLT. Tensile strength is improved by utilizing tool steel. Especially recommended for BIG-PLUS dual contact applications.

PULLSTUD WRENCHES

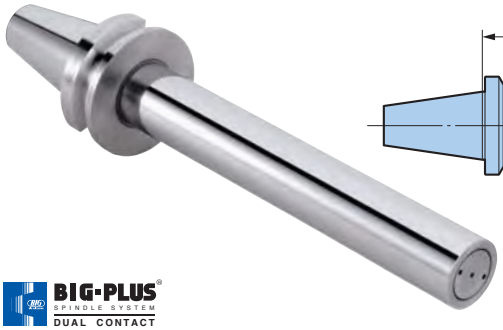


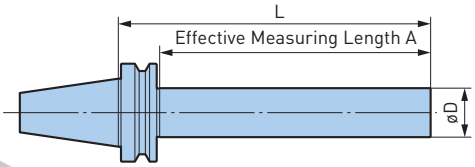
Taper Type & Size	Catalog Number	W	L	Pullstud
BBT30 BT30	**PLW30**	.512	5.51	JIS, MAS-1, MAS-2 30P-1MGH, P30T-2MGH3,PMO30MG
BBT40 BT40	**PLW-40P**	.748	7.87	JIS
	PLW-P40T			MAS-1, MAS-2,POM40MG
	PLW-MP40			MP40
	PLW-PMO40			PMO40MG
	PLW-PYN40			PYN40MG
BBT50 BT50	**PLW-P50T**	1.181	13.78	MAS-I, MAS-II POM50, POM50H, POM50H1, POM50H8
	PLW-PYN50			PYN50-5

• If appearance shape is the same, the specification other than above is also usable

DYNA TEST

Helps identify potential problems, and can reduce downtime and costly repairs of the machine tool spindle.



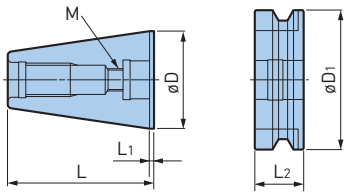


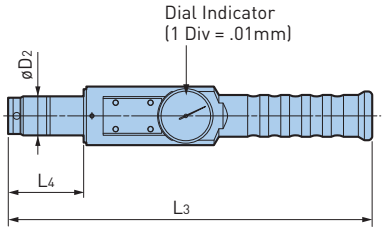
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	L	A	øD
BBT30-32-L150	5.906	4.921	32mm
BBT30-32-L235	9.252	8.268	
BBT40-50-L200	7.874	6.693	50mm
BBT40-50-L350	13.780	12.598	
BBT50-50-L200	7.784	6.260	50mm
BBT50-50-L360	14.173	12.559	

ATC ALIGNMENT TOOL

For re-aligning the center between the machine tool spindle and ATC gripper. It can also be used for re-aligning the ATC gripper and tool magazine pots. More detailed information on pg. 608.



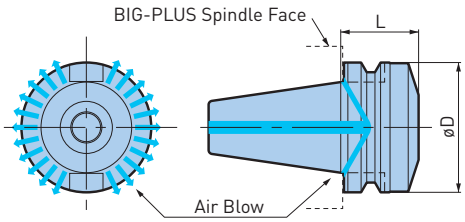


Catalog Number	øD	D_1	D_2	L	L_1	L_2	L_3	L_4	M
BT30-ATC18	1.25	1.811	.709	1.984	.079	.787	9.882	1.732	M12
BT40-ATC20	1.75	2.480	.787	2.654	.079	.984	9.882	1.732	M12
BT50-ATC28	2.75	3.937	1.102	4.126	.118	1.378	10.276	2.126	M16

Machine tool builders use various shapes and sizes of retention knobs. The use of the incorrect knob may result in injury or property damage for your machining center

BIG-PLUS CLEANER

Blowing air cleans the BIG-PLUS machine spindle face of all debris.

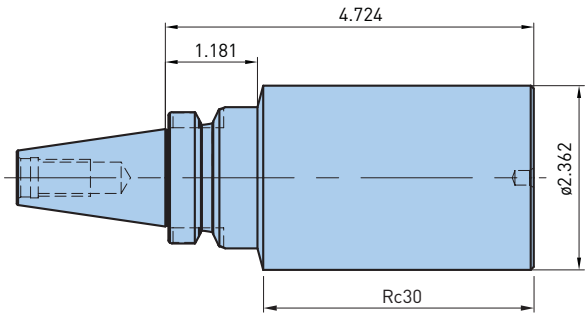


BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	L	øD
SBT30-ASC-30T	1.181	1.811
SBT40-ASC-40T	1.575	2.480
SBT50-ASC-60T	2.362	3.937

- When the cleaner is clamped into a BIG-PLUS machine spindle, faces have 1mm (.039") clearance

BLANK BAR



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number
BBT30-BB60-120

- Do not heat treat after machining

HSK SHANKS

A.3

HSK-A

HSK-E

HSK-F

MEGA MICRO CHUCK (TAPERED BODY)

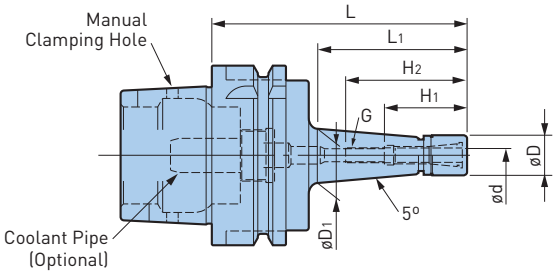
CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

For Micro Drill & End Mill Applications

NEW Sizes

HIGHER RIGIDITY

MAX 45,000 RPM



Catalog Number	ød	øD	øD1	L	L1	H1	H2	G	Collet	Wrench	Max RPM	Weight (lbs.)
HSK-A40-MEGA3S-75T	.018-.128	.394	.57	2.95	1.57	.87	1.50	M4 P0.7	NBC3S-□	MGR10	32,000	.6
HSK-A40-MEGA3S-90T			.68	3.54	2.20						28,000	.7
HSK-A40-MEGA4S-60T	.018-.159	.472	.55	2.36	1.02	1.04	1.73	M5 P0.8	NBC4S-□	MGR12	35,000	.6
HSK-A40-MEGA4S-90T			.76	3.54	2.28		1.85				28,000	.7
HSK-A40-MEGA4S-105T			.87	4.13	2.87						25,000	.8
HSK-A40-MEGA6S-60T❖	.018-.238	.551	.61	2.36	1.06	1.12	(1.57)	M7 P0.75	NBC6S-□	MGR14	35,000	.6
HSK-A40-MEGA6S-75T			.72	2.95	1.69		1.93				32,000	.7
HSK-A40-MEGA6S-90T			.83	3.54	2.32						28,000	.8
HSK-A40-MEGA6S-105T			.94	4.13	2.91						25,000	.9
HSK-A40-MEGA8S-60T❖ 🔴	.116-.317	.709	.79	2.36	1.14	—	(1.63)	—	NBC8S-□	MGR18	—	.6
HSK-A50-MEGA6S-105T	.018-.238	.551	.87	4.13	2.56	1.12	1.93	M7 P0.75	NBC6S-□	MGR14	25,000	1.3
HSK-A63-MEGA3S-75T	.018-.128	.394	.54	2.95	1.38	.87	1.50	M4 P0.7	NBC3S-□	MGR10	32,000	1.8
HSK-A63-MEGA3S-120T			.85	4.72	3.15						25,000	2.0
HSK-A63-MEGA4S-75T	.018-.159	.472	.61	2.95	1.38	1.04	1.85	M5 P0.8	NBC4S-□	MGR12	32,000	1.8
HSK-A63-MEGA4S-90T			.71	3.54	1.97						28,000	1.9
HSK-A63-MEGA4S-120T			.92	4.72	3.15						22,000	2.1
HSK-A63-MEGA6S-60T	.018-.238	.551	.61	2.36	.91	1.12	1.46	M7 P0.75	NBC6S-□	MGR14	35,000	1.8
HSK-A63-MEGA6S-75T			.67	2.95	1.38		1.89				32,000	1.8
HSK-A63-MEGA6S-90T			.77	3.54	1.97		1.93				28,000	1.9
HSK-A63-MEGA6S-105T			.87	4.13	2.56						25,000	2.0
HSK-A63-MEGA6S-120T			.98	4.72	3.15						22,000	2.1
HSK-A63-MEGA6S-135T			1.08	5.31	3.74						20,000	2.2
HSK-A63-MEGA8S-90T	.116-.317	.709	.92	3.54	2.01	1.22	1.99	M9 P0.75	NBC8S-□	MGR18	30,000	2.0
HSK-A63-MEGA8S-120T			1.12	4.72	3.19						23,000	2.3
HSK-A63-MEGA8S-135T 🔴			1.24	5.31	3.78						—	2.4

- MEGA MICRO NUT is included; coolant pipe, collet and wrench must be ordered separately
- Weight includes nut but does not include collet
- For models marked ❖, there is no internal thread, the dimension H2 in ( ) shows how deep a tool can be inserted
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376

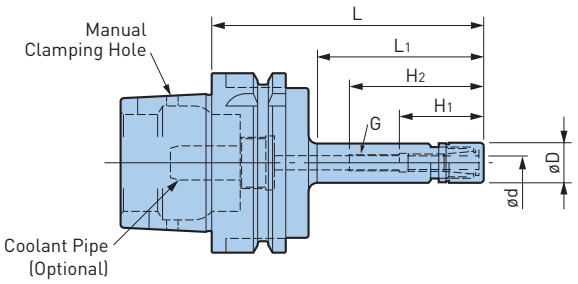

MEGA WRENCH PG. 410

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

For Micro Drill & End Mill Applications

MAX 38,000 RPM



Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Wrench	Max RPM	Weight (lbs.)
HSK-A40-MEGA3S-60	.018-.128	.394	2.36	1.02	.87	1.54	M4 P0.7	NBC3S-□	MGR10	30,000	.6
HSK-A40-MEGA4S-60	.018-.159	.472	2.36	1.06	1.04	1.73	M5 P0.8	NBC4S-□	MGR12	30,000	.6
HSK-A40-MEGA4S-90			3.54	2.24		1.85				25,000	.6
HSK-A40-MEGA6S-60❖	.018-.238	.551	2.36	1.50	—	(1.57)	—	NBC6S-□	MGR14	30,000	.6
HSK-A40-MEGA6S-90			3.54	2.28	1.12	1.93	M7 P0.75			25,000	.7
HSK-A50-MEGA4S-75	.018-.159	.472	2.95	1.42	1.04	1.85	M5 P0.8	NBC4S-□	MGR12	30,000	1.1
HSK-A50-MEGA6S-75	.018-.238	.551	2.95	1.42	1.12	1.93	M7 P0.75	NBC6S-□	MGR14	30,000	1.1
HSK-A63-MEGA4S-75	.018-.159	.472	2.95	1.42	1.04	1.89	M5 P0.8	NBC4S-□	MGR12	30,000	1.8
HSK-A63-MEGA4S-105			4.13	2.40		1.85				25,000	1.8
HSK-A63-MEGA6S-75	.018-.238	.551	2.95	1.42	1.12	1.89	M7 P0.75	NBC6S-□	MGR14	30,000	1.8
HSK-A63-MEGA6S-105			4.13	2.40		1.93				25,000	1.9
HSK-A63-MEGA8S-90	.116-.317	.709	3.54	1.89	1.22	1.99	M9 P0.75	NBC8S-□	MGR18	30,000	2.0

- MEGA MICRO NUT is included; coolant pipe, collet and wrench must be ordered separately
- Weight includes nut but does not include collet
- For models marked ❖, there is no internal thread, the dimension H_2 in ( ) shows how deep a tool can be inserted
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES

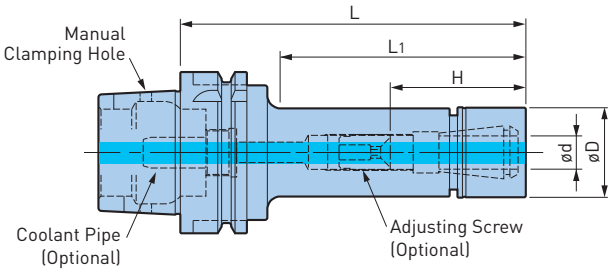
MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-1.000" (ø.25-25.4mm)

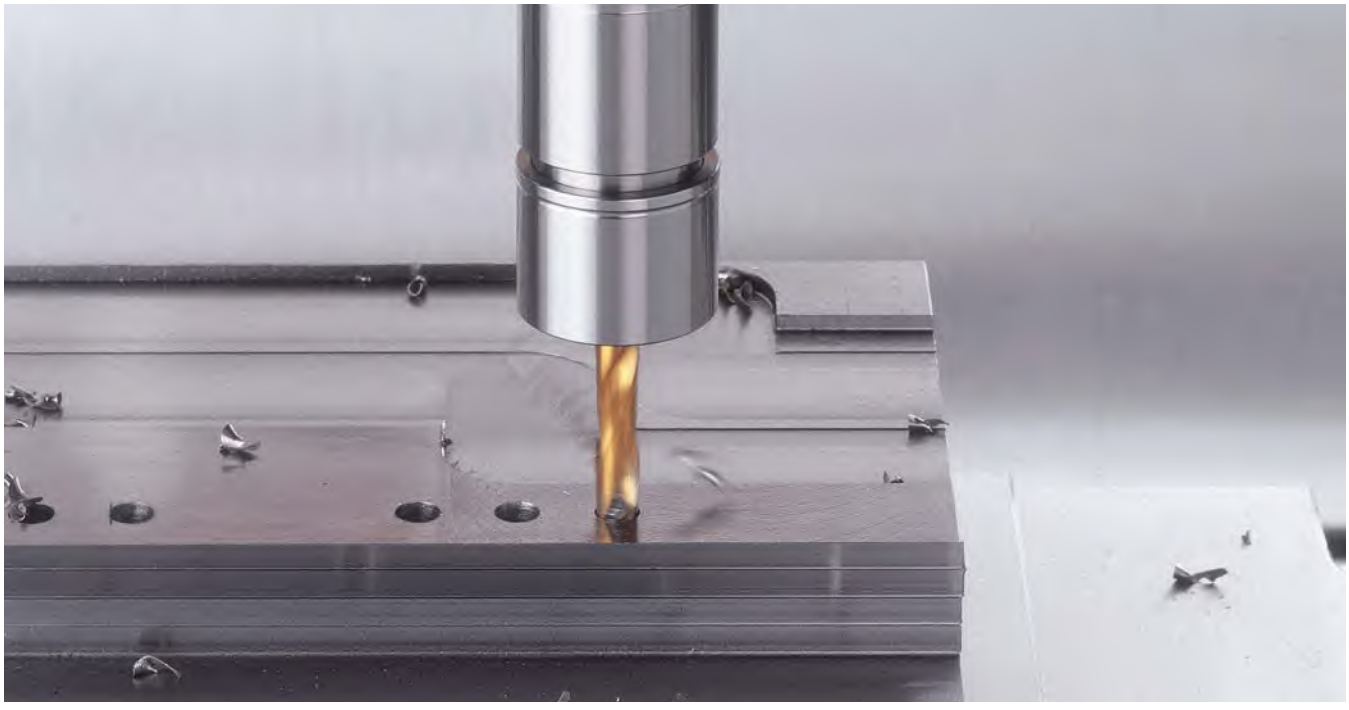
For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A32-MEGA6N-75	.010-.236	.787	2.95	1.46	.91-1.69	NBC6-□	MGN6	MGR20	30,000	.6
HSK-A32-MEGA8N-50	.020-.315	.984	1.97	1.02	1.26	NBC8-□	MGN8	MGR25	33,000	.5
HSK-A40-MEGA6N-60❖	.010-.236	.787	2.36	1.18	1.30	NBC6-□	MGN6	MGR20	35,000	.7
HSK-A40-MEGA6N-75			2.95	1.77	.91-1.50				30,000	.8
HSK-A40-MEGA6N-90			3.54	2.36	.91-1.69					.8
HSK-A40-MEGA8N-60❖	.020-.315	.984	2.36	1.18	1.61	NBC8-□	MGN8	MGR25	35,000	.8
HSK-A40-MEGA8N-90			3.54	2.36	1.02-1.73				30,000	1.0
HSK-A40-MEGA10N-60❖	.059-.394	1.181	2.36	1.02	1.57	NBC10-□	MGN10	MGR30	35,000	.9
HSK-A40-MEGA10N-90			3.54	2.13	1.50-1.89				30,000	1.2
HSK-A40-MEGA13N-75❖	.098-.512	1.378	2.95	2.17	2.17	NBC13-□	MGN13	MGR35	25,000	1.2
HSK-A40-MEGA13N-90❖			3.54	2.76	2.52					1.4
HSK-A40-MEGA16N-75❖	.098-.630	1.654	2.95	2.17	2.09	NBC16-□	MGN16	MGR42	20,000	1.4
HSK-A40-MEGA16N-90❖			3.54	2.76	2.48				15,000	1.7
HSK-A40-MEGA20N-90❖	.098-.787	1.811	3.54	2.76	2.60	NBC20-□	MGN20	MGR46	15,000	1.9



COLLET CHUCK

Catalog Number	ød	øD	L	L_1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A50-MEGA6N-75	.010-.236	.787	2.95	1.46	.91-1.69	NBC6-□	MGN6	MGR20	30,000	1.3
HSK-A50-MEGA6N-100			3.94	2.76					25,000	1.3
HSK-A50-MEGA6N-135			5.31	3.66					20,000	1.5
HSK-A50-MEGA6N-165			6.50	4.84					14,000	1.8
HSK-A50-MEGA8N-75	.020-.315	.984	2.95	1.46	1.02-1.46	NBC8-□	MGN8	MGR25	30,000	1.3
HSK-A50-MEGA8N-100			3.94	2.44	1.02-1.77				28,000	1.5
HSK-A50-MEGA8N-135			5.31	3.78					20,000	1.8
HSK-A50-MEGA8N-165			6.50	4.92					14,000	2.0
HSK-A50-MEGA10N-75❖	.059-.394	1.181	2.95	1.50	1.81	NBC10-□	MGN10	MGR30	33,000	1.5
HSK-A50-MEGA10N-100			3.94	2.48	1.50-1.89				25,000	1.8
HSK-A50-MEGA10N-135			5.31	3.86					20,000	2.2
HSK-A50-MEGA10N-165			6.50	5.04					14,000	2.4
HSK-A50-MEGA13N-75❖	.098-.512	1.378	2.95	1.57	1.81	NBC13-□	MGN13	MGR35	28,000	1.5
HSK-A50-MEGA13N-100			3.94	2.56	1.73-2.20				25,000	2.0
HSK-A50-MEGA13N-135			5.31	3.94	1.73-2.87				18,000	2.4
HSK-A50-MEGA13N-165			6.50	5.12	1.73-2.48				12,000	2.9
HSK-A50-MEGA16N-75❖	.098-.630	1.654	2.95	1.93	1.89	NBC16-□	MGN16	MGR42	28,000	2.2
HSK-A50-MEGA16N-100			3.94	2.91	1.89-2.17				20,000	2.4
HSK-A50-MEGA16N-135			5.31	4.29	1.89 -2.68				15,000	3.1
HSK-A50-MEGA16N-165			6.50	5.47					10,000	3.7
HSK-A50-MEGA20N-75❖◆	.098-.787	1.811	2.95	1.93	1.85	NBC20-□	MGN20	MGR46	20,000	2.0
HSK-A50-MEGA20N-100			3.94	2.91	2.01-2.13				15,000	2.4
HSK-A50-MEGA20N-135			5.31	4.29	2.01-2.68				10,000	3.3
HSK-A50-MEGA20N-165			6.50	5.47					8,000	4.0
HSK-A50-MEGA25N-95❖	.610-1.000	2.326	3.74	2.72	2.56	NBC25-□	MGN25	MGR60L	12,000	2.9

- MEGA NEW BABY NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- Tool adjustment amount "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖
- NEW BABY END MILL COLLETS cannot be used with models marked ◆

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410

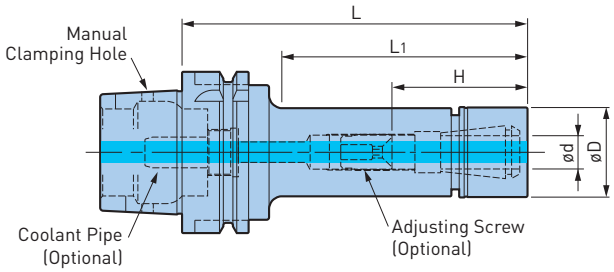

SCREW PG. 433

MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-1.000" (ø.25-25.4mm) For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH

MAX 35,000 RPM



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A63-MEGA6N-75	.010 -.236	.787	2.95	1.38	.91-1.50	NBC6-□	MGN6	MGR20	35,000	2.0
HSK-A63-MEGA6N-90			3.54	1.89	.91-1.69				30,000	2.0
HSK-A63-MEGA6N-105			4.13	2.48						2.0
HSK-A63-MEGA6N-120			4.72	2.99					25,000	2.2
HSK-A63-MEGA6N-135			5.31	3.58					20,000	2.2
HSK-A63-MEGA6N-165			6.50	4.76					15,000	2.2
HSK-A63-MEGA8N-75	.020-.315	.984	2.95	1.38	1.02-1.50	NBC8-□	MGN8	MGR25	35,000	2.0
HSK-A63-MEGA8N-90			3.54	1.97	1.02-1.77				30,000	2.2
HSK-A63-MEGA8N-105			4.13	2.48						2.2
HSK-A63-MEGA8N-120			4.72	2.99					25,000	2.4
HSK-A63-MEGA8N-135			5.31	3.58					20,000	2.4
HSK-A63-MEGA8N-165			6.50	4.76					15,000	2.6
HSK-A63-MEGA10N-75❖	.059-.394	1.181	2.95	1.42	1.97	NBC10-□	MGN10	MGR30	33,000	2.2
HSK-A63-MEGA10N-90			3.54	1.97	1.50-1.77					2.2
HSK-A63-MEGA10N-105			4.13	2.56	1.50-1.89				25,000	2.4
HSK-A63-MEGA10N-120			4.72	3.15						2.6
HSK-A63-MEGA10N-135			5.31	3.66					20,000	2.9
HSK-A63-MEGA10N-165			6.50	4.84					15,000	3.1
HSK-A63-MEGA13N-75❖	.098-.512	1.378	2.95	1.46	1.93	NBC13-□	MGN13	MGR35	30,000	2.2
HSK-A63-MEGA13N-90❖			3.54	2.01	2.52					2.4
HSK-A63-MEGA13N-105			4.13	2.60	1.73-2.20				25,000	2.6
HSK-A63-MEGA13N-120			4.72	3.19	1.73-2.48				20,000	2.9
HSK-A63-MEGA13N-135			5.31	3.78						3.1
HSK-A63-MEGA13N-165			6.50	4.92					15,000	3.7
HSK-A63-MEGA16N-75❖	.098-.630	1.654	2.95	1.54	1.89	NBC16-□	MGN16	MGR42	30,000	2.4
HSK-A63-MEGA16N-90❖			3.54	2.13	2.48				25,000	2.9
HSK-A63-MEGA16N-105			4.13	2.72	1.89-2.13				20,000	3.1
HSK-A63-MEGA16N-120			4.72	3.31	1.89-2.68				15,000	3.3
HSK-A63-MEGA16N-135			5.31	3.90						3.7
HSK-A63-MEGA16N-165			6.50	5.08					10,000	4.4
HSK-A63-MEGA16N-200			7.87	6.46					8,000	5.3
HSK-A63-MEGA20N-75❖	.098-.787	1.811	2.95	1.54	2.01	NBC20-□	MGN20	MGR46	30,000	2.6
HSK-A63-MEGA20N-90❖			3.54	2.13	2.40				25,000	3.1
HSK-A63-MEGA20N-105			4.13	2.72	2.01-2.13				20,000	3.3
HSK-A63-MEGA20N-120			4.72	3.31	2.01-2.68				15,000	3.7
HSK-A63-MEGA20N-135			5.31	3.90						4.0
HSK-A63-MEGA20N-165			6.50	5.08					10,000	5.1
HSK-A63-MEGA20N-200			7.87	6.46					8,000	6.0
HSK-A63-MEGA25N-90❖	.610-1.000	2.362	3.54	—	2.48	NBC25-□	MGN25	MGR60L	20,000	3.5
HSK-A63-MEGA25N-120❖			4.72		3.54				12,000	4.8

COLLET CHUCK

Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A100-MEGA6N-90	.010-.236	.787	3.54	1.69	.91-1.69	NBC6-□	MGN6	MGR20	20,000	5.5
HSK-A100-MEGA6N-105			4.13	2.28					18,000	5.5
HSK-A100-MEGA6N-120			4.72	2.87						5.5
HSK-A100-MEGA6N-135			5.31	3.46					14,000	5.5
HSK-A100-MEGA6N-165			6.50	4.45					12,000	5.7
HSK-A100-MEGA8N-90	.020-.315	.984	3.54	1.69	1.02-1.77	NBC8-□	MGN8	MGR25	20,000	5.5
HSK-A100-MEGA8N-105			4.13	2.28					18,000	5.7
HSK-A100-MEGA8N-120			4.72	2.87						5.7
HSK-A100-MEGA8N-135			5.31	3.46					14,000	6.0
HSK-A100-MEGA8N-165			6.50	4.45						6.0
HSK-A100-MEGA10N-90	.059-.394	1.181	3.54	1.69	1.50-1.77	NBC10-□	MGN10	MGR30	20,000	5.7
HSK-A100-MEGA10N-105			4.13	2.28	1.50-1.89				18,000	6.0
HSK-A100-MEGA10N-120			4.72	2.87						6.0
HSK-A100-MEGA10N-135			5.31	3.46					14,000	6.2
HSK-A100-MEGA10N-165			6.50	4.45						6.6
HSK-A100-MEGA13N-90❖	.098-.512	1.378	3.54	1.69	2.17	NBC13-□	MGN13	MGR35	18,000	6.0
HSK-A100-MEGA13N-105❖			4.13	2.28	2.76				16,000	6.2
HSK-A100-MEGA13N-120			4.72	2.87	1.73-2.48					6.4
HSK-A100-MEGA13N-135			5.31	3.46					14,000	6.6
HSK-A100-MEGA13N-165			6.50	4.65						7.1
HSK-A100-MEGA13N-200			7.87	5.83					10,000	7.7
HSK-A100-MEGA16N-90❖	.098-.630	1.654	3.54	1.85	2.17	NBC16-□	MGN16	MGR42	15,000	6.2
HSK-A100-MEGA16N-105❖			4.13	2.28	2.76				14,000	6.4
HSK-A100-MEGA16N-120			4.72	2.87	1.89-2.68					6.8
HSK-A100-MEGA16N-135			5.31	3.46					13,000	7.1
HSK-A100-MEGA16N-165			6.50	4.65						7.9
HSK-A100-MEGA16N-200			7.87	5.94					10,000	8.8
HSK-A100-MEGA20N-90❖	.098-.787	1.811	3.54	1.85	2.17	NBC20-□	MGN20	MGR46	15,000	6.4
HSK-A100-MEGA20N-105❖			4.13	2.28	2.76				14,000	6.6
HSK-A100-MEGA20N-120			4.72	2.87	2.01-2.68					7.1
HSK-A100-MEGA20N-135			5.31	3.46					13,000	7.3
HSK-A100-MEGA20N-165			6.50	4.65						8.4
HSK-A100-MEGA20N-200			7.87	6.02					10,000	9.5
HSK-A100-MEGA25N-120❖	.610-1.000	2.362	4.72	307	3.35	NBC25-□	MGN25	MGR60L	12,000	8.4
HSK-A100-MEGA25N-165			6.50	4.84	2.52-2.91				10,000	10.1
HSK-A125-MEGA20N-120	.098-.787	1.811	4.72	3.07	2.01-2.68	NBC20-□	MGN20	MGR46	12,000	10.3
HSK-A125-MEGA20N-165			6.50	4.65					10,000	11.4

- MEGA NEW BABY NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410


SCREW PG. 433

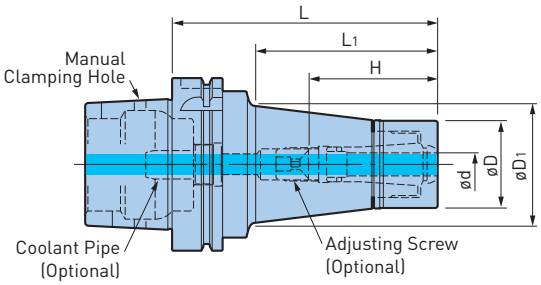
MEGA E CHUCK

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Exclusively for High Speed Finish End Milling

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A40-MEGA6E-60❖	.125-.250 (3-6mm)	.984	1.02	2.36	.94	1.61	MEC6-□	MEN6	MGR25	35,000	.9
HSK-A40-MEGA6E-75❖			1.12	2.95	1.54	2.17					1.0
HSK-A40-MEGA8E-65❖	.125-.250 (3-8mm)	1.181	1.34	2.56	1.18	1.73	MEC8-□	MEN8	MGR30	35,000	1.0
HSK-A40-MEGA8E-75❖			1.34	2.95	1.57	2.13				30,000	1.1
HSK-A40-MEGA10E-70❖	.125-.375 (3-10mm)	1.378	1.38	2.76	1.38	1.89	MEC10-□	MEN10	MGR35	30,000	1.2
HSK-A40-MEGA10E-90			1.38	3.54	2.17	1.89-2.05				25,000	1.5
HSK-A40-MEGA13E-70❖	.125-.500 (3-12mm)	1.654	1.65	2.76	1.38	1.97	MEC13-□	MEN13	MGR42	30,000	1.4
HSK-A40-MEGA13E-90❖			1.65	3.54	2.17	2.64				25,000	1.8
HSK-A50-MEGA6E-75	.125-.250 (3-6mm)	.984	1.12	2.95	1.46	1.46-1.69	MEC6-□	MEN6	MGR25	30,000	1.3
HSK-A50-MEGA8E-75❖	.125-.250 (3-8mm)	1.181	1.30	2.95	1.57	1.65	MEC8-□	MEN8	MGR30	30,000	1.5
HSK-A50-MEGA10E-75❖	.125-.375 (3-10mm)	1.378	1.50	2.95	1.57	1.89	MEC10-□	MEN10	MGR35	30,000	1.8
HSK-A50-MEGA13E-75❖	.125-.500 (3-12mm)	1.654	—	2.95	1.93	1.97	MEC13-□	MEN13	MGR42	30,000	2.0
HSK-A50-MEGA13E-100			—	3.94	2.91	1.97-2.17				25,000	2.4
HSK-A63-MEGA6E-65❖	.125-.250 (3-6mm)	.984	1.04	2.56	1.10	1.77	MEC6-□	MEN6	MGR25	30,000	2.0
HSK-A63-MEGA6E-90			1.18	3.54	2.01	1.46-1.77					2.2
HSK-A63-MEGA6E-105			1.30	4.13	2.60					29,000	2.4
HSK-A63-MEGA6E-120			1.42	4.72	3.23						2.6
HSK-A63-MEGA6E-135			1.54	5.31	3.90					27,000	3.1
HSK-A63-MEGA8E-67❖	.125-.250 (3-8mm)	1.181	1.24	2.64	1.18	1.77	MEC8-□	MEN8	MGR30	30,000	2.0
HSK-A63-MEGA8E-90			1.38	3.54	2.05	1.46-1.77					2.4
HSK-A63-MEGA8E-105			1.50	4.13	2.68	1.65-2.01				29,000	2.6
HSK-A63-MEGA8E-120			1.59	4.72	3.27					28,000	3.1
HSK-A63-MEGA8E-135			1.73	5.31	3.94					27,000	3.5
HSK-A63-MEGA10E-75❖	.125-.375 (3-10mm)	1.378	1.48	2.95	1.46	1.89	MEC10-□	MEN10	MGR35	30,000	2.4
HSK-A63-MEGA10E-90❖			1.57	3.54	2.09	2.52					2.6
HSK-A63-MEGA10E-105			1.69	4.13	2.72	1.89-2.28				29,000	3.1
HSK-A63-MEGA10E-120			1.81	4.72	3.35					28,000	3.3
HSK-A63-MEGA10E-135			1.69	5.31	3.90					27,000	3.7
HSK-A63-MEGA13E-75❖	.125-.500 (3-12mm)	1.654	1.73	2.95	1.22	1.93	MEC13-□	MEN13	MGR42	30,000	2.6
HSK-A63-MEGA13E-90❖			.77	3.54	1.81	2.52					3.1
HSK-A63-MEGA13E-105			1.81	4.13	2.40	1.97-2.24				29,000	3.5
HSK-A63-MEGA13E-120			1.87	4.72	3.03					28,000	4.0
HSK-A63-MEGA13E-135			1.85	5.31	3.62					26,000	4.2

COLLET CHUCK

Catalog Number	ød	øD	øD1	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-A100-MEGA6E-75❖	.125-.250 (3-6mm)	1.984	1.10	2.95	1.30	1.81	MEC6-□	MEN6	MGR25	24,000	5.5
HSK-A100-MEGA6E-90			1.16	3.54	1.89	1.46-1.77					5.7
HSK-A100-MEGA6E-105			1.28	4.13	2.48					20,000	6.0
HSK-A100-MEGA6E-120			1.38	4.72	3.07					18,000	6.2
HSK-A100-MEGA6E-135			1.48	5.31	3.66						6.4
HSK-A100-MEGA6E-165			1.69	6.50	4.84					14,000	7.1
HSK-A100-MEGA8E-75❖	.125-.250 (3-8mm)	1.181	1.30	2.95	1.30	1.81	MEC8-□	MEN8	MGR30	24,000	5.5
HSK-A100-MEGA8E-90			1.36	3.54	1.89	1.65-2.01					5.7
HSK-A100-MEGA8E-105			1.46	4.13	2.48					20,000	6.2
HSK-A100-MEGA8E-120			1.56	4.72	3.07					18,000	6.4
HSK-A100-MEGA8E-135			1.67	5.31	3.66						6.8
HSK-A100-MEGA8E-165			1.87	6.50	4.84					16,000	7.5
HSK-A100-MEGA10E-80❖	.125-.375 (3-10mm)	1.378	1.48	3.15	1.50	2.01	MEC10-□	MEN10	MGR35	22,000	5.7
HSK-A100-MEGA10E-90❖			1.56	3.54	1.89	2.40					6.0
HSK-A100-MEGA10E-105			1.65	4.13	2.48	1.89-2.28				20,000	6.4
HSK-A100-MEGA10E-120			1.75	4.72	3.07					18,000	6.8
HSK-A100-MEGA10E-135			1.85	5.31	3.66						7.3
HSK-A100-MEGA10E-165			2.07	6.50	4.84					16,000	8.2
HSK-A100-MEGA13E-90❖	.125-.500 (3-12mm)	1.654	1.81	3.54	1.89	1.97	MEC13-□	MEN13	MGR42	20,000	6.4
HSK-A100-MEGA13E-105			1.91	4.13	2.48	1.97-2.40				18,000	6.8
HSK-A100-MEGA13E-120			2.03	4.72	3.07					16,000	7.3
HSK-A100-MEGA13E-135			2.13	5.31	3.66						7.9
HSK-A100-MEGA13E-165			2.32	6.50	4.84					14,000	9.3

- MEGA E NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

MEGA DOUBLE POWER CHUCK

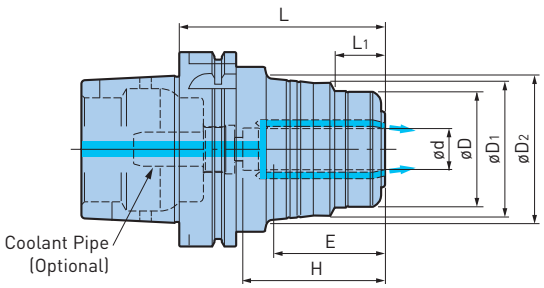
CLAMPING RANGE: ø.625"-1.250" (ø12-42mm)

For Heavy Duty End Milling

MAX 28,000 RPM

COOLANT THROUGH

Jet Through



Catalog Number	ød	øD	øD1	øD2	L	L1	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
HSK-A40-MEGA16DS-80	16mm	1.811	—	—	3.25	1.10	2.48	1.89	MGR46L	12,000	1.7
HSK-A50-MEGA16DS-85	16mm	1.811	—	—	3.44	1.10	2.52	1.89	MGR46L	25,000	2.2
HSK-A50-MEGA20DS-85	20mm	1.969	—	—	3.48	1.30	2.56	1.97	MGR50L	20,000	2.3
HSK-A63-MEGA.625DS-3.5A	.625	1.654	2.07	—	3.58	1.06	2.59	1.89	MGR42L	28,000	3.4
HSK-A63-MEGA.750DS-3.5A	.750	1.969	2.17	—	3.59	1.40	2.61	1.97	MGR50L	28,000	3.7
HSK-A63-MEGA.750DS-5A				—	5.09		3.44			25,000	4.8
HSK-A63-MEGA1.000DS-4A	1.000	2.440	2.47	—	4.08	1.61	3.09	2.20	MGR62L	24,000	4.4
HSK-A63-MEGA1.250DS-4.5A	1.250	2.756	2.78	—	4.59	1.42	3.61	2.35	MGR70L	24,000	4.9
HSK-A63-MEGA12DS-75	12mm	1.496	1.69		2.99	.98	2.01	1.69	MGR38L	30,000	2.4
HSK-A63-MEGA12DS-105					4.17		2.56			28,000	3.3
HSK-A63-MEGA16DS-80A	16mm	1.654	2.08	—	3.23	1.06	2.24	1.89	MGR42L	25,000	2.9
HSK-A63-MEGA20DS-90A	20mm	1.969	2.16	—	3.62	1.42	2.64	1.97	MGR50L	25,000	3.7
HSK-A63-MEGA20DS-120A●					4.80		3.43			23,000	4.8
HSK-A63-MEGA25DS-100A	25mm	2.441	—	—	4.02	1.61	3.03	2.20	MGR62L	22,000	4.4
HSK-A63-MEGA32DS-105A	32mm	2.756	—	—	4.21	1.38	3.23	2.36	MGR70L	22,000	4.8
HSK-A100-MEGA.750DS-4	.750	2.362	2.72	2.91	4.09	1.10	2.85	1.89	MGR60L	18,000	9.0
HSK-A100-MEGA1.000DS-4	1.000	2.756	3.03	3.35	4.09	1.34	2.87	2.20	MGR70L	18,000	10.0
HSK-A100-MEGA1.250DS-4.5	1.250	3.150	3.39	3.35	4.59	1.65	3.35	2.36	MGR80L	13,000	11.0
HSK-A100-MEGA12DS-105	12mm	1.496	1.69		4.17	.98	2.56	1.69	MGR38L	18,000	6.6
HSK-A100-MEGA12DS-135					5.35					18,000	7.7
HSK-A100-MEGA16DS-105	16mm	1.811	2.17	2.48	4.23	1.02	2.87	1.89	MGR46L	18,000	7.7
HSK-A100-MEGA16DS-135●					5.41					16,000	9.0
HSK-A100-MEGA20DS-105	20mm	2.362	2.72	2.91	4.23	1.10	2.95	1.97	MGR60L	18,000	9.0
HSK-A100-MEGA20DS-135■					5.41		3.43			16,000	11.0
HSK-A100-MEGA20DS-165❖					6.59		2.80-3.19			15,000	13.0
HSK-A100-MEGA25DS-105	25mm	2.756	3.03	3.35	4.23	1.35	2.95	2.20	MGR70L	18,000	9.9
HSK-A100-MEGA25DS-135■					5.41		3.62			16,000	12.3
HSK-A100-MEGA25DS-165❖					6.59		3.07-3.46			15,000	15.0
HSK-A100-MEGA32DS-115	32mm	3.150	3.39	3.35	4.62	1.65	3.35	2.36	MGR80L	18,000	11.0
HSK-A100-MEGA32DS-135					5.41		4.13			16,000	12.8
HSK-A100-MEGA32DS-165					6.59		4.21			14,000	15.6
HSK-A100-MEGA42DS-115	42mm	3.898	3.93	3.93	4.61	1.65	3.39	2.76	MGR99L	14,000	12.1

Catalog Number	ød	øD	øD1	øD2	L	L1	H	Min Clamping Length E	Wrench	Max RPM	Weight (lbs.)
HSK-A125-MEGA20DS-135	20mm	2.362	2.72	3.15	5.41	1.10	3.43	1.97	MGR60L	8,000	14.7
HSK-A125-MEGA20DS-165❖				3.11	6.59		2.80-3.19			7,000	16.7
HSK-A125-MEGA25DS-135	25mm	2.756	3.03	3.27	5.41	1.34	3.62	2.20	MGR70L	8,000	15.6
HSK-A125-MEGA32DS-135	32mm	3.150	3.39	3.66	5.41	1.65		2.36	MGR80L	8,000	17.2
HSK-A125-MEGA32DS-165					6.59		4.21			6,000	20
HSK-A125-MEGA42DS-120	42mm	3.898	3.93	3.93	4.82		3.35	2.76	MGR99L	7,000	17.4

- Coolant pipe and wrench must be ordered separately
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" dimension is the Max tool shank length that can be inserted into the holder
- Tools with flats should not be used in MEGA DOUBLE POWER CHUCKS
- Optional axial adjusting screw can be used with models marked ❖
- M8 hex screw is required with models marked ● please contact us if using for center-through applications
- M12 hex screw is required with models marked ■

ACCESSORIES


COLLET PG. 407


PERFECT SEAL/ JET COLLET PG. 404


MEGA WRENCH PG. 410


SCREW PG. 434

MEGA PERFECT GRIP

CLAMPING RANGE: ø.750"-1.250" (ø16-32mm)

COOLANT THROUGH

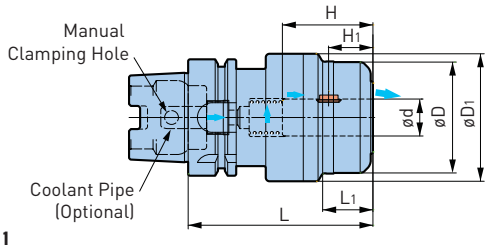


Fig. 1

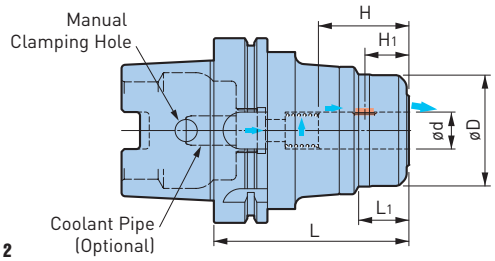


Fig. 2

Catalog Number	ød	øD	L	L1	H	H1	Wrench	Weight (lbs.)
HSK-A63-MEGA16DPG-90	16mm	1.811	3.543	.945	1.850	.906	MGR46L	3.5
HSK-A63-MEGA20DPG-100	20mm	2.362	3.543	1.063	1.929	.945	MGR60L	4.4
HSK-A100-MEGA.750DPG-4	.750	2.362	4.000	1.072	1.929	.913	MGR60L	9.0
HSK-A100-MEGA1.000DPG-4	1.000	2.756	4.000	1.318	2.165	1.024	MGR70L	9.9
HSK-A100-MEGA1.250DPG-4.5	1.250	3.150	4.500	1.622	2.244	1.102	MGR80L	11.0
HSK-A100-MEGA20DPG-105	20mm	2.362	4.134	1.063	1.929	.945	MGR60L	9.0
HSK-A100-MEGA25DPG-105	25mm	2.756	4.134	1.299	2.165	.906	MGR70L	9.9
HSK-A100-MEGA32DPG-115	32mm	3.150	4.528	1.614	2.322	.906	MGR80L	11.0
HSK-A125-MEGA1.000DPG-4.5	1.000	2.756	4.500	1.299	2.165	1.024	MGR70L	14.0
HSK-A125-MEGA1.250DPG-5	1.250	3.150	5.000	1.622	2.244	1.102	MGR80L	15.5
HSK-A125-MEGA16DPG-135	16mm	1.811	5.315	.945	1.850	.906	MGR46L	13.0
HSK-A125-MEGA20DPG-135	20mm	2.362	5.315	1.063	1.929	.945	MGR60L	14.7
HSK-A125-MEGA25DPG-135	25mm	2.756	5.315	1.299	2.165	.906	MGR70L	16.0
HSK-A125-MEGA32DPG-135	32mm	3.150	5.315	1.614	2.322	.906	MGR80L	17.2

- Key grip and spring are included; wrench must be ordered separately
- Cylindrical shank with flat section JIS B 4005 (ISO3338-2) is required, for inch shank refer to pg. 75, for metric shank refer to pg. 131
- H1 is the dimension from the center of the Key Grip to the front end of the chuck
- When coolant supply is from the cutting edge a seal bush is necessary, use instead of the spring; seal bush must be ordered separately

Always replace worn or damaged key grips immediately for safe operation.

INCH

Clamping ø	Key Grip (2 pcs.)	Spring
.750	**PKG.750-2P**	**PSP1823**
1.000	**PKG1.000-2P**	**PSP2420**
1.250	**PKG1.250-2P**	**PSP3128**

- Spare Key Grips are available in 2 pcs. per set

METRIC

Clamping ø	Key Grip (2 pcs.)	Spring
ø16	**PKG16-2P**	**PSP1519**
ø20	**PKG20-2P**	**PSP1823**
ø25	**PKG25-2P**	**PSP2420**
ø32	**PKG32-2P**	**PSP3128**

- Spare Key Grips are available in 2 pcs. per set

NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.750"-2.000" (ø20-42mm) For Heavy Duty End Milling

COOLANT THROUGH

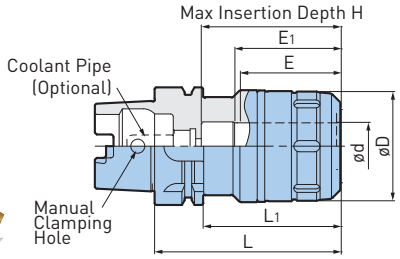


Fig. 1

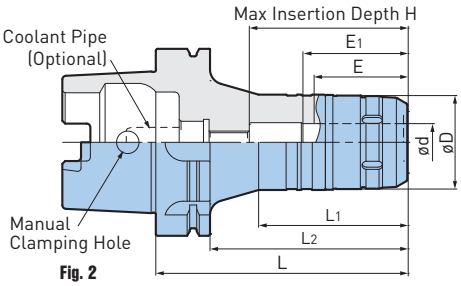


Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	L2	H	Min Clamping Length		Wrench	Weight (lbs.)
								E	E1		
HSK-A40-HMC20S-85	1	20mm	1.969	3.35	2.56	—	2.60	2.20	1.97	FK45-50L	2.0
HSK-A50-HMC20S-90	1	20mm	1.969	3.54	2.20	—	2.60	2.20	1.97	FK45-50L	2.6
HSK-A50-HMC32S-115◆		32mm	2.44	4.53	3.50		2.72		2.28	FK58-62L	3.5
HSK-A63-HMC.750S-3.5	1	.750	1.97	3.5	2.47	—	2.51	1.97	2.20	FK45-50L	3.2
HSK-A63-HMC.750S-5●				5.0	3.97		3.34				4.4
HSK-A63-HMC1.000S-4		1.000	2.33	4.0	2.97	—	2.95	2.20	2.24	FK58-62L	4.1
HSK-A63-HMC1.000S-5●				5.0	3.97		3.34				5.2
HSK-A63-HMC1.250S-4.5		1.250	2.68	4.5	3.47			2.36	2.52	FK68-75L	5.0
HSK-A63-HMC1.250S-6❖				6.0	4.97		3.11-3.50				6.8
HSK-A63-HMC20S-90	1	20mm	1.969	3.54	2.52	—	2.56	2.20	1.97	FK45-50L	3.3
HSK-A63-HMC20S-120●				4.72	3.70		3.35				4.2
HSK-A63-HMC25S-100	1	25mm	2.323	3.94	2.91	—	2.95	2.24	2.20	FK58-62L	4.2
HSK-A63-HMC25S-135❖				5.31	4.29		2.60-2.99				5.5
HSK-A63-HMC32S-110	1	32mm	2.677	4.33	3.31	—	3.35	2.52	2.36	FK68-75L	5.1
HSK-A63-HMC32S-135●				5.31	4.29		3.54				5.7
HSK-A63-HMC32S-165❖				6.50	5.47		3.11-3.50				7.1
HSK-A100-HMC.750S-4	1	.750	1.97	4.0	2.85	—	2.75	1.97	2.21	FK45-50L	6.5
HSK-A100-HMC.750S-6❖	2			6.0	4.85	3.54	2.72-3.11				8.5
HSK-A100-HMC1.000S-4	1	1.000	2.33	4.0	2.85	—	2.75	2.20	2.24	FK58-62L	7.2
HSK-A100-HMC1.000S-6■	2			6.0	4.85	3.74	3.54				9.8
HSK-A100-HMC1.250S-4.5	1	1.250	2.68	4.5	3.35	—	3.22	2.36	2.83	FK68-75L	8.5
HSK-A100-HMC1.250S-6■	2			6.0	4.85	3.93	4.13				10.7
HSK-A100-HMC20S-105	1	20mm	1.969	4.13	2.99	—	2.87	2.20	1.97	FK45-50L	6.6
HSK-A100-HMC20S-135■	2			5.31	3.15	4.17	3.35				7.7
HSK-A100-HMC20S-165❖				6.50	3.94	5.35	2.72-3.11				9.0
HSK-A100-HMC25S-105	1	25mm	2.323	4.13	2.99	—	2.87	2.24	2.20	FK58-62L	7.3
HSK-A100-HMC25S-135■				5.31	4.17		3.54				8.6
HSK-A100-HMC25S-165❖	2			6.50	4.13	5.35	2.99-3.39				10.6
HSK-A100-HMC32S-115	1	32mm	2.677	4.53	3.39	—	3.27	2.83	2.36	FK68-75L	8.6
HSK-A100-HMC32S-135				5.31	4.17		4.06				9.7
HSK-A100-HMC32S-165■	2			6.50	4.13	136	4.13				11.0
HSK-A100-HMC32S-200❖				7.87	5.12	6.73	3.54-3.94				14.1
HSK-A100-HMC32S-300❖				11.81	7.87	10.67					20.5
HSK-A100-HMC42S-115	1	42mm	3.346	4.53	3.39	—	3.27	2.87	2.48	FK80-90L	10.8
HSK-A100-HMC42S-135				5.31	4.17		4.06				12.1
HSK-A100-HMC42S-165■				6.50	5.35		4.21				15.0

Catalog Number	Fig.	ød	øD	L	L1	L2	H	Min Clamping Length E	Min Clamping Length E1	Wrench	Weight (lbs.)
HSK-A125-HMC.750J-4	2	.750	2.36	4.09	2.15	2.95	2.64	2.28	1.97	FK58-62	12.1
HSK-A125-HMC1.000J-5		1.000	2.44	5.09	2.27	3.95	3.63	2.64	2.20		12.3
HSK-A125-HMC1.250J-5		1.250	3.15		2.59			2.83	2.36	FK80-90	15.0
HSK-A125-HMC1.500J-5	1	1.500	3.90		3.31	—		2.87	2.48	FK92-100	18.0
HSK-A125-HMC2.000J-6		2.000	4.13	6.09	4.94		4.54	3.50	3.50	FK110-115	20.5

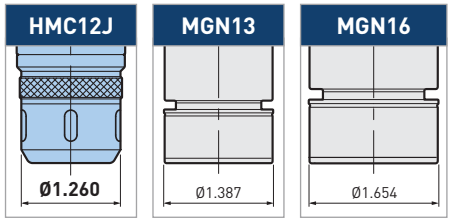
- Wrench and axial adjusting screw must be ordered separately
- "H" dimension is the Max tool shank length that can be inserted into the holder
- Optional adjusting screw can be used with models marked ❖
- Straight collet model C32-□□ can only be used with models marked ◆
- M8 hex screw is required with models marked ● please contact us if using for center-through applications
- M12 hex screw is required with models marked ■ please contact us if using for center-through applications
- Through tool coolant for HSK-A125 is Jet type delivery

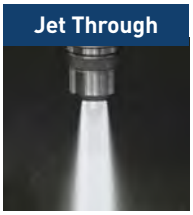
ACCESSORIES

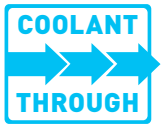
(JET COOLANT TYPE)

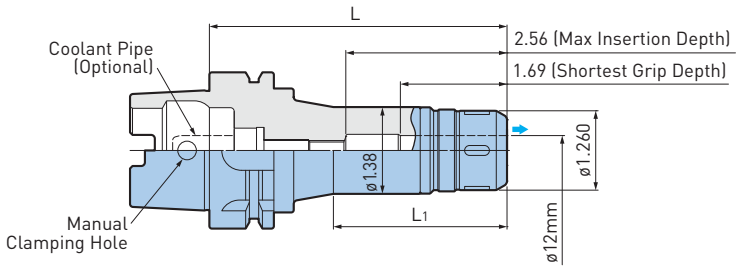
CLAMPING RANGE: ø12mm

A slim yet highly rigid milling chuck with ø32 outer diameter nut for reduced interference.









Catalog Number	L	L1	Wrench	Weight (lbs.)
HSK-A63-HMC12J-90	3.54	2.08	FK31-33	2.4
HSK-A63-HMC12J-120●	4.72	2.75		3.1

- Wrench must be ordered separately
- M8 hex screw is required with models marked ● please contact us if using for center-through applications

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø3-12mm

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

COOLANT THROUGH

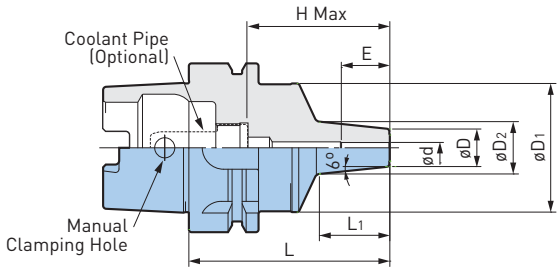


Fig. 1

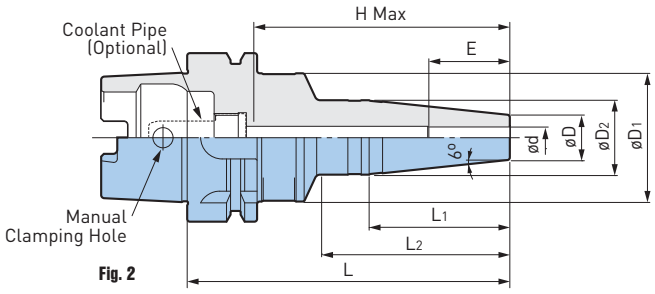


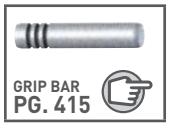
Fig. 2

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	Min Clamping Length E	H Max	Max RPM	Weight (lbs.)
HSK-A40-HDC3S-55❖	1	3mm	.551	1.30	.71	2.165	.71	—	1.54	.63	42,000	.64
HSK-A40-HDC4S-65		4mm			.83	2.559	1.10		1.93	.75	42,000	.73
HSK-A40-HDC6S-75		6mm			.91	2.95	1.54			.98	40,000	.75
HSK-A40-HDC8S-75		8mm	.669		1.02		1.57		1.85	1.22	38,000	.79
HSK-A40-HDC10S-75		10mm	.748		1.10					1.30		.82
HSK-A40-HDC12S-80		12mm	.827		1.22	3.15	1.77			1.42	35,000	.88
HSK-A50-HDC4S-75	1	4mm	.551	1.57	.83	2.953	1.22	—	2.17	.75	35,000	1.8
HSK-A63-HDC3S-90❖	1	3mm	.551	1.89	.83	3.543	1.69	—	2.68	.63	30,000	2.4
HSK-A63-HDC3S-120❖	2				1.02	4.016	2.24	2.83	3.86	.63	30,000	1.1
HSK-A63-HDC4S-75	1	4mm	.551	1.89	.79	2.953	1.02	—	2.09	.75	30,000	2.2
HSK-A63-HDC4S-90					.91	3.543	1.69	—	2.68		30,000	2.2
HSK-A63-HDC4S-120	2				1.02	4.724	2.24	2.83	3.86		30,000	2.4
HSK-A63-HDC5S-120		5mm	.551	1.89	1.02	4.724	2.24		3.86	.87	30,000	2.4
HSK-A63-HDC6S-120		6mm	.551	1.89	1.02	4.724	2.24	2.76	3.86	.98	30,000	2.4
HSK-A63-HDC6S-150						5.910		3.35	5.04		28,000	2.9
HSK-A63-HDC6S-180						7.087		3.94	6.22		25,000	3.3
HSK-A63-HDC8S-120		8mm	.669	1.89	1.10	4.724	2.05	2.76	3.74	1.22	30,000	2.7
HSK-A63-HDC8S-150						5.910		3.35	4.92		28,000	2.9
HSK-A63-HDC8S-180						7.087		3.94			25,000	3.3
HSK-A63-HDC10S-120		10mm	.748	1.89	1.18	4.724	2.05	2.76	3.70	1.30	30,000	2.7
HSK-A63-HDC10S-150						5.910		3.43	4.88		25,000	3.1
HSK-A63-HDC10S-180						7.087		3.94			23,000	3.5
HSK-A63-HDC12S-120		12mm	.827	1.89	1.26	4.724	2.05	2.76	3.66	1.42	30,000	2.7
HSK-A63-HDC12S-150						5.910		3.43	4.84		25,000	3.1
HSK-A63-HDC12S-180						7.087		3.94			23,000	3.5

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	Min Clamping Length E	H Max	Max RPM	Weight (lbs.)
HSK-A100-HDC4S-150	2	4mm	.551	2.05	1.02	5.910	2.25	3.54	.75	4.76	20,000	5.6
HSK-A100-HDC6S-150		6mm							.98		20,000	5.6
HSK-A100-HDC8S-150		8mm	.669	2.13	1.10		2.05		1.22		20,000	6.2
HSK-A100-HDC10S-150		10mm	.748	2.20	1.18				1.30		20,000	6.2
HSK-A100-HDC12S-150		12mm	.827	2.28	1.26				1.42	4.53	20,000	6.4

- Coolant pipe must be ordered separately
- Adjusting screws cannot be used
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

ACCESSORIES

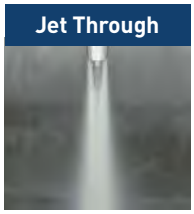


Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the tool hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK (JET COOLANT TYPE)

CLAMPING RANGE: ø4-32mm

Coolant Holes Through Body of Holder



COOLANT THROUGH

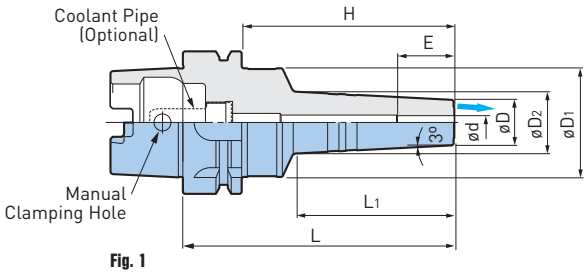


Fig. 1

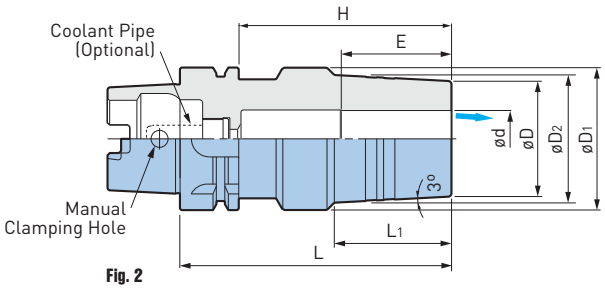


Fig. 2

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	H	Min Clamping Length E	Weight (lbs.)
HSK-A63-HDC4J-75	1	4mm	.787	1.89	.91	2.95	1.14	.75	2.09	2.2
HSK-A63-HDC4J-120					1.10	4.72	2.76		3.86	2.6
HSK-A63-HDC6J-90		6mm	.787	1.89	.98	3.54	1.54	.98	2.68	2.2
HSK-A63-HDC6J-120					1.10	4.72	2.76		3.86	2.6
HSK-A63-HDC6J-165				1.97	1.26	6.50	4.13		5.63	3.3
HSK-A63-HDC8J-90		8mm	.866	1.89	1.06	3.54	1.57	1.18	2.56	2.4
HSK-A63-HDC8J-120					1.18	4.72	2.76		3.74	2.6
HSK-A63-HDC8J-165				1.97	1.34	6.50	4.13		4.33	3.5
HSK-A63-HDC10J-90		10mm	.945	1.89	1.14	3.54	1.57	1.26	2.52	2.4
HSK-A63-HDC10J-120					1.26	4.72	2.76		3.70	2.9
HSK-A63-HDC10J-165				1.97	1.42	6.50	4.17		4.29	3.5
HSK-A63-HDC12J-90		12mm	1.024	1.89	1.22	3.54	1.57	1.38	2.48	2.4
HSK-A63-HDC12J-120					1.34	4.72	2.76		3.66	2.9
HSK-A63-HDC12J-165				1.97	1.50	6.50	4.17		4.25	3.7
HSK-A63-HDC16J-120		16mm	1.339	1.89	1.69	4.72	2.99	1.65	3.62	3.3
HSK-A63-HDC20J-120		20mm	1.496	1.89		4.72			6.58	3.3
HSK-A63-HDC25J-120	2	25mm	2.008	2.48	2.24	4.72	1.97	1.93	3.66	4.6
HSK-A63-HDC32J-120		32mm	2.362	2.72	—	4.72	2.09	2.20		5.1

- Coolant pipe must be ordered separately
- Adjusting screws cannot be used

ACCESSORIES

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK

CLAMPING RANGE: ø.750"-1.250" (ø6-32mm)

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

MAX 17,000 RPM

COOLANT THROUGH

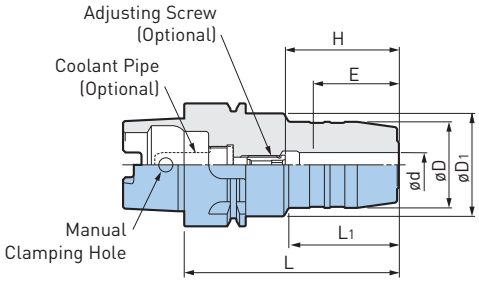


Fig. 1

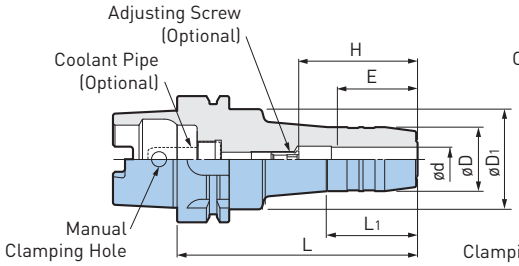


Fig. 2

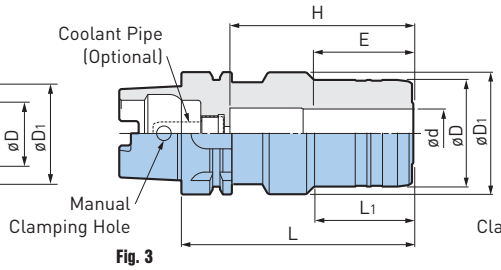


Fig. 3

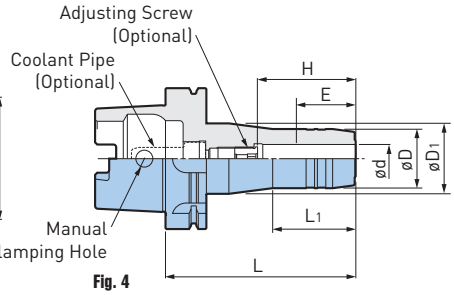


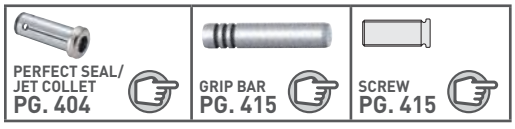
Fig. 4

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	Min Clamping Length E	Adjusting Screw	Max RPM	Weight (lbs.)
HSK-A40-HDC6-70	1	6mm	1.020	1.32	2.76	1.42	1.10-1.42	1.10	HDA6-05013	17,000	1.0
HSK-A40-HDC8-70		8mm	1.100						HDA8-06013	15,000	1.1
HSK-A40-HDC10-75		10mm	1.180		2.95	1.61	1.30-1.61	1.30			1.1
HSK-A40-HDC12-80		12mm	1.260		3.15	1.81	1.50-1.77	1.50			1.2
HSK-A50-HDC6-75	1	6mm	1.020	1.64	2.95	1.56	1.10-1.46	1.10	HDA6-05013	17,000	1.5
HSK-A50-HDC8-75		8mm	1.100						HDA8-06013	15,000	1.5
HSK-A50-HDC10-80		10mm	1.180		3.15	1.46	1.30-1.61	1.30	HDA10-08015		1.5
HSK-A50-HDC12-85		12mm	1.260		3.35	1.65	1.50-1.81	1.50			1.8
HSK-A50-HDC16-90◆		16mm	1.500		3.54	1.89	1.69-2.01	1.69		13,000	2.0
HSK-A50-HDC20-90◆		20mm	1.650	1.64		2.52					2.0
HSK-A50-HDC25-90❖◆	3	25mm	2.170	2.48		.91	2.44	2.05	—	10,000	2.9
HSK-A63-HDC.750-4❖	2	.750	1.654	1.97	4.00	1.89	1.69-2.97	1.69	—	13,000	3.5
HSK-A63-HDC1.000-4❖	3	1.000	2.165	2.48	4.00	1.37	2.05-2.97	2.05	—	13,000	4.6
HSK-A63-HDC1.250-4.5❖		1.250	2.360	2.95	4.50	1.80	2.20-3.46	2.20		12,000	5.3
HSK-A63-HDC6-70❖	2	6mm	1.020	1.97	2.76	.99	1.81	1.10	—	17,000	2.2
HSK-A63-HDC6-120					4.72	1.73	1.10-1.89		HDA6-05032		2.6
HSK-A63-HDC6-150					5.90						3.1
HSK-A63-HDC7-120		7mm	1.063		4.724						2.9
HSK-A63-HDC8-70❖		8mm	1.100		2.76	.94	1.81	1.10	—	15,000	2.2
HSK-A63-HDC8-120					4.72	1.73	1.10-1.89		HDA8-06032		2.9
HSK-A63-HDC8-150					5.90						1.1
HSK-A63-HDC9-120		9mm	1.142		4.724						2.9
HSK-A63-HDC10-80❖		10mm	1.180		3.15	1.38	2.17	1.30	—	15,000	2.4
HSK-A63-HDC10-120					4.72	1.77	1.30-2.09		HDA10-08032		2.9
HSK-A63-HDC10-150					5.90						3.5
HSK-A63-HDC11-120		11mm	1.220		4.724						3.1

Catalog Number	Fig.	ød	øD	øD1	L	L1	H	Min Clamping Length E	Adjusting Screw	Max RPM	Weight (lbs.)
HSK-A63-HDC12-85❖	2	12mm	1.260	1.97	3.35	1.57	2.36	1.50	—	15,000	2.4
HSK-A63-HDC12-120					4.72	1.77	1.50-2.28		HDA12-10025		3.1
HSK-A63-HDC12-150					5.90						3.5
HSK-A63-HDC13-120		13mm	1.299		4.724						3.1
HSK-A63-HDC14-85❖	2	14mm	1.340	1.97	3.35	1.57	2.36	1.50	—	15,000	2.6
HSK-A63-HDC14-120					4.72	1.77	1.50-2.28		HDA12-10025		3.1
HSK-A63-HDC14-150					5.90						3.7
HSK-A63-HDC15-120		15mm	1.457		4.724						3.3
HSK-A63-HDC16-90❖	2	16mm	1.500	1.97	3.54	1.81	2.56	1.69	—	13,000	2.9
HSK-A63-HDC16-120					4.72		2.28-2.68		HDA16-12015		3.3
HSK-A63-HDC16-150					5.90		1.69-2.68		HDA16-12037		4.2
HSK-A63-HDC18-90❖		18mm	1.570		3.54	1.81	2.56		HDA16-12037		2.9
HSK-A63-HDC18-120					4.72		2.28-3.68		HDA20-16015		3.5
HSK-A63-HDC18-150					5.90		1.69-2.68		HDA25-16039		4.4
HSK-A63-HDC20-90❖		20mm	1.650		3.54	1.89	2.56		—		2.9
HSK-A63-HDC20-120					4.72		2.28-2.68		HDA20-16015		3.5
HSK-A63-HDC20-150					5.90		1.69-2.68		HDA25-16039		4.4
HSK-A63-HDC25-120❖	3	25mm	2.170	2.48	4.72	2.01	3.74	2.05	—		4.6
HSK-A63-HDC32-125❖		32mm	2.360	2.95	4.92	2.32	3.94	2.20		12,000	5.3
HSK-A100-HDC.750-4	2	.750	1.654	1.97	4.00	2.00	1.69-2.76	1.69	HDA16-12037	13,000	6.0
HSK-A100-HDC1.000-4		1.000	2.480	2.48	4.00	3.54	2.05-3.15	2.05	HDA25-16039	13,000	7.3
HSK-A100-HDC1.250-4.5		1.250	2.717		4.50	3.58	2.20-3.15	2.20	HDA25-16039	12,000	8.2
HSK-A100-HDC6-75❖	4	6mm	1.020	1.97	2.95	1.02	1.81	1.10	—	17,000	5.3
HSK-A100-HDC6-120					4.72	1.73	1.10-1.89		HDA6-05032		5.7
HSK-A100-HDC6-165					6.50						6.4
HSK-A100-HDC8-75❖		8mm	1.100		2.95	1.02	1.81		—	15,000	5.3
HSK-A100-HDC8-120					4.72	1.73	1.10-1.89		HDA8-06032		5.7
HSK-A100-HDC8-165					6.50						6.6
HSK-A100-HDC10-90❖		10mm	1.188		3.54	1.65	2.40	1.30	—		5.5
HSK-A100-HDC10-120					4.72	1.77	1.30-2.09		HDA10-08032		6.0
HSK-A100-HDC10-165					6.50						6.8
HSK-A100-HDC12-95❖		12mm	1.260		3.74	1.85	2.48	1.50	—	13,000	5.5
HSK-A100-HDC12-120					4.72		1.50-2.28		HDA12-10025		6.0
HSK-A100-HDC12-165					6.50				HDA12-10032		6.8
HSK-A100-HDC16-100❖		16mm	1.500		3.94	2.09	2.68	1.69	—		5.7
HSK-A100-HDC16-135					5.31		1.69-2.68		HDA16-12030		6.6
HSK-A100-HDC16-165					6.50				HDA16-12037		7.3
HSK-A100-HDC20-105❖		20mm	1.650		4.13	2.32	2.87		—		6.0
HSK-A100-HDC20-135					5.31		2.28-2.68		HDA20-16015		6.8
HSK-A100-HDC20-165					6.50		1.69-2.68		HDA25-16039		7.9
HSK-A100-HDC25-110❖		25mm	2.240	2.48	4.33	2.44	3.07	2.05	—		7.3
HSK-A100-HDC32-110❖		32mm	2.520	2.95				2.20		12,000	8.2

- Coolant pipe must be ordered separately
- "H" indicates the adjustment length with an adjusting screw
- Do not attempt to balance before first consulting BIG DAISHOWA
- In case the projection length needs to be adjusted from the shank side, add the letter "W" to adjusting screw model number for hexagon sockets on both sides (ex: HDA6-05020W)
- Adjusting screws cannot be used with models marked ❖
- Straight collet cannot be used with models marked ◆

ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

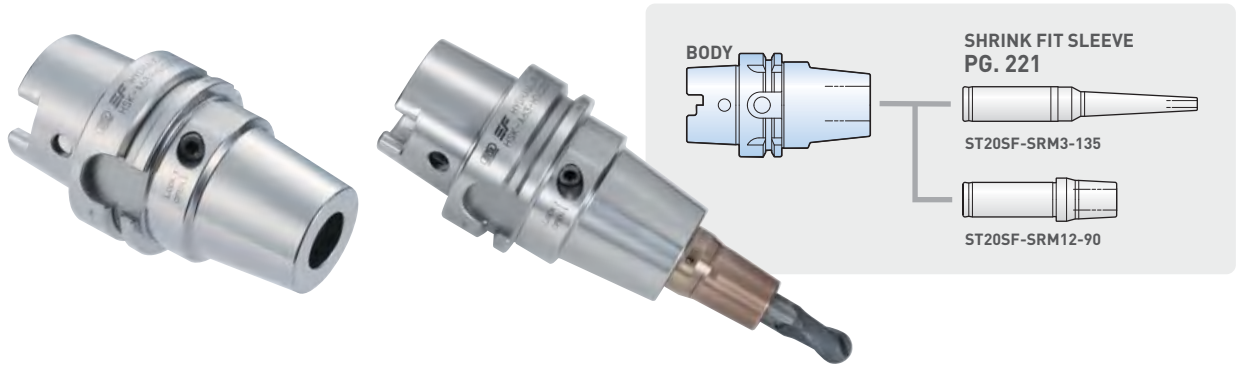
SF HYDRAULIC CHUCK

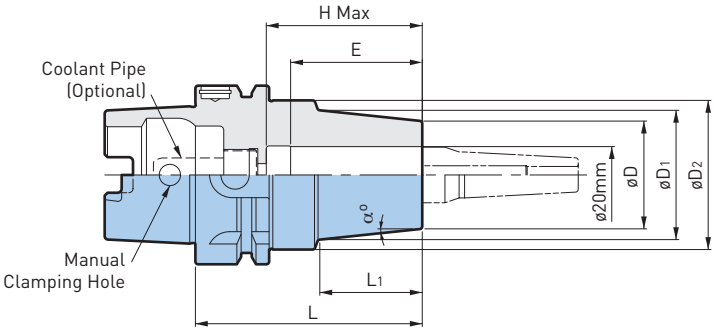
HYDRAULIC CHUCK + SF SLEEVE (SHRINK FIT TYPE)

NEW Product

COOLANT THROUGH

Achieve maximum flexibility by combining the SF HYDRAULIC CHUCK with an SF SLEEVE. This modular setup allows easy adaptation to various machining configurations. It is especially effective for reducing interference in mold applications and 5-axis machining, where space is limited.





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øD	øD1	øD2	L	L1	H Max	Min Clamping Length E	α°	Weight (lbs.)
HSK-A63-HDC20SF-80	1.496	1.81	2.09	3.15	1.42	2.16	1.89	6	2.5

- Adjusting screws cannot be used
- Coolant pipe must be ordered separately

Do not tighten the clamping screw without first inserting a SF SLEEVE into the tool holder.
Always insert the SF SLEEVE into the hydraulic tool holder beyond min. clamping length.

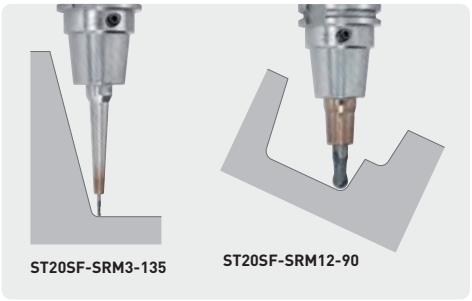
ACCESSORIES

SF SLEEVE

Stainless Steel: ø3mm-4mm

Die Steel: ø6mm-12mm

NEW Product



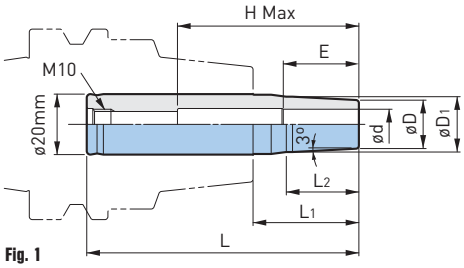


Fig. 1

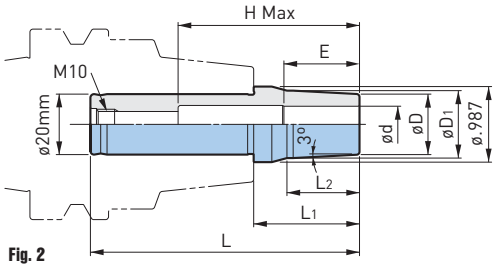


Fig. 2

Catalog Number	Fig.	ød	øD	øD1	L	L1	L2	H Max	Min Clamping Length E	Weight (lbs.)
ST20SF-SRM3-90❖	1	3mm	.295	.38	3.54	1.38	.87	—	.35	.3
ST20SF-SRM3-110❖				.46	4.33	2.17	1.65			.4
ST20SF-SRM3-135❖				.56	5.31	3.15	2.64			.4
ST20SF-SRM4-90❖		4mm	.394	.48	3.54	1.38	.87		.47	.3
ST20SF-SRM4-110❖				.56	4.33	2.17	1.65			.4
ST20SF-SRM4-135❖				.66	5.31	3.15	2.64			.5
ST20SF-SRM6-90		6mm	.472	.56	3.54	1.38	.87		.71	.3
ST20SF-SRM6-110				.64	4.33	2.17	1.65			.4
ST20SF-SRM6-135				—	5.31	3.15	—			.5
ST20SF-SRM8-90		8mm	.551	.63	3.54	1.38	.87		.79	.3
ST20SF-SRM8-110				.72	4.33	2.17	1.65			.4
ST20SF-SRM8-135				—	5.31	3.15	—			.5
ST20SF-SRM10-90		10mm	.630	.72	3.54	1.38	.94	2.36	.98	.3
ST20SF-SRM10-110				—	4.33	2.17	—			.4
ST20SF-SRM10-135					5.31	3.15	—			.5
ST20SF-SRM12-90	2	12mm	.787	.88	3.50	1.38	.94			.4
ST20SF-SRM12-110				—	4.29	2.17	—			.5
ST20SF-SRM12-135					5.28	3.15	—			.7

- Use a carbide tool shank with a tolerance of h6 or less
- Models marked ❖ are made of stainless steel
- L_1 is the dimension when the SF Sleeve is inserted into the SF HYDRAULIC CHUCK until it bottoms out

Do not heat SF SLEEVE while it is clamped with a hydraulic chuck.
Please refer to the operation manual of heating / cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER (SLIM TYPE)

CLAMPING RANGE: ø6-12mm

COOLANT THROUGH

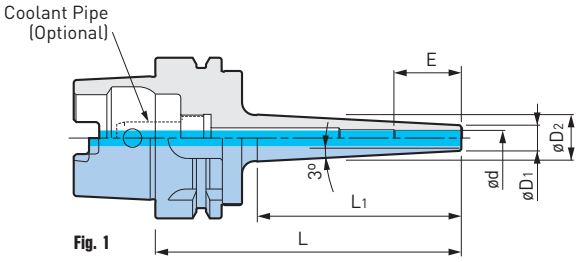


Fig. 1

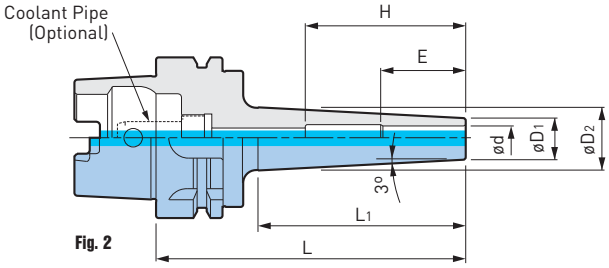


Fig. 2

Catalog Number	Fig.	ød	øD1	øD2	L	L1	Min Clamping Length E	Max Insertion Length H	Weight (lbs.)
HSK-A63-SRC6S-120	1	6mm	.394	.73	4.72	3.19	1.02	(3.85)	2.0
HSK-A63-SRC6S-165				.89	6.50	4.76		(5.63)	2.2
HSK-A63-SRC8S-120	2	8mm	.512	.85	4.72	3.19		(3.85)	2.0
HSK-A63-SRC8S-165				1.02	6.50	4.84		(5.63)	2.4
HSK-A63-SRC10S-120		10mm	.630	.96	4.72	3.19	1.26	2.44	2.2
HSK-A63-SRC10S-165				1.14	6.50	4.84			2.4
HSK-A63-SRC12S-120		12mm	.748	1.08	4.72	3.19	1.42	2.83	2.2
HSK-A63-SRC12S-165				1.26	6.50	4.92			2.6

- Coolant pipe must be ordered separately
- "H" dimensions in ( ) are reference length up to the coolant pipe
- Use carbide cutter within a tolerance of h6
- Center-through coolant supply is available with tools with oil holes

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER

CLAMPING RANGE: ø4-20mm

COOLANT THROUGH

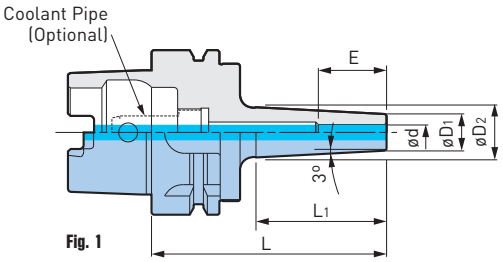


Fig. 1

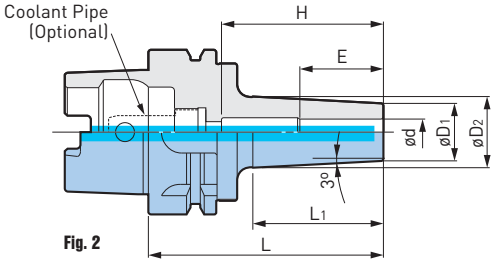


Fig. 2

Catalog Number	Fig.	ød	øD1	øD2	L	L1	Min Clamping Length E	Max Insertion Length H	Weight (lbs.)
HSK-A63-SRC4-90❖	1	4mm	.394	.58	3.54	1.81	.63	(2.68)	1.9
HSK-A63-SRC6-90		6mm	.551	.75		2.01	1.02	(2.68)	2.0
HSK-A63-SRC6-150				.98	5.91	4.25		(5.04)	2.3
HSK-A63-SRC8-90	2	8mm	.709	.91	3.54	2.01		(2.68)	2.0
HSK-A63-SRC8-150				1.14	5.91	4.33		(5.04)	2.5
HSK-A63-SRC10-90		10mm	.866	1.06	3.54	2.01	1.26	2.44	2.2
HSK-A63-SRC10-150				1.32	5.91	4.37			2.8
HSK-A63-SRC12-90		12mm	.945	1.14	3.54	2.01	1.42	2.56	2.2
HSK-A63-SRC12-150				1.42	5.91	4.41		2.83	2.9
HSK-A63-SRC16-90		16mm	1.102	1.30	3.54	2.01	1.50	2.56	2.2
HSK-A63-SRC16-165				1.59	6.50	4.69		3.15	3.7
HSK-A63-SRC20-90		20mm	.945	1.56	3.54	2.09	1.65	2.56	2.4
HSK-A63-SRC20-165				1.83	6.50	4.80		3.94	4.2

- Coolant pipe must be ordered separately
- "H" dimensions in ( ) are reference length up to the coolant pipe
- Use carbide cutter within a tolerance of h6
- Use carbide cutter within a tolerance of h5 with models marked ❖
- Center-through coolant supply is available with tools with oil holes

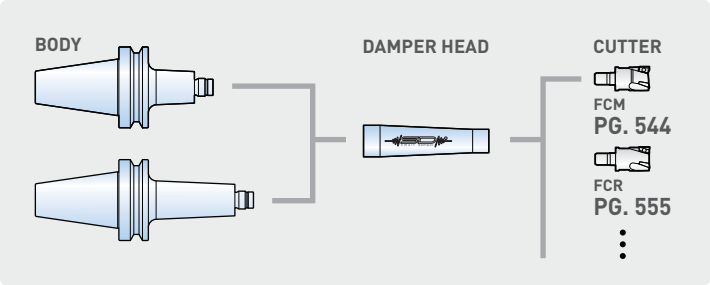
Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SMART DAMPER SCREW-ON HOLDER

The dynamic damper ensures effective vibration damping even with screw-on tool assembly. The tapered body design maximizes rigidity while minimizing interference.

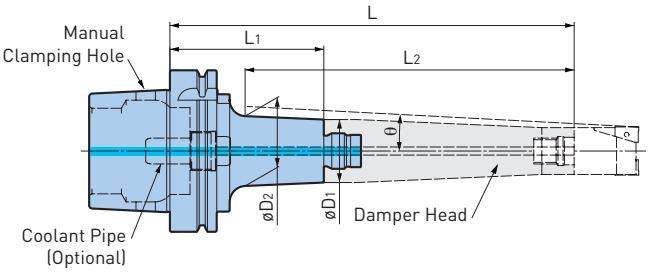
NEW Product

COOLANT THROUGH



Damper head becomes unremovable from the basic holder once they are used for machining after assembled.

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	øD1	øD2	L	L1	L2	θ	Weight (lbs.)	Damper Head Model
HSK-A100-SDF20-39-95T	1.535	1.736	9.843	3.740	8.008	2°	6.4	SDF20-M16DP-29-155T
HSK-A100-SDF20-39-145T		1.906	11.811	5.709	9.976		7.9	
HSK-A100-SDF28-50-120T	1.969	2.252	11.811	4.724	10.165	2°	8.4	SDF28-M16DP-38-180T
HSK-A100-SDF28-50-170T		2.425	13.780	6.693	12.134		10.8	

(DAMPER HEAD)

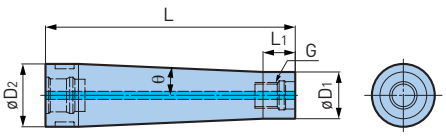


Fig. 1

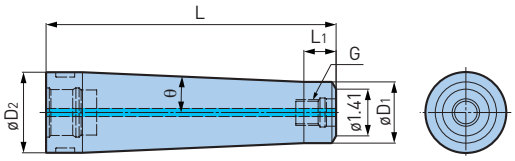


Fig. 2

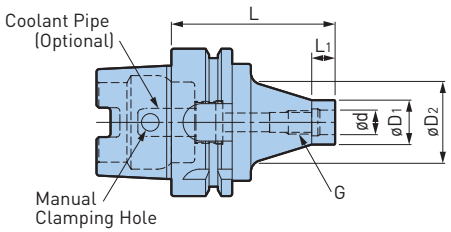
Catalog Number	Fig.	øD1	øD2	L	L1	θ	G	Weight (lbs.)
SDF20-M16DP-29-155T	1	1.142	1.535	6.102	.787	2.5°	M16	2.6
SDF28-M16DP-38-180T	2	1.496	1.969	7.087	.787	2.5°	M16	3.3

- For how to mount the basic holder, see the operation manual
- The weight does not include the cutter
- Using cutter with cutting diameter more bigger than the øD1 in the table
- Hook wrench for damper head tightening is included
- The spanner for cutter head is not included

SCREW-ON HOLDER

Arbor for General Screw-On Cutters

COOLANT THROUGH



Catalog Number	ød	øD1	øD2	L	L1	G	Weight (lbs.)
HSK-A63-M8-15-75	.335	.591	1.181	2.953	.394	M8	2.0
HSK-A63-M10-19-70	.413	.748	1.378	2.756		M10	
HSK-A63-M12-24-65	.472	.945	1.575	2.559		M12	
HSK-A63-M16-29-60	.669	1.142		2.362		M16	

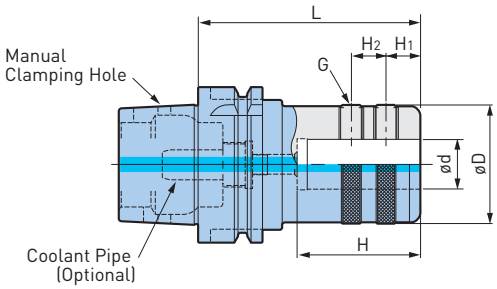
ACCESSORIES

FULLCUT MILL
SCREW-ON
PG. 544/555

SIDE LOCK DRILL HOLDER

CLAMPING RANGE: ø.630"-1.575" (ø16-40mm)

COOLANT THROUGH



Catalog Number	ød	øD	L	H	H1	H2	G	Weight (lbs.)
HSK-A63-TSL16-90	16mm	1.890	3.543	1.890	.551	.551	M10	3.3
HSK-A63-TSL20-90	20mm			1.969				3.1
HSK-A63-TSL25-90	25mm			2.205	.591	.787	M16	3.1
HSK-A63-TSL32-105	32mm	2.480	4.134	2.362				4.4
HSK-A63-TSL40-120	40mm	2.677	4.724	2.756		.984		5.3

- Coolant pipe must be ordered separately

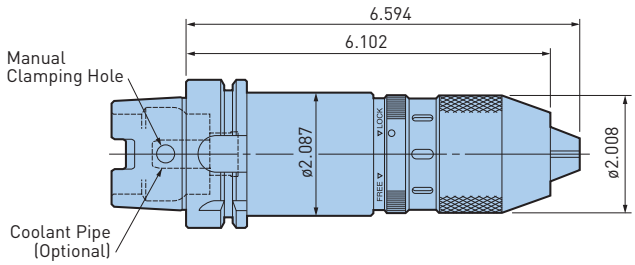
ACCESSORIES

REDUCTION COLLET
PG. 409

SUPER KEYLESS CHUCK (INTEGRAL HOLDER TYPE)

CLAMPING RANGE: ø.020"-.512" (ø.5-13mm)

Securely chucks the drill with simple operation.



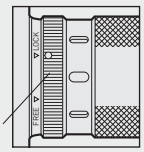
Catalog Number	Clamping Diameter	Weight (lbs.)	Wrench
HSK-A63-SKL13-155	ø.020-ø.512	5.3	FS13LC

- Hook wrench is included
- Coolant pipe is not included (cannot be used with center through)

Reverse Lock Mechanism (SKL13)

No loosening even when the main spindle suddenly stops, by the reverse lock mechanism using a lock ring.

Runout Accuracy Within .05mm

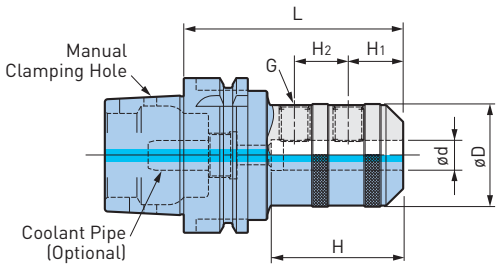


BIG DAISHOWA

END MILL HOLDER

CLAMPING RANGE: ø.750"-2.000" (ø6-50mm)

COOLANT THROUGH



Catalog Number	ød	øD	L	H	H1	H2	G	Weight (lbs.)
HSK-A63-ISL6-80	6mm	.984	3.15	2.28	.71	—	M6	2.0
HSK-A63-ISL8-80	8mm	1.102				—	M8	2.2
HSK-A63-ISL10-80	10mm	1.378		1.73	.79	—	M10	2.4
HSK-A63-ISL12-80	12mm	1.654		1.97	.91	—	M12	2.6
HSK-A63-ISL16-80	16mm	1.890		2.05	.95	—	M14	3.1
HSK-A63-ISL20-80	20mm	2.047		2.13	.98	—	M16	3.3
HSK-A63-ISL25-105	25mm	2.559	4.13	2.36	.94	.98	M18	5.1
HSK-A63-ISL32-115	32mm	2.835	4.53	2.52		1.10	M20	6.0
HSK-A100-ISL20-90	20mm	2.047	3.54	2.13	.98	—	M16	7.5
HSK-A100-ISL20-135			5.31					9.0
HSK-A100-ISL20-195			7.68					11.0
HSK-A100-ISL25-105	25mm	2.559	4.13	2.36	.94	.98	M18	9.5
HSK-A100-ISL25-135			5.31					11.0
HSK-A100-ISL25-195			7.68					14.1
HSK-A100-ISL32-125	32mm	2.835	4.92	3.54		1.10	M20	10.8
HSK-A100-ISL32-165			6.50					13.9
HSK-A100-ISL32-195			7.68					15.9
HSK-A100-ISL40-125	40mm	3.543	4.92		1.18	1.26		12.8
HSK-A100-ISL40-165			6.50					17.9
HSK-A100-ISL40-210			8.27					22.5
HSK-A100-ISL50-135	50mm	3.917	5.31		1.38	1.38	M24	14.8
HSK-A100-ISL50-165			6.50					18.7
HSK-A100-ISL50-210			8.27					24.2
HSK-A125-EM.750-4	.750	1.750	4.00	2.54	1.00	—	5/8"-18	10.4
HSK-A125-EM1.000-5	1.000	2.252	5.00	3.13	1.13	1.00	3/4"-16	12.2
HSK-A125-EM1.250-5	1.250	2.750						13.6
HSK-A125-EM1.500-5	1.500	2.750						13.1
HSK-A125-EM2.000-6	2.000	3.500	6.00	4.33	1.38	1.38	1"-14	17.1

- Coolant pipe must be ordered separately
- For high speed applications MEGA DOUBLE POWER CHUCKS are recommended instead of End Mill Holders

BIG genuine side lock screws must be used as they are made to an exclusive design and different from other screws on the market.

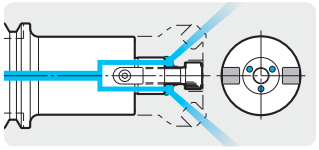
ACCESSORIES

SET SCREW PG. 434

SHELL/FACE MILL HOLDER

For Cutters that Require a Coolant Hole Through the Pilot

COOLANT THROUGH



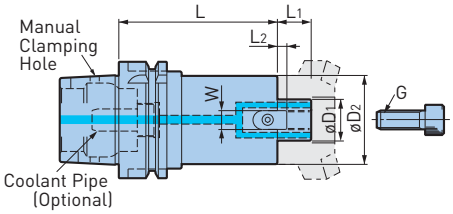


Fig. 1

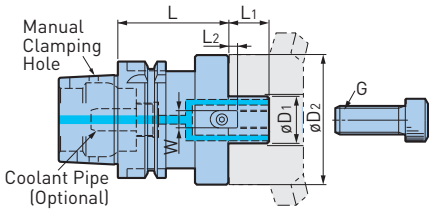


Fig. 2

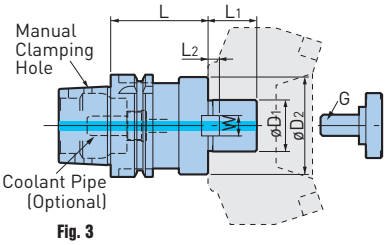


Fig. 3

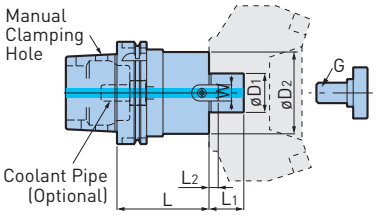


Fig. 4

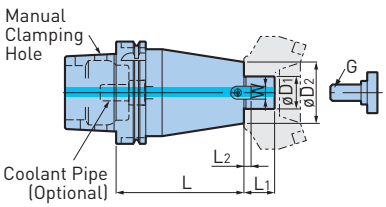


Fig. 5

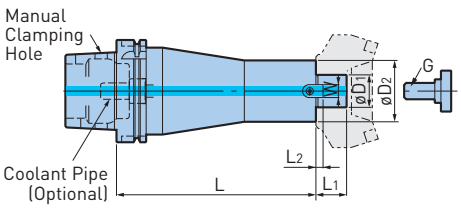


Fig. 6

Catalog Number	Fig.	øD1	øD2	L	L1	Drive Keys		G	Weight (lbs.)
						L2	W		
HSK-A50-FMH22-47-60	2	22mm	1.850	2.36	.709	.20	.394	M10	1.8
HSK-A50-FMH22-47-90				3.54					2.6
HSK-A50-FMH25.4-50-60	2	25.4mm	1.969	2.36	.87	.20	.37	M12	2.0
HSK-A50-FMH27-60-60	2	27mm	2.362	2.36	.787	.24	.472	M12	2.2
HSK-A50-FMH27-60-90				3.54					2.9
HSK-A40-FMA25.4-50	4	25.4mm	1.969	1.97	.87	.20	.37	M12	1.3
HSK-A50-FMA25.4-60	5			2.36					2.2
HSK-A50-FMA25.4-90				3.54					2.9
HSK-A50-FMA31.75-60		31.75mm	2.362	2.36	1.18	.28	.50	M16	2.6
HSK-A63-FMH16-37-45	1	16mm	1.457	1.77	.63	.20	.31	M8	2.2
HSK-A63-FMH22-47-60	1	22mm	1.850	2.36	.71	.20	.39	M10	2.9
HSK-A63-FMH22-47-90				3.54					3.7
HSK-A63-FMH22-47-150				5.91					5.5
HSK-A63-FMH22-60-60	2	22mm	2.362	2.36	.71	.20	.39	M10	3.1
HSK-A63-FMH22-60-90				3.54					4.0
HSK-A63-FMH25.4-70-60	2	25mm	2.756	2.36	.87	.20	.37	M12	4.0
HSK-A63-FMH25.4-70-90				3.54					5.5
HSK-A63-FMH25.4-70-150				5.91					9.0
HSK-A63-FMH27-60-60	2	27mm	2.362	2.36	.79	.24	.47	M12	3.5
HSK-A63-FMH27-60-90				3.54					5.1
HSK-A63-FMH31.75-76-60	2	31.75mm	2.992	2.36	1.18	.28	.50	M16	4.4
HSK-A63-FMH31.75-76-90				3.54					6.0

Catalog Number	Fig.	øD1	øD2	L	L1	Drive Keys		G	Weight (lbs.)
						L2	W		
HSK-A63-FMA25.4-60	4	25.4mm	1.969	2.36	.87	.20	.37	M12	2.9
HSK-A63-FMA25.4-90				3.54					3.7
HSK-A63-FMA31.75-60	4	31.75mm	2.362	2.36	1.18	.28	.50	M16	3.3
HSK-A63-FMA38.1-60	4	38.1mm	3.150	2.36	1.34	.35	.63	M20	5.1
HSK-A100-FMH16-37-105	1	16mm	1.457	4.13	.63	.20	.31	M8	6.2
HSK-A100-FMH16-37-150				5.91					6.9
HSK-A100-FMH16-37-200				7.87					7.6
HSK-A100-FMH22-47-105	1	22mm	1.850	4.13	.71	.20	.39	M10	7.5
HSK-A100-FMH22-47-150				5.91					8.8
HSK-A100-FMH22-47-200				7.87					10.4
HSK-A100-FMH22-47-250				9.84					11.9
HSK-A100-FMH22-60-60	1	22mm	2.362	2.36	.71	.20	.39	M10	6.4
HSK-A100-FMH22-60-105				4.13					8.6
HSK-A100-FMH22-60-150				5.91					11.9
HSK-A100-FMH22-60-200				7.87					13.4
HSK-A100-FMH22-60-250				9.84					15.9
HSK-A100-FMH25.4-70-90	1	25.4mm	2.756	3.54	.87	.20	.37	M12	9.0
HSK-A100-FMH25.4-70-150				5.91					12.9
HSK-A100-FMH25.4-70-200				7.87					16.1
HSK-A100-FMH27-60-60	1	27mm	2.362	2.36	.79	.24	.47	M12	6.4
HSK-A100-FMH27-60-90				3.54					8.2
HSK-A100-FMH27-60-150				5.91					11.0
HSK-A100-FMH27-60-200				7.87					13.0
HSK-A100-FMH27-60-250				9.84					15.4
HSK-A100-FMH27-76-60	1	27mm	2.992	2.36	.79	.24	.47	M12	7.1
HSK-A100-FMH27-76-90				3.54					9.5
HSK-A100-FMH27-76-150				5.91					14.3
HSK-A100-FMH31.75-76-105	1	31.75mm	2.992	4.13	1.18	.28	.50	M16	10.9
HSK-A100-FMH31.75-76-150				5.91					14.4
HSK-A100-FMH31.75-76-200				7.87					18.2
HSK-A100-FMH32-96-60	2	32mm	3.780	2.36	.87	.28	.55	M16	8.4
HSK-A100-FMH32-96-90				3.54					12.1
HSK-A100-FMH32-96-150				5.91					19.6
HSK-A100-FMH38.1-100-105	2	38.1mm	3.917	4.13	1.34	.35	.63	M20 (NBA-M20)	14.1
HSK-A100-FMH38.1-100-150				5.91					20.1
HSK-A100-FMH40-100-75	2	40mm	3.937	2.95	1.02	.33	.63	M20 (MBA-M20)	10.8
HSK-A100-FMH40-100-105				4.13					15.0
HSK-A100-FMA25.4-105	5	25.4mm	1.969	4.13	.87	.20	.37	M12	9.9
HSK-A100-FMA25.4-135				5.31					11.7
HSK-A100-FMA25.4-195				7.68					15.6
HSK-A100-FMA31.75-105	5	31.75mm	2.362	4.13	1.18	.28	.50	M16	10.6
HSK-A100-FMA31.75-135	6			5.31					12.3
HSK-A100-FMA31.75-195				7.68					15.4
HSK-A100-FMA38.1-90	4	38.1mm	3.150	3.54	1.34	.35	.63	M20	10.8
HSK-A100-FMA50.8-75	4	50.8mm	3.937	2.95	1.42	.39	.75	M24	11.7

SHELL/FACE MILL HOLDER (CONT.)

For Cutters that Require a Coolant Hole Through the Pilot

COOLANT THROUGH

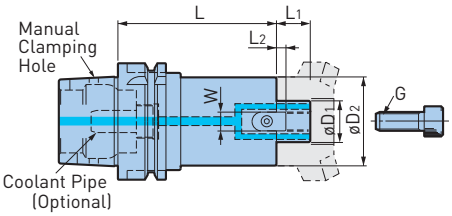
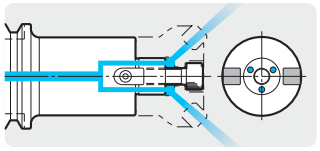


Fig. 1

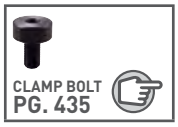


Catalog Number	Fig.	øD1	øD2	L	L1	Drive Keys		G	Weight (lbs.)
						L2	W		
HSK-A125-SMC1.000-4	1	1.000	2.189	4.00	.69	.20	.37	1/2"-20	12.5
HSK-A125-SMC1.250-4	1	1.250	2.752	4.00		.28	.49	5/8"-18	13.6
HSK-A125-SMC1.500-4	1	1.500	3.626	4.00	.94	.35	.62	3/4"-16	17.3
HSK-A125-FMH22A-49-50	1	22mm	1.929	1.97	.71	.71	.39	M10	9.0
HSK-A125-FMH22A-49-100				3.94					10.6
HSK-A125-FMH22A-49-150				5.91					11.9
HSK-A125-FMH22A-49-200				7.87					14.8
HSK-A125-FMH27A-60-90	1	27mm	2.362	3.54	.79	.24	.47	M12	11.2
HSK-A125-FMH27A-60-150				5.91					13.9
HSK-A125-FMH32A-78-60	1	32mm	3.071	2.36	.87	.26	.55	M16	10.6
HSK-A125-FMH32A-96-105	1		3.780	4.13					17.2
HSK-A125-FMH40A-80-90	1	40mm	3.150	3.54	1.02	.33	.63	M20 (MBA-M20H)	13.2

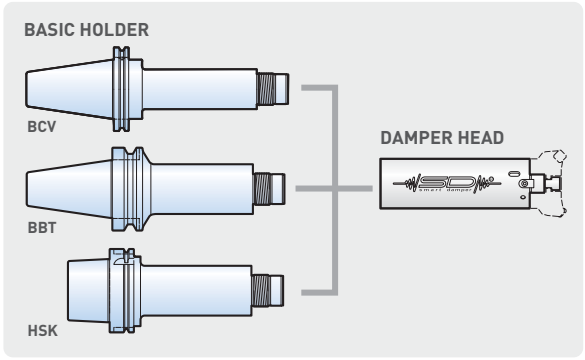
- Clamp bolt is included; coolant pipe must be ordered separately
- A clamp bolt with oil hole must be ordered separately for use with center-through coolant/air

For high speed applications, shell mill holders should be balanced together with the cutters.

ACCESSORIES

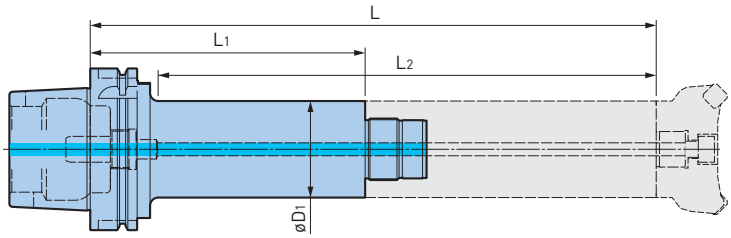


SMART DAMPER MILLING
(FACE MILL ARBOR TYPE)



NEW Sizes

COOLANT THROUGH

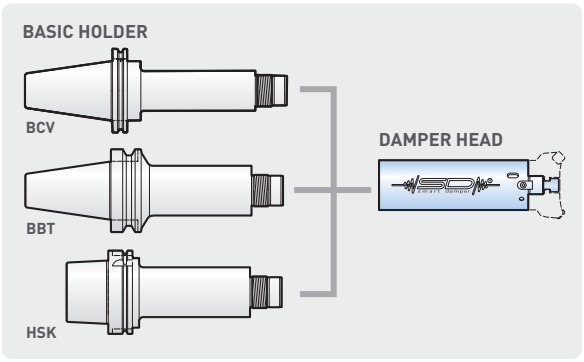


Catalog Number	øD1	L	L1	L2	Weight (lbs.)	Damper Head Model
HSK-A63-SDF28-38-40 ●	38mm	8.268	1.575	6.890	2.0	FMH□□DP-38
HSK-A63-SDF28-38-80 ●		9.843	3.150	8.465	2.9	
HSK-A63-SDF36-47-45 ●	47mm	8.858	1.772	7.165	2.6	FMH□□DP-47 SMC□□DP-47
HSK-A63-SDF36-47-85 ●		10.433	3.346	8.740	3.7	
HSK-A100-SDF36-47-170	47mm	13.780	6.693	12.205	9.7	FMH□□DP-47 SMC□□DP-47
HSK-A100-SDF36-47-220		15.748	8.661	14.173	11.0	
HSK-A100-SDF36-60-170	60mm	13.780	6.693	12.205	12.1	FMH□□DP-60 SMC□□DP-60
HSK-A100-SDF36-60-220		15.748	8.661	14.173	14.3	
HSK-A100-SDF57-76-170	76mm	13.780	6.693	12.205	17.0	FMH□□DP-76 SMC□□DP-72
HSK-A100-SDF57-76-220	76mm	15.748	8.661	14.173	20.7	
HSK-A125-SDF36-60-250	60mm	16.929	9.843	14.960	17.6	FMH□□DP-60 SMC□□DP-60

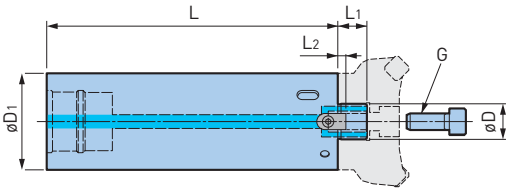
• Coolant pipe must be ordered separately

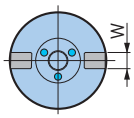
SMART DAMPER MILLING
(DAMPER HEAD)

NEW Sizes



COOLANT THROUGH



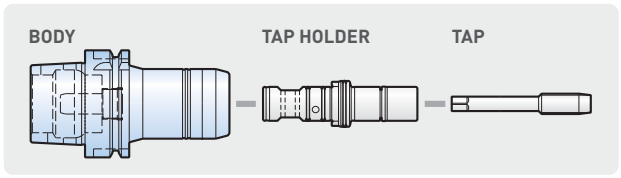


Catalog Number	øD	øD1	L	L1	L2	W	G	Weight (lbs.)
SDF28-FMH16DP-38-170	16mm	38mm	.669	.630	.197	.315	M8-30L	4.2
SDF36-FMH22DP-47-180	22mm	47mm	7.087	.709	.197	.394	M10-30L	6.6
SDF36-FMH22DP-60-180		60mm						9.9
SDF36-FMH22.225DP-47-180	.875	47mm	7.087	.669	.630	.315	M10-30L	6.6
SDF36-FMH27DP-60-180	27mm	60mm	7.087	.787	.236	.472	M12	9.9
SDF57-FMH27DP-76-180		76mm						17.6
SDF36-SMC.750DP-47-180	.750	47mm	7.087	.689	.160	.313	3/8"-24	6.6
SDF36-SMC1.000DP-60-180	1.000	60mm		.689	.220	.375	1/2"-20	9.9
SDF57-SMC1.000DP-72-180	1.000	72mm						16.3

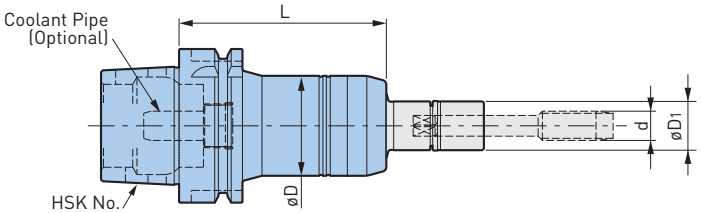
- Hook wrench and clamp bolt are included
- The weight does not include the cutter
- Refer to the operation manual regarding the mounting method to the basic holder
- If the provided clamp bolt is not compatible, separately select one from clamp bolt table on pg. 435
- The damper head cannot be removed after the basic holder and damper head have been attached and used for processing

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.2-AU3/4 (M2-M20)



COOLANT THROUGH



Catalog Number	Tapping Range d* (Inch)	Tapping Range d* (Metric)	øD	øD1	L	Wrench	Weight (lbs.)
HSK-A40-MGT6-80	No.2-No.12	M2-M6	1.42	.63	3.15	MGR16	1.3
HSK-A40-MGT12-85	AU1/4-AU7/16	M6-M12	1.61	.79	3.35	MGR20L	1.5
HSK-A50-MGT6-85	No.2-No.12	M2-M6	1.42	.63	3.35	MGR16	1.8
HSK-A50-MGT12-85	AU1/4-AU7/16	M6-M12	1.61	.79	3.35	MGR20L	2.0
HSK-A50-MGT20-125	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.92	MGR30L	3.5
HSK-A63-MGT6-85	No.2-No.12	M2-M6	1.42	.63	3.35	MGR16	2.4
HSK-A63-MGT12-85	AU1/4-AU7/16	M6-M12	1.61	.79	3.35	MGR20L	2.6
HSK-A63-MGT20-110	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.33	MGR30L	4.0
HSK-A100-MGT6-95	No.2-No.12	M2-M6	1.42	.63	3.74	MGR16	5.7
HSK-A100-MGT12-95	AU1/4-AU7/16	M6-M12	1.61	.79	3.74	MGR20L	5.9
HSK-A100-MGT20-115	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.53	MGR30L	7.3
HSK-A125-MGT12-105	AU1/4-AU7/16	M6-M12	1.61	.79	3.74	MGR20L	9.4
HSK-A125-MGT20-120	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	4.53	MGR30L	10.6

***AU3/8 is included in the MGT20 series**

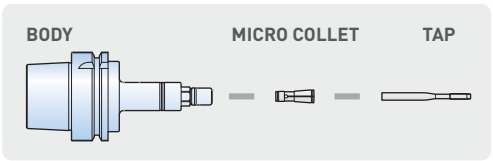
- Coolant pipe, tap holder and wrench must be ordered separately
- Rigid tapping function is required on the machine tool

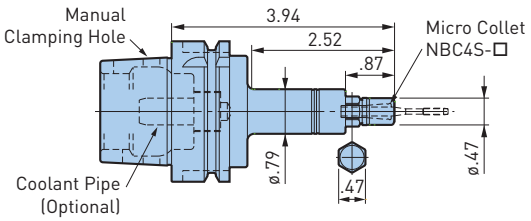
Cannot be used with machining center without synchronized tapping function.

ACCESSORIES

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.0-No.6 (M1-M3)





Catalog Number	Weight (lbs.)
HSK-A63-MGT3-100	2.2

- Nut is included; collet and wrench must be ordered separately
- When attaching or detaching the tap, a commercially available flat wrench (12mm width) is also required
- Not capable of supplying coolant through the holder body

ACCESSORIES


COLLET
PG. 374

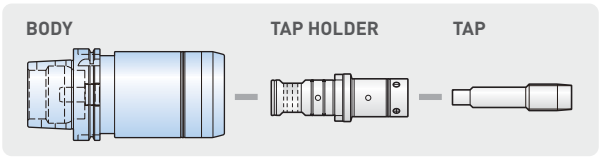

MEGA NUT
PG. 376


MEGA WRENCH
PG. 410

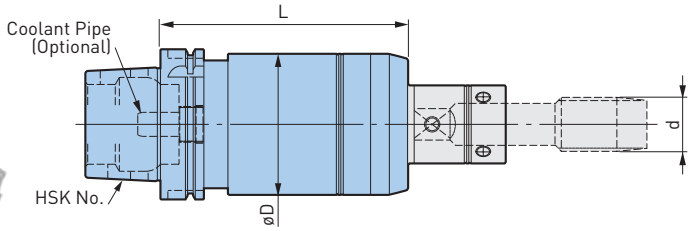
Cannot be used with machining center without synchronized tapping function.

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: AU13/16-AU1-3/8 (M20-M36)



COOLANT THROUGH



Catalog Number	Tapping Range d (Inch)	Tapping Range d (Metric)	øD	L	Weight (lbs.)
HSK-A100-MGT36-165	AU13/16-AU1-3/8 AP3/8-AP1	M20-M36	3.70	6.50	18.0
HSK-A125-MGT36-170	AU13/16-AU1-3/8 AP3/8-AP1	M20-M36	3.70	6.69	22.4

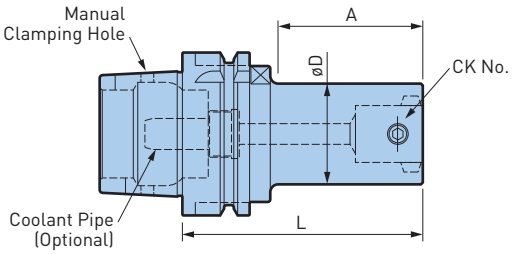
• MGT Set Screw and adjust screw are included; coolant pipe, tap holder must be ordered separately

ACCESSORIES

Cannot be used with machining center without synchronized tapping function.

CKB SHANK

COOLANT THROUGH

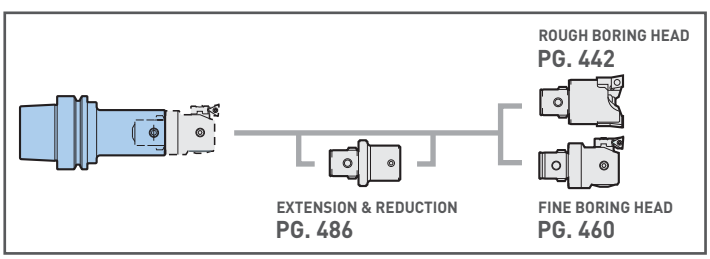


Catalog Number	CK No.	øD	L	A	Weight (lbs.)
HSK-A40-CKB1-73	CK1	.748	2.854	1.614	.7
HSK-A40-CKB2-85	CK2	.945	3.327	2.205	.9
HSK-A40-CKB3-80	CK3	1.220	3.150	1.732	1.1
HSK-A40-CKB4-73	CK4	1.535	2.874	2.087	1.3
HSK-A50-CKB1-73	CK1	.748	2.854	1.299	1.1
HSK-A50-CKB2-85	CK2	.945	3.327	1.772	1.3
HSK-A50-CKB3-80	CK3	1.220	3.150	1.772	1.5
HSK-A50-CKB4-73	CK4	1.535	2.874	1.181	1.8
HSK-A50-CKB5-83	CK5	1.969	3.268	2.244	2.2
HSK-A63-CKB1-78	CK1	.748	3.051	1.496	2.0
HSK-A63-CKB2-90	CK2	.945	3.524	1.969	2.2
HSK-A63-CKB3-80	CK3	1.220	3.150	1.614	2.2
HSK-A63-CKB3-100			3.937	2.402	2.4
HSK-A63-CKB3-130			5.118	3.583	2.9
HSK-A63-CKB4-93	CK4	1.535	3.661	2.244	2.6
HSK-A63-CKB4-123			4.843	3.425	3.3
HSK-A63-CKB5-63	CK5	1.969	2.480	1.102	2.4
HSK-A63-CKB5-83			3.268	1.890	2.9
HSK-A63-CKB5-113			4.449	3.071	4.0
HSK-A63-CKB6-79	CK6	2.520	3.110	2.087	3.3
HSK-A63-CKB6-109			4.291	3.268	5.1

Catalog Number	CK No.	øD	L	A	Weight (lbs.)
HSK-A100-CKB1-103	CK1	.748	4.035	2.362	5.5
HSK-A100-CKB2-115	CK2	.945	4.508	2.835	5.7
HSK-A100-CKB3-125	CK3	1.220	4.921	3.268	6.2
HSK-A100-CKB4-118	CK4	1.535	4.646	2.992	6.6
HSK-A100-CKB4-148			5.827	4.173	7.3
HSK-A100-CKB4-178			7.008	5.354	7.7
HSK-A100-CKB5-108	CK5	1.969	4.252	2.598	7.3
HSK-A100-CKB5-183			7.205	5.551	9.7
HSK-A100-CKB5-228			8.976	7.323	11.0
HSK-A100-CKB6-79	CK6	2.520	3.110	1.535	6.6
HSK-A100-CKB6-94			3.701	2.126	7.5
HSK-A100-CKB6-169			6.654	5.079	11.7
HSK-A100-CKB6-229			9.016	7.441	14.8
HSK-A100-CKB7-93	CK7	3.543	3.661	2.520	9.5
HSK-A100-CKB7-123			4.843	3.701	12.8
HSK-A100-CKB7-213			8.386	7.244	22.5
HSK-A100-CKB7-273			10.748	9.606	29.1
HSK-A125-CKB6-94	CK6	2.520	3.701	2.047	10.8
HSK-A125-CKB7-123	CK7	3.543	4.843	2.953	16.5

• Cutting edge and drive key grooves are located in the same orientation

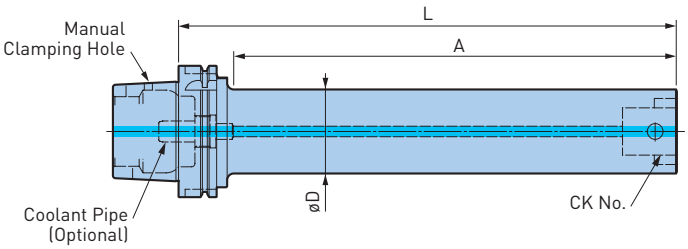
ACCESSORIES



SMART DAMPER BORING (HSK SHANK TYPE)

Built-in damper eliminates chatter in deep hole boring.

COOLANT THROUGH

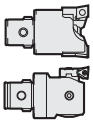


Catalog Number	CK No.	øD	L	A	Weight (lbs.)
HSK-A100-CKB4DP-241	CK4	1.535	9.488	7.835	9.5
HSK-A100-CKB5DP-303	CK5	1.969	11.929	10.276	14.3
HSK-A100-CKB6DP-379	CK6	2.520	14.921	13.268	24.7

- Cutting edges and drive keys are aligned with boring heads mounted
- Head and inserts must be ordered separately
- Extension should not be used due to possible chatter

ACCESSORIES

ROUGH BORING HEAD
PG. 442

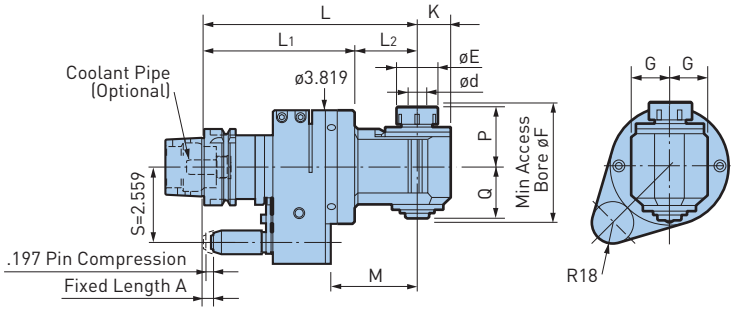


FINE BORING HEAD
PG. 460

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
HSK-A63-AG90/NBS6-185	.010-.236	.787	.827	.669	7.28	5.12	2.17	3.03	1.30	1.14	2.638	NBC6	6,000	13.0
HSK-A63-AG90/NBS6-215					8.46		3.35	4.21						13.5
HSK-A63-AG90/NBS6-245					9.65		4.53	5.39						13.9
HSK-A63-AG90/NBS6-275					10.83		5.71	6.57						14.3
HSK-A63-AG90/NBS10-185	.059-.394	1.181	1.181	.984	7.28	5.12	2.17	3.03	1.77	1.69	3.583	NBC10	6,000	13.9
HSK-A63-AG90/NBS10-215					8.46		3.35	4.21						14.8
HSK-A63-AG90/NBS10-245					9.65		4.53	5.39						15.4
HSK-A63-AG90/NBS13-185	.098-.512	1.378	1.220	1.102	7.28	5.12	2.17	3.03	2.05	1.77	3.976	NBC13	6,000	14.1
HSK-A63-AG90/NBS13-215					8.46		3.35	4.21						15.0
HSK-A63-AG90/NBS13-245					9.65		4.53	5.39						15.7
HSK-A63-AG90/NBS20-200	.098-.787	1.811	1.378	1.378	7.87	5.12	2.76	3.62	2.56	2.44	5.197	NBC20	3,000	16.5
HSK-A63-AG90/NBS20S-180S				1.299	7.09	5.00	2.09							17.4

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

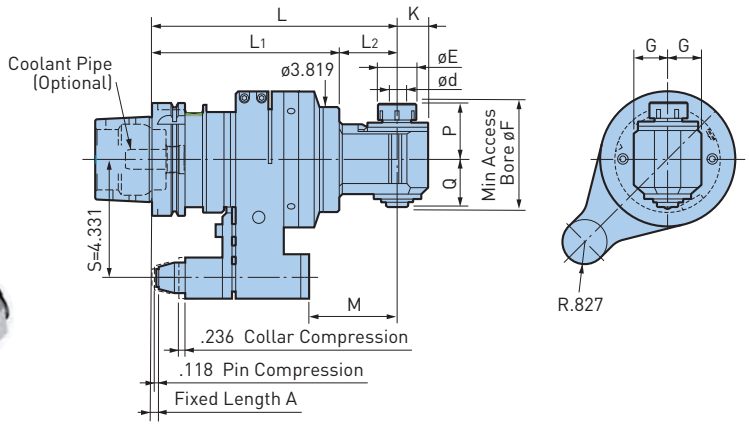
ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
HSK-A100-AG90/NBS6-225	.010-.236	.787	.827	.669	8.86	6.69	2.17	3.23	1.30	1.14	2.638	NBC6	6,000	26.0
HSK-A100-AG90/NBS6-255					10.04		3.35	4.41						26.5
HSK-A100-AG90/NBS6-285					11.22		4.53	5.59						27.3
HSK-A100-AG90/NBS6-315					12.40		5.71	6.77						26.9
HSK-A100-AG90/NBS10-225	.059-.394	1.181	1.181	.984	8.86	6.69	2.17	3.23	1.77	1.69	3.583	NBC10	6,000	27.8
HSK-A100-AG90/NBS10-255					10.04		3.35	4.41						28.4
HSK-A100-AG90/NBS10-285					11.22		4.53	5.59						27.1
HSK-A100-AG90/NBS13-225	.098-.512	1.378	1.220	1.102	8.86	6.69	2.17	3.23	2.05	1.77	3.976	NBC13	6,000	28.0
HSK-A100-AG90/NBS13-255					10.04		3.35	4.41						28.6
HSK-A100-AG90/NBS13-285					11.22		4.53	5.59						29.5
HSK-A100-AG90/NBS20-240	.098-.787	1.811	1.378	1.378	9.45	6.69	2.76	3.82	2.44	2.44	5.197	NBC20	3,000	30.4

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

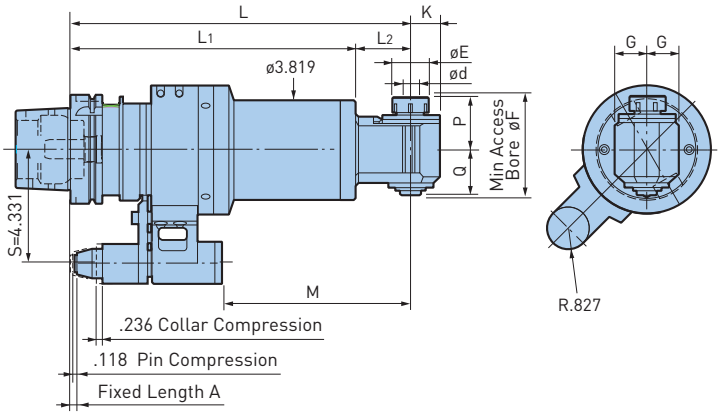
ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (NBS EXTRA LONG TYPE)

CLAMPING RANGE: ø.010"-.787"

MAX 6,000 RPM



Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
HSK-A100-AG90/NBS6-325LS	.010-.236	.787	.827	.669	12.80	10.63	2.17	7.17	1.30	1.14	2.638	NBC6	6,000	39.9
HSK-A100-AG90/NBS6-355LS					13.98		3.35	8.35						40.3
HSK-A100-AG90/NBS6-385LS					15.16		4.53	9.53						40.8
HSK-A100-AG90/NBS6-415LS					16.34		5.71	10.71						41.2
HSK-A100-AG90/NBS6-425LS	.010-.236	.787	.827	.669	16.73	14.57	2.17	11.10	1.30	1.14	2.638			49.6
HSK-A100-AG90/NBS6-455LS					17.91		3.35	12.28						50.0
HSK-A100-AG90/NBS6-485LS					19.09		4.53	13.46						50.5
HSK-A100-AG90/NBS6-515LS					20.28		5.71	14.65						50.9
HSK-A100-AG90/NBS6-525LS	.010-.236	.787	.827	.669	20.67	18.50	2.17	15.04	1.30	1.14	2.638			59.3
HSK-A100-AG90/NBS6-555LS					21.85		3.35	16.22						59.7
HSK-A100-AG90/NBS6-585LS					23.03		4.53	17.40						60.2
HSK-A100-AG90/NBS6-615LS					20.28		5.71	18.58						60.6

Catalog Number	ød	øE	G	K	L	L1	L2	M	P	Q	øF	Collet	Max RPM	Weight (lbs.)
HSK-A100-AG90/NBS10-325LS	.059-.394	1.181	1.181	.984	12.80	10.63	2.17	7.17	1.77	1.69	3.583	NBC10	6,000	40.8
HSK-A100-AG90/NBS10-355LS					13.98		3.35	8.35						41.7
HSK-A100-AG90/NBS10-385LS					15.16		4.53	9.53						42.3
HSK-A100-AG90/NBS10-425LS	.059-.394	1.181	1.181	.984	16.73	14.57	2.17	11.10	1.77	1.69	3.583			50.5
HSK-A100-AG90/NBS10-455LS					17.91		3.35	12.28						51.4
HSK-A100-AG90/NBS10-485LS					19.09		4.53	13.46						52.0
HSK-A100-AG90/NBS10-525LS	.059-.394	1.181	1.181	.984	20.67	18.50	2.17	15.04	1.77	1.69	3.583			60.2
HSK-A100-AG90/NBS10-555LS					21.85		3.35	16.22						61.1
HSK-A100-AG90/NBS10-585LS					23.03		4.53	17.40						61.7
HSK-A100-AG90/NBS13-325LS	.098-.512	1.378	1.220	1.102	12.80	10.63	2.17	7.17	2.05	1.77	3.976	NBC13	6,000	41.0
HSK-A100-AG90/NBS13-355LS					13.98		3.35	8.35						41.9
HSK-A100-AG90/NBS13-385LS					15.16		6.10	9.53						42.5
HSK-A100-AG90/NBS13-425LS	.098-.512	1.378	1.220	1.102	16.73	14.57	2.17	11.10	2.05	1.77	3.976			50.7
HSK-A100-AG90/NBS13-455LS					17.91		3.35	12.28						51.6
HSK-A100-AG90/NBS13-485LS					19.09		6.10	13.46						52.2
HSK-A100-AG90/NBS13-525LS	.098-.512	1.378	1.220	1.102	20.67	18.50	2.17	15.04	2.05	1.77	3.976			60.4
HSK-A100-AG90/NBS13-555LS					21.85		3.35	16.22						61.3
HSK-A100-AG90/NBS13-585LS					23.03		6.10	17.40						61.9
HSK-A100-AG90/NBS20-340LS	.098-.787	1.811	1.378	1.378	13.39	10.30	2.76	7.76	2.56	2.44	5.197	NBC20	3,000	43.4
HSK-A100-AG90/NBS20-440LS	.098-.787	1.811	1.378	1.378	17.32	14.57	2.76	11.69	2.56	2.44	5.197			53.1
HSK-A100-AG90/NBS20-540LS	.098-.787	1.811	1.378	1.378	21.26	18.50	2.76	15.63	2.56	2.44	5.197			62.8

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (COMPACT TYPE)

CLAMPING RANGE: ø.098"-.512"

For Drilling Only

Ideal Size for Small Machining Centers

MAX 5,000 RPM

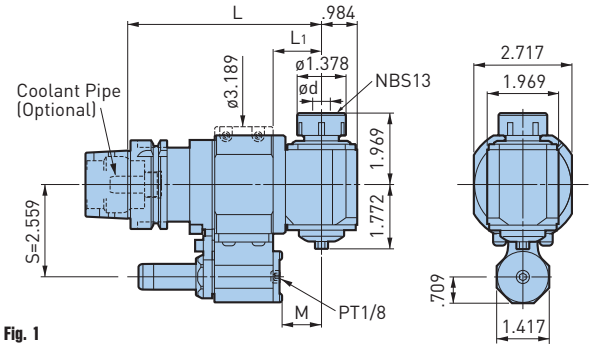


Fig. 1

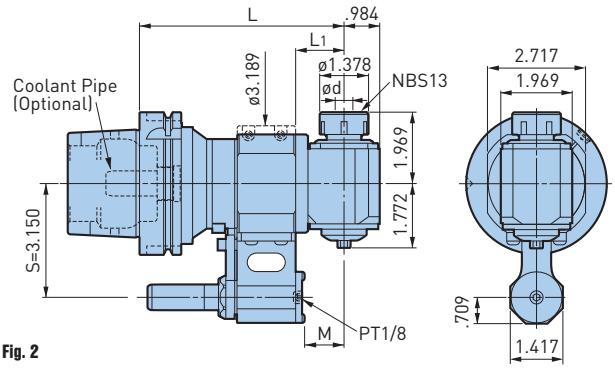


Fig. 2

Catalog Number	Fig.	ød	L	L1	M	Collet	Speed Ratio	Weight (lbs.)
HSK-A63-AG90-13-135	1	.098-.512	5.31	1.34	1.10	NBC13	1:1	4.4
HSK-A63-AG90-13-185			7.28	3.31	3.06			5.4
HSK-A100-AG90-13-145	2	.098-.512	5.71	1.34	1.10	NBC13	1:1	6.8
HSK-A100-AG90-13-195			7.68	3.31	3.06			7.8

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- A tapped hole (PT1/8) is prepared at the bottom cover of the Locating Pin housing so that a pipe for coolant can be connected
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).
AG90 Compact Type is for drilling only.

Application Example

Stable machining is obtained due to high rigidity and good runout.

DRILLING	
Cutter	ø.472" (12mm) Carbide Drill
Workpiece	1050 Steel
Cutting Speed	230 SFM
Cutting Feed	14.6 IPM
	.008 IPR
Spindle Speed	1,860 RPM

AG90 (TWIN HEAD)

CLAMPING RANGE: ø.059"-.394"

Compact design. Symmetrical machining can be performed using one unit.

MAX 6,000 RPM

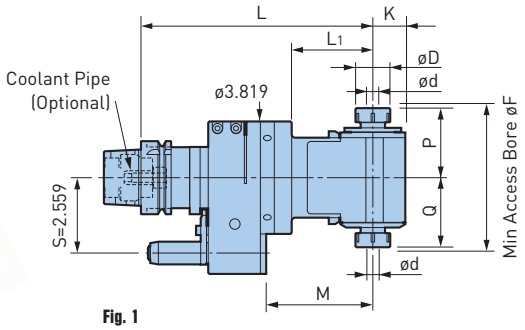


Fig. 1

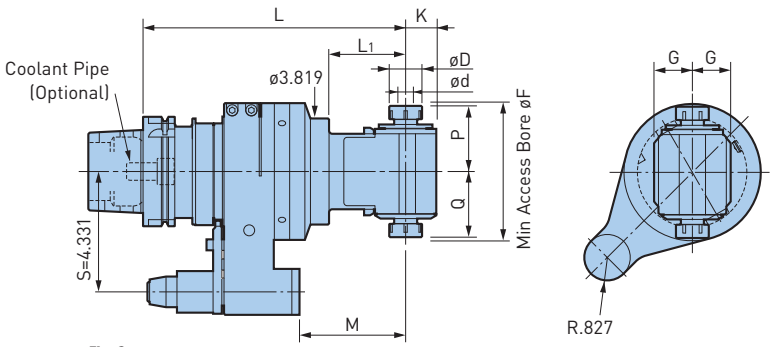


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	K	L	L1	M	P	Q	øF	Collet	Speed Ratio	Weight (lbs.)
HSK-A63-AG90/NBS10W-200	1	.059-.394	1.181	1.220	1.102	7.87	2.76	3.62	2.36	2.36	4.88	NBC10	1:1	13.7
HSK-A100-AG90/NBS10W-240	2	.059-.394	1.181	1.220	1.102	7.87	2.76	3.62	2.36	2.36	4.88	NBC10	1:1	28.7

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- Output spindles do not rotate in forward direction simultaneously
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG45 (NBS TYPE)

CLAMPING RANGE: ø.060"-.512"

Exclusive fixing housing allows for secure diagonal machining.

MAX 6,000 RPM

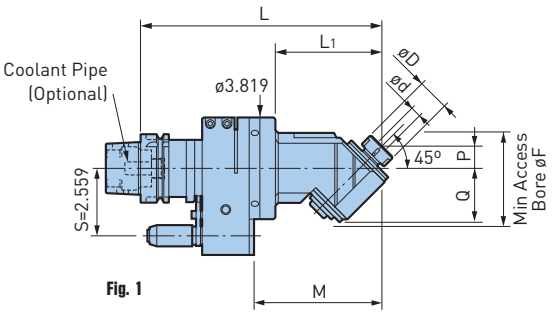


Fig. 1

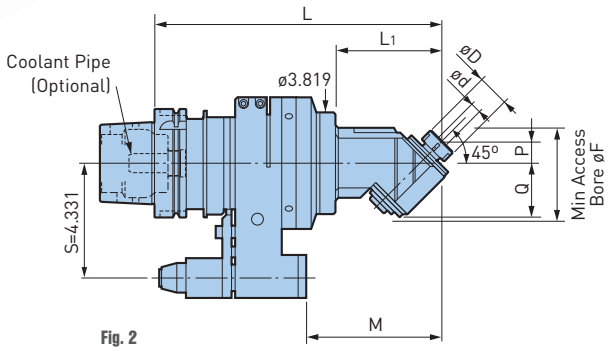
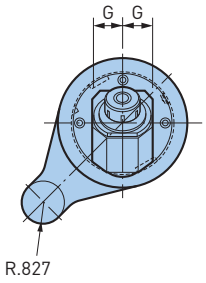


Fig. 2



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	G	L	L1	M	P	Q	øF	Collet	Speed Ratio	Weight (lbs.)
HSK-A63-AG45/NBS10-230	1	.060-.394	1.181	1.181	9.06	3.94	4.80	.79	2.03	3.54	NBC10	1:1	12.3
HSK-A63-AG45/NBS13-235		.098-.512	1.378		9.25	4.13	5.00	.98			NBC13		12.6
HSK-A100-AG45/NBS10-270	2	.060-.394	1.181	1.181	10.63	3.94	5.00	.79	2.03	3.54	NBC10	1:1	27.3
HSK-A100-AG45/NBS13-275		.098-.512	1.378		10.83	4.13	5.20	.98			NBC13		27.6

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models
- NEW BABY END MILL COLLETS cannot be used

ACCESSORIES

COLLET
PG. 378

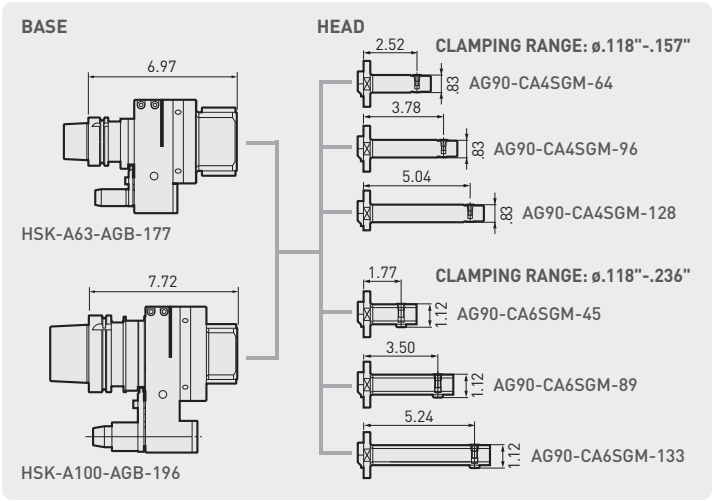
WRENCH
PG. 392

STOP BLOCK
PG. 429

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

AG90 (SLENDER DRIVE)

CLAMPING RANGE: ø.118"-.236" For Angular Operations Within a ø1.181 Inch Bore



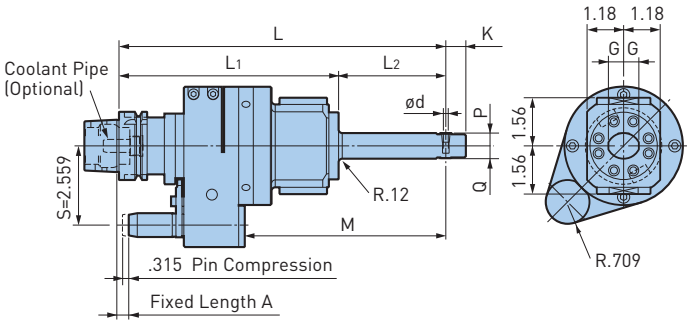


Fig. 1

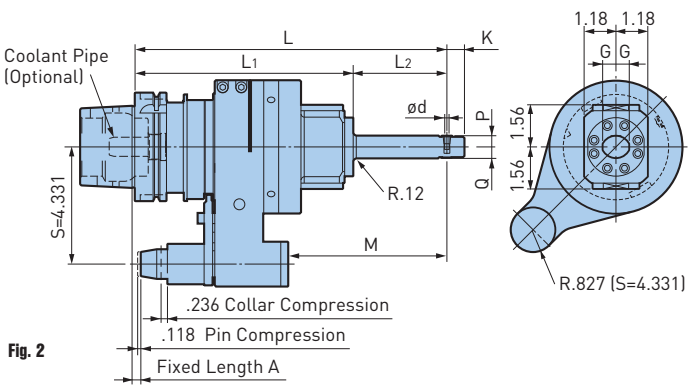


Fig. 2

Base	Head	Fig.	ød	G	K	L	L1	L2	M	P	Q	Speed Ratio	Weight (lbs.)
HSK-A63-AGB-177	AG90-CA4SGM-64	1	.118-.157	.492	.650	9.49	7.28	2.20	5.24	.41	.41	1:1.06 (Increase)	12.1
	AG90-CA4SGM-96					10.75		3.46	6.50				12.3
	AG90-CA4SGM-128					12.01		4.72	7.76				12.6
	AG90-CA6SGM-45	1	.118-.236	.591	.787	8.74	7.28	1.46	4.49	.49	.63	1:0.77 (Decrease)	12.3
	AG90-CA6SGM-89					10.47		3.19	6.22				12.8
	AG90-CA6SGM-133					12.20		4.92	7.95				13.2
HSK-A100-AGB-196	AG90-CA4SGM-64	2	.118-.157	.492	.650	10.24	8.03	2.20	4.61	.41	.41	1:1.06 (Increase)	24.5
	AG90-CA4SGM-96					11.50		3.46	5.87				24.7
	AG90-CA4SGM-128					12.76		4.72	7.13				24.9
	AG90-CA6SGM-45	2	.118-.236	.591	.787	9.49	8.03	1.46	3.86	.49	.63	1:0.77 (Decrease)	24.7
	AG90-CA6SGM-89					11.22		3.19	5.59				25.1
	AG90-CA6SGM-133					12.95		4.92	7.32				25.6

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models
- Coolant cannot be supplied through the locating pin

ACCESSORIES

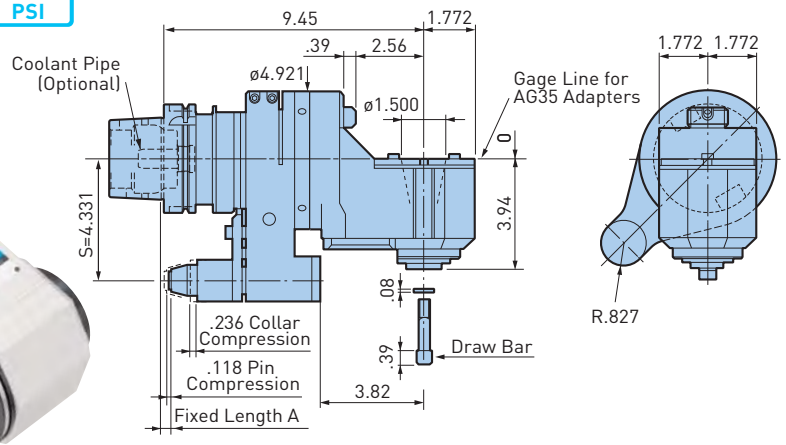
The rotation of the cutting tool is in same direction of the machine spindle.

AG90 (BUILD-UP TYPE)

For All Machinery Applications

MAX 3,000 RPM

MAX 150 PSI



The rotation of the cutting tool is in same direction of the machine spindle.

***Center through coolant type is also available; please contact us for details**

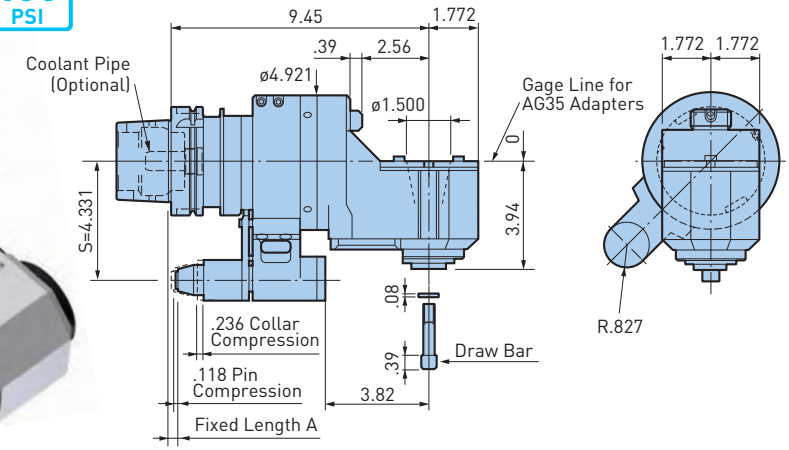
- Wrench is included; coolant pipe must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

Catalog Number	Weight (lbs.)
HSK-A100-AG90/AGH35-240	31.2

(HIGH RIGIDITY BUILD-UP TYPE)

MAX 3,000 RPM

MAX 150 PSI



The rotation of the cutting tool is in same direction of the machine spindle.

***Center through coolant type is also available; please contact us for details**

- Wrench is included; coolant pipe must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

Catalog Number	Weight (lbs.)
HSK-A100-AG90/AGH35-240S	34.1

ACCESSORIES


ADAPTERS PG. 426

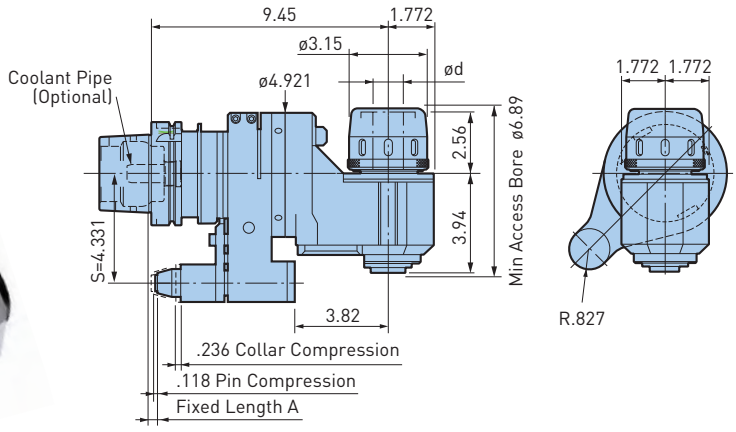

WRENCH PG. 409


STOP BLOCK PG. 429

AG90 (HMC TYPE)

For Heavy Duty End Milling

MAX 3,000 RPM



The rotation of the cutting tool is in same direction of the machine spindle.

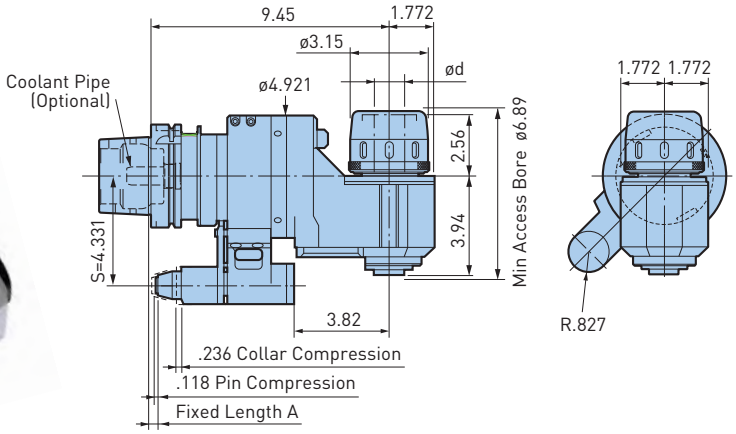
Catalog Number	ød	Weight (lbs.)
HSK-A100-AG90/HMC1.250-240	1.25	35.2
HSK-A100-AG90/HMC32-240	32mm	

***Center through coolant type is also available; please contact us for details**

- Wrench is included; coolant pipe must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

(HIGH RIGIDITY HMC TYPE)

MAX 3,000 RPM



The rotation of the cutting tool is in same direction of the machine spindle.

Catalog Number	ød	Weight (lbs.)
HSK-A100-AG90/HMC1.250-240S	1.25	38.1
HSK-A100-AG90/HMC32-240S	32mm	

***Center through coolant type is also available; please contact us for details**

- Wrench is included; coolant pipe must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- When supplied through the stop block, coolant can be ejected from the housing
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

COLLET PG. 407

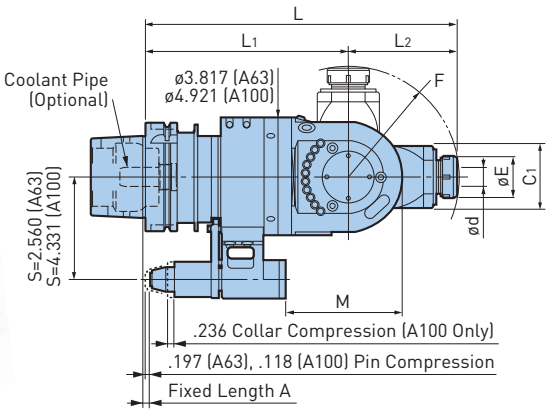
WRENCH PG. 409

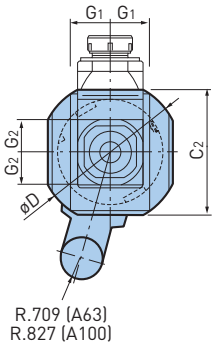
STOP BLOCK PG. 429

AGU (UNIVERSAL TYPE)

CLAMPING RANGE: ø.098"-.787" For Angular Operations

MAX 6,000 RPM





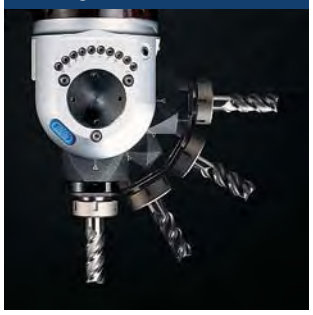
Catalog Number	ød	øE	øD	C1	C2	G1	G2	L	L1	L2	M	F	S	Collet	Max RPM	Weight (lbs.)
HSK-A63-AGU/NBS13-285	.098-.512	1.378	4.53	2.00	3.82	1.024	1.014	11.22	7.28	3.94	4.88	4.02	2.56	NBC13	6,000	21.2
HSK-A100-AGU/NBS20-325	.098-.787	1.811	5.51	2.56	4.92	1.299	1.280	12.80	8.27	4.53	4.92	4.65	4.33	NBC20	4,000	44.1

- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models

ACCESSORIES

The rotation of the cutting tool is in reverse direction of the machine spindle (Speed Ratio 1:1).

Easily Adjust Spindle Angle From 0° to 90°



Precise Angle Adjustment

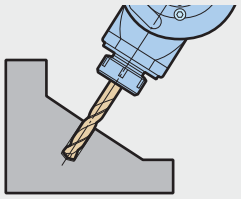
Unique setting mechanism enables the spindle angle to be precisely set at 1° increments.

Exclusive Clamping Bolts and Nuts

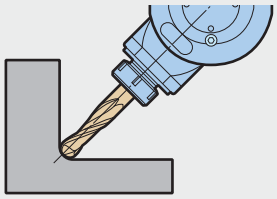
Specially selected materials and special design for clamping the head guarantees rigidity even for end milling applications.

Application Example

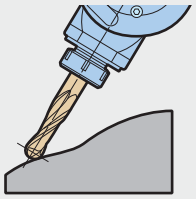
Adjustable AGU Universal Series expands ANGLE HEAD capabilities to accomplish various angular machining applications.



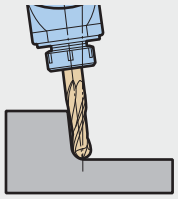
Drilling Or End Milling On An Angled Surface



Corner Rounding



Profiling



Machining Draft Angle Of A Mold

AGU30

CLAMPING RANGE: ø.098"-.787" For Angular Operations

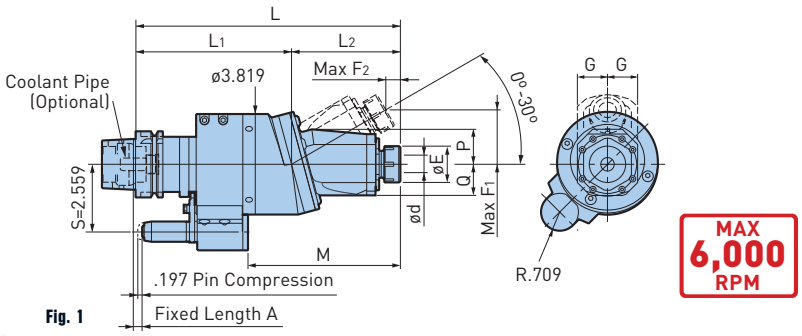
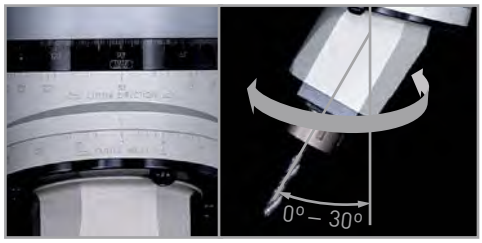


Fig. 1

Angle Adjustment by Aligning Divisions

Spindle angle is easily adjustable from 0° to 30° using the scale indication on the body.



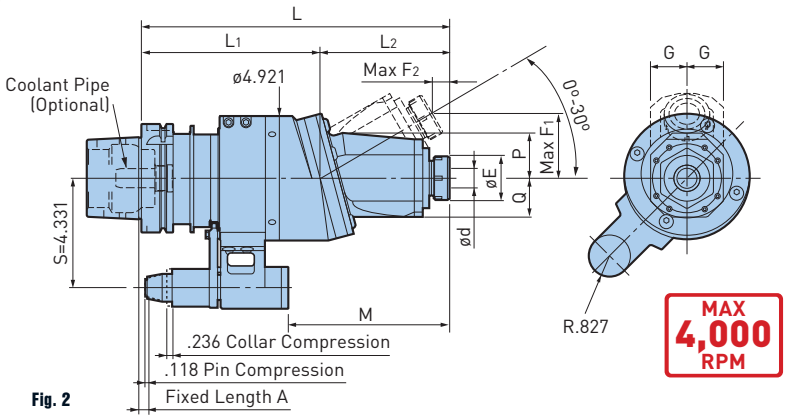


Fig. 2

Catalog Number	Fig.	ød	øE	G	L	L1	L2	M	P	Q	F1	F2	Collet	Max RPM	Weight (lbs.)
HSK-A63-AGU30/NBS13-255	1	.098-.512	1.378	1.142	10.04	5.91	4.13	5.79	1.34	1.18	2.07	.55	NBC13	6,000	15.0
HSK-A100-AGU30/NBS20-305	2	.098-.787	1.811	1.437	12.01	6.89	5.12	6.38	1.77	1.54	2.56	.67	NBC20	4,000	33.7

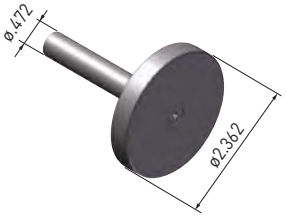
- Nut and wrench are included; coolant pipe and collet must be ordered separately
- The angles of the locating pin to the drive key groove and direction of cutting edge are freely adjustable
- A stop block is required when mounting on machines and must be order separately
- Automatic tool change may not be available depending on machine tool models
- When supplied through the stop block, coolant can be ejected from the housing

ACCESSORIES

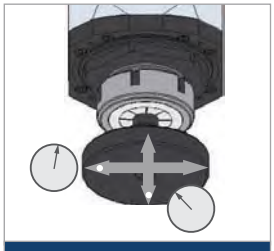
The rotation of the cutting tool is in same direction of the machine spindle.

SETTING DISC (INCLUDED)

For the precise adjustment of spindle angle or direction.



Clamp the Setting Disc Into the Angled Spindle



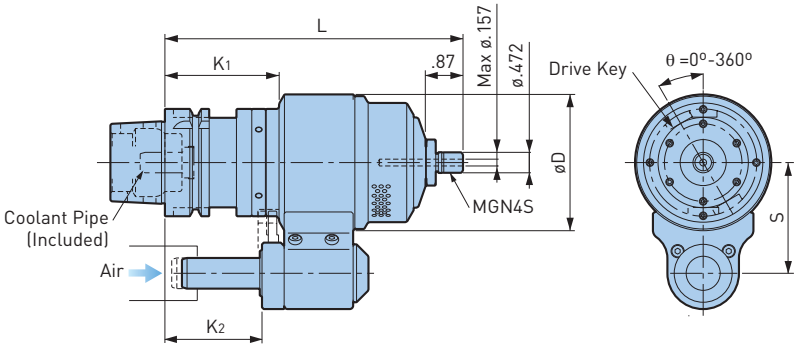
Check the Cutter Alignment and the Setting Angle

AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Automatic Tool Change

ZERO MACHINE SPINDLE ROTATION

MAX 80,000 RPM



Catalog Number	Operating Spindle Speed (RPM)	Cutting Tool Diameter	L	øD	K1	K2	S	Collet	Nut	Weight (lbs.)
HSK-A63-RBX7-4S-175-65	60,000-80,000	ø.039 or smaller	6.89	3.150	2.64	2.24	2.559	NBC4S	MGN4S	8.4
HSK-A63-RBX5-4S-175-65	40,000-50,000	ø.059 or smaller		3.780						10.6
HSK-A100-RBX7-4S-180-80	60,000-80,000	ø.039 or smaller	7.09	3.937	2.83	2.44	3.150	NBC4S	MGN4S	18.5
HSK-A100-RBX5-4S-180-80	40,000-50,000	ø.059 or smaller								20.7

- Nut and wrench are included; collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES


COLLET
PG. 374

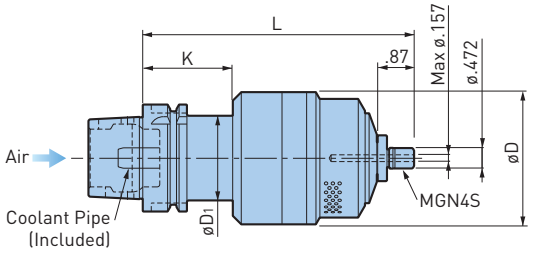

STOP BLOCK
PG. 429


AIR UNIT
PG. 432

AIR POWER SPINDLE (RBX5 & RBX7)

For High Speed Micro Machining with Compressed Air Through the Machine Spindle

MAX 80,000 RPM



Catalog Number	Operating Spindle Speed (RPM)	Cutting Tool Diameter	L	øD	øD1	K	Collet	Nut	Weight (lbs.)
HSK-A63-RBX7C-4S-160	60,000-80,000	ø.039 or smaller	6.30	3.071	1.97	2.09	NBC4S	MGN4S	6.4
HSK-A63-RBX5C-4S-160	40,000-50,000	ø.059 or smaller		3.780					8.6
HSK-A100-RBX7C-4S-165	60,000-80,000	ø.039 or smaller	6.50	3.071	2.68	2.28	NBC4S	MGN4S	10.8
HSK-A100-RBX5C-4S-165	40,000-50,000	ø.059 or smaller		3.780					13.0

- Nut and wrench are included; collet must be ordered separately
- XF1-NPT (Air Unit) is required; must be ordered separately

Compressed air to drive the AIR POWER SPINDLE must be clean. Coolant should not be supplied through the spindle on the machine that uses the AIR POWER SPINDLE.

ACCESSORIES

MEGA MICRO CHUCK (TAPERED BODY)

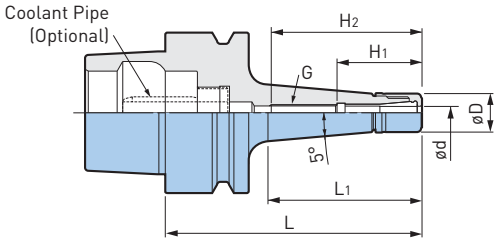
CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

For Micro Drill & End Mill Applications

NEW Sizes

HIGHER RIGIDITY

MAX 50,000 RPM



Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-E25-MEGA3S-45T	.018-.128	.394	1.77	1.26	.87	(1.26)	—	NBC3S-☐	MGN3S	MGR10	50,000	.1
HSK-E25-MEGA3S-60T			2.36	1.89		1.50	M4 P0.7				40,000	.2
HSK-E25-MEGA4S-45T	.018-.159	.472	1.77	1.30	1.04	(1.26)	—	NBC4S-☐	MGN4S	MGR12	50,000	.2
HSK-E25-MEGA4S-60T			2.36	1.93		1.61	M5 P0.8				40,000	.2
HSK-E25-MEGA6S-45T	.018-.238	.551	1.77	1.30	1.12	(1.22)	—	NBC6S-☐	MGN6S	MGR14	50,000	.2
HSK-E25-MEGA6S-60T			2.36	1.93		1.57	M7 P0.75				40,000	.2
HSK-E32-MEGA3S-60T	.018-.128	.394	2.36	1.38	.87	1.50	M4 P0.7	NBC3S-☐	MGN3S	MGR10	40,000	.3
HSK-E32-MEGA3S-75T			2.95	1.97								.4
HSK-E32-MEGA4S-45T	.018-.159	.472	1.77	.91	1.04	(1.02)	—	NBC4S-☐	MGN4S	MGR12	50,000	.3
HSK-E32-MEGA4S-60T			2.36	1.38		1.81	M5 P0.8				40,000	.4
HSK-E32-MEGA6S-45T	.018-.238	.551	1.77	.91	1.12	(1.10)	—	NBC6S-☐	MGN6S	MGR14	50,000	.3
HSK-E32-MEGA6S-60T			2.36	1.42		1.50	M7 P0.75				40,000	.4
HSK-E32-MEGA8S-60T	.116-.317	.709	2.36	1.50	1.22	1.69	—	NBC8S-☐	MGN8S	MGR18	30,000	.4
HSK-E40-MEGA3S-60T	.018-.128	.394	2.36	1.38	.87	1.54	M4 P0.7	NBC3S-☐	MGN3S	MGR10	40,000	.5
HSK-E40-MEGA3S-75T			2.95	1.97		1.50						.6
HSK-E40-MEGA4S-60T	.018-.159	.472	2.36	1.38	1.04	1.73	M5 P0.8	NBC4S-☐	MGN4S	MGR12	40,000	.5
HSK-E40-MEGA4S-75T			2.95	1.97		1.85						.6
HSK-E40-MEGA6S-60T	.018-.238	.551	2.36	1.38	1.12	(1.65)	—	NBC6S-☐	MGN6S	MGR14	40,000	.5
HSK-E40-MEGA6S-75T			2.95	1.97		1.93	M7 P0.75					.6
HSK-E40-MEGA6S-90T			3.54	2.56								.7
HSK-E40-MEGA8S-60T❖ 🔴	.116-.317	.709	2.36	1.38	—	(1.61)	—	NBC8S-☐	MGN8S	MGR18	30,000	.6
HSK-E50-MEGA3S-80T	.018-.128	.394	3.15	1.93	.87	1.50	M4 P0.7	NBC3S-☐	MGN3S	MGR10	40,000	1.0
HSK-E50-MEGA4S-80T	.018-.159	.472	3.15	1.89	1.04	1.85	M5 P0.8	NBC4S-☐	MGN4S	MGR12	40,000	1.0
HSK-E50-MEGA6S-80T	.018-.238	.551	3.15	1.93	1.12	1.93	M7 P0.75	NBC6S-☐	MGN6S	MGR14	40,000	1.1

- MEGA MICRO NUT is included; coolant pipe, collet and wrench must be ordered separately
- Weight includes nut but does not include collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- For models marked ❖, there is no internal thread, the dimension H2 in ( ) shows how deep a tool can be inserted
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

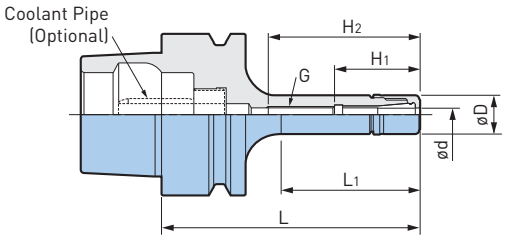
ACCESSORIES

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.238" (ø.45-6.05mm)

For Micro Drill & End Mill Applications

MAX 50,000 RPM



Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-E25-MEGA4S-45❖	.018-.159	.472	1.77	1.22	1.65	(1.26)	—	NBC4S-□	MGN4S	MGR12	50,000	.1
HSK-E25-MEGA4S-60			2.36	1.81		1.85	M5 P0.8				40,000	.2
HSK-E25-MEGA6S-45❖	.018-.238	.551	1.77	1.26	1.10	(1.22)	—	NBC6S-□	MGN6S	MGR14	50,000	.2
HSK-E25-MEGA6S-60			2.36	1.85	1.12	1.61	M7 P0.75				40,000	.2
HSK-E32-MEGA3S-45❖	.018-.238	.394	1.77	.91	.87	(1.22)	—	NBC3S-□	MGN3S	MGR10	50,000	.3
HSK-E32-MEGA4S-45	.018-.159	.472	1.77	.87	1.04	1.22	M5 P0.8	NBC4S-□	MGN4S	MGR12	50,000	.3
HSK-E32-MEGA4S-60			2.36	1.34		1.81					40,000	.3
HSK-E32-MEGA6S-45❖	.018-.238	.551	1.77	.87	1.12	(1.10)	—	NBC6S-□	MGN6S	MGR14	50,000	.3
HSK-E32-MEGA6S-60			2.36	1.38		1.50	M7 P0.75				40,000	.3
HSK-E40-MEGA3S-40❖	.018-.128	.394	1.57	.75	.87	(.94)	—	NBC3S-□	MGN3S	MGR10	50,000	.5
HSK-E40-MEGA4S-60	.018-.159	.472	2.36	1.34	1.04	1.73	M5 P0.8	NBC4S-□	MGN4S	MGR12	40,000	.5
HSK-E40-MEGA6S-45❖	.018-.238	.551	1.77	.91	1.08	(1.06)	—	NBC6S-□	MGN6S	MGR14	50,000	.5
HSK-E40-MEGA6S-60❖			2.36	1.38	1.12	1.10	—				40,000	.5
HSK-E50-MEGA3S-50❖	.018-.128	.394	1.97	.79	.87	(1.18)	—	NBC3S-□	MGN3S	MGR10	45,000	.9
HSK-E50-MEGA4S-50❖	.018-.159	.472	1.97	.83	1.04	(1.18)	—	NBC4S-□	MGN4S	MGR12	45,000	1.0
HSK-E50-MEGA4S-80			3.15	1.73		1.85	M5 P0.8				40,000	1.0
HSK-E50-MEGA6S-55❖	.018-.238	.551	2.17	1.02	1.12	(1.38)	—	NBC6S-□	MGN6S	MGR14	45,000	1.0
HSK-E50-MEGA6S-80			3.15	1.73		1.93	M7 P0.75				40,000	1.0

- MEGA MICRO NUT is included; coolant pipe, collet and wrench must be ordered separately
- Weight includes nut but does not include collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- For models marked ❖, there is no internal thread, the dimension H2 in ( ) shows how deep a tool can be inserted
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

ACCESSORIES

MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

For Drills, Reamers, Taps & Finishing End Mills

MAX 40,000 RPM

COOLANT THROUGH

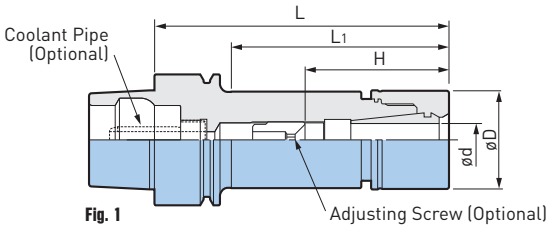


Fig. 1

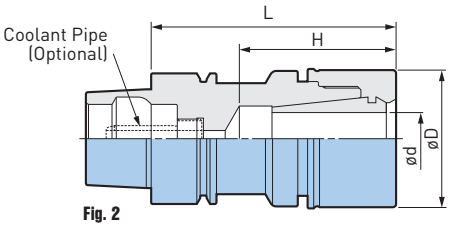


Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-E25-MEGA6N-40❖	1	.010-.236	.787	1.57	1.10	.98	NBC6-☐	MGN6	MGR20	30,000	.2
HSK-E25-MEGA8N-45❖	2	.020-.315	.984	1.77	—	1.18	NBC8-☐	MGN8	MGR25	25,000	.3
HSK-E25-MEGA10N-60❖		.059-.394	1.181	2.36		1.77	NBC10-☐	MGN10	MGR30	20,000	.4
HSK-E32-MEGA6N-45❖◆	1	.010-.236	.787	1.77	.94	1.10	NBC6-☐	MGN6	MGR20	40,000	.4
HSK-E32-MEGA6N-60				2.36	1.42	.91-1.06				35,000	.4
HSK-E32-MEGA8N-50❖	1	.020-.315	.984	1.97	1.14	1.30	NBC8-☐	MGN8	MGR25	40,000	.5
HSK-E32-MEGA8N-65				2.56	1.69	1.02-1.26				35,000	.6
HSK-E32-MEGA10N-65❖	2	.059-.394	1.181	2.56	1.77	1.85	NBC10-☐	MGN10	MGR30	30,000	.6
HSK-E32-MEGA13N-70❖	2	.098-.512	1.378	2.76	1.77	1.73	NBC13-☐	MGN13	MGR35	25,000	.7
HSK-E40-MEGA6N-50❖	1	.010-.236	.787	1.97	1.02	1.22	NBC6-☐	MGN6	MGR20	40,000	.6
HSK-E40-MEGA6N-60				2.36	1.30	.91-1.02				35,000	.6
HSK-E40-MEGA6N-75				2.95	1.89	.91-1.21				30,000	.7
HSK-E40-MEGA6N-90				3.54	2.48	.91-1.69				28,000	.8
HSK-E40-MEGA6N-120				4.72	3.66					25,000	.9
HSK-E40-MEGA8N-55❖	1	.020-.315	.984	2.17	1.22	1.42	NBC8-☐	MGN8	MGR25	40,000	.7
HSK-E40-MEGA8N-75				2.95	1.97	1.02-1.77				30,000	.8
HSK-E40-MEGA8N-90				3.54	2.56					28,000	1.0
HSK-E40-MEGA10N-60❖	1	.059-.394	1.181	2.36	1.42	1.57	NBC10-☐	MGN10	MGR30	35,000	.9
HSK-E40-MEGA10N-75❖				2.95	2.01	2.17				30,000	1.0
HSK-E40-MEGA10N-90				3.54	2.60	1.50-1.89				28,000	1.2
HSK-E40-MEGA13N-65❖	1	.098-.512	1.378	2.56	1.69	1.73	NBC13-☐	MGN13	MGR35	30,000	1.0
HSK-E40-MEGA13N-75❖				2.95	2.09	2.28				25,000	1.2
HSK-E40-MEGA13N-90				3.54	2.68	1.73-1.89					1.4
HSK-E40-MEGA13N-120				4.72	3.86	1.73-2.48				20,000	1.8
HSK-E40-MEGA13N-150				5.91	5.04					15,000	2.2
HSK-E40-MEGA16N-65❖◆	2	.098-.630	1.654	2.56	—	1.81	NBC16-☐	MGN16	MGR42	25,000	1.0
HSK-E40-MEGA16N-75❖				2.95		1.89				20,000	1.3

Catalog Number	Fig.	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-E50-MEGA6N-55❖	1	.010-.236	.787	2.17	1.06	1.38	NBC6-□	MGN6	MGR20	40,000	1.0
HSK-E50-MEGA6N-70				2.76	1.50	.91-1.54				30,000	1.1
HSK-E50-MEGA6N-100				3.94	2.52	.91-1.69				25,000	1.2
HSK-E50-MEGA8N-60❖	1	.020-.315	.984	2.36	1.18	1.47	NBC8-□	MGN8	MGR25	40,000	1.2
HSK-E50-MEGA8N-90				3.54	2.20	1.02-1.772				30,000	1.4
HSK-E50-MEGA10N-60❖◆	1	.059-.394	1.181	2.36	1.18	1.38	NBC10-□	MGN10	MGR30	35,000	1.2
HSK-E50-MEGA10N-90				3.54	2.28	1.50-1.89				30,000	1.5
HSK-E50-MEGA13N-70❖	1	.098-.512	1.378	2.76	1.57	1.77	NBC13-□	MGN13	MGR35	28,000	1.5
HSK-E50-MEGA13N-90				3.54	2.36	1.73-1.85				25,000	1.8
HSK-E50-MEGA13N-120				4.72	3.54	1.73-2.48				20,000	2.2
HSK-E50-MEGA13N-150				5.91	4.72					15,000	2.7
HSK-E50-MEGA16N-75❖	1	.098-.630	1.654	2.95	1.89	2.05	NBC16-□	MGN16	MGR42L	28,000	1.9
HSK-E50-MEGA16N-90❖				3.54	2.48	2.56				25,000	2.2
HSK-E50-MEGA20N-75❖◆	2	.098-.787	1.811	2.95	—	1.93	NBC20-□	MGN20	MGR46L	25,000	1.8
HSK-E50-MEGA20N-100				3.94		2.01-2.13				20,000	2.4
HSK-E50-MEGA20N-130				5.12		2.01-2.68				18,000	3.3

- MEGA NEW BABY NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖
- NEW BABY END MILL COLLET cannot be used with models marked ◆
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410


SCREW PG. 433

HYDRAULIC CHUCK (ULTRA PRECISION SUPER SLIM)

CLAMPING RANGE: ø.125" (ø3-6mm)

Ultimate hydraulic chuck with precision. Runout accuracy of 1 micron at 4xD.

ULTRA PRECISION 1µm

MAX 60,000 RPM

COOLANT THROUGH

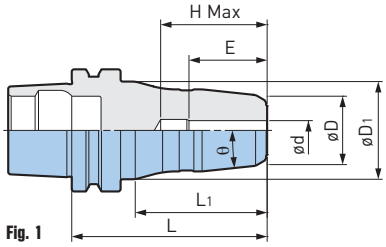


Fig. 1

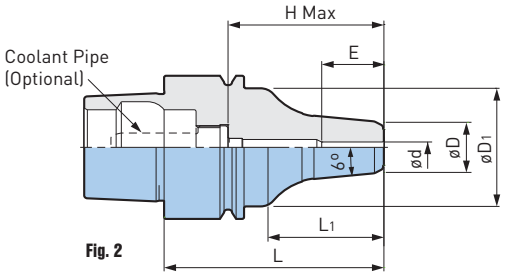
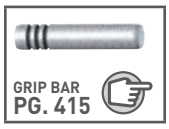


Fig. 2

Catalog Number	Fig.	ød	øD	øD1	L	L1	θ	Min Clamping Length E	H Max	Max RPM	Weight (lbs.)
HSK-E25-HDC3S-40UP❖	1	3mm	.551	.79	1.58	1.06	6°	.63	.86	60,000	.2
HSK-E25-HDC3.175S-40UP❖		.125									
HSK-E25-HDC4S-40UP		4mm							.83		
HSK-E25-HDC6S-45UP◆		6mm		.91	1.77	1.22	8°	.83	1.02		
HSK-E32-HDC3S-52UP❖	1	3mm	.551	1.02	2.05	.59	6°	.63	1.10	45,000	.4
HSK-E32-HDC3.175S-52UP❖		.125									
HSK-E32-HDC4S-52UP		4mm						.75			
HSK-E32-HDC6S-57UP		6mm			2.24	.87		.98	1.30		
HSK-E40-HDC3S-55UP❖	2	3mm	.551	1.30	2.17	1.14	6°	.63	1.54	40,000	.7
HSK-E40-HDC3.175S-55UP❖		.125									
HSK-E40-HDC4S-55UP		4mm						.75			
HSK-E40-HDC6S-60UP		6mm			2.36	1.34		.98	1.57		

- Coolant pipe must be ordered separately
- Adjusting screws cannot be used
- ◆ The body diameter of HSK-E25-HDC6S-45UP is 23mm (ISO standards=less than 20mm); some machines do not accept this large body diameter
- As for HSK-E40 holders, in case they are used in a machine which does not recommend the center through hole, the plug screw should be mounted to our tools
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

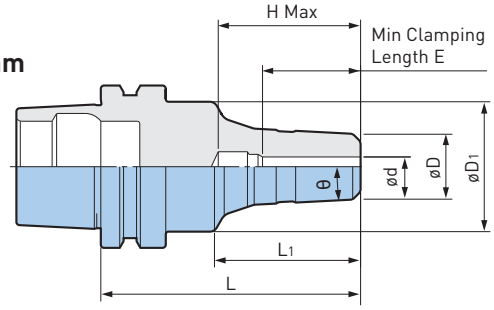
ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

(EXTRA SLIM)

CLAMPING RANGE: ø3-4mm



Catalog Number	ød	øD	øD1	L	L1	θ	E	H Max	Max RPM	Weight (lbs.)
HSK-E25-HDC3XS-40	3mm	.394	.787	1.57	.86	3°	.63	.87	60,000	.15
HSK-E25-HDC4XS-40	4mm									

- HSK-E25 does not have coolant-through hole
- Adjusting screws cannot be used

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø.125" (ø3-12mm)

Small design for micro machining.

COOLANT THROUGH

MAX 60,000 RPM

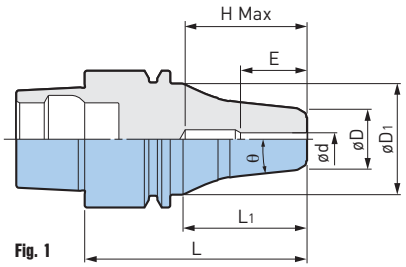


Fig. 1

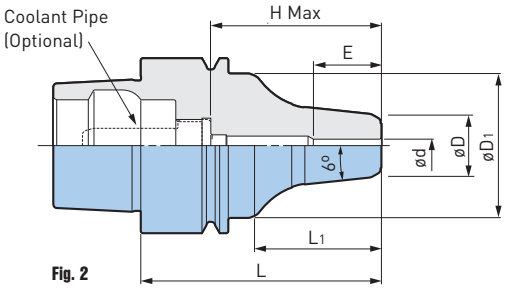


Fig. 2

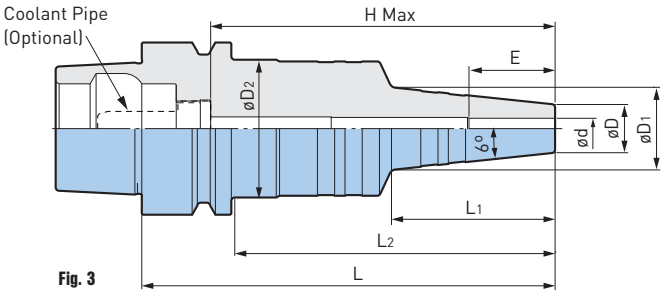


Fig. 3

ACCESSORIES

GRIP BAR PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	L2	θ	H Max	Min Clamping Length E	Max RPM	Weight (lbs.)
HSK-E25-HDC3S-40❖	1	3mm	.551	.79	—	1.56	1.06	—	6°	.86	.63	60,000	.2
HSK-E25-HDC3.175S-40❖		.125											
HSK-E25-HDC4S-40		4mm								.83			
HSK-E25-HDC6S-45◆		6mm		.91		1.77	1.22		8°	1.02	.83		
HSK-E32-HDC3S-52❖	1	3mm	.551	1.02	—	2.05	1.14	—	6°	1.10	.63	45,000	.4
HSK-E32-HDC3.175S-52❖		.125											
HSK-E32-HDC4S-52		4mm									.75		
HSK-E32-HDC6S-57		6mm				2.24	1.34			1.30	.98		
HSK-E40-HDC3S-55❖	2	3mm	.551	1.30	—	2.17	1.14	—	6°	1.54	.63	40,000	.6
HSK-E40-HDC3.175S-55❖		.125											
HSK-E40-HDC4S-55		4mm									.75		
HSK-E40-HDC4S-75						2.95	1.57			2.32		35,000	.8
HSK-E40-HDC6S-60		6mm				2.36	1.34			1.57	.98	40,000	.7
HSK-E40-HDC6S-75						2.95	1.57			1.89		35,000	.8
HSK-E40-HDC8S-65		8mm	.669			2.56	1.54			1.54	1.22		.7
HSK-E40-HDC10S-70		10mm	.748			2.76	1.57			1.65	1.30		.8
HSK-E40-HDC12S-70		12mm	.827								1.42		
HSK-E50-HDC4S-120	3	4mm	.551	.94	1.57	4.72	1.85	3.66	6°	3.94	.75	30,000	2.0
HSK-E50-HDC6S-120		6mm									.98		
HSK-E50-HDC8S-120		8mm	.669	1.10			1.89			3.35	1.22		
HSK-E50-HDC10S-120		10mm	.748	1.18							1.30		
HSK-E50-HDC12S-120		12mm	.827	1.26			1.93				1.42		

- HSK-E25/32 does not have coolant-through hole
- Coolant pipe must be ordered separately
- Adjusting screws cannot be used
- ◆ The body diameter of 6S-45 is 23mm (ISO standards=less than 20mm); some machines do not accept this large body diameter
- If HSK-E40 holders are used in a machine which does not recommend the center through hole, the plug screw should be mounted to our tools
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

SHRINK FIT HOLDER (SLIM TYPE)

CLAMPING RANGE: ø.125" (ø3-8mm)

STAINLESS STEEL ø3-4mm | DIE STEEL ø6-8mm | MAX 90,000 RPM | COOLANT THROUGH

NEW Product

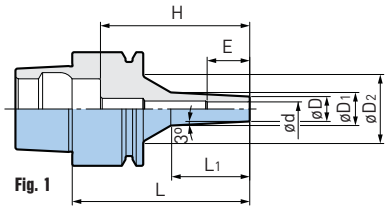


Fig. 1

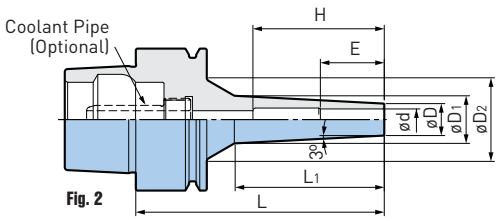


Fig. 2

Coolant Through

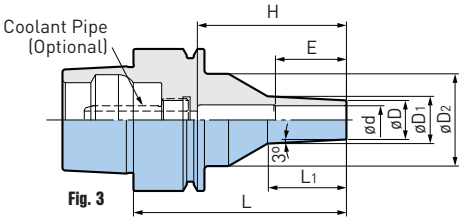


Fig. 3

Coolant Through

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	Max Insertion Length H	Min Clamping Length E	Weight (lbs.)
HSK-E25-SRM3S-35❖	1	3mm	.236	.31	.71	1.38	.67	1.14	.35	.1
HSK-E25-SRM3S-50❖				.37	.77	1.97	1.26	1.73		.1
HSK-E25-SRM3.175S-35❖		.125	.244	.31	.72	1.38	.67	1.14		.1
HSK-E25-SRM3.175S-50❖				.38	.78	1.97	1.26	1.73		.1
HSK-E25-SRM4S-35❖		4mm	.276	.35	.75	1.38	.67	1.14	.47	.1
HSK-E25-SRM4S-50❖				.41	.69	1.97	1.26	1.73		.1
HSK-E25-SRM6S-35		6mm	.354	.43	.71	1.38	.67	1.14	.71	.1
HSK-E32-SRM3S-50❖	1	3mm	.236	.33	.73	1.97	.87	1.65	.35	.3
HSK-E32-SRM3S-70❖				.41	.81	2.76	1.65	2.44		.3
HSK-E32-SRM3.175S-50❖		.125	.244	.33	.74	1.97	.87	1.65		.3
HSK-E32-SRM4S-50❖		4mm	.276	.37	.77				.47	.3
HSK-E32-SRM4S-70❖				.45	.85	2.76	1.65	2.44		.4
HSK-E32-SRM6S-70		6mm	.354	.53	.93				.71	.4
HSK-E40-SRM3S-50❖	2	3mm	.236	.33	.73	1.97	.87	1.34	.35	.5
HSK-E40-SRM3S-70❖				.41	.81	2.76	1.65	2.13		.5
HSK-E40-SRM3.175S-50❖		.125	.244	.33	.74	1.97	.87	1.34		.5
HSK-E40-SRM4S-50❖		4mm	.276	.37	.77				.47	.5
HSK-E40-SRM4S-70❖				.45	.85	2.76	1.65	2.13		.5
HSK-E40-SRM6S-50		6mm	.354	.44	.85	1.97	.87	1.22	.71	.5
HSK-E40-SRM6S-70				.53	.93	2.76	1.65	1.42		.5
HSK-E40-SRM8S-60	3	8mm	.433	.52	1.02	2.36	.87	1.61	.79	.6
HSK-E40-SRM8S-80				.61	1.02	3.15	1.65	1.93		.6

- Coolant pipe must be ordered separately
- Use carbide tool shank with a tolerance of h6 or less
- Models marked with an ❖ are made of stainless steel
- Please note that the rotation speed during use is greatly affected by the balance between the machine rigidity and the tool; when using, start at a low rotation speed and gradually increase it to find the appropriate rotation speed
- HSK-E25 and E32 holders cannot be used with coolant through

For models marked ❖ corrosion cracking may occur if water-soluble or chlorine-based water-insoluble cutting oil is used with a center-through cutter (including center-through oil mist) due to the material's properties. Use a non-chlorine-based water-insoluble cutting oil.
Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER

CLAMPING RANGE: ø.125" (ø6-12mm)

STAINLESS STEEL ø3-4mm

DIE STEEL ø6-8mm

MAX 90,000 RPM

COOLANT THROUGH

NEW Product

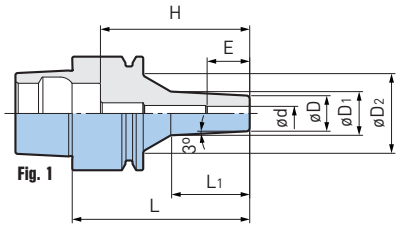


Fig. 1

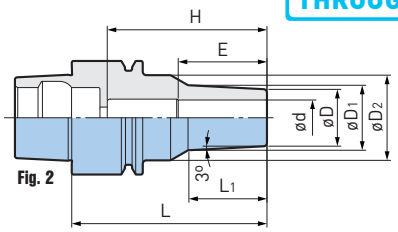


Fig. 2

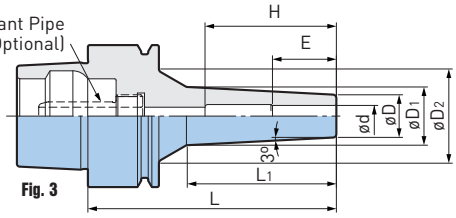


Fig. 3

Coolant Through

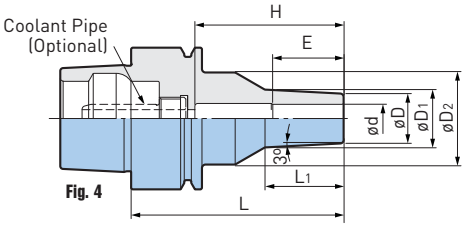


Fig. 4

Coolant Through

Catalog Number	Fig.	ød	øD	øD1	øD2	L	L1	Max Insertion Length H	Min Clamping Length E	Weight (lbs.)
HSK-E25-SRM3-35❖	1	3mm	.295	.37	.77	1.38	.67	1.14	.35	.1
HSK-E25-SRM3.175-35❖		.125	.303	.37	.78					.1
HSK-E25-SRM4-35❖		4mm	.394	.46	.75				.47	.1
HSK-E25-SRM6-35		6mm	.472	.54	.77				.71	.2
HSK-E32-SRM3-50❖	1	3mm	.295	.39	.79	1.97	.87	1.65	.35	.2
HSK-E32-SRM3-70❖				.47	.87	2.76	1.65	2.44		.4
HSK-E32-SRM3.175-50❖		.125	.303	.39	.80	1.97	.87	1.65		.3
HSK-E32-SRM4-50❖		4mm	.394	.48	.89				.47	.3
HSK-E32-SRM4-70❖				.57	.97	2.76	1.65	2.44		.4
HSK-E32-SRM6-50		6mm	.472	.56	.96	1.97	.87	1.65	.71	.4
HSK-E32-SRM6-70				.65	1.02	2.76	1.65	2.44		.4
HSK-E32-SRM8-50		8mm	.551	.64		1.97	.87	1.65	.79	.4
HSK-E32-SRM10-55	2	10mm	.630	.72	.94	2.17		1.85	.98	.4
HSK-E32-SRM12-55		12mm	.787	.88				1.77		.4
HSK-E40-SRM3-50❖	3	3mm	.295	.39	.79	1.97	.87	1.34	.35	.5
HSK-E40-SRM3-70❖				.47	.87	2.76	1.65	2.13		.5
HSK-E40-SRM3.175-50❖		.125	.303	.39	.80	1.97	.87	1.34		.5
HSK-E40-SRM4-50❖		4mm	.394	.48	.89				.47	.5
HSK-E40-SRM4-70❖				.57	.97	2.76	1.65	2.13		.6
HSK-E40-SRM6-50		6mm	.472	.56	.96	1.97	.87	1.22	.71	.6
HSK-E40-SRM6-70				.65	1.05	2.76	1.65	1.42		.6
HSK-E40-SRM8-60	4	8mm	.551	.64	1.02	2.36	.87	1.61	.79	.6
HSK-E40-SRM10-65		10mm	.630	.72		2.56		1.81	.98	.7
HSK-E40-SRM12-65		12mm	.787	.88						.7

- Coolant pipe must be ordered separately
- Use carbide tool shank with a tolerance of h6 or less
- Models marked with an ❖ are made of stainless steel
- Please note that the rotation speed during use is greatly affected by the balance between the machine rigidity and the tool; when using, start at a low rotation speed and gradually increase it to find the appropriate rotation speed
- HSK-E25 and E32 holders cannot be used with coolant through

For models marked ❖ corrosion cracking may occur if water-soluble or chlorine-based water-insoluble cutting oil is used with a center-through cutter (including center-through oil mist) due to the material's properties. Use a non-chlorine-based water-insoluble cutting oil.
Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.238" (ø.45-6mm)

For Micro Drill & End Mill Applications

MAX 32,000 RPM

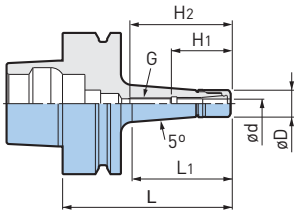


Fig. 1 (High Rigidity Type)

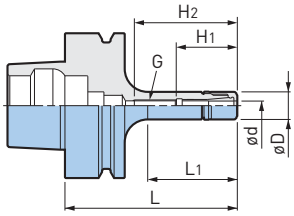


Fig. 2 (Straight Type)

Catalog Number	Fig.	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-F63-MEGA4S-75T	1	.018-.159	.472	2.95	1.73	1.04	1.61	M5 P0.8	NBC4S-□	MGN4S	MGR12	32,000	1.5
HSK-F63-MEGA6S-75T		.018-.238	.551	2.95	1.73	1.12	1.61	M7 P0.75	NBC6S-□	MGN6S	MGR14		1.5
HSK-F63-MEGA8S-75T		.116-.317	.709			1.22	2.28	M9 P0.75	NBC8S-□	MGN8S	MGR25		1.5
HSK-F63-MEGA4S-75	2	.018-.159	.472	2.95	1.54	1.04	1.61	M5 P0.8	NBC4S-□	MGN4S	MGR12	30,000	1.5
HSK-F63-MEGA4S-105				4.13	2.99		1.85					25,000	1.5
HSK-F63-MEGA6S-75		.018-.238	.551	2.95	1.81	1.12	1.61	M7 P0.75	NBC6S-□	MGN6S	MGR14	30,000	1.5
HSK-F63-MEGA6S-90				3.54	2.40		1.93					27,000	1.6
HSK-F63-MEGA6S-105				4.13	2.99							25,000	1.7

- MEGA MICRO NUT is included; coolant pipe, collet and wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- Contact us for a plug screw to block a coolant-through hole
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376


MEGA WRENCH PG. 410

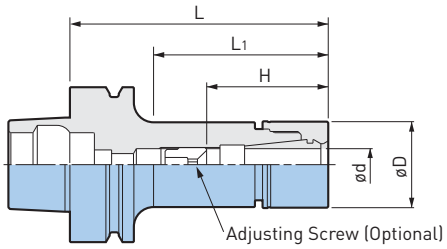
MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-F63-MEGA6N-75	.010-.236	.787	2.95	1.65	.91-1.22	NBC6-□	MGN6	MGR20	35,000	1.5
HSK-F63-MEGA6N-90			3.54	2.09	.91-1.69				30,000	1.8
HSK-F63-MEGA6N-105			4.13	2.72					25,000	1.8
HSK-F63-MEGA6N-135			5.31	3.90					20,000	2.0
HSK-F63-MEGA8N-75	.020-.315	.984	2.95	1.69	1.02-1.50	NBC8-□	MGN8	MGR25	32,000	1.8
HSK-F63-MEGA8N-90			3.54	2.13	1.02-1.77				30,000	2.0
HSK-F63-MEGA8N-105			4.13	2.72						2.0
HSK-F63-MEGA8N-120			4.72	3.31					25,000	2.0
HSK-F63-MEGA8N-135			5.31	3.90					20,000	2.2
HSK-F63-MEGA8N-165			6.50	5.08					15,000	2.4
HSK-F63-MEGA10N-75❖	.059-.354	1.181	2.95	1.69	1.89	NBC10-□	MGN10	MGR30	32,000	2.0
HSK-F63-MEGA10N-90			3.54	2.13	1.50-1.89				30,000	2.0
HSK-F63-MEGA10N-105			4.13	2.72					25,000	2.2
HSK-F63-MEGA10N-120			4.72	3.31						2.4
HSK-F63-MEGA13N-75❖	.098-.512	1.378	2.95	1.69	1.85	NBC13-□	MGN13	MGR35	30,000	2.0
HSK-F63-MEGA13N-90❖			3.54	2.20	2.40					2.2
HSK-F63-MEGA13N-105			4.13	2.80	1.73-2.09				25,000	2.4
HSK-F63-MEGA13N-120			4.72	3.39	1.73-2.48				20,000	2.6
HSK-F63-MEGA13N-165			6.50	5.16					15,000	3.5
HSK-F63-MEGA16N-75❖	.098-.630	1.654	2.95	1.69	1.89	NBC16-□	MGN16	MGR42	30,000	2.2
HSK-F63-MEGA16N-90❖			3.54	2.28	2.40				25,000	2.6
HSK-F63-MEGA16N-105			4.13	2.87	1.89-2.20				20,000	2.9
HSK-F63-MEGA20N-75❖	.098-.787	1.811	2.95	1.77	2.01	NBC20-□	MGN20	MGR46	30,000	2.4
HSK-F63-MEGA20N-90❖			3.54	2.36	2.40				25,000	2.9
HSK-F63-MEGA20N-105			4.13	2.95	2.01-2.28				20,000	3.1

- MEGA NEW BABY NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Contact us for a plug screw to block a coolant-through hole
- Adjusting screws cannot be used with models marked ❖
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

ACCESSORIES


COLLET PG. 378


MEGA NUT PG. 387


PERFECT SEAL PG. 388


MEGA WRENCH PG. 410


SCREW PG. 433

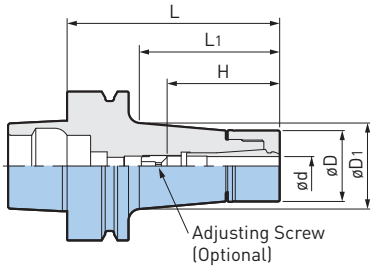
MEGA E CHUCK

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Exclusively for High Speed Finish End Milling

MAX 30,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	H	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
HSK-F63-MEGA6E-65❖	.125-.250 (3-6mm)	.984	1.11	2.56	1.34	1.54	MEC6-□	MEN6	MGR25	30,000	1.8
HSK-F63-MEGA6E-90			1.23	3.54	2.28	1.46-1.77					2.0
HSK-F63-MEGA8E-65❖	.125-.250 (3-8mm)	1.181	1.29	2.56	1.34	1.61	MEC8-□	MEN8	MGR30	30,000	1.8
HSK-F63-MEGA8E-90			1.43	3.54	2.32	1.65-1.85					2.2
HSK-F63-MEGA10E-75❖	.125-.375 (3-10mm)	1.378	1.51	2.95	1.73	1.89	MEC10-□	MEN10	MGR35	30,000	2.2
HSK-F63-MEGA10E-90❖			1.62	3.54	2.32	2.64					2.6
HSK-F63-MEGA10E-105			1.73	4.13	2.95	1.89-2.28				29,000	2.9
HSK-F63-MEGA10E-120			1.84	4.72	3.58						3.5
HSK-F63-MEGA10E-135			1.93	5.31	4.21					27,000	4.0
HSK-F63-MEGA13E-75❖	.125-.500 (3-12mm)	1.654	1.80	2.95	1.85	1.97	MEC13-□	MEN13	MGR42	30,000	2.4
HSK-F63-MEGA13E-90❖			1.90	3.54	2.44	2.52					3.1
HSK-F63-MEGA13E-105			2.01	4.13	3.07	1.97-2.28				29,000	3.5
HSK-F63-MEGA13E-135			2.04	5.31	4.25	1.97-2.36				26,000	4.4

- MEGA E NUT is included; coolant pipe, collet, wrench and adjusting screw must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Contact us for a plug screw to block a coolant-through hole
- Adjusting screws cannot be used with models marked ❖
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

ACCESSORIES


COLLET PG. 400


MEGA NUT PG. 401


PERFECT SEAL PG. 401


MEGA WRENCH PG. 410


SCREW PG. 433

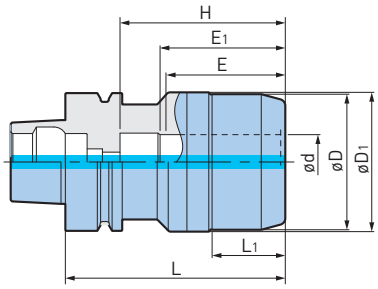
MEGA DOUBLE POWER CHUCK

CLAMPING RANGE: ø16-32mm

For Heavy Duty End Milling

MAX 28,000 RPM

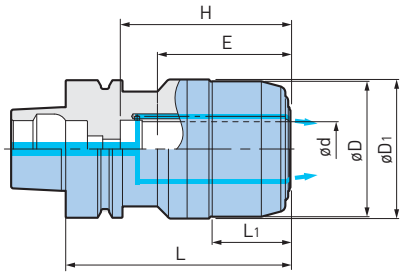
COOLANT THROUGH

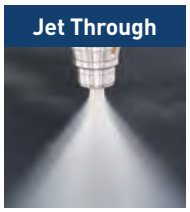


Catalog Number	ød	øD	øD1	L	L1	H	Min Clamping Length		Wrench	Weight (lbs.)
							E	E1		
HSK-F63-MEGA16D-80A	16mm	1.654	2.087	3.15	.98	2.17	1.89	1.97	MGR42L	2.6
HSK-F63-MEGA20D-90A	20mm	1.969	2.165	3.54	1.34	2.56	1.97	2.20	MGR50L	3.1
HSK-F63-MEGA25D-100A	25mm	2.441	2.480	3.94	1.54	2.95	2.20	2.24	MGR62L	4.0
HSK-F63-MEGA32D-105A	32mm	2.756	2.795	4.13	1.30	3.15	2.36	2.52	MGR70L	4.4

- Wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" dimension is the Max tool shank length that can be inserted into the holder
- Contact us for a plug screw to block a coolant-through hole
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

(JET COOLANT TYPE)





COOLANT THROUGH

Catalog Number	ød	øD	øD1	L	L1	H	Min Clamping Length E	Wrench	Weight (lbs.)
HSK-F63-MEGA16DS-80A	16mm	1.654	2.087	3.23	1.06	2.24	1.89	MGR42L	2.6
HSK-F63-MEGA20DS-90A	20mm	1.969	2.165	3.62	1.42	2.64	1.97	MGR50L	3.1
HSK-F63-MEGA25DS-100A	25mm	2.441	2.480	4.02	1.61	3.03	2.20	MGR62L	4.0
HSK-F63-MEGA32DS-105A	32mm	2.756	2.795	4.21	1.38	3.23	2.36	MGR70L	4.4

- Wrench must be ordered separately
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- Jet-through type provides coolant form the chuck nose, thus tools with oil holes cannot be used
- "H" dimension is the Max tool shank length that can be inserted into the holder
- Contact us for a plug screw to block a coolant-through hole
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools

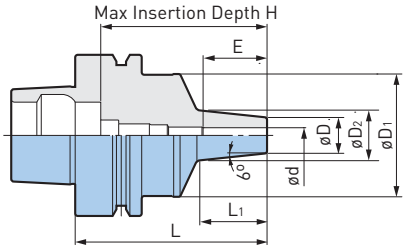
ACCESSORIES

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø3mm-12mm

Slim design minimizes workpiece interference, ideal for mold making.

COOLANT THROUGH



Catalog Number	ød	øD	øD1	øD2	L	L1	H	Min Clamping Length E	Max RPM	Weight (lbs.)
HSK-F63-HDC3S-75❖	3mm	.551	1.890	.787	2.95	1.02	2.56	.63	30,000	2.2
HSK-F63-HDC4S-75	4mm							.75	30,000	2.2
HSK-F63-HDC6S-75	6mm							.98	30,000	2.2
HSK-F63-HDC8S-75	8mm	.669		.906		1.06		1.22	30,000	2.2
HSK-F63-HDC10S-75	10mm	.748		1.024				1.30	30,000	2.2
HSK-F63-HDC12S-75	12mm	.827		1.102		1.10		1.42	30,000	2.2

- Adjusting screws cannot be used
- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

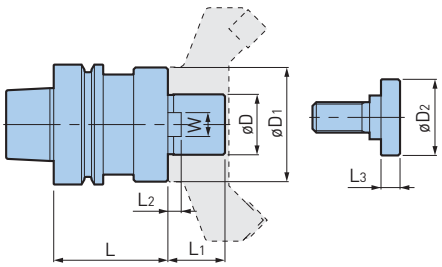
ACCESSORIES

GRIP BAR PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

FACE MILL ARBOR (TYPE A)

COOLANT THROUGH

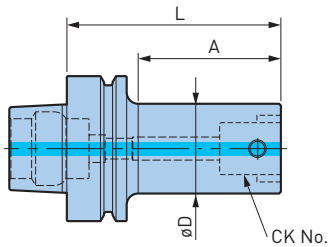


Catalog Number	øD	øD1	øD2	L	L1	L2	L3	W	Clamp Bolt	Weight (lbs.)
HSK-F63-FMA25.4-45	25.4mm	1.77	1.30	1.77	.866	.197	.39	.375	MBA-M12	2.2

- Clamping bolt is included

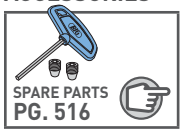
CKB SHANK

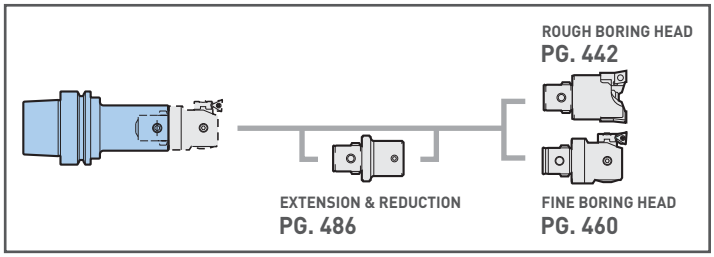
COOLANT THROUGH



Catalog Number	CK No.	øD	L	A	Weight (lbs.)
HSK-F63-CKB1-78	CK1	.748	3.051	1.575	1.8
HSK-F63-CKB2-90	CK2	.945	3.524	2.283	1.8
HSK-F63-CKB3-100	CK3	1.220	3.937	2.717	2.2
HSK-F63-CKB4-93	CK4	1.535	3.661	2.441	2.6
HSK-F63-CKB5-83	CK5	1.969	3.268	2.165	2.9
HSK-F80M-CKB4-93	CK4	1.535	3.661	2.441	3.5
HSK-F80M-CKB5-83	CK5	1.969	3.268	2.047	4.0
HSK-F80M-CKB6-79	CK6	2.520	3.110	2.047	4.4

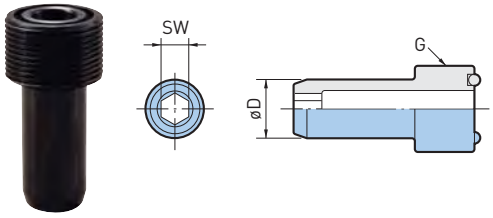
ACCESSORIES

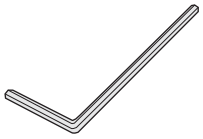




COOLANT PIPE

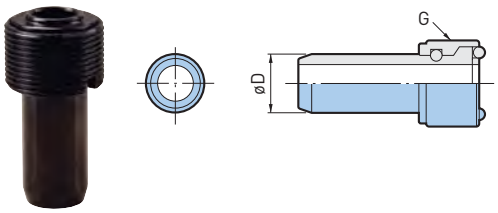
(MONO BLOCK TYPE—FORM A/E)

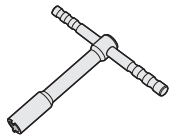


Catalog Number	øD	G	SW (mm)	
HSK25-CP	5mm	M8 P1	2.5mm	
HSK32-CP	6mm	M10 P1	3mm	
HSK40-CP	8mm	M12 P1	4mm	
HSK50-CP	10mm	M16 P1	5mm	
HSK63-CP	12mm	M18 P1	6mm	
HSK100-CP	16mm	M24 P1.5	8mm	
HSK125-CP	18mm	M30 P1.5	10mm	

Some machine tool builders may recommend the mono block type. Contact your machine builder and verify the proper style of coolant pipe to be selected. For machines capable of supplying coolant through the spindle, the coolant pipe should be fitted to all HSK holders to protect against accidental selection of coolant.

(1º SWING TYPE—FORM A/E)



Catalog Number	øD	G	Wrench (Optional)	
HSK40-CPM	8mm	M12 P1	CPW-40	
HSK50-CPM	10mm	M16 P1	CPW-50	
HSK63-CPM	12mm	M18 P1	CPW-63	
HSK100-CPM	16mm	M24 P1.5	CPW-100	
HSK125-CPM	18mm	M30 P1.5	CPW-125	

DIN standard specifies ±1 degree of float. For proper installation, the special wrench is necessary. For machines capable of supplying coolant through the spindle, the coolant pipe should be fitted to all HSK holders to protect against accidental selection of coolant.

HSK PLUG SCREW

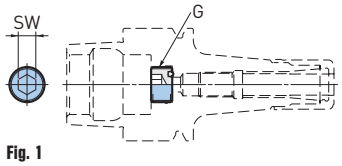


Fig. 1

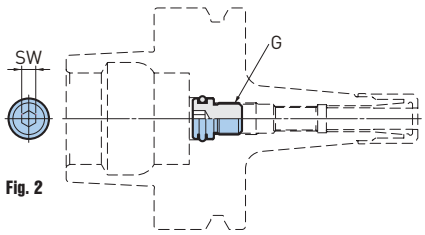


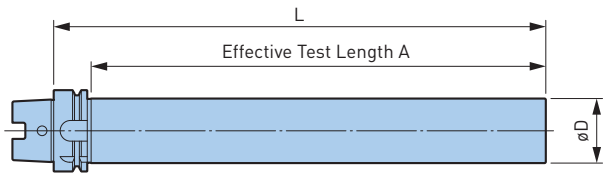
Fig. 2

Catalog Number	Fig.	Body Type	G	SW
HSK25-PG	1	HSK-A25	M8 P1	4mm
		HSK-E25		
HSK32-PG	1	HSK-A32	M10 P1	5mm
		HSK-E32		
HSK40-PG	1	HSK-A40	M12 P1	6mm
		HSK-E40		
HSK-F63-PG	2	HSK-F63	M9 P.75	4mm

- If HSK tool holders are used in a machine which does not recommend the center-through coolant, the plug screw should be mounted to our tools
- HSK-F63-PG can only be used in original BIG DAISHOWA HSK-F63 tool holders; not compatible with other manufacturers

DYNA TEST

Helps identify potential problems and can reduce downtime and costly repairs of the machine tool spindle.



HSK Form	Catalog Number	L	A	øD
A	**HSK-A40-32-L180SD**	7.087	6.181	32mm
	HSK-A50-32-L150SD	5.905	4.764	
	HSK-A50-32-L240SD	9.449	8.307	
	HSK-A63-50-L200SD	7.874	6.732	50mm
	HSK-A63-50-L350SD	13.780	12.638	
	HSK-A100-50-L200SD	7.784	6.614	
	HSK-A100-50-L350SD	13.780	12.520	
	HSK-A125-50-L360SD	14.173	12.91	
E	**HSK-E25-20-L175**	6.890	6.417	20mm
	HSK-E32-20-L180	7.087	6.220	
	HSK-E40-32-L180		6.181	32mm
	HSK-E50-32-L240	9.449	8.307	
F	**HSK-F63-50-L200**	7.874	6.732	50mm
	HSK-F63-50-L350	13.780	12.638	

• Catalog numbers with SD have symmetrical drive keys to allow indexing 180 degrees

BIG CAPTO SHANKS

A.4

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.238" (ø.45-6.05mm)

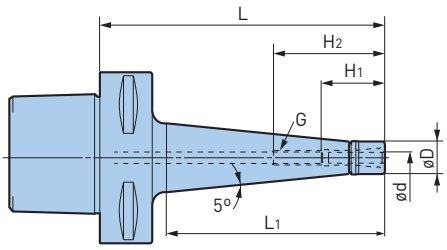
For Micro Drill & End Mill Applications

NEW Sizes

MAX 35,000 RPM

HIGHER RIGIDITY

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C3-MEGA6S-45T	.018-.238	.551	1.77	1.06	1.10	1.54	—	NBC6S-☐	MGN6S	MGR14	30,000	.3
C4-MEGA3S-60T	.018-.125	.394	2.36	1.38	.87	1.50	M4 P0.7	NBC3S-☐	MGN3S	MGR10	35,000	.7
C4-MEGA6S-60T	.018-.238	.551	2.36	1.38	1.10	1.85	M7 P0.75	NBC6S-☐	MGN6S	MGR14	30,000	.7
C4-MEGA6S-90T			3.54	2.56		1.89					22,000	.9
C4-MEGA8S-60T 🔴	.116-.317	.709	2.36	1.38	1.22	1.85	M7 P0.75	NBC8S-☐	MGN8S	MGR18	—	.7
C5-MEGA3S-105T	.018-.128	.394	4.13	3.11	.89	1.52	M4 P0.7	NBC3S-☐	MGN3S	MGR10	30,000	1.1
C5-MEGA4S-105T	.018-.159	.472	4.13	3.11	1.04	1.85	M5 P0.8	NBC4S-☐	MGN4S	MGR12	25,000	1.1
C5-MEGA4S-120T			4.72	3.70							20,000	1.3
C5-MEGA6S-105T	.018-.238	.551	4.13	3.11	1.12	1.93	M7 P0.75	NBC6S-☐	MGN6S	MGR14	25,000	1.3
C5-MEGA6S-120T			4.72	3.70							20,000	1.3
C6-MEGA3S-120T	.018-.128	.394	4.72	3.62	.89	1.52	M4 P0.7	NBC3S-☐	MGN3S	MGR10	25,000	2.9
C6-MEGA4S-120T	.018-.159	.472	4.72	3.62	1.04	1.85	M5 P0.8	NBC4S-☐	MGN4S	MGR12	22,000	2.9
C6-MEGA4S-135T			5.31	4.21							20,000	3.1
C6-MEGA6S-120T	.018-.238	.551	4.72	3.62	1.12	1.93	M7 P0.75	NBC6S-☐	MGN6S	MGR14	22,000	2.9
C6-MEGA6S-135T			5.31	4.21							20,000	3.1

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES

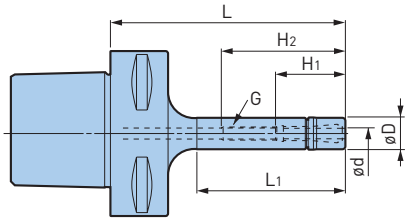
MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.238" (ø.45-6.05mm)

For Micro Drill & End Mill Applications

MAX 25,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H1	H2	G	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C5-MEGA3S-75	.018-.128	.394	2.95	1.93	.89	1.50	M4 P0.7	NBC3S-□	MGN3S	MGR10	25,000	.9
C5-MEGA4S-75	.018-.159	.472		1.97	1.04	1.85	M5 P0.8	NBC4S-□	MGN4S	MGR12	25,000	.9
C5-MEGA6S-75	.018-.238	.551		1.97	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	25,000	.9
C6-MEGA3S-90	.018-.128	.394	3.54	1.97	.89	1.50	M4 P0.7	NBC3S-□	MGN3S	MGR10	25,000	2.4
C6-MEGA4S-90	.018-.159	.472		2.28	1.04	1.85	M5 P0.8	NBC4S-□	MGN4S	MGR12	25,000	2.6
C6-MEGA6S-90	.018-.238	.551		2.28	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	25,000	2.6

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376


MEGA WRENCH PG. 410

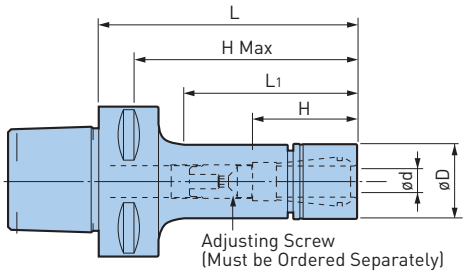
MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C3-MEGA6N-45	.010-.236	.787	1.77	1.10	.91	.91	NBC6-☐	MGN6	MGR20	30,000	.4
C3-MEGA8N-45	.020-.315	.984	1.77	1.10	1.02	1.02	NBC8-☐	MGN8	MGR25	30,000	.5
C3-MEGA10N-50	.059-.394	1.181	1.97	1.34	1.50	1.50	NBC 10-☐	MGN10	MGR30	30,000	.5
C3-MEGA13N-50	.098-.512	1.378	1.97	1.38	1.73	1.73	NBC 13-☐	MGN13	MGR35	30,000	.6
C3-MEGA16N-55	.098-.630	1.654	2.17	—	1.93	1.93	NBC 16-☐	MGN16	MGR42	25,000	.7
C4-MEGA6N-75	.010-.236	.787	2.95	1.89	.91-1.69	2.72	NBC6-☐	MGN6	MGR20	30,000	.9
C4-MEGA8N-75	.020-.315	.984	2.95	1.93	1.02-1.77	2.72	NBC8-☐	MGN8	MGR25	30,000	1.1
C4-MEGA10N-50	.059-.394	1.181	1.97	1.10	1.73	1.73	NBC10-☐	MGN10	MGR30	33,000	1.1
C4-MEGA10N-75			2.95	2.05	1.50-1.89	2.72				30,000	1.3
C4-MEGA13N-50❖	.098-.512	1.378	1.97	1.14	1.73	1.73	NBC13-☐	MGN13	MGR35	30,000	1.1
C4-MEGA13N-75❖			2.95	2.13	2.52	2.52				28,000	1.5
C4-MEGA16N-55❖	.098-.630	1.654	2.17	—	1.89	1.89	NBC16-☐	MGN16	MGR42	30,000	1.5
C4-MEGA20N-60❖	.098-.787	1.811	2.36	—	2.09	2.09	NBC20-☐	MGN20	MGR46	25,000	1.8
C5-MEGA6N-60	.010-.236	.787	2.36	1.34	.91-1.42	2.09	NBC6-☐	MGN6	MGR20	35,000	1.1
C5-MEGA6N-75			2.95	1.93	.91-1.69	2.68				30,000	1.1
C5-MEGA6N-90			3.54	2.44		3.27				30,000	1.1
C5-MEGA6N-105			4.13	3.03		3.86				25,000	1.3
C5-MEGA6N-120			4.72	3.54		4.45				23,000	1.3
C5-MEGA8N-60	.020-.315	.984	2.36	1.30	1.02-1.42	2.09	NBC8-☐	MGN8	MGR25	35,000	1.1
C5-MEGA8N-75			2.95	1.93	1.02-1.77	2.68				30,000	1.3
C5-MEGA8N-90			3.54	2.52		3.27				30,000	1.3
C5-MEGA8N-105			4.13	3.03		3.86				27,000	1.5
C5-MEGA8N-120			4.72	3.62		4.45				25,000	1.5
C5-MEGA10N-55❖	.059-.394	1.181	2.17	1.22	1.89	1.89	NBC10-☐	MGN10	MGR30	35,000	1.1
C5-MEGA10N-75			2.95	1.93	1.50-1.89	2.68				33,000	1.3
C5-MEGA10N-90			3.54	2.52		3.27				30,000	1.5
C5-MEGA10N-105			4.13	3.11		3.86				27,000	1.8
C5-MEGA10N-120			4.72	3.62		4.45				25,000	2.0
C5-MEGA13N-55❖	.098-.512	1.378	2.17	1.22	1.89	1.89	NBC13-☐	MGN13	MGR35	30,000	1.3
C5-MEGA13N-75			2.95	1.93	1.73-1.89	2.68				28,000	1.5
C5-MEGA13N-90			3.54	2.52	1.73-2.48	3.27				25,000	1.8
C5-MEGA13N-105			4.13	3.11		3.86				22,000	2.0
C5-MEGA13N-120			4.72	3.70		4.45				20,000	2.2

Catalog Number	ød	øD	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C5-MEGA16N-60❖	.098-.630	1.654	2.36	1.50	2.09	2.09	NBC16-□	MGN16	MGR42	30,000	1.5
C5-MEGA16N-75❖			2.95	2.09	2.68	2.68				28,000	2.0
C5-MEGA16N-90			3.54	2.72	1.89-2.48	3.27				23,000	2.2
C5-MEGA16N-105			4.13	3.31	1.89-2.68	3.86				20,000	2.4
C5-MEGA16N-120			4.72	3.90		4.37				15,000	2.9
C5-MEGA20N-60❖	.098-.787	1.811	2.36	1.54	2.01	2.01	NBC20-□	MGN20	MGR46	23,000	1.8
C5-MEGA20N-75❖			2.95	2.13	2.60	2.60				20,000	2.2
C5-MEGA20N-90			3.54	2.72	2.01-2.36	3.27				17,000	2.4
C5-MEGA20N-105			4.13	3.31	2.01-2.68	3.86				15,000	2.9
C5-MEGA20N-120			4.72	3.90		4.37				13,000	3.1
C6-MEGA6N-60	.010-.236	.787	2.36	1.18	.91-1.30	2.01	NBC6-□	MGN6	MGR20	35,000	2.6
C6-MEGA6N-75			2.95	1.69	.91-1.69	2.60				35,000	2.6
C6-MEGA6N-90			3.54	2.28		3.19				30,000	2.6
C6-MEGA6N-105			4.13	2.87		3.78				30,000	2.9
C6-MEGA6N-120			4.72	3.46		4.37				25,000	2.9
C6-MEGA6N-135			5.31	4.06		4.96				20,000	2.9
C6-MEGA6N-165			6.50	5.04		6.14				15,000	3.1
C6-MEGA6N-200			7.87	6.42		7.52				10,000	3.3
C6-MEGA8N-60	.020-.315	.984	2.36	1.14	1.02-1.22	2.01	NBC8-□	MGN8	MGR25	35,000	2.9
C6-MEGA8N-75			2.95	1.69	1.02-1.77	2.60				35,000	2.9
C6-MEGA8N-90			3.54	2.28		3.19				30,000	2.9
C6-MEGA8N-105			4.13	2.87		3.78				30,000	3.1
C6-MEGA8N-120			4.72	3.46		4.37				25,000	3.1
C6-MEGA8N-135			5.31	4.06		4.96				20,000	3.3
C6-MEGA8N-165			6.50	5.24		6.14				15,000	3.5
C6-MEGA8N-200			7.87	6.42		7.52				10,000	3.7
C6-MEGA10N-60❖	.059-.394	1.181	2.36	1.26	2.01	2.01	NBC10-□	MGN10	MGR30	35,000	2.9
C6-MEGA10N-75			2.95	1.69	1.50-1.77	2.60				33,000	3.1
C6-MEGA10N-90			3.54	2.28	1.50-1.89	3.19				30,000	3.1
C6-MEGA10N-105			4.13	2.87		3.78				25,000	3.3
C6-MEGA10N-120			4.72	3.46		4.37				25,000	3.5
C6-MEGA10N-135			5.31	4.06		4.96				20,000	3.5
C6-MEGA10N-165			6.50	5.24		6.14				15,000	4.0
C6-MEGA10N-200			7.87	6.61		7.52				12,000	4.4

- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

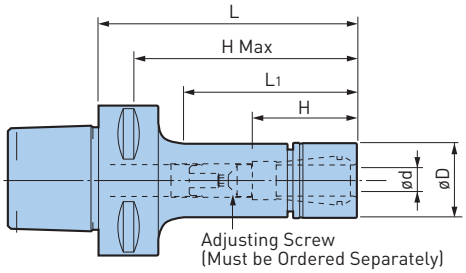
MEGA NEW BABY CHUCK

CLAMPING RANGE: ø.098"-.787"

For Drills, Reamers, Taps & Finishing End Mills

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C6-MEGA13N-60❖	.098-.512	1.378	2.36	1.26	2.01	2.01	NBC13-□	MGN13	MGR35	35,000	2.9
C6-MEGA13N-75❖			2.95	1.77	2.60	2.60				32,000	3.1
C6-MEGA13N-90			3.54	2.36	1.73-2.17	3.19				30,000	3.3
C6-MEGA13N-105			4.13	2.87	1.73-2.48	3.78				25,000	3.5
C6-MEGA13N-120			4.72	3.54		4.37				20,000	3.7
C6-MEGA13N-135			5.31	4.06		4.96				20,000	4.0
C6-MEGA13N-165			6.50	5.24		6.14				15,000	4.4
C6-MEGA13N-200			7.87	6.61		7.52				12,000	4.8
C6-MEGA16N-65❖	.098-.630	1.654	2.56	1.46	2.20	2.20	NBC16-□	MGN16	MGR42	32,000	3.3
C6-MEGA16N-75❖			2.95	1.85	2.60	2.60				30,000	3.5
C6-MEGA16N-90			3.54	2.36	1.89-2.24	3.19				25,000	3.7
C6-MEGA16N-105			4.13	2.95	1.89-2.68	3.78				20,000	4.0
C6-MEGA16N-120			4.72	3.54		4.37				15,000	4.4
C6-MEGA16N-135			5.31	4.13		4.96				15,000	4.6
C6-MEGA16N-165			6.50	5.31		6.14				10,000	5.3
C6-MEGA16N-200			7.87	6.69		7.52				8,000	5.9
C6-MEGA20N-65❖	.098-.787	1.811	2.56	1.46	2.01	2.01	NBC20-□	MGN20	MGR46	32,000	3.3
C6-MEGA20N-75❖			2.95	1.85	2.56	2.56				30,000	3.5
C6-MEGA20N-90			3.54	2.44	2.01-2.20	2.99				25,000	4.0
C6-MEGA20N-105			4.13	3.03	2.01-2.68	3.58				20,000	4.4
C6-MEGA20N-120			4.72	3.62		4.09				15,000	4.6
C6-MEGA20N-135			5.31	4.21		4.37				15,000	5.1
C6-MEGA20N-165			6.50	5.39		4.37				10,000	5.7
C6-MEGA20N-200			7.87	6.77		4.37				8,000	6.4

Catalog Number	ød	øD	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C8-MEGA6N-90	.010-.236	.787	3.54	1.77	.91-1.69	3.54	NBC6-□	MGN6	MGR20	20,000	5.3
C8-MEGA6N-120			4.72	2.95		4.72				17,000	5.7
C8-MEGA6N-165			6.50	4.72		6.50				12,000	5.9
C8-MEGA8N-90	.020-.315	.984	3.54	1.81	1.02-1.77	3.54	NBC8-□	MGN8	MGR25	20,000	5.7
C8-MEGA8N-120			4.72	2.95		4.72				17,000	5.9
C8-MEGA8N-165			6.50	4.72		6.50				13,000	6.2
C8-MEGA10N-90	.059-.394	1.181	3.54	1.77	1.50-1.89	3.54	NBC10-□	MGN10	MGR30	20,000	5.9
C8-MEGA10N-120			4.72	2.95		4.72				17,000	6.2
C8-MEGA10N-165			6.50	4.72		6.50				13,000	6.6
C8-MEGA13N-90	.098-.512	1.378	3.54	1.97	1.73-2.48	3.54	NBC13-□	MGN13	MGR35	18,000	6.2
C8-MEGA13N-120			4.72	3.15		4.72				15,000	6.4
C8-MEGA13N-165			6.50	4.72		6.50				12,000	7.0
C8-MEGA13N-200			200	155		7.87				8,000	7.7
C8-MEGA16N-90	.098-.630	1.654	3.54	1.97	1.89-2.60	3.54	NBC16-□	MGN16	MGR42	15,000	6.4
C8-MEGA16N-120			4.72	3.15	1.89-2.68	4.72				14,000	7.0
C8-MEGA16N-165			6.50	4.92		6.50				13,000	7.9
C8-MEGA20N-90	.098-.787	1.811	3.54	1.97	2.01-2.68	3.27	NBC20-□	MGN20	MGR46	15,000	6.6
C8-MEGA20N-120			4.72	3.15		4.45				14,000	7.3
C8-MEGA20N-165			6.50	4.92		4.45				13,000	8.4
C8-MEGA20N-200			7.87	6.30		4.45				10,000	9.0

- MEGA NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

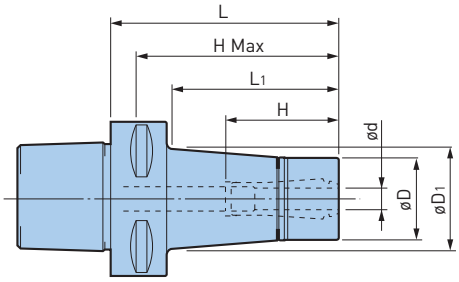
MEGA E CHUCK

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)

Exclusively for High Speed Finish End Milling

MAX 35,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C4-MEGA6E-50❖	.125-.250 (3-6mm)	.984	1.02	1.97	.98	1.73	1.73	MEC6-☐	MEN6	MGR25	35,000	.9
C4-MEGA8E-50❖	.125-.250 (3-8mm)	1.181	1.22	1.97	1.10	1.73	1.73	MEC8-☐	MEN8	MGR30	35,000	1.1
C4-MEGA10E-55❖	.125-.375 (3-10mm)	1.378	1.46	2.17	1.34	1.93	1.93	MEC10-☐	MEN10	MGR35	30,000	1.1
C4-MEGA13E-60❖	.125-.500 (3-12mm)	1.654	—	2.36	—	1.97	1.97	MEC13-☐	MEN13	MGR42	25,000	1.3
C5-MEGA6E-55❖	.125-.250 (3-6mm)	.984	1.04	2.17	1.14	1.89	1.89	MEC6-☐	MEN6	MGR25	35,000	1.1
C5-MEGA6E-90			1.27	3.54	2.52	1.46-1.77	3.27				25,000	1.5
C5-MEGA6E-105			1.39	4.13	3.19		3.86				22,000	1.8
C5-MEGA6E-120			1.49	4.72	3.82		4.45				20,000	2.0
C5-MEGA8E-55❖	.125-.250 (3-8mm)	1.181	1.23	2.17	1.22	1.89	1.89	MEC8-☐	MEN8	MGR30	35,000	1.3
C5-MEGA8E-90			1.47	3.54	2.64	1.65-2.01	3.27				25,000	1.8
C5-MEGA8E-105			1.58	4.13	3.23		3.86				22,000	2.2
C5-MEGA8E-120			1.69	4.72	3.86		4.45				20,000	2.4
C5-MEGA10E-60❖	.125-.375 (3-10mm)	1.378	1.47	2.36	1.46	2.09	2.09	MEC10-☐	MEN10	MGR35	30,000	1.3
C5-MEGA10E-90			1.68	3.54	2.72	1.89-2.28	3.27				25,000	2.0
C5-MEGA10E-105			1.78	4.13	3.31		3.86				20,000	2.4
C5-MEGA10E-120			1.78	4.72	3.90		4.45				18,000	2.9
C5-MEGA13E-60❖	.125-.500 (3-12mm)	1.654	1.75	2.36	1.54	1.97	1.97	MEC13-☐	MEN13	MGR42	30,000	1.8
C5-MEGA13E-75❖			1.77	2.95	2.13	2.68	2.68				25,000	2.0
C5-MEGA13E-90			1.76	3.54	2.72	1.97-2.36	3.27				25,000	2.4
C5-MEGA13E-105			1.81	4.13	3.31		3.86				20,000	2.9
C5-MEGA13E-120			1.80	4.72	3.90		4.45				16,000	3.1
C6-MEGA6E-60❖	.125-.250 (3-6mm)	.984	1.10	2.36	1.30	2.01	2.01	MEC6-☐	MEN6	MGR25	35,000	2.6
C6-MEGA6E-75			1.16	2.95	1.89	1.46-1.77	2.06				30,000	2.9
C6-MEGA6E-90			1.26	3.54	2.48		3.19				30,000	3.1
C6-MEGA6E-105			1.37	4.13	3.07		3.78				28,000	3.3
C6-MEGA6E-120			1.47	4.72	3.66		4.37				25,000	3.5
C6-MEGA6E-135			1.57	5.31	4.25		4.96				22,000	4.0
C6-MEGA6E-165			1.78	6.50	5.43		6.14				18,000	4.6

Catalog Number	ød	øD	øD1	L	L1	H	H Max	Collet	Nut	Wrench	Max RPM	Weight (lbs.)
C6-MEGA8E-60❖	.125-.250 (3-8mm)	1.181	1.29	2.36	1.30	2.01	2.01	MEC8-□	MEN8	MGR30	32,000	2.9
C6-MEGA8E-75			1.35	2.95	1.89	1.65-1.81	2.60				30,000	3.1
C6-MEGA8E-90			1.44	3.54	2.48	1.65-2.01	3.19				30,000	3.3
C6-MEGA8E-105			1.56	4.13	3.07		3.78				28,000	3.7
C6-MEGA8E-120			1.66	4.72	3.66		4.37				25,000	4.0
C6-MEGA8E-135			1.76	5.31	4.25		4.96				23,000	4.2
C6-MEGA8E-165			1.98	6.50	5.51		6.14				20,000	5.3
C6-MEGA10E-65❖	.125-.375 (3-10mm)	1.339	1.51	2.56	1.50	2.20	2.20	MEC10-□	MEN10	MGR35	32,000	3.1
C6-MEGA10E-75❖			1.54	2.95	1.89	2.60	2.60				30,000	3.3
C6-MEGA10E-90			1.64	3.54	2.48	1.89-2.28	3.19				30,000	3.5
C6-MEGA10E-105			1.75	4.13	3.07		3.78				27,000	4.0
C6-MEGA10E-120			1.85	4.72	3.66		4.37				23,000	4.4
C6-MEGA10E-135			1.97	5.31	4.33		4.96				20,000	4.8
C6-MEGA10E-165			2.18	6.50	5.55		6.14				17,000	5.9
C6-MEGA13E-65❖	.125-.500 (3-12mm)	1.654	1.78	2.56	1.54	2.20	2.20	MEC13-□	MEN13	MGR42	30,000	3.3
C6-MEGA13E-75❖			1.81	2.95	1.93	2.60	2.60				30,000	3.5
C6-MEGA13E-90			1.93	3.54	2.60	1.97-2.17	3.19				28,000	4.0
C6-MEGA13E-105			2.02	4.13	3.15		3.78				25,000	4.6
C6-MEGA13E-120			2.13	4.72	3.78	1.97-2.36	4.37				22,000	5.1
C6-MEGA13E-135			2.24	5.31	4.41		4.96				18,000	5.7
C6-MEGA13E-165			2.45	6.50	5.55		6.14				15,000	7.0
C8-MEGA6E-90	.125-.250 (3-6mm)	.984	1.21	3.54	2.17	1.46-1.77	3.54	MEC6-□	MEN6	MGR25	20,000	5.7
C8-MEGA6E-135			1.52	5.31	3.94		5.31				14,000	6.6
C8-MEGA8E-90	.125-.250 (3-8mm)	1.181	1.39	3.54	2.17	1.65-2.01	3.54	MEC8-□	MEN8	MGR30	20,000	5.9
C8-MEGA8E-135			1.70	5.31	3.94		5.31				16,000	7.0
C8-MEGA10E-90	.125-.375 (3-10mm)	1.378	1.59	3.54	2.17	1.89-2.28	3.54	MEC10-□	MEN10	MGR35	20,000	6.2
C8-MEGA10E-120			1.81	4.72	3.35		4.72				20,000	7.1
C8-MEGA10E-135			1.90	5.31	3.94		5.31				16,000	7.5
C8-MEGA13E-90	.125-.500 (3-12mm)	1.654	1.85	3.54	2.17	1.94-2.36	3.54	MEC13-□	MEN13	MGR42	18,000	6.6
C8-MEGA13E-120			2.07	4.72	3.35		4.72				17,000	7.5
C8-MEGA13E-135			2.16	5.31	3.94		5.31				14,000	8.1
C8-MEGA13E-165			2.38	6.50	5.12		6.50				12,000	9.5

- MEGA E NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not collet
- Center-through coolant supply is available
- Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance, when using, slowly ramp up to the appropriate speed starting from slow speeds
- "H" indicates the adjustment length with an adjusting screw
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

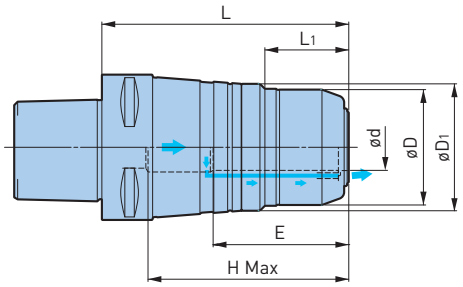
MEGA DOUBLE POWER CHUCK

CLAMPING RANGE: ø.625"-1.250" (ø16-32mm)

For Heavy Duty End Milling

MAX 30,000 RPM

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	H	Min Clamping Length E	Wrench	Weight (lbs.)
C4-MEGA16DS-70	16mm	1.811	1.850	2.76	1.02	2.52	1.89	MGR46L	1.6
C4-MEGA20DS-65	20mm	1.969	2.008	2.56	1.22	2.32	1.97	MGR50L	1.5
C5-MEGA16DS-65A	16mm	1.654	2.087	2.65	1.02	2.36	1.89	MGR42L	2.0
C5-MEGA16DS-90A				3.64		2.87			3.1
C5-MEGA20DS-75A	20mm	1.969	2.165	3.05	1.42	2.76	1.97	MGR50L	2.6
C5-MEGA20DS-90A				3.64		3.35			3.3
C5-MEGA25DS-75A	25mm	2.441	2.480	3.05	1.42	2.76	2.20	MGR62L	3.1
C5-MEGA25DS-90A				3.64		3.35			3.7
C6-MEGA.625DS-3A	.625	1.654	2.087	3.09	1.02	2.48	1.89	MGR42L	3.7
C6-MEGA.750DS-3A	.750	1.969	2.165	3.09	1.42	2.68	1.97	MGR50L	4.4
C6-MEGA1.000DS-3A	1.000	2.441	2.469	3.09	1.42	2.68	2.20	MGR62L	4.6
C6-MEGA1.250DS-3.5A	1.250	2.756	2.783	3.59	1.46	3.27	2.36	MGR70L	5.5
C6-MEGA12DS-90	12mm	1.496	1.693	3.58	1.30	3.23	1.69	MGR38L	1.4
C6-MEGA16DS-70A	16mm	1.654	2.087	2.85	1.02	2.48	1.89	MGR42L	3.7
C6-MEGA16DS-90A				3.64		3.27			4.6
C6-MEGA16DS-105A●				4.23		2.87			5.3
C6-MEGA16DS-135A●				5.41					6.6
C6-MEGA20DS-75A	20mm	1.969	2.165	3.05	1.42	2.68	1.97	MGR50L	4.4
C6-MEGA20DS-90A				3.64		3.27			4.8
C6-MEGA20DS-105A				4.23		3.43			5.5
C6-MEGA20DS-135A❖				5.41		2.80-3.19			6.8
C6-MEGA25DS-75A◆	25mm	2.441	2.480	3.05	1.42	2.68	2.20	MGR62L	4.6
C6-MEGA25DS-90A				3.64		3.27			5.3
C6-MEGA25DS-105A				4.23		3.43			6.2
C6-MEGA25DS-135A❖				5.41		2.87-3.27			7.3
C6-MEGA32DS-90A	32mm	2.756	2.795	3.64	1.46	3.27	2.36	MGR70L	5.5
C6-MEGA32DS-105A				4.23		3.62			6.4
C6-MEGA32DS-135A❖				5.41		3.19-3.58			7.5

Catalog Number	ød	øD	øD1	L	L1	H	Min Clamping Length E	Wrench	Weight (lbs.)
C8-MEGA1.250DS-3.5	1.250	3.150	3.386	3.59	1.65	3.62	2.80	MGR80L	9.5
C8-MEGA16DS-70	16mm	1.811	2.193	2.85	.98	2.87	1.89	MGR46L	6.2
C8-MEGA16DS-105●				4.23					7.9
C8-MEGA16DS-135●				5.41					9.0
C8-MEGA20DS-75	20mm	2.362	2.717	3.05	1.10	3.03	1.97	MGR60L	7.3
C8-MEGA20DS-135❖				5.41		2.80-3.19			11.0
C8-MEGA20DS-165❖				6.59					13.0
C8-MEGA25DS-75	25mm	2.756	3.031	7.97	1.34	3.03	2.20	MGR70L	7.5
C8-MEGA25DS-135❖				5.41		3.07-3.46			11.9
C8-MEGA25DS-165❖				6.59					14.1
C8-MEGA32DS-90	32mm	3.150	3.386	3.64	1.65	3.62	2.36	MGR80L	9.5
C8-MEGA32DS-105				4.23		4.02			10.6
C8-MEGA32DS-135				5.41		4.21			13.2
C8-MEGA32DS-165❖				6.59		3.15-3.82			16.1

- Wrench must be ordered separately
- Jet-through type provides coolant form the chuck nose, thus tools with oil holes cannot be used
- Models marked ❖ can be used with optional axial adjusting screws
- M8 hex screw is required with models marked ●
- Adjusting screw can only be used with models marked ● or ❖, please contact us if using for center-through applications
- Models marked ◆ can only be used with straight collet model C25-□□

ACCESSORIES


COLLET
PG. 407


PERFECT SEAL/
JET COLLET
PG. 404


MEGA WRENCH
PG. 410

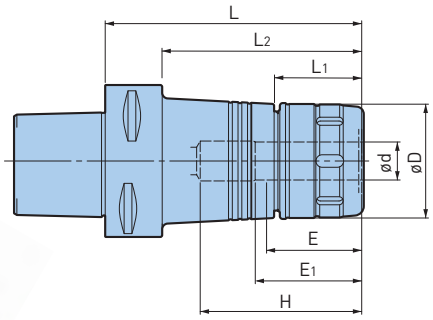

SCREW
PG. 434

NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø16-32mm

For Heavy Duty End Milling

COOLANT THROUGH



Catalog Number	ød	øD	L	L1	L2	H	Min Clamping Length		Wrench	Weight (lbs.)
							E	E1		
C5-HMC16S-65	16mm	1.693	2.56	1.73	1.77	2.28	1.89	2.17	FK45-50L	1.8
C5-HMC20S-75	20mm	1.969	2.95	1.73	—	2.68	1.97	2.20	FK45-50L	2.2
C5-HMC20-105			4.13		—	3.35				3.1
C5-HMC25S-75◆	25mm	2.165	2.95	1.85	—	2.68	2.20	2.24	FK52-55	2.9
C5-HMC25S-105			4.13		—	3.43				3.7
C5-HMC32S-85	32mm	2.441	3.35	2.20	—	3.07	2.36	2.28	FK58-62L	3.5
C6-HMC16S-70	16mm	1.693	2.76	1.73	1.89	2.40	1.89	2.17	FK45-50L	3.3
C6-HMC20S-75	20mm	1.969	2.95	1.73	2.09	2.60	1.97	2.20	FK45-50L	3.7
C6-HMC20S-105			4.13		3.27	3.35				5.1
C6-HMC20S-120❖			4.72		3.86	2.72-3.11				5.5
C6-HMC25S-75◆	25mm	2.323	2.95	1.77	2.09	2.60	2.20	2.24	FK58-62L	4.4
C6-HMC25S-105			4.13		3.27	3.43				5.5
C6-HMC25S-135❖			5.31		4.45	2.87-3.27				6.8
C6-HMC32S-90	32mm	2.677	3.54	2.13	—	3.19	2.36	2.52	FK68-75L	5.3
C6-HMC32S-105			4.13		—	3.54				6.0
C6-HMC32S-135❖			5.31		—	3.11-3.50				7.3
C8-HMC20-80	20mm	2.362	3.15	1.81	1.97	3.15	1.97	2.20	FK58-62	7.3
C8-HMC20-135❖			5.31		4.13	2.72-3.11				10.4
C8-HMC25-85	25mm	2.441	3.35	2.17	—	3.35	2.20	2.56	FK58-62	7.7
C8-HMC25-135			5.31		4.13	2.99-3.39				10.4
C8-HMC32-95	32mm	3.150	3.74	2.48	—	3.74	2.36	2.80	FK80-90	9.9
C8-HMC32-135			5.31		—	4.13				12.8

- Wrench must be ordered separately
- Models marked ❖ can be used with optional axial adjusting screws
- Models marked ◆ can only be used with straight collet model C25-□□
- When using center-through coolant, insert a tool shank into E1 or more

ACCESSORIES


COLLET PG. 407


PERFECT SEAL/ JET COLLET PG. 404


WRENCH PG. 409

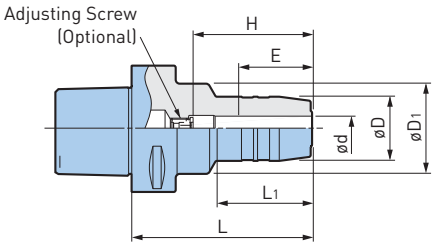

SCREW PG. 434

HYDRAULIC CHUCK

CLAMPING RANGE: ø14-32mm

For Drills, Reamers, Ball Mills, End Mills, Diamond Reamers & Grinding Tools

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	H	Min Clamping Length E	Adjusting Screw	Weight (lbs.)
C5-HDC14-90	14mm	1.339	1.772	3.58	1.89	1.50	2.09-2.36	HDA12-10010 ●	2.4
C5-HDC16-75❖	16mm	1.496	1.969	2.95	1.38	2.68	1.69	—	2.4
C5-HDC16-90❖			1.890	3.54	1.89	3.27		—	2.7
C5-HDC18-90❖	18mm	1.575	1.890	3.54	1.89	1.69	3.27	—	2.7
C5-HDC20-75❖	20mm	1.654	2.047	2.95	1.38	2.68	1.69	—	2.4
C5-HDC20-90❖			1.969	3.54	1.89	3.27		—	2.7
C5-HDC25-90❖	25mm	2.165	2.480	3.54	1.89	3.27	2.05	—	3.8
C6-HDC14-90	14mm	1.339	1.772	3.54	1.89	1.89-2.36	1.50	HDA10-08015	3.5
C6-HDC14-120				4.72		1.50-2.36		HDA10-08032	4.2
C6-HDC16-75❖	16mm	1.496	1.969	2.95	1.38	2.60	1.69	—	3.5
C6-HDC16-90❖			1.850	3.54	1.89	3.19			3.8
C6-HDC16-120			1.890	4.72		1.69-2.76		HDA16-12037	4.4
C6-HDC18-90	18mm	1.575	1.890	3.54	1.89	1.69	2.60	—	3.7
C6-HDC18-120			1.929	4.72			1.69-2.76	HDA16-12037	4.4
C6-HDC20-75❖	20mm	1.654	2.087	2.95	1.30	2.60	1.69	—	3.8
C6-HDC20-90❖			1.969	3.54	1.89	2.83			4.0
C6-HDC20-120				4.72		1.69-2.76		HDA16-12037	4.6
C6-HDC25-90❖	25mm	2.165	2.480	3.54	1.81	3.15	2.05	—	4.9
C6-HDC25-120				4.72	2.01	2.64-3.11		HDA20-16015	6.2
C6-HDC32-90❖	32mm	2.953	2.480	3.54	1.69	3.19	2.20	—	6.2
C6-HDC32-120		2.480	—	4.72	—	2.60-3.07		HDA20-160315	6.6

- "H" indicates the adjustment length with an adjusting screw
- Do not attempt to balance before first consulting BIG DAISHOWA
- In case the projection length needs to be adjusted from the shank side, add the letter "W" to adjusting screw model number for hexagon sockets on both sides (ex: HDA6-05020W)
- The above type is not available for HDA12-10010 with models marked ●
- Adjusting screws cannot be used with models marked ❖

ACCESSORIES

PERFECT SEAL/ JET COLLET PG. 404

GRIP BAR PG. 415

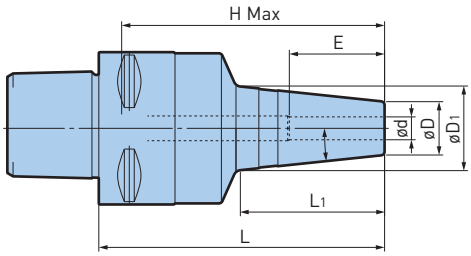
SCREW PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK (SUPER SLIM TYPE)

CLAMPING RANGE: ø4-12mm

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	Min Clamping Length E	H Max	Weight (lbs.)
C4-HDC3S-55❖	3mm	.551	.709	2.17	.67	.630	1.929	.8
C4-HDC4S-75	4mm		.906	2.95	1.50	.748	2.717	.9
C4-HDC6S-75	6mm					.984		.9
C4-HDC8S-75	8mm	.670	1.02		1.54	1.220		1.0
C4-HDC10S-75	10mm	.748	1.10			1.299		1.0
C4-HDC12S-75	12mm	.827	1.18			1.417		1.0

- Adjusting screws cannot be used
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

ACCESSORIES

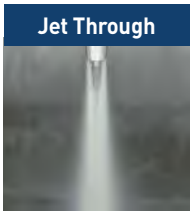
GRIP BAR PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

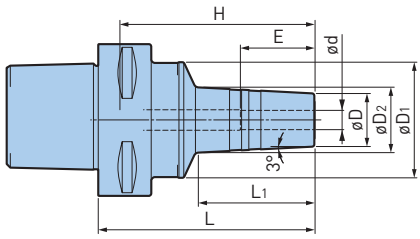
HYDRAULIC CHUCK (JET COOLANT TYPE)

CLAMPING RANGE: ø4-12mm

Coolant Holes Through Body of Holder



COOLANT THROUGH



Catalog Number	ød	øD	øD1	øD2	L	L1	Min Clamping Length E	H	Weight (lbs.)
C5-HDC4J-90	4mm	.787	1.65	1.02	3.54	2.01	.75	3.27	1.6
C5-HDC6J-90	6mm						.98		1.6
C5-HDC8J-90	8mm	.866		1.10		2.05	1.22		1.6
C5-HDC10J-90	10mm	.945	1.73	1.18			1.30		1.7
C5-HDC12J-90	12mm	1.02	1.81	1.26			1.42		1.7
C6-HDC4J-90	4mm	.787	1.89	1.02	3.54	1.85	.75	3.19	2.4
C6-HDC6J-90	6mm						.98		2.4
C6-HDC6J-120				1.10	4.72	2.91		4.37	2.9
C6-HDC8J-90	8mm	.866			3.54	1.89	1.22	3.19	2.4
C6-HDC8J-120				1.18	4.72	2.95		4.37	2.9
C6-HDC10J-90	10mm	.945			3.54	1.89	1.30	3.19	2.4
C6-HDC10J-120				1.26	4.72	2.95		4.37	2.9
C6-HDC12J-90	12mm	1.02			3.54	1.93	1.42	3.19	2.6
C6-HDC12J-120				1.34	4.72	2.99		4.37	2.9

- Adjusting screws cannot be used
- Allows jet through to be switched to center-through by assembling the accessory plug

ACCESSORIES

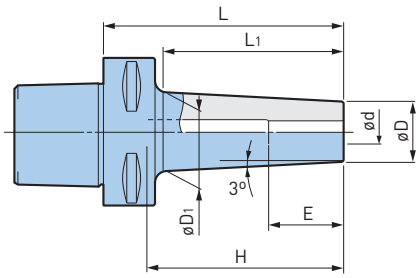
GRIP BAR PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

SHRINK FIT HOLDER (STANDARD TYPE)

CLAMPING RANGE: ø6-20mm

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	Min Clamping Length E	H	Weight (lbs.)
C6-SRC6-90	6mm	.551	.807	3.54	2.48	1.02	3.19	2.6
C6-SRC8-90	8mm	.709	.965			1.02		2.9
C6-SRC10-90	10mm	.866	1.122			1.26		2.9
C6-SRC12-90	12mm	.945	1.201			1.42		3.1
C6-SRC16-90	16mm	1.102	1.358			1.50		3.1
C6-SRC16-165		1.102	1.669	6.50	5.43		3.15	4.6
C6-SRC20-90	20mm	1.339	1.594	3.54	2.48	1.65	3.15	3.3
C6-SRC20-165		1.339	1.906	6.50	5.43		3.94	5.5

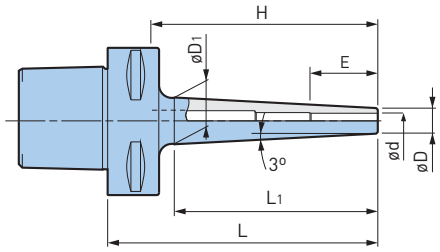
- Use carbide cutter within a tolerance of h6
- HSS tools cannot be used

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SHRINK FIT HOLDER (SLIM TYPE)

CLAMPING RANGE: ø6-12mm

COOLANT THROUGH



Catalog Number	ød	øD	øD1	L	L1	Min Clamping Length E	H	Weight (lbs.)
C6-SRC6S-120	6mm	.394	.77	4.72	3.62	1.02	4.37	2.6
C6-SRC6S-165			.94	6.50	5.24		6.14	3.1
C6-SRC8S-120	8mm	.512	.89	4.72	3.62	1.02	4.37	2.9
C6-SRC8S-165			1.06	6.50	5.24		6.14	3.3
C6-SRC10S-120	10mm	.630	1.00	4.72	3.62	1.26	4.37	2.9
C6-SRC10S-165			1.20	6.50	5.31		6.14	3.3
C6-SRC12S-120	12mm	.748	1.12	4.72	3.62	1.42	4.37	3.1
C6-SRC12S-165			1.30	6.50	5.31		6.14	3.5

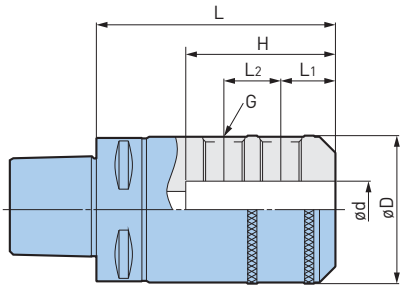
- Use carbide cutter within a tolerance of h6
- HSS tools cannot be used

Please refer to the operation manual of heating/cooling equipment, as some equipment may not be compatible.

SIDE LOCK END MILL HOLDER

CLAMPING RANGE: ø16-32mm

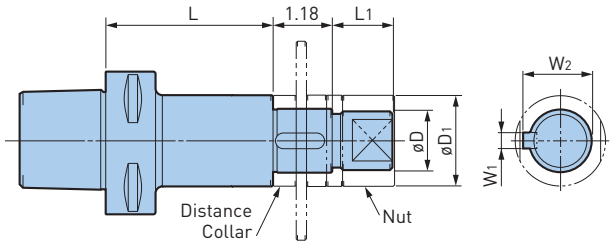
COOLANT THROUGH



Catalog Number	ød	øD	L	L1	L2	H	G	Weight (lbs.)
C6-ISL16-80	16mm	1.890	3.15	.94	—	2.05	M14	4.0
C6-ISL20-80	20mm	2.047	3.15	.98		2.17	M16	4.2
C6-ISL25-105	25mm	2.559	4.13	.94	.98	2.36	M18 P2.0	6.4
C6-ISL32-115	32mm	2.835	4.53	.94	1.10	3.54	M20 P2.0	7.7

• Center-through coolant supply is available

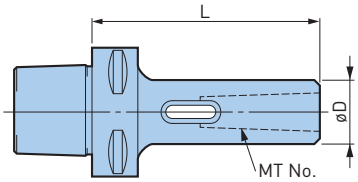
SIDE CUTTER ARBOR A



Catalog Number	øD	øD1	L	L1	W1	W2	Weight (lbs.)
C6-SCA25.4-75	1.000	1.575	2.95	.98	.25	1.09	4.4
C6-SCA25.4-120			4.72				5.3
C6-SCA31.75-75	1.250	1.811	2.95	1.18	.31	1.37	5.3
C8-SCA25.4-90	1.000	1.575	3.54	.98	.25	1.09	7.3
C8-SCA31.75-90	1.250	1.811	3.54	1.18	.31	1.37	8.2

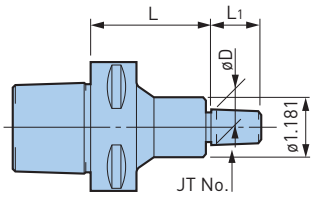
• Nut and collars of thickness 5mm, 8mm, 10mm and 12mm are included

MORSE TAPER HOLDER



Catalog Number	MT No.	øD	L	Weight (lbs.)
C5-MTA1-95	1	.984	3.74	1.3
C5-MTA2-110	2	1.260	4.33	1.8
C5-MTA3-130	3	1.575	5.12	2.6
C6-MTA1-95	1	.984	3.74	2.9
C6-MTA2-110	2	1.260	4.33	3.3
C6-MTA3-130	3	1.575	5.12	4.2
C8-MTA1-105	1	.984	4.13	5.7
C8-MTA2-120	2	1.260	4.72	6.2
C8-MTA3-140	3	1.575	5.51	7.1

JACOBS TAPER ARBOR



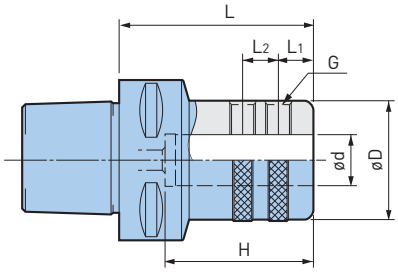
Catalog Number	JT No.	øD	L	L1	Weight (lbs.)
C5-JTA6-40	6	.676	1.57	.94	1.1
C6-JTA6-40	6	.676	1.57	.94	2.6
C8-JTA6-50	6	.676	1.97	.94	5.5

SIDE LOCK DRILL HOLDER

CLAMPING RANGE: ø.630"-1.575" (ø16-40mm)

For indexable insert drills

COOLANT THROUGH



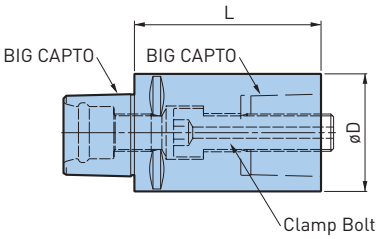
Catalog Number	ød	øD	L	L1	L2	H	Clamp Screw G	Weight (lbs.)
C4-TSL16-56	16mm	1.890	2.205	.551	.551	1.890	M10 P1.25	1.43
C4-TSL20-60	20mm		2.362			1.969	M10 P1.25	1.45
C4-TSL25-77	25mm		3.031	.591	.787	2.205	M16 P1.5	1.74
C5-TSL16-60	16mm	1.890	2.362	.551	.551	1.890	M10 P1.25	1.8
C5-TSL20-60	20mm					1.969		2.0
C5-TSL25-75	25mm		2.953	.591	.787	2.205	M16 P1.5	2.0
C5-TSL32-85	32mm	2.480	3.346			2.362		3.5
C6-TSL16-70	16mm	1.890	2.756	.591	.787	1.890	M10 P1.25	3.7
C6-TSL20-70	20mm					1.969		3.7
C6-TSL25-70	25mm			.591	.787	2.205	M16 P1.5	3.5
C6-TSL32-75	32mm	2.480	2.953			2.362		4.4
C6-TSL40-85	40mm	2.677	3.346		.984	2.756		4.9
C8-TSL16-80	16mm	1.890	3.150	.551	.551	1.890	M10 P1.25	6.8
C8-TSL20-80	20mm					1.969		6.8
C8-TSL25-85	25mm		3.346	.591	.787	2.205	M16 P1.5	6.6
C8-TSL32-90	32mm	2.480	3.543			2.362		7.7
C8-TSL40-95	40mm	2.677	3.470		.984	2.756		7.7

• Center-through coolant supply is available

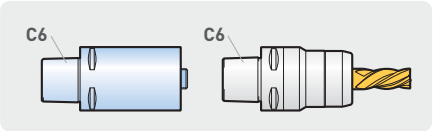
ACCESSORIES

REDUCTION COLLET PG. 409

EXTENSION



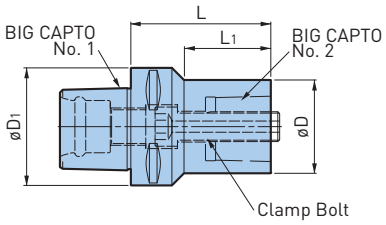
COOLANT THROUGH



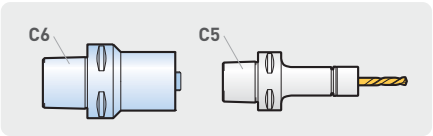
Catalog Number	BIG CAPTO	øD	L	Clamp Bolt			Weight (lbs.)
				Thread Size	Hex.	Tightening Torque	
C6-C6-100	C6	2.480	3.94	M20 P2	14mm	125 ft-lbs.	2.6
C8-C8-100	C8	3.150	3.94	M20 P2	14mm	125 ft-lbs.	3.7

- Clamping screws are included; wrench must be ordered separately
- When used for turning tools, connect by aligning with the phase of the hole on the taper shank

REDUCTION



COOLANT THROUGH

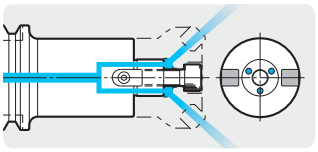


Catalog Number	BIG CAPTO No. 1	BIG CAPTO No. 2	øD	øD1	L	L1	Clamp Bolt			Weight (lbs.)
							Thread Size	Hex.	Tightening Torque	
C6-C5-75	C6	C5	1.969	2.48	2.95	1.81	M16 P1.5	10mm	70 ft-lbs.	2.4
C8-C6-85	C8	C6	2.480	3.15	3.35	1.97	M20 P2	14mm	125 ft-lbs.	4.0

- Clamping screws are included
- When used for turning tools, connect by aligning with the phase of the hole on the taper shank

BIG DAISHOWA

FACE MILL HOLDER



COOLANT THROUGH

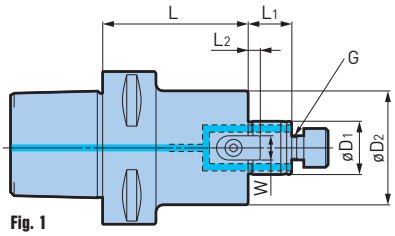


Fig. 1

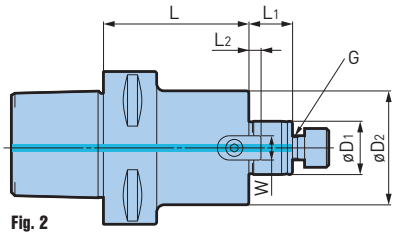


Fig. 2

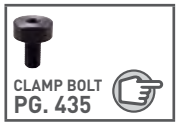
Catalog Number	Fig.	øD1	øD2	L	L1	L2	W	G	Weight (lbs.)
C4-FMH22-47-45	1	22mm	1.850	1.77	.71	.20	.394	M10	1.3
C4-FMA25.4-40	2	25.4mm	1.969	1.57	.87		.374	M12	1.5
C5-FMH22-47-60	1	22mm	1.850	2.36	.71	.20	.394	M10	1.3
C5-FMH22-47-90				3.54					3.1
C5-FMH22-60-60		22mm	2.362	2.36	.71	.20	.394	M10	2.4
C5-FMH27-60-60		27mm	2.362	2.36	.79	.24	.472	M12	2.4
C5-FMA25.4-40	2	25.4mm	1.969	1.57	.87	.20	.375	M12	2.0
C5-FMA25.4-75				2.95					2.6
C6-SMC.750-2	1	.750	1.689	2.00	.69	.16	.313	3/8"-24	3.0
C6-SMC1.000-2		1.000	2.189	2.00	.69	.22	.375	1/2"-20	4.5
C6-SMC1.250-2		1.250	2.750	2.00	.69	.28	.500	5/8"-18	4.8
C6-SMC1.500-2		1.500	3.626	2.00	.94	.38	.625	3/4"-16	5.0
C6-FMH22-47-45	1	22mm	1.850	1.77	.71	.20	.394	M10	3.1
C6-FMH22-47-60				2.36					3.5
C6-FMH22-47-90				3.54					4.4
C6-FMH22-47-150				5.91					6.2
C6-FMH22-60-45		22mm	2.362	1.77	.71	.20	.394	M10	3.5
C6-FMH22-60-60				2.36					4.4
C6-FMH22-60-90				3.54					5.7
C6-FMH27-60-45		27mm	2.362	1.77	.79	.24	.472	M12	3.7
C6-FMH27-60-60				2.36					4.4
C6-FMH27-60-90				3.54					6.0
C6-FMH27-60-150				5.91					8.6
C6-FMA25.4-40	2	25.4mm	1.969	1.57	.87	.20	.375	M12	3.1
C6-FMA25.4-60				2.36					4.0
C6-FMA25.4-90				3.54					5.3
C6-FMA31.75-40		31.75mm	2.362	1.57	1.18	.28	.500	M16	3.5
C6-FMA31.75-90				3.54					5.7
C6-FMA38.1-45		38.1mm	3.150	1.77	1.34	.35	.625	M20	4.8
C6-FMC16-40	2	16mm	1.260	1.57	.63	.20	.315	M8	2.9
C6-FMC22-40		22mm	1.772	1.57	.71	.20	.394	M10	3.1

Catalog Number	Fig.	øD1	øD2	L	L1	L2	W	G	Weight (lbs.)
C8-FMH22-47-60	1	22mm	1.850	2.36	.71	.20	.394	M10	6.2
C8-FMH22-47-105				4.13					7.5
C8-FMH22-47-150				5.91					8.8
C8-FMH22-47-200				7.87					10.4
C8-FMH22-60-60		22mm	2.362	2.36	.71	.20	.394	M10	6.8
C8-FMH22-60-105				4.13					8.8
C8-FMH22-60-150				5.91					11.0
C8-FMH27-60-60		27mm	2.362	2.36	.79	.24	.472	M12	6.8
C8-FMH27-60-105				4.13					9.0
C8-FMH27-60-150				5.91					11.0
C8-FMH27-60-200				7.87					13.4
C8-FMH32-96-75		32mm	3.780	2.95	.87	.28	.551	M16	10.1
C8-FMH32-96-105				4.13					15.0
C8-FMH32-96-150				5.91					16.5
C8-FMA25.4-40	2	25.4mm	1.969	1.57	.87	.20	.374	M12	6.0
C8-FMA25.4-75				2.95					7.1
C8-FMA25.4-105				4.13					8.4
C8-FMA31.75-40		31.75mm	2.362	1.57	1.18	.28	.500	M16	6.0
C8-FMA31.75-90				3.54					8.8
C8-FMA38.1-45		38.1mm	3.150	1.77	1.34	.35	.625	M20	7.1

- Clamp bolt is included
- If clamp bolt is needed, it must be ordered separately

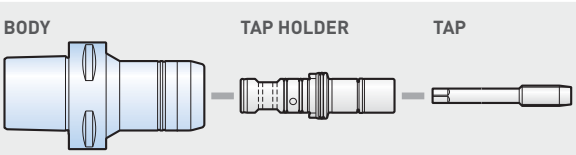
For high speed applications, shell mill holders should be balanced together with the cutters.

ACCESSORIES

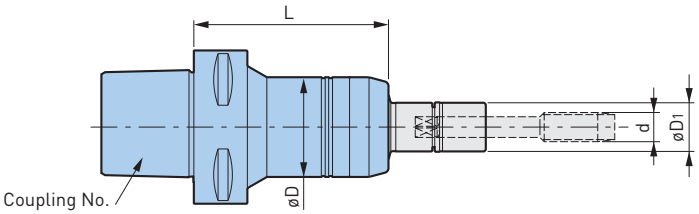


MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.2-AU3/4 (M2-M20)



COOLANT THROUGH



Catalog Number	Tapping Range d* (Inch)	Tapping Range d* (Metric)	øD	øD1	L	Wrench	Weight (lbs.)
C5-MGT6-75	No.2-No.12	M2-M6	1.42	.63	2.95	MGR16	1.8
C5-MGT12-75	AU1/4-AU7/16	M6-M12	1.61	.79	2.95	MGR20L	2.0
C5-MGT20-100	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	3.94	MGR30L	3.1
C6-MGT6-80	No.2-No.12	M2-M6	1.42	.63	3.15	MGR16	2.4
C6-MGT12-80	AU1/4-AU7/16	M6-M12	1.61	.79	3.15	MGR20L	2.6
C6-MGT20-100	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	3.94	MGR30L	4.0
C8-MGT6-80	No.2-No.12	M2-M6	1.42	.63	3.15	MGR16	4.6
C8-MGT12-80	AU1/4-AU7/16	M6-M12	1.61	.79	3.15	MGR20L	4.8
C8-MGT20-95	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	3.74	MGR30L	5.7

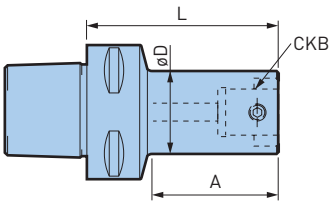
***AU3/8 is included in the MGT20 series**

- Tap holder and wrench must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES

CKB SHANK

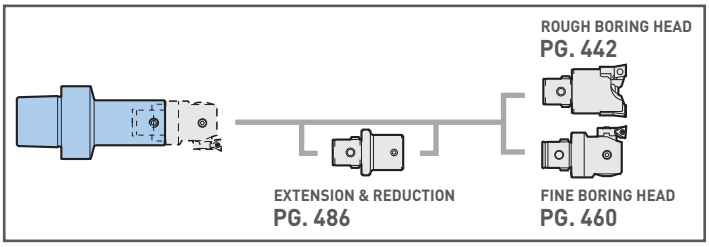


COOLANT THROUGH

Catalog Number	CK No.	øD	L	A	Weight (lbs.)
C4-CKB1-48	CK1	.748	1.870	.866	.7
C4-CKB2-45	CK2	.945	1.752	.748	.7
C4-CKB3-40	CK3	1.220	1.575	.669	.7
C4-CKB4-33	CK4	1.535	1.299	.591	.6
C5-CKB1-73	CK1	.748	2.854	1.850	1.1
C5-CKB2-85	CK2	.945	3.327	2.362	1.3
C5-CKB3-55	CK3	1.220	2.165	1.181	1.3
C5-CKB4-48	CK4	1.535	1.890	.945	1.3
C5-CKB5-50	CK5	1.969	1.969	1.181	1.3
C5-CKB6-50	CK6	2.520	1.969	1.181	2.2
C6-CKB1-78	CK1	.748	3.051	1.969	2.6
C6-CKB2-90	CK2	.945	3.524	2.441	2.9
C6-CKB3-65	CK3	1.220	2.559	1.496	2.9
C6-CKB3-100			3.937	2.874	3.3
C6-CKB4-58	CK4	1.535	2.283	1.220	2.9
C6-CKB4-93			3.661	2.598	3.7
C6-CKB5-48	CK5	1.969	1.890	.866	2.9
C6-CKB5-83			3.268	2.244	3.7
C6-CKB6-59	CK6	2.520	2.323	1.457	3.5
C6-CKB6-94			3.701	2.835	5.1
C8-CKB4-118	CK4	1.535	4.646	3.268	5.3
C8-CKB4-178			7.008	5.630	6.6
C8-CKB5-108	CK5	1.969	4.252	2.874	6.0
C8-CKB5-183			7.205	5.827	8.4
C8-CKB6-74	CK6	2.520	2.913	1.535	5.5
C8-CKB6-169			6.654	5.315	10.6
C8-CKB7-73	CK7	3.543	2.874	1.693	6.8
C8-CKB7-123			4.843	3.661	12.3

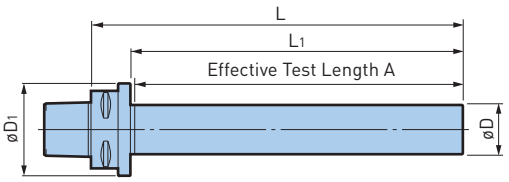
• Center-through coolant supply is available

ACCESSORIES



DYNA TEST

Helps identify potential problems and can reduce downtime and costly repairs of the machine tool spindle.

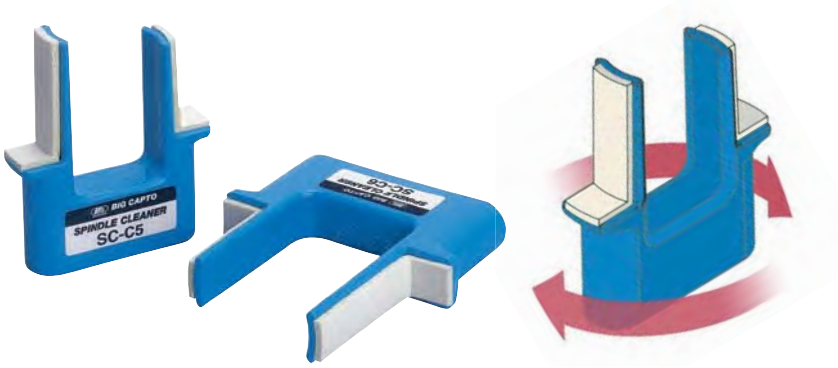


Catalog Number	L	L1	A	øD	øD1
C4-25-L160	7.480	6.299	6.181	25mm	52mm
C5-32-L150	7.087	5.906	5.827	32mm	63mm
C5-32-L215	9.646	8.465	8.386		
C5-40-L250	11.024	9.843	9.724	40mm	
C6-40-L150	7.165	5.906	5.787	40mm	75mm
C6-40-L200	9.134	7.874	7.756		
C6-40-L320	13.858	12.598	12.480		
C8-40-L200	9.449	7.874	7.756	40mm	85mm
C8-40-L320	14.173	12.598	12.480		

SPINDLE CLEANERS

Ensure absolute cleanliness of tapered spindles to maintain precision and prolong the life of your machine tools, cutting tools and tool holders.

- Robust construction with high oil and grease resistance
- Plastic injection molded core with fluted locations for cleaning strips ensures accurate sizing and cleaning efficiency
- Cleaning strips will maintain adhesion to the taper core due to inset location even under scrubbing action
- Cleaning strips positioned at well spaced intervals to remove even large residual particles
- A quality control product



POLYGON TAPER

Catalog Number	Type	
	Taper	Size
SC-C3	C	3
SC-C4		4
SC-C5		5
SC-C6		6
SC-C8		8

BIG DAISHOWA

CYLINDRICAL SHANKS

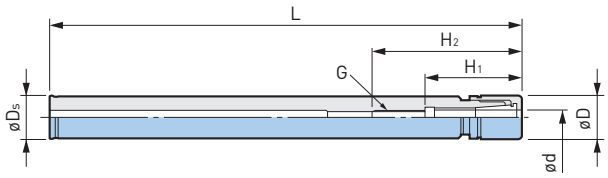
A.5

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

For Micro Drill & End Mill Applications

COOLANT THROUGH



Catalog Number	ød	øD	øDs	L	H1	H2	G	Collet	Nut	Wrench	Weight (lbs.)
ST.375-MEGA3S-120	.018-.128	.394	.375	4.72	.87	1.50	M4 P0.7	NBC3S-□	MGN3S	MGR10	.1
ST.500-MEGA4S-130	.018-.159	.472	.500	5.12	1.04	1.85	M5 P0.8	NBC4S-□	MGN4S	MGR12	.2
ST.500-MEGA4S-160				6.30							.3
ST.625-MEGA6S-160	.018-.238	.551	.625	6.30	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	.4
ST.625-MEGA6S-200				7.87							.5
ST10-MEGA3S-120	.018-.128	.394	10mm	4.72	.87	1.50	M4 P0.7	NBC3S-□	MGN3S	MGR10	.1
ST12-MEGA4S-80	.018-.159	.472	12mm	3.15	1.04	1.85	M5 P0.8	NBC4S-□	MGN4S	MGR12	.1
ST12-MEGA4S-130				5.12							.2
ST12-MEGA4S-160				6.30							.3
ST14-MEGA6S-80	.018-.238	.551	14mm	3.15	1.12	1.93	M7 P0.75	NBC6S-□	MGN6S	MGR14	.2
ST14-MEGA6S-160				6.30							.4
ST14-MEGA6S-200				7.87							.5
ST16-MEGA8S-80	.116-.317	.709	16mm	3.15	1.22	1.99	M9 P0.75	NBC8S-□	MGN8S	MGR18	.2
ST16-MEGA8S-160				6.30							.5
ST16-MEGA8S-200				7.87							.6

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Weight includes nut but not collet

ACCESSORIES


COLLET
PG. 374


MEGA NUT
PG. 376


SEAL NUT
PG. 376


MEGA WRENCH
PG. 410

NEW BABY

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

Handles interference issues flexibly when combined with the NEW Hi-POWER MILLING CHUCK.

COOLANT THROUGH

- Enables easy tool layout for horizontal machining center prone to interference with workpieces and jigs

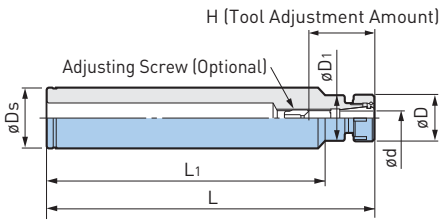


Fig. 1

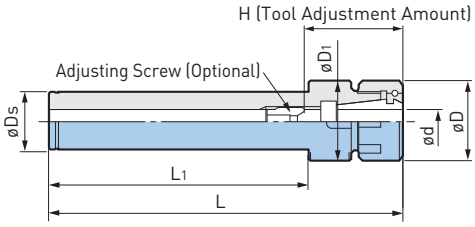


Fig. 2

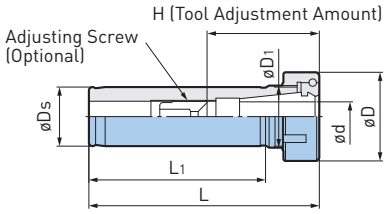


Fig. 3

Catalog Number	Fig.	ød	øD	øD1	øDs	L	L1	H	Collet	Weight (lbs.)
ST20-NBS6-100	1	.010-.236	.787	.768	20mm	4.88	3.94	.79-1.57	NBC6-□	.60
ST20-NBS6-150						6.85	5.91			.86
ST20-NBS6-250						10.79	9.84			1.41
ST20-NBS8-100	2	.020-.315	.984	.965		4.96	3.94	.91-1.65	NBC8-□	.64
ST20-NBS8-150						6.93	5.91			.90
ST20-NBS8-250						10.87	9.84			1.46
ST20-NBS10-60	3	.060-.394	1.181	—		3.07	2.36	1.38-1.77	NBC10-□	.37
ST20-NBS10-100	2			1.161		5.04	3.94			.71
ST20-NBS10-150						7.01	5.91			.97
ST20-NBS10-250						10.94	9.84			1.52
ST20-NBS10-350						14.88	13.78			2.05
ST25-NBS6-150	1	.010-.236	.787	.768	25mm	6.85	5.91	.79-1.57	NBC6-□	1.32
ST25-NBS6-200						8.82	7.87			1.74
ST25-NBS6-250						10.79	9.84			2.16
ST25-NBS8-150		.020-.315	.984	.965		6.93	5.91	.91-1.65	NBC8-□	1.37
ST25-NBS8-200						8.90	7.87			1.79
ST25-NBS8-250						10.87	9.84			2.20
ST25-NBS10-150	2	.060-.394	1.181	1.161		7.01	5.91	1.38-1.77	NBC10-□	1.43
ST25-NBS10-200						8.98	7.87			1.85
ST25-NBS10-250						10.94	9.84			2.27
ST25-NBS13-60	3	.098-.512	1.378	—		3.23	2.36	1.61-2.36	NBC13-□	1.36
ST25-NBS13-150	2			1.358		7.24	5.91			1.48
ST25-NBS13-200						9.21	7.87			1.90
ST25-NBS13-250						11.18	9.84			2.31

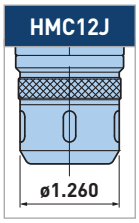
Catalog Number	Fig.	ød	øD	øD1	øDs	L	L1	H	Collet	Weight (lbs.)
ST32-NBS6-150	1	.010-.236	.787	.768	32mm	6.85	5.91	.79-1.57	NBC6-□	2.12
ST32-NBS8-150		.020-.315	.984	.965		6.93	5.91	.91-1.65	NBC8-□	2.18
ST32-NBS10-150		.060-.394	1.181	1.161		7.01	5.91	1.38-1.77	NBC10-□	2.25
ST32-NBS10-200						8.98	7.87			2.93
ST32-NBS10-250						10.94	9.84			3.62
ST32-NBS10-350						14.88	13.78			4.30
ST32-NBS13-150	2	.098-.512	1.378	1.358		7.24	5.91	1.61-2.36	NBC13-□	2.29
ST32-NBS13-200						9.21	7.87			2.98
ST32-NBS13-250						11.18	9.84			3.68
ST32-NBS13-300						13.15	11.81			5.07
ST32-NBS16-150		.098-.630	1.654	1.634		7.24	5.91	1.77-2.56	NBC16-□	2.31
ST32-NBS16-200						9.21	7.87			3.02
ST32-NBS16-300						13.15	11.81			4.41
ST32-NBS20-150		.098-.787	1.811	1.791		7.24	5.91	1.89-2.56	NBC20-□	2.31
ST32-NBS20-200						9.21	7.87			3.02
ST32-NBS20-300						13.15	11.81			4.41

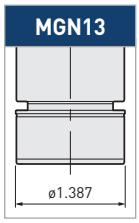
- NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Weight includes nut but not the collet
- "H" indicates the adjustment length with an adjusting screw
- ST LOCK is available for mounting and removing tools

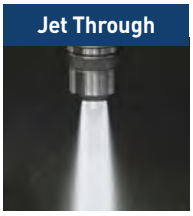
3rd digit in the model number does not correspond to the L dimension (overall length).

ACCESSORIES

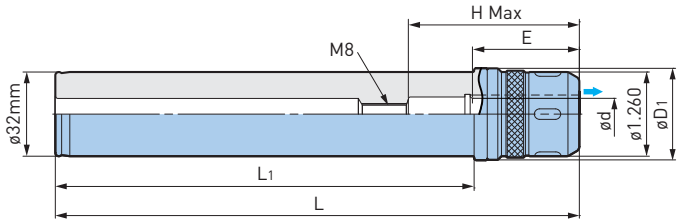
NEW Hi-POWER MILLING CHUCK
(HMC12J)
CLAMPING RANGE: ø12mm







COOLANT THROUGH



Catalog Number	ød	øD1	L	L1	H Max	Min Clamping Length E	Wrench	Weight (lbs.)
ST32-HMC12J-120	12mm	1.38	4.72	3.15	2.56	1.69	FK31-33	1.5
ST32-HMC12J-160			6.30	4.72				2.0
ST32-HMC12J-200			7.87	6.30				2.4

• Wrench must be ordered separately

ACCESSORIES

HYDRAULIC CHUCK

CLAMPING RANGE: ø4-20mm

High precision cylindrical body eliminates most interference problems.

COOLANT THROUGH

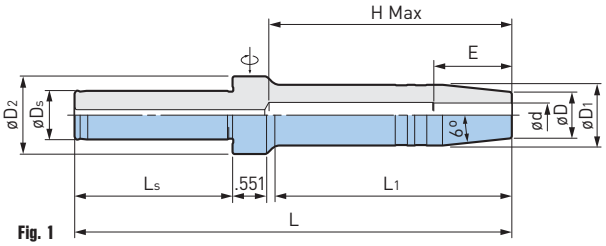


Fig. 1

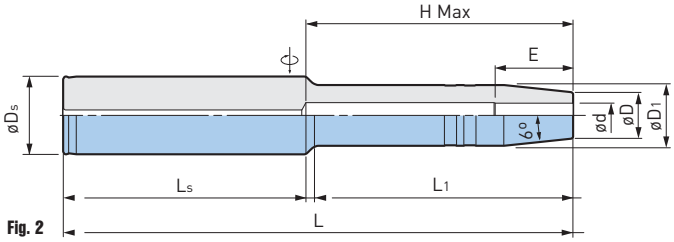


Fig. 2

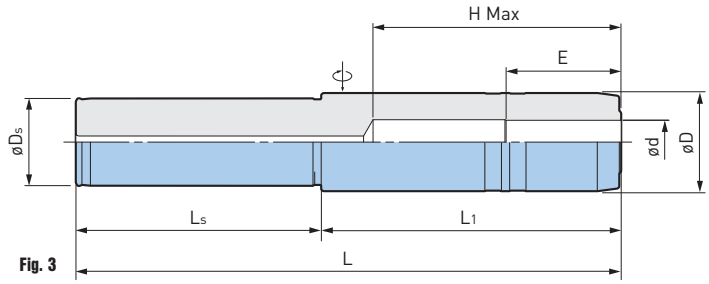


Fig. 3

Catalog Number	Fig.	ød	øD	øD1	øD2	øDs	L	L1	Ls	Min Clamping Length E	H Max	Weight (lbs.)
ST20-HDC4S-180	1	4mm	.551	.71	1.26	20mm	7.09	3.70	2.56	.75	—	.88
ST20-HDC6S-180		6mm		.79				3.74		.98	3.98	.95
ST20-HDC8S-180		8mm	.669	.91				3.78		1.22		1.10
ST20-HDC10S-180		10mm	.748	.98				3.82		1.30	3.94	1.19
ST20-HDC12S-180		12mm	.827	1.10				3.90		1.42		1.34
ST32-HDC10S-210	2	10mm	.748	.98	—	32mm	8.27	4.17	3.94	1.30	4.33	2.16
ST32-HDC12S-210		12mm	.827	1.10				4.25		1.42	4.29	2.33
ST32-HDC16-200	3	16mm	1.417	—			7.87	4.33	3.54	1.69	3.58	2.79
ST32-HDC20-200		20mm	1.496								3.54	2.82

• Adjusting screw cannot be used

ACCESSORIES

GRIP BAR PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

SHRINK FIT (SUPER SLIM TYPE)

CLAMPING RANGE: ø4-12mm

High precision cylindrical body eliminates most interference problems.

COOLANT THROUGH

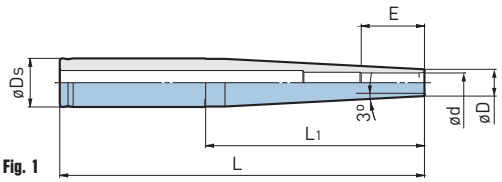


Fig. 1

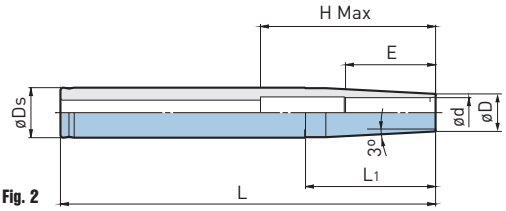


Fig. 2

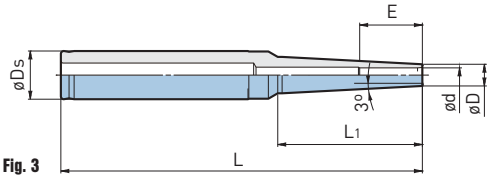


Fig. 3

Catalog Number	Fig.	ød	øD	øDs	L	L1	H Max	Min Clamping Length E	Weight (lbs.)
ST12-SRC4SS-120❖	1	4mm	.276	12mm	4.72	2.01	—	.63	.22
ST12-SRC6SS-120	2	6mm	.354		5.91	1.26	2.05	1.02	.22
ST20-SRC4SS-150-K40❖	3	4mm	.276	20mm	5.91	1.57	—	.63	.55
ST20-SRC6SS-150-K60		6mm	.354	20mm	7.87	2.36	—	1.02	.55
ST20-SRC6SS-200	1					4.33			.66
ST20-SRC6SS-250	1					9.84	4.33		.77
ST20-SRC8SS-150	1	8mm	.433	20mm	5.91	3.54	—	1.02	.55
ST20-SRC8SS-200					7.87				.66
ST20-SRC8SS-250					9.84				.88
ST20-SRC10SS-150	2	10mm	.512	20mm	5.91	2.80	2.36	1.26	.55
ST20-SRC10SS-200					7.87				.77
ST20-SRC10SS-250					9.84				.88
ST20-SRC12SS-150	2	12mm	.591	20mm	5.91	2.05	2.76	1.42	.55
ST20-SRC12SS-200					7.87				.77
ST20-SRC12SS-250					9.84				.99

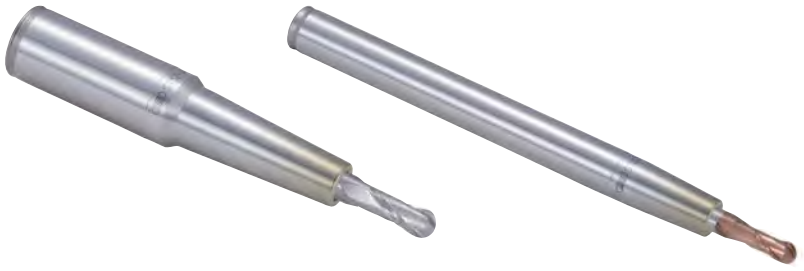
- Use a carbide shank cutter within a tolerance of h6
- Center-through coolant supply is available with tools with oil holes
- Use a carbide shank cutter within a tolerance of h5 with models marked ❖

Some shrink fit machines may not be compatible with the Shrink Chuck. Please refer to the shrink fit machine operation manual.

SHRINK FIT (SLIM TYPE)

CLAMPING RANGE: ø12-20mm

COOLANT THROUGH



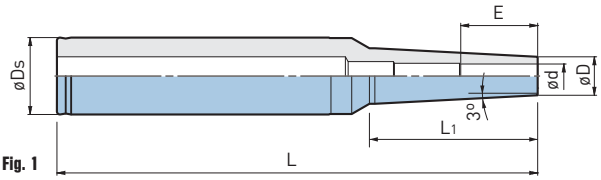


Fig. 1

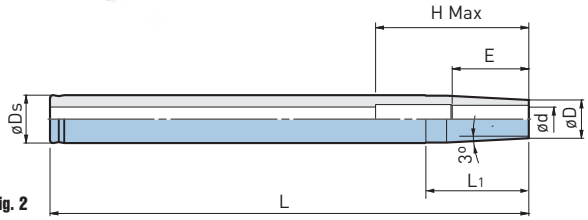


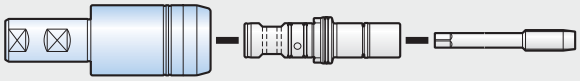
Fig. 2

Catalog Number	Fig.	ød	øD	øDs	L	L1	H Max	Min Clamping Length E	Weight (lbs.)
ST32-SRC12S-150-K70	1	12mm	.748	32mm	5.91	2.76	—	1.42	1.2
ST32-SRC12S-200-K70					7.87				1.8
ST32-SRC12S-300-K70					11.81	2.76			2.8
ST32-SRC16S-150	2	16mm	.945	32mm	5.91	3.27	2.76	1.50	1.3
ST32-SRC16S-200					7.87		3.15		1.9
ST32-SRC16S-300					11.81				2.9
ST32-SRC20S-150	2	20mm	1.102	32mm	5.91	1.97	3.15	1.50	1.3
ST32-SRC20S-200					7.87				1.9
ST32-SRC20S-300					11.81				2.9

- Use a carbide shank cutter within a tolerance of h6
- Center-through coolant supply is available with tools with oil holes

Some shrink fit machines may not be compatible with the Shrink Chuck. Please refer to the shrink fit machine operation manual.

MEGA SYNCHRO TAPPING HOLDER



COOLANT THROUGH

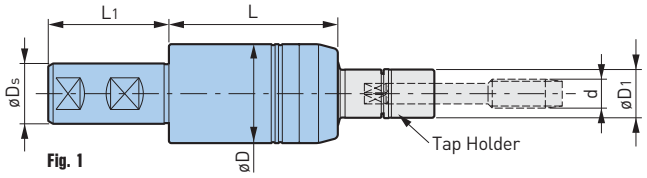


Fig. 1

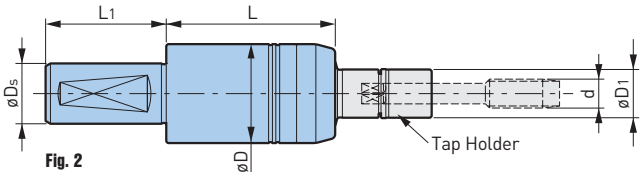


Fig. 2

Catalog Number	Fig.	Tapping Range d* (Inch)	Tapping Range d* (Metric)	øD	øD1	øDs	L	L1	Wrench	Weight (lbs.)
SL1.000-MGT6-2.5	1	No.2-No.12	M2-M6	1.42	.63	1.000	2.50	2.28	MGR16	1.1
SL1.000-MGT12-2.75		AU1/4-AU7/16	M6-M12	1.61	.79	1.000	2.75	2.28	MGR20L	1.8
SL1.250-MGT20-3.5	1	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	1.250	3.50	2.28	MGR30L	3.3
ST20-MGT6-65	2	No.2-No.12	M2-M6	1.42	.63	20mm	2.56	1.57	MGR16	1.1
ST25-MGT12-70	2	AU1/4-AU7/16	M6-M12	1.61	.79	25mm	2.76	1.97	MGR20L	1.8
ST32-MGT20-90	2	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.13	1.18	32mm	3.54	2.17	MGR30L	3.3

***AU3/8 is included in the MGT20 series**

- MGT set screw is included; tap holder and wrench must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES


TAP HOLDER PG. 416


MEGA NUT PG. 423


SYNCHRO ADJUSTER PG. 423

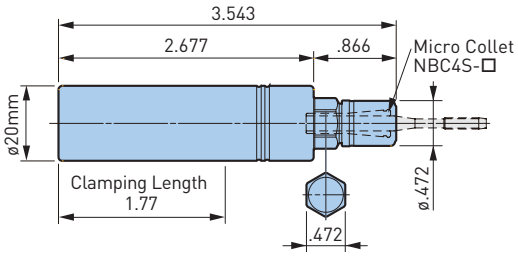

O-RING PG. 423


MEGA WRENCH PG. 410

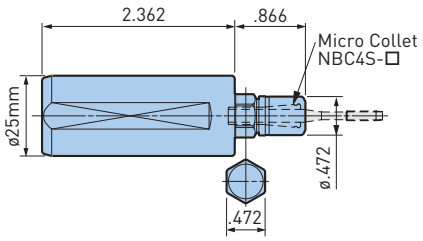

SCREW PG. 423

STRAIGHT SHANK

TAPPING RANGE: No.0-No.6 (M1-M3)



Catalog Number
ST20-MGT3-90



Catalog Number
SLS25-MGT3-22

- Nut is included; collet and wrench must be ordered separately
- When attaching or detaching the tap, a commercially available flat wrench (12mm width) is also required
- Not capable of supplying coolant through the holder body

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES


COLLET
PG. 374


MEGA NUT
PG. 376


MEGA WRENCH
PG. 410

N/C LATHE TOOLING

A.6

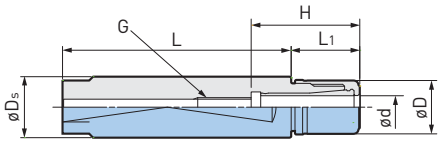
BIG DAISHOWA

MEGA MICRO CHUCK

CLAMPING RANGE: ø.018"-.317" (ø.45-8.05mm)

For Micro Drill & End Mill Applications

COOLANT THROUGH



Catalog Number	ød	øD	øDs	L	L1	H	G	Collet	Nut	Wrench
SL16-MEGA6S-60	.018-.238	.551	16mm	2.36	.709	1.12	M7 P0.75	NBC6S-□	MGN6S	MGR14
SL20-MEGA6S-40	.018-.238	.551	20mm	1.57	.709	1.12	M7 P0.75	NBC6S-□	MGN6S	MGR14
SL20-MEGA6S-80	.018-.238			3.15						
SL20-MEGA8S-40	.116-.317	.709		1.57	.748	1.12	M9 P0.75	NBC8S-□	MGN8S	MGR18
SL20-MEGA8S-80	.116-.317			3.15						
SL15.875-MEGA6S-60	.018-.238	.551	.625	2.36	.709	1.12	M7 P0.75	NBC6S-□	MGN6S	MGR14
SL19.05-MEGA6S-40	.018-.238	.551	.750	1.57	.709	1.12	M7 P0.75	NBC6S-□	MGN6S	MGR14
SL19.05-MEGA6S-80				3.15						
SL19.05-MEGA8S-40	.116-.317	.709	.750	1.57	.748	1.12	M9 P0.75	NBC8S-□	MGN8S	MGR18
SL19.05-MEGA8S-80	.116-.317			3.15						

- MEGA MICRO NUT is included; collet and wrench must be ordered separately
- Center-through coolant supply is available

ACCESSORIES


COLLET PG. 374


MEGA NUT PG. 376


SEAL NUT PG. 376


MEGA WRENCH PG. 410


SLS40-ABS20-100
JAPAN

NEW BABY CHUCK

CLAMPING RANGE: ø.010"-.787" (ø.25-20mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH

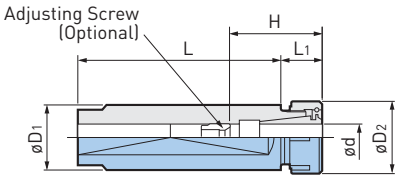


Fig. 1

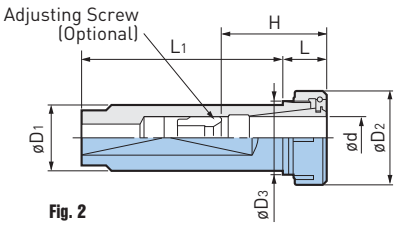


Fig. 2

Catalog Number	Fig.	ød	øD1	øD2	øD3	L	L1	H	Collet	Nut	Wrench
SL16-NBS6-40	1	.010-.236	16mm	.787	—	1.57	.59	.79-1.57	NBC6-□	NBN6	NBK6
SL16-NBS6-80						3.15					
SL16-NBS8-40		.020-.315		.987		1.57	.65	.91-1.65	NBC8-□	NBN8	NBK8
SL16-NBS8-80						3.15					
SL16-NBS10-40	2	.059-.394		1.181	.83	1.57	1.46	1.38-1.77	NBC10-□	NBN10	NBK10
SL16-NBS10-80						3.15					
SL20-NBS6-40	1	.010-.236	20mm	.787	—	1.57	.59	.79-1.57	NBC6-□	NBN6	NBK6
SL20-NBS6-80						3.15					
SL20-NBS8-40		.020-.315		.987		1.57	.65	.91-1.65	NBC8-□	NBN8	NBK8
SL20-NBS8-80						3.15					
SL20-NBS10-40	2	.059-.394		1.181	.83	1.57	.71	1.38-1.77	NBC10-□	NBN10	NBK10
SL20-NBS10-80						3.15					
SL20-NBS13-40		.098-.512		1.377	1.02	1.57	1.69	1.61-2.36	NBC13-□	NBN13	NBK13
SL20-NBS13-80						3.15					
SL22-NBS6-40	1	.010-.236	22mm	.787	—	1.57	.59	.79-1.57	NBC6-□	NBN6	NBK6
SL22-NBS8-40		.020-.315		.987		1.57	.65	.91-1.65	NBC8-□	NBN8	NBK8
SL22-NBS10-40		.059-.394		1.181		1.57	.71	1.38-1.77	NBC10-□	NBN10	NBK10
SL22-NBS10-80						3.15					
SL22-NBS13-40	2	.098-.512		1.377	1.02	1.57	.85	1.61-1.85	NBC13-□	NBN13	NBK13
SL22-NBS13-80						3.15		1.61-2.36			
SL25-NBS6-80	1	.010-.236	25mm	.787	—	3.15	.59	.79-1.57	NBC6-□	NBN6	NBK6
SL25-NBS6-120						4.72					
SL25-NBS8-80		.020-.315		.987		3.15	.65	.91-1.65	NBC8-□	NBN8	NBK8
SL25-NBS8-120						4.72					
SL25-NBS10-80		.059-.394		1.181		3.15	.71	1.38-1.77	NBC10-□	NBN10	NBK10
SL25-NBS10-120						4.72					
SL25-NBS13-80	2	.098-.512		1.377	1.02	3.15	.85	1.61-2.36	NBC13-□	NBN13	NBK13
SL25-NBS13-120						4.72					
SL25-NBS16-80		.098-.630		1.653	1.26	3.15	1.89	1.77-2.56	NBC16-□	NBN16	NBK16
SL25-NBS16-120						4.72					

Catalog Number	Fig.	ød	øD1	øD2	øD3	L	L1	H	Collet	Nut	Wrench
SL25.4-NBS6-80	1	.010-.236	1.000	.787	—	3.15	.59	.79-1.57	NBC6-□	NBN6	NBK6
SL25.4-NBS8-80		.020-.315		.987		3.15	.65	.91-1.65	NBC8-□	NBN8	NBK8
SL25.4-NBS10-80		.059-.394		1.181		3.15	.71	1.38-1.77	NBC10-□	NBN10	NBK10
SL25.4-NBS13-80	2	.098-.512		1.377	1.02	3.15	.85	1.61-1.97	NBC13-□	NBN13	NBK13
SL25.4-NBS16-80		.098-.630		1.653	1.26	3.15	1.89	1.77-2.56	NBC16-□	NBN16	NBK16
SL32-NBS13-100	1	.098-.512	32mm	1.377	—	3.94	.85	1.61-2.36	NBC13-□	NBN13	NBK13
SL32-NBS13-150						5.91					
SL32-NBS16-100		.098-.630		1.653		3.94		1.77-2.56	NBC16-□	NBN16	NBK16
SL32-NBS16-150						5.91					
SL32-NBS20-100	2	.098-.787		1.811	1.42	3.94		1.89-2.56	NBC20-□	NBN20	NBK20
SL32-NBS20-150						5.91					

- NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Center-through coolant supply is available
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 378


NUT PG. 392


PERFECT SEAL PG. 390


WRENCH PG. 392

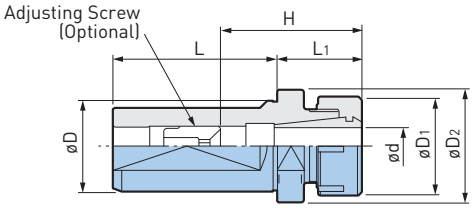

SCREW PG. 433

NEW BABY CHUCK

CLAMPING RANGE: ø.098"-.787" (ø2.5-20mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH



Stopper Type:
Flange as a stopper enables presetting of the tool away from machine and minimizes downtime.

Catalog Number	ød	øD	øD1	øD2	L	L1	H	Collet	Nut	Wrench
SLS25-NBS13-30	.098-.512	25mm	1.378	1.25	2.12	1.18	1.61-2.36	NBC13-□	NBN13	NBK13
SLS25-NBS13-60						2.36				
SLS32-NBS13-30	.098-.512	32mm	1.378	1.55	2.28	1.18	1.61-2.36	NBC13-□	NBN13	NBK13
SLS32-NBS13-60						2.36				
SLS32-NBS13-100						3.94				
SLS32-NBS20-30	.098-.787		1.811	1.79		1.18	1.88-2.55	NBC20-□	NBN20	NBK20
SLS32-NBS20-60						2.36				
SLS32-NBS20-100						3.94				
SLS40-NBS13-30	.098-.787	40mm	1.378	1.94	2.67	1.18	1.61-2.36	NBC13-□	NBN13	NBK13
SLS40-NBS13-60						2.36				
SLS40-NBS13-100						3.94				
SLS40-NBS20-30			1.811			1.18	1.88-2.55	NBC20-□	NBN20	NBK20
SLS40-NBS20-60						2.36				
SLS40-NBS20-100						3.94				

- NEW BABY NUT is included; collet, wrench and adjusting screw must be ordered separately
- Center-through coolant supply is available
- "H" indicates the adjustment length with an adjusting screw

ACCESSORIES


COLLET PG. 378


NUT PG. 392


PERFECT SEAL PG. 390


WRENCH PG. 392

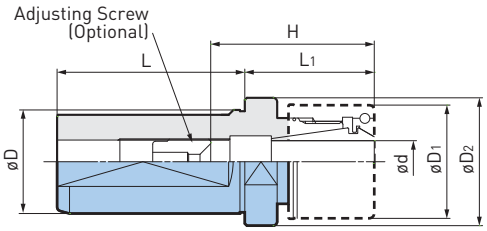

SCREW PG. 433

MEGA ER GRIP

CLAMPING RANGE: ø.108"-.787" (ø2.75-20mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH



Stopper Type:
Flange as a stopper enables presetting of the tool away from machine and minimizes downtime.

Catalog Number	ød	øD	øD1	øD2	L	L1	H	Collet	Nut (NOT Included)	Wrench
SLS25-MEGAER20-45NL	.108-.512	25mm	1.378	1.26	2.13	1.77	1.65-2.44	ERC20-□	MERN20*	MGR35L
SLS25-MEGAER20-75NL						2.95				
SLS32-MEGAER20-45NL	.108-.512	32mm	1.378	1.56	2.28	1.77	1.65-2.44	ERC20-□	MERN20*	MGR35L
SLS32-MEGAER20-75NL						2.95				
SLS32-MEGAER32-45NL	.108-.787		1.969	1.97		1.77	1.85-2.68	ERC32-□	MERN32*	MGR50L
SLS32-MEGAER32-75NL						2.95	1.97-2.68			
SLS40-MEGAER20-45NL	.108-.512	40mm	1.378	1.95	2.68	1.77	1.65-2.44	ERC20-□	MERN20*	MGR35L
SLS40-MEGAER20-75NL						2.95				
SLS40-MEGAER32-45NL	.108-.787		1.969	1.97		1.77	1.97-2.68	ERC32-□	MERN32*	MGR50L
SLS40-MEGAER32-75NL						2.95				

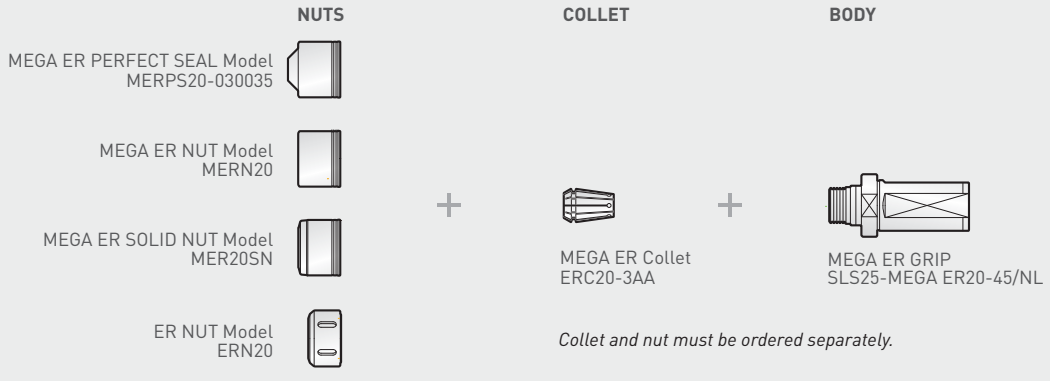
***Nut, adjusting screw, collet and wrench are not included**
- MEGA ER GRIP is not able to use DIN6499 Form-A collets and ESX collets
- Center-through coolant supply is available
- "H" indicates the adjustment length with an adjusting screw

To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

ACCESSORIES

***MEGA NUT is the recommended nut to achieve high accuracy and clamping force**

EXAMPLE



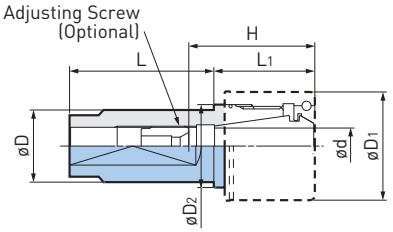
Collet and nut must be ordered separately.

MEGA ER GRIP

CLAMPING RANGE: ø.075"-.512" (ø1.9-13mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH



Catalog Number	ød	øD	øD1	øD2	L	L1	H	Collet	Nut (NOT Included)	Wrench
SL16-MEGAER11-40NL	.108-.236	16mm	.750	—	1.57	.750	.906-1.57	ERC11-□	ERN11	NBK6
SL16-MEGAER11-80NL					3.15					
SL20-MEGAER11-40NL	.108-.236	20mm	.750	—	1.57	.750	.906-1.57	ERC11-□	ERN11	NBK6
SL20-MEGAER11-80NL					3.15					
SL20-MEGAER16-40NL	.075-.394		1.181	.91	1.57	1.10	1.38-1.85	ERC16-□	MERN16*	MGR30L
SL20-MEGAER16-80NL					3.15					
SL25-MEGAER11-60NL	.108-.236	25mm	.750	—	2.36	.750	.906-1.57	ERC11-□	ERN11	NBK6
SL25-MEGAER11-100NL					3.94					
SL25-MEGAER16-60NL	.075-.394		1.181	—	2.36	1.10	1.38-1.85	ERC16-□	MERN16*	MGR30L
SL25-MEGAER16-100NL					3.94					
SL25-MEGAER20-45NL	.108-.512		1.378	1.06	1.77	1.18	1.57	ERC20-□	MERN20*	MGR35L
SL25-MEGAER20-60NL					2.36		1.65-2.44			
SL25-MEGAER20-100NL					3.94					
SL25-MEGAER25-60NL	.108-.630		1.654	1.32	2.36	1.89	1.73-2.64	ERC25-□	MERN25*	MGR42L
SL25-MEGAER25-100NL					3.94					
SL19.05-MEGAER11-40NL	.108-.236	.750	.750	—	1.57	.750	.906-1.57	ERC11-□	ERN11	NBK6
SL19.05-MEGAER11-80NL					3.15					
SL19.05-MEGAER16-40NL	.075-.394		1.181	.91	1.57	1.10	1.38-1.85	ERC16-□	MERN16*	MGR30L
SL19.05-MEGAER16-80NL					3.15					

***Nut, adjusting screw, collet and wrench are not included**

- MEGA ER GRIP is not able to use DIN6499 Form-A collets and ESX collets
- Center-through coolant supply is available
- "H" indicates the adjustment length with an adjusting screw

To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

ACCESSORIES


COLLET PG. 394


MEGA NUT* PG. 397


PERFECT SEAL PG. 398


SOLID NUT PG. 397


MEGA WRENCH PG. 410


SCREW PG. 433

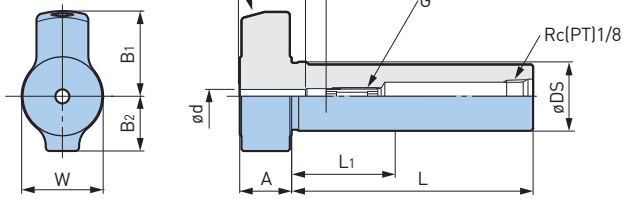
***MEGA NUT is the recommended nut to achieve high accuracy and clamping force**

HYDRAULIC CHUCK (STANDARD TYPE FOR LATHE)

CLAMPING RANGE: ø.125"-.250" (ø3-12mm)

High-precision cutting with hydraulic chuck is achieved on an automatic lathe.

COOLANT THROUGH



Catalog Number	ød	øDs	L	L1	A	B1	B2	W	H	E	G
SL19.05-HDC3-60❖	3mm	.750	2.36	.787	.59	.91	.62	.87	.787-1.26	.63	HDA4-05015W
SL19.05-HDC4-60	4mm								.905-1.26	.75	
SL19.05-HDC5-60	5mm								1.22-1.89	.87	NBA6B
SL19.05-HDC6-60	6mm									.98	
SL19.05-HDC8-60	8mm					.95			2.56	1.22	—
SL19.05-HDC3.175-60❖	.125					.91			.787-1.26	.63	HDA4-05015W
SL19.05-HDC4.7625-60	.1875								1.22-1.89	.75	NBA6B
SL19.05-HDC6.35-60	.250									.98	
SL20-HDC3-70❖	3mm	20mm	2.75	1.18	.59	.91	.62	.90	.787-1.26	.63	HDA4-05015W
SL20-HDC4-70	4mm								.905-1.26	.75	
SL20-HDC5-70	5mm								1.22-1.89	.87	NBA6B
SL20-HDC6-70	6mm									.98	
SL20-HDC8-70◆	8mm					.95			2.95	1.22	—
SL22-HDC3-70❖	3mm	22mm	2.75	1.18	.59	.91	.62	.98	.787-1.26	.63	HDA4-05015W
SL22-HDC4-70	4mm								.905-1.26	.75	
SL22-HDC6-70	6mm								1.22-1.89	.98	NBA6B
SL22-HDC8-70◆	8mm					.95			2.95	1.22	—
SL22-HDC10-70◆	10mm					1.06	.66		2.76	1.30	
SL25-HDC3-65❖	3mm	25mm	2.56	1.57	.59	.91	.55	1.10	.787-1.26	.63	HDA4-05015W
SL25-HDC4-65	4mm								.905-1.26	.75	
SL25-HDC6-65	6mm					.91	.59		1.22-1.89	.98	NBA6B
SL25-HDC8-65◆	8mm					.95	.63		2.76	1.22	—
SL25-HDC10-65◆	10mm					1.06	.67		2.56	1.30	
SL25-HDC12-65◆	12mm					1.10	.71			1.42	
SL25.4-HDC3-80❖	3mm	1.000	3.15	1.57	.59	.91	.55	1.10	.787-1.26	.63	HDA4-05015W
SL25.4-HDC4-80	4mm								.905-1.26	.75	
SL25.4-HDC6-80	6mm					.91	.59		1.22-1.89	.98	NBA6B
SL25.4-HDC8-80◆	8mm					.95	.63		3.35	1.22	—
SL25.4-HDC10-80◆	10mm					1.06	.67		3.15	1.30	
SL25.4-HDC12-80◆	12mm					1.10	.71			1.42	

- Adjusting screws cannot be used with models marked ◆
- Adjusting screw is adjustable both from the head and shank ends
- "E" is the min. clamping length
- "G" is the adjusting screw (optional)
- "H" indicates the adjustment length with an adjusting screw
- "H" at HDC8/10/12 is the max. tool shank length can be inserted for these models
- L1 is the minimum length, in case of shortening the shank
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

ACCESSORIES

PERFECT SEAL/ JET COLLET PG. 404
GRIP BAR PG. 415
SCREW PG. 415

Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

HYDRAULIC CHUCK (F TYPE FOR LATHE)

CLAMPING RANGE: ø.125"-.250" (ø3-12mm)

Single wrench enables easy cutting tool change on the tool post.
User-friendly rear clamping design is ideal for front tool post.

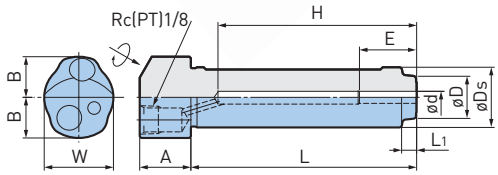


Fig. 1

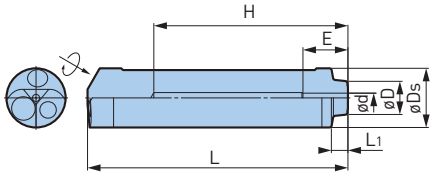


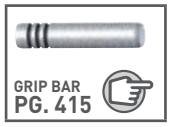
Fig. 2

Catalog Number	Fig.	ød	øD	øDs	L	L1	A	B	W	H	E	Weight (lbs.)
SL19.05F-HDC3-85❖	1	3mm	.551	.750	3.35	.20	.67	.55	.87	2.99	.63	.46
SL19.05F-HDC4-85		4mm									.75	
SL19.05F-HDC6-80		6mm	—		3.15	—				2.80	.98	.44
SL19.05F-HDC8-80		8mm									1.22	.42
SL19.05F-HDC3.175-85❖		.125	.551		3.35	.20				2.99	.63	.53
SL19.05F-HDC4.7625-85		.188									.86	
SL19.05F-HDC6.35-80		.250	—		3.15	—				2.80	.98	.49
SL20F-HDC3-75❖	1	3mm	.551	20mm	2.95	.20	.67	.53	.91	2.60	.63	.49
SL20F-HDC4-75		4mm									.75	
SL20F-HDC6-70		6mm	—		2.76	—				2.40	1.00	.44
SL20F-HDC8-70		8mm									1.22	.42
SL22F-HDC3-75❖	1	3mm	.551	22mm	2.95	.20	.67	.53	.98	2.60	.63	.57
SL22F-HDC4-75		4mm									.75	
SL22F-HDC6-70		6mm	—		2.76	—				2.40	1.00	.53
SL22F-HDC8-70		8mm									1.22	.51
SL22F-HDC10-70		10mm									1.30	.50
SL25F-HDC3-110❖	2	3mm	.551	25mm	4.33	.28	—	—	—	3.23	.63	.82
SL25F-HDC4-110		4mm									.75	
SL25F-HDC6-105		6mm			4.13	.12				3.03	.98	.75
SL25F-HDC8-100		8mm	.669		3.94					2.83	1.22	.68
SL25F-HDC10-95		10mm	—		3.74	—				2.64	1.30	.62
SL25F-HDC12-90		12mm			3.54					2.40	1.42	.53

Catalog Number	Fig.	ød	øD	øDs	L	L1	A	B	W	H	E	Weight (lbs.)
SL25.4F-HDC3-105❖	2	3mm	.511	1.000	1.13	.28	—	—	—	3.03	.63	.79
SL25.4F-HDC4-105		4mm									.75	
SL25.4F-HDC6-100		6mm			3.94	.12				2.83	.98	.75
SL25.4F-HDC8-95		8mm	.669		3.74					2.64	1.22	.66
SL25.4F-HDC10-90		10mm	—		3.54	—				2.44	1.30	.60
SL25.4F-HDC12-85		12mm			3.35					2.20	1.42	.53

- Adjusting screw cannot be used
- "E" is the min. clamping length
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

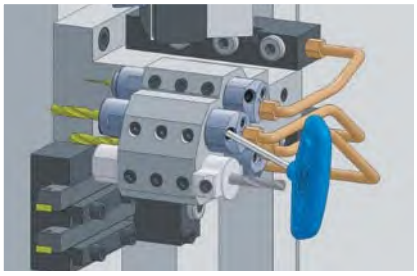
ACCESSORIES

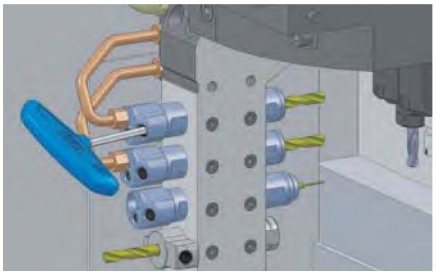


Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

F Type

- Tighten from the opposite side of the tool
- Coolant delivery is possible with Rc(PT)1/8 screw
- Optimum overall length for easy use
- Ideal for use on a front tool post

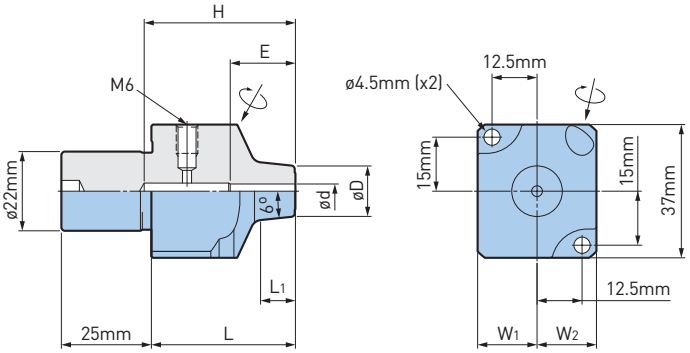




HYDRAULIC CHUCK (R TYPE FOR LATHE)

CLAMPING RANGE: ø3-10mm

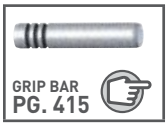
Unique block design enables easy handling for both upper or lower tool post position.
Oil hole drills can be used for coolant delivery with M6.



Catalog Number	ød	øD	L	L1	W1	W2	H	E
SL22R-HDC3-40❖	3mm	.551	1.57	.28	.65	.65	1.38	.63
SL22R-HDC4-40	4mm			.35			1.65	.75
SL22R-HDC6-40	6mm	.709		.20			2.17	1.0
SL22R-HDC8-40	8mm	.787		.24		.69	2.13	1.2
SL22R-HDC10-40	10mm	.866						1.3

- Adjusting screw cannot be used
- "E" is the min. clamping length
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

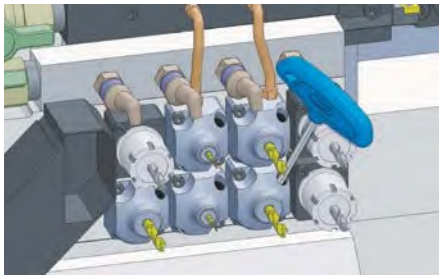
ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

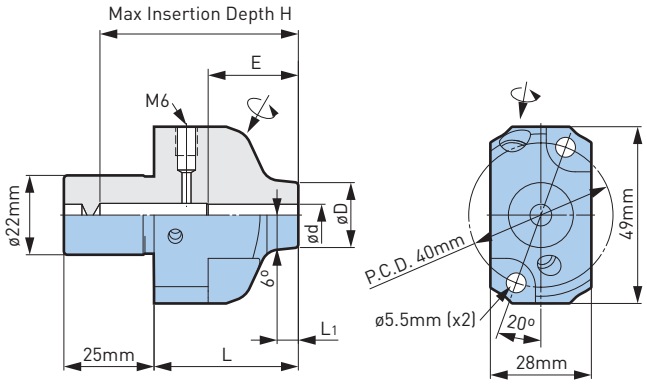
R Type

- Unique design for use with both upper and lower sections without interference
- Tightening at an offset position in the tool side
- Coolant delivery with M6 is possible when mounted on the upper section



HYDRAULIC CHUCK (B TYPE FOR LATHE)

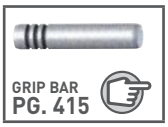
CLAMPING RANGE: ø3-10mm



Catalog Number	ød	øD	L	L1	H	Min Clamping Length E	Weight (lbs.)
SL22B-HDC3-45❖	3mm	.551	1.77	.28	1.57	.63	.7
SL22B-HDC4-45	4mm			.35	1.65	.75	.7
SL22B-HDC6-40	6mm	.709	1.57	.20	2.17	.98	.7
SL22B-HDC8-40	8mm	.787		.24	2.13	1.22	.7
SL22B-HDC10-40	10mm	.866				1.30	.7

- Adjusting screw cannot be used
- "E" is the min. clamping length
- Some coolant may leak from the inner diameter slits when center-through coolant is used with models marked ❖

ACCESSORIES



Use only cutting tools that have a shank tolerance of h6 (see table pg. 26). Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank). Roughing end mills are not recommended for use with hydraulic chucks. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

SMART DAMPER TURNING (ANTI-VIBRATION BORING BAR)

COOLANT THROUGH

Unprecedented machining depths without chatter is made possible with this heavyweight, strengthened dynamic damper.

- Machining Dia.: ø1.58 or more
- Depth: L/D ø7xd

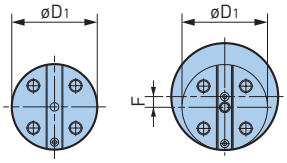
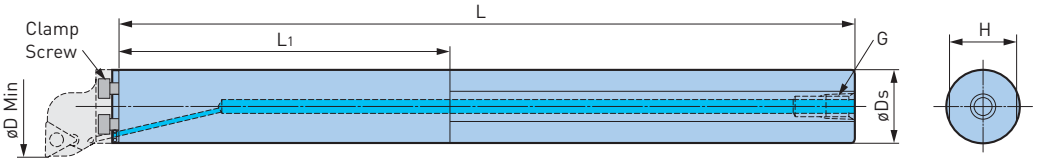


Fig. 1

Fig. 2

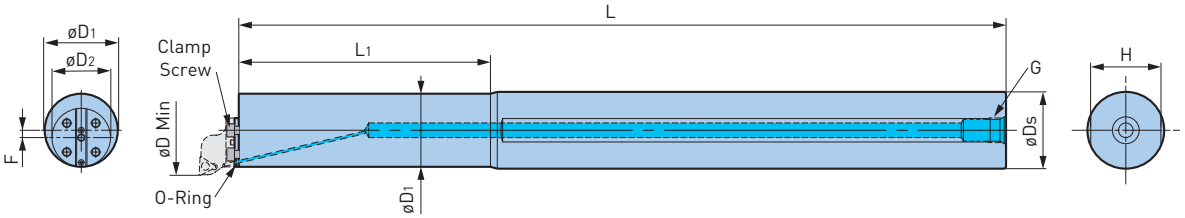


Catalog Number	Fig.	Cartridge	øD Min	øDs	øD1	L	L1	H	G	F	Weight (lbs.)
ST32-SDB40DP-320	1	B32-□	1.57	32mm	1.26	12.60	5.67	1.18	PT1/4	—	5.1
ST40-SDB50DP-410	1	B40-□	1.97	40mm	1.57	16.14	6.69	1.46	PT3/8	—	9.9
ST50-SDB60DP-520	2	B40-□	2.36	50mm	1.57	20.47	7.48	1.85	PT3/8	.197	19.6
ST1.250-SDB40DP-12.5	1	B32-□	1.57	1.25	1.26	12.50	5.57	1.18	NPT1/4	—	5.1
ST1.500-SDB50DP-16	1	B40-□	1.97	1.50	1.57	16.00	6.55	1.47	NPT1/4	—	9.9

- Clamp Screws (3 pcs.) and O-Rings (2 pcs.) are included
- Cartridge must be ordered separately
- Insert must be ordered separately
- Designed to be capable of supplying coolant-through body
- Do not clamp the L1 section, where the anti-vibration mechanism is located

ACCESSORIES

CARTRIDGES PG. 366
SPARE PARTS PG. 368



NEW Sizes

Catalog Number	Cartridge	øD Min	øDs	øD1	øD2	L	L1	H	G	F	Weight (lbs)
ST60-SDB73DP-630	B40-□	2.87	2.36	2.36	1.57	24.8	8.15	2.24	Rc(PT)1/2	.39	33.3
ST63-SDB75DP-630		2.95	2.48					2.36			35.5

- Clamp Screws (3 pcs.) and O-Rings (2 pcs.) are included
- Cartridge must be ordered separately
- Insert must be ordered separately
- Designed to be capable of supplying coolant-through body
- Do not clamp the L1 section, where the anti-vibration mechanism is located

ACCESSORIES

CARTRIDGES PG. 366
SPARE PARTS PG. 368

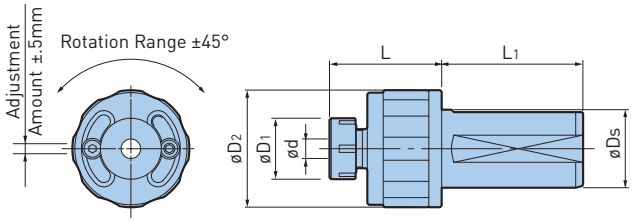
CENTERING HOLDER (FOR LATHE)

COOLANT THROUGH

Easy And Reliable Centering Adjustment For Turret Lathe Sleeve Holder

CLAMPING RANGE: ø.020"-.787" (ø.5-20mm)

The rotation center of the workpiece and the center of the turret pot may be misaligned not only in the center height direction, but also in the X-axis direction. In order to easily correct the deviation of both directions at the same time, a polar coordinate system combining rotary and linear movement is used. Single, two-way adjusting bolt completes adjustment of center height both up and down.



Catalog Number	ød	øDs	øD1	øD2	L	L1	Weight (lbs.)
SLS32-NBS8CH-45	.020-.315	32mm	.984	1.890	1.811	2.283	3.5
SLS40-NBS20CH-60	.098-.787	40mm	1.811	2.913	2.362	2.677	5.5

- NEW BABY NUT is included; collet and wrench must be ordered separately
- Center-through coolant supply is available

ACCESSORIES


COLLET PG. 378


NUT PG. 392

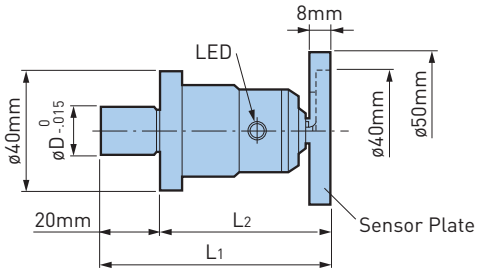

PERFECT SEAL PG. 390


WRENCH PG. 392

LATHE MASTER (FOR LATHE)

Setup of Tool Offset is Possible

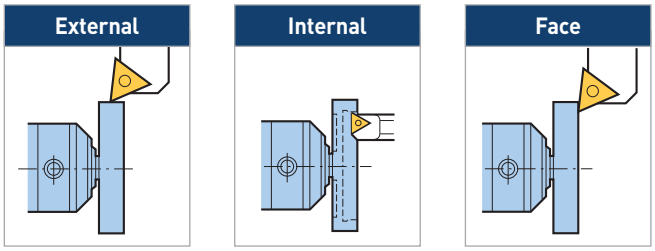
- Effective in reducing setup time for NC Lathes
- Detectable with various tool bits for external, internal and face turning



Catalog Number	øD	L1	L2	Repeatability	Battery
LM-15	15mm	75mm	55mm	±2μ	BR425
LM-30	30mm	65mm	45mm	±2μ	SR44 x 2

Machine and tools must be electro-conductive for measurement.

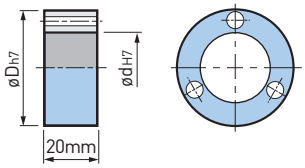
- Batteries not included; use batteries commercially available on the market



Clamp the øD section of the LATHE MASTER with chuck jaws.
LED illuminates when the tip of the tool touches the sensor plate.

COLLAR SET (OPTIONAL)

If the chuck jaw diameter does not fit, an optional collar set is available.

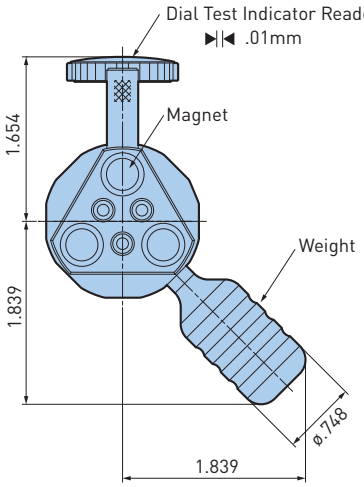


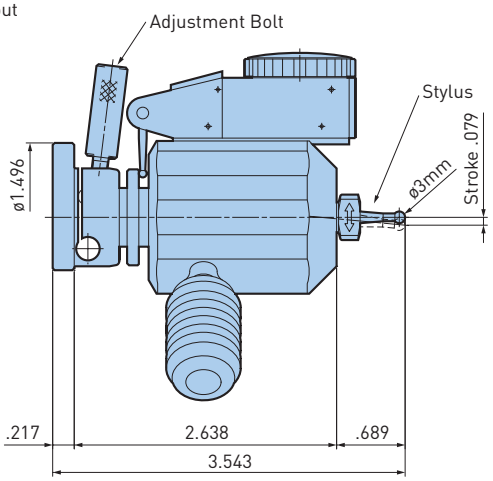
Catalog Number	Inner Diameter ød	Outer Diameter øD (mm)
LM15CS	15mm	20, 25, 30 (1 pc each)
LM30CS	30mm	35, 40, 45, 50 (1 pc each)

CENTERING TOOL (FOR SMALL LATHE)

Static Dial Gage For Easy Centering

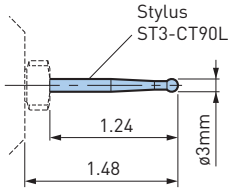
- Centering the tool holder is simplified since the dial gage position is static and in front
- Easy setting with a fine adjustment mechanism (adjustment amount: .079")
- Magnetic base allows for flexible mounting positions





Catalog Number	Min Scale	Max Spindle Speed	Weight (lbs.)	Replacement Stylus
CTL-90	.01mm	50 RPM	.88	ST3-CT90

LONG STYLUS (OPTIONAL)



Catalog Number
ST3-CT90L

- Tip: Ruby

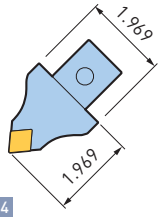
A.7

45º

*In case of DN44 insert, please replace the standard carbide shim with DNS1506 (option)

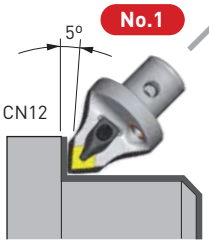
S TYPE PG. 332
BASIC HOLDER

Catalog Number	L
BCV40Y-S50-3	3.0
BCV50Y-S50-3.5	3.5
BCV50Y-S50-4.5	4.5



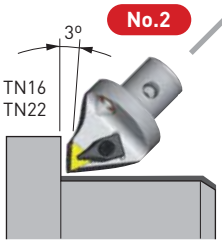
S TYPE CARTRIDGE PG. 364

No.1



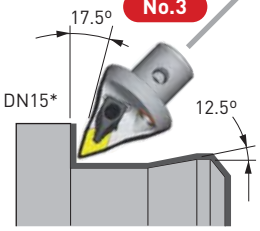
S50-DCLNN-00050-12

No.2



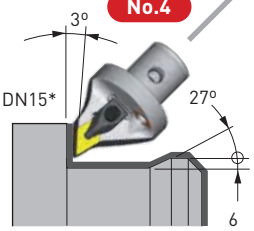
S50-DTJNR-00050-16(22)
S50-DTJNL-00050-16(22)

No.3



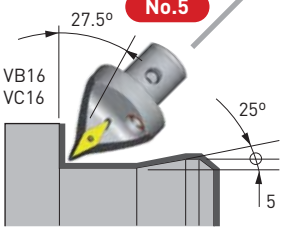
S50-DDHNN-00050-15

No.4



S50-DDJNR-00050-15
S50-DDJNL-00050-15

No.5



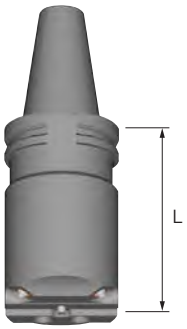
S50-SVQBN-00050-16

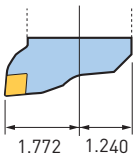
90º

*In case of DN44 insert, please replace the standard carbide shim with DNS1506 (option)

F TYPE PG. 333
BASIC HOLDER

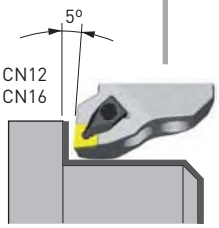
Catalog Number	L
BCV40Y-F63-4.125	4.125
BCV50Y-F63-5.125	5.125





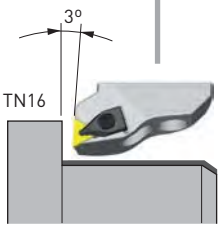
F TYPE CARTRIDGE PG. 365

No.10



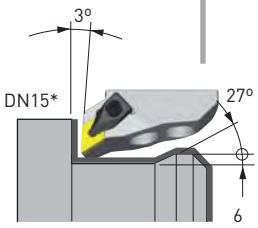
F63-DCLNR-45035-12(16)
F63-DCLNL-45035-12(16)

No.12



F63-DTJNR-45035-16
F63-DTJNL-45035-16

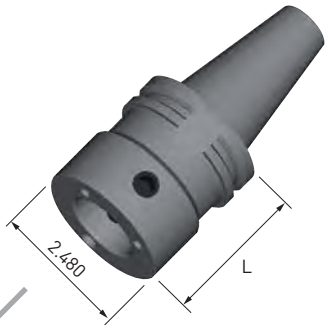
No.13

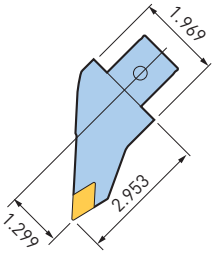


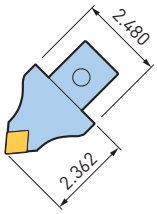
F63-DDJNR-45035-15
F63-DDJNL-45035-15

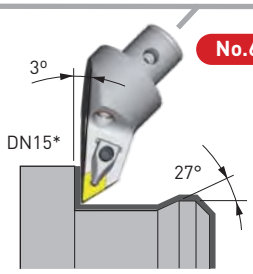
S TYPE PG. 332
BASIC HOLDER

Catalog Number	L
BCV40Y-S63-2.625	2.625
BCV50Y-S63-3.125	3.125
BCV50Y-S63-4.125	4.125

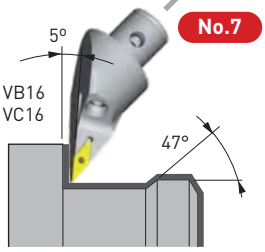




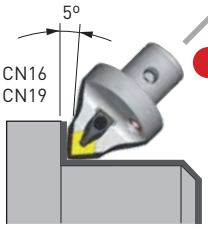




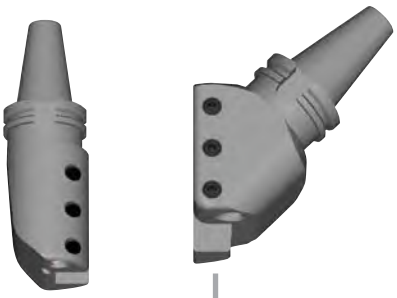
S50-DDJNR-33075-15
S50-DDJNL-33075-15



S50-SVLBR-33075-16
S50-SVLBL-33075-16



S63-DCLNN-00060-16
S63-DCLNN-00060-19

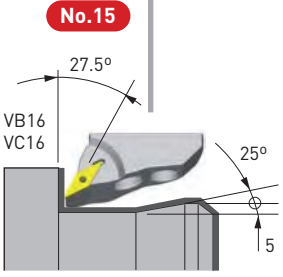


SQUARE TOOL HOLDERS PG. 334

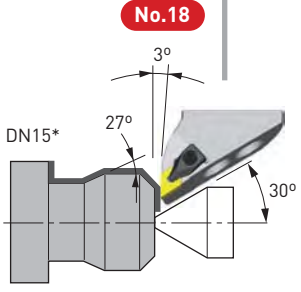
For □ Shank

Boring Bar

BORING BAR HOLDER PG. 335



F63-SVQBR-45035-16
F63-SVQBL-45035-16



F63-DDJNR-45055-15
F63-DDJNL-45055-15

BASIC HOLDER (BCV 45° S TYPE)

Modular Tooling System for Turning Applications

COOLANT THROUGH

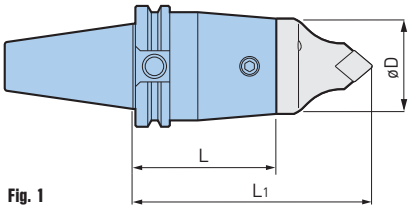


Fig. 1

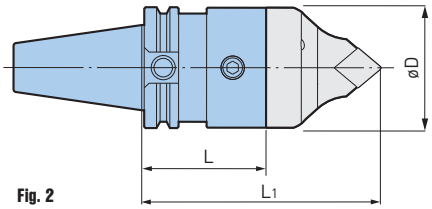


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Type	Fig.	øD	L	L1	Clamp Screw
BCV40Y-S50-3	S50	1	1.969	3.000	4.97	CK5S
BCV40Y-S63-2.625	S63	2	2.480	2.625	4.99	CK6S
BCV50Y-S50-3.5	S50	1	1.969	3.500	5.47	CK5S
BCV50Y-S50-4.5				4.500	6.47	
BCV50Y-S63-4.125	S63	2	2.480	4.125	6.49	CK6S

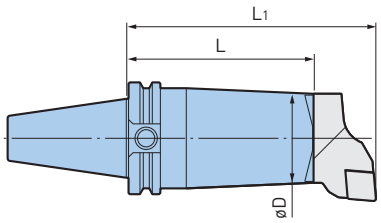
- Clamping screw is included

ACCESSORIES

BASIC HOLDER (BCV 90° F TYPE)

Modular Tooling System for Turning Applications

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Type	øD	L	L1
BCV40Y-F63-4.125	F63	2.480	4.125	5.50
BCV50Y-F63-5.125	F63	2.480	5.125	6.50

- Wrench must be ordered separately
- Basic Holders include M10x22L and M10x25L screws for clamping cartridges
- Plug one of the two coolant nozzles with a countersunk head screw (M5x12) when only one nozzle is required

ACCESSORIES

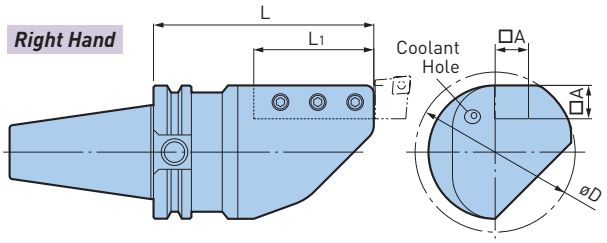
CARTRIDGES PG. 365

SQUARE HOLDER (BCV)

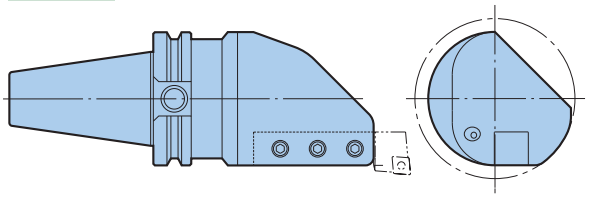
For Square Holder Turning Applications

COOLANT THROUGH

Right Hand



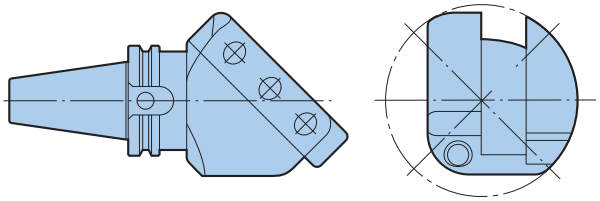
Left Hand



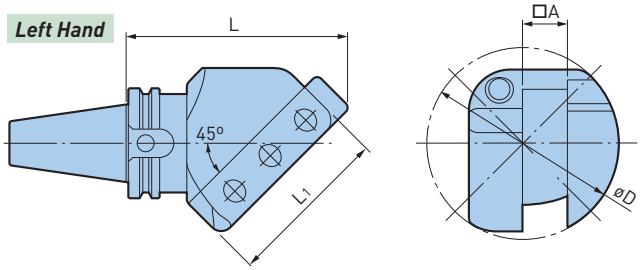
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Hand	□A	L	L1	øD
BCV40Y-180-BH1.000L-5	L	1.000	5.00	3.50	3.74
BCV40Y-180-BH1.000R-5	R				
BCV50Y-180-BH1.000L-5A	L	1.000	5.00	3.50	4.92
BCV50Y-180-BH1.000R-5A	R				
BCV50Y-180-BH1.250L-5	L	1.250		3.35	5.04
BCV50Y-180-BH1.250R-5	R				

Right Hand



Left Hand



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Hand	□A	L	L1	øD
BCV40Y-45-BH1.000L-4.75	L	1.000	4.75	3.43	4.33
BCV40Y-45-BH1.000R-4.75	R				
BCV50Y-45-BH1.000L-5.5	L	1.000	5.50	3.35	5.32
BCV50Y-45-BH1.000R-5.5	R				
BCV50Y-45-BH1.250L-5.5	L	1.250	5.50	3.35	6.69
BCV50Y-45-BH1.250R-5.5	R				

BORING BAR HOLDER (BCV)

CLAMPING RANGE: ø.625"-2.000"

COOLANT THROUGH

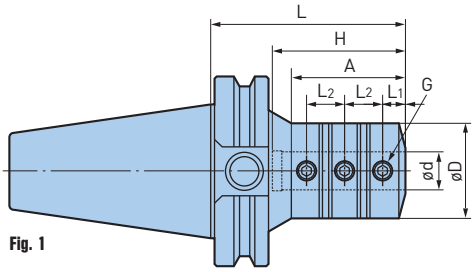


Fig. 1

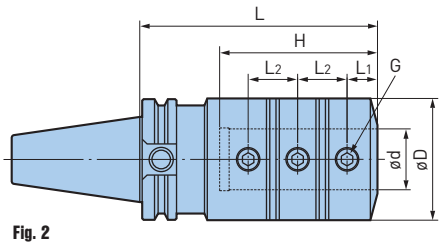


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	L	L1	L2	H	A	G
BCV40Y-BSL.625-3.5	1	.625	1.575	3.50	.394	.787	2.68	2.48	M10P1.25
BCV40Y-BSL.750-3.5		.750	1.929	3.50	.472	.787	2.52	2.56	
BCV40Y-BSL1.000-4		1.000	2.165	4.00	.551	.906	2.91	3.25	M12P1.5
BCV40Y-BSL1.250-5	2	1.250	2.520	5.00	.630	1.024	3.27	—	
BCV40Y-BSL1.500-5.5		1.500	3.150	5.50	.709	1.260	3.86	—	M16P1.5
BCV50Y-BSL.625-3.5	1	.625	1.575	3.50	.394	.827	2.72	2.48	M10P1.25
BCV50Y-BSL.750-3.5		.750	1.969	3.50	.472	.787	2.52	2.36	
BCV50Y-BSL1.000-4		1.000	2.165	4.00	.551	.906	2.91	2.76	M16P1.5
BCV50Y-BSL1.250-4.5		1.250	2.520	4.50	.394	1.024	3.27	3.35	
BCV50Y-BSL1.500-5		1.500	3.150	5.00	.709	1.260	3.86	4.09	M16P1.5
BCV50Y-BSL2.000-5.25		2.000	3.543	5.25	.709	1.417	4.53	4.50	

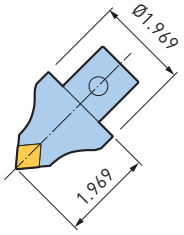
- Plug A and Plug B are included
- Interchangeable between center-through and side-through coolant supply by using plugs

ACCESSORIES

REDUCTION SLEEVE PG. 371

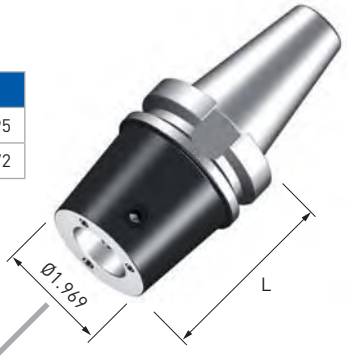
45º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)



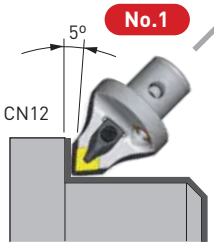
S TYPE BASIC HOLDER PG. 338

Catalog Number	L
BBT40M-S50-75	2.95
BBT50M-S50-120	4.72



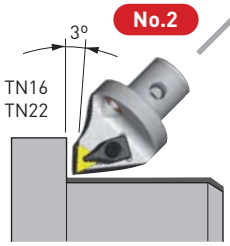
S TYPE CARTRIDGE PG. 364

No.1



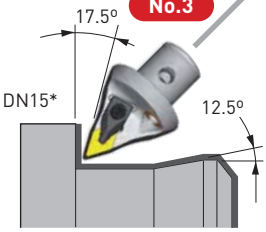
S50-DCLNN-00050-12

No.2



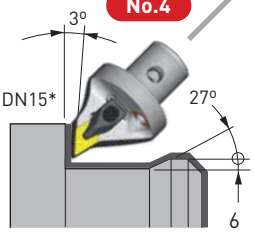
S50-DTJNR-00050-16(22)
S50-DTJNL-00050-16(22)

No.3



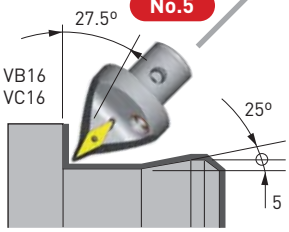
S50-DDHNN-00050-15

No.4



S50-DDJNR-00050-15
S50-DDJNL-00050-15

No.5



S50-SVQBN-00050-16

90º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)

F TYPE BASIC HOLDER PG. 339

Catalog Number	L	øD
BBT40M-F50-75	2.95	1.969
BBT40M-F50-105	4.13	
BBT50M-F63-70	2.76	2.480
BBT50M-F63-130	5.12	

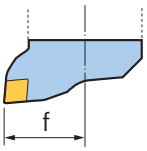
S TYPE BASIC HOLDER PG. 338

S TYPE CARTRIDGE PG. 364

- No.1
- No.3
- No.5
- No.8

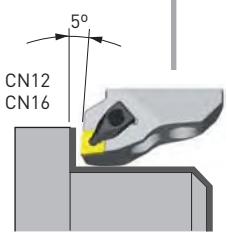
F TYPE CARTRIDGE PG. 365

Catalog Number	f
F50	1.378
F63	1.772



F TYPE CARTRIDGE PG. 365

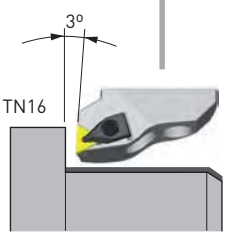
No.10



F50-DCLNR-35035-12(16)
F50-DCLNL-35035-12(16)

F63-DCLNR-45035-12(16)
F63-DCLNL-45035-12(16)

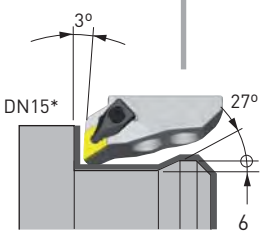
No.12



F50-DTJNR-35035-16
F50-DTJNL-35035-16

F63-DTJNR-45035-16
F63-DTJNL-45035-16

No.13

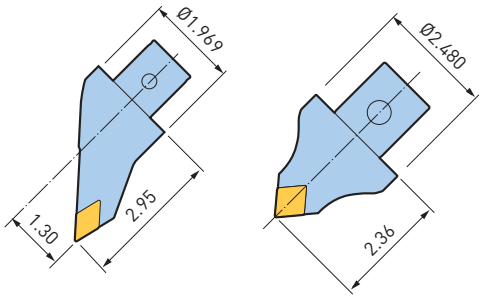


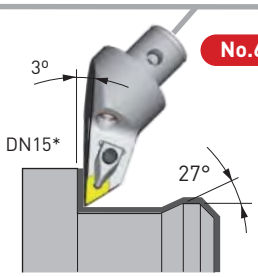
F50-DDJNR-35035-15
F50-DDJNL-35035-15

F63-DDJNR-45035-15
F63-DDJNL-45035-15

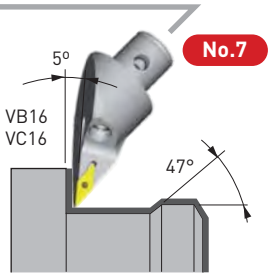
S TYPE PG. 338
BASIC HOLDER

Catalog Number	L
BBT50M-S63-110	4.33

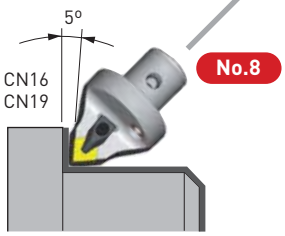




S50-DDJNR-33075-15
S50-DDJNL-33075-15



S50-SVLBR-33075-16
S50-SVLBL-33075-16



S63-DCLNN-00060-16
S63-DCLNN-00060-19

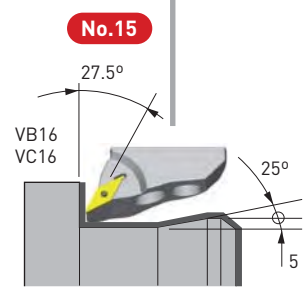
Internal Boring Bar

Internal Threading Tool

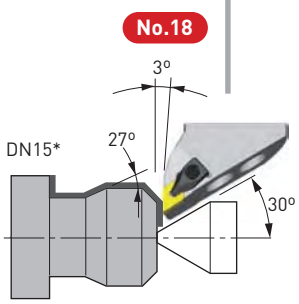
SIDE LOCK HOLDER PG. 341
For Boring Bar

Square Tool

SQUARE TOOL HOLDERS PG. 340



F63-SVQBR-45035-16
F63-SVQBL-45035-16



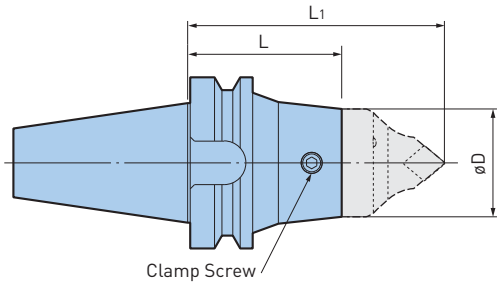
F50-DDJNR-35050-15
F50-DDJNL-35050-15

F63-DDJNR-45055-15
F63-DDJNL-45055-15

BASIC HOLDER (BBT 45º S TYPE)

45º S Type Modular Tooling System for Turning Applications

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Type	øD	L	L1	Clamp Screw
BBT40M-S50-75	S50	1.969	2.953	4.92	CK5S
BBT50M-S50-120	S50	1.969	4.724	6.69	CK5S
BBT50M-S63-110	S63	2.480	4.331		CK6S

• Clamping screw is included

ACCESSORIES

CARTRIDGES PG. 364

BASIC HOLDER (BBT 90° F TYPE)

90° F Type Modular Tooling System for Turning Applications

COOLANT THROUGH

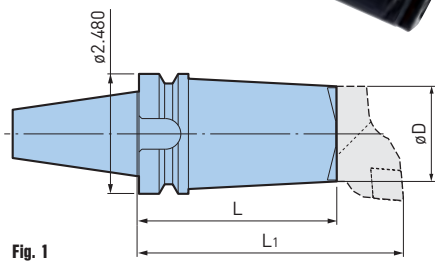


Fig. 1

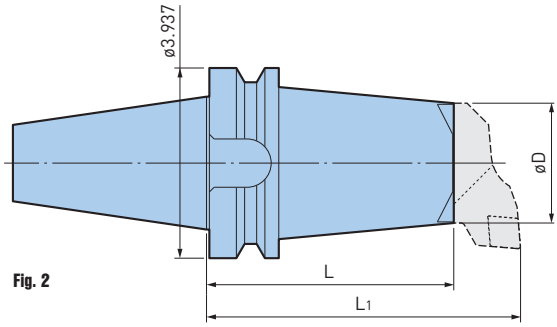


Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Type	Fig.	øD	L	L1
BBT40M-F50-75	F50	1	1.969	2.953	4.33
BBT40M-F50-105				4.134	5.51
BBT50M-F63-70	F63	2	2.480	2.756	4.13
BBT50M-F63-130				5.118	6.50

- Wrench must be ordered separately
- Basic Holders include M10x22L and M10x25L screws for clamping cartridges
- In case the coolant supply only from 1 of 2 coolant nozzles is required, use the flat head screw (M5 x 102)

ACCESSORIES

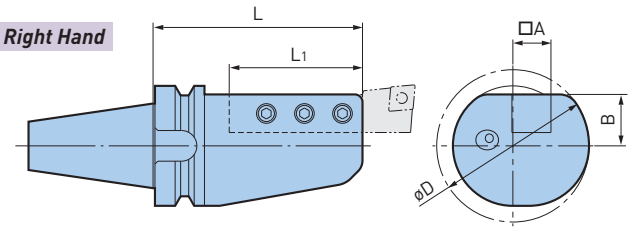
SQUARE HOLDER (BBT)

For Square Holder Turning Applications

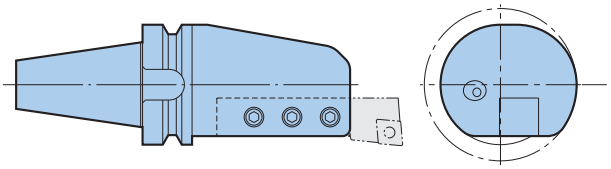
COOLANT THROUGH

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Right Hand



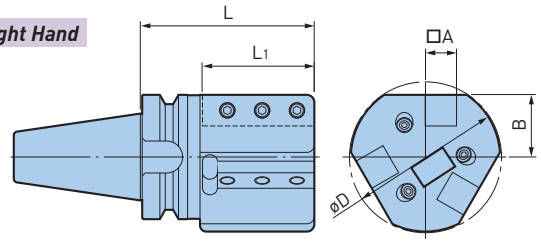
Left Hand



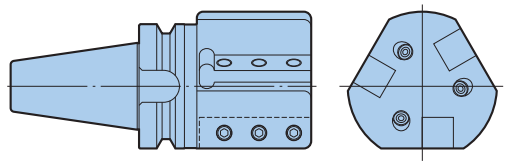
Catalog Number	Hand	□A	L	L1	B	øD	Weight (lbs.)
BBT40M-180-BH20R-110	R	20mm	4.33	2.76	1.06	3.15	6.2
BBT40M-180-BH20L-110	L						
BBT40M-180-BH25R-130	R	25mm	5.12	3.54	1.24	3.54	8.2
BBT40M-180-BH25L-130	L						
BBT50M-180-BH25R-140	R	25mm	5.51	3.54	1.97	4.72	16.6
BBT50M-180-BH25L-140	L						

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Right Hand



Left Hand



Catalog Number	Hand	□A	L	L1	B	øD	Weight (lbs.)
BBT40M-180-3BH20R-110	R	20mm	4.33	2.76	1.38	3.54	7.5
BBT40M-180-3BH20L-110	L	20mm	4.33	2.76	1.38	3.54	
BBT50M-180-3BH25R-140	R	25mm	5.51	3.54	1.97	4.72	20.9
BBT50M-180-3BH25L-140	L						

60 degree indexing is required to the machine tool spindle.

BORING BAR HOLDER (BBT)

CLAMPING RANGE: ø8-50mm

COOLANT THROUGH

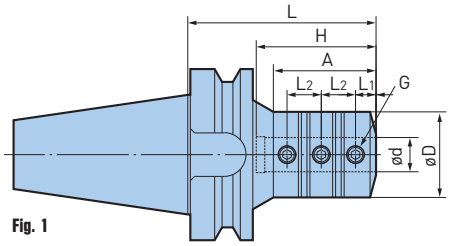


Fig. 1

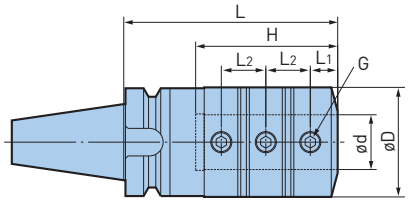


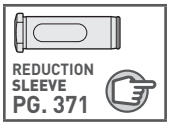
Fig. 2

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	ød	øD	L	L1	L2	H	A	G
BBT40M-BSL8-75	1	8mm	.984	2.95	.236	.394	1.57	1.57	M6 P1.0
BBT40M-BSL10-80		10mm	1.142	3.15	.315	.472	1.97	1.77	M8 P1.0
BBT40M-BSL12-90		12mm	1.339	3.54	.315	.630	2.17	2.09	M8 P1.0
BBT40M-BSL16-100		16mm	1.575	3.94	.394	.827	2.68	2.56	M10 P1.25
BBT40M-BSL20-100		20mm	1.969	3.94	.472	.787	2.76	2.64	M10 P1.25
BBT40M-BSL25-110		25mm	2.165	4.33	.551	.906	2.91	3.27	M12 P1.5
BBT40M-BSL32-125	2	32mm	2.520	4.92	.630	1.024	3.27	—	M12 P1.5
BBT40M-BSL40-150		40mm	3.150	5.91	.709	1.260	3.86	—	M16 P1.5
BBT50M-BSL16-105	1	16mm	1.575	4.13	.394	.827	2.68	2.40	M10 P1.25
BBT50M-BSL20-110		20mm	1.969	4.33	.472	.787	2.76	2.36	M10 P1.25
BBT50M-BSL25-120		25mm	2.165	4.72	.551	.906	2.91	2.76	M12 P1.5
BBT50M-BSL32-125		32mm	2.520	4.92	.630	1.417	3.27	3.15	M12 P1.5
BBT50M-BSL40-135		40mm	3.150	5.31	.709	1.260	3.86	3.58	M16 P1.5
BBT50M-BSL50-145		50mm	3.543	5.71	.709	1.417	4.53	4.02	M16 P1.5

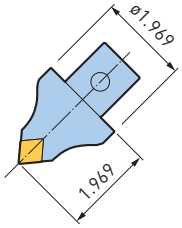
- Plug A and Plug B are included
- Interchangeable between center-through and side-through coolant supply by using plugs

ACCESSORIES



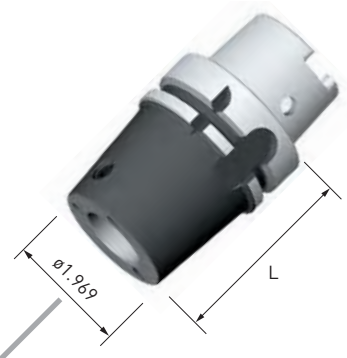
45º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)

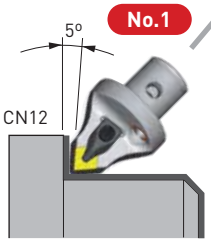


S TYPE PG. 344
BASIC HOLDER

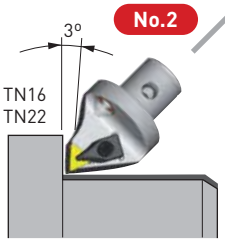
Catalog Number	L
HSK-T50-S50-60	2.36
HSK-T63-S50-60	2.36
HSK-T63-S50-75	2.95
HSK-T63-S50-100	3.93
HSK-T100-S50-115	4.53



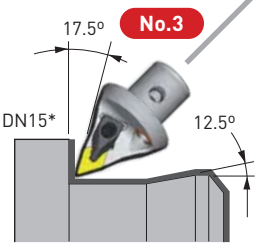
S TYPE CARTRIDGE PG. 364



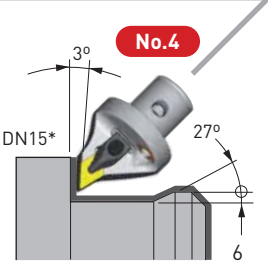
S50-DCLNN-00050-12



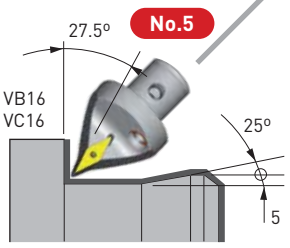
S50-DTJNR-00050-16(22)
-DTJNL-00050-16(22)



S50-DDHNN-00050-15



S50-DDJNR-00050-15
-DDJNL-00050-15



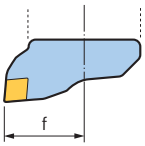
S50-SVQBN-00050-16

90º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)

F TYPE PG. 365
CARTRIDGE

Catalog Number	F
F63	1.77



F TYPE PG. 344
BASIC HOLDER

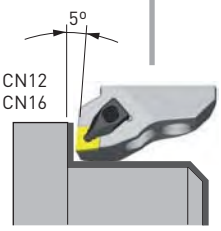
Catalog Number	L
HSK-T63-F63-50	1.97
HSK-T63-F63-75	2.95
HSK-T63-F63-100	3.94
HSK-T63-F63-130	5.12
HSK-T63-F63-170	6.69
HSK-T100-F63-100	3.94
HSK-T100-F63-150	5.91

S TYPE PG. 344
BASIC HOLDER

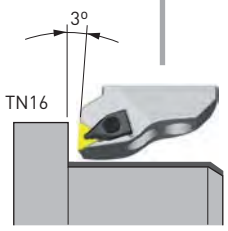
S TYPE PG. 364
CARTRIDGE

- No.1
- No.3
- No.5
- No.8

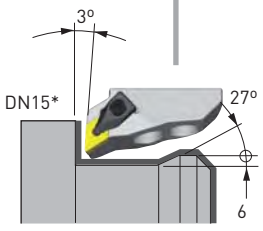
F TYPE CARTRIDGE PG. 365



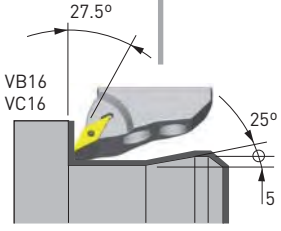
F63-DCLNR-45035-12(16)
-DCLNL-45035-12(16)



F63-DTJNR-45035-16
-DTJNL-45035-16



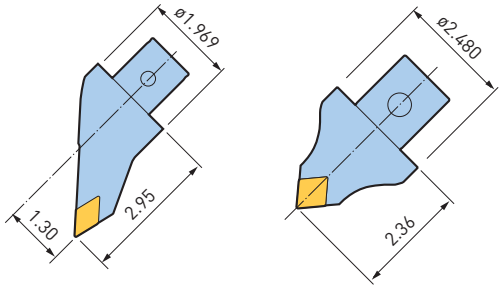
F63-DDJNR-45035-15
-DDJNL-45035-15

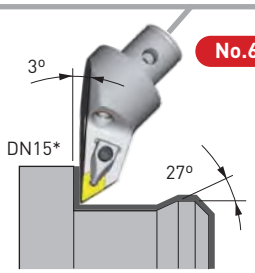


F63-SVQBR-45035-16
-SVQBL-45035-16

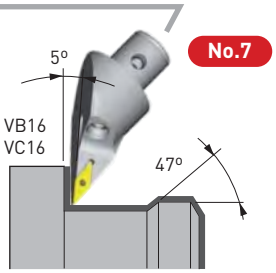
S TYPE PG. 344
BASIC HOLDER

Catalog Number	L
HSK-T63-S63-70	2.76
HSK-T63-S63-90	3.94
HSK-T100-S63-105	4.13

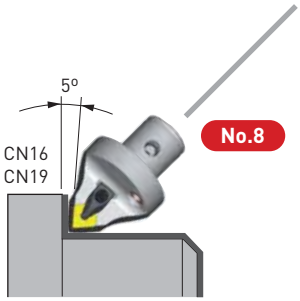




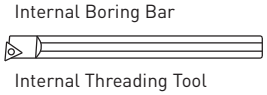
S50-DDJNR-33075-15
-DDJNL-33075-15



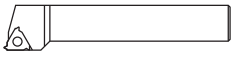
S50-SVLBR-33075-16
-SVLBL-33075-16



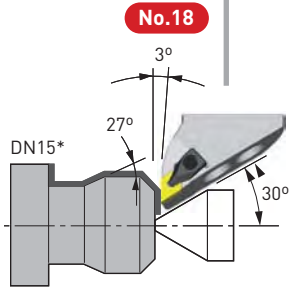
S63-DCLNN-00060-16
-DCLNN-00060-19



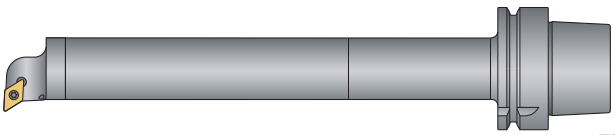
SIDE LOCK HOLDER PG. 347
For Boring Bar



SQUARE TOOL HOLDERS PG. 346



F63-DDJNR-45055-15
-DDJNL-45055-15

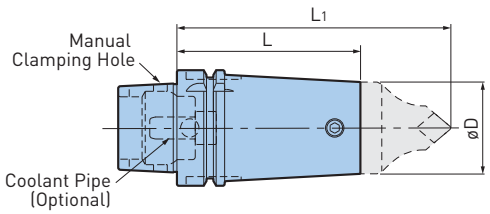


TURNING ADAPTERS PG. 345

BASIC HOLDER (HSK-T 45° S TYPE)

Modular Tooling System for Turning Applications

COOLANT THROUGH



Catalog Number	Type	øD	L	L1	Clamp Screw
HSK-T50-S50-60	S50	1.967	2.362	4.331	CK5S
HSK-T63-S50-60	S50	1.969	2.362	4.331	CK5S
HSK-T63-S50-75			2.953	4.921	
HSK-T63-S50-100			3.937	5.906	
HSK-T63-S63-70	S63	2.480	2.756	5.118	CK6S
HSK-T63-S63-90			3.543	5.906	
HSK-T100-S50-115	S50	1.969	4.528	6.496	CK5S
HSK-T100-S63-105	S63	2.480	4.134	6.496	CK6S

ACCESSORIES

CARTRIDGES PG. 364

• Clamping screw is included, coolant pipe must be ordered separately

(HSK-T 90° F TYPE)

Modular Tooling System for Turning Applications

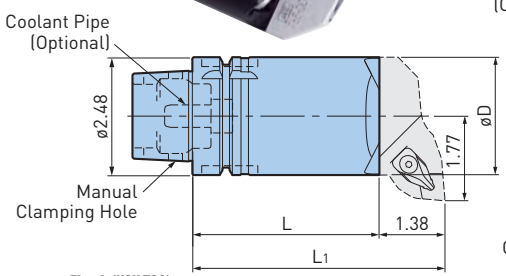


Fig. 1 (HSK-T63)

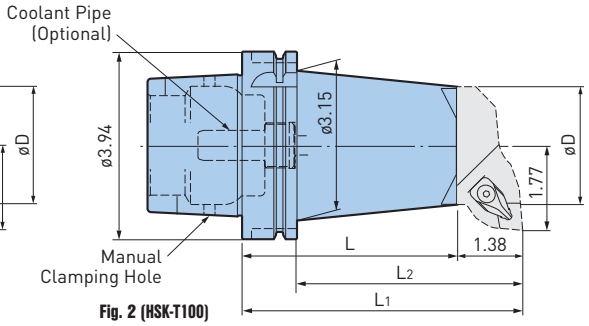


Fig. 2 (HSK-T100)

Catalog Number	Type	Fig.	øD	L	L1	L2
HSK-T63-F63-50	F63	1	2.480	1.969	3.346	—
HSK-T63-F63-75				2.953	4.331	
HSK-T63-F63-100				3.937	5.315	
HSK-T63-F63-130				5.118	6.496	
HSK-T63-F63-170				6.693	8.071	
HSK-T100-F63-100	F63	2	2.480	3.937	5.315	4.133
HSK-T100-F63-150				5.906	7.283	6.102

ACCESSORIES

CARTRIDGES PG. 365

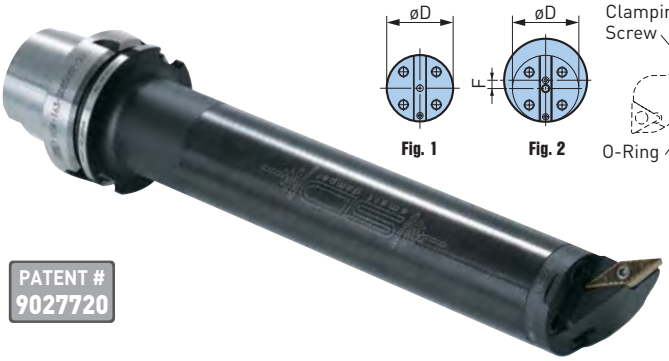
• Coolant pipe and wrench must be ordered separately
• Basic Holders include M10x22L and M10x25L screws for clamping cartridges
• In case the coolant supply only from 1 of 2 coolant nozzles is required, use the flat head screw (M5 x 102)

SMART DAMPER TURNING ADAPTERS (HSK-T)

NEW Sizes

Unique Dynamic Damper Eliminates Chatter

COOLANT THROUGH



PATENT # 9027720

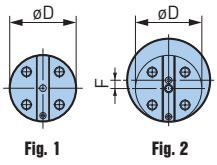
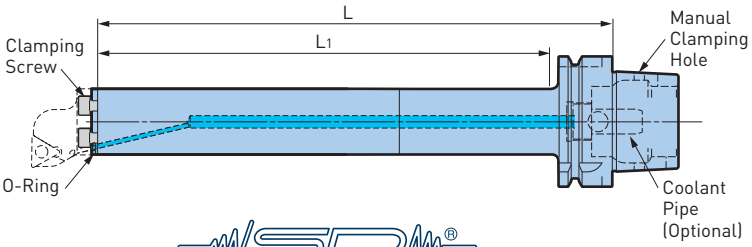


Fig. 1 Fig. 2



WSD® smart damper

ANTI-VIBRATION

Catalog Number	Fig.	Cartridge	øD	L	L1	Min Bore Diameter	Weight (lbs.)
HSK-T63-SDB40DP-172	1	B32-☐	1.26	6.77	5.71	1.57	4.2
HSK-T63-SDB40DP-250				9.84	8.62		5.3
HSK-T63-SDB50DP-235	1	B40-☐	1.57	9.25	8.03	1.97	7.5
HSK-T63-SDB50DP-315				12.40	11.18		9.0
HSK-T63-SDB60DP-268 ●	2	B40-☐	1.97	10.55	9.33	2.36	12.1
HSK-T63-SDB60DP-368 ●				14.49	13.27		15.4
HSK-T100-SDB40DP-255 ●	1	B32-☐	1.26	10.04	8.70	1.57	7.9
HSK-T100-SDB50DP-320 ●	1	B40-☐	1.57	12.60	11.26	1.97	11.9
HSK-T100-SDB60DP-400 ●	2	B40-☐	1.97	15.75	14.41	2.36	19.2

TURNING ADAPTERS (HSK-T)

NEW Sizes

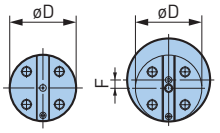
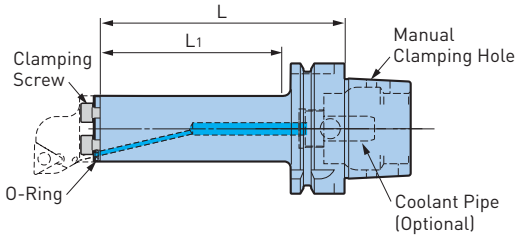


Fig. 1 Fig. 2



Catalog Number	Fig.	Cartridge	øD	L	L1	Min Bore Diameter	Weight (lbs.)
HSK-T63-TAD40-125	1	B32-☐	1.26	4.92	3.70	1.57	2.9
HSK-T63-TAD50-155	1	B40-☐	1.57	6.10	4.88	1.97	4.2
HSK-T63-TAD60-195 ●	2	B40-☐	1.97	7.68	6.54	2.36	6.8
HSK-T100-TAD40-130 ●	1	B32-☐	1.26	5.12	3.78	1.57	5.5
HSK-T100-TAD50-160 ●	1	B40-☐	1.57	6.30	4.96	1.97	6.8
HSK-T100-TAD60-200 ●	2	B40-☐	1.97	7.87	6.54	2.36	9.9

ACCESSORIES


COOLANT PIPE PG. 268


CARTRIDGES PG. 366


SPARE PARTS PG. 368

- Clamping screws (3 pcs.) and O-rings (2 pcs.) are included
- Cartridges, inserts and coolant pipe must be ordered separately
- Coolant through is standard for all models

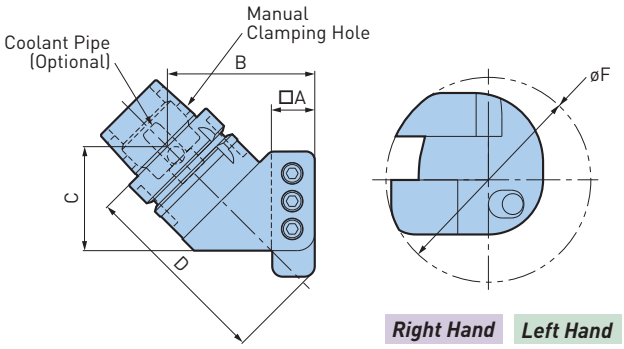
BIG DAISHOWA

SQUARE HOLDER (HSK-T)

For Turning Applications

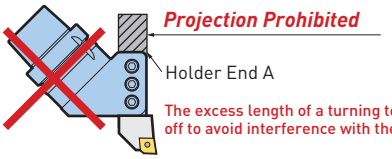
COOLANT THROUGH

45° (ISO 12164-3)



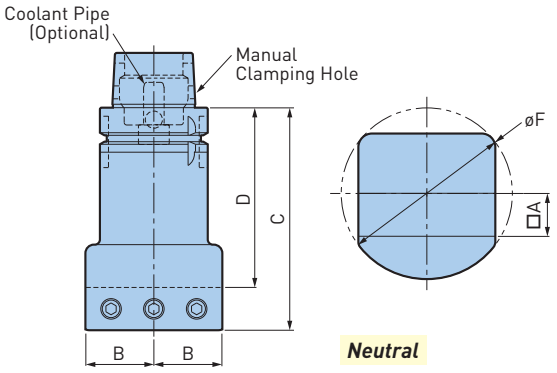
Right Hand *Left Hand*

Catalog Number	Hand	□A	B	C	D	øF
HSK-T63-45-BH25R-110	R	25mm	3.35	2.36	4.33	4.65
HSK-T63-45-BH25L-110	L					



The excess length of a turning tool must be cut off to avoid interference with the an ATC arm

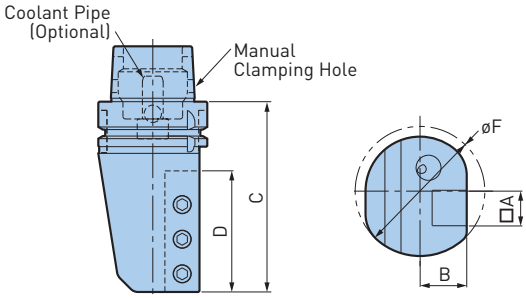
90° (ISO 12164-3)



Neutral

Catalog Number	Hand	□A	B	C	D	øF
HSK-T63-90-BH20N-85	N	20mm	1.26	3.35	2.36	3.15
HSK-T63-90-BH25N-100		25mm	1.57	3.94	2.95	3.94
HSK-T63-90-BH25N-130				5.12	4.13	
HSK-T100-90-BH25N-150	N	25mm	2.17	5.91	4.92	5.04

180°

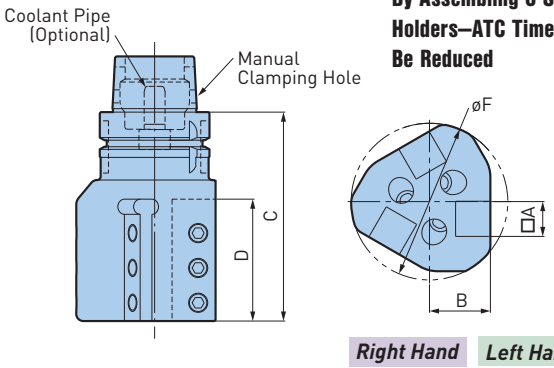


Right Hand *Left Hand*

Catalog Number	Hand	□A	B	C	D	øF
HSK-T63-180-BH20R-120	R	20mm	1.06	4.72	2.76	2.95
HSK-T63-180-BH20L-120	L					
HSK-T63-180-BH25R-125	R	25mm	1.16	4.92	3.15	3.54
HSK-T63-180-BH25L-125	L					
HSK-T100-180-BH25R-140	R	25mm	1.97	5.51	3.54	4.72
HSK-T100-180-BH25L-140	L					
HSK-T100-180-BH25R-180	R			7.09	4.53	
HSK-T100-180-BH25L-180	L					

180° Multi Type

By Assembling 3 Square Holders—ATC Time Can Be Reduced



Right Hand *Left Hand*

Catalog Number	Hand	□A	B	C	D	øF
HSK-T63-180-3BH20R-120	R	20mm	1.38	4.72	2.76	3.54
HSK-T63-180-3BH20L-120	L					
HSK-T63-180-3BH25R-125	R	25mm	1.77	4.92	3.15	4.33
HSK-T63-180-3BH25L-125	L					

60° indexing capability is required for the machine spindle.

BORING BAR HOLDER (HSK-T)

CLAMPING RANGE: ø6-50mm

COOLANT THROUGH

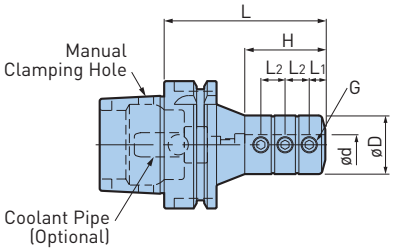


Fig. 1

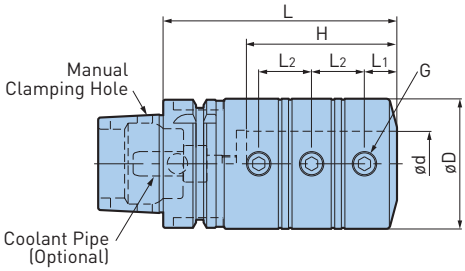


Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	L2	H	G	Weight (lbs.)
HSK-T63-BSL6-70	1	6mm	.906	2.76	.197	.315	.95	M5 P0.8	2.0
HSK-T63-BSL8-75		8mm	.984	2.95	.236	.394	1.26	M6 P1.0	2.0
HSK-T63-BSL10-80		10mm	1.142	3.15	.315	.472	1.58	M8 P1.0	2.0
HSK-T63-BSL12-85		12mm	1.339	3.35		.630	1.77		2.4
HSK-T63-BSL16-80❖		16mm	1.575	3.15	.394	.827	1.61	M10 P1.25	2.4
HSK-T63-BSL16-100				3.94			2.36		2.9
HSK-T63-BSL20-80❖	2	20mm	1.969	3.15	.472	.787	1.61		3.1
HSK-T63-BSL20-100				3.94			2.36		3.5
HSK-T63-BSL25-85❖		25mm	2.165	3.35	.551	.906	1.85	M12 P1.5	3.3
HSK-T63-BSL25-110				4.33			2.64		4.0
HSK-T63-BSL32-90❖		32mm	2.520	3.54	.630	1.024	1.93		4.2
HSK-T63-BSL32-125				4.92			2.91		5.7
HSK-T63-BSL40-105❖		40mm	3.150	4.13	.709	1.260	2.40	M16 P1.5	6.4
HSK-T63-BSL40-145				5.71			3.58		8.8
HSK-T63-BSL50-145		50mm	3.543	5.71		1.181	3.46	M16 P1.5	10.1
HSK-T100-BSL16-105	1	16mm	1.575	4.13	.394	.827	2.36	M10 P1.25	6.0
HSK-T100-BSL20-110		20mm	1.969	4.33	.472	.787			7.1
HSK-T100-BSL25-120		25mm	2.165	4.72	.551	.906	2.64	M12 P1.5	7.7
HSK-T100-BSL32-125		32mm	2.520	4.92	.630	1.024	2.91		8.8
HSK-T100-BSL40-135		40mm	3.150	5.32	.709	1.260	3.54	M16 P1.5	11.5
HSK-T100-BSL50-145	2	50mm	3.543	5.71		1.339	3.78	M16 P1.5	13.4

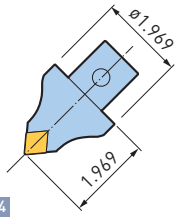
- Plug A and Plug B are included
- Interchangeable between center-through and side-through coolant supply by using plugs
- BSL sleeve cannot be used with models marked ❖

ACCESSORIES

REDUCTION SLEEVE
PG. 371

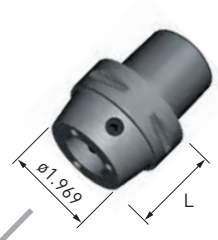
45º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)



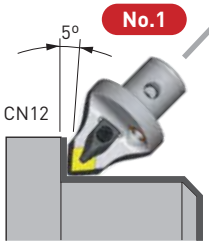
S TYPE PG. 350 BASIC HOLDER

Catalog Number	L
C5-S50-40	1.57
C5-S50-55	2.17
C5-S50-75	2.95
C6-S50-45	1.77
C6-S50-75	2.95
C6-S50-100	3.64
C8-S50-135	5.31



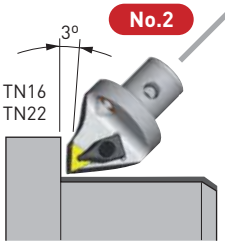
S TYPE CARTRIDGE PG. 364

No.1



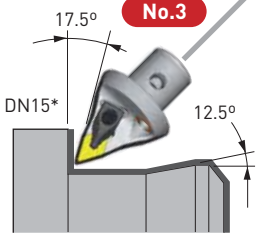
S50-DCLNN-00050-12
- Cartridge mono-block holders are also available

No.2



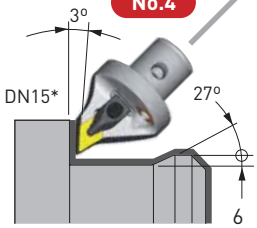
S50-DTJNR-00050-16
-DTJNL-00050-16
S50-DTJNR-00050-22
-DTJNL-00050-22

No.3



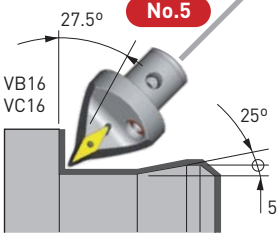
S50-DDHNN-00050-15
- Cartridge mono-block holders are also available

No.4



S50-DDJNR-00050-15
-DDJNL-00050-15

No.5



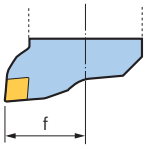
S50-SVQBN-00050-16
- Cartridge mono-block holders are also available

90º

*When using a DN1506 insert (thickness: 6.35mm), replace the standard carbide shim with the DNS1506 (optional)

F TYPE PG. 365 CARTRIDGE

Catalog Number	f
F50	1.38
F63	1.77



F TYPE PG. 350 BASIC HOLDER

Catalog Number	L
C5-F50-25	.98
C5-F50-50	1.97
C5-F50-85	3.35
C5-F50-125	4.92

F TYPE PG. 350 BASIC HOLDER

Catalog Number	L
C6-F63-30	1.18
C6-F63-75	2.95
C6-F63-100	3.94
C6-F63-130	5.12
C6-F63-170	6.69
C8-F63-45	1.77
C8-F63-100	3.94
C8-F63-130	5.12
C8-F63-170	6.69

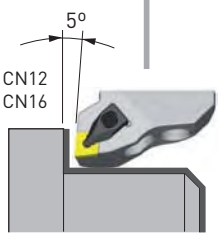
S TYPE PG. 350 BASIC HOLDER

S TYPE PG. 364 CARTRIDGE

No.1
No.3
No.5
No.8

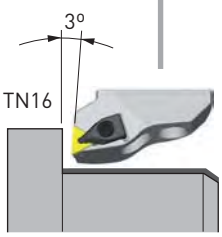
F TYPE CARTRIDGE PG. 365

No.10



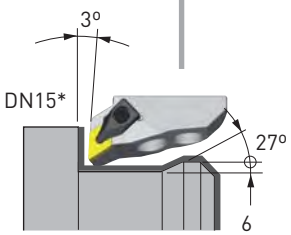
F50-DCLNR-35035-12(16)
-DCLNL-35035-12(16)
F63-DCLNR-45035-12(16)
-DCLNL-45035-12(16)

No.12



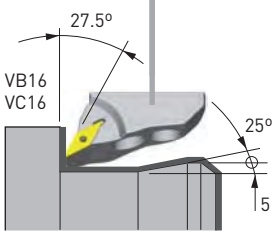
F50-DTJNR-35035-16
-DTJNL-35035-16
F63-DTJNR-45035-16
-DTJNL-45035-16

No.13



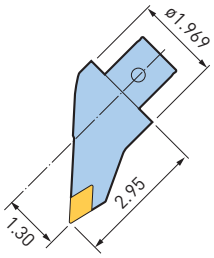
F50-DDJNR-35035-15
-DDJNL-35035-15
F63-DDJNR-45035-15
-DDJNL-45035-15

No.15



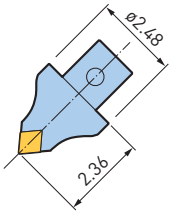
F63-SVQBR-45035-16
-SVQBL-45035-16

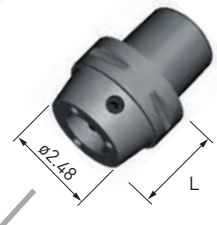
MONO BLOCK HOLDER
PG. 352



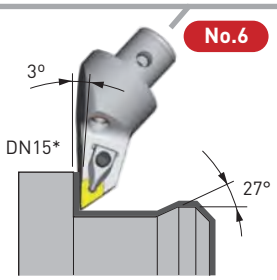
S TYPE PG. 350
BASIC HOLDER

Catalog Number	L
C6-S63-90	3.34
C8-S63-125	4.92



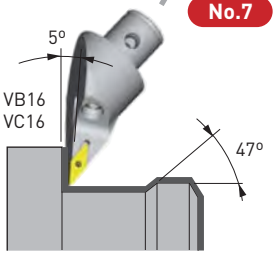


No.6



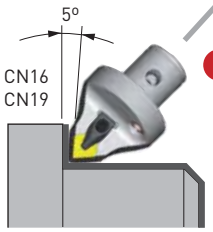
S50-DDJNR-33075-15
-DDJNL-33075-15

No.7



S50-SVLBR-33075-16
-SVLBL-33075-16

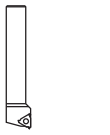
No.8

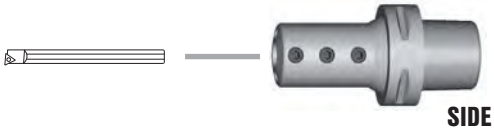


S63-DCLNN-00060-16
-DCLNN-00060-19

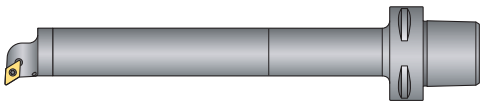
- Cartridge mono-block holders are also available

SQUARE TOOL HOLDERS PG. 354



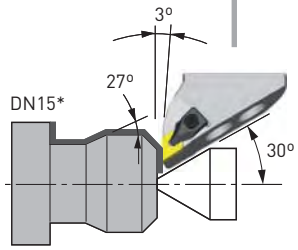


SIDE LOCK HOLDER PG. 359
For Boring Bar



TURNING ADAPTERS PG. 351

No.18

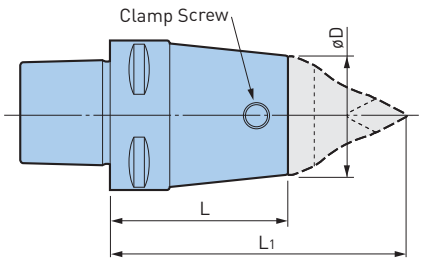


F50-DDJNR-35050-15
-DDJNL-35050-15
F63-DDJNR-45055-15
-DDJNL-45055-15

BASIC HOLDER (BIG CAPTO 45° S TYPE)

45° S Type Modular Tooling System for Turning Applications

COOLANT THROUGH



Catalog Number	øD	L	L1	Clamp Screw
C5-S50-40	1.969	1.575	3.54	CK5S
C5-S50-55		2.165	4.13	
C5-S50-75		2.953	4.92	
C6-S50-45	1.969	1.772	3.74	CK5S
C6-S50-75		2.953	4.92	
C6-S50-100		3.937	5.91	
C6-S63-90	2.480	3.543	5.91	CK6S
C8-S50-135	1.969	5.315	7.28	CK5S
C8-S63-125	2.480	4.921	7.28	CK6S

- Clamping screw is included

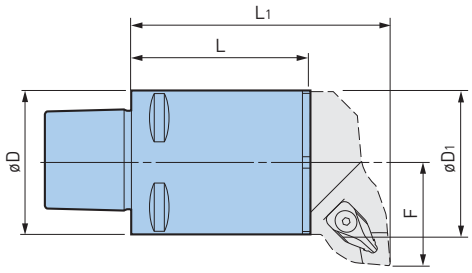
ACCESSORIES

CARTRIDGES PG. 364

(BIG CAPTO 90° F TYPE)

90° F Type Modular Tooling System for Turning Applications

COOLANT THROUGH



Catalog Number	øD	øD1	L	L1	F
C5-F50-25	1.969	1.969	.984	2.36	1.378
C5-F50-50			1.969	3.35	
C5-F50-85			3.345	4.72	
C5-F50-125			4.921	6.30	
C6-F63-30	2.480	2.480	1.181	2.56	1.772
C6-F63-75			2.953	4.33	
C6-F63-100			3.937	5.31	
C6-F63-130			5.118	6.50	
C6-F63-170			6.693	8.07	
C8-F63-45	3.150	2.480	1.772	3.15	1.772
C8-F63-100			3.937	5.31	
C8-F63-130			5.118	6.50	
C8-F63-170			6.693	8.07	

- Wrench must be ordered separately
- Basic Holders include M10 P22L and M10 P25L screws for clamping cartridges
- In case the coolant supply only from 1 of 2 coolant nozzles is required, use the flat head screw (M5 P102)

ACCESSORIES

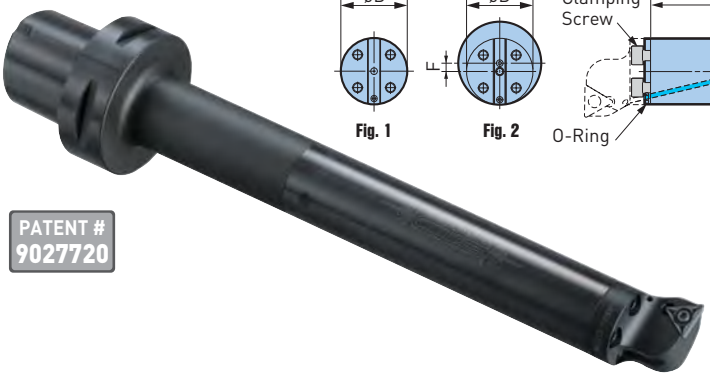
CARTRIDGES PG. 365

SMART DAMPER TURNING ADAPTERS (BIG CAPTO)

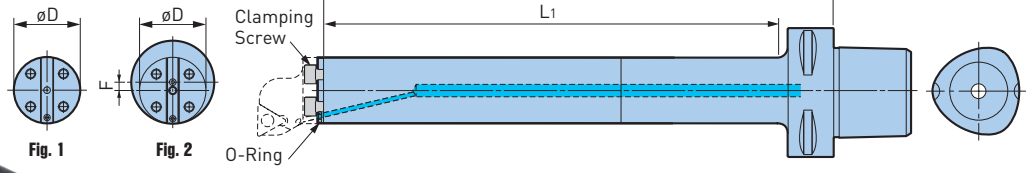
NEW Sizes

COOLANT THROUGH

Unique Dynamic Damper Eliminates Chatter



PATENT # 9027720



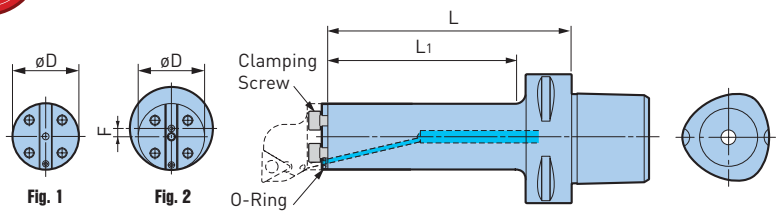
WSDM® smart damper

ANTI-VIBRATION

Catalog Number	Fig.	Cartridge	øD	L	L1	Min Bore Diameter	Weight (lbs.)
C6-SDB40DP-168	1	B32-☐	1.26	6.61	5.71	1.57	4.4
C6-SDB40DP-245		B32-☐		9.65	8.58		5.5
C6-SDB50DP-230	1	B40-☐	1.57	9.06	7.99	1.97	7.5
C6-SDB50DP-310		B40-☐		12.20	11.14		9.3
C6-SDB60DP-268 ●	2	B40-☐	1.97	10.55	9.49	2.36	12.6
C6-SDB60DP-368 ●		B40-☐		14.49	13.43		15.9
C8-SDB40DP-255 ●	1	B32-☐	1.26	10.04	8.66	1.57	7.5
C8-SDB50DP-320 ●	1	B40-☐	1.57	12.60	11.22	1.97	11.2
C8-SDB60DP-400 ●	2	B40-☐	1.97	15.75	14.37	2.36	18.7

TURNING ADAPTERS (BIG CAPTO)

NEW Sizes



Catalog Number	Fig.	Cartridge	øD	L	L1	Min Bore Diameter	Weight (lbs.)
C6-TAD40-120	1	B32-☐	1.26	4.72	3.66	1.57	3.1
C6-TAD50-150	1	B40-☐	1.57	5.91	4.84	1.97	4.4
C6-TAD60-190 ●	2	B40-☐	1.97	7.48	6.42	2.36	7.1
C8-TAD40-130 ●	1	B32-☐	1.26	5.12	3.74	1.57	5.1
C8-TAD50-160 ●	1	B40-☐	1.57	6.30	4.92	1.97	6.4
C8-TAD60-200 ●	2	B40-☐	1.97	7.87	6.50	2.36	9.3

ACCESSORIES

CARTRIDGES PG. 366
SPARE PARTS PG. 368

- Clamping screws (3 pcs.) and O-rings (2 pcs.) are included
- Cartridges, inserts and coolant pipe must be ordered separately
- Coolant through is standard for all models

INTEGRAL MODEL (BIG CAPTO)

COOLANT THROUGH

CN1204
CN1606

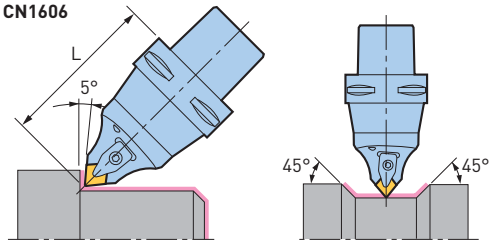


Fig. 1 *Neutral*

DN1504
DN1506

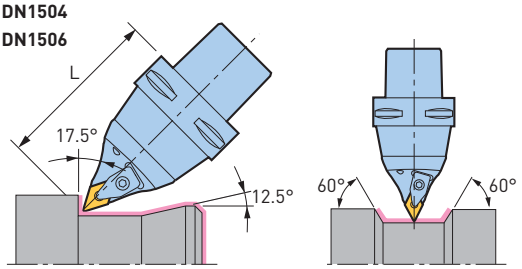


Fig. 2 *Neutral*

VB1604
VC1604

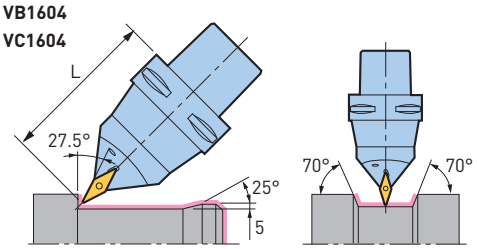
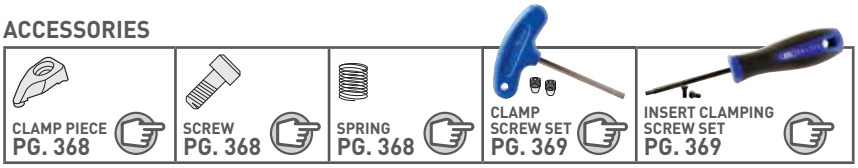


Fig. 3 *Neutral*

Catalog Number	Entering Angle	Hand	Fig.	L	Insert	Clamp Piece	Weight (lbs.)
C4-DDHNN-00075-15	107.5°	N	2	2.953	*DN1504 (DN1506) Rhombic 55°	CP2	1.2
C5-DCLNN-00105-12	95°	N	1	4.134	CN1204 Rhombic 80°	CP2	2.9
C5-DCLNN-00105-16					CN1606 Rhombic 80°	CP3	3.1
C5-DDHNN-00105-15	107.5°		2		*DN1504 (DN1506) Rhombic 55°	CP2	2.9
C5-SVQBN-00105-16	117.5°		3		**VB1604 (VC1604) Rhombic 35°	***M3.5	2.4
C6-DCLNN-00115-12	95°	N	1	4.528	CN1204 Rhombic 80°	CP2	4.2
C6-DCLNN-00115-16					CN1606 Rhombic 80°	CP3	4.4
C6-DDHNN-00115-15	107.5°		2		*DN1504 (DN1506) Rhombic 55°	CP2	4.2
C6-SVQBN-00115-16	117.5°		3		**VB1604 (VC1604) Rhombic 35°	***M3.5	3.7
C8-DCLNN-00150-12	95°	N	1	5.906	CN1204 Rhombic 80°	CP2	8.8
C8-DCLNN-00150-16					CN1606 Rhombic 80°	CP3	9.0
C8-DDHNN-00150-15	107.5°		2		*DN1504 (DN1506) Rhombic 55°	CP2	8.8

***DN1504 (3/16" thickness) carbide shim is included as standard, in case of DN1506 insert (1/4" thickness), please replace the standard carbide shim with DNS1506 (option)**
****Either VB1604 or VC1604 insert can be mounted**
*****M3.5 is screw-on type**
- Insert must be ordered separately
- Accepts standard ISO inserts

ACCESSORIES



INTEGRAL MODEL (BIG CAPTO)

COOLANT THROUGH

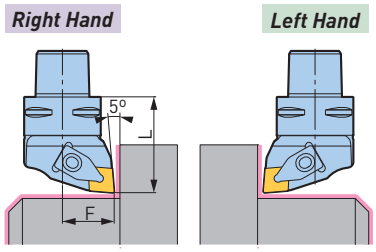


Fig. 1

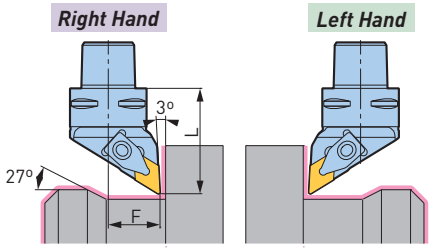


Fig. 2

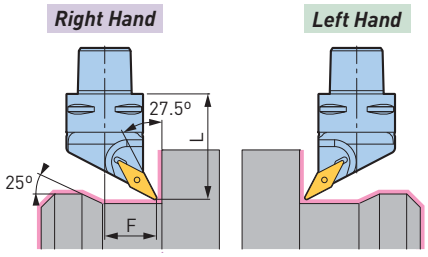
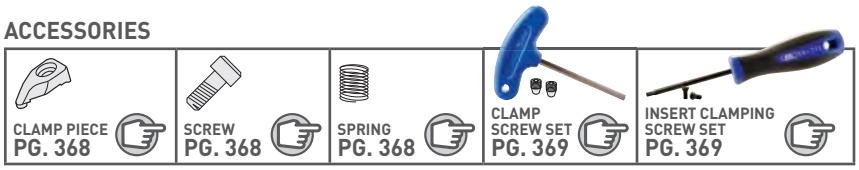


Fig. 3

Catalog Number	Entering Angle	Hand	Fig.	L	F	Insert	Clamp Piece	Weight (lbs.)
C3-DCLNR-22038-09	95°	R	1	1.50	.866	CN0903	CP7	.4
C3-DCLNL-22038-09		L						
C3-DDJNR-22045-11	93°	R	2	1.77	.866	DN1104	CP7	.4
C3-DDJNL-22045-11		L						
C3-SVQBR-22038-11	117.5°	R	3	1.50	.866	VB1103	M2.5	.4
C3-SVQBL-22038-11		L						
C4-DCLNR-27050-12	95°	R	1	1.97	1.063	CN1204	CP2	1.0
C4-DCLNL-27050-12		L						
C4-DDJNR-27055-15	93°	R	2	2.17	1.063	DN1504	CP2	.9
C4-DDJNL-27055-15		L						
C4-SVQBR-27055-16	117.5°	R	3	2.17	1.063	VB1604	M3.5	.9
C4-SVQBL-27055-16		L						

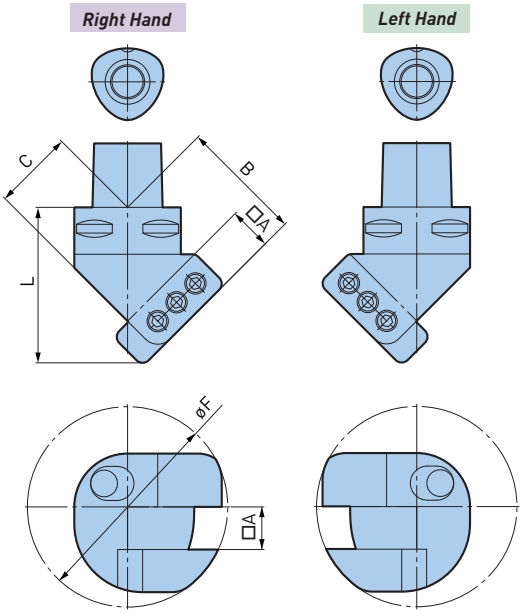
ACCESSORIES



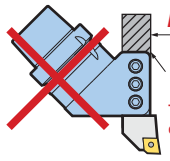
SQUARE HOLDER (BIG CAPTO 45° TYPE)

For Turning Applications

COOLANT THROUGH



Catalog Number	Hand	□A	B	C	L	øF	Weight (lbs.)
C5-45-BH20R-5838	R	20mm	2.28	1.50	2.87	3.70	2.6
C5-45-BH20L-5838	L						
C6-45-BH1.000R-3.25	R	1.000	2.80	1.81	4.33	4.65	5.5
C6-45-BH1.000L-3.25	L						
C6-45-BH25R-7752	R	25mm	3.03	2.05	3.94	4.65	5.5
C6-45-BH25L-7752	L						
C8-45-BH32R-85109	R	32mm	3.35	4.29	5.71	5.31	17.0
C8-45-BH32L-85109	L						



Projection Prohibited

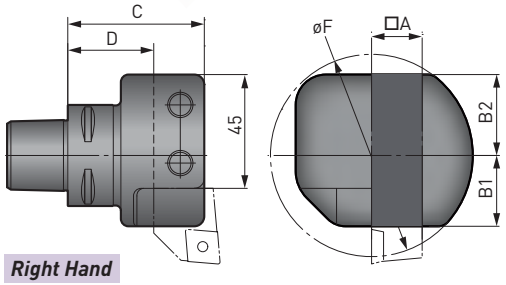
Holder End A

The excess length of a turning tool must be cut off to avoid interference with the an ATC arm

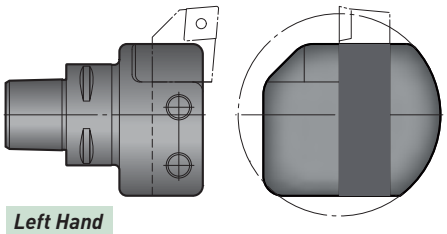
SQUARE HOLDER (BIG CAPTO 90° TYPE)

For Turning Applications

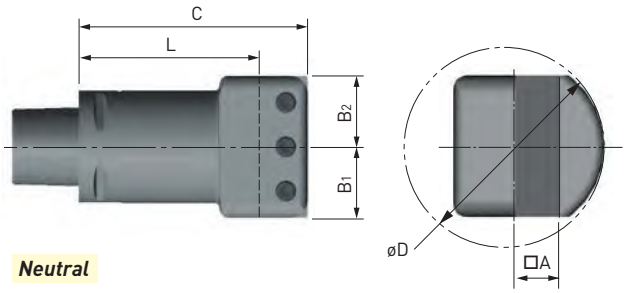
COOLANT THROUGH



Right Hand



Left Hand



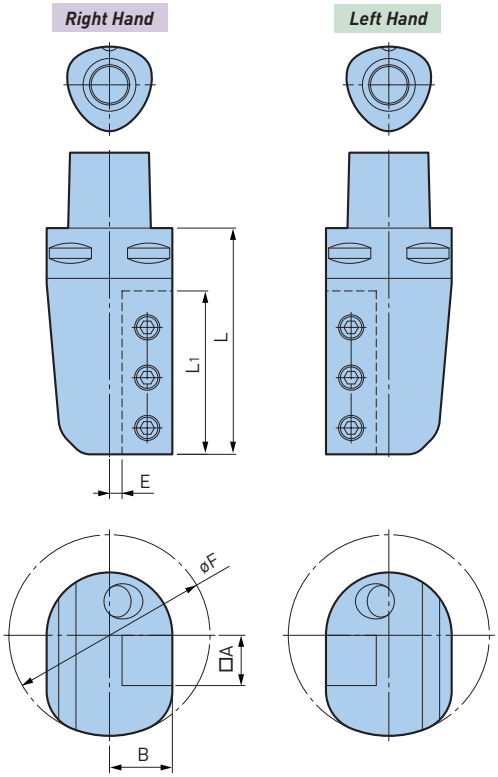
Neutral

Catalog Number	Hand	□A	B1	B2	C	L	øD	Weight (lbs.)
C3-90-BH16R-2547	R	16mm	1.06	.98	1.85	1.22	2.76	1.3
C3-90-BH16L-2547	L							
C4-90-BH20R-2854	R	20mm	1.26	1.10	2.13	1.34	315	2.1
C4-90-BH20L-2854	L							
C5-90-BH20N-32058	N	20mm	1.26	1.26	2.28	1.50	3.15	2.0
C5-90-BH20N-32105					4.13	2.56		4.9
C6-90-BH20N-32060	N	20mm	1.26	1.26	2.36	1.57	3.15	5.3
C6-90-BH20N-32115					4.53	3.74		7.5
C6-90-BH1.000N-5.125	N	1.000	1.58	1.58	5.12	4.12	3.94	9.3
C6-90-BH25N-40071		25mm	1.57	1.57	2.80	1.81	3.94	7.3
C6-90-BH25N-40130	N				5.12	4.13		9.3
C8-90-BH25N-40071	N	32mm	.98	1.58	2.80	1.81	3.94	7.5
C8-90-BH32N-51085			2.01	2.01	2.56	2.09	5.04	13.2
C8-90-BH32N-51165					6.50	5.24		19.2

SQUARE HOLDER (BIG CAPTO 180° TYPE)

For Turning Applications

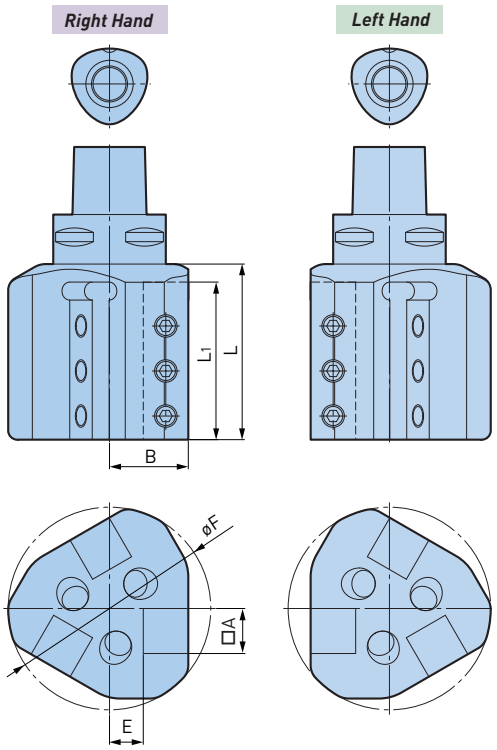
COOLANT THROUGH



Catalog Number	Hand	□A	B	L	L1	E	øF	Weight (lbs.)
C3-180-BH16R-2058	R	16mm	.79	2.38	1.46	.16	2.56	1.3
C3-180-BH16L-2058	L							
C4-180-BH20R-2265	R	20mm	.87	2.56	1.57	.08	2.76	1.9
C4-180-BH20L-2265	L							
C5-180-BH20R-2590	R	20mm	.98	3.54	2.56	.20	3.15	3.5
C5-180-BH20L-2590	L							
C6-180-BH1.000R-4.375	R	1.000	1.16	4.33	3.15	.24	3.94	6.8
C6-180-BH1.000L-4.375	L							
C6-180-BH20R-32100	R	20mm	1.24	3.94	2.56	.45	3.15	5.7
C6-180-BH20L-32100	L							
C6-180-BH25R-32120S	R	25mm	1.16	4.72	3.15	.18	3.54	6.8
C6-180-BH25L-32120S	L							
C8-180-BH25R-32120	R	25mm	1.50	4.72	3.23	.51	3.94	11.5
C8-180-BH25L-32120	L							
C8-180-BH32R-40125	R	32mm	1.57	4.92	3.35	.24	5.04	13.2
C8-180-BH32L-40125	L							

SQUARE HOLDER (BIG CAPTO 180° MULTI TYPE)

For Turning Applications



Catalog Number	Hand	□A	B	L	L1	E	øF	Weight (lbs.)
C5-180-3BH20R-100	R	20mm	1.38	3.94	2.76	.59	3.54	5.7
C5-180-3BH20L-100	L							
C6-180-3BH20R-110	R	20mm	1.38	4.33	2.76	.59	3.54	7.1
C6-180-3BH20L-110	L							
C6-180-3BH25R-125	R	25mm	1.77	4.91	3.15	.79	4.33	10.1
C6-180-3BH25L-125	L							
C8-180-3BH25R-130	R	25mm	1.77	5.12	3.54	.79	4.33	13.4
C8-180-3BH25L-130	L							

SQUARE HOLDER (BIG CAPTO SPIKE SCREW TYPE)

For Turning Applications

NEW Product

COOLANT THROUGH

C4S Extra Short Version

C4 ATC Version

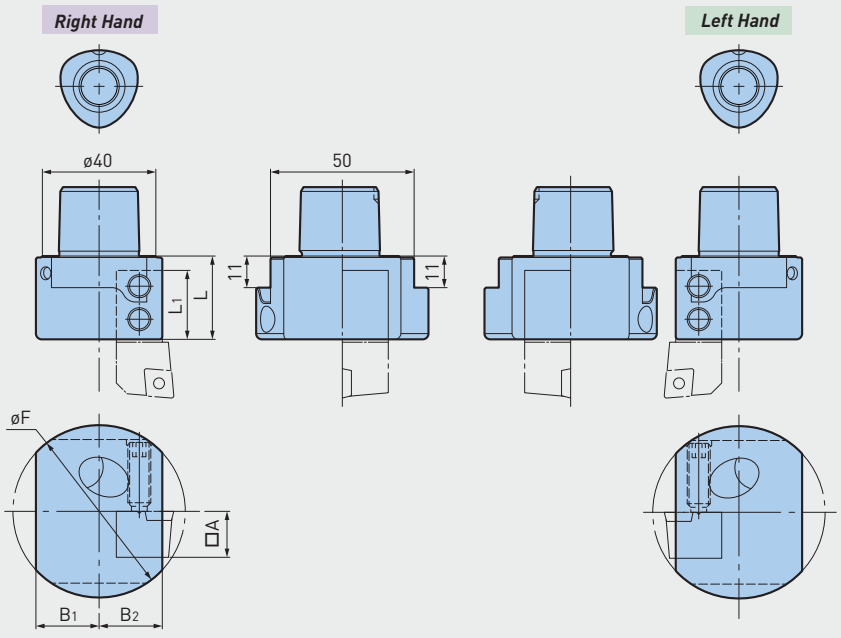


Fig. 1 Fig. 2

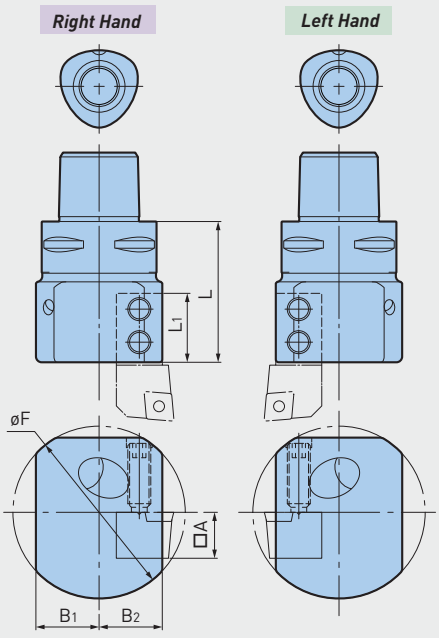


Fig. 3 Fig. 4

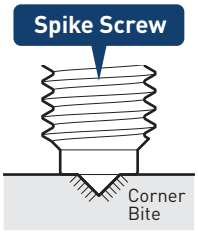
Catalog Number	Hand	Fig.	□A	B1	B2	L	L1	øF	Weight (lbs.)
C4S-180-BHS16L-2229	L	2	16mm	.87	.87	1.14	.94	2.36	1.1
C4S-180-BHS16R-2229	R	1							
C4-180-BHS16L-2249	L	4	16mm	.87	.87	1.93	.94	2.36	1.5
C4-180-BHS16R-2249	R	3							

- Screws are included in delivery
- Before use, cut the square tool to be attached so that it protrudes as little as possible from the holder
- C4S Models are not compatible with ATC

SPIKE SCREW

Catalog Number
BHS0824-2P

- 2 pcs. in a set



Spike Screw Type

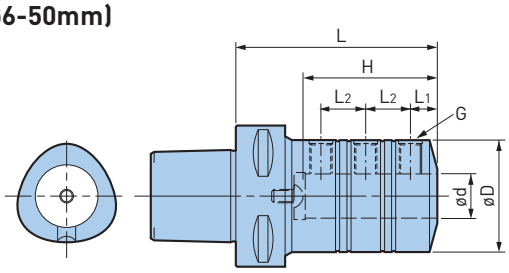
The spike (protruding part) at the tip of the screw bites into the square bit to prevent slippage.

Please prepare a square bit of □16 mm and cut it so that the holder protrudes as little as possible before use.

BIG DAISHOWA

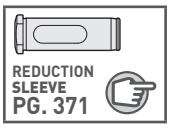
BORING BAR HOLDER (BIG CAPTO)

CLAMPING RANGE: ø.625"-1.500" (ø6-50mm)



COOLANT THROUGH

ACCESSORIES



Catalog Number	ød	øD	L	L1	L2	Bore Depth H	G	Weight (lbs.)
C3-BSL 6-35	6mm	.906	1.38	.19	.35	.87	M5 P0.8	.4
C3-BSL 8-35	8mm	.984		.24	.39		M6 P1.0	.4
C3-BSL10-35	10mm	1.142					M6 P1.0	.2
C3-BSL12-40	12mm	1.339	1.57	.31	.47	1.06	M8 P1.0	.6
C4-BSL 6- 40	6mm	.906	1.57	.19	.35	.91	M5 P0.8	.7
C4-BSL 8- 40	8mm	.984		.24	.39		M6 P1.0	.7
C4-BSL10- 40	10mm	1.142					M6 P1.0	.7
C4-BSL12- 45	12mm	1.339	1.77	.31	.47	1.10	M8 P1.0	.8
C4-BSL16- 50	16mm	1.575	1.97	.39	.55	1.30	M10 P1.25	1.1
C4-BSL20- 60	20mm	1.969	2.36	.47	.59	1.69	M10 P1.25	1.6
C5-BSL6-70	6mm	.906	2.76	.20	.31	1.61	M5xP0.8	1.3
C5-BSL8-70	8mm	.984		.24	.39		M6xP1.0	1.3
C5-BSL10-70	10mm	1.142		.31	.47	1.65	M8xP1.0	1.3
C5-BSL12-80	12mm	1.339	3.15	.31	.63	2.09		1.8
C5-BSL16-90	16mm	1.575	3.54	.39	.83	2.56	M10xP1.25	2.2
C5-BSL20-90	20mm	1.969		.47	.79	2.36		2.9
C5-BSL25-100	25mm	2.165	3.94	.55	.91	2.76	M12xP1.5	3.5
C5-BSL32-110	32mm	2.520	4.33	.63	1.02	3.07		4.6
C5-BSL40-130	40mm	3.150	5.12	.71	1.26	3.66	M16xP1.5	8.1
C6-BSL.625-3.5	.625	1.575	3.50	.39	.83	2.56	M10xP1.25	3.7
C6-BSL.750-3.5	.750	1.969		.47	.79	2.36		4.4
C6-BSL1.000-4	1.000	2.165	4.00	.55	.91	2.76	M12xP1.5	5.1
C6-BSL1.250-4.5	1.250	2.520	4.50	.63	1.02	3.07		6.2
C6-BSL1.500-5	1.500	3.150	5.00	.71	1.26	3.66	M16xP1.5	9.5
C6-BSL6-70	6mm	.906	2.76	.20	.31	1.61	M5xP0.8	3.1
C6-BSL8-70	8mm	.984		.24	.39		M6xP1.0	2.9
C6-BSL10-70	10mm	1.142		.31	.47	1.65	M8xP1.0	2.9
C6-BSL12-80	12mm	1.339	3.15		.63	2.09		3.3
C6-BSL16-90	16mm	1.575	3.54	.39	.83	2.56	M10xP1.25	3.7
C6-BSL20-90	20mm	1.969	3.94	.47	.87	2.36		4.4
C6-BSL25-100	25mm	2.165		.55	1.02	2.76	M12xP1.5	5.1
C6-BSL32-110	32mm	2.520	4.33	.63	1.18	3.07		6.2
C6-BSL40-130	40mm	3.150	5.12	.71	1.26	3.66	M16xP1.5	9.5
C6-BSL50-135	50mm	3.543	5.31	.71	1.18	3.46	M16 P1.5	9.9
C8-BSL16-90	16mm	1.575	3.54	.39	.83	2.56	M10xP1.25	6.4
C8-BSL20-100	20mm	1.969	3.94	.47	.87	2.76		7.3
C8-BSL25-110	25mm	2.165	4.33	.55	1.02	3.15	M12xP1.5	7.9
C8-BSL32-120	32mm	2.520	4.72	.63	1.18	3.46		9.0
C8-BSL40-130	40mm	3.150	5.12	.71	1.26	3.66	M16xP1.5	12.1
C8-BSL50-140	50mm	3.543	5.51	.71	1.42	4.13	M16 P1.5	11.9

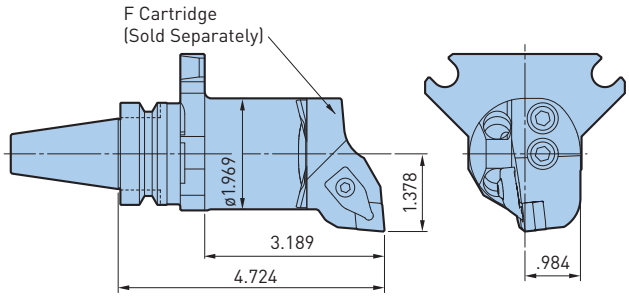
- Plug A and Plug B are included
- Interchangeable between center-through and side-through coolant supply by using plugs

TOOLING EXCLUSIVELY FOR THE BROTHER SPEEDIO
(M200XD1/M200X3/M300XD1)

BASIC HOLDER (90° F TYPE)

For external turning

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Weight (lbs.)
BBT30/BR-F50-85	4.0

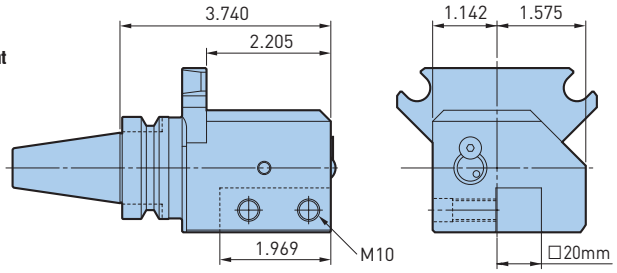
- A variety of cartridges available according to the application

SQUARE TOOL HOLDER

For external turning

COOLANT THROUGH

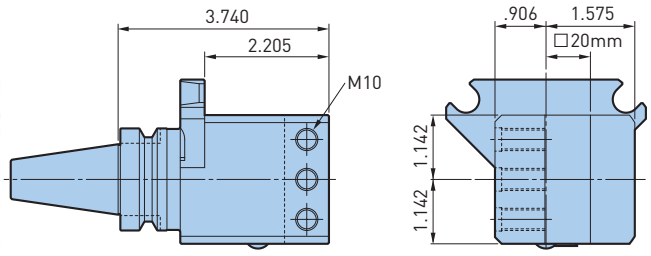
(180° TYPE)



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Weight (lbs.)
BBT30/BR-180-BH20L-95	4.9

(90° TYPE)



Catalog Number	Weight (lbs.)
BBT30/BR-90-BH20N-95	5.1

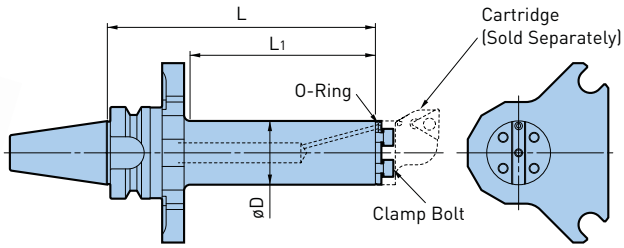
ACCESSORIES

CARTRIDGES PG. 365
SPARE PARTS PG. 368

TURNING ADAPTER

For internal turning

COOLANT THROUGH



Catalog Number	Cartridge	øD	Minimum Bore Diameter	L	L1	Weight (lbs.)
BBT30/BR-TAD40XR-135	B32-□	1.26	1.57	5.31	3.66	2.9
BBT30/BR-TAD50XR-168	B40-□	1.57	1.97	6.61	4.96	4.4

- Clamp bolts (3 pieces) and O-rings (2 pieces) are included
- Cartridges and inserts are not included; must be ordered separately
- Coolant through is standard for all models

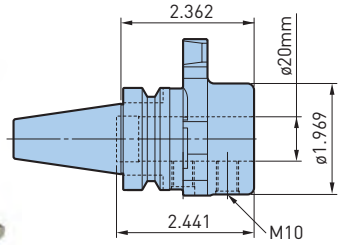
ACCESSORIES

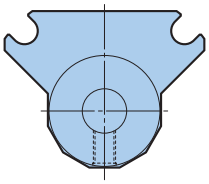
CARTRIDGES PG. 365
SPARE PARTS PG. 368

SIDE LOCK HOLDER FOR BORING BAR

For internal turning

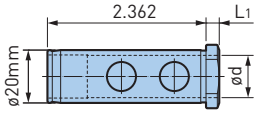
COOLANT THROUGH





Catalog Number	Weight (lbs.)
BBT30/BR-SL20-60	2.2

BSLA SLEEVE



Catalog Number	ød	L1
BSLA20-6	6mm	.20
BSLA20-8	8mm	.28
BSLA20-10	10mm	.20
BSLA20-12	12mm	.20
BSLA20-16	16mm	.20

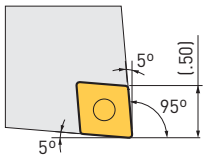
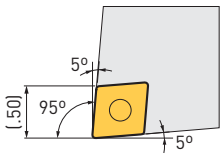
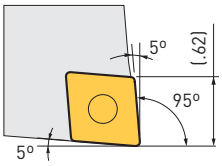
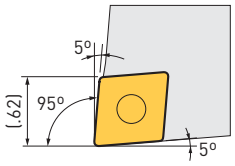
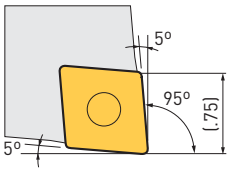
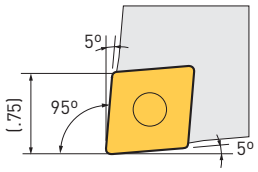
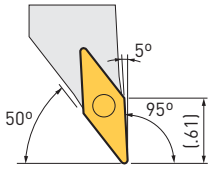
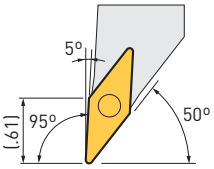
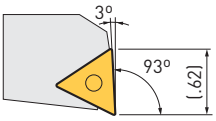
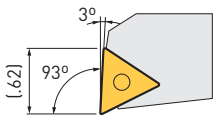
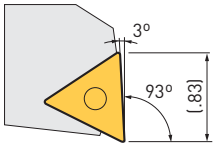
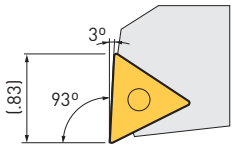
PULL STUD

Center Through

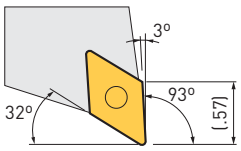
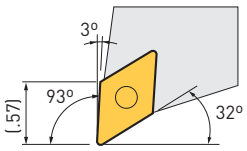
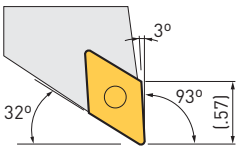
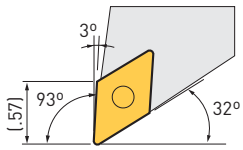
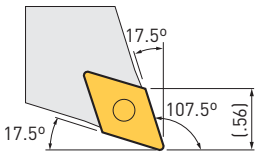
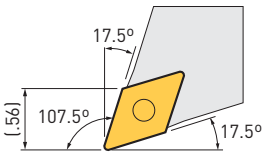
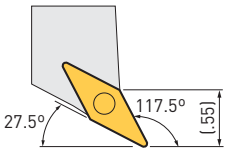
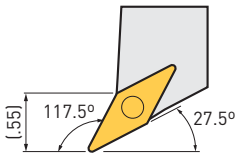
Catalog Number
P30T-2MG

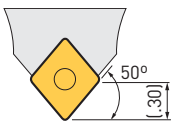
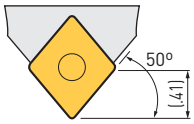
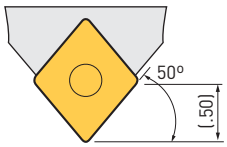
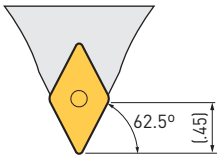
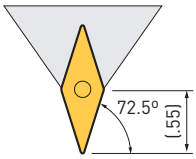
Catalog Number
P30T-2MGH3

SELECTION GUIDE

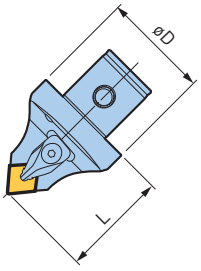
Entering Angle	Insert	Cartridge		Right hand	Left hand
		S Type	F Type		
95°	CN1204	No.1	No.10-1		
	CN1606	No.8-1	No.10-2		
	CN1906	No.8-2			
	VB1604 VC1604	No.7			
93°	TN1604	No.2-1	No.12		
	TN2204	No.2-2			

SELECTION GUIDE

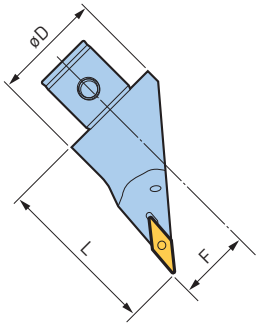
Entering Angle	Insert	Cartridge		Right hand	Left hand
		S Type	F Type		
93º	DN1504 (DN1506)	No.4	No.13		
	DN1504 (DN1506)	No.6	No.18		
107.5º	DN1504 (DN1506)	No.3			
117.5º	VB1604 VC1604	No.5	No.15		

Neutral				
CN12	CN16	CN19	DN1504 (DN1506)	VB1604 / VC1604
No.1	No.8-1	No.8-2	No.3	No.5
				

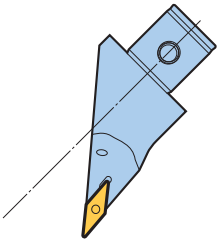
CARTRIDGES (45º TYPE S)



Neutral



Right Hand



Left Hand

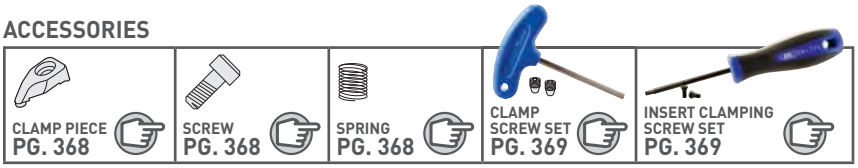
Lead Angle	Type	Catalog Number	Hand	Insert	L	F	øD	Clamp Piece
5º	S50	**S50-DCLNN-00050-12**	N	CN1204 Rhombic 80º	1.97	0	1.97	CP2
	S63	**S63-DCLNN-00060-16**		CN1606 Rhombic 80º	2.36		2.48	CP3
		S63-DCLNN-00060-19		CN1906 Rhombic 80º				CP5
3º	S50	**S50-DTJNR-00050-16**	R	TN1604 Triangle 60º	1.97	0	1.97	CP1
		S50-DTJNL-00050-16	L					
		S50-DTJNR-00050-22	R	TN2204 Triangle 60º				CP2
		S50-DTJNL-00050-22	L					
3º	S50	**S50-DDJNR-00050-15**	R	* DN1504 DN1506 Rhombic 55º	1.97	0	1.97	CP2
		S50-DDJNL-00050-15	L					
		S50-DDJNR-33075-15	R		2.95	1.30		
		S50-DDJNL-33075-15	L					
17.5º	S50	**S50-DDHNN-00050-15**	N		1.97	0		
5º	S50	**S50-SVLBR-33075-16**	R	VB1604 VC1604 Rhombic 35º	2.95	1.30	1.97	** M3.5
		S50-SVLBL-33075-16	L					
27.5º	S50	**S50-SVQBN-00050-16**	N		1.97	0		

***DN1504 (3/16" thickness) carbide shim is included as standard, in case of DN1506 insert (1/4" thickness), please replace the standard carbide shim with DNS1506 (option)**

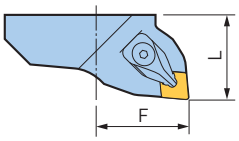
****M3.5 is screw-on type**

- Wrench and insert must be ordered separately
- Accepts standard ISO inserts

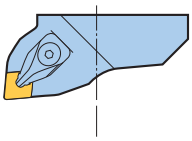
ACCESSORIES



CARTRIDGES (90° TYPE F)



Right Hand



Left Hand

Lead Angle	Type	Catalog Number	Hand	Insert	L	F	Clamp Piece
5°	F50	**F50-DCLNR-35035-12**	R	CN1204 Rhombic 80°	1.38	1.38	CP2
	F50	**F50-DCLNL-35035-12**	L			1.38	
	F63	**F63-DCLNR-45035-12**	R			1.77	
	F63	**F63-DCLNL-45035-12**	L			1.77	
	F50	**F50-DCLNR-35035-16**	R	CN1606 Rhombic 80°	1.38	1.38	CP3
	F50	**F50-DCLNL-35035-16**	L			1.38	
	F63	**F63-DCLNR-45035-16**	R			1.77	
	F63	**F63-DCLNL-45035-16**	L			1.77	
3°	F50	**F50-DTJNR-35035-16**	R	TN1604 Triangle 60°	1.38	1.38	CP1
	F50	**F50-DTJNL-35035-16**	L			1.38	
	F63	**F63-DTJNR-45035-16**	R			1.77	
	F63	**F63-DTJNL-45035-16**	L			1.77	
3°	F50	**F50-DDJNR-35035-15**	R	* DN1504 DN1506 Rhombic 55°	1.38	1.38	CP2
	F50	**F50-DDJNL-35035-15**	L			1.38	
	F63	**F63-DDJNR-45035-15**	R			1.77	
	F63	**F63-DDJNL-45035-15**	L			1.77	
	F50	**F50-DDJNR-35050-15**	R		1.97	1.38	CP2
	F50	**F50-DDJNL-35050-15**	L		1.97	1.38	
	F63	**F63-DDJNR-45055-15**	R		2.17	1.77	
	F63	**F63-DDJNL-45055-15**	L		2.17	1.77	
27.5°	F63	**F63-SVQBR-45035-16**	R	VB1604 VC1604 Rhombic 35°	1.38	1.77	** M3.5
	F63	**F63-SVQBL-45035-16**	L			1.77	

***DN1504 (3/16" thickness) carbide shim is included as standard, in case of DN1506 insert (1/4" thickness), please replace the standard carbide shim with DNS1506 (option)**

****M3.5 is screw-on type**

- Wrench and insert must be ordered separately,
- Accepts standard ISO inserts

ACCESSORIES


CLAMP PIECE PG. 368

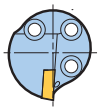

SCREW PG. 368

SPRING PG. 368


INSERT CLAMPING SCREW SET PG. 369

CARTRIDGE (TURNING ADAPTERS)

Screw-On Type (For Positive Insert)



Right Hand

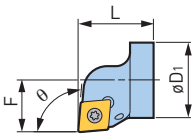


Fig. 1

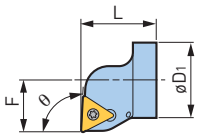


Fig. 2

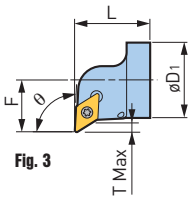


Fig. 3

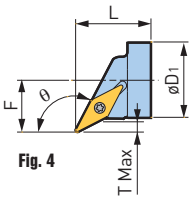


Fig. 4

Catalog Number	Fig.	Insert	Hand	øD1	F	L	T Max	θ	Screw Set	Weight (lbs.)
B32-SCLCR-22032-12	1	CC1204	R	1.26	.87	1.26	—	95°	S5S-20IP	.2
B32-STUCR-22032-11	2	TC1102						93°	S2.5S-7IP	
B32-STUPR-22032-16		TP1604							S4S-15IP	
B32-SDUCR-22032-11	3	DC11T3					.16			
B32-SVUBR-22032-16	4	VB1604					.20		S3.5S-15IP	
B32-SVPBR-22032A-16								117.5°		
B40-SCLCR-27032-12	1	CC1204	R	1.57	1.06	1.57	—	95°	S5S-20IP	.4
B40-STUCR-27032-11	2	TC1102						93°	S2.5S-7IP	
B40-STUPR-27032-16		TP1604							S4S-15IP	
B40-SDUCR-27032-11	3	DC11T3					.16			
B40-SVUBR-27032-16	4	VB1604					.24		S3.5S-15IP	
B40-SVPBR-27032A-16							.20	117.5°		

- Wrenches and screws are included
- Inserts must be ordered separately
- Insert clamp screw set (sold separately) contains 1 wrench and 10 screws

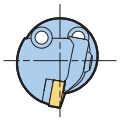
INSERT CLAMPING SET

Catalog Number	Clamping Screw	Wrench
S2.5S-7IP	M2.5x6.5	FS-7IP
S3.5S-15IP	M3.5x8	FS-15IP
S4S-15IP	M4x8	FS-15IP
S5S-20IP	M5x12	FS-20IP

- Set contains 1 wrench and 10 screws
- Wrench can be purchased individually from set

CARTRIDGE (TURNING ADAPTERS)

Double Clamp Type (For Negative Insert)



Right Hand

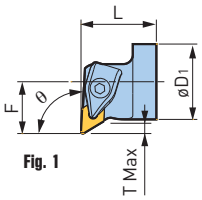


Fig. 1

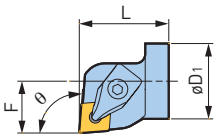


Fig. 2

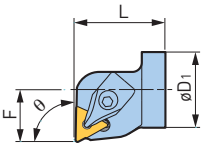


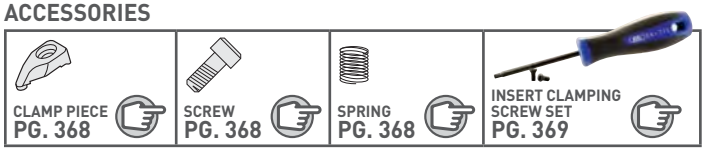
Fig. 3

Catalog Number	Fig.	Insert	Hand	øD1	F	L	T Max	θ	Clamp Piece	Carbide Shim	Weight (lbs.)
B32-DDUNR-22032-11	1	DN1104	R	1.26	.87	1.26	.16	93°	CP7	DNS1104C	.2
B32-DCLNR-22038-12	2	CN1204				1.50	—	95°	CP2	CNS1204C	
B32-DTFNR-22038-16	3	TN1604						91°	CP1	TNS1604C	
B40-DDUNR-27032-15	1	DN1506 (DN1504)	R	1.57	1.06	1.26	.24	93°	CP2	DNS1506C (DNS1504C)	.4
B40-DCLNR-27038-12	2	CN1204				1.50	—	95°	CP2	CNS1204C	
B40-DTFNR-27038-16	3	TN1604						91°	CP1	TNS1604C	

*** Carbide shim for DN1506 (thickness 6.35mm) is included; when using DN1504 (thickness 4.76mm) inserts, replace with carbide shim DNS1504C (sold separately)**

- Wrenches and screws for the carbide seat are included
- Wrench for tightening the clamp piece and inserts (standard ISO) must be ordered separately

ACCESSORIES



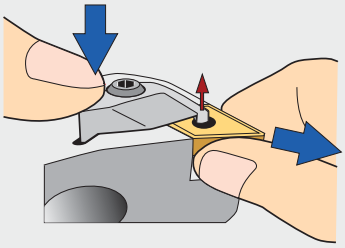
Double Clamp To Secure The Insert

Easy Attachment and Detachment of Insert

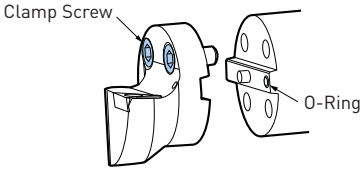
The double clamp pushes the insert downward. At the same time, a draw force is applied to the insert restraint surface. Secure insert clamping is achieved.

The built-in spring makes it easy to attach and detach the insert.

Loosen the clamp bolt one turn and lightly press the bridge with your finger, the tip of the bridge will pop up.

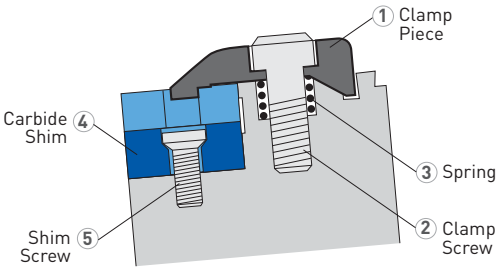


CLAMP SCREW O-RING



Body Model	Clamp Screw (1 pc.)	SW	O-Ring (2 pcs.)
SDB40DP / TAD40	**C0510**	4mm	**SDB200R-2P**
SDB50DP / TAD50	**C0610**	5mm	
SDB60DP / TAD60			

CLAMP SET



Catalog Number	1 Clamp Piece	2 Screw	3 Spring	Insert
SCP1	CP1	M5x20	ø8x10	TN1604
SCP2	CP2			CN1204, TN2204, DN1504, DN1506
SCP2S❖			ø6.8x11.5	DN1504, DN1506
SCP3	CP3		ø8x10	CN1606
SCP5	CP5			CN1906
SCP7	CP7			DN1104, CN0903, CN0904

- Clamp piece, screw and spring are included; wrench must be ordered separately (Model: CK-T4)
- Set model SCP2S marked ❖ is exclusively for C4-DDHNN-00075-15

CARBIDE SHIM SET

Catalog Number	4 Carbide Shim	5 Screw	Torx Size	Insert
STNS1604	TNS1604	M3x7	T10	TN1604
STNS1604C	TNS1604C	M3x7	10IP	TN1604
STNS2204	TNS2204	M4x8	T15	TN2204
SDNS1104C	DNS1104C	M3x7	10IP	DN1104
SDNS1504	DNS1504	M4x8	T15	DN1504
SDNS1504C	DNS1504C	M4x8	15IP	DN1504
SDNS1506	DNS1506	M4x8	T15	DN1506
SDNS1506C	DNS1506C	M4x8	15IP	DN1506
SCNS0903C	CNS0903C	M3x7	10IP	CN0903
SCNS0904C	CNS0904C	M3x7	10IP	CN0904
SCNS1204	CNS1204	M4x8	T15	CN1204
SCNS1204C	CNS1204C	M4x8	15IP	CN1204
SCNS1606	CNS1606	M5x12	T20	CN1606
SCNS1906	CNS1906	M5x12	T20	CN1906

- Carbide shim and screw are included; wrench must be ordered separately (Model: DA-T10, DA-T15, DA-T20)

CLAMP SCREW SET

For Type S Basic Holder

Catalog Number	Type	Screw Size	Wrench Model
CK5S	S50	M10 P1.0	CK-T5
CK6S	S63	M12 P1.0	CK-T6

Contents

Screws: 2 pcs.

Wrench: 1 pc.

INSERT CLAMPING SCREW SET

For VB1604/VC1604 Inserts

Catalog Number
S3508DS

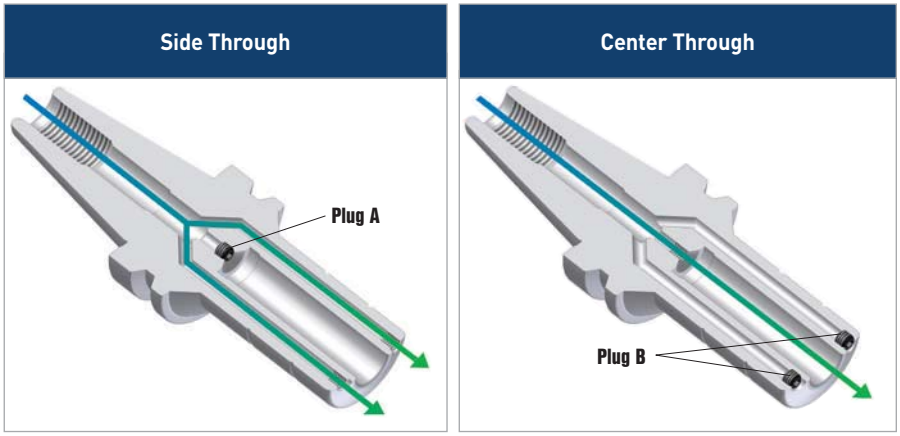
Contents

M3.5 screws: 10 pcs.

Wrench **DA-T15:** 1 pc.

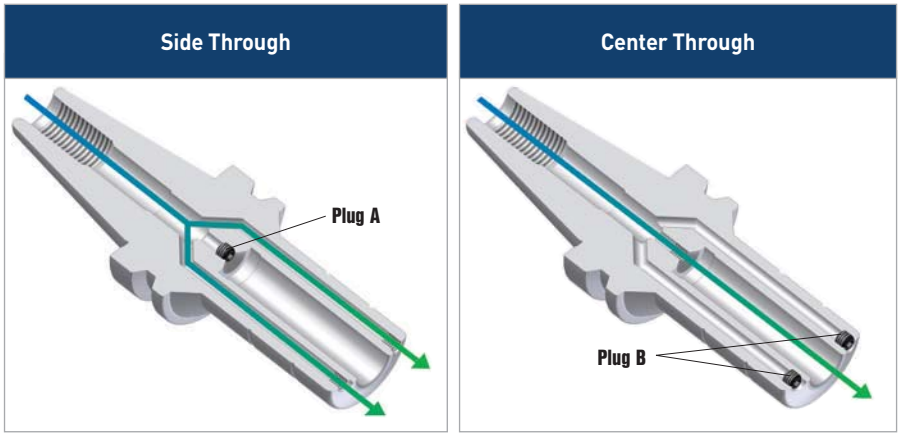
BSL SPARE PARTS

FOR BCV



Catalog Number	Plug A	Plug B
BSL.625	M6xP1.0	M6xP1.0
BSL.750		
BSL1.000		
BSL1.250		
BSL1.500		
BSL2.000		

FOR BBT

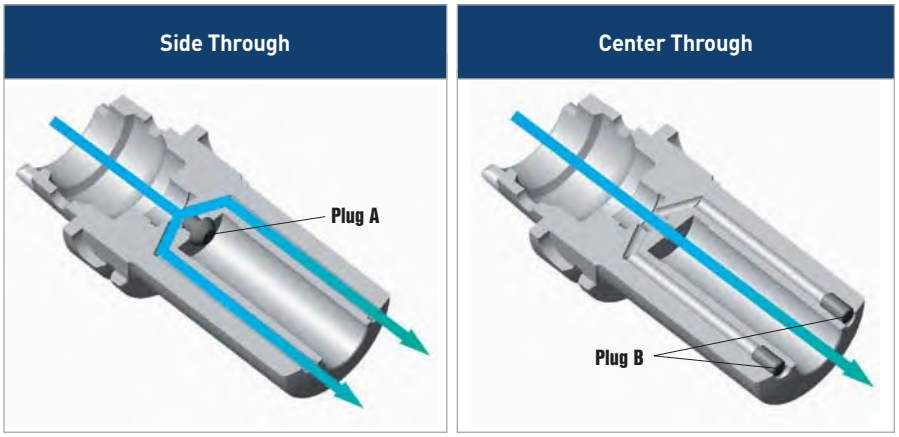


Catalog Number	Plug A	Plug B
BSL8	M6x5L	M4x4L
BSL10		M5x5L
BSL16		M6x5L
BSL20		
BSL25	M8x8L	
BSL32		
BSL40	M10x10L	
BSL50		

- Plug A and Plug B are included

Right or Left Hand Adjustment is Possible

FOR HSK-T

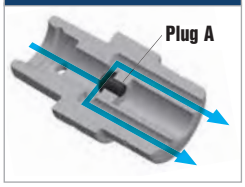
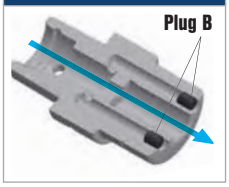


Catalog Number	Plug A	Plug B
BSL6	M5 P0.8	M4xP0.7
BSL8	M6 P1.0	
BSL10		M5xP0.8
BSL12		M6xP1.0
BSL16	M6 P1.0❖	
BSL20		
BSL25	T63:M6 P1.0❖, T100:M8 P1.25❖	
BSL32	M8 P1.25❖	
BSL40		

- Plug A and Plug B are included
- Botton-head bolt with models marked ❖

Right or Left Hand Adjustment is Possible

FOR BIG CAPTO

Side Through	Center Through
	
Plug A	Plug B

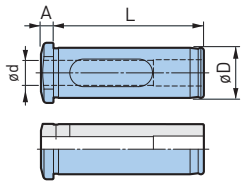
- Plug A and Plug B are included
- Botton-head bolt with models marked ❖

Catalog Number	Plug A	Plug B
BSL.625	M18xP1.5	M6xP1.0
BSL.750	M6xP1.0❖	
BSL1.000		
BSL1.250	M8xP1.25❖	
BSL1.500		
BSL6	M8xP1.25	M4xP0.7
BSL8	M10xP1.0	M4xP0.7

Catalog Number	Plug A	Plug B
BSL10	M12xP1.5	M5xP0.8
BSL12	M14xP1.5	M6xP1.0
BSL16	M18xP1.5 (C5: M6xP1.0❖)	
BSL20	M6xP1.0❖	
BSL25		
BSL32	M8xP1.25❖	
BSL40		

REDUCTION SLEEVE

FOR BSL SIDE LOCK HOLDER (BCV)



Catalog Number	ød	øD	L	A
BSL1.500-.375	.375	1.500	3.40	.27
BSL1.500-.500	.500			
BSL1.500-.625	.625			
BSL1.500-.750	.750			
BSL1.500-1.000	1.000			
BSL1.500-1.250	1.250			
BSL2.000-.625	.625	2.000	4.00	.33
BSL2.000-.750	.750			
BSL2.000-1.000	1.000			
BSL2.000-1.250	1.250			
BSL2.000-1.500	1.500			
BSL2.000-1.750	1.750			

FOR BSL SIDE LOCK HOLDER (BBT, HSK-T, BIG CAPTO)

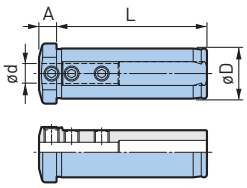


Fig. 1

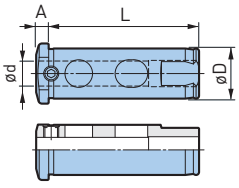


Fig. 2

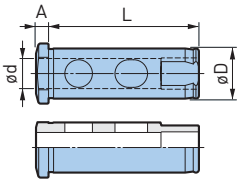


Fig. 3

Catalog Number	Fig.	ød	øD	L	A
BSLA20-6	1	6mm	20mm	2.36	.20
BSLA20-8		8mm			.28
BSLA20-10	2	10mm			.20
BSLA20-12	3	12mm			
BSLA20-16		16mm			
BSLA32-10	1	10mm	32mm	2.95	.35
BSLA32-12		12mm			
BSLA32-16	2	16mm			.24
BSLA32-20	3	20mm			
BSLA32-25		25mm			
BSLA40-16	1	16mm	40mm	1.57	.24
BSLA40-20	3	20mm			
BSLA40-25		25mm			
BSLA40-32		32mm			

TOOL HOLDER ACCESSORIES

A.8

MEGA MICRO CHUCK

MICRO COLLET
MICRO COLLET SET
MEGA MICRO COOLANT NUT
MEGA MICRO NUT
PG. 374

MEGA MICRO SEAL NUT
α TAPER CLEANER
PG. 376

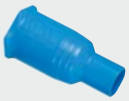
MEGA WRENCH
MEGA TORQUE WRENCH
PG. 410

MEGA NEW BABY CHUCK

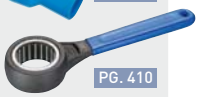
NBC NEW BABY COLLET
COLLET SET/COLLET CASE
NEW BABY ENDMILL COLLET
FONBC COOLANT COLLET
MEGA NEW BABY NUT
PG. 378

MEGA PERFECT SEAL
PG. 388

ADJUSTING SCREW
PG. 433



COLLET EJECTOR
COLLET REMOVER
α TAPER CLEANER
PG. 393



MEGA WRENCH
MEGA TORQUE WRENCH
PG. 410

MEGA ER GRIP

ERC COLLET
ERC END MILL COLLET
MEGA ER NUT
MEGA ER SOLID NUT
ER NUT
PG. 394

MEGA ER
PERFECT SEAL
PG. 398

ADJUSTING SCREW
PG. 433

MEGA WRENCH
PG. 410

MEGA E CHUCK

MEGA E COLLET
MEGA E NUT
α TAPER CLEANER
ADJUSTING SCREW
PG. 400

MEGA E
PERFECT SEAL
PG. 401

MEGA WRENCH
MEGA TORQUE WRENCH
PG. 410

MEGA DOUBLE POWER CHUCK

PJC STRAIGHT COLLET
PSC STRAIGHT COLLET
PG. 404

AXIAL ADJUSTING SCREW

MEGA WRENCH
PG. 410

NEW Hi-POWER MILLING CHUCK

PJC STRAIGHT COLLET
PSC STRAIGHT COLLET
PG. 404

C STRAIGHT COLLET
OCA STRAIGHT COLLET
COLLET STOPPER
PG. 407

WRENCH
PG. 409

HYDRAULIC CHUCK

PJC STRAIGHT COLLET
PSC STRAIGHT COLLET
PG. 404

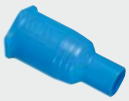
GRIP BAR FOR CONFIRMING
GRIPPING FORCE
PG. 415

NEW BABY CHUCK

NBC NEW BABY COLLET
COLLET SET/COLLET CASE
PG. 378

BABY PERFECT SEAL
NEW BABY NUT
PG. 390

ADJUSTING SCREW
PG. 433



COLLET EJECTOR
COLLET REMOVER
α TAPER CLEANER
PG. 393

NEW BABY WRENCH
TORQUE WRENCH
PG. 392

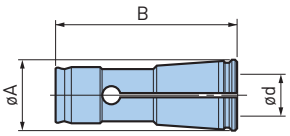
MEGA SYNCHRO TAPPING HOLDERS

TAP HOLDERS
PG. 416

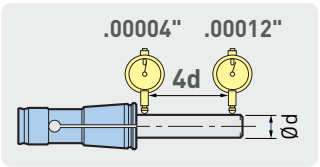
MEGA MICRO COLLET

HIGH PRECISION

Available in .004" (.1mm) diameter increments to suit all cutting tool shank sizes with maximum accuracy. Despite their compact size, high clamping force and accuracy are achieved.



Guaranteed Max Runout



All BIG Collets are AA Grade and inspected twice for accuracy

MEGA 3S

Catalog Number	Clamping Range ød	Min Clamping Length
NBC3S-0.5AA	.018-.022	.26
NBC3S-0.6AA	.022-.026	
NBC3S-0.7AA	.026-.030	
NBC3S-0.8AA	.030-.033	.28
NBC3S-0.9AA	.033-.037	
NBC3S-1AA	.037-.041	.35
NBC3S-1.1AA	.041-.045	
NBC3S-1.2AA	.045-.049	
NBC3S-1.3AA	.049-.053	
NBC3S-1.4AA	.053-.057	
NBC3S-1.5AA	.057-.061	
NBC3S-1.6AA	.061-.065	
NBC3S-1.7AA	.065-.069	
NBC3S-1.8AA	.069-.073	
NBC3S-1.9AA	.073-.077	
NBC3S-2AA	.077-.081	.39
NBC3S-2.1AA	.081-.085	
NBC3S-2.2AA	.085-.089	
NBC3S-2.3AA	.089-.093	
NBC3S-2.4AA	.093-.096	
NBC3S-2.5AA	.096-.100	
NBC3S-2.6AA	.100-.104	
NBC3S-2.7AA	.104-.108	
NBC3S-2.8AA	.108-.112	
NBC3S-2.9AA	.112-.116	
NBC3S-3AA	.116-.120	.43
NBC3S-3.1AA	.120-.124	
NBC3S-3.175AA	.123-.127	
NBC3S-3.2AA	.124-.128	

øA=.24 (6.06mm) B=.75 (18.8mm)

MEGA 4S

Catalog Number	Clamping Range ød	Min Clamping Length
NBC4S-0.5AA	.018-.022	.26
NBC4S-0.6AA	.022-.026	
NBC4S-0.7AA	.026-.030	
NBC4S-0.8AA	.030-.033	.28
NBC4S-0.9AA	.033-.037	
NBC4S-1AA	.037-.041	.35
NBC4S-1.1AA	.041-.045	
NBC4S-1.2AA	.045-.049	
NBC4S-1.3AA	.049-.053	
NBC4S-1.4AA	.053-.057	
NBC4S-1.5AA	.057-.061	
NBC4S-1.6AA	.061-.065	
NBC4S-1.7AA	.065-.069	
NBC4S-1.8AA	.069-.073	
NBC4S-1.9AA	.073-.077	
NBC4S-2AA	.077-.081	.39
NBC4S-2.1AA	.081-.085	
NBC4S-2.2AA	.085-.089	
NBC4S-2.3AA	.089-.093	
NBC4S-2.4AA	.093-.096	
NBC4S-2.5AA	.096-.100	
NBC4S-2.6AA	.100-.104	
NBC4S-2.7AA	.104-.108	
NBC4S-2.8AA	.108-.112	
NBC4S-2.9AA	.112-.116	

Catalog Number	Clamping Range ød	Min Clamping Length
NBC4S-3AA	.116-.120	0.43
NBC4S-3.1AA	.120-.124	
NBC4S-3.175AA	.123-.127	
NBC4S-3.2AA	.124-.128	
NBC4S-3.3AA	.128-.132	
NBC4S-3.4AA	.132-.136	
NBC4S-3.5AA	.136-.140	
NBC4S-3.6AA	.140-.144	
NBC4S-3.7AA	.144-.148	
NBC4S-3.8AA	.148-.152	
NBC4S-3.9AA	.152-.156	
NBC4S-4AA	.156-.159	

øA=.29 (7.4mm) B=.89 (22.5mm)

MEGA 6S

Catalog Number	Clamping Range ød	Min Clamping Length
NBC6S-0.5AA	.018-.022	.26
NBC6S-0.6AA	.022-.026	
NBC6S-0.7AA	.026-.030	
NBC6S-0.8AA	.030-.033	.28
NBC6S-0.9AA	.033-.037	
NBC6S-1AA	.037-.041	.35
NBC6S-1.1AA	.041-.045	
NBC6S-1.2AA	.045-.049	
NBC6S-1.3AA	.049-.053	
NBC6S-1.4AA	.053-.057	
NBC6S-1.5AA	.057-.061	
NBC6S-1.6AA	.061-.065	
NBC6S-1.7AA	.065-.069	
NBC6S-1.8AA	.069-.073	
NBC6S-1.9AA	.073-.077	
NBC6S-2AA	.077-.081	.39
NBC6S-2.1AA	.081-.085	
NBC6S-2.2AA	.085-.089	
NBC6S-2.3AA	.089-.093	
NBC6S-2.4AA	.093-.096	
NBC6S-2.5AA	.096-.100	
NBC6S-2.6AA	.100-.104	
NBC6S-2.7AA	.104-.108	
NBC6S-2.8AA	.108-.112	
NBC6S-2.9AA	.112-.116	
NBC6S-3AA	.116-.120	.43
NBC6S-3.1AA	.120-.124	
NBC6S-3.175AA	.123-.127	
NBC6S-3.2AA	.124-.128	
NBC6S-3.3AA	.128-.132	
NBC6S-3.4AA	.132-.136	
NBC6S-3.5AA	.136-.140	
NBC6S-3.6AA	.140-.144	
NBC6S-3.7AA	.144-.148	
NBC6S-3.8AA	.148-.152	
NBC6S-3.9AA	.152-.156	
NBC6S-4AA	.156-.159	
NBC6S-4.1AA	.159-.163	.43
NBC6S-4.2AA	.163-.167	
NBC6S-4.3AA	.167-.171	
NBC6S-4.4AA	.171-.175	
NBC6S-4.5AA	.175-.179	
NBC6S-4.6AA	.179-.183	
NBC6S-4.7AA	.183-.187	
NBC6S-4.7625AA	.186-.189	
NBC6S-4.8AA	.187-.191	
NBC6S-4.9AA	.191-.195	

Catalog Number	Clamping Range ød	Min Clamping Length
NBC6S-5AA	.195-.199	.47
NBC6S-5.1AA	.199-.203	
NBC6S-5.2AA	.203-.207	
NBC6S-5.3AA	.207-.211	
NBC6S-5.4AA	.211-.215	
NBC6S-5.5AA	.215-.219	
NBC6S-5.6AA	.219-.222	
NBC6S-5.7AA	.222-.226	
NBC6S-5.8AA	.226-.230	
NBC6S-5.9AA	.230-.234	
NBC6S-6AA	.234-.238	

øA=.37 (9.4mm) B=.96 (24.5mm)

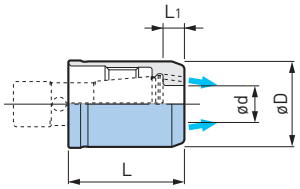
MEGA 8S

Catalog Number	Clamping Range ød	Min Clamping Length
NBC8S-3AA	.116-.120	.59
NBC8S-3.1AA	.120-.124	
NBC8S-3.175AA	.123-.127	
NBC8S-3.2AA	.124-.128	
NBC8S-3.3AA	.128-.132	
NBC8S-3.4AA	.132-.136	
NBC8S-3.5AA	.136-.140	
NBC8S-3.6AA	.140-.144	
NBC8S-3.7AA	.144-.148	
NBC8S-3.8AA	.148-.152	
NBC8S-3.9AA	.152-.156	
NBC8S-4AA	.156-.159	
NBC8S-4.1AA	.159-.163	
NBC8S-4.2AA	.163-.167	
NBC8S-4.3AA	.167-.171	
NBC8S-4.4AA	.171-.175	
NBC8S-4.5AA	.175-.179	
NBC8S-4.6AA	.179-.183	
NBC8S-4.7AA	.183-.187	
NBC8S-4.8AA	.187-.191	
NBC8S-4.9AA	.191-.195	
NBC8S-5AA	.195-.199	.63
NBC8S-5.1AA	.199-.203	
NBC8S-5.2AA	.203-.207	
NBC8S-5.3AA	.207-.211	
NBC8S-5.4AA	.211-.215	
NBC8S-5.5AA	.215-.219	
NBC8S-5.6AA	.219-.222	
NBC8S-5.7AA	.222-.226	
NBC8S-5.8AA	.226-.230	
NBC8S-5.9AA	.230-.234	
NBC8S-6AA	.234-.238	.67
NBC8S-6.1AA	.238-.242	
NBC8S-6.2AA	.242-.246	
NBC8S-6.3AA	.246-.250	
NBC8S-6.4AA	.250-.254	
NBC8S-6.5AA	.254-.258	
NBC8S-6.6AA	.258-.262	
NBC8S-6.7AA	.262-.266	
NBC8S-6.8AA	.266-.270	
NBC8S-6.9AA	.270-.274	
NBC8S-7AA	.274-.278	.71
NBC8S-7.1AA	.278-.281	
NBC8S-7.2AA	.281-.285	
NBC8S-7.3AA	.285-.289	
NBC8S-7.4AA	.289-.293	
NBC8S-7.5AA	.293-.297	
NBC8S-7.6AA	.297-.301	
NBC8S-7.7AA	.301-.305	
NBC8S-7.8AA	.305-.309	
NBC8S-7.9AA	.309-.313	
NBC8S-8AA	.313-.317	

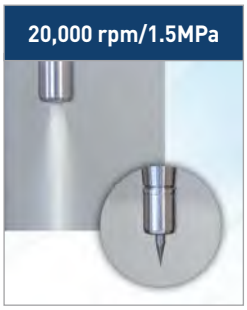
øA=.47 (12mm) B=1.06 (27mm)

MEGA MICRO COOLANT NUT (PAT. PENDING)

Provides efficient coolant supply for micro cutting tools. Ideal design for high-speed micro machining up to ø8mm.



Up to 35% Higher Tool Lifetime Compared to Standard Nut.



MEGA 3S

Catalog Number	ød	øD	L	L1
MGN3S-2J	2mm	.39 (10mm)	.59 (15mm)	.12 (3mm)
MGN3S-3J	3mm		.53 (13.5mm)	.06 (1.5mm)

MEGA4S

Catalog Number	ød	øD	L	L1
MGN4S-2J	2mm	.47 (12mm)	.65 (16.5mm)	.14 (3.5mm)
MGN4S-3J	3mm			
MGN4S-4J	4mm			

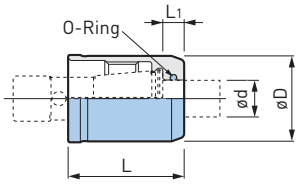
MEGA 6S

Catalog Number	ød	øD	L	L1
MGN6S-2J	2mm	.55 (14mm)	.75 (19mm)	.14 (3.5mm)
MGN6S-3J	3mm			
MGN6S-4J	4mm			
MGN6S-5J	5mm		.67 (17mm)	.06 (1.5mm)
MGN6S-6J	6mm			

MEGA 8S

Catalog Number	ød	øD	L	L1
MGN8S-3J	3mm	.71 (18mm)	.80 (20.2mm)	.14 (3.5mm)
MGN8S-4J	4mm			
MGN8S-5J	5mm			
MGN8S-6J	6mm			
MGN8S-8J	8mm		.73 (18.5mm)	.07 (1.8mm)

MEGA MICRO SEAL NUT



MEGA 6S

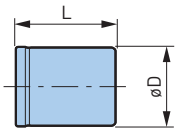
Catalog Number	ød	øD	L	L1	Replacement O-Ring
MGN6S-PS3	3mm	.55 (14mm)	.75 (19mm)	.14 (3.5mm)	PS3-OR
MGN6S-PS3.175	.125				
MGN6S-PS4	4mm				PS4-OR
MGN6S-PS5	5mm				PS5-OR
MGN6S-PS6	6mm				PS6-OR

MEGA 8S

Catalog Number	ød	øD	L	L1	Replacement O-Ring
MGN8S-PS3	3mm	.71 (18mm)	.80 (20.2mm)	.14 (3.5mm)	PS3-OR
MGN8S-PS4	4mm				PS4-OR
MGN8S-PS5	5mm				PS5-OR
MGN8S-PS6	6mm				PS6-OR
MGN8S-PS7	7mm				PS7-OR
MGN8S-PS8	8mm				PS8-OR

• Replacement o-ring sold in packages of 5 pcs.

MEGA MICRO NUT



Catalog Number	øD	L	Body Type
MGN3S	.39 (10mm)	.51 (13mm)	MEGA3S
MGN4S	.47 (12mm)	.57 (14.5mm)	MEGA4S
MGN6S	.55 (14mm)	.67 (17mm)	MEGA6S
MGN8S	.71 (18mm)	.73 (18.5mm)	MEGA8S

COLLET CASE (FOR MEGA MICRO CHUCK)

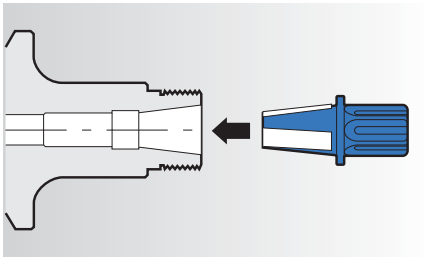
This durable case is designed specifically for MEGA MICRO CHUCK collets to help maintain precision and extend tool life. Ideal for clean storage, easy identification, and safe transport.

Catalog Number	Compatible Micro Collet	Number of Holes	Case Size (LxWxH)
NBB3S	NBC3S	50	7.8 x 6.7 x 1.97 (200mm x 170mm x 50mm)
NBB4S	NBC4S		
NBB6S	NBC6S	60	
NBB8S	NBC8S		

• Case size includes handle

α TAPER CLEANER (FOR MEGA MICRO CHUCK)

Removes particles and oil from the chuck bore taper.

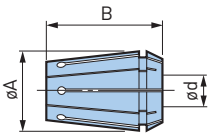


Catalog Number	Chuck Body
SC-NBC3S	MEGA3S
SC-NBC4S	MEGA4S
SC-NBC6S	MEGA6S
SC-NBC8S	MEGA8S

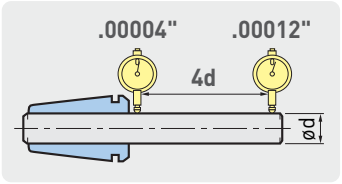
BIG DAISHOWA

NEW BABY COLLET

World-renowned for its unmatched accuracy and precision, it offers runout accuracy of .00004" (.001mm) T.I.R. at the collet nose.



Guaranteed Max Runout



1µm AT COLLET NOSE
3µm at end of test bar

All BIG Collets are AA Grade and inspected twice for accuracy

HIGH PRECISION

MEGA 6N/NBS6

Catalog Number	Clamping Range ød	Min Clamping Length
NBC6-0.5AA	.010-.020	.28
NBC6-0.75AA	.020-.030	
NBC6-1AA	.030-.039	.35
NBC6-1.25AA	.039-.049	
NBC6-1.5AA	.049-.059	
NBC6-1.75AA	.059-.069	
NBC6-2AA	.069-.079	.39
NBC6-2.25AA	.079-.089	
NBC6-2.5AA	.089-.098	
NBC6-2.75AA	.098-.108	
NBC6-3AA	.108-.118	.43
NBC6-3.175AA	.115-.125	
NBC6-3.25AA	.118-.128	
NBC6-3.5AA	.128-.138	
NBC6-3.75AA	.138-.148	
NBC6-4AA	.148-.157	
NBC6-4.25AA	.157-.167	
NBC6-4.5AA	.167-.177	
NBC6-4.75AA	.177-.187	
NBC6-5AA	.187-.197	.55
NBC6-5.25AA	.197-.207	
NBC6-5.5AA	.207-.217	
NBC6-5.75AA	.217-.226	
NBC6-6AA	.226-.236	

øA=.37 (9.5mm) B=.55 (14mm)

MEGA 8N/NBS8

Catalog Number	Clamping Range ød	Min Clamping Length
NBC8-0.75AA	.020-.030	.28
NBC8-1AA	.030-.039	.35
NBC8-1.25AA	.039-.049	
NBC8-1.5AA	.049-.059	
NBC8-1.75AA	.059-.069	
NBC8-2AA	.069-.079	.43
NBC8-2.25AA	.079-.089	
NBC8-2.5AA	.089-.098	
NBC8-2.75AA	.098-.108	
NBC8-3AA	.108-.118	.47
NBC8-3.175AA	.115-.125	
NBC8-3.5AA	.118-.138	
NBC8-4AA	.138-.157	.59
NBC8-4.5AA	.157-.177	
NBC8-5AA	.177-.197	
NBC8-5.25AA	.187-.207	
NBC8-5.5AA	.197-.217	
NBC8-5.75AA	.207-.226	
NBC8-6AA	.217-.236	
NBC8-6.5AA	.236-.256	.71
NBC8-7AA	.256-.276	
NBC8-7.5AA	.276-.295	
NBC8-8AA	.295-.315	

øA=.49 (12.5mm) B=.71 (18mm)

MEGA 10N/NBS10

Catalog Number	Clamping Range ød	Min Clamping Length
NBC10-1.75AA	.059-.069	.39
NBC10-2AA	.069-.079	
NBC10-2.25AA	.079-.089	
NBC10-2.5AA	.089-.098	.43
NBC10-2.75AA	.098-.108	
NBC10-3AA	.108-.118	.71
NBC10-3.175AA	.115-.125	
NBC10-3.25AA	.108-.128	
NBC10-3.5AA	.118-.138	
NBC10-3.75AA	.128-.147	
NBC10-4AA	.138-.157	.79
NBC10-4.5AA	.157-.177	
NBC10-5AA	.177-.197	.83
NBC10-5.25AA	.187-.207	
NBC10-5.5AA	.197-.217	
NBC10-5.75AA	.207-.226	
NBC10-6AA	.217-.236	.91
NBC10-6.5AA	.236-.256	
NBC10-7AA	.256-.276	
NBC10-7.5AA	.276-.295	
NBC10-8AA	.295-.315	
NBC10-8.5AA	.315-.335	1.06
NBC10-9AA	.335-.354	
NBC10-9.5AA	.354-.375	
NBC10-10AA	.376-.394	

øA=.65 (16.5mm) B=1.06 (27mm)

- Below collets not included in NEW BABY COLLET SETS; see pg. 382 for more information on collet sets

NBC8-3.175AA, 5.25AA, 5.75AA
NBC10-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC13-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC16-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC20-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA

Collapsibility is .010 (.25mm) for NBC6 and .020 (.5mm) for NBC8-NBC20. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA 13N/NBS13

Catalog Number	Clamping Range ød	Min Clamping Length
NBC13-3AA	.098-.118	.79
NBC13-3.25AA	.108-.128	
NBC13-3.175AA	.115-.125	
NBC13-3.5AA	.118-.138	
NBC13-3.75AA	.128-.147	
NBC13-4AA	.138-.157	.83
NBC13-4.25AA	.147-.167	
NBC13-4.5AA	.157-.177	
NBC13-4.75AA	.167-.187	
NBC13-5AA	.177-.197	.87
NBC13-5.25AA	.187-.207	
NBC13-5.5AA	.197-.217	
NBC13-5.75AA	.207-.226	
NBC13-6AA	.217-.236	.94
NBC13-6.5AA	.236-.256	
NBC13-7AA	.256-.276	
NBC13-7.5AA	.276-.295	
NBC13-8AA	.295-.315	
NBC13-8.5AA	.315-.335	
NBC13-9AA	.335-.354	
NBC13-9.5AA	.354-.375	
NBC13-10AA	.376-.394	1.22
NBC13-10.5AA	.394-.413	
NBC13-11AA	.413-.433	
NBC13-11.5AA	.433-.453	
NBC13-12AA	.453-.472	
NBC13-12.5AA	.472-.492	
NBC13-13AA	.492-.512	

øA=.81 (20.5mm) B=1.22 (31mm)

MEGA 16N/NBS16

Catalog Number	Clamping Range ød	Min Clamping Length
NBC16-3AA	.098-.118	.79
NBC16-3.25AA	.108-.128	
NBC16-3.5AA	.118-.138	
NBC16-3.75AA	.128-.147	
NBC16-4AA	.138-.157	.83
NBC16-4.25AA	.147-.167	
NBC16-4.5AA	.157-.177	
NBC16-4.75AA	.167-.187	
NBC16-5AA	.177-.197	.87
NBC16-5.25AA	.187-.207	
NBC16-5.5AA	.197-.217	
NBC16-5.75AA	.207-.226	
NBC16-6AA	.217-.236	.94
NBC16-6.5AA	.236-.256	
NBC16-7AA	.256-.276	
NBC16-7.5AA	.276-.295	
NBC16-8AA	.295-.315	1.02
NBC16-8.5AA	.315-.335	
NBC16-9AA	.335-.354	
NBC16-9.5AA	.354-.375	
NBC16-10AA	.376-.394	1.10
NBC16-10.5AA	.394-.413	
NBC16-11AA	.413-.433	
NBC16-11.5AA	.433-.453	
NBC16-12AA	.453-.472	1.18
NBC16-12.5AA	.472-.492	
NBC16-13AA	.492-.512	
NBC16-13.5AA	.512-.531	
NBC16-14AA	.531-.551	1.38
NBC16-14.5AA	.551-.571	
NBC16-15AA	.571-.591	
NBC16-15.5AA	.591-.610	
NBC16-16AA	.610-.630	

øA=1.00 (25.5mm) B=1.38 (35mm)

- Below collets not included in NEW BABY COLLET SETS; see pg. 382 for more information on collet sets

NBC8-3.175AA, 5.25AA, 5.75AA
NBC10-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC13-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC16-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC20-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA

Collapsibility is .010 (.25mm) for NBC6 and .020 (.5mm) for NBC8-NBC20. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA 20N/NBS20

Catalog Number	Clamping Range ød	Min Clamping Length
NBC20-3AA	.098-.118	.79
NBC20-3.25AA	.108-.128	
NBC20-3.5AA	.118-.138	
NBC20-3.75AA	.128-.147	
NBC20-4AA	.138-.157	.83
NBC20-4.25AA	.147-.167	
NBC20-4.5AA	.157-.177	
NBC20-4.75AA	.167-.187	
NBC20-5AA	.177-.197	.87
NBC20-5.25AA	.187-.207	
NBC20-5.5AA	.197-.217	
NBC20-5.75AA	.207-.226	
NBC20-6AA	.217-.236	.94
NBC20-6.5AA	.236-.256	
NBC20-7AA	.256-.276	
NBC20-7.5AA	.276-.295	
NBC20-8AA	.295-.315	1.02
NBC20-8.5AA	.315-.335	
NBC20-9AA	.335-.354	
NBC20-9.5AA	.354-.375	
NBC20-10AA	.376-.394	1.10
NBC20-10.5AA	.394-.413	
NBC20-11AA	.413-.433	
NBC20-11.5AA	.433-.453	
NBC20-12AA	.453-.472	1.18
NBC20-12.5AA	.472-.492	
NBC20-13AA	.492-.512	
NBC20-13.5AA	.512-.531	
NBC20-14AA	.531-.551	1.22
NBC20-14.5AA	.551-.571	
NBC20-15AA	.571-.591	
NBC20-15.5AA	.591-.610	
NBC20-16AA	.610-.630	1.50
NBC20-16.5AA	.630-.650	
NBC20-17AA	.650-.669	
NBC20-17.5AA	.669-.689	
NBC20-18AA	.689-.709	
NBC20-18.5AA	.709-.728	
NBC20-19AA	.728-.750	
NBC20-19.5AA	.751-.768	
NBC20-20AA	.768-.787	

øA=1.12 (28.5mm) B=1.50 (38mm)

MEGA 25N

Catalog Number	Clamping Range ød	Min Clamping Length
NBC25-16AA	.610-.630	1.57
NBC25-16.5AA	.630-.650	
NBC25-17AA	.650-.669	
NBC25-17.5AA	.669-.689	
NBC25-18AA	.689-.709	1.61
NBC25-18.5AA	.709-.728	
NBC25-19AA	.728-.748	
NBC25-19.5AA	.748-.768	
NBC25-20AA	.768-.787	
NBC25-20.5AA	.787-.807	
NBC25-21AA	.807-.827	1.65
NBC25-21.5AA	.827-.846	1.69
NBC25-22AA	.846-.866	
NBC25-22.5AA	.866-.886	
NBC25-23AA	.886-.906	
NBC25-23.5AA	.906-.925	
NBC25-24AA	.925-.945	
NBC25-24.5AA	.945-.964	2.05
NBC25-25AA	.964-.984	
NBC25-25.4AA	.980-1.000	

øA=1.40 (35.5mm) B=2.05 (52mm)

- Below collets not included in NEW BABY COLLET SETS; see pg. 382 for more information on collet sets

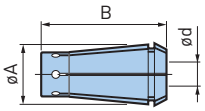
NBC8-3.175AA, 5.25AA, 5.75AA
NBC10-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC13-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC16-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
NBC20-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA

Collapsibility is .010 (.25mm) for NBC6 and .020 (.5mm) for NBC8-NBC20. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

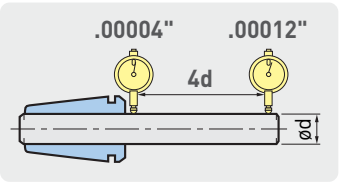
NEW BABY END MILL COLLET

HIGH PRECISION

The NEW BABY COLLET is world renowned for its unmatched accuracy and precision.
It offers runout accuracy of .00004" (.001mm) T.I.R. at the collet nose.



Guaranteed Max Runout



All BIG Collets are AA Grade and inspected twice for accuracy

MEGA 6N/NBS6

Catalog Number	Clamping Range ød	Min Clamping Length
NBC6-1/8EAA	.125	.47
NBC6-3/16EAA	.187	.55
NBC6-3EAA	3.0mm	.47
NBC6-4EAA	4.0mm	.51
NBC6-5EAA	5.0mm	.55
NBC6-6EAA	6.0mm	

øA=.36 (9.2mm) B=.67 (17mm)

MEGA 8N/NBS8

Catalog Number	Clamping Range ød	Min Clamping Length
NBC8-1/8EAA	.125	.47
NBC8-3/16EAA	.187	.55
NBC8-1/4EAA	.250	.63
NBC8-3EAA	3.0mm	.51
NBC8-4EAA	4.0mm	.55
NBC8-5EAA	5.0mm	.63
NBC8-6EAA	6.0mm	
NBC8-8EAA	8.0mm	.67

øA=.47 (12mm) B=.79 (20mm)

MEGA 10N/NBS10

Catalog Number	Clamping Range ød	Min Clamping Length
NBC10-1/8EAA	.125	.75
NBC10-3/16EAA	.187	.91
NBC10-1/4EAA	.250	.98
NBC10-3/8EAA	.375	1.10
NBC10-3EAA	3.0mm	.75
NBC10-4EAA	4.0mm	.83
NBC10-5EAA	5.0mm	.91
NBC10-6EAA	6.0mm	.98
NBC10-8EAA	8.0mm	1.02
NBC10-10EAA	10.0mm	1.10

øA=.63 (16mm) B= 1.26 (32mm)

MEGA 13N/NBS13

Catalog Number	Clamping Range ød	Min Clamping Length
NBC13-1/8EAA	.125	.75
NBC13-3/16EAA	.187	.91
NBC13-1/4EAA	.250	.98
NBC13-3/8EAA	.375	1.10
NBC13-1/2EAA	.500	1.30
NBC13-3EAA	3.0mm	.79
NBC13-4EAA	4.0mm	.87
NBC13-5EAA	5.0mm	.94
NBC13-6EAA	6.0mm	1.02
NBC13-8EAA	8.0mm	1.10
NBC13-10EAA	10.0mm	1.22
NBC13-12EAA	12.0mm	1.30

øA=.79 (20mm) B=1.50 (38mm)

MEGA 16N/NBS16

Catalog Number	Clamping Range ød	Min Clamping Length
NBC16-1/8EAA	.125	.75
NBC16-3/16EAA	.187	.91
NBC16-1/4EAA	.250	.98
NBC16-3/8EAA	.375	1.10
NBC16-1/2EAA	.500	1.30
NBC16-5/8EAA	.625	1.46
NBC16-3EAA	3.0mm	.79
NBC16-4EAA	4.0mm	.87
NBC16-5EAA	5.0mm	.94
NBC16-6EAA	6.0mm	1.02
NBC16-8EAA	8.0mm	1.10
NBC16-10EAA	10.0mm	1.22
NBC16-12EAA	12.0mm	1.30
NBC16-14EAA	14.0mm	1.42
NBC16-16EAA	16.0mm	1.46

øA=.98 (25mm) B=1.65 (42mm)

MEGA 20N/NBS20

Catalog Number	Clamping Range ød	Min Clamping Length
NBC20-1/8EAA	.125	.75
NBC20-3/16EAA	.187	.91
NBC20-1/4EAA	.250	.98
NBC20-3/8EAA	.375	1.10
NBC20-1/2EAA	.500	1.30
NBC20-5/8EAA	.625	1.46
NBC20-3/4EAA	.750	1.57
NBC20-3EAA	3.0mm	.79
NBC20-4EAA	4.0mm	.87
NBC20-5EAA	5.0mm	.94
NBC20-6EAA	6.0mm	1.02
NBC20-8EAA	8.0mm	1.10
NBC20-10EAA	10.0mm	1.22
NBC20-12EAA	12.0mm	1.30
NBC20-14EAA	14.0mm	1.42
NBC20-16EAA	16.0mm	1.46
NBC20-20EAA	20.0mm	1.57

øA=1.10 (28mm) B=1.77 (45mm)

This collet is not compatible with Profit Maker Tools.
The tolerance of the cutting tool shank must be within h7.

COLLET SET (FOR NEW BABY)

The NEW BABY COLLET SET includes all the collets needed to cover the full clamping range and is provided in a protective plastic case.

Catalog Number	Capacity	Number of Collet	Case Size (LxWxH)	Corresponding Chuck Model
SNBC6(AA)-22	.010-.236	22	7.87 x 6.69 x 1.97 (200 x 170 x 50)	MEGA6N / NBS6
SNBC8(AA)-20	.020-.315	20		MEGA8N / NBS8
SNBC10(AA)-20	.059-.394	20		MEGA10N / NBS10
SNBC13(AA)-21	.098-.512	21	9.65 x 8.27 x 2.36 (245 x 210 x 60)	MEGA13N / NBS13
SNBC16(AA)-27	.098-.630	27	10.83 x 9.05 x 2.56 (275 x 230 x 65)	MEGA16N / NBS16
SNBC20(AA)-35	.098-.787	35	12.20 x 10.24 x 2.95 (310 x 260 x 75)	MEGA20N / NBS20
SNBC25(AA)-19	.610-.984	19		MEGA25N

- Below collets not included in NEW BABY COLLET SETS
  NBC8-3.175AA, 5.25AA, 5.75AA
  NBC10-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
  NBC13-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
  NBC16-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
  NBC20-3.175AA, 3.25AA, 3.75AA, 4.25AA, 4.75AA, 5.25AA, 5.75AA
- Provided in an exclusive storage box

COLLET CASE (FOR NEW BABY)

Exclusive case to protect and maintain the high precision collets.

Catalog Number	Number of Holes	Case Size (LxWxH)	Corresponding Collet Model
NBB6	60	7.87 x 6.69 x 1.97 (200 x 170 x 50)	NBC6 / FONBC6
NBB8	50		NBC8 / FONBC8
NBB10	40		NBC10 / FONBC10
NBB13	35	9.65 x 8.27 x 2.36 (245 x 210 x 60)	NBC13 / FONBC13
NBB16	35	10.83 x 9.05 x 2.56 (275 x 230 x 65)	NBC16 / FONBC16
NBB20	45	12.20 x 10.24 x 2.95 (310 x 260 x 75)	NBC20 / FONBC20
NBB25	28		NBC25/FONBC25

• The NEW BABY COLLET CASE cannot be used for End Mill type

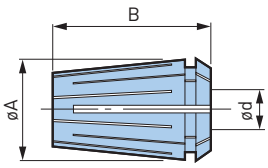
BIG DAISHOWA

FONBC COOLANT COLLET
(FOR MEGA NEW BABY CHUCK & NEW BABY CHUCK)
CLAMPING DIAMETER: ø.114"-1.000"

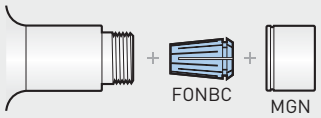
Ideal collet for through-tool use with tools with oil holes such as oil hole drills.

MAX COOLANT PRESSURE 1,000 PSI

For Tools with Oil Holes

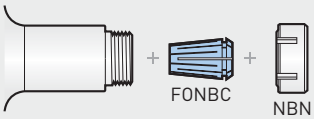


FOR MEGA NEW BABY CHUCK



Use with the standard accessory MGN nut.

FOR NEW BABY CHUCK



Use with the standard accessory NBN nut.

MEGA 6N/NBS6

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC6-3AA	.118❖	.47
FONBC6-3.25AA	.124-.130	
FONBC6-3.5AA	.134-.138	
FONBC6-3.75AA	.144-.148	
FONBC6-4AA	.154-.157	
FONBC6-4.25AA	.163-.167	.51
FONBC6-4.5AA	.173-.177	
FONBC6-4.75AA	.183-.187	
FONBC6-5AA	.193-.197	.55
FONBC6-5.25AA	.203-.207	
FONBC6-5.5AA	.213-.217	
FONBC6-5.75AA	.222-.226	
FONBC6-6AA	.232-.236	

øA=.36 (9.5mm) B=.55 (14mm)
❖ No collapsibility

MEGA 8N/NBS8

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC8-3AA	.114-.118	.59
FONBC8-3.5AA	.134-.138	
FONBC8-4AA	.154-.157	
FONBC8-4.5AA	.173-.177	
FONBC8-5AA	.193-.197	
FONBC8-5.5AA	.213-.217	.63
FONBC8-6AA	.232-.236	
FONBC8-6.5AA	.250-.256	.71
FONBC8-7AA	.271-.276	
FONBC8-7.5AA	.291-.295	
FONBC8-8AA	.311-.315	

øA=.49 (12.5mm) B=.71 (18mm)

MEGA 10N/NBS10

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC10-3AA	.114-.118	.83
FONBC10-3.5AA	.134-.138	.87
FONBC10-4AA	.154-.157	.91
FONBC10-4.5AA	.173-.177	
FONBC10-5AA	.193-.197	
FONBC10-5.5AA	.213-.217	.94
FONBC10-6AA	.232-.236	
FONBC10-6.5AA	.250-.256	
FONBC10-7AA	.271-.276	
FONBC10-7.5AA	.291-.295	
FONBC10-8AA	.311-.315	
FONBC10-8.5AA	.331-.335	1.06
FONBC10-9AA	.350-.354	
FONBC10-9.5AA	.370-.375	
FONBC10-10AA	.390-.394	

øA=.65 (16.5mm) B=1.06 (27mm)

Collapsibility is .004" (.1mm) for FONBC sealed collets. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA 13N/NBS13

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC13-3AA	.118❖	.87
FONBC13-3.5AA	.134-.138	
FONBC13-4AA	.138-.157	.94
FONBC13-4.5AA	.173-.177	.98
FONBC13-5AA	.193-.197	
FONBC13-5.5AA	.213-.217	
FONBC13-6AA	.232-.236	1.06
FONBC13-6.5AA	.250-.256	
FONBC13-7AA	.271-.276	
FONBC13-7.5AA	.291-.295	
FONBC13-8AA	.311-.315	
FONBC13-8.5AA	.331-.335	1.10
FONBC13-9AA	.350-.354	
FONBC13-9.5AA	.370-.375	
FONBC13-10AA	.390-.394	
FONBC13-10.5AA	.409-.413	
FONBC13-11AA	.429-.433	
FONBC13-11.5AA	.449-.453	1.22
FONBC13-12AA	.468-.472	
FONBC13-12.5AA	.488-.492	
FONBC13-13AA	.508-.512	

øA=.81 (20.5mm) B=1.22 (31mm)
❖ No collapsibility

MEGA 16N/NBS16

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC16-5AA	.193-.197	1.06
FONBC16-5.5AA	.213-.217	
FONBC16-6AA	.232-.236	
FONBC16-6.5AA	.250-.256	1.10
FONBC16-7AA	.272-.276	
FONBC16-7.5AA	.291-.295	
FONBC16-8AA	.311-.315	1.18
FONBC16-8.5AA	.331-.335	1.22
FONBC16-9AA	.350-.354	
FONBC16-9.5AA	.371-.375	
FONBC16-10AA	.390-.394	
FONBC16-10.5AA	.409-.413	
FONBC16-11AA	.429-.433	
FONBC16-11.5AA	.449-.453	1.26
FONBC16-12AA	.468-.472	
FONBC16-12.5AA	.488-.492	
FONBC16-13AA	.508-.512	
FONBC16-13.5AA	.527-.531	
FONBC16-14AA	.547-.551	
FONBC16-14.5AA	.567-.571	1.38
FONBC16-15AA	.587-.591	
FONBC16-15.5AA	.606-.610	
FONBC16-16AA	.625-.630	

øA=1.00 (25.5mm) B=1.38 (35mm)

Collapsibility is .004" (.1mm) for FONBC sealed collets. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA 20N/NBS20

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC20-5AA	.193-.197	1.14
FONBC20-5.5AA	.213-.217	1.18
FONBC20-6AA	.232-.236	
FONBC20-6.5AA	.250-.256	1.22
FONBC20-7AA	.272-.276	
FONBC20-7.5AA	.291-.295	
FONBC20-8AA	.311-.315	1.30
FONBC20-8.5AA	.331-.335	
FONBC20-9AA	.351-.354	
FONBC20-9.5AA	.371-.375	1.34
FONBC20-10AA	.390-.394	
FONBC20-10.5AA	.409-.413	
FONBC20-11AA	.429-.433	
FONBC20-11.5AA	.449-.453	
FONBC20-12AA	.468-.472	
FONBC20-12.5AA	.488-.492	
FONBC20-13AA	.508-.512	
FONBC20-13.5AA	.527-.531	1.38
FONBC20-14AA	.547-.551	
FONBC20-14.5AA	.567-.571	
FONBC20-15AA	.587-.591	
FONBC20-15.5AA	.606-.610	
FONBC20-16AA	.625-.630	
FONBC20-16.5AA	.646-.650	
FONBC20-17AA	.665-.669	
FONBC20-17.5AA	.685-.689	1.50
FONBC20-18AA	.705-.709	
FONBC20-18.5AA	.724-.728	
FONBC20-19AA	.746-.750	
FONBC20-19.5AA	.764-.768	
FONBC20-20AA	.783-.787	

øA=1.12 (28.5) B=1.50 (38mm)

MEGA 25N

Catalog Number	Clamping Range ød	Min Clamping Length
FONBC25-16AA	.625-.630	1.81
FONBC25-17AA	.665-.669	1.85
FONBC25-18AA	.705-.709	
FONBC25-19AA	.746-.750	
FONBC25-20AA	.783-.787	
FONBC25-21AA	.823-.827	
FONBC25-22AA	.862-.866	1.89
FONBC25-23AA	.902-.906	
FONBC25-24AA	.941-.945	
FONBC25-25AA	.980-.984	2.05
FONBC25-25.4AA	.996-1.000	

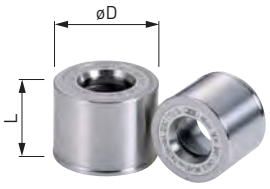
øA=1.40 (35.5mm) B=2.05 (52mm)

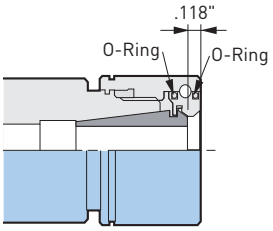
Collapsibility is .004" (.1mm) for FONBC sealed collets. For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA NEW BABY NUT

A high precision nut with excellent sealing properties, preventing the intrusion of coolant.

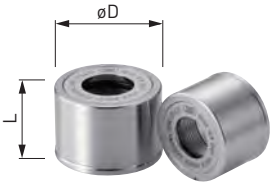
STANDARD TYPE

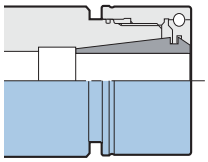




Catalog Number	øD	L	Body Type
MGN6	.79 (20mm)	.81 (20.5mm)	MEGA6N
MGN8	.98 (25mm)	.91 (23mm)	MEGA8N
MGN10	1.18 (30mm)	.94 (24mm)	MEGA10N
MGN13	1.38 (35mm)	1.06 (27mm)	MEGA13N
MGN16	1.65 (42mm)		MEGA16N
MGN20	1.81 (46mm)		MEGA20N
MGN25	2.36 (60mm)	1.22 (31mm)	MEGA25N

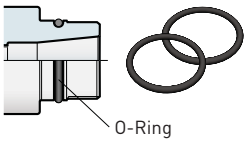
FLAT TYPE





Catalog Number	øD	L	Body Type
MGN6F	.79 (20mm)	.71 (18mm)	MEGA6N
MGN8F	.98 (25mm)	.79 (20mm)	MEGA8N
MGN10F	1.18 (30mm)	.83 (21mm)	MEGA10N
MGN13F	1.38 (35mm)	.94 (24mm)	MEGA13N
MGN16F	1.65 (42mm)	.96 (24.5mm)	MEGA16N
MGN20F	1.81 (46mm)		MEGA20N

TOOL HOLDER BODY O-RING REPLACEMENT



Catalog Number	Body Type
MG6NOR-2P	MEGA6N
MG8NOR-2P	MEGA8N
MG10NOR-2P	MEGA10N
MG13NOR-2P	MEGA13N
MG16NOR-2P	MEGA16N
MG20NOR-2P	MEGA20N
MG25NOR-2P	MEGA25N

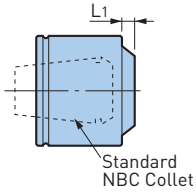
• Sold in packages of 2 pcs.

BIG DAISHOWA

MEGA PERFECT SEAL

CLAMPING RANGE: ø.118"-.787"

Unique design increases sealing performance with higher coolant pressure to create a perfect seal. Standard NBC Collet can be used.



Two-Way Coolant

MAX COOLANT PRESSURE 1,000 PSI

MEGA 6N

Catalog Number	L1	Cutter Shank ø	Collet Model
MPS6-03035	.091	.118-.138	NBC6-3-3.75
MPS6-0304		.118-.157	NBC6-3-4.25
MPS6-04045		.157-.177	NBC6-4-4.75
MPS6-0405		.157-.197	NBC6-4-5.25
MPS6-05055		.197-.217	NBC6-5-5.75
MPS6-0506		.197-.236	NBC6-5-6

• PS RING is included

MEGA 8N

Catalog Number	L1	Cutter Shank ø	Collet Model
MPS8-03035	.154	.118-.138	NBC8-3-4
MPS8-0304		.118-.157	NBC8-3-4.5
MPS8-04045		.157-.177	NBC8-4-5
MPS8-0405		.157-.197	NBC8-4-5.5
MPS8-05055		.197-.217	NBC8-5-6
MPS8-0506		.197-.236	NBC8-5-6.5
MPS8-06065	.134	.236-.256	NBC8-6-7
MPS8-0607		.236-.276	NBC8-6-7.5
MPS8-07075		.276-.295	NBC8-7-8
MPS8-0708		.276-.315	NBC8-7-8

• PS RING is included

MEGA 10N

Catalog Number	L1	Cutter Shank ø	Collet Model
MPS10-03035	.154	.118-.138	NBC10-3-4
MPS10-0304		.118-.157	NBC10-3-4.5
MPS10-04045		.157-.177	NBC10-4-5
MPS10-0405		.157-.197	NBC10-4-5.5
MPS10-05055		.197-.217	NBC10-5-6
MPS10-0506		.197-.236	NBC10-5-6.5
MPS10-06065	.169	.236-.256	NBC10-6-7
MPS10-0607		.236-.276	NBC10-6-7.5
MPS10-07075		.276-.295	NBC10-7- 8
MPS10-0708		.276-.315	NBC10-7-8.5
MPS10-08085	.138	.315-.335	NBC10-8-9
MPS10-0809		.315-.354	NBC10-8-9.5
MPS10-09095		.354-.375	NBC10-9-10
MPS10-0910		.354-.394	NBC10-9-10

• PS RING is included

MEGA 13N

Catalog Number	L1	Cutter Shank ø	Collet Model
MPS13-03035	.169	.118-.138	NBC13-3-4
MPS13-0304		.118-.157	NBC13-3-4.5
MPS13-04045		.157-.177	NBC13-4-5
MPS13-0405		.157-.197	NBC13-4-5.5
MPS13-05055		.197-.217	NBC13-5-6
MPS13-0506		.197-.236	NBC13-5-6.5
MPS13-06065	.181	.236-.256	NBC13-6-7
MPS13-0607		.236-.276	NBC13-6-7.5
MPS13-07075		.276-.295	NBC13-7-8
MPS13-0708		.276-.315	NBC13-7-8.5
MPS13-08085	.193	.315-.335	NBC13-8-9
MPS13-0809		.315-.354	NBC13-8-9.5
MPS13-09095		.354-.375	NBC13-9-10
MPS13-0910		.354-.394	NBC13-9-10.5
MPS13-10105	.165	.394-.413	NBC13-10-11
MPS13-1011		.394-.433	NBC13-10-11.5
MPS13-11115		.433-.453	NBC13-11-12
MPS13-1112		.433-.472	NBC13-11-12.5
MPS13-12125		.472-.492	NBC13-12-13
MPS13-1213		.472-.512	NBC13-12-13

• PS RING is included

MEGA 16N

Catalog Number	L_1	Cutter Shank ø	Collet Model
MPS16-03035	.157	.118-.138	NBC16-3-4
MPS16-0304		.118-.157	NBC16-3-4.5
MPS16-04045		.157-.177	NBC16-4-5
MPS16-0405		.157-.197	NBC16-4-5.5
MPS16-05055		.197-.217	NBC16-5-6
MPS16-0506		.197-.236	NBC16-5-6.5
MPS16-06065	.169	.236-.256	NBC16-6-7
MPS16-0607		.236-.276	NBC16-6-7.5
MPS16-07075		.276-.295	NBC16-7-8.5
MPS16-0708		.276-.315	NBC16-7-8.5
MPS16-08085	.181	.315-.335	NBC16-8-9
MPS16-0809		.315-.354	NBC16-8-9.5
MPS16-09095		.354-.375	NBC16-9-10
MPS16-0910		.354-.394	NBC16-9-10.5
MPS16-10105	.201	.394-.413	NBC16-10-11
MPS16-1011		.394-.433	NBC16-10-11.5
MPS16-11115		.433-.453	NBC16-11-12
MPS16-1112		.433-.472	NBC16-11-12.5
MPS16-12125		.472-.492	NBC16-12-13
MPS16-1213	.161	.472-.512	NBC16-12-13.5
MPS16-1314		.512-.551	NBC16-13-14.5
MPS16-1415		.551-.591	NBC16-14-15.5
MPS16-1516		.591-.630	NBC16-15-16

- PS RING is included

MEGA 20N

Catalog Number	L_1	Cutter Shank ø	Collet Model
MPS20-03035	.157	.118-.138	NBC20-3-4
MPS20-0304		.118-.157	NBC20-3-4.5
MPS20-04045		.157-.177	NBC20-4-5
MPS20-0405		.157-.197	NBC20-4-5.5
MPS20-05055		.197-.217	NBC20-5-6
MPS20-0506		.197-.236	NBC20-5-6.5
MPS20-06065	.169	.236-.256	NBC20-6-7
MPS20-0607		.236-.276	NBC20-6-7.5
MPS20-07075		.276-.295	NBC20-7-8
MPS20-0708		.276-.315	NBC20-7-8.5
MPS20-08085	.181	.315-.335	NBC20-8-9
MPS20-0809		.315-.354	NBC20-8-9.5
MPS20-09095		.354-.375	NBC20-9-10
MPS20-0910		.354-.394	NBC20-9-10.5
MPS20-10105	.201	.394-.413	NBC20-10-11
MPS20-1011		.394-.433	NBC20-10-11.5
MPS20-11115		.433-.453	NBC20-11-12
MPS20-1112		.433-.472	NBC20-11-12.5
MPS20-12125		.472-.492	NBC20-12-13
MPS20-1213		.472-.512	NBC20-12-13.5
MPS20-1314	.205	.512-.551	NBC20-13-14.5
MPS20-1415		.551-.591	NBC20-14-15.5
MPS20-1516		.591-.630	NBC20-15-16.5
MPS20-1617	.181	.630-.669	NBC20-16-17.5
MPS20-1718		.669-.709	NBC20-17-18.5
MPS20-1819		.709-.750	NBC20-18-19.5
MPS20-1920		.751-.787	NBC20-19-20

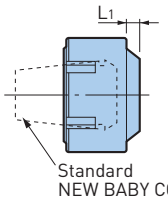
- PS RING is included

For Jet Through application by removing the PS RING, it is recommended to use the largest clamping range of the nut corresponding to the tool shank diameter.

BABY PERFECT SEAL

CLAMPING RANGE: ø.118"-.787"

Unique design increases sealing performance with higher coolant pressure to create a perfect seal and reliable coolant supply to the tool tip.



Two-Way Coolant

MAX COOLANT PRESSURE 1,000 PSI

NBS6

Catalog Number	L1	Cutter Shank ø	Collet Model
BPS6-03035	.091	.118-.138	NBC6-3-3.75
BPS6-0304		.118-.157	NBC6-3-4.25
BPS6-04045		.157-.177	NBC6-4-4.75
BPS6-0405		.157-.197	NBC6-4-5.25
BPS6-05055		.197-.217	NBC6-5-5.75
BPS6-0506		.197-.236	NBC6-5-6

• PS RING is included

NBS8

Catalog Number	L1	Cutter Shank ø	Collet Model
BPS8-03035	.154	.118-.138	NBC8-3-4
BPS8-0304		.118-.157	NBC8-3-4.5
BPS8-04045		.157-.177	NBC8-4-5
BPS8-0405		.157-.197	NBC8-4-5.5
BPS8-05055		.197-.217	NBC8-5-6
BPS8-0506		.197-.236	NBC8-5-6.5
BPS8-06065	.134	.236-.256	NBC8-6-7
BPS8-0607		.236-.276	NBC8-6-7.5
BPS8-07075		.276-.295	NBC8-7-8
BPS8-0708		.276-.315	NBC8-7-8

• PS RING is included

NBS10

Catalog Number	L1	Cutter Shank ø	Collet Model
BPS10-03035	.154	.118-.138	NBC10-3-4
BPS10-0304		.118-.157	NBC10-3-4.5
BPS10-04045		.157-.177	NBC10-4-5
BPS10-0405		.157-.197	NBC10-4-5.5
BPS10-05055		.197-.217	NBC10-5-6
BPS10-0506		.197-.236	NBC10-5-6.5
BPS10-06065	.169	.236-.256	NBC10-6-7
BPS10-0607		.236-.276	NBC10-6-7.5
BPS10-07075		.276-.295	NBC10-7-8
BPS10-0708		.276-.315	NBC10-7-8.5
BPS10-08085		.315-.335	NBC10-8-9
BPS10-0809	.138	.315-.354	NBC10-8-9.5
BPS10-09095		.354-.375	NBC10-9-10
BPS10-0910		.354-.394	NBC10-9-10

• PS RING is included

NBS13

Catalog Number	L1	Cutter Shank ø	Collet Model
BPS13-03035	.169	.118-.138	NBC13-3-4
BPS13-0304		.118-.157	NBC13-3-4.5
BPS13-04045		.157-.177	NBC13-4-5
BPS13-0405		.157-.197	NBC13-4-5.5
BPS13-05055		.197-.217	NBC13-5-6
BPS13-0506		.197-.236	NBC13-5-6.5
BPS13-06065	.181	.236-.256	NBC13-6-7
BPS13-0607		.236-.276	NBC13-6-7.5
BPS13-07075		.276-.295	NBC13-7-8
BPS13-0708		.276-.315	NBC13-7-8.5
BPS13-08085		.315-.335	NBC13-8-9
BPS13-0809		.315-.354	NBC13-8-9.5
BPS13-09095	.193	.354-.375	NBC13-9-10
BPS13-0910		.354-.394	NBC13-9-10.5
BPS13-10105	.165	.394-.413	NBC13-10-11
BPS13-1011		.394-.433	NBC13-10-11.5
BPS13-11115		.433-.453	NBC13-11-12
BPS13-1112		.433-.472	NBC13-11-12.5
BPS13-12125		.472-.492	NBC13-12-13
BPS13-1213		.472-.512	NBC13-12-13

• PS RING is included

NBS16

Catalog Number	L_1	Cutter Shank ø	Collet Model
BPS16-03035	.157	.118-.138	NBC16-3-4
BPS16-0304		.118-.157	NBC16-3-4.5
BPS16-04045		.157-.177	NBC16-4-5
BPS16-0405		.157-.197	NBC16-4-5.5
BPS16-05055		.197-.217	NBC16-5-6
BPS16-0506		.197-.236	NBC16-5-6.5
BPS16-06065	.169	.236-.256	NBC16-6-7
BPS16-0607		.236-.276	NBC16-6-7.5
BPS16-07075		.276-.295	NBC16-7-8
BPS16-0708		.276-.315	NBC16-7-8.5
BPS16-08085	.181	.315-.335	NBC16-8-9
BPS16-0809		.315-.354	NBC16-8-9.5
BPS16-09095		.354-.375	NBC16-9-10
BPS16-0910		.354-.394	NBC16-9-10.5
BPS16-10105	.201	.394-.413	NBC16-10-11
BPS16-1011		.394-.433	NBC16-10-11.5
BPS16-11115		.433-.453	NBC16-11-12
BPS16-1112		.433-.472	NBC16-11-12.5
BPS16-12125	.161	.472-.492	NBC16-12-13
BPS16-1213		.472-.512	NBC16-12-13.5
BPS16-1314		.512-.551	NBC16-13-14.5
BPS16-1415		.551-.591	NBC16-14-15.5
BPS16-1516		.591-.630	NBC16-15-16

• PS RING is included

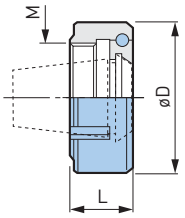
NBS20

Catalog Number	L_1	Cutter Shank ø	Collet Model
BPS20-03035	.157	.118-.138	NBC20-3-4
BPS20-0304		.118-.157	NBC20-3-4.5
BPS20-04045		.157-.177	NBC20-4-5
BPS20-0405		.157-.197	NBC20-4-5.5
BPS20-05055		.197-.217	NBC20-5-6
BPS20-0506		.197-.236	NBC20-5-6.5
BPS20-06065	.169	.236-.256	NBC20-6-7
BPS20-0607		.236-.276	NBC20-6-7.5
BPS20-07075		.276-.295	NBC20-7-8
BPS20-0708		.276-.315	NBC20-7-8.5
BPS20-08085	.181	.315-.335	NBC20-8-9
BPS20-0809		.315-.354	NBC20-8-9.5
BPS20-09095		.354-.375	NBC20-9-10
BPS20-0910		.354-.394	NBC20-9-10.5
BPS20-10105	.201	.394-.413	NBC20-10-11
BPS20-1011		.394-.433	NBC20-10-11.5
BPS20-11115		.433-.453	NBC20-11-12
BPS20-1112		.433-.472	NBC20-11-12.5
BPS20-12125		.472-.492	NBC20-12-13
BPS20-1213		.472-.512	NBC20-12-13.5
BPS20-1314	.205	.512-.551	NBC20-13-14.5
BPS20-1415		.551-.591	NBC20-14-15.5
BPS20-1516		.591-.630	NBC20-15-16.5
BPS20-1617	.181	.630-.669	NBC20-16-17.5
BPS20-1718		.669-.709	NBC20-17-18.5
BPS20-1819		.709-.750	NBC20-18-19.5
BPS20-1920		.751-.787	NBC20-19-20

• PS RING is included

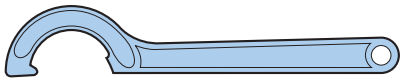
For Jet Through application by removing the PS RING, it is recommended to use the largest clamping range of the nut corresponding to the tool shank diameter.

NEW BABY NUT



Catalog Number	øD	L	M	Body Type
NBN6	.79 (20mm)	.37 (9.5mm)	M12 P1	NBS6
NBN8	.98 (25mm)	.43 (11mm)	M16 P1	NBS8
NBN10	1.18 (30mm)	.49 (12.5mm)	M21 P1	NBS10
NBN13	1.38 (35mm)	.63 (16mm)	M26 P1	NBS13
NBN16	1.65 (42mm)		M32 P1	NBS16
NBN20	1.81 (46mm)		M36 P1	NBS20

SPANNER WRENCH (FOR NEW BABY CHUCKS & MEGA ER GRIP)



Catalog Number	Nut Diameter	NBN Nut	BPS Sealed Nut	ER Nut
NBK6	.79 (20mm)	NBN6	BPS6	ERN11
NBK8	.98 (25mm)	NBN8	BPS8	—
NBK10	1.18 (30mm)	NBN10	BPS10	ERN16
NBK13	1.38 (35mm)	NBN13	BPS13	ERN20
NBK16	1.65 (42mm)	NBN16	BPS16	ERN25
NBK20	1.81 (46mm)	NBN20	BPS20	—
FK45-50L	1.97 (50mm)	—	—	ERN32

TORQUE WRENCH
(FOR NEW BABY CHUCKS)

Wrench with torque limiter.

Catalog Number		Nut Model
NBK6TL	**NBK6TLS❖**	NBN6/BPS6
NBK8TL	**NBK8TLS❖**	NBN8/BPS8
NBK10TL	**NBK10TLS❖**	NBN10/BPS10
NBK13TL	**—**	NBN13/BPS13
NBK16TL	**—**	NBN16/BPS16
NBK20TL	**—**	NBN20/BPS20

• For ø3mm or smaller shank tools use TLS models marked ❖

COLLET EJECTOR

Easily and quickly insert/remove small sizes of NEW BABY COLLETS from MEGA NUTS & NEW BABY NUTS.

(FOR NEW BABY COLLET)

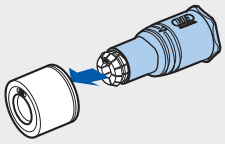
Catalog Number	Nut	Collet
NBC6-CE	MGN6, NBN6	NBC6
NBC8-CE	MGN8, NBN8	NBC8
NBC10-CE	MGN10, NBN10	NBC10
NBC13-CE	MGN13, NBN13	NBC13

(FOR NEW BABY END MILL COLLET)

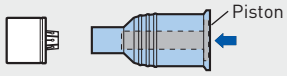
Catalog Number	Nut	Collet
NBC6E-CE	MGN6, NBN6	NBC6E
NBC8E-CE	MGN8, NBN8	NBC8E
NBC10E-CE	MGN10, NBN10	NBC10E
NBC13E-CE	MGN13, NBN13	NBC13E

How to Insert a Collet

1. Insert the collet into the Collet Ejector. Then insert it into the nut.

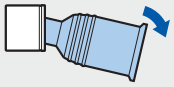


2. Depress the piston and remove the Collet Ejector.

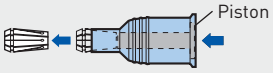


How to Remove a Collet

1. Tilt the Collet Ejector as shown in the picture to remove the collet from the nut.



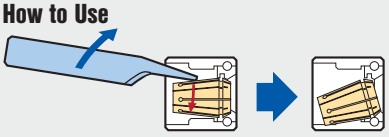
2. Depress the piston and the collet will be removed.



COLLET REMOVER

Eases removal of the collet from the nut. Especially helpful for small collet series (MEGA6N to 13N).

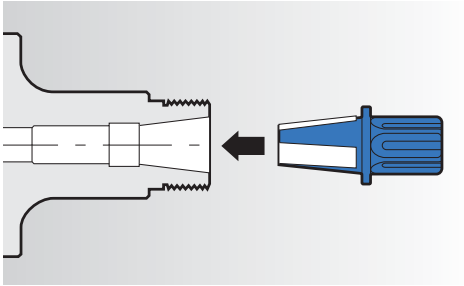
How to Use



Catalog Number
NBJ

α TAPER CLEANER (FOR MEGA NEW BABY CHUCKS & NEW BABY CHUCKS)

To maintain the accuracy of high precision collet chucks by cleaning the internal collet taper.

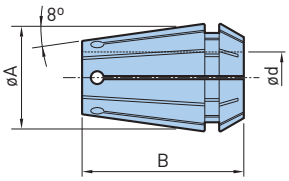


Catalog Number	Chuck Body
SC-NBC6	MEGA6N, NBS6
SC-NBC8	MEGA8N, NBS8
SC-NBC10	MEGA10N, NBS10
SC-NBC13	MEGA13N, NBS13
SC-NBC16	MEGA16N, NBS16
SC-NBC20	MEGA20N, NBS20

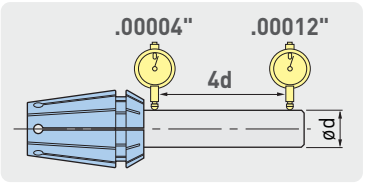
ERC COLLET

CLAMPING RANGE: ø.075"-.787"

Each ERC collet is inspected twice (0º and 180º) at 4 times diameter to guarantee the runout accuracy.
The "AA grade" is marked on only those collets that pass the inspection process for accuracy.



Guaranteed Max Runout



1µm AT COLLET NOSE
3µm at end of test bar

All BIG Collets are AA Grade and inspected twice for accuracy

MEGA ER11

Catalog Number	Clamping Range ød	Min Clamping Length
ERC11-3AA	.108-.118	.51
ERC11-3.25AA	.118-.128	
ERC11-3.5AA	.128-.138	
ERC11-3.75AA	.138-.148	
ERC11-4AA	.148-.157	.55
ERC11-4.25AA	.157-.167	
ERC11-4.5AA	.167-.177	
ERC11-4.75AA	.177-.187	
ERC11-5AA	.187-.197	.59
ERC11-5.25AA	.197-.207	
ERC11-5.5AA	.207-.217	
ERC11-5.75AA	.217-.226	
ERC11-6AA	.217-.236	.71

øA=.43 (11mm) B=.71 (18mm)

MEGA ER16

Catalog Number	Clamping Range ød	Min Clamping Length
ERC16-2AA	.075-.079	.47
ERC16-2.1AA	.079-.083	
ERC16-2.2AA	.083-.087	
ERC16-2.3AA	.087-.091	
ERC16-2.4AA	.091-.094	
ERC16-2.5AA	.094-.098	
ERC16-2.6AA	.098-.102	
ERC16-2.7AA	.102-.106	
ERC16-2.8AA	.106-.110	
ERC16-2.9AA	.110-.114	
ERC16-3AA	.108-.118	.71
ERC16-3.25AA	.118-.128	
ERC16-3.5AA	.128-.138	
ERC16-3.75AA	.138-.148	
ERC16-4AA	.148-.157	.75
ERC16-4.25AA	.157-.167	
ERC16-4.5AA	.167-.177	
ERC16-4.75AA	.177-.187	
ERC16-5AA	.187-.197	.79
ERC16-5.25AA	.197-.207	
ERC16-5.5AA	.207-.217	
ERC16-5.75AA	.217-.226	
ERC16-6AA	.217-.236	.87
ERC16-6.5AA	.236-.256	
ERC16-7AA	.256-.276	
ERC16-7.5AA	.276-.295	
ERC16-8AA	.295-.315	
ERC16-8.5AA	.315-.335	1.26
ERC16-9AA	.335-.354	
ERC16-9.5AA	.354-.375	
ERC16-10AA	.376-.394	

øA=.63 (16mm) B=1.08 (27.5mm)

MEGA ER20

Catalog Number	Clamping Range ød	Min Clamping Length
ERC20-3AA	.108-.118	.75
ERC20-3.25AA	.118-.128	
ERC20-3.5AA	.128-.138	
ERC20-3.75AA	.138-.148	
ERC20-4AA	.148-.157	.79
ERC20-4.25AA	.157-.167	
ERC20-4.5AA	.167-.177	
ERC20-4.75AA	.177-.187	
ERC20-5AA	.187-.197	.83
ERC20-5.25AA	.197-.207	
ERC20-5.5AA	.207-.217	
ERC20-5.75AA	.217-.226	
ERC20-6AA	.217-.236	.91
ERC20-6.5AA	.236-.256	
ERC20-7AA	.256-.276	
ERC20-7.5AA	.276-.295	
ERC20-8AA	.295-.315	.94
ERC20-8.5AA	.315-.335	
ERC20-9AA	.335-.354	
ERC20-9.5AA	.354-.375	
ERC20-10AA	.376-.394	1.26
ERC20-10.5AA	.394-.413	
ERC20-11AA	.413-.433	
ERC20-11.5AA	.433-.453	
ERC20-12AA	.453-.472	
ERC20-12.5AA	.472-.492	
ERC20-13AA	.492-.512	

øA=.79 (20mm) B=1.24 (31.5mm)

MEGA ER25

Catalog Number	Clamping Range ød	Min Clamping Length
ERC25-3AA	.108-.118	.75
ERC25-3.25AA	.118-.128	
ERC25-3.5AA	.128-.138	
ERC25-3.75AA	.138-.148	
ERC25-4AA	.148-.157	.79
ERC25-4.25AA	.157-.167	
ERC25-4.5AA	.167-.177	
ERC25-4.75AA	.177-.187	
ERC25-5AA	.187-.197	.83
ERC25-5.25AA	.197-.207	
ERC25-5.5AA	.207-.217	
ERC25-5.75AA	.217-.226	
ERC25-6AA	.217-.236	.94
ERC25-6.5AA	.236-.256	
ERC25-7AA	.256-.276	
ERC25-7.5AA	.276-.295	
ERC25-8AA	.295-.315	1.02
ERC25-8.5AA	.315-.335	
ERC25-9AA	.335-.354	
ERC25-9.5AA	.354-.375	
ERC25-10AA	.376-.394	1.06
ERC25-10.5AA	.394-.413	
ERC25-11AA	.413-.433	
ERC25-11.5AA	.433-.453	
ERC25-12AA	.453-.472	
ERC25-12.5AA	.472-.492	
ERC25-13AA	.492-.512	
ERC25-13.5AA	.512-.531	
ERC25-14AA	.531-.551	1.34
ERC25-14.5AA	.551-.571	
ERC25-15AA	.571-.591	
ERC25-15.5AA	.591-.610	
ERC25-16AA	.610-.630	

øA=.98 (25mm) B=1.34 (24mm)

MEGA ER32

Catalog Number	Clamping Range ød	Min Clamping Length
ERC32-3AA	.108-.118	.75
ERC32-3.25AA	.118-.128	
ERC32-3.5AA	.128-.138	
ERC32-3.75AA	.138-.148	
ERC32-4AA	.148-.157	.79
ERC32-4.25AA	.157-.167	
ERC32-4.5AA	.167-.177	
ERC32-4.75AA	.177-.187	
ERC32-5AA	.187-.197	.83
ERC32-5.25AA	.197-.207	
ERC32-5.5AA	.207-.217	
ERC32-5.75AA	.217-.226	
ERC32-6AA	.217-.236	.94
ERC32-6.5AA	.236-.256	
ERC32-7AA	.256-.276	
ERC32-7.5AA	.276-.295	
ERC32-8AA	.295-.315	1.02
ERC32-8.5AA	.315-.335	
ERC32-9AA	.335-.354	
ERC32-9.5AA	.354-.375	
ERC32-10AA	.376-.394	1.10
ERC32-10.5AA	.394-.413	
ERC32-11AA	.413-.433	
ERC32-11.5AA	.433-.453	

Catalog Number	Clamping Range ød	Min Clamping Length
ERC32-12AA	.453-.472	1.14
ERC32-12.5AA	.472-.492	
ERC32-13AA	.492-.512	
ERC32-13.5AA	.512-.531	
ERC32-14AA	.531-.551	1.18
ERC32-14.5AA	.551-.571	
ERC32-15AA	.571-.591	
ERC32-15.5AA	.591-.610	
ERC32-16AA	.610-.630	1.26
ERC32-16.5AA	.630-.650	
ERC32-17AA	.650-.670	
ERC32-17.5AA	.670-.690	
ERC32-18AA	.690-.709	
ERC32-18.5AA	.709-.728	1.57
ERC32-19AA	.728-.749	
ERC32-19.5AA	.750-.768	
ERC32-20AA	.768-.787	

øA=1.26 (32mm) B=1.58 (40mm)

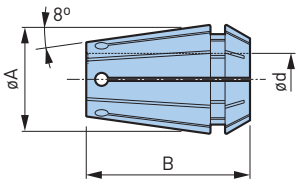
- BIG's ERC collets have a maximum clamping capacity of .020/ø (.5mm/ø)
- To obtain the best runout accuracy and rigidity, ERC collets for smaller tools have a reduced clamping range
- For best results, users should avoid clamping tools with shank diameters less than the recommended clamping range

Conventional DIN collets have a clamping range of 1mm/ø. Never use ERC collets for more than .020/ø (.5mm/ø) below nominal size. To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

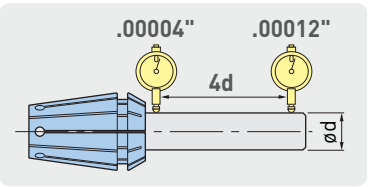
ERC END MILL COLLET

CLAMPING RANGE: ø.125"-.750" (ø3-20mm)

"Just fit" collet for end mills. Nominal sizes of collets for the most popular end mill shank reduces the unsupported overhang of the collet when clamped into the chuck body. This increases the rigidity of the tool assembly in the horizontal direction which is very important to end milling operations. Available in both metric and inch sizes.



Guaranteed Max Runout



All BIG Collets are AA Grade and inspected twice for accuracy

MEGA ER16

Catalog Number	Clamping Range ød	Min Clamping Length
ERC16-1/8EAA	.125	.71
ERC16-3/16EAA	.188	.79
ERC16-1/4EAA	.250	.87
ERC16-3/8EAA	.375	1.26
ERC16-3EAA	3mm	.71
ERC16-4EAA	4mm	.75
ERC16-5EAA	5mm	.79
ERC16-6EAA	6mm	.87
ERC16-7EAA	7mm	
ERC16-8EAA	8mm	
ERC16-9EAA	9mm	1.26
ERC16-10EAA	10mm	

øA=.63 (16mm) B=1.08 (27.5mm)

MEGA ER20

Catalog Number	Clamping Range ød	Min Clamping Length
ERC20-3EAA	3mm	.75
ERC20-4EAA	4mm	.79
ERC20-5EAA	5mm	.83
ERC20-6EAA	6mm	.91
ERC20-7EAA	7mm	
ERC20-8EAA	8mm	.94
ERC20-9EAA	9mm	
ERC20-10EAA	10mm	1.26
ERC20-11EAA	11mm	
ERC20-12EAA	12mm	

øA=.79 (20mm) B=1.24 (31.5mm)

MEGA ER25

Catalog Number	Clamping Range ød	Min Clamping Length
ERC25-3EAA	3mm	.75
ERC25-4EAA	4mm	.79
ERC25-5EAA	5mm	.83
ERC25-6EAA	6mm	.94
ERC25-7EAA	7mm	
ERC25-8EAA	8mm	1.02
ERC25-9EAA	9mm	
ERC25-10EAA	10mm	1.06
ERC25-11EAA	11mm	
ERC25-12EAA	12mm	
ERC25-13EAA	13mm	
ERC25-14EAA	14mm	1.34
ERC25-15EAA	15mm	
ERC25-16EAA	16mm	

øA=.98 (25mm) B=1.34 (34mm)

MEGA ER32

Catalog Number	Clamping Range ød	Min Clamping Length
ERC32-1/2EAA	.500	1.14
ERC32-5/8EAA	.625	1.26
ERC32-3/4EAA	.750	1.57
ERC32-3EAA	3mm	.75
ERC32-4EAA	4mm	.79
ERC32-5EAA	5mm	.83
ERC32-6EAA	6mm	.94
ERC32-7EAA	7mm	
ERC32-8EAA	8mm	1.02
ERC32-9EAA	9mm	
ERC32-10EAA	10mm	1.10
ERC32-11EAA	11mm	
ERC32-12EAA	12mm	1.14
ERC32-13EAA	13mm	
ERC32-14EAA	14mm	1.18
ERC32-15EAA	15mm	
ERC32-16EAA	16mm	1.26
ERC32-18EAA	18mm	
ERC32-20EAA	20mm	1.57

øA=1.26 (32mm) B=1.58 (40mm)

A Variety of Nuts are Available For MEGA ER CHUCKS

MEGA ER PERFECT SEAL

MEGA WRENCH

Capable of sealing high pressure coolant up to 1000 PSI. For applications with coolant supplied through the tools. Mega Wrench is used for tightening.

MEGA ER NUT

MEGA WRENCH

High accuracy and clamping force are provided with thrust ball bearings. Ideal for solid carbide drills and reamers. Slot-free outer diameter increases rigidity of the nut itself. The one-way clutch of the Mega Wrench tightens the nut securely and easily by ratchet function.

MEGA ER SOLID NUT

MEGA WRENCH

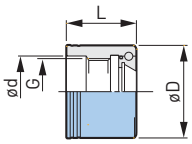
High performance solid nut with surface treatment for friction reduction. Slot-free outer diameter increases rigidity of the nut itself. The one-way clutch of the Mega Wrench tightens the nut securely and easily by ratchet function.

ER NUT

SPANNER WRENCH

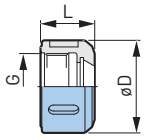
Basic nut with surface treatment for friction reduction. Spanner wrench is used for tightening.

MEGA ER NUT



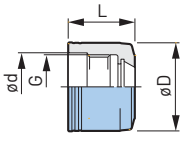
Catalog Number	øD	L	G	ød	Wrench Type	Body Type
MERN11	.787	.709	M14×P0.75	.575	MGR20L	MEGAER11
MERN16	1.181	.984	M22×P1.5	.906	MGR30L	MEGAER16
MERN20	1.378	1.043	M25×P1.5	1.063	MGR35L	MEGAER20
MERN25	1.654	1.083	M32×P1.5	1.319	MGR42L	MEGAER25
MERN32	1.969	1.189	M40×P1.5	1.614	MGR50L	MEGAER32

ER NUT



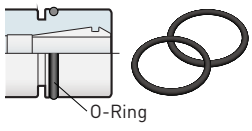
Catalog Number	øD	L	G	Spanner Type	Body Type
ERN11	.748	.484	M14×P0.75	NBK6	ER11
ERN16	1.181	.748	M22×P1.5	NBK10	ER16
ERN20	1.378	.807	M25×P1.5	NBK13	ER20
ERN25	1.654	.846	M32×P1.5	NBK16	ER25
ERN32	1.969	.945	M40×P1.5	FK45-50L	ER32

MEGA ER SOLID NUT



Catalog Number	øD	L	G	ød	Wrench Type	Body Type
MER16SN	1.181	.984	M22×P1.5	.906	MGR30L	MEGAER16
MER20SN	1.378	1.043	M25×P1.5	1.063	MGR35L	MEGAER20
MER25SN	1.654	1.083	M32×P1.5	1.319	MGR42L	MEGAER25
MER32SN	1.969	1.189	M40×P1.5	1.614	MGR50L	MEGAER32

TOOL HOLDER BODY O-RING REPLACEMENT



Catalog Number	Body Type
MER160R	MEGAER16
MER200R	MEGAER20
MER250R	MEGAER25
MER320R	MEGAER32

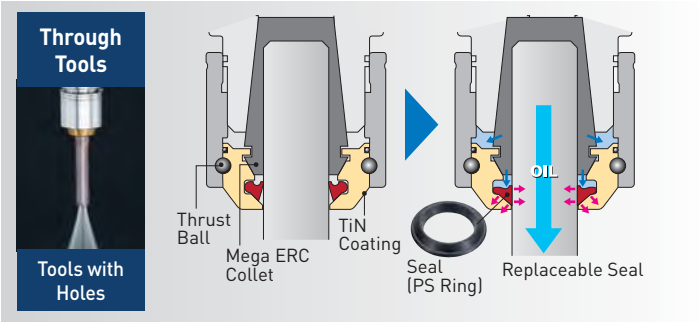
• Sold in packages of 2 pcs.

MEGA ER PERFECT SEAL

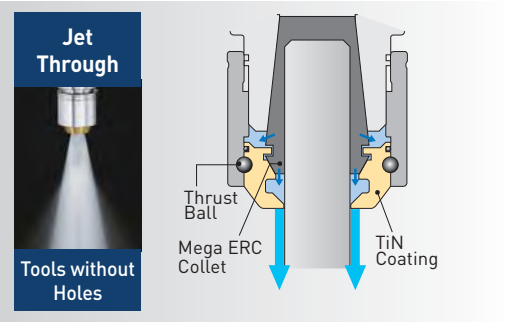
Sealed collet nut for coolant-through tools.

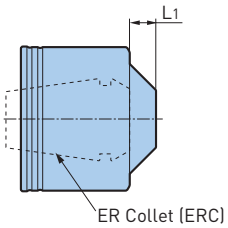
MAX COOLANT PRESSURE 1,000 PSI

With PS RING



Without PS RING





MEGA ER16

Catalog Number	L1	Cutter Shank ø	Collet Model (Inch)	Collet Model (Metric)
MERPS16-030035	.252	.118-.138	ERC16-1/8E	ERC16-3-3.75
MERPS16-035040		.138-.157	—	ERC16-3.5-4.25
MERPS16-040045		.157-.177	—	ERC16-4-4.75
MERPS16-045050		.177-.197	ERC16-3/16E	ERC16-4.5-5.25
MERPS16-050055		.197-.217	—	ERC16-5-6
MERPS16-055060		.217-.236	—	ERC16-5.5-6.5
MERPS16-060065	.268	.236-.256	ERC16-1/4E	ERC16-6-7
MERPS16-065070		.256-.276	—	ERC16-6.5-7.5
MERPS16-070075		.276-.295	—	ERC16-7-8
MERPS16-075080		.295-.315	ERC16-5/16E	ERC16-7.5-8.5
MERPS16-080085	.240	.315-.335	—	ERC16-8-9
MERPS16-085090		.335-.354	—	ERC16-8.5-9.5
MERPS16-090095		.354-.375	ERC16-3/8E	ERC16-9-10
MERPS16-095100		.374-.394	—	ERC16-9.5-10

MEGA ER20

Catalog Number	L1	Cutter Shank ø	Collet Model (Inch)	Collet Model (Metric)
MERPS20-030035	.252	.118-.138	ERC20-1/8E	ERC20-3-3.75
MERPS20-035040		.138-.157	—	ERC20-3.5-4.25
MERPS20-040045		.157-.177	—	ERC20-4-4.75
MERPS20-045050		.177-.197	ERC20-3/16E	ERC20-4.5-5.25
MERPS20-050055		.197-.217	—	ERC20-5-6
MERPS20-055060		.217-.236	—	ERC20-5.5-6.5
MERPS20-060065	.268	.236-.256	ERC20-1/4E	ERC20-6-7
MERPS20-065070		.256-.276	—	ERC20-6.5-7.5
MERPS20-070075		.276-.295	—	ERC20-7-8
MERPS20-075080		.295-.315	ERC20-5/16E	ERC20-7.5-8.5
MERPS20-080085	.272	.315-.335	—	ERC20-8-9
MERPS20-085090		.335-.354	—	ERC20-8.5-9.5
MERPS20-090095		.354-.375	ERC20-3/8E	ERC20-9-10
MERPS20-095100		.374-.394	—	ERC20-9.5-10.5
MERPS20-100105	.260	.394-.413	—	ERC20-10-11
MERPS20-105110		.413-.433	—	ERC20-10.5-11.5
MERPS20-110115		.433-.453	ERC20-7/16E	ERC20-11-12
MERPS20-115120		.453-.472	—	ERC20-11.5-12.5
MERPS20-120125		.472-.492	—	ERC20-12-13
MERPS20-125130		.492-.512	ERC20-1/2E	ERC20-12.5-13

MEGA ER25

Catalog Number	L1	Cutter Shank ø	Collet Model (Inch)	Collet Model (Metric)
MERPS25-030035	.248	.118-.138	ERC25-1/8E	ERC25-3-3.75
MERPS25-035040		.138-.157	—	ERC25-3.5-4.25
MERPS25-040045		.157-.177	—	ERC25-4-4.75
MERPS25-045050		.177-.197	ERC25-3/16E	ERC25-3-4.5-5.25
MERPS25-050055		.197-.217	—	ERC25-5-6
MERPS25-055060		.217-.236	—	ERC25-5.5-6.5
MERPS25-060065	.264	.236-.256	ERC25-1/4E	ERC25-6-7
MERPS25-065070		.256-.276	—	ERC25-6.5-7.5
MERPS25-070075		.276-.295	—	ERC25-7-8
MERPS25-075080		.295-.315	ERC25-5/16E	ERC25-7.5-8.5
MERPS25-080085	.268	.315-.335	—	ERC25-8-9
MERPS25-085090		.335-.354	—	ERC25-8.5-9.5
MERPS25-090095		.354-.375	ERC25-3/8E	ERC25-9-10
MERPS25-095100		.374-.394	—	ERC25-9.5-10.5
MERPS25-100105	.287	.394-.413	—	ERC25-10-11
MERPS25-105110		.413-.433	—	ERC25-10.5-11.5
MERPS25-110115		.433-.453	ERC25-7/16E	ERC25-11-12
MERPS25-115120		.453-.472	—	ERC25-11.5-12.5
MERPS25-120125		.472-.492	—	ERC25-12-13
MERPS25-125130		.492-.512	ERC25-1/2E	ERC25-12.5-13
MERPS25-130140	.260	.512-.551	—	ERC25-13-14.5
MERPS25-140150		.551-.591	ERC25-9/16E	ERC25-14-15.5
MERPS25-150160		.591-.630	ERC25-5/8E	ERC25-15-16

MEGA ER32

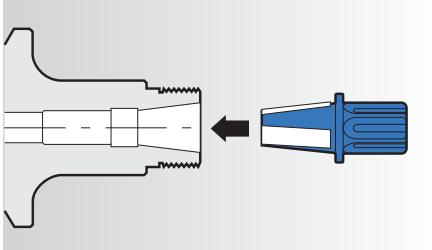
Catalog Number	L1	Cutter Shank ø	Collet Model (Inch)	Collet Model (Metric)
MERPS32-030035	.244	.118-.138	ERC32-1/8E	ERC32-3-3.75
MERPS32-035040		.138-.157	—	ERC32-3.5-4.25
MERPS32-040045		.157-.177	—	ERC32-4-4.75
MERPS32-045050		.177-.197	ERC32-3/16E	ERC32-4.5-5.25
MERPS32-050055		.197-.217	—	ERC32-5-6
MERPS32-055060		.217-.236	—	ERC32-5.5-6.5
MERPS32-060065	.260	.236-.256	ERC32-1/4E	ERC32-6-7
MERPS32-065070		.256-.276	—	ERC32-6.5-7.5
MERPS32-070075		.276-.295	—	ERC32-7-8
MERPS32-075080		.295-.315	ERC32-5/16E	ERC32-7.5-8.5
MERPS32-080085	.264	.315-.335	—	ERC32-8-9
MERPS32-085090		.335-.354	—	ERC32-8.5-9.5
MERPS32-090095		.354-.375	ERC32-3/8E	ERC32-9-10
MERPS32-095100		.374-.394	—	ERC32-9.5-10.5
MERPS32-100105	.283	.394-.413	—	ERC32-10-11
MERPS32-105110		.413-.433	—	ERC32-10.5-11.5
MERPS32-110115		.433-.453	ERC32-7/16E	ERC32-11-12
MERPS32-115120		.453-.472	—	ERC32-11.5-12.5
MERPS32-120125		.472-.492	—	ERC32-12-13
MERPS32-125130		.492-.512	ERC32-1/2E	ERC32-12.5-13.5
MERPS32-130140	.287	.512-.551	—	ERC32-13-14.5
MERPS32-140150		.551-.591	ERC32-9/16E	ERC32-14-15.5
MERPS32-150160		.591-.630	ERC32-5/8E	ERC32-15-16.5
MERPS32-160170	.307	.630-.669	—	ERC32-16-17.5
MERPS32-170180		.669-.709	—	ERC32-17-18.5
MERPS32-180190		.709-.748	—	ERC32-18-19.5
MERPS32-190200		.748-.787	ERC32-3/4E	ERC32-19-20

• PS RING is included

ACCESSORIES

α TAPER CLEANER (FOR ER COLLET CHUCKS)

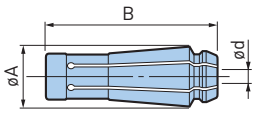
To maintain the accuracy of high precision collet chucks by cleaning the internal collet taper.



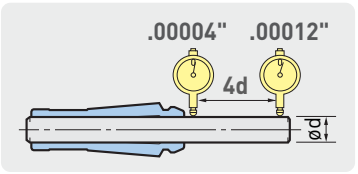
Catalog Number	Chuck Body
SC-MER11	ER11
SC-MER16	ER16
SC-MER20	ER20
SC-MER25	ER25
SC-MER32	ER32

MEGA E COLLET

CLAMPING RANGE: ø.125"-.500" (ø3-12mm)



Guaranteed Max Runout



All BIG Collets are AA Grade and inspected twice for accuracy

MEGA 6E

Catalog Number	Clamping Range ød	Min Clamping Length
MEC6-1/8AA	.125	.75
MEC6-3/16AA	.187	.98
MEC6-1/4AA	.250	1.10
MEC6-3AA	3mm	.75
MEC6-4AA	4mm	.87
MEC6-5AA	5mm	.98
MEC6-6AA	6mm	1.10

øA=.44 (11.3mm) B=1.37 (34.9mm)

MEGA 8E

Catalog Number	Clamping Range ød	Min Clamping Length
MEC8-1/8AA	.125	.75
MEC8-3/16AA	.187	.98
MEC8-1/4AA	.250	1.10
MEC8-3AA	3mm	.75
MEC8-4AA	4mm	.87
MEC8-5AA	5mm	.98
MEC8-6AA	6mm	1.10
MEC8-7AA	7mm	1.14
MEC8-8AA	8mm	1.22

øA=.56 (14.1mm) B=1.55 (39.4mm)

MEGA 10E

Catalog Number	Clamping Range ød	Min Clamping Length
MEC10-1/8AA	.125	.75
MEC10-3/16AA	.187	.98
MEC10-1/4AA	.250	1.10
MEC10-5/16AA	.312	1.22
MEC10-3/8AA	.375	1.46
MEC10-3AA	3mm	.75
MEC10-4AA	4mm	.87
MEC10-5AA	5mm	.98
MEC10-6AA	6mm	1.10
MEC10-7AA	7mm	1.16
MEC10-8AA	8mm	1.22
MEC10-9AA	9mm	1.30
MEC10-10AA	10mm	1.46

øA=.67 (17.1mm) B=1.80 (45.7mm)

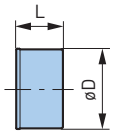
MEGA 13E

Catalog Number	Clamping Range ød	Min Clamping Length
MEC13-1/8AA	.125	.75
MEC13-3/16AA	.187	.98
MEC13-1/4AA	.250	1.10
MEC13-5/16AA	.312	1.22
MEC13-3/8AA	.375	1.46
MEC13-7/16AA	.437	
MEC13-1/2AA	.500	1.54
MEC13-3AA	3mm	.75
MEC13-4AA	4mm	.87
MEC13-5AA	5mm	.98
MEC13-6AA	6mm	1.10
MEC13-7AA	7mm	1.16
MEC13-8AA	8mm	1.22
MEC13-9AA	9mm	1.30
MEC13-10AA	10mm	1.46
MEC13-12AA	12mm	1.54

øA=.81 (20.6mm) B=1.89 (47.9mm)

Use only a cutting tool shank with exactly the same diameter as collet bore diameter.
The tolerance of the cutting tool shank must be within h7.

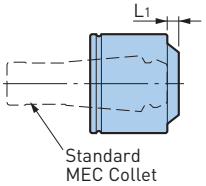
MEGA E NUT



Catalog Number	øD	L	Body Type
MEN6	.98 (25mm)	.81 (20.5mm)	MEGA6E
MEN8	1.18 (30mm)	.87 (22mm)	MEGA8E
MEN10	1.38 (35mm)	.89 (22.5mm)	MEGA10E
MEN13	1.65 (42mm)	.96 (24.5mm)	MEGA13E

MEGA E PERFECT SEAL

Unique design increases sealing performance with higher coolant pressure to create a perfect seal.



Two-Way Coolant

MAX COOLANT PRESSURE 1,000 PSI

MEGA6E

Catalog Number	L1	Cutter Shank ø	Collet Model
EPS6-03	.220	.118	MEC6-3
EPS6-04	.205	4mm (1/8)	MEC6-4
EPS6-05		5mm (3/16)	MEC6-5
EPS6-06		.236	MEC6-6

• PS RING is included

MEGA10E

Catalog Number	L1	Cutter Shank ø	Collet Model
EPS10-03	.252	.118	MEC10-3
EPS10-04	.236	4mm (1/8)	MEC10-4
EPS10-05		5mm (3/16)	MEC10-5
EPS10-06		.236	MEC10-6
EPS10-07	.248	7mm (1/4)	MEC10-7
EPS10-08		8mm (5/16)	MEC10-8
EPS10-09	.224	.354	MEC10-9
EPS10-10		10mm (3/8)	MEC10-10

• PS RING is included

For Jet Through application by removing the PS RING, it is recommended to use the largest clamping range of the nut corresponding to the tool shank diameter.

MEGA8E

Catalog Number	L1	Cutter Shank ø	Collet Model
EPS8-03	.252	.118	MEC8-3
EPS8-04	.236	4mm (1/8)	MEC8-4
EPS8-05		5mm (3/16)	MEC8-5
EPS8-06		.236	MEC8-6
EPS8-07	.220	7mm (1/4)	MEC8-7
EPS8-08		.315	MEC8-8

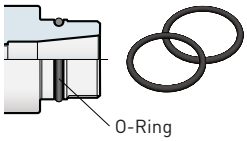
• PS RING is included

MEGA13E

Catalog Number	L1	Cutter Shank ø	Collet Model
EPS13-03	.252	.118	MEC13-3
EPS13-04	.236	4mm (1/8)	MEC13-4
EPS13-05		5mm (3/16)	MEC13-5
EPS13-06		.236	MEC13-6
EPS13-07	.248	7mm (1/4)	MEC13-7
EPS13-08		8mm (5/16)	MEC13-8
EPS13-09	.256	.354	MEC13-9
EPS13-10		10mm (3/8)	MEC13-10
EPS13-11	.244	.433	MEC13-11
EPS13-12		12mm (7/16)	MEC13-12
EPS13-13		13mm (1/2)	MEC13-1/2

• PS RING is included

TOOL HOLDER BODY O-RING REPLACEMENT

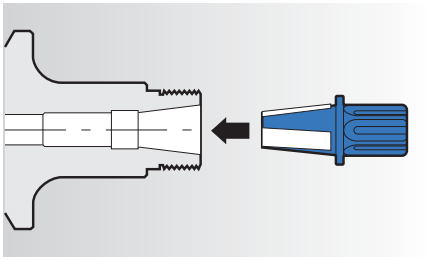


Catalog Number	Body Type
MG6EOR	MEGA6E
MG8EOR	MEGA8E
MG10EOR	MEGA10E
MG13EOR	MEGA13E

• Sold in packages of 2 pcs.

α TAPER CLEANER (FOR MEGA E CHUCKS)

To maintain the accuracy of high precision collet chucks by cleaning the internal collet taper.



Catalog Number	Chuck Body
SC-MEC6	MEGA6E
SC-MEC8	MEGA8E
SC-MEC10	MEGA10E
SC-MEC13	MEGA13E

PS RING

Perfect Seal replacement seals

FOR MEGA PERFECT SEAL

Catalog Number	MPS Model
PS-0304	MPS□-03035, 0304
PS-0405	MPS□-04045, 0405
PS-0506	MPS□-05055, 0506
PS-0607	MPS□-06065, 0607
PS-0708	MPS□-07075, 0708

Catalog Number	MPS Model
PS-0809	MPS□-08085, 0809
PS-0910	MPS□-09095, 0910
PS-1011	MPS□-10105, 1011
PS-1112	MPS□-11115, 1112
PS-1213	MPS□-12125, 1213

Catalog Number	MPS Model
PS-1314	MPS□-1314
PS-1415	MPS□-1415
PS-1516	MPS□-1516
PS-1617	MPS□-1617
PS-1718	MPS□-1718
PS-1819	MPS□-1819
PS-1920	MPS□-1920

• 1 package contains 5 pcs. (1 size)

FOR MEGA ER PERFECT SEAL

Catalog Number	MERPS Model
PS-0304	MERPS□-030035, 035040
PS-0405	MERPS□-040045, 045050
PS-0506	MERPS□-050055, 055060
PS-0607	MERPS□-060065, 065070
PS-0708	MERPS□-070075, 075080

Catalog Number	MERPS Model
PS-0809	MERPS□-080085, 085090
PS-0910	MERPS□-090095, 095100
PS-1011	MERPS□-100105, 105110
PS-1112	MERPS□-110115, 115120
PS-1213	MERPS□-120125, 125130

Catalog Number	MERPS Model
PS-1314	MERPS□-130140
PS-1415	MERPS□-140150
PS-1516	MERPS□-150160
PS-1617	MERPS□-160170
PS-1718	MERPS□-170180
PS-1819	MERPS□-180190
PS-1920	MERPS□-190200

• 1 package contains 5 pcs. (1 size)

FOR MEGA E PERFECT SEAL

Catalog Number	EPS Model
PS-0304	EPS□-03
	EPS□-04
PS-0405	EPS□-05
PS-0506	EPS□-06
PS-0607	EPS□-07
PS-0708	EPS□-08

Catalog Number	EPS Model
PS-0809	EPS□-09
PS-0910	EPS□-10
PS-1011	EPS□-11
PS-1112	EPS□-12
PS-1213	EPS□-13

• 1 package contains 5 pcs. (1 size)

FOR NEW BABY PERFECT SEAL

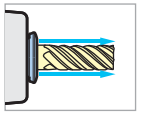
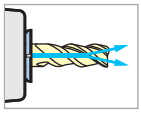
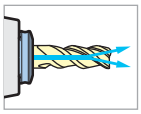
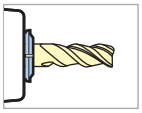
Catalog Number	BPS Model
PS-0304	BPS□-03035, 0304
PS-0405	BPS□-04045, 0405
PS-0506	BPS□-05055, 0506
PS-0607	BPS□-06065, 0607
PS-0708	BPS□-07075, 0708

Catalog Number	BPS Model
PS-0809	BPS□-08085, 0809
PS-0910	BPS□-09095, 0910
PS-1011	BPS□-10105, 1011
PS-1112	BPS□-11115, 1112
PS-1213	BPS□-12125, 1213

Catalog Number	BPS Model
PS-1314	BPS□-1314
PS-1415	BPS□-1415
PS-1516	BPS□-1516
PS-1617	BPS□-1617
PS-1718	BPS□-1718
PS-1819	BPS□-1819
PS-1920	BPS□-1920

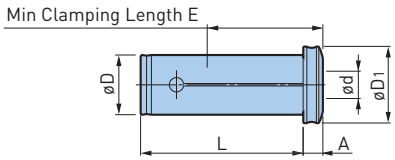
• 1 package contains 5 pcs. (1 size)

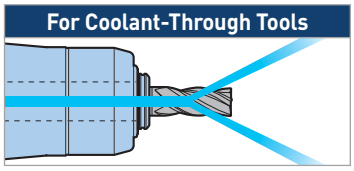
STRAIGHT COLLET SELECTION GUIDE

	PJC COLLET	OCA COLLET	PSC COLLET	C COLLET
	 Peripheral Coolant Supply	 Coolant Through Tool Supply	 Coolant Through Tool Supply	 W/O Center Coolant
MEGA-D MEGA DOUBLE POWER CHUCK	○	○	○	○
MEGA-DS MEGA DOUBLE POWER CHUCK	○		○	○
HMC NEW Hi-POWER MILLING CHUCK	○	○	○	○
HDC HYDRAULIC CHUCK	○		○	

PSC STRAIGHT COLLET

Reduction sleeve for small diameter cutters used in NEW Hi-POWER MILLING CHUCKS, MEGA DOUBLE POWER CHUCKS and HYDRAULIC CHUCKS.





Catalog Number	Clamping Range ød	øD	L	A	D1	E
PSC.750-1/4	.250	.750	2.40	.32	1.06	1.58
PSC.750-3/8	.375					1.78
PSC.750-1/2	.500			.34		1.97
PSC.750-5/8	.625				1.10	
PSC1.250-1/2	.500	1.250	2.91	.34	1.50	1.97
PSC1.250-5/8	.625					2.09
PSC1.250-3/4	.750			.36		2.21
PSC1.250-7/8	.875			.37		2.33
PSC1.250-1	1.000					2.41
PSC20-3	3mm	20mm	61mm	7.7mm	27mm	31mm
PSC20-4	4mm			7.5mm		
PSC20-5	5mm					
PSC20-6	6mm					39mm
PSC20-7	7mm			8.2mm		40mm
PSC20-8	8mm					
PSC20-9	9mm					
PSC20-10	10mm					45mm
PSC20-11	11mm			8.7mm		50mm
PSC20-12	12mm					
PSC20-13	13mm					
PSC20-14	14mm				28mm	
PSC20-15	15mm					
PSC20-16	16mm					

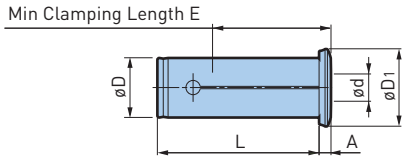
Catalog Number	Clamping Range ød	øD	L	A	D1	E
PSC32-6	6mm	32mm	74mm	7.5mm	38mm	39mm
PSC32-7	7mm			8.2mm		40mm
PSC32-8	8mm					
PSC32-9	9mm					
PSC32-10	10mm					45mm
PSC32-11	11mm			8.7mm		
PSC32-12	12mm					50mm
PSC32-13	13mm					
PSC32-14	14mm					
PSC32-15	15mm					51mm
PSC32-16	16mm					53mm
PSC32-18	18mm			9.2mm		56mm
PSC32-19	19mm					
PSC32-20	20mm					
PSC32-21	21mm					
PSC32-22	22mm			9.5mm		59mm
PSC32-23	23mm					
PSC32-24	24mm					60mm
PSC32-25	25mm					61mm

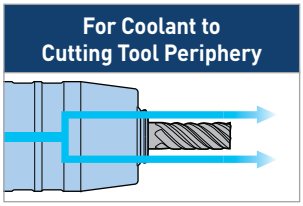
- MEGA D/DS, HMC and HDC chucks allow through-tool coolant when PSC collet is used
- The maximum tool insertion depth from the flange of PSC20-16 collet is 59mm

PJC STRAIGHT COLLET

CLAMPING RANGE: ø.250"-1.000" (ø3-32mm)

Reduction sleeve for small diameter cutters used in NEW Hi-POWER MILLING CHUCKS, MEGA DOUBLE POWER CHUCKS AND HYDRAULIC CHUCKS.





Catalog Number	Clamping Range ød	øD	L	A	D1	E
PJC.500D-1/4	.250	.500	1.59	.21	.80	1.38
PJC.500D-3/8	.375			.22		1.54
PJC.750-1/4	.250	.750	2.40	.21	1.06	1.54
PJC.750-3/8	.375			.22		1.78
PJC.750-1/2	.500			.27		1.97
PJC.750-5/8	.625			.29		
PJC1.000-1/4	.250	1.000	2.68	.20	1.28	1.54
PJC1.000-3/8	.375					1.78
PJC1.000-1/2	.500					1.97
PJC1.000-5/8	.625			.21		2.09
PJC1.000-3/4	.750			.24		2.21
PJC1.250-1/2	.500	1.250	2.91	.20	1.54	1.97
PJC1.250-5/8	.625					2.09
PJC1.250-3/4	.750					2.21
PJC1.250-7/8	.875					2.25
PJC1.250-1	1.000			.21		2.41
PJC12D-6	6mm	12mm	40mm	5.4mm	20.4mm	35mm
PJC12D-8	8mm					37mm
PJC12D-10	10mm			5.6mm		39mm
PJC16-6	6mm	16mm	54mm	6.0mm	23mm	39mm
PJC16-8	8mm			6.3mm		40mm
PJC16-10	10mm					45mm
PJC16-12	12mm					48mm
PJC20-3	3mm	20mm	61mm	5.2mm	27mm	31mm
PJC20-4	4mm					
PJC20-5	5mm					
PJC20-6	6mm					39mm
PJC20-7	7mm			5.7mm		40mm
PJC20-8	8mm					
PJC20-9	9mm					
PJC20-10	10mm					45mm
PJC20-11	11mm			6.4mm		
PJC20-12	12mm					50mm
PJC20-13	13mm			6.8mm		
PJC20-14	14mm			7.3mm		
PJC20-15	15mm					
PJC20-16	16mm					

Catalog Number	Clamping Range ød	øD	L	A	D1	E
PJC25-6	6mm	25mm	68mm	5.0mm	32.5mm	39mm
PJC25-8	8mm					40mm
PJC25-10	10mm					45mm
PJC25-12	12mm					50mm
PJC25-16	16mm			5.4mm		53mm
PJC25-18	18mm			5.8mm		55mm
PJC25-20	20mm			6.5mm		56mm
PJC32-6	6mm	32mm	74mm	5.0mm	39mm	39mm
PJC32-8	8mm					40mm
PJC32-10	10mm					45mm
PJC32-12	12mm					50mm
PJC32-14	16mm					
PJC32-16	18mm					53mm
PJC32-20	20mm					56mm
PJC32-25	25mm			5.4mm		61mm
PJC42-16	16mm	42mm	83mm	5.0mm	50.5mm	53mm
PJC42-20	20mm					56mm
PJC42-25	25mm					61mm
PJC42-32	32mm					66mm

- MEGA D/DS and HMC chucks allow jet through coolant when PJC collet is used
- The maximum tool insertion depth from the flange of PJC20-16 collet is 58mm

PJC.500 & PJC12 can be used only for HMC.005J or HMC12J. Never use with HDC.

PS RING

For coolant-through tools. Specially designed sealant is used inside the PSC Straight Collet.

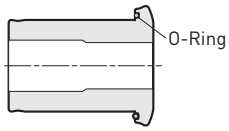
Catalog Number	PSC Collet Model	
	Metric	Inch
PS-0304	PSC□-3,4	—
PS-0405	PSC□-5	—
PS-0506	PSC□-6	—
PS-0607	PSC□-7	PSC□-.250
PS-0708	PSC□-8	—
PS-0809	PSC□-9	—
PS-0910	PSC□-10	PSC□-.375
PS-1011	PSC□-11	—
PS-1112	PSC□-12	—
PS-1213	PSC□-13	PSC□-.500
PS-1314	PSC□-14	—
PS-1415	PSC□-15	—
PS-1516	PSC□-16	PSC□-.625
PS-1718	PSC□-18	—
PS-1819	PSC□-19	PSC□-.750
PS-1920	PSC□-20	—
PS-2021	PSC□-21	—
PS-2223	PSC□-22,23	—
PS-2324	PSC□-24	—
PS-2526	PSC□-25	PSC□-1.000

The PS RING must be replaced if damage is causing coolant to leak.

• 1 package contains 5 pcs. (1 size)

O-RING

For maintenance, common for PJC, PSC.



Catalog Number	Collet Model
PJC12D0R-2PS	PJC.500D, PJC12D
PJC160R-2P	PJC16
PJC200R-2P	PJC20, PSC20, .750
PJC250R-2P	PJC25, 1.000
PJC320R-2P	PJC32, PSC32, 1.250
PJC420R-2P	PJC42

Replace if the o-ring is damaged.

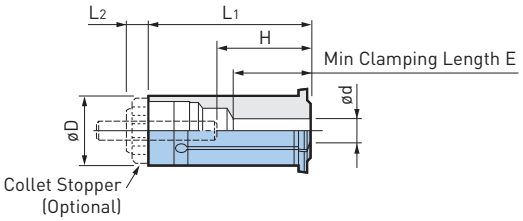
• 2-piece set

BIG DAISHOWA

C COLLETS

CLAMPING RANGE: ø.250"-1.000" (ø6-40mm)

Reduction sleeve for smaller diameter cutters used in Hi-POWER MILLING CHUCKS and MEGA DOUBLE POWER CHUCKS.



REDUCTION COLLETS

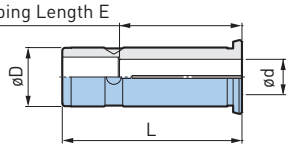
Catalog Number	Clamping Range ød	øD	L1	L2	H Max	H Min	E	Collet Stopper (Optional)
C.750-1/4	.250	.750	2.37	.32	1.19	1.89	1.19	AC20CS
C.750-5/16	.312				1.26		1.26	
C.750-3/8	.375				1.46		1.46	
C.750-7/16	.437							
C.750-1/2	.500							
C.750-9/16	.562				1.58		1.58	
C.750-5/8	.625		2.05	—	2.05	—	2.05	❖
C.750-6	6mm		60mm	8mm	30mm	48mm	30mm	AC20CS
C.750-8	8mm				32mm		32mm	
C.750-10	10mm				37mm		37mm	
C.750-12	12mm							
C.750-14	14mm				40mm		40mm	
C.750-16	16mm			—	46mm		46mm	❖
C1.000-1/4	.250	1.000	2.70	.32	1.19	2.29	1.19	AC25CS
C1.000-3/8	.375				1.46		1.46	
C1.000-1/2	.500							
C1.000-5/8	.625				1.82		1.82	
C1.000-3/4	.750				2.05		2.05	
C1.250-1/4	.250	1.250	2.92	.40	1.19	2.44	1.19	AC32CS
C1.250-5/16	.312				1.26		1.26	
C1.250-3/8	.375				1.46		1.46	
C1.250-7/16	.437							
C1.250-1/2	.500							
C1.250-9/16	.562				1.58		1.58	
C1.250-5/8	.625				1.82		1.82	
C1.250-11/16	.687							
C1.250-3/4	.750				1.97		1.97	
C1.250-13/16	.812				2.05		2.05	
C1.250-7/8	.875							
C1.250-15/16	.937				2.17		2.17	
C1.250-1	1.000							
C1.250-12	12mm		74mm	10mm	37mm	62mm	37mm	
C1.250-14	14mm				40mm		40mm	
C1.250-16	16mm				46mm		46mm	
C1.250-20	20mm				52mm		52mm	
C1.250-25	25mm				55mm		55mm	
C16-6	6mm	16mm	52	6	30	47	30	AC16CS
C16-8	8mm				32		32	
C16-10	10mm				37		37	
C16-12	12mm							
C20-1/4	.250	20mm	2.37	.32	1.19	1.89	1.19	AC20CS
C20-3/8	.375				1.46		1.46	
C20-1/2	.500							
C20-5/8	.625			—	1.82		1.82	❖

Catalog Number	Clamping Range ød	øD	L1	L2	H Max	H Min	E	Collet Stopper (Optional)
C20-6	6mm	20mm	60	8mm	30mm	48mm	30mm	AC20CS
C20-8	8mm				32mm		32mm	
C20-10	10mm				37mm		37mm	
C20-12	12mm							
C20-14	14mm				40mm		40mm	
C20-16	16mm			—	46mm	—	46mm	❖
C20-18	18mm		52		50mm		50mm	
C25-6	6mm	25mm	68.5	8mm	30mm	58mm	30mm	AC25CS
C25-8	8mm				62mm		62mm	
C25-10	10mm				37mm		37mm	
C25-12	12mm							
C25-14	14mm				45mm		45mm	
C25-16	16mm				46mm		46mm	
C25-18	18mm				48mm		48mm	
C25-20	20mm				52mm		52mm	
C32-1/4	.250	32mm	2.92	.40	1.19	2.44	1.19	AC32CS
C32-3/8	.375				1.46		1.46	
C32-1/2	.500							
C32-5/8	.625				1.82		1.82	
C32-3/4	.750				1.97		1.97	
C32-1	1.000			—	2.17		2.17	❖
C32-6	6mm	32mm	74mm	10mm	30mm	62mm	30mm	AC32CS
C32-8	8mm				32mm		32mm	
C32-10	10mm				37mm		37mm	
C32-12	12mm							
C32-14	14mm				40mm		40mm	
C32-16	16mm				46mm		46mm	
C32-18	18mm				50mm		50mm	
C32-19	19mm							
C32-20	20mm				52mm		52mm	
C32-22	22mm							
C32-24	24mm				55mm		55mm	
C32-25	25mm							
C32-30	30mm						65mm	
C42-6	6mm	42mm	89mm	10mm	30mm	77mm	30mm	AC4CS
C42-8	8mm				34mm		34mm	
C42-10	10mm				40mm		40mm	
C42-12	12mm							
C42-16	16mm				46mm		46mm	
C42-20	20mm				52mm		52mm	
C42-25	25mm				57mm		57mm	
C42-31	31mm				62mm		62mm	
C42-32	32mm							
C42-40	40mm						79mm	❖

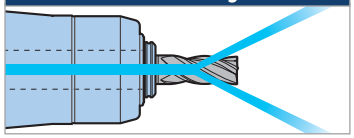
• Collet stopper (pg. 409) cannot be used with models marked ❖

OCA COLLETS CLAMPING RANGE: ø6-32mm

Reduction sleeve for smaller diameter cutters used in Hi-POWER MILLING CHUCKS and MEGA DOUBLE POWER CHUCKS.



For Coolant-Through Tools



- Recommended Only for HMC(S) Type Holders

METALLIC SEALED COOLANT COLLETS

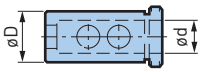
Catalog Number	Clamping Range ød	øD	L	E
OCA16-6	6mm	16mm	58mm	36mm
OCA16-8	8mm			37mm
OCA16-10	10mm			38mm
OCA16-12	12mm			42mm
OCA20-6	6mm	20mm	62mm	36mm
OCA20-8	8mm			37mm
OCA20-10	10mm			38mm
OCA20-12	12mm		61mm	42mm
OCA20-14	14mm			
OCA20-16	16mm			52mm
OCA25-6	6mm	25mm	72.5mm	36mm
OCA25-8	8mm			37mm
OCA25-10	10mm			38mm
OCA25-12	12mm			44mm
OCA25-14	14mm		71.5mm	44mm
OCA25-16	16mm			52mm
OCA25-18	18mm			
OCA25-20	20mm			
OCA32-6	6mm	32mm	79.5mm	36mm
OCA32-8	8mm			37mm
OCA32-10	10mm			38mm
OCA32-12	12mm			44mm
OCA32-13	13mm			46mm
OCA32-14	14mm			48mm
OCA32-15	15mm			50mm
OCA32-16	16mm			52mm
OCA32-17	17mm		78.5mm	52mm
OCA32-18	18mm			
OCA32-19	19mm			
OCA32-20	20mm			
OCA32-21	21mm			
OCA32-22	22mm			
OCA32-23	23mm			
OCA32-24	24mm			
OCA32-25	25mm			
OCA32-27	27mm			
OCA32-28	28mm			
OCA32-29	29mm			

Catalog Number	Clamping Range ød	øD	L	E
OCA42-6	6mm	42mm	79.5mm	36mm
OCA42-8	8mm			37mm
OCA42-10	10mm			38mm
OCA42-12	12mm			44mm
OCA42-16	16mm			52mm
OCA42-19	19mm			
OCA42-20	20mm			
OCA42-24	24mm		78.5mm	55mm
OCA42-25	25mm			
OCA42-31	31mm			58mm
OCA42-32	32mm			

- Capable of supplying coolant-through tool
- Use with cutting tools with oil holes
- For the MEGA DS chuck use the PSC Collet

OSL REDUCTION COLLET

(INCH TYPE)



Catalog Number	ød	øD
OSL1.250-.750	.750	1.250
OSL1.250-1.000	1.000	1.250
OSL1.500-1.000	1.000	1.500
OSL1.500-1.250	1.250	1.500

(METRIC TYPE)

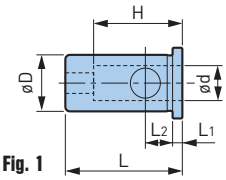


Fig. 1

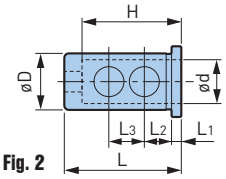


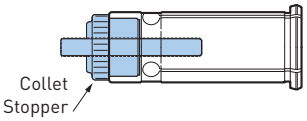
Fig. 2

Catalog Number	Fig.	ød	øD	L	L1	L2	L3	H
OSL25-16	1	16	25	62	5.5	15.5	—	48
OSL25-20		20						50
OSL32-16	1	16	32	66	5.5	15.5	—	48
OSL32-20		20						50
OSL32-25	2	25					20	56
OSL40-16	1	16	40	76	5.5	15.5	—	48
OSL40-20		20						50
OSL40-25		25						56
OSL40-32	2	32					25	60

• All dimensions in mm

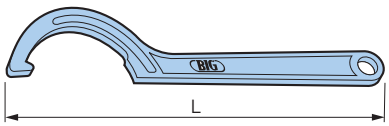
COLLET STOPPER (FOR C COLLETS)

Stopper for tool length adjustment in Hi-POWER MILLING CHUCKS and MEGA DOUBLE POWER CHUCKS.



Collet	Catalog Number
C16-☐	**AC16CS**
C20-☐	**AC20CS**
C.750-☐	
C25-☐	**AC25CS**
C1.000-☐	
C32-☐	**AC32CS**
C1.250-☐	
C42-☐	**AC42CS**

SPANNER WRENCH (FOR NEW HI-POWER MILLING CHUCK)



Catalog Number	Nut Diameter	L	Holder Type	
			Metric	Inch
FK31-33	1.22-1.30 (31-33mm)	6.0	HMC12J	HMC.500J
FK45-50L	1.69-1.97 (43-50mm)	9.5	HMC16S	HMC.750S
			HMC20S	
FK52-55	2.05-2.17 (52-55mm)	8.7	HMC25S(BT/BBT30)	—
FK58-62	2.28-2.44 (58-62mm)	9.4	HMC20	HMC.750
			HMC25	HMC1.000
FK58-62L		11.5	HMC25S	HMC1.000S
			HMC32S(BT/BBT30)	
FK68-75L	2.68-2.95 (68-75mm)	12.5	HMC32S	HMC1.250S
FK80-90	3.15-3.54 (80-90mm)	11.0	HMC32	HMC1.250
FK80-90L		14.6	HMC42S	
FK92-100	3.62-3.94 (92-100mm)	11.0	HMC42	HMC1.500
			HMC50.8	

MEGA WRENCH (FOR MEGA CHUCK SERIES)

One-way clutch system applies tightening force to entire nut periphery evenly. Prevents wrench slippage for a safe and secure tightening operation.

Catalog Number	ød	Body Model				
		MEGA MICRO CHUCK	MEGA NEW BABY CHUCK	MEGA E CHUCK	MEGA ER GRIP	MEGA SYNCHRO
MGR10	10mm (.39)	MEGA3S	—	—	—	—
MGR12	12mm (.47)	MEGA4S	—	—	—	—
MGR14	14mm (.55)	MEGA6S	—	—	—	—
MGR16	16mm (.63)		—	—	—	MGT6
MGR18	18mm (.71)	MEGA8S	—	—	—	—
MGR20	20mm (.79)	—	MEGA6N	—	—	—
MGR20L			—	—	—	MGT12
MGR25	25mm (.98)	—	MEGA8N	MEGA6E	—	—
MGR30	30mm (1.18)	—	MEGA10N	MEGA8E	—	—
MGR30L					MEGAER16	MGT20*
MGR35	35mm (1.38)	—	MEGA13N	MEGA10E	—	—
MGR35L					MEGAER20	—
MGR42	42mm (1.65)	—	MEGA16N	MEGA13E	—	—
MGR42L					MEGAER25	—
MGR46	46mm (1.81)	—	MEGA20N	—	—	—
MGR46L						
MGR50L	50mm (1.97)	—	—	—	MEGAER32	—
MGR60L	60mm (2.36)	—	MEGA25N	—	—	—

***Use MGR30 for MGT12-10080-□**

Catalog Number	ød	Body Model		
		MEGA DOUBLE POWER CHUCK	NEW Hi- POWER MILLING CHUCK	MEGA PERFECT GRIP
MGR38L	38mm (1.50)	MEGA12(.500")DS	—	—
MGR42L	42mm (1.65)	MEGA16 (.625") DS (BCV40,BBT40, HSK-A63/F63, C5/6)	—	—
MGR43L	43mm (1.69)	—	HMC16S	—
MGR46L	46mm (1.81)	MEGA16(.625")DS (BCV50,BBT30/50, HSK-A40/A50/A100, C4/8)	—	MEGA16DPG
MGR50L	50mm (1.97)	MEGA20(.750")DS (BBT30/40,BCV40, HSK-A50/63, F63,C4/5/6)	HMC20(.750")S	—
MGR55L	55mm (2.17)	—	HMC25S (BBT30,C5)	—
MGR59L	59mm (2.32)	—	HMC25(1.000")S (BCV40,BBT40/50, HSK63/100)	—
MGR60L	60mm (2.36)	MEGA20(.750")DS (BCV/BBT50, HSK-A100/A125,C8)	HMC20(.750") (BCV/BBT50,C8)	MEGA20(.750")DPG
MGR62L	62mm (2.44)	MEGA25(1.000")DS (BCV/BBT40, HSK-A63/F63, C5/6)	HMC25(1.000") (BCV/BBT50,C8)	—
		—	HMC32S (BBT30,HSK-A50,C5)	—
MGR68L	68mm (2.68)	—	HMC32S(1.250")S	—
MGR70L	70mm (2.76)	MEGA25(1.000")DS (BCV/BBT50, HSK-A100/125, C8)	—	MEGA25(1.000")DPG
		MEGA32(1.250")DS (BCV/BBT40, HSK-A63/F63, C6)	—	
MGR80L	80mm (3.15)	MEGA32(1.250")DS (BCV/BBT50, HSK-A100/A125, C8)	HMC32(1.250") (BCV/BBT50,C8)	MEGA32(1.250")DPG
MGR85L	85mm (3.35)	—	HMC42S (BCV/BBT50)	—
MGR99L	99mm (3.90)	MEGA42(1.500")DS	HMC1.500 (BCV50)	—
MGR105L	105mm (4.13)	MEGA50DS	—	—

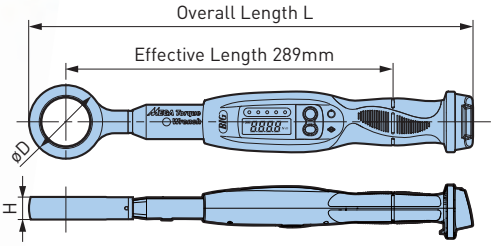
MEGA TORQUE WRENCH (FOR MEGA CHUCK SERIES)

MEGA WRENCH with torque limiter.

Catalog Number	ød	Body Model			
		MEGA MICRO	MEGA NEW BABY CHUCK	MEGA E CHUCK	MEGA SYNCHRO
MGR10TL	.39 (10mm)	MEGA3S	—	—	—
MGR12TL	.47 (12mm)	MEGA4S	—	—	MGT3
MGR12TLS❖			—	—	—
MGR14TL	.55 (14mm)	MEGA6S	—	—	—
MGR14TLS❖			—	—	—
MGR16TTL	.63 (16mm)	—	—	—	MGT6
MGR18TL	.71 (18mm)	MEGA8S	—	—	—
MGR20TL	.79 (20mm)	—	MEGA6N	—	—
MGR20TLS❖		—		—	—
MGR20TTL		—	—	—	MGT12
MGR25TL	.98 (25mm)	—	MEGA8N	MEGA6E	—
MGR25TLS❖		—		—	—
MGR30TL	1.18 (30mm)	—	MEGA10N	MEGA8E	—
MGR30TLS❖				—	—
MGR30TTL		—	—	—	MGT20
MGR35TL	1.38 (35mm)	—	MEGA13N	MEGA10E	—
MGR42TL	1.65 (42mm)	—	MEGA16N	MEGA13E	—
MGR46TL	1.81 (46mm)	—	MEGA20N	—	—
MGR60TL	2.36 (60mm)	—	MEGA25N	—	—

• For ø3mm or smaller shank tools use TLS models marked ❖

MEGA TORQUE WRENCH BODY



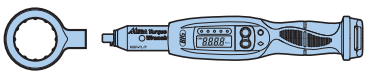
Catalog Number	MGR-TL/P
Torque Range	5-50 Nm
Minimum Read (Digit)	.01 Nm
Display	7 LCD segments 4 digits, numerical display
	High precision LED indicator five-level display
Basic Function	Battery level display (three levels)
	Peak hold function
	Auto power-off (1 hour)
	Tightening completion alarm > beep sound emission and vibrations
Power Supply	Two AA batteries
Battery life	Approx. 70 hours (100 times/h)
Operating Temperature	32° F - 104° F (recommended: 59° F - 86° °F) without dew condensing
Weight	1.19 lbs (excluding MEGA Wrench Adapter)

• Batteries not included; use batteries commercially available on the market

MEGA TORQUE WRENCH ADAPTER (OPTIONAL)

Catalog Number	Overall Length L	øD	H	Weight (lbs.)	Suitable Collet Chuck	
					MEGA NEW BABY CHUCK	MEGA E CHUCK
MGR20A-N	13.976	1.417	.630	.29	MEGA6N	—
MGR25A-N	14.134	1.732	.787	.40	MEGA8N	MEGA6E
MGR30A-N	14.252	1.969	.787	.49	MEGA10N	MEGA8E
MGR35A-N	13.350	2.165	.787	.51	MEGA13N	MEGA10E
MGR42A-N	14.488	2.441	.787	.55	MEGA16N	MEGA13E
MGR46A-N	14.567	2.598	.787	.60	MEGA20N	—

MEGA TORQUE WRENCH SET



Catalog Number	Set Contents
SMGR-TL /P	1x Body 6x Mega Wrench Adapters (MGR20A-N through MGR46A-N)

EXCLUSIVE STORAGE CASE

Easy to carry and safely store the equipment. Molds for (1) Body and (6) Mega Wrench Adapters. Standard accessory for the body (MGR-TL/P) and set (SMGR-TL/P) models.

α WIPER CLEANER

Perfect for HYDRAULIC CHUCKS and SHRINK FIT HOLDERS. Easy cleaning of smaller cylindrical bores by simply inserting and removing before cutting tool insertion.

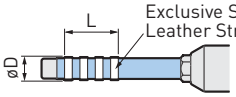


Fig. 1

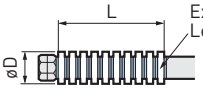


Fig. 2

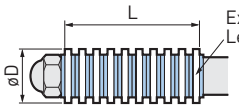
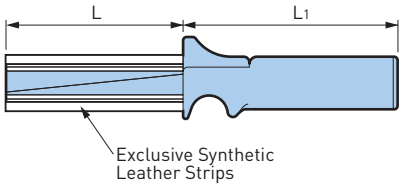


Fig. 3

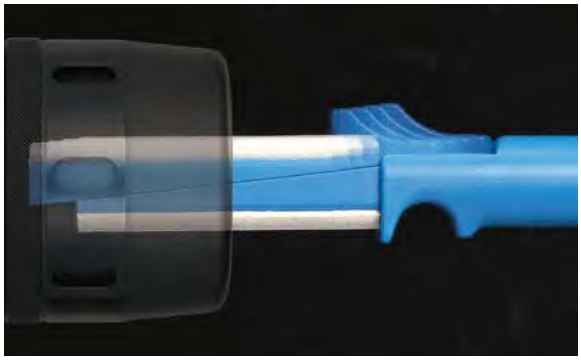
Catalog Number	Fig.	øD	L
AWC1/4	1	.250	.79
AWC5/16	2	.312	.79
AWC3/8		.375	1.02
AWC7/16		.437	1.22
AWC1/2		.500	1.22
AWC9/16		.562	1.22
AWC3	1	3mm	.28
AWC4		4mm	
AWC5	2	5mm	.79
AWC6		6mm	
AWC7	3	7mm	
AWC8		8mm	
AWC9		9mm	1.02
AWC10		10mm	
AWC11		11mm	1.22
AWC12		12mm	

TK CLEANER

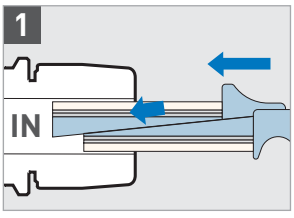
Perfect for HYDRAULIC CHUCKS, MILLING CHUCKS and SHRINK FIT HOLDERS. It is very difficult to remove oil and chips stuck to clamping bores, even with a wiping cloth or air spray. TK Cleaner cleans the clamping bore of a tool holder to maintain the high performance of tool holders.



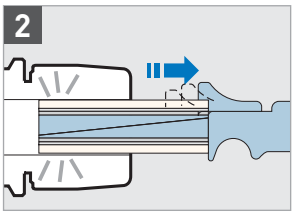
Catalog Number	Bore ø (metric)	Bore ø (inch)	L	L1	Leather Strip Qty.
TKC13	13mm	.500	2.36	4.17	2
TKC14	14mm	—			
TKC15	15mm	—			
TKC16	16mm	.625	2.76		
TKC18	18mm	—			
TKC19	19mm	—			
TKC20	20mm	.750			
TKC22	22mm	—	3.15		3
TKC24	24mm	—			
TKC25	25mm	1.000			
TKC28	28mm	—	3.94	4.76	4
TKC31	31mm	—			
TKC32	32mm	1.250			
TKC40	40mm	—	4.13		
TKC42	42mm	—			



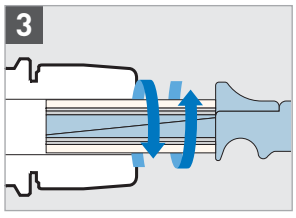
How to Use



Slide the upper section forward to reduce diameter and insert in the clamping bore.



Spring action draws back the sliding section when released so the cleaning strips contact the bore surface.



Rotate and remove the TK Cleaner to clear oil and particles.

GRIP BAR (FOR HYDRAULIC CHUCK)

For confirming gripping force.

Catalog Number	Chuck Bore
TSB3.175	.125
TSB.250	.250
TSB.375	.375
TSB.500	.500
TSB.625	.625
TSB.750	.750
TSB1.000	1.000
TSB1.250	1.250
TSB3	3mm
TSB4	4mm
TSB5	5mm

Catalog Number	Chuck Bore
TSB6	6mm
TSB7	7mm
TSB8	8mm
TSB9	9mm
TSB10	10mm
TSB11	11mm
TSB12	12mm
TSB13	13mm
TSB14	14mm
TSB15	15mm
TSB16	16mm

Catalog Number	Chuck Bore
TSB18	18mm
TSB19	19mm
TSB20	20mm
TSB22	22mm
TSB24	24mm
TSB25	25mm
TSB28	28mm
TSB31	31mm
TSB32	32mm
TSB42	42mm

- For details of usage, refer to the hydraulic chuck operation manual

SCREWS (FOR HYDRAULIC CHUCK)

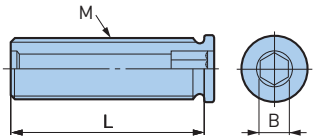


Fig. 1

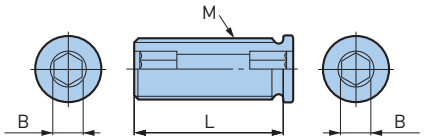
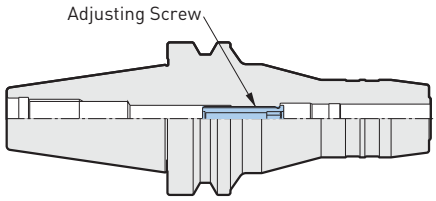


Fig. 2

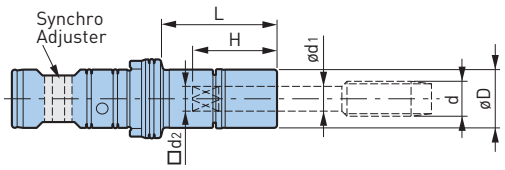


Catalog Number	Fig.	M (Left Hand Thread)	L	B
HDA6-05013	1	M5x.8	.51	2.5mm
HDA6-05020			.79	
HDA6-05032			1.26	
HDA8-06013	1	M6x1	.51	3mm
HDA8-06020			.79	
HDA8-06032			1.26	
HDA10-08015	1	M8x1	.59	4mm
HDA10-08032			1.26	
HDA12-10010	1	M10x1	.39	5mm
HDA12-10025			.98	
HDA12-10032			1.26	
HDA16-12015	1	M12x1	.59	6mm
HDA16-12030			1.18	
HDA16-12037			1.46	
HDA20-16015	1	M16x1	.59	6mm
HDA25-16033	1	M16x1	1.30	6mm
HDA25-16039			1.54	

Catalog Number	Fig.	M (Left Hand Thread)	L	B
HDA6-05013W	2	M5x.8	.51	2.5mm
HDA6-05020W			.79	
HDA6-05032W			1.26	
HDA8-06013W	2	M6x1	.51	3mm
HDA8-06020W			.79	
HDA8-06032W			1.26	
HDA10-08015W	2	M8x1	.59	4mm
HDA10-08032W			1.26	
HDA12-10025W	2	M10x1	.98	5mm
HDA12-10032W			1.26	
HDA16-12015W	2	M12x1	.59	4mm
HDA16-12030W			1.18	
HDA16-12037W			1.46	
HDA20-16015W	2	M16x1	.59	4mm
HDA25-16033W	2	M16x1	1.18	4mm
HDA25-16039W			1.46	

ANSI STANDARD

AVAILABLE IN
SHORT - EXTRA LONG
1.25", 3", 4", 6" & 8"



MGT6 (INCH STYLE)

Catalog Number	Tapping Range d	øD	ød1	□d2	H	L
MGT6-No.6-1.25	No.2-6	.63 (16mm)	.141	.110	.82	1.25
MGT6-No.6-3						3.00
MGT6-No.6-4						4.00
MGT6-No.6-6						6.00
MGT6-No.8-1.25	No.8	.63 (16mm)	.168	.131	.88	1.25
MGT6-No.8-3						3.00
MGT6-No.8-4						4.00
MGT6-No.8-6						6.00
MGT6-No.10-1.25	No.10	.63 (16mm)	.194	.152	1.00	1.25
MGT6-No.10-3						3.00
MGT6-No.10-4						4.00
MGT6-No.10-6						6.00
MGT6-No.10-8						8.00
MGT6-No.12-1.25	No.12	.63 (16mm)	.220	.165	1.03	1.25
MGT6-No.12-3						3.00
MGT6-No.12-4						4.00
MGT6-No.12-6						6.00
MGT6-No.12-8						8.00

• Nut is included; wrench must be ordered separately

MGT12 (INCH STYLE)

Catalog Number	Tapping Range d	øD	ød1	□d2	H	L
MGT12-AU1/4-1.25	AU1/4	.79 (20mm)	.255	.191	1.14	1.25
MGT12-AU1/4-3						3.00
MGT12-AU1/4-4						4.00
MGT12-AU1/4-6						6.00
MGT12-AU1/4-8						8.00
MGT12-AU5/16-1.25	AU5/16	.79 (20mm)	.318	.238	1.20	1.25
MGT12-AU5/16-3						3.00
MGT12-AU5/16-4						4.00
MGT12-AU5/16-6						6.00
MGT12-AU5/16-8						8.00
MGT12-AU7/16-1.25	AU7/16	.79 (20mm)	.323	.242	1.23	1.25
MGT12-AU7/16-3						3.00
MGT12-AU7/16-4						4.00
MGT12-AU7/16-6						6.00
MGT12-AU7/16-8						8.00

• Nut is included; wrench must be ordered separately

ACCESSORIES


MEGA NUT
PG. 423


MEGA WRENCH
PG. 410

MGT 20 (INCH STYLE)

Catalog Number	Tapping Range d	øD	ød1	□d2	H	L
MGT20-AU1/2-1.5	AU1/2	1.18 (30mm)	.367	.275	1.26	1.50
MGT20-AU1/2-3.5						3.50
MGT20-AU1/2-4.5						4.50
MGT20-AU1/2-6						6.00
MGT20-AU3/8-1.5	AU3/8	1.18 (30mm)	.381	.286	1.26	1.50
MGT20-AU3/8-3.5						3.50
MGT20-AU3/8-4.5						4.50
MGT20-AU3/8-6						6.00
MGT20-AU9/16-1.5	AU9/16	1.18 (30mm)	.429	.322	1.41	1.50
MGT20-AU9/16-3.5						3.50
MGT20-AU9/16-4.5						4.50
MGT20-AU9/16-6						6.00
MGT20-AU5/8-1.5	AU5/8	1.18 (30mm)	.480	.360	1.47	1.50
MGT20-AU5/8-3.5						3.50
MGT20-AU5/8-4.5						4.50
MGT20-AU5/8-6						6.00
MGT20-AU11/16-1.5	AU11/16	1.18 (30mm)	.542	.406	1.53	1.50
MGT20-AU11/16-3.5						3.50
MGT20-AU11/16-4.5						4.50
MGT20-AU11/16-6						6.00
MGT20-AU3/4-1.5	AU3/4	1.18 (30mm)	.590	.442	1.59	1.50
MGT20-AU3/4-3.5						3.50
MGT20-AU3/4-4.5						4.50
MGT20-AU3/4-6						6.00
MGT20-AP1/8-1.5	AP1/8	1.18 (30mm)	.4375	.328	1.20	1.50
MGT20-AP1/8-3.5						3.50
MGT20-AP1/8-4.5						4.50
MGT20-AP1/8-6						6.00
MGT20-AP1/4-1.5	AP1/4	1.18 (30mm)	.5625	.421	1.22	1.50
MGT20-AP1/4-3.5						3.50
MGT20-AP1/4-4.5						4.50
MGT20-AP1/4-6						6.00

• Nut is included; wrench must be ordered separately

ACCESSORIES

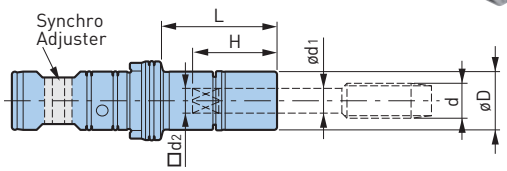
MEGA NUT PG. 423

MEGA WRENCH PG. 410

BIG DAISHOWA

JIS STANDARD

AVAILABLE IN
SHORT - EXTRA LONG
30mm, 70mm, 100mm, 150mm & 200mm



MGT6 (METRIC STYLE)

Catalog Number	Tapping Range d			øD	ød1	□d2	H	L
	Metric	Pipe	Unify					
MGT6-M2-30	M2	—	JIS No.3 JIS No.4	16mm	3.0	2.5	19	30
MGT6-M2-70								70
MGT6-M2-100								100
MGT6-M2-150								150
MGT6-M3-30	M3	—	JIS No.5 JIS No.6	16mm	4.0	3.2	21	30
MGT6-M3-70								70
MGT6-M3-100								100
MGT6-M3-150								150
MGT6-M4-30	M4	—	JIS No.8	16mm	5.0	4.0	25	30
MGT6-M4-70								70
MGT6-M4-100								100
MGT6-M4-150								150
MGT6-M4-200								200
MGT6-M5-30	M5	—	JIS No.10 JIS No.12	16mm	5.5	4.5	25	30
MGT6-M5-70								70
MGT6-M5-100								100
MGT6-M5-150								150
MGT6-M5-200								200
MGT6-M6U1/4-30	M6	—	JIS U1/4	16mm	6.0	4.5	25	30
MGT6-M6U1/4-70								70
MGT6-M6U1/4-100								100
MGT6-M6U1/4-150								150
MGT6-M6U1/4-200								200

- Nut is included, wrench must be ordered separately
- All dimensions shown in millimeters

ACCESSORIES

MEGA NUT
PG. 423

MEGA WRENCH
PG. 410

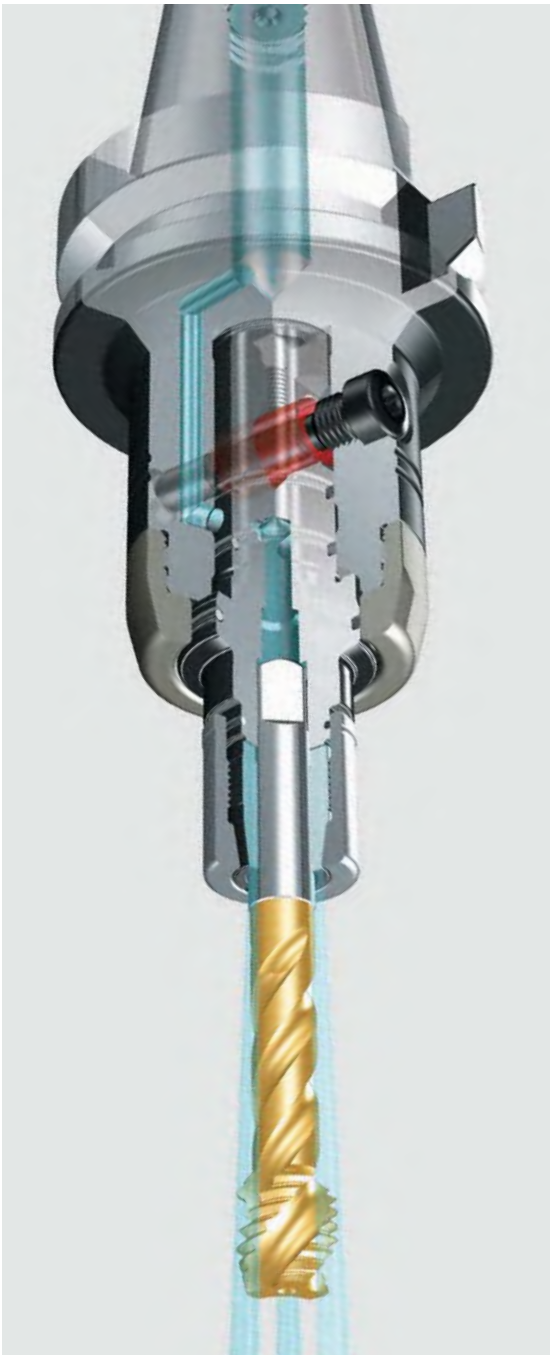
MGT12 (METRIC STYLE)

Catalog Number	Tapping Range d			øD	ød1	□d2	H	L
	Metric	Pipe	Unify					
MGT12-M6U1/4-30	M6	—	JIS U1/4	20mm	6.0	4.5	27	30
MGT12-M6U1/4-70								70
MGT12-M6U1/4-100								100
MGT12-M6U1/4-150								150
MGT12-M6U1/4-200								200
MGT12-U5/16-30	—	—	JIS U5/16	20mm	6.1	5.0	28	30
MGT12-U5/16-70								70
MGT12-U5/16-100								100
MGT12-U5/16-150								150
MGT12-U5/16-200								200
MGT12-M8-30	M7 M8	—	—	20mm	6.2	5.0	28	30
MGT12-M8-70								70
MGT12-M8-100								100
MGT12-M8-150								150
MGT12-M8-200								200
MGT12-M10U3/8-30	M9 M10	—	JIS U3/8	20mm	7.0	5.5	28	30
MGT12-M10U3/8-70								70
MGT12-M10U3/8-100								100
MGT12-M10U3/8-150								150
MGT12-M10U3/8-200								200
MGT12-U7/16P1/8-30	—	JIS P1/8	JIS U7/16	20mm	8.0	6.0	29	30
MGT12-U7/16P1/8-70								70
MGT12-U7/16P1/8-100								100
MGT12-U7/16P1/8-150								150
MGT12-U7/16P1/8-200								200
MGT12-M12-30	M12	—	—	20mm	8.5	6.5	29	30
MGT12-M12-70								70
MGT12-M12-100								100
MGT12-M12-150								150
MGT12-M12-200								200

- Nut is included, wrench must be ordered separately
- All dimensions shown in millimeters

MGT20 (METRIC STYLE)

Catalog Number	Tapping Range d			øD	ød1	□d2	H	L
	Metric	Pipe	Unify					
MGT20-M12-35	M12	—	—	30mm	8.5	6.5	29	35
MGT20-M12-85								85
MGT20-M12-115								115
MGT20-M12-150								150
MGT20-U1/2-35	—	—	JIS U1/2	30mm	9.0	7.0	30	35
MGT20-U1/2-85								85
MGT20-U1/2-115								115
MGT20-U1/2-150								150
MGT20-M14U9/16-35	M14	—	JIS U9/16	30mm	10.5	8.0	33	35
MGT20-M14U9/16-85								85
MGT20-M14U9/16-115								115
MGT20-M14U9/16-150								150
MGT20-P1/4-35	—	JIS P1/4	—	30mm	11.0	9.0	31	35
MGT20-P1/4-85								85
MGT20-P1/4-115								115
MGT20-P1/4-150								150
MGT20-U5/8-35	—	—	JIS U5/8	30mm	12.0	9.0	34	35
MGT20-U5/8-85								85
MGT20-U5/8-115								115
MGT20-U5/8-150								150
MGT20-M16-35	M16	—	—	30mm	12.5	10.0	35	35
MGT20-M16-85								85
MGT20-M16-115								115
MGT20-M16-150								150
MGT20-M18U3/4-35	M18	—	JIS U3/4	30mm	14.0	11.0	36	35
MGT20-M18U3/4-85								85
MGT20-M18U3/4-115								115
MGT20-M18U3/4-150								150
MGT20-P3/8-35	M20	JIS P3/8	—	30mm	14.0	11.0	33	35
MGT20-P3/8-85								85
MGT20-P3/8-115								115
MGT20-P3/8-150								150
MGT20-M20-35		—	—	30mm	15.0	12.0	37	35
MGT20-M20-85								85
MGT20-M20-115								115
MGT20-M20-150								150



- Nut is included, wrench must be ordered separately
- All dimensions shown in millimeters

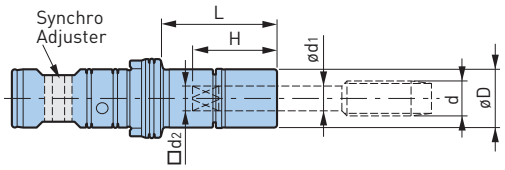
ACCESSORIES

MEGA NUT
PG. 423

MEGA WRENCH
PG. 410

DIN & ISO STANDARD

AVAILABLE IN
SHORT - EXTRA LONG
30mm, 70mm, 100mm, 150mm & 200mm



MGT6 (METRIC STYLE)

Catalog Number	Tapping Range d					øD	ød1	□d2	H	L
	DIN371	DIN376	DIN353	ISO529	ISO2284					
MGT6-031025-30	—	—	—	M3	—	16mm	3.15	2.5	20	30
MGT6-031025-70										70
MGT6-031025-100										100
MGT6-031025-150										150
MGT6-035027-30	M3	M5	—	—	—	16mm	3.50	2.7	21	30
MGT6-035027-70										70
MGT6-035027-100										100
MGT6-035027-150										150
MGT6-040032-30	—	—	—	M4	—	16mm	4.00	3.15	21	30
MGT6-040032-70										70
MGT6-040032-100										100
MGT6-040032-150										150
MGT6-045034-30	M4	M6	—	—	—	16mm	4.50	3.4	21	30
MGT6-045034-70										70
MGT6-045034-100										100
MGT6-045034-150										150
MGT6-050040-30	—	—	—	M5	—	16mm	5.00	4.0	25	30
MGT6-050040-70										70
MGT6-050040-100										100
MGT6-050040-150										150
MGT6-050040-200										200
MGT6-060049-30	M5 M6	M8	—	—	—	16mm	6.00	4.9	26	30
MGT6-060049-70										70
MGT6-060049-100										100
MGT6-060049-150										150
MGT6-060049-200										200

- Nut is included, wrench must be ordered separately
- All dimensions shown in millimeters

ACCESSORIES

MGT12 (METRIC STYLE)

Catalog Number	Tapping Range d					øD	ød1	□d2	H	L
	DIN371	DIN376	DIN353	ISO529	ISO2284					
MGT12-060049-30	M5 M6	M8	—	—	—	20mm	6.0	4.9	28	30
MGT12-060049-70										70
MGT12-060049-100										100
MGT12-060049-150										150
MGT12-060049-200										200
MGT12-063050-30	—	—	—	M6	—	20mm	6.3	5.0	28	30
MGT12-063050-70										70
MGT12-063050-100										100
MGT12-063050-150										150
MGT12-063050-200										200
MGT12-070055-30	—	M10	1/8	—	—	20mm	7.0	5.5	28	30
MGT12-070055-70										70
MGT12-070055-100										100
MGT12-070055-150										150
MGT12-070055-200										200
MGT12-080063-30	M8	—	—	M8	1/8	20mm	8.0	6.3	29	30
MGT12-080063-70										70
MGT12-080063-100										100
MGT12-080063-150										150
MGT12-080063-200										200
MGT12-090071-30	—	M12	—	M12	—	20mm	9.0	7.1	30	30
MGT12-090071-70										70
MGT12-090071-100										100
MGT12-090071-150										150
MGT12-090071-200										200
MGT12-100080-35❖	M10	—	—	M10	1/4	30mm	10.0	8.0	33	35
MGT12-100080-85❖										85
MGT12-100080-115❖										115
MGT12-100080-150❖										150

- Nut is included, wrench must be ordered separately
- Models marked ❖ nut diameter øD is ø30mm
- All dimensions shown in millimeters

ACCESSORIES

DIN & ISO STANDARD

AVAILABLE IN
SHORT 4", LONG 6" & EXTRA LONG 8"

MGT20 (METRIC STYLE)

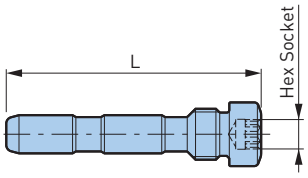
Catalog Number	Tapping Range d					øD	ød1	□d2	H	L
	DIN371	DIN376	DIN353	ISO529	ISO2284					
MGT20-090071-35	—	M12	—	M12	—	30mm	9.0	7.1	30	35
MGT20-090071-85										85
MGT20-090071-115										115
MGT20-090071-150										150
MGT20-100080-35	M10	—	—	M10	1/4	30mm	10.0	8.0	33	35
MGT20-100080-85										85
MGT20-100080-115										115
MGT20-100080-150										150
MGT20-110090-35	—	M14	1/4	—	—	30mm	11.0	9.0	34	35
MGT20-110090-85										85
MGT20-110090-115										115
MGT20-110090-150										150
MGT20-112090-35	—	—	—	M14	—	30mm	11.2	9.0	34	35
MGT20-112090-85										85
MGT20-112090-115										115
MGT20-112090-150										150
MGT20-120090-35	—	M16	3/8	—	—	30mm	12.0	9.0	34	35
MGT20-120090-85										85
MGT20-120090-115										115
MGT20-120090-150										150
MGT20-125100-35	—	—	—	M16	3/8	30mm	12.5	10.0	35	35
MGT20-125100-85										85
MGT20-125100-115										115
MGT20-125100-150										150
MGT20-140110-35	—	M18	—	—	—	30mm	14.0	11.0	36	35
MGT20-140110-85										85
MGT20-140110-115										115
MGT20-140110-150										150
MGT20-140112-35	—	—	—	M18 M20	—	30mm	14.0	11.2	36	35
MGT20-140112-85										85
MGT20-140112-115										115
MGT20-140112-150										150
MGT20-160120-35	—	M20	1/2	—	—	30mm	16.0	12.0	37	35
MGT20-160120-150										150

- Nut is included, wrench must be ordered separately
- All dimensions shown in millimeters

ACCESSORIES

MGT SET SCREW

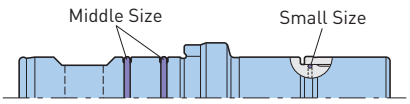
Secures the Tap Holder Into the Body



Catalog Number	Hex Socket Size	L	Body
MGT6SS	4mm	1.38	MGT6
MGT12SS	4mm	1.57	MGT12
MGT20SS	5mm	2.09	MGT20

O-RING

For MEGA SYNCHRO Tapping Holder

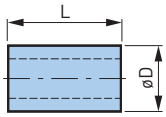


Catalog Number	Tap Holder
MGT6OR	MGT6-d-□
MGT12OR	MGT12-d-□
MGT20OR	MGT20-d-□

- Set includes 1 small & 2 middle sizes

SYNCHRO ADJUSTER (SOFT TYPE)

Replaceable Bushing in the Tap Holder

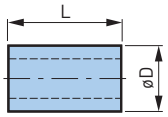


Catalog Number	øD	L	Body
MGT6SA-5P	.35	.43	MGT6
MGT12SA-5P	.39	.59	MGT12
MGT20SA-5P	.55	.94	MGT20

- Sold in packages of 5 pcs.
- Soft type is included in our standard MEGA SYNCHRO tapping holders

SYNCHRO ADJUSTER (MEDIUM TYPE)

Replaceable Bushing in the Tap Holder

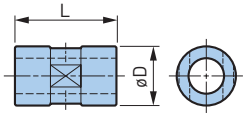


Catalog Number	øD	L	Body
MGT6SAM	.35	.43	MGT6
MGT12SAM	39	.59	MGT12
MGT20SAM	.55	.94	MGT20

- Sold in packages of 1 pcs.

SYNCHRO ADJUSTER (HARD TYPE)

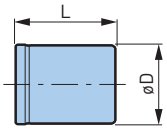
Replaceable Bushing in the Tap Holder for Eccentric Relief Taps



Catalog Number	øD	L	Body
MGT6SAH	.35	.43	MGT6
MGT12SAH	.39	.59	MGT12
MGT20SAH	.55	.94	MGT20

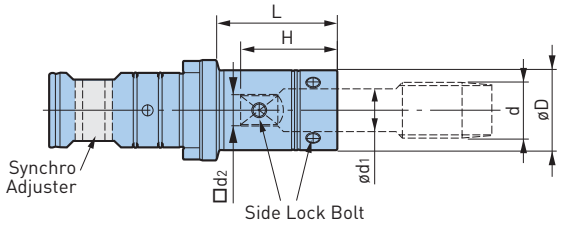
- Sold in packages of 1 pcs.

NUT



Catalog Number	øD	L	Tap Holder
MGN6T	.63 (16mm)	.75	MGT6
MGN12T	.79 (20mm)	.83	MGT12
MGN20T	1.18 (30mm)	.94	MGT20

DIN, ISO, ANSI & JIS STANDARD



MGT36

(Inch Style ANSI Standard)

Catalog Number	Tapping Range d	ød1	□d2	øD	H	L
MGT36-AU13/16-2.5	AU13/16	.652	.489	1.24	1.79	2.50
MGT36-AU7/8-2.5	AU7/8	.697	.523	1.34	1.85	
MGT36-AU15/16-2.5	AU15/16	.760	.570	1.57	1.93	
MGT36-AU1-2.5	AU1	.800	.600	1.62	2.07	
MGT36-AU1.1/8-2.5	AU1-1/8	.896	.672	1.69	2.13	
MGT36-AU1.1/4-2.5	AU1-1/4	1.021	.766	1.97	2.38	
MGT36-AU1.3/8-2.5	AU1-3/8	1.108	.831	2.09	2.44	
MGT36-AU1.1/2-3	AU1-1/2	1.233	.925	2.20	2.50	3.00
MGT36-AP3/8-2.5	AP3/8	.700	.531	1.34	1.37	2.50
MGT36-AP1/2-2.5	AP1/2	.688	.515	1.34	1.61	
MGT36-AP3/4-2.5	AP3/4	.906	.679	1.69	1.75	
MGT36-AP1-2.5	AP1	1.125	.843	2.09	1.87	

Metric Style JIS Standard

Catalog Number	Tapping Range d	ød1	□d2	øD	H	L
MGT36-M20-65	M20	15mm	12mm	32mm	1.57	65mm
MGT36-M20-150						150mm
MGT36-M22-65	M22	17mm	13mm	34mm	1.73	65mm
MGT36-M22-150						150mm
MGT36-M24-65	M24	19mm	15mm	39mm	1.81	65mm
MGT36-M24-150						150mm
MGT36-M27-65	M27	20mm	15mm	40mm	1.97	65mm
MGT36-M27-150						150mm
MGT36-M30-65	M30	23mm	17mm	43mm	2.05	65mm
MGT36-M30-150						150mm

Catalog Number	Tapping Range d	ød1	□d2	øD	H	L
MGT36-M33-65	M33	25mm	19mm	49mm	2.25	65mm
MGT36-M33-150						150mm
MGT36-M36-65	M36	28mm	21mm	52mm	2.40	65mm
MGT36-M36-150						150mm
MGT36-P1/2-65	P1/2	18mm	14mm	35mm	1.65	65mm
MGT36-P1/2-150						150mm
MGT36-P3/4-65	P3/4	23mm	17mm	43mm	1.85	65mm
MGT36-P3/4-150						150mm
MGT36-P1-65	P1	26mm	21mm	50mm	1.81	65mm
MGT36-P1-150						150mm

Metric Style DIN & ISO Standard

Catalog Number	Tapping Range d				ød1	□d2	øD	H	L
	DIN376	DIN353	ISO529	ISO2284					
MGT36-180145-65	M22,M24	5/8	—	—	18mm	14.5mm	35mm	1.77	65mm
MGT36-200160-65	M27	3/4	M27,M30	3/4	20mm	16mm	40mm	2.01	
MGT36-220180-65	M30	7/8	—	—	22mm	18mm	42mm	2.09	
MGT36-250200-65	M33	1	M36	1	25mm	20mm	49mm	2.28	
MGT36-280220-65	M36	—	—	—	28mm	22mm	52mm	2.44	

• Adjusting screw is included

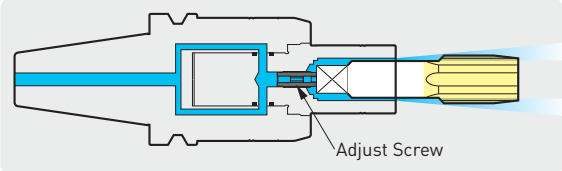
Tap with eccentric thread relief, having no margin on tap periphery may cause oversize threads. In such case, tap with con-ecentric thread relief is recommended.

ADJUST SCREW

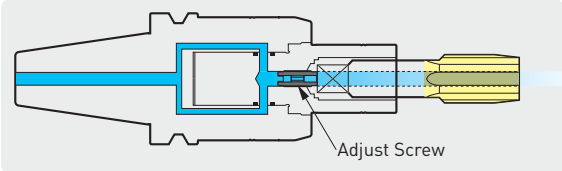
Aids Easy Adjustment of Tap Projection Length.

- Adjustment of tap projection length (adjustable amount: 3mm)
- Coolant supply adjustable in 2 ways by reversing the Adjust Screw

TAP WITHOUT HOLE



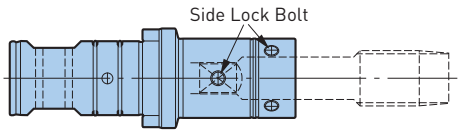
TAP WITH HOLE



Catalog Number	Tap Holder
MGT36AJ	MGT36

SIDE LOCK BOLT SET

Spare locking screw to clamp a tap.



Catalog Number	ANSI Tap Holder Model	JIS Tap Holder Model	Bolt Size
MGT36SL6	MGT36-AU7/8-2.5	MGT36-M20-□	M6x8L (x4) + M6x10L (x2)
	MGT36-AP3/8-2.5	MGT36-M22U7/8-□	
	MGT36-AP1/2-2.5	MGT36-P1/2-□	
MGT36SL8	MGT36-AU1-2.5	MGT36-M24-□	M8x10L (x4) + M8x12L (x2)
	MGT36-AU1.1/8-2.5	MGT36-M27U1-□	
	MGT36-AP3/4-2.5	MGT36-M30-□	
MGT36SL10	MGT36-AU1.1/4-2.5	MGT36-P3/4-□	M10x12L (x4) + M10x14L (x2)
	MGT36-AU1.3/8-2.5	MGT36-M33-□	
	MGT36-AP1-2.5	MGT36-M36-□	
	—	MGT36-P1-□	

SET SCREW

Catalog Number	Tap Holder
MGT36SS	MGT36

SYNCHRO ADJUSTER

Catalog Number	Tap Holder
MGT36SA-5P	MGT36

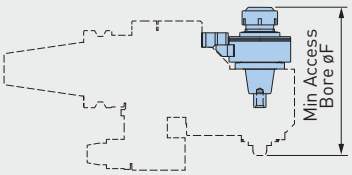
- Sold in packages of 5 pcs.

O-RING SET

Catalog Number	Tap Holder
MGT360R	MGT36

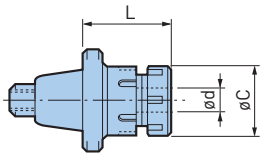
- Sold in packages of 2 pcs.

AG35 ADAPTERS



øF=Minimum Bore Size that an AG35 Adapter Can Fit Into, Excluding the Cutting Tool

NEW BABY CHUCK

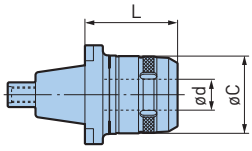


Catalog Number	ød	L	øC	øF	Collet	Weight (lbs.)
AG35-NBS10	.059-.394	1.850	1.181	6.378	NBC10	1.3
AG35-NBS13	.098-.512	2.126	1.378	6.614	NBC13	1.5
AG35-NBS16	.098-.630		1.654	6.693	NBC16	1.8
AG35-NBS20	.098-.787		1.811		NBC20	2.0

- Collet and wrench must be ordered separately; adjusting screw is included

ACCESSORIES

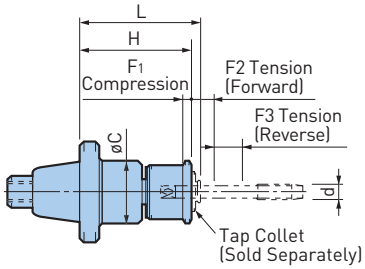
NEW Hi-POWER MILLING CHUCK



Catalog Number	ød	L	øC	øF	Wrench	Weight (lbs.)
AG35-HMC.750S	.750	2.362	1.970	7.008	FK45-50L	3.3
AG35-HMC20S	20mm					3.3

- Wrench is included (Model: FK45-50L)

ACCESSORIES



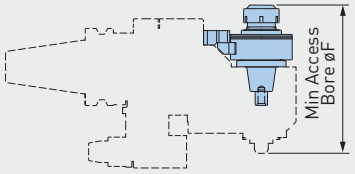
AUTO TAPPER TYPE B

Catalog Number	ød	L	øC	H	F1	F2	F3	Weight (lbs.)
AG35-ATB12E	No.6-U1/2	3.150	1.594	2.835	.020	.197	.157	2.2
AG35-ATB20E	U3/8-U3/4	4.528	2.264	4.035		.256	.197	3.7

- Tap collets with torque control or positive drive available upon request

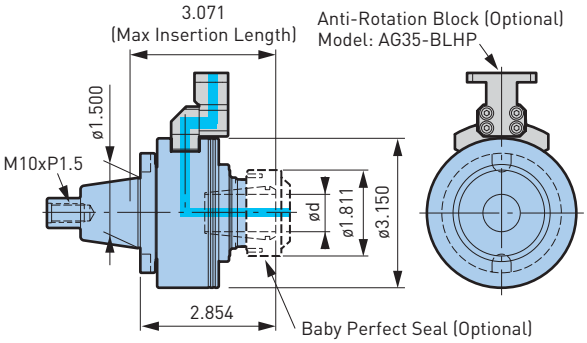
BIG DAISHOWA

AG35 ADAPTERS



øF=Minimum Bore Size that an AG35 Adapter Can Fit Into, Excluding the Cutting Tool

Through Tools



NEW BABY CHUCK (HIGH PRESSURE COOLANT)

MAX 1,000 PSI

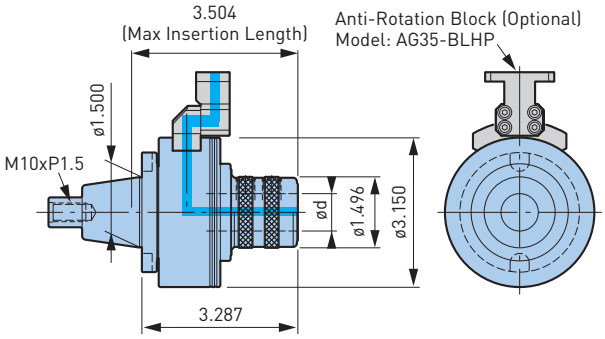
Catalog Number	ød	øF	Baby Perfect Seal	Collet	Weight (lbs.)
AG35-ONBS20HP	.118-.787	7.677	BPS20	NBC20	3.1

- BABY PERFECT SEAL NUT with sealing mechanism is required; must be ordered separately
- Collet and wrench must be ordered separately
- Anti-rotation block set must be ordered separately (Model: AG35-BL)
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI

Coolant Must Be a Water-Soluble Emulsion

ACCESSORIES

COLLET PG. 378 | PERFECT SEAL PG. 390 | WRENCH PG. 392



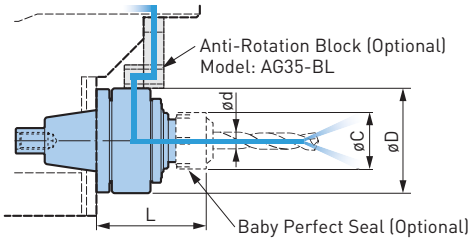
SIDE LOCK (HIGH PRESSURE COOLANT)

MAX 1,000 PSI

Catalog Number	ød	øF	Weight (lbs.)
AG35-OSL20HP	20mm	7.795	3.5

- Please order the anti-rotation block set for use (Model: AG35-BLHP)
- Maximum coolant flow rate 8 GPM, maximum coolant pressure 1000 PSI

Coolant Must Be a Water-Soluble Emulsion



Hi-JET HOLDER

MAX 300 PSI

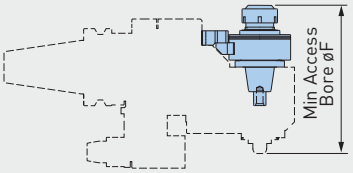
Catalog Number	ød	øC	øD	L	øF	Collet	Weight (lbs.)
AG35-ONBS13N	.118-.512	1.378	2.559	2.677	7.323	NBC13	2.4
AG35-ONBS20N	.118-.787	1.811			7.402	NBC20	2.6

- BABY PERFECT SEAL NUT with sealing mechanism is required; must be ordered separately
- Collet and wrench must be ordered separately
- Anti-rotation block set must be ordered separately (Model: AG35-BL)

ACCESSORIES

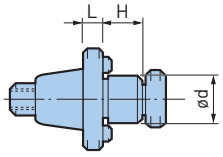
COLLET PG. 378 | PERFECT SEAL PG. 390 | WRENCH PG. 392

AG35 ADAPTERS



øF=Minimum Bore Size that an AG35 Adapter Can Fit Into, Excluding the Cutting Tool

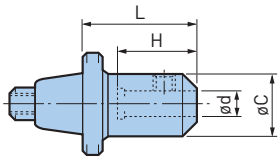
SHELL MILL/FACE MILL ADAPTER



Catalog Number	ød	L	H	Weight (lbs.)
AG35-SM1.000-20	1.000	.787	.689	2.2
AG35-FMH22-30	22mm	1.181	.708	2.2
AG35-FMH27-20	27mm	.787	.787	2.2

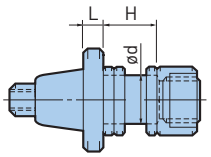
- Cutter face protrudes by 7.5mm from the 125mm diameter housing with the following combination; AG35-FMH27-20 + 50mm thick tool

END MILL ADAPTER



Catalog Number	ød	L	øC	H	øF	Weight (lbs.)
AG35-EM.750	.750	3.248	1.750	3.880	7.756	3.0

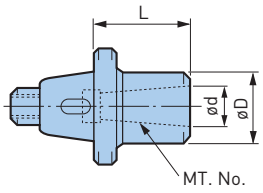
STUB ARBOR



Catalog Number	ød	L	H	Weight (lbs.)
AG35-SA1.000	1.000	.394	1.181	2.8

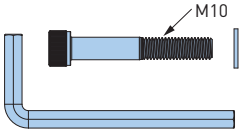
- Nut and distance collars of 5mm, 8mm, 10mm and 12mm are included

MORSE TAPER ADAPTER



Catalog Number	ød	MT. No.	øD	L	øF	Weight (lbs.)
AG35-MT1	.475	1	.984	1.969	6.457	1.3
AG35-MT2	.700	2	1.260	2.362	6.890	1.5

ADAPTER DRAW BAR SET



Catalog Number	Hex Size
AG35-DBS	8mm

SET UP INFORMATION

Preparing the Stop Block

For ANGLE HEADS. The ANGLE HEAD utilizes a locating pin that engages with the stop block, which is mounted to the machine spindle to prevent radial movement of the ANGLE HEAD during operation. Therefore, it is necessary to use a stop block with the proper dimensions to match the locating pin of the ANGLE HEAD. Please contact a BIG DAISHOWA agent if using an existing stop block.

Standard Setup of the Locating Pin

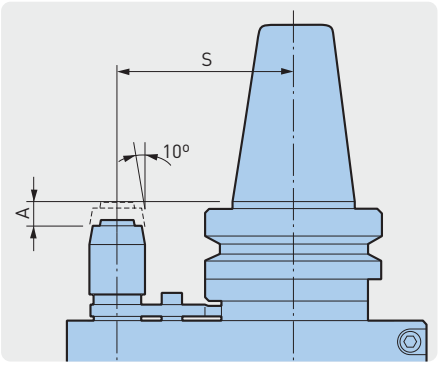
Please note that the "S" dimension and Fixed Length "A" are not adjustable by the user. If the standard dimensional values shown below are not suitable for your machine, please contact a BIG DAISHOWA agent.

"S" Dimension

The distance from the centerline of the ANGLE HEAD spindle to the centerline of the locating pin.

Fixed Length "A"

The axial distance from the gage line to the top of the locating pin, when the locating pin is properly engaged in the stop block.



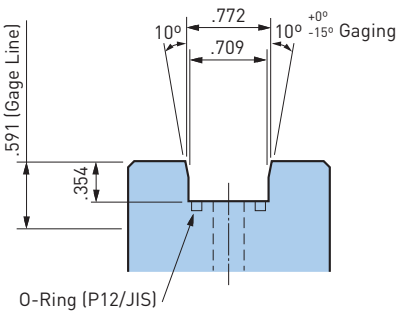
Catalog Number	S	A
BCV/BDV/BBT40 HSK-A63	2.559	.315
BCV/BDV/BBT50 HSK-A100	4.331	.236

- Other "S" dimension and fixed length "A" options available as special; consult BIG DAISHOWA engineering for details

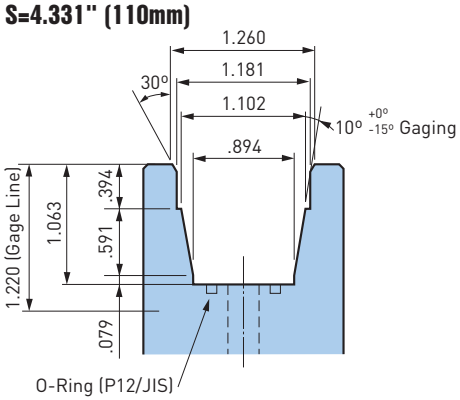
STOP BLOCK DIMENSIONS

Please order a stop block from the machine tool builder. Refer to the following diagrams for the proper stop block groove dimensions and configurations for use with a ANGLE HEAD.

S=2.559" (65mm) / S=3.150" (80mm)



S=4.331" (110mm)

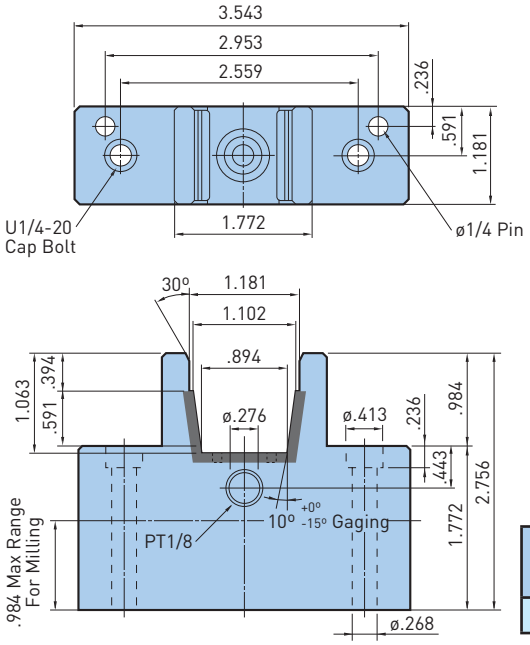


For a BCV50/BBT50 unit with an 3.150" "S" dimension, please use the stop block dimensions for BCV40/BBT40, as the locating pin dimension differs from that of a standard unit with a 4.331" "S" dimension.

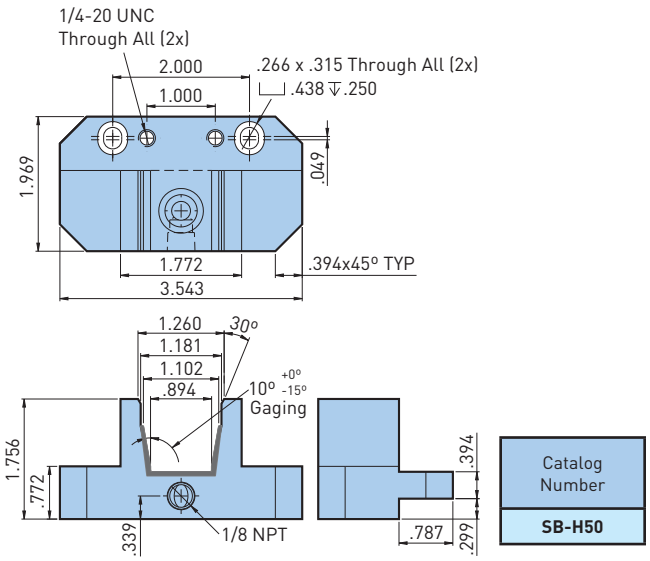
SEMI-FINISHED STOP BLOCK

Designed for ANGLE HEAD, AIR POWER SPINDLE, HIGH SPINDLE, and Hi-JET HOLDER, this block features the correct groove form and extra material for height adjustment. If a pre-made block isn't available, this option can be used. Consult your machine tool builder for proper selection, machining, and installation.

S=4.331" (110mm)



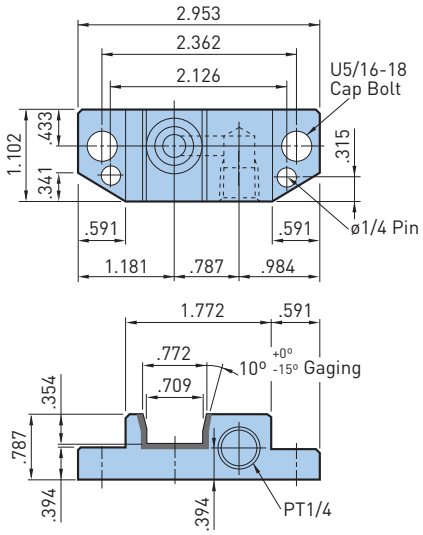
Catalog Number
SB-G/E



Catalog Number
SB-H50

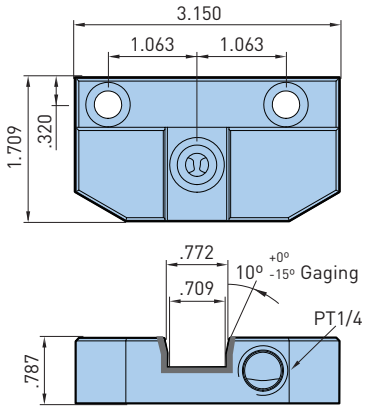
- Adjust to the required height by milling the base
- Fix the stop block by inserting two dowel pins (ø1/4)

S=2.559" (65mm) / S=3.150" (80mm)



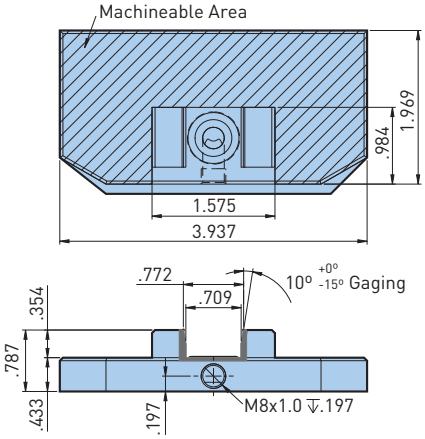
Catalog Number
SB-F

- Fix the stop block by inserting two dowel pins (ø1/4)
- Not height-adjustable



Catalog Number
SB-H40

- For use with most Haas 40 taper machines



Catalog Number
SB-X

Indicates Heat Treatment (HRC45-50), All Other Surfaces Can be Milled

SET UP INFORMATION

Preparing the Locating Pin and Stop Block

For AIR POWER SPINDLE, HIGH SPINDLE & Hi-JET HOLDER. The AIR POWER SPINDLE, HIGH SPINDLE and Hi-JET HOLDER utilize a locating pin that engages with the stop block, which is mounted to the machine spindle. Please refer to the following instructions to select/adjust the locating pin, and to prepare it for the stop block.

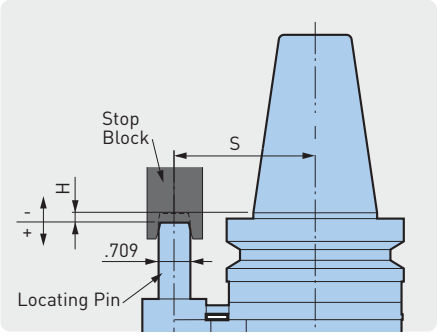
Standard Setup of the Locating Pin

"S" Dimension

The distance from the centerline of the holder to the centerline of the locating pin. Please note that this dimension is not adjustable by the user.

Fixed Length "H"

The axial distance from the gage line of the spindle to the bottom of the groove on the stop block. This dimension is adjustable by the user. Three (3) locating pin models are available: LP-A, LP-B, and LP-C. Each locating pin is adjustable to provide a different range of Fixed Length "H", as shown in the tables below. Please specify the required Fixed Length "H" when ordering. Otherwise, it will be delivered set at the standard, .236".



Catalog Number	S
BCV/CV/BBT40	2.559
BCV/CV/BBT50	3.150

FOR HIGH SPINDLE

Catalog Number	BCV40	BCV50	BBT40	BBT50
LP-A	-.354 / +.236	-.157 / +.433	-.945 / -.354	-.354 / +.236
LP-B	+.236 / +.827	+.433 / +.1.024	-.354 / +.236	+.236 / +.827
LP-C	+.827 / +1.417	+1.024 / +1.614	+.236 / +.827	+.827 / +1.417

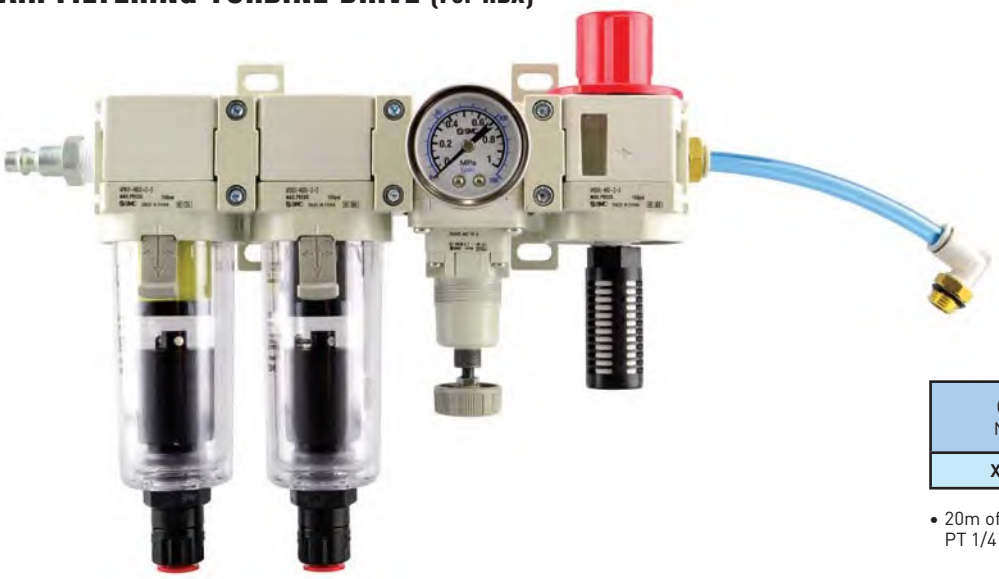
• Models marked ■ indicates adjustable range of the standard setup

FOR HI-JET HOLDER

Catalog Number	CV/BT40	CV/BT50	CV40-OSL1.250	CV50-OSL2.000	BT50-OSL2.000
LP-A	-.236 / +.354	-.354 / +.236	-.197 / +.394	-.079 / +.512	+.118 / +.709
LP-B	+.354 / +.945	+.236 / +.827	+.394 / +.984	+.512 / +1.102	+.709 / +.1.299
LP-C	+.945 / +1.535	+.827 / +1.417	+.984 / +1.575	+1.102 / +1.535	+1.299 / +1.535

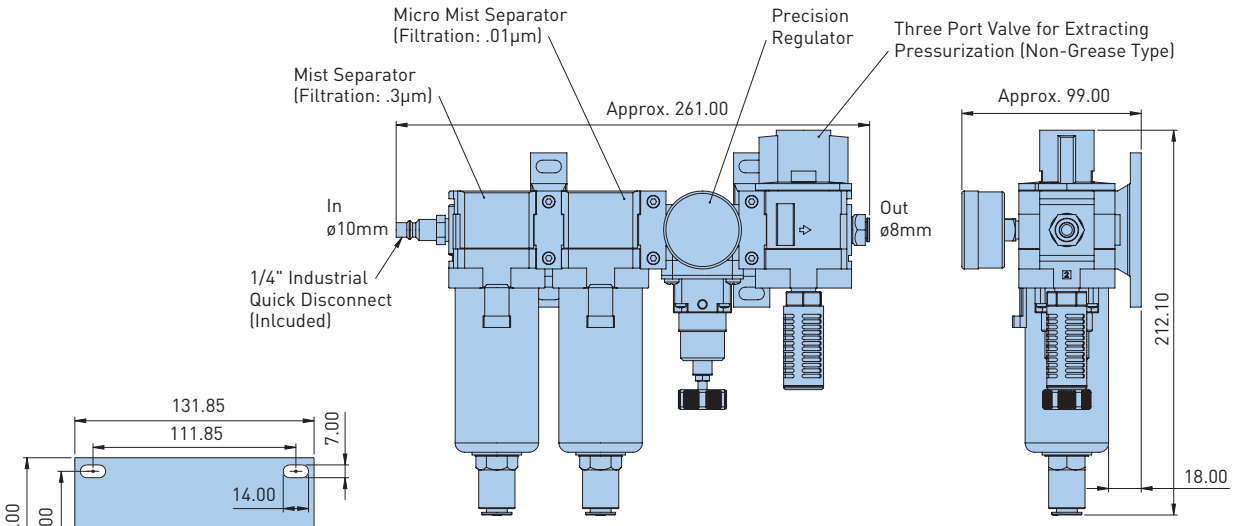
• Models marked ■ indicates adjustable range of the standard setup

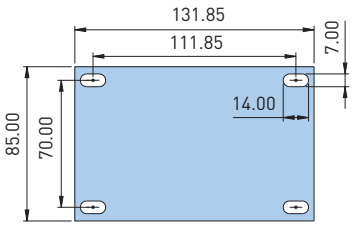
AIR FILTERING TURBINE DRIVE (For RBX)



Catalog Number
XF1-NPT

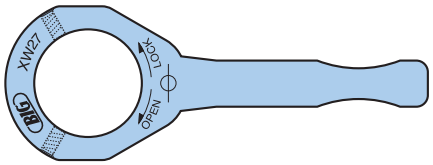
- 20m of ø8mm tubing and PT 1/4 loose fitting included





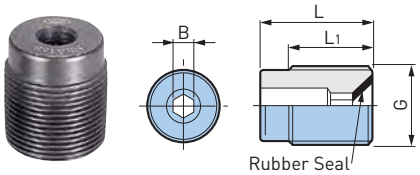
Mounting Bracket Hole Pattern

AIR POWER SPINDLE WRENCH



Catalog Number
XW27

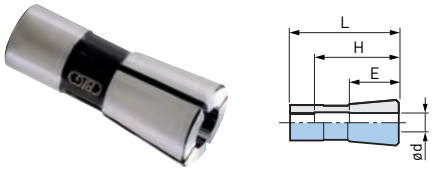
ADJUSTING SCREW



Catalog Number	G	L	L1	B	Body Model
NBA6B	M7	.47 (12mm)	.39 (10mm)	.08 (2mm)	MEGA6N/MEGA6E/NBS6/MEGAER11
NBA8B	M9	.51 (13mm)		.10 (2.5mm)	MEGA8N/MEGA8E/NBS8
NBA10B	M11	.63 (16mm)	.47 (12mm)	.12 (3mm)	MEGA10N/MEGAER16/MEGA10E/NBS10
NBA13B	M14	.79 (20mm)	.59 (15mm)	.16 (4mm)	MEGA13N/MEGAER20/MEGA13E/NBS13
NBA16B	M18				MEGA16N/MEGAER25/NBS16
NBA20B	M21				MEGA20N/MEGAER32/NBS20
NBA25B	M27				MEGA25N

SLENDER DRIVE COLLET

Exclusive Collet for ANGLE HEAD AG90 Slender Drive



Catalog Number	ød	Max Insertion Length H	Min Clamping Length E	L	Screw	Wrench	Wrench Size
CA4-3	3mm	12.8mm	7.5mm	16.5mm	CS/T-M3X6BH	DA-T10	Torx-T10
CA4-3.5	3.5mm						
CA4-4	4mm						
CA6-3	3mm	16mm	7.5mm	22mm	CS/T-M4X10BH	DA-T20	Torx-T20
CA6-4	4mm						
CA6-5	5mm						
CA6-6	6mm						

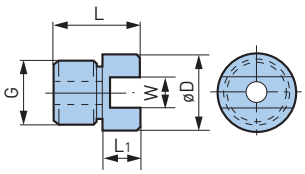
- Use only a cutting tool shank with exactly the same diameter as the collet bore diameter
- Tolerance of the cutting tool shank must be within h7

SET SCREW

Catalog Number	Holder	Thread Size
11.690.517	EM.250	1/4"-28
11.690.518	EM.375	3/8"-24
11.690.519	EM.500	7/16"-20
11.690.520	EM.625	9/16"-18
11.690.521	EM.750	5/8"-18

Catalog Number	Holder	Thread Size
11.690.522	EM1.000	3/4"-16
11.690.522	EM1.250	3/4"-16
11.690.522	EM1.500	3/4"-16
11.690.524	EM2.000	1"-14

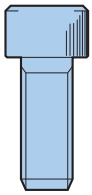
ADJUSTING SCREW



Catalog Number	øD	L	L1	G	W	MEGA DS	HMC
HMA-M16S	.71	1.06	.24	M16 P1.5	.39	MEGA.750DS	HMC.750S
						MEGA1.000DS	HMC1.000S
						MEGA20D(DS)	HMC20(S)
						MEGA25D(DS)	HMC25(S)
						MEGA1.250DS (BCV40)	HMC32S
						MEGA32D(DS) (BBT30/40)	
HMA-M24	1.185	1.42	.37	M24 P1.5	.39	MEGA1.250DS	HMC32
						MEGA1.500DS	
						MEGA32D(DS)	HMC42(S)
						MEGA42D(DS)	
						MEGA50D(DS)	

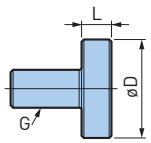
CLAMP BOLT

Catalog Number	Adapter	Thread Size
11.690.710	SMC.750	3/8"-24
11.690.711	SMC1.000	1/2"-20
11.690.712	SMC1.250	5/8"-18
11.690.713	SMC1.500	3/4"-16
11.690.714	SMC2.000	1"-14
11.690.715	SMC2.500	1"-14



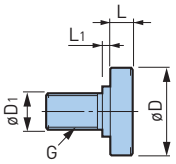
Catalog Number	Adapter	Thread Size
11.690.704	FMH16	M8 P1.25
11.690.705	FMH22	M10 P1.5
11.690.706	FMH27	M12 P1.75
11.690.707	FMH32	M16 P2
11.690.708	FMH40	M20 P2.5

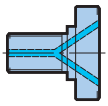
CLAMP BOLT (FOR FMH)



Catalog Number	øD	L	G	Hex
MBA-M12H	1.30	.394	M12	10mm
MBA-M16H	1.58	.394	M16	10mm
MBA-M20H	1.97	.551	M20	12mm

(FOR FMA)





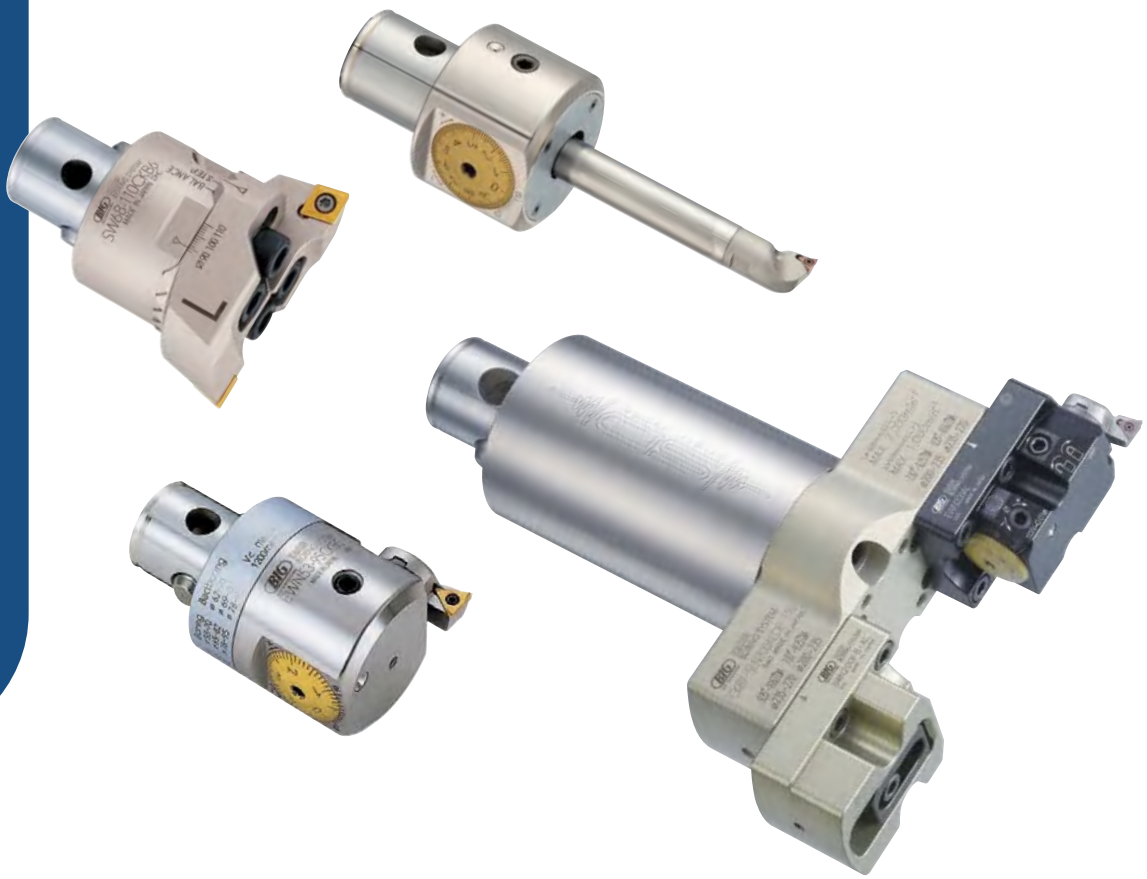
TMBA-
(Coolant Hole)

Catalog Number	øD	L	øD1	L1	G	Hex
MBA-M12	1.30	.394	.906	.079	M12	10mm
TMBA-M12						8mm
MBA-M16	1.58	.394	.906	.236	M16	12mm
TMBA-M16						10mm
MBA-M20	1.97	.551	1.063	.236	M20	14mm
TMBA-M20						12mm
MBA-M24	2.56	.551	1.457	.394	M24	17mm
TMBA-M24						14mm

BIG DAISHOWA

KAISER BORING SYSTEM

B.1



KAISER ROUGH BORING HEADS 438-455

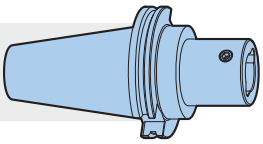
KAISER FINE BORING HEADS 456-483

CK SHANK (CK1-CK7)

DUAL CONTACT **BIG-PLUS**®

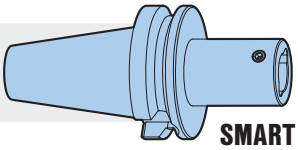
Can be used on both BIG-PLUS spindles and conventional BT/CV spindles.

BCV/CV Shank
PG. 92-94



Coolant Through

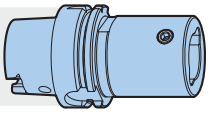
BBT/BT Shank
PG. 168-170



Coolant Through

SMART DAMPER PG. 171

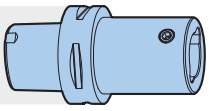
HSK Shank
PG. 236/267



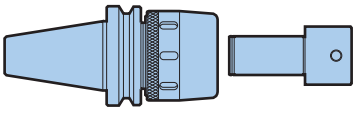
Coolant Through

SMART DAMPER PG. 237

BIG CAPTO Shank
PG. 295

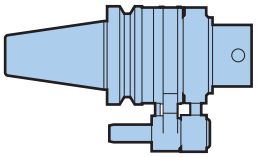


Coolant Through



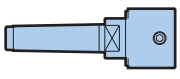
Cylindrical Shank
PG. 499

NEW Hi-POWER
MILLING CHUCK — BCV PG. 76 / **BT** PG. 134 / **HSK** PG. 212



Coolant Through

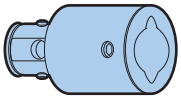
Hi-JET HOLDER — CV PG. 113 / **BT** PG. 192



Specials PG. 498-499

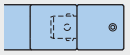
CK ACCESSORIES

Coolant Through

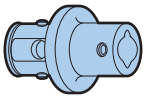


Extension PG. 487
Used when extending the projection length.

Application Example

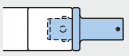


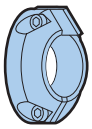
Coolant Through



Reduction PG. 488
Reduces CK Shank diameter to use smaller boring heads.

Application Example



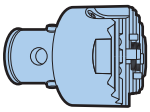


CK Chamfering Tool PG. 489
Chamfering tool easily adjusted in the shaft direction.

BASIC HOLDERS
The CK Shank basic holder can be used for both roughing and finishing.

ROUGH BORING HEAD

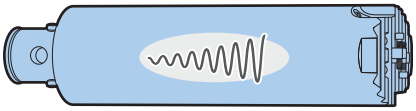
RANGE: ø.630-7.992



Coolant Through

SW HEAD PG. 442

Head and cartridge mounting surface uses a 60° serration. Cutting torque is securely supported to achieve stable cutting with high rigidity.

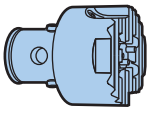


Coolant Through

SMART DAMPER SW HEAD PG. 444

(BUILT-IN DAMPER)

Instantly suppresses chatter even for rough boring with high load.

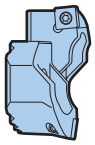


NEW

SWS HEAD PG. 448

Coolant Through

Two cartridges are linked with a synchro setter. Even without a presetter, simple diameter adjustment is possible with a micrometer or similar.



SW CARTRIDGE PG. 446

(A TYPE FOR THROUGH HOLES)

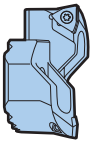
ø.787-7.992

SW CARTRIDGE PG. 447

(E TYPE FOR BLIND HOLES)

ø.787-7.992

Just replace the two standard cartridges to enable step cutting.



NEW

SW CARTRIDGE PG. 447

(N TYPE FOR BLIND HOLES)

ø1.260-7.992

Highly economical double-sided 6-cornered insert is used.
Step cutting is also supported.

NEW

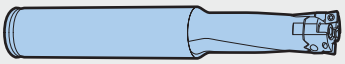
SWS CARTRIDGE PG. 449

(E TYPE FOR BLIND HOLES)

ø1.614-4.331

MW BORING HEAD PG. 450

(ST SHANK TYPE)



ø.630-.827

Boring Head for Small-Diameter Roughing

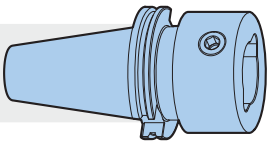
Coolant Through

CK SHANK (CK7)

DUAL CONTACT **BIG-PLUS**®

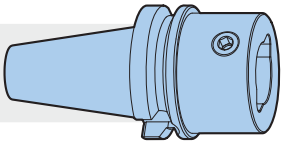
Can be used on both BIG-PLUS spindles and conventional BT/CV spindles.

BCV/CV Shank
PG. 92-94



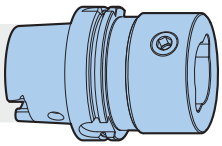
Coolant Through

BBT/BT Shank
PG. 168-170



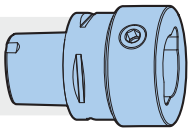
Coolant Through

HSK Shank
PG. 236/267

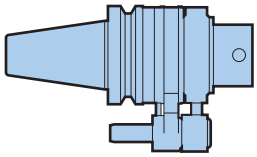


Coolant Through

BIG CAPTO Shank
PG. 295



Coolant Through

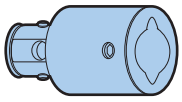


Coolant Through

Hi-JET HOLDER – CV PG. 113 / **BT** PG. 192

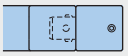
CK ACCESSORIES

Coolant Through

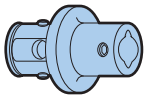


Extension PG. 487
Used when extending the projection length.

Application Example

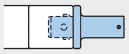


Coolant Through



Reduction PG. 488
Reduces CK Shank diameter to use smaller boring heads.

Application Example



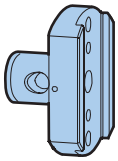
BASIC HOLDERS
The CK Shank basic holder can be used for both roughing and finishing.

ROUGH SYSTEM FOR LARGE DIAMETERS

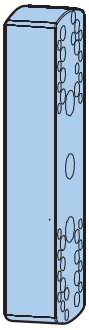
RANGE: ø7.874-32.677

TW200 BORING HEAD (LARGE DIAMETER TYPE) Coolant Through

ø7.874-32.677



Flange PG. 452
(For Roughing/Finishing)
90° phase type is also available.



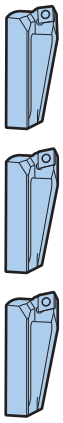
Slide PG. 452
(For Roughing/Finishing)
Aluminum slide is also available.

Clamp Base PG. 452
Aluminum clamp base is also available.

A Type
(For Through Holes)

E Type
(For Blind Holes)

E Type
(For Step Cutting)

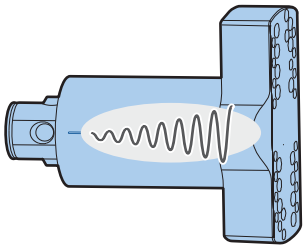


TW CARTRIDGE
PG. 452

SMART DAMPER BORING TW200 (LARGE DIAMETER TYPE) Coolant Through

ø7.874-13.386

Fusion of lightweight aluminum slide and SMART DAMPER with built-in damper. Just exchange the head and cartridge to switch between roughing and finishing.



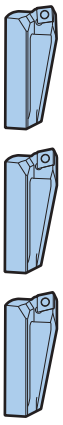
SMART DAMPER PG. 454
(For Roughing/Finishing)

Aluminum Clamp Base
PG. 454

A Type
(For Through Holes)

E Type
(For Blind Holes)

E Type
(For Step Cutting)



TW CARTRIDGE
PG. 454

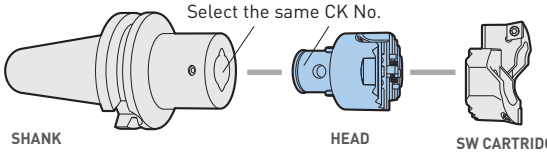
SW BORING HEAD

RANGE: ø.787"-8.000"

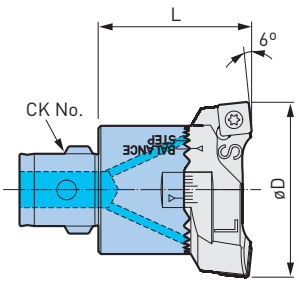
High rigidity head for roughing.

US PATENT # 8,747,034

COOLANT THROUGH



BCV PG. 92
BBT PG. 168
HSK PG. 236
PG. 267
BIG CAPTO PG. 295



Balance Cutting

A TYPE FOR THROUGH-HOLES (4 CORNERS OF THE INSERT CAN BE USED)

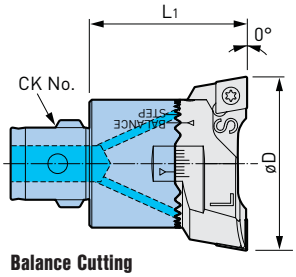
øD	Catalog Number	CK No.	Cartridge	L	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
.787-1.024	**SW20-31CKB1**	CK1	SW2026A	1.280	SW20SS	SW20BS	.2
.984-1.220			SW2531A				.2
.984-1.299	**SW25-40CKB2**	CK2	SW2533A	1.398	SW25SS	SW25BS	.4
1.260-1.575			SW3240A				.4
1.260-1.654	**SW32-51CKB3**	CK3	SW3242A	1.575	SW32SS	SW32BS	.7
1.614-2.008			SW4151A				.7
1.614-2.126	**SW41-66CKB4**	CK4	SW4154A	1.853	SW41SS	SW41BS	1.1
2.087-2.598			SW5366A				1.1
2.087-2.756	**SW53-86CKB5**	CK5	SW5370A	2.244	SW53SS	SW53BS	1.8
2.717-3.386			SW6986A				2.0
2.678-3.543	**SW68-110CKB6**	CK6	SW6890A	2.795	SW68SS		3.5
3.465- 4.331			SW88110A				4.0
3.858-4.961	**SW98-153CKB6**	CK6	SW98126A	2.795	SW98SS	SW98BS	6.2
4.921-6.023			SW125153A				6.6
3.858-4.961	**SW98-153CKB7**	CK7	SW98126A	3.425			8.4
4.921-6.024			SW125153A				9.0
5.827-6.929	**SW148-203CKB6**	CK6	SW148176A	2.795			8.0
6.890-8.000			SW175203A				8.4
5.827-6.929	**SW148-203CKB7**	CK7	SW148176A	4.606			14.1
6.890-8.000			SW175203A				14.6

- Clamping screws and belleville springs are included; cartridges and inserts must be ordered separately
- Compatible set items are not included ordered separately if required
- Coolant through is standard for all the SW heads
- The diameter range is the value when nose radius .016 is used for insert SC/CC06, and nose radius .031 for insert SC/CC09 and SC/CC12

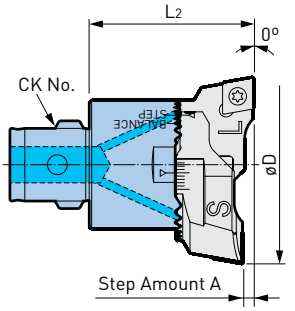
ACCESSORIES

EXTENSIONS & REDUCTIONS PG. 486
SPARE PARTS PG. 518
INSERTS PG. 501
APPLICATION ADVICE PG. 502

E TYPE FOR BLIND HOLES (TO SHAPE FLAT SURFACES)



Balance Cutting

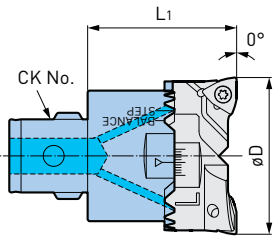


Step Cutting

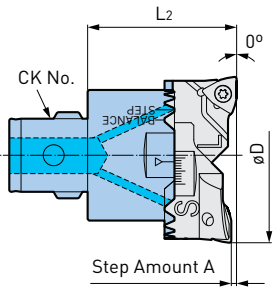
øD	Catalog Number	CK No.	Cartridge	L1	L2	A	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
.787-1.024	SW20-31CKB1	CK1	SW2026E	1.280	1.283	.008	SW20SS	SW20BS	.2
.984-1.220			SW2531E						.2
.984-1.299	SW25-40CKB2	CK2	SW2533E	1.398	1.402		SW25SS	SW25BS	.4
1.260-1.575			SW3240E						.4
1.260-1.654	SW32-51CKB3	CK3	SW3242E	1.575	1.579		SW32SS	SW32BS	.7
1.614-2.008			SW4151E						.7
1.614-2.126	SW41-66CKB4	CK4	SW4154E	1.850	1.858	.016	SW41SS	SW41BS	1.1
2.087-2.598			SW5366E						1.1
2.087-2.756	SW53-86CKB5	CK5	SW5370E	2.244	2.252		SW53SS	SW53BS	1.8
2.717-3.386			SW6986E						2.0
2.678-3.543	SW68-110CKB6	CK6	SW6890E❖	2.795	2.803		SW68SS		3.5
3.465- 4.331			SW88110E❖						4.0
3.858-4.961	SW98-153CKB6	CK6	SW98126E❖	2.795	2.083		SW98SS	SW98BS	6.2
4.921-6.023			SW125153E❖						6.6
3.858-4.961	SW98-153CKB7	CK7	SW98126E❖	3.425	3.433				8.4
4.921-6.024			SW125153E❖						9.0
5.827-6.929	SW148-203CKB6	CK6	SW148176E❖	2.795	2.803				8.0
6.890-8.000			SW175203E❖						8.4
5.827-6.929	SW148-203CKB7	CK7	SW148176E❖	4.606	4.614				14.1
6.890-8.000			SW175203E❖						14.6

- Clamping screws and belleville springs are included; cartridges and inserts must be ordered separately
- Compatible set items are not included ordered separately if required
- Coolant through is standard for all the SW heads
- The diameter range is the value when nose radius .016 is used for insert SC/CC06, and nose radius .031 for insert SC/CC09 and SC/CC12
- Cartridge models with ❖ are also available for longer cutting edge inserts; change the end of the model number from E to EL when ordering; for detail see page 420

N TYPE FOR BLIND HOLES (6 CORNERS OF THE INSERT CAN BE USED)



Balance Cutting



Step Cutting

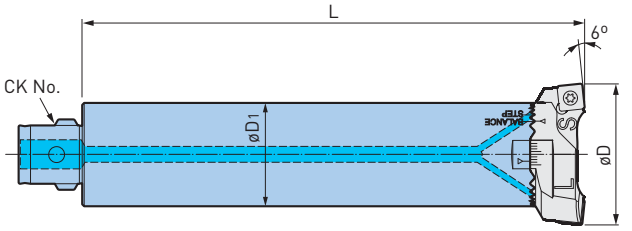
øD	Catalog Number	CK No.	Cartridge	L1	L2	A	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
1.260-1.654	SW32-51CKB3	CK3	SW3242N	1.575	1.579	.008	SW32SS	SW32BS	.7
1.614-2.008			SW4151N						.9
1.614-2.126	SW41-66CKB4	CK4	SW4154N	1.850	1.858	.016	SW41SS	SW41BS	1.1
2.087-2.598			SW5366N						1.1
2.087-2.756	SW53-86CKB5	CK5	SW5370N	2.244	2.252		SW53SS	SW53BS	2.0
2.717-3.386			SW6986N						2.2
2.678-3.543	SW68-110CKB6	CK6	SW6890N	2.795	2.803		SW68SS		3.7
3.465- 4.331			SW88110N						4.2
3.858-4.961	SW98-153CKB6	CK6	SW98126N	2.795	2.083		SW98SS	SW98BS	6.4
4.921-6.023			SW125153N						6.8
3.858-4.961	SW98-153CKB7	CK7	SW98126N	3.425	3.433				8.6
4.921-6.024			SW125153N						9.3
5.827-6.929	SW148-203CKB6	CK6	SW148176N	2.795	2.803				8.2
6.890-8.000			SW175203N						8.6
5.827-6.929	SW148-203CKB7	CK7	SW148176N	4.606	4.614				14.3
6.890-8.000			SW175203N						14.8

- Clamping screws and belleville springs are included; cartridges and inserts must be ordered separately
- Compatible set items are not included ordered separately if required
- Coolant through is standard for all the SW heads
- The diameter range is the value when nose radius .031 is used for insert ZN05 and ZN08

SMART DAMPER BORING SW

RANGE: ø.787"-8.000"

SW rough boring head integrated with SMART DAMPER eliminates chatter in heavy work loads



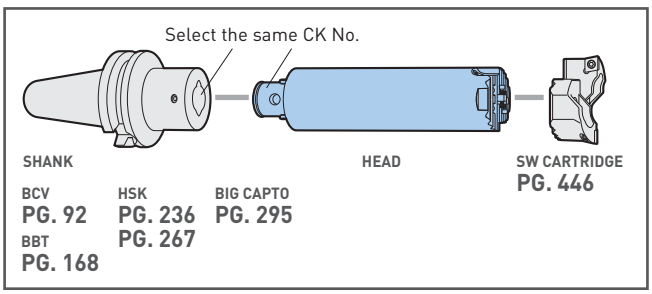
Balance Cutting

A TYPE FOR THROUGH-HOLES (4 CORNERS OF THE INSERT CAN BE USED)

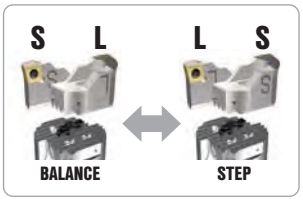
øD	Catalog Number	CK No.	Cartridge	Insert Model	øD1	L	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
.787-1.023	**CK1-SW20DP-105✥**	CK1	SW2026A	SC..0602	.748	4.134	SW20SS	SW20BS	.7
.984-1.220			SW2531A						
.984-1.299	**CK2-SW25DP-130✥**	CK2	SW2533A		.945	5.118	SW25SS	SW25BS	1.3
1.260-1.575			SW3240A						
1.260-1.653	**CKB3-SW32DP-170**	CK3	SW3242A	SC..0903	1.220	6.693	SW32SS	SW32BS	2.9
1.614-2.008			SW4151A						
1.614-2.160	**CKB4-SW41DP-190**	CK4	SW4154A		1.535	7.480	SW41SS	SW41BS	5.3
2.087-2.598			SW5366A						
2.087-2.756	**CKB5-SW53DP-220**	CK5	SW5370A	SC..1204	1.968	8.661	SW53SS	SW53BS	9.9
2.717-3.385			SW6986A						
2.677-3.543	**CKB6-SW68DP-245**	CK6	SW6890A		2.520	9.646	SW68SS		18.3
3.465-4.331			SW88110A						
3.858-4.960	**CKB6-SW98DP-260**		SW98126A			10.236	SW98SS	SW98BS	19.4
4.921-6.024			SW125153A						
3.858-4.961	**CKB7-SW98DP-260**	CK7	SW98126A		3.543				36.2
4.921-6.024			SW125153A						
5.827-6.929	**CKB6-SW148DP-260**	CK6	SW148176A		2.520				20.5
6.890-8.000			SW175203A						
5.827-6.929	**CKB7-SW148DP-260**	CK7	SW148176A		3.543				37.3
6.890-8.000			SW175203A						

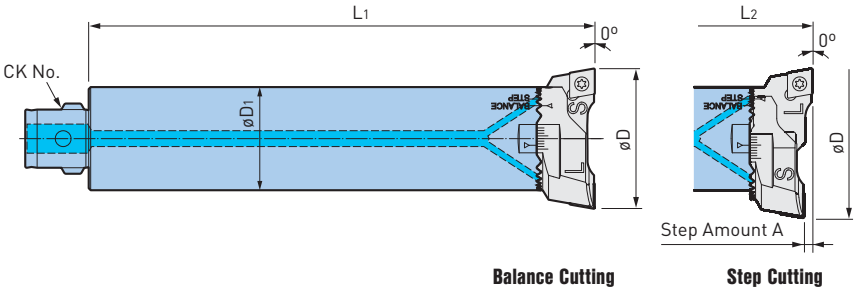
- Clamp screws and belleville springs are included; cartridges and inserts must be ordered separately
- Compatible set items are not included ordered separately if required
- CK1 and CK2 are interchangeable with CKB shanks, extensions, etc
- Coolant through is standard for all the SW heads
- The diameter range is the value when inserts with nose radius .031 are used

ACCESSORIES



Adapted for both balance and step cutting by simple replacement of standard cartridges (for blind holes).



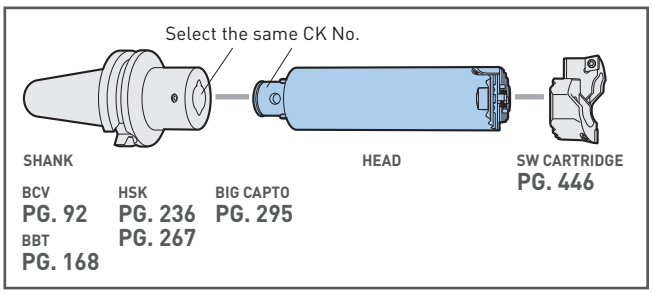


E TYPE FOR BLIND HOLES (TO SHAPE FLAT SURFACES)

øD	Catalog Number	CK No.	Cartridge	Insert Model	øD1	L1	L2	A	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
.787-1.023	**CK1-SW20DP-105❖**	CK1	SW2026E	CC..0602	.748	4.134	4.138	.008	SW20SS	SW20BS	.7
.984-1.220			SW2531E								
.984-1.299	**CK2-SW25DP-130❖**	CK2	SW2533E		.945	5.118	5.122		SW25SS	SW25BS	1.3
1.260-1.575			SW3240E								
1.260-1.653	**CKB3-SW32DP-170**	CK3	SW3242E	CC..0903	1.220	6.693	6.697		SW32SS	SW32BS	2.9
1.614-2.008			SW4151E								
1.614-2.160	**CKB4-SW41DP-190**	CK4	SW4154E		1.535	7.480	7.488	.016	SW41SS	SW41BS	5.3
2.087-2.598			SW5366E								
2.087-2.756	**CKB5-SW53DP-220**	CK5	SW5370E	CC..1204	1.968	8.661	8.669		SW53SS	SW53BS	9.9
2.717-3.385			SW6986E								
2.677-3.543	**CKB6-SW68DP-245**	CK6	SW6890E		2.520	9.646	9.654		SW68SS		18.3
3.465-4.331			SW88110E								
3.858-4.960	**CKB6-SW98DP-260**		SW98126E			10.236	10.244		SW98SS	SW98BS	19.4
4.921-6.024			SW125153E								
3.858-4.961	**CKB7-SW98DP-260**	CK7	SW98126E		3.543						36.2
4.921-6.024			SW125153E								
5.827-6.929	**CKB6-SW148DP-260**	CK6	SW148176E		2.520						20.5
6.890-8.000			SW175203E								
5.827-6.929	**CKB7-SW148DP-260**	CK7	SW148176E		3.543						37.3
6.890-8.000			SW175203E								

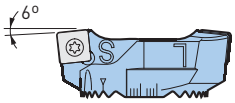
- Clamp screws and belleville springs are included; cartridges and inserts must be ordered separately
- Compatible set items are not included ordered separately if required
- CK1 and CK2 are interchangeable with CKB shanks, extensions, etc
- Coolant through is standard for all the SW heads
- The diameter range is the value when inserts with nose radius .031 are used

ACCESSORIES



SW CARTRIDGE PAT.

RANGE: ø.787"-8.000"

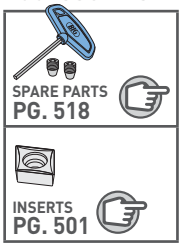


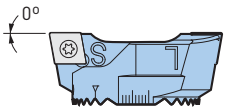
A TYPE FOR THROUGH-HOLES (4 CORNERS OF THE INSERT CAN BE USED)

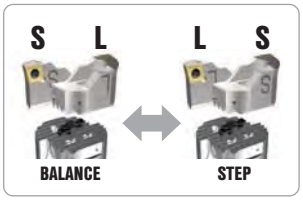
øD	Catalog Number	Head Type	Insert	Insert Clamp Screw Set
.787-1.024	**SW2026A**	SW 20	SC..0602	S2.5S-7IP
.984-1.220	**SW2531A**			
.984-1.299	**SW2533A**	SW 25	SC..0602	S2.5S-7IP
1.260-1.575	**SW3240A**			
1.260-1.654	**SW3242A**	SW 32	SC..0903	S4S-15IP
1.614-2.008	**SW4151A**			
1.614-2.126	**SW4154A**	SW 41	SC..0903	S4S-15IP
2.087-2.598	**SW5366A**			
2.087-2.756	**SW5370A**	SW 53	SC..1204	S5S-20IP
2.717-3.386	**SW6986A**			
2.677-3.543	**SW6890A**	SW 68	SC..1204	S5S-20IP
3.465-4.331	**SW88110A**			
3.858-4.961	**SW98126A**	SW 98	SC..1204	S5S-20IP
4.921-6.024	**SW125153A**			
5.827-6.929	**SW148176A**	SW148	SC..1204	S5S-20IP
6.890-8.000	**SW175203A**			

- Each cartridge model consists of a pair of cartridges and an insert clamping wrench
- Inserts must be ordered separately
- Step cutting is not available
- The diameter range is the value when nose radius .016 is used for insert SC06, and nose radius .031 for insert SC09 and SC12
- The insert clamping screw set (optional) contains 10 screws and 1 wrench

ACCESSORIES







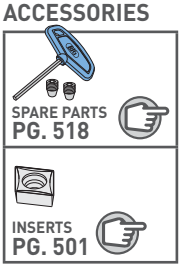
Adapted for both balance and step cutting by simple replacement of standard cartridges (for blind holes).

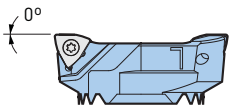
E TYPE FOR BLIND HOLES (TO SHAPE FLAT SURFACES)

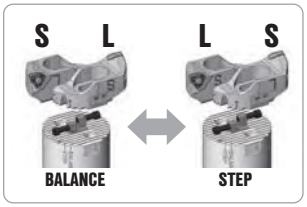
øD	Catalog Number	Head Type	Insert	Insert Clamp Screw Set
.787-1.024	**SW2026E**	SW20	CC..0602	S2.5S-7IP
.984-1.220	**SW2531E**			
.984-1.299	**SW2533E**	SW25	CC..0602	S2.5S-7IP
1.260-1.575	**SW3240E**			
1.260-1.654	**SW3242E**	SW32	CC..0903	S4S-15IP
1.614-2.008	**SW4151E**			
1.614-2.126	**SW4154E**	SW41	CC..0903	S4S-15IP
2.087-2.598	**SW5366E**			
2.087-2.756	**SW5370E**	SW53	CC..1204	S5S-20IP
2.717-3.386	**SW6986E**			
2.677-3.543	**SW6890E**	SW68	CC..1204	S5S-20IP
2.677-3.543	**SW6890EL**		CC..1605	
3.465-4.331	**SW88110E**		CC..1204	
3.465-4.331	**SW88110EL**		CC..1605	
3.858-4.961	**SW98126E**	SW98	CC..1204	S5S-20IP
3.858-4.961	**SW98126EL**		CC..1605	
4.921-6.024	**SW125153E**		CC..1204	
4.921-6.024	**SW125153EL**		CC..1605	
5.827-6.929	**SW148176E**	SW148	CC..1204	S5S-20IP
5.827-6.929	**SW148176EL**		CC..1605	
6.890-8.000	**SW175203E**		CC..1204	
6.890-8.000	**SW175203EL**		CC..1605	

- Each cartridge model consists of a pair of cartridges and an insert clamping wrench
- Inserts must be ordered separately
- The diameter range is the value when nose radius .016 is used for insert CC06, and nose radius .031 for insert CC09 and CC12
- The insert clamping screw set (optional) contains 10 screws and 1 wrench
- EL type Cartridge with long cutting edge cannot be used with the #30 shank holder

ACCESSORIES







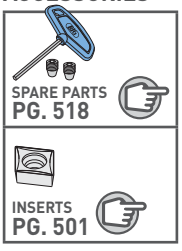
Adapted for both balance and step cutting by simple replacement of standard cartridges (for blind holes).

N TYPE FOR BLIND HOLES (6 CORNERS OF THE INSERT CAN BE USED)

øD	Catalog Number	Head Type	Insert	Insert Clamp Screw Set
1.260-1.654	**SW3242N**	SW 32	ZN..0503	S2.508S-7IP
1.614-2.008	**SW4151N**			
1.614-2.126	**SW4154N**	SW 41	ZN..0503	S2.508S-7IP
2.087-2.598	**SW5366N**			
2.087-2.756	**SW5370N**	SW 53	ZN..0805	S412S-15IP
2.717-3.386	**SW6986N**			
2.677-3.543	**SW6890N**	SW 68	ZN..0805	S412S-15IP
3.465-4.331	**SW88110N**			
3.858-4.961	**SW98126N**	SW 98	ZN..0805	S412S-15IP
4.921-6.024	**SW125153N**			
5.827-6.929	**SW148176N**	SW148	ZN..0805	S412S-15IP
6.890-8.000	**SW175203N**			

- Each cartridge model consists of a pair of cartridges and an insert clamping wrench
- Inserts must be ordered separately
- The insert clamping screw set (optional) contains 10 screws and 1 wrench

ACCESSORIES



SWS BORING HEAD

RANGE: ø1.614"-4.331"

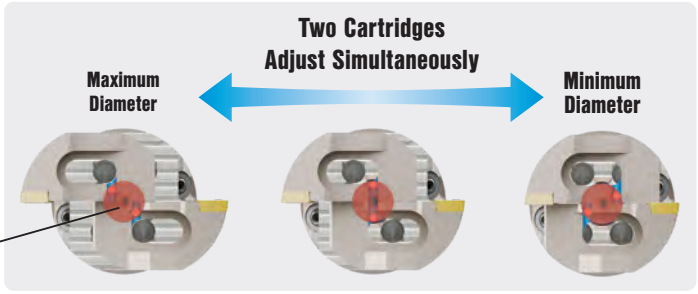
COOLANT THROUGH

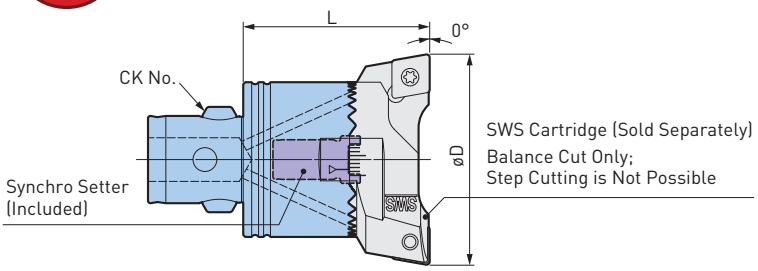
The Kaiser SWS Boring Head is perfect for setups without a presetter. It allows for quick and effortless diameter adjustments, ensuring precision and efficiency every time.

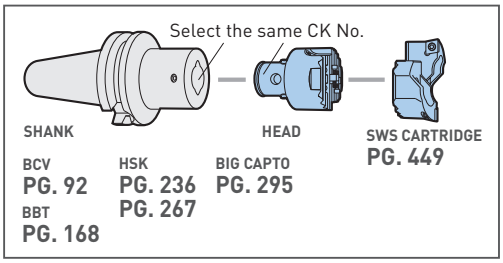
The two cartridges are connected to each other by the Synchro Setter, providing simultaneous diameter adjustment to both cartridges. Final diameter setting is possible using a simple measuring device, such as a micrometer or dial caliper.

NEW Product

Synchro Setter (Included)







øD	Catalog Number	CK No.	Cartridge	L	Synchro Setter (Spare)	Clamp Bolt Set (Spare)	Belleville Spring Set (Spare)	Weight (lbs.)
1.614-2.126	**SWS41-66CKB4**	CK4	SWS4154E	1.850	SWS41SY	SW41SS	SW41BS	1.1
2.087-2.598			SWS5366E					1.1
2.087-2.756	**SWS53-86CKB5**	CK5	SWS5370E	2.244	SWS53SY	SW53SS	SW53BS	1.8
2.717-3.386			SWS6986E					2.0
2.678-3.543	**SWS68-110CKB6**	CK6	SWS6890E	2.795	SWS68SY	SW68SS		3.5
3.465- 4.331			SWS88110E					4.0

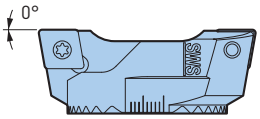
- Synchro setter, clamp bolt, and washer are included
- Compatible spare products listed in the table are not included and must be purchased separately
- Compatible cartridges and inserts are not included and must be purchased separately
- All SWS heads have coolant holes as standard
- The diameter range is the value when using an insert with a corner radius of .031
- Not intended to be used as a fine boring tool for precision bores with tolerances less than +/-.004
- Step cutting is not possible
- Cannot be used with SW cartridges

When precise diameter adjustment is required, the SW head with adjustment mechanism is recommended. See pg. 442.

SWS CARTRIDGE

E TYPE FOR BLIND HOLES (TO SHAPE FLAT SURFACES)

NEW Product



øD	Catalog Number	Head Type	Insert	Insert Clamp Screw Set
1.614-2.126	**SWS4154E**	SWS41-66CKB4	CC..0903	S4S-15IP
2.087-2.598	**SWS5366E**			
2.087-2.756	**SWS5370E**	SWS53-86CKB5	CC..1204	S5S-20IP
2.717-3.386	**SWS6986E**			
2.677-3.543	**SWS6890E**	SWS68-110CKB6	CC..1204	S5S-20IP
3.465-4.331	**SWS88110E**			

- Each cartridge model consists of a pair of cartridges and an insert clamping wrench
- Inserts must be ordered separately
- The diameter range is the value when using an insert with a corner radius of .031
- The insert clamping screw set (optional) contains 10 screws and 1 wrench
- Cannot be used with SW heads

ACCESSORIES

SPARE PARTS PG. 518

INSERTS PG. 501

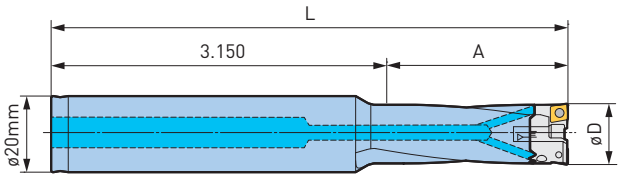
MW BORING HEAD PAT.

RANGE: ø.630"-.827"

Delivers high-efficiency, precision rough boring in small diameters with a 2-insert design.

NEW Sizes

COOLANT THROUGH



øD	Catalog Number	Cartridge	L	A	Spare Clamp Bolt Set	Spare Belleville Spring (4pcs)	Weight (lbs.)
.630-.748	**ST20-MW1619-45**	MW1619E	5.354	1.772	MW16SS	MW16BS	.53
	ST20-MW1619-60		5.945	2.362			.57
.709-.827	**ST20-MW1821-50**	MW1821E	5.551	1.969			.57
	ST20-MW1821-65		6.142	2.559			.62
.787-.945	**ST20-MW2024-55** 🔴	MW2024E	5.984	2.165	MW20SS	MW20BS	.30
	ST20-MW2024-75 🔴		6.772	2.953			.34

- Clamp Bolts and Belleville Springs are included with the body; cartridges and inserts must be ordered separately
- Cartridge models are a 2-piece set
- Cartridge includes insert clamping screws and wrench
- The weight is that of the body and cartridge combined
- The spare Clamp Screw Set contains two clamping screws and two washers

ACCESSORIES

Threads for plug screws are prepared in the coolant holes to change the coolant directions.

Cutting Conditions

Workpiece Material	Cutting Speed Vc (SFM)	Feed Rate f (IPR)	Cutting Depth (in/ø)
Carbon Steel	430-600	.004-.008	.080-.120
Stainless Steel	330-460	.006-.010	.060-.100
Cast Iron	400-660	.004-.012	.040-.160
Aluminum	600-925	.008-.012	.060-.160

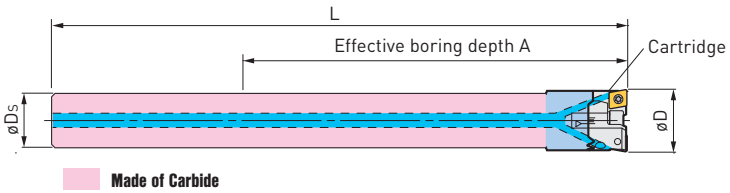
- Generally for use with center-through coolant
- Cutting speed must be lowered for external oil supply
- Blind hole processing may damage inserts and tools, as cutting chips clog at the back of the hole
- Remove cutting chips at the small bottom of the hole several times for processing

MW BORING HEAD (CARBIDE SHANK TYPE)

RANGE: ø.630"-.827"

Optimized for high-performance deep hole boring in through-hole applications.

COOLANT THROUGH

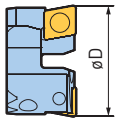


øD	Catalog Number	Cartridge	øDs	L	A	Clamp Bolt Set	Clamp Shim Set	Weight (lbs.)
.630-.748	**ST14W-MW16-110**	MW1619E	14mm	5.945	4.331	MW16SS	MW16BS	.79
.709-.827	**ST16W-MW18-115**	MW1821E	16mm	6.772	4.530			1.19

- Clamp Bolts and Belleville Springs are included with the body; cartridges and inserts must be ordered separately
- Cartridge models are a 2-piece set
- Cartridge includes insert clamping screws and wrench
- The weight is that of the body and cartridge combined
- The carbide shank and boring head are integrated and cannot be sold separately
- Exclusive for use with through holes; do not use it with blind holes
- The spare Clamp Screw Set contains two clamping screws and two washers

ACCESSORIES

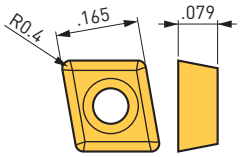
CARTRIDGES



øD	Catalog Number	Insert	Insert Clamping Screw Set
.630-.748	**MW1619E**	MW04	S1.6S-T6
.709-.827	**MW1821E**		

- Each cartridge model consists of a pair of cartridges and an insert clamping wrench
- Inserts must be ordered separately
- The insert clamping screw set (optional) contains 10 screws and 1 wrench

INDEXABLE INSERTS



No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**MW0404F(Z30P)**	.016	2	Steel / Stainless Steel	Coated Carbide (P30)
2	**MW0404S(Z30K)**	.016	2	Cast Iron GG/GGG	Coated Carbide (K30)
3	**MW0404E(D15N)**	.016	2	Aluminium/Nonferrous	DLC Coated Carbide (N15)

- Inserts are sold in packages of 10 pcs.
- Order example: MW0404F Z30P----10 pcs. in a package

INSERT CLAMPING SCREW SET

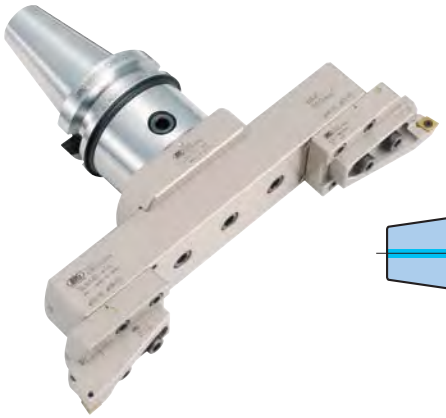
Set Model	Screw Caps	Wrench
S1.6S-T6	M1.6×4.2	FA-T6

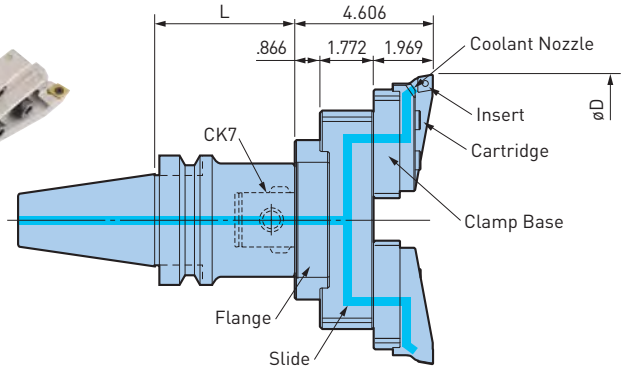
- 10 screws and 1 wrench are included in a set

TW200 BORING HEAD (STANDARD TYPE) RANGE: ø7.874"-32.677"

CK7 large-diameter boring series for heavy cutting.

COOLANT THROUGH



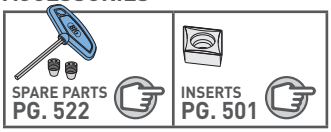


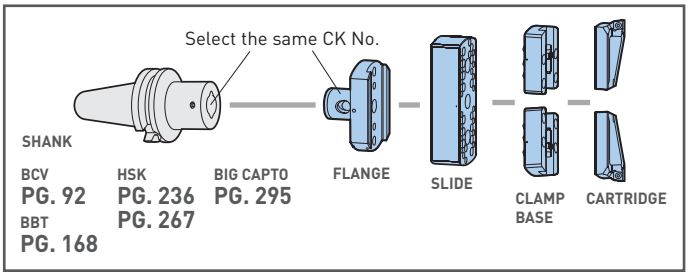
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Cartridge Type	ø D	CK7 Flange	Weight (lbs.)	Slide	Weight (lbs.)	Clamp Base (2-piece Set)	Weight (lbs.)	Cartridge (2-piece Set)	Weight (lbs.)	Insert
A Type for Through-Holes	7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270	8.4	CB-TW200E	4.0	TW200A 6°	1.6	SC12
	10.630-13.386			SLN270-340	12.1					
	13.386-16.142			SLN340-410	15.9					
	16.142-18.898			SLN410-480	19.0					
	18.898-21.654			SLN480-550	23.4					
	21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620❖	27.1					
	24.409-27.165			SLN620-690❖	30.9					
	27.165-29.921			SLN690-760❖	34.6					
	29.921-32.677			SLN760-830❖	38.4					
E/EL Type for Blind Holes	7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270	8.4	CB-TW200E	4.0	TW200E TW200EL 0°	1.6	CC12 (TW200E) CC16 (TW200EL)
	10.630-13.386			SLN270-340	12.1					
	13.386-16.142			SLN340-410	15.9					
	16.142-18.898			SLN410-480	19.0					
	18.898-21.654			SLN480-550	23.4					
	21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620❖	27.1					
	24.409-27.165			SLN620-690❖	30.9					
	27.165-29.921			SLN690-760❖	34.6					
	29.921-32.677			SLN760-830❖	38.4					

- Clamp Bases and Cartridges are sold as a two-piece set; the weight in the table is that of 2 pieces
- Inserts must be ordered separately
- Center-through coolant supply is available, except for ❖ marked models
- Cutting edge and drive keys are aligned in the same direction (It becomes 90° offset when the FLN135/90 or FLN220/90 flange is used)

ACCESSORIES

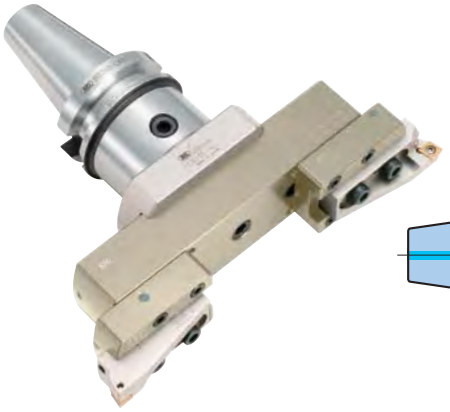


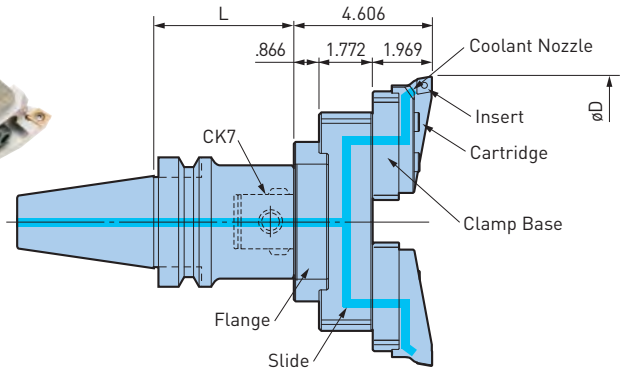


TW200 BORING HEAD (HIGH-SPEED TYPE) RANGE: ø7.874"-32.677"

CK7 large-diameter boring series featuring aluminum components for high-speed cutting.

COOLANT THROUGH





BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

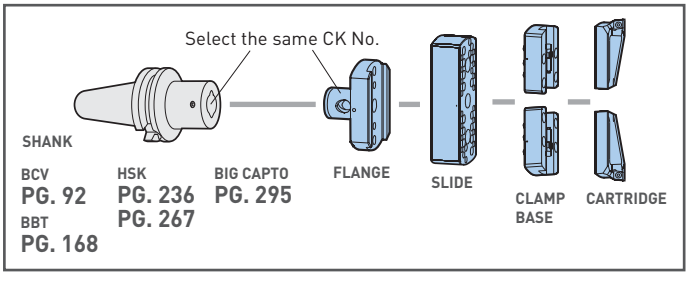
Cartridge Type	øD	CK7 Flange	Weight (lbs.)	Aluminum Slide	Weight (lbs.)	Aluminum Clamp Base (2-piece Set)	Weight (lbs.)	Cartridge (2-piece Set)	Weight (lbs.)	Insert
A Type for Through-Holes	7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270AL	3.2	CB-TW200E-AL	1.8	TW200A 6°	1.6	SC12
	10.630-13.386			SLN270-340AL	4.5					
	13.386-16.142			SLN340-410AL	5.8					
	16.142-18.898			SLN410-480AL	7.1					
	18.898-21.654			SLN480-550AL	8.5					
	21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620AL❖	9.8					
	24.409-27.165			SLN620-690AL❖	11.1					
	27.165-29.921			SLN690-760AL❖	12.4					
	29.921-32.677			SLN760-830AL❖	13.8					
E/EL Type for Blind Holes	7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270AL	3.2	CB-TW200E-AL	1.8	TW200E TW200EL 0°	1.6	CC12 (TW200E) CC16 (TW200EL)
	10.630-13.386			SLN270-340AL	4.5					
	13.386-16.142			SLN340-410AL	5.8					
	16.142-18.898			SLN410-480AL	7.1					
	18.898-21.654			SLN480-550AL	8.5					
	21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620AL❖	9.8					
	24.409-27.165			SLN620-690AL❖	11.1					
	27.165-29.921			SLN690-760AL❖	12.4					
	29.921-32.677			SLN760-830AL❖	13.8					

- Clamp Bases and Cartridges are sold as a two-piece set; the weight in the table is that of 2 pieces
- Inserts must be ordered separately
- Center-through coolant supply is available, except for ❖ marked models
- Cutting edge and drive keys are aligned in the same direction (It becomes 90° offset when the FLN135/90 or FLN220/90 flange is used)

ACCESSORIES

SPARE PARTS PG. 522

INSERTS PG. 501

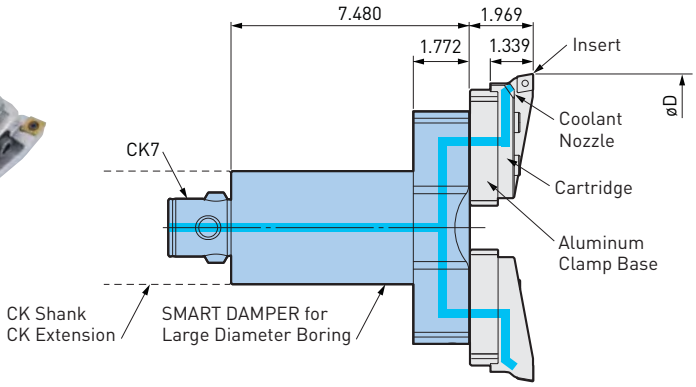


SMART DAMPER BORING TW200 (LARGE DIAMETER TYPE)

RANGE: ø7.756"-13.386"

Extended length large diameter slides with integral SMART DAMPER mechanism for anti-vibration.

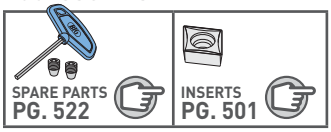
COOLANT THROUGH

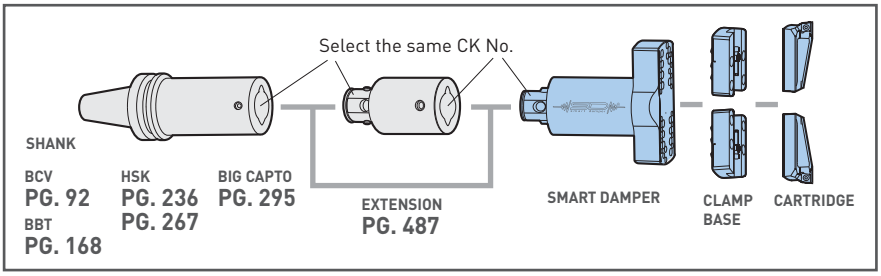


øD	CK7							Insert
	SMART DAMPER	Weight (lbs.)	Aluminum Clamp Base (2-piece Set)	Weight (lbs.)	Cartridge (2-piece Set)		Weight (lbs.)	
7.756-10.630	**CKB7-SLN200ALDP-190**	26.2	**CB-TW200-AL**	1.8	A Type for Through Hole **TW200A**	6°	1.6	SC12
					E Type for Blind Holes **TW200E**	0°	1.6	CC12
10.630-13.386	**CKB7-SLN270ALDP-190**	27.5			EL Type for Blind Holes **TW200EL**	0°	1.6	CC16

- Clamp Bases and Cartridges are sold as a two-piece set; the weight in the table is that of 2 pieces
- Inserts must be ordered separately
- Cutting edge and drive keys are aligned in the same direction

ACCESSORIES





SQUARE TOOL HOLDER

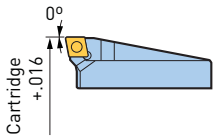
☐25mm square tool for lathe

Catalog Number	Diameter	Slide	Square Size	Weight (lbs.)
BFN95	9.843-32.677	SLN200-270(AL) or longer	☐25mm	2.5

- The diameter varies according to the tool and slide used
- Slide models with AL at the end are made of aluminum for lighter weight

E TYPE CARTRIDGE (FOR STEP CUTTING)

The step-cut cartridge features a cutting edge height that is .016" higher and supports efficient machining at large depths of cut, enhancing overall cutting performance.



Catalog Number	Insert
TW200E-SC	CC12
TW200EL-SC	CC16

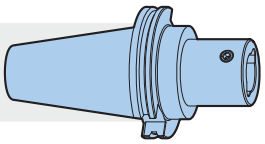
- Sold individually

CK SHANK (CK1-CK7)

DUAL CONTACT **BIG-PLUS**®

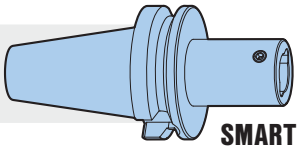
Can be used on both BIG-PLUS spindles and conventional BT/CV spindles.

BCV/CV Shank
PG. 92-94



Coolant Through

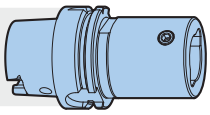
BBT/BT Shank
PG. 168-170



Coolant Through

SMART DAMPER PG. 171

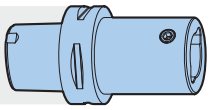
HSK Shank
PG. 236/267



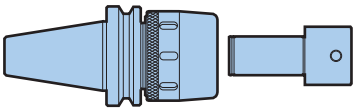
Coolant Through

SMART DAMPER PG. 237

BIG CAPTO Shank
PG. 295

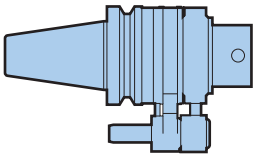


Coolant Through



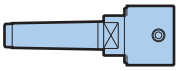
Cylindrical Shank
PG. 499

NEW Hi-POWER
MILLING CHUCK — BCV PG. 76 / **BT** PG. 134 / **HSK** PG. 212



Coolant Through

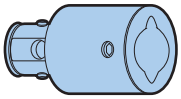
Hi-JET HOLDER — CV PG. 113 / **BT** PG. 192



Specials PG. 498-499

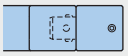
CK ACCESSORIES

Coolant Through

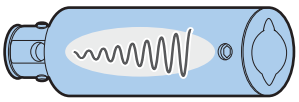


Extension PG. 487
Used when extending the projection length.

Application Example

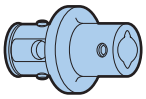


Coolant Through



SMART DAMPER PG. 486
Extension

Coolant Through



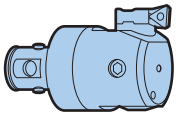
Reduction PG. 488
Reduces CK Shank diameter to use smaller boring heads.

Application Example

CK Chamfering Tool PG. 489
Chamfering tool easily adjusted in the shaft direction.

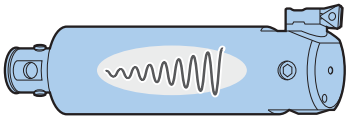
FINE BORING HEAD

RANGE: ø.039-7.992



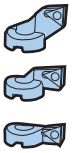
Coolant Through

EWN HEAD PG. 460
ø.787-7.992
Prebalanced design/multifunction head.

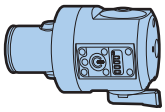


Coolant Through

SMART DAMPER EWN PG. 461
ø.787-7.992
Fusion of the popular EWN finishing head with SMART DAMPER.

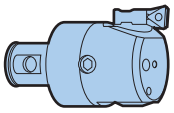


Insert Holder PG. 463
(For EWN/EWE)



Coolant Through

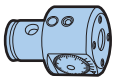
EWE DIGITAL HEAD PG. 462
Digital display means the adjustment amount can be read at a glance.



Coolant Through

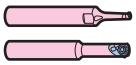
EWB HEAD PG. 465
(For High-Speed Finishing)
ø1.260-4.134
High-speed head realizing 2,000m/min.

Insert Holder PG. 465
(For EWB)

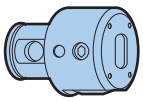


Coolant Through

EWN04-15 HEAD PG. 470
ø.039-.591
World's smallest boring head with outer diameter ø18.5mm (EWN04-7CK1).

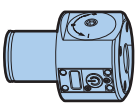


Boring Cutter
PG. 470



Coolant Through

EWN HEAD PG. 469
ø.039-2.126
Supports all kinds of small-diameter deep hole boring with a wide-ranging series.



Coolant Through

EWE DIGITAL HEAD PG. 472
(For Ultra-Precision Finishing)
ø.039-2.126
Digital display means the adjustment amount can be read at a glance.

Reduction Sleeve
PG. 478
ø.138-.394

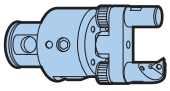
Collet PG. 478
ø.157-.551

Jig Boring Cutter PG. 473
ø.039-.354

Boring Bar PG. 473
ø.157-.354

Boring Bar PG. 474
Various cylindrical tools

Insert Holder
PG. 474



Pin Turning PG. 482
ø.020-27.008
Uses a finishing head for pin turning.

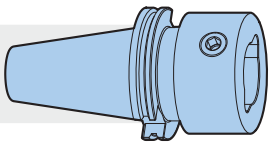
Made of Carbide

CK SHANK (CK7)

DUAL CONTACT BIG-PLUS®

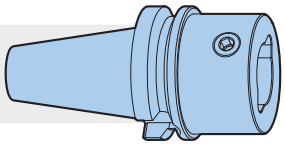
Can be used on both BIG-PLUS spindles and conventional BT/CV spindles.

BCV/CV Shank
PG. 92-94



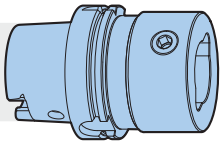
Coolant Through

BBT/BT Shank
PG. 168-170



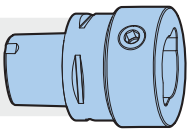
Coolant Through

HSK Shank
PG. 236/267

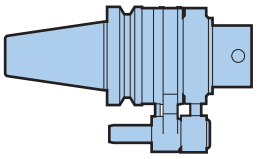


Coolant Through

BIG CAPTO Shank
PG. 295



Coolant Through

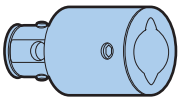


Coolant Through

Hi-JET HOLDER – CV PG. 113 / **BT** PG. 192

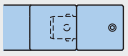
CK ACCESSORIES

Coolant Through

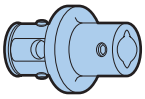


Extension PG. 487
Used when extending the projection length.

Application Example

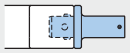


Coolant Through



Reduction PG. 488
Reduces CK Shank diameter to use smaller boring heads.

Application Example



BASIC HOLDERS
The CK Shank basic holder can be used for both roughing and finishing.

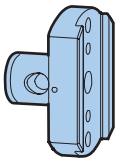
FINE BORING SYSTEM FOR LARGE DIAMETERS

RANGE: ø7.874-34.646

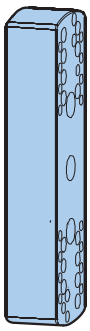
Coolant Through

EWN200 BORING HEAD (LARGE DIAMETER TYPE)

ø7.874-34.646

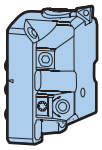


Flange PG. 466
(For Roughing/Finishing)
90° phase type is also available.

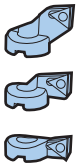


Slide PG. 466
(For Roughing/Finishing)
Aluminum slide is also available.

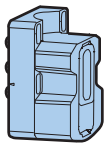
Coolant Through



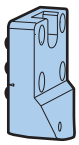
EWN200 HEAD PG. 466
(For Finishing)
Aluminum head is also available.



Insert Holder
PG. 466



Balance Weight PG. 466
(BWN200FBE)
Resolves imbalance problems and achieves more accurate circularity.
Aluminum head is also available.



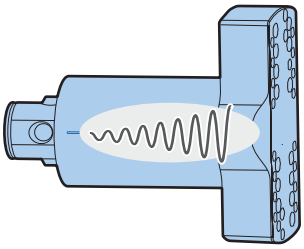
Simple Balance Weight PG. 467
(BWN200PB)

Coolant Through

SMART DAMPER EWN200 (LARGE DIAMETER TYPE)

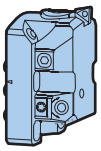
ø7.874-15.354

Fusion of lightweight aluminum slide and SMART DAMPER with built-in damper. Just exchange the head and cartridge to switch between roughing and finishing.

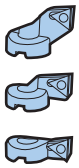


SMART DAMPER PG. 468
(For Roughing/Finishing)

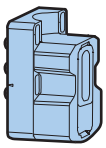
Coolant Through



EWN200 PG. 468
Aluminum Head
(For Finishing)



Insert Holder
PG. 468

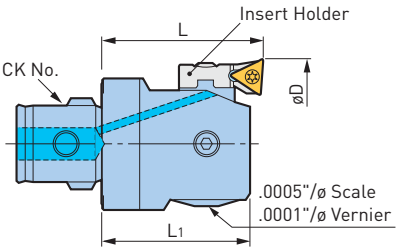


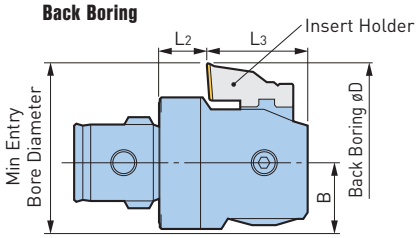
Aluminum Balance Weight PG. 468
(BWN200FB-AL)
Resolves imbalance problems and achieves more accurate circularity.

EWN BORING HEAD RANGE: ø.787"-8.000"

A .0001"/ø vernier is added to the easy-to-read scale with .0005"/ø increments for enhanced precision. The pre-balance design ensures stable machining accuracy, and standard back boring capability expands versatility.

COOLANT THROUGH





Min Bore = B + (Back Boring Diameter / 2)

Catalog Number	CK No.	Insert Holder	Boring			Back Boring				Weight (lbs.)	Insert
			øD	L	L1	øD	L2	L3	B		
EWN20-36E-CKB1	CK1	ENH1-1	.787-1.024	1.280	1.161	—	.413	.748	.394	.2	TP08
		ENH1-2	.984-1.220			1.181-1.220					
		ENH1-3	1.181-1.417			1.181-1.417					
EWN25-47E-CKB2	CK2	ENH2-1	.984-1.299	1.398	1.280	—	.453	.827	.492	.3	
		ENH2-2	1.260-1.575			1.417-1.575					
		ENH2-3	1.535-1.850			1.535-1.850					
EWN32-60E-CKB3	CK3	ENH3-1	1.260-1.654	1.575	1.378	—	.394	.984	.630	.5	
		ENH3-2	1.614-2.008			1.811-2.008					
		ENH3-3	1.969-2.362			1.969-2.362					
EWN41-74E-CKB4	CK4	ENH4-1	1.614-2.126	1.850	1.693	—	.551	1.142	.787	1.8	TC11
		ENH4-2	1.969-2.480			2.087-2.480					
		ENH4-3	2.402-2.913			2.402-2.913					
EWN53-95E-CKB5	CK5	ENH5-1	2.087-2.756	2.244	2.087	2.441-2.756	.748	1.339	1.004	1.8	
		ENH5-2	2.559-3.228			2.717-3.228					
		ENH5-3	3.071-3.740			3.071-3.740					
EWN68-150E-CKB6	CK6	ENH6-1	2.677-3.937	2.795	2.646	3.150-3.937	.866	1.780	1.280	3.8	
		ENH6-2	3.701-4.961			3.701-4.961					
		ENH6-3	4.646-5.906			4.646-5.906					
EWN100-203E-CKB6	CK6	ENH6-1	3.937-6.024	2.795	2.646	4.409-6.024	.866	1.780	1.791	5.4	
		ENH6-2	4.961-7.047			4.961-7.047					
		ENH6-3	5.906-8.000			5.906-8.000					
EWN100-203E-CKB7	CK7	ENH6-1	3.937-6.024	3.425	3.276	4.409-6.024	1.496	1.780	1.791	8.8	
		ENH6-2	4.961-7.047			4.961-7.047					
		ENH6-3	5.906-8.000			5.906-8.000					

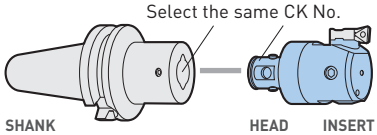
- Max and min diameters are the values when nose radius .008 is used for insert TP08, and nose radius .016 for insert TC11
- During back boring, the rotation direction will be reversed
- Inserts and insert holders are not included; must be ordered separately

The maximum allowable cutting speed Vc of the EWN BORING HEAD is 3,900 SFM, conditions differ according to the projection length of the holder and the rigidity of the machine. Set the spindle speed low and gradually increase until the optimum conditions are reached.

ACCESSORIES

SPARE PARTS PG. 519

INSERTS PG. 501



BCV PG. 92
BBT PG. 168
HSK PG. 236 PG. 267
BIG CAPTO PG. 295
PG. 463

SMART DAMPER BORING EWN

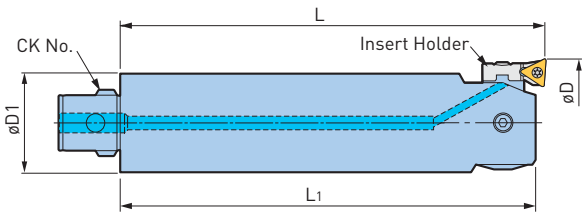
RANGE: ø.787"-8.000"

EWN fine boring head integrated with SMART DAMPER eliminates chatter.

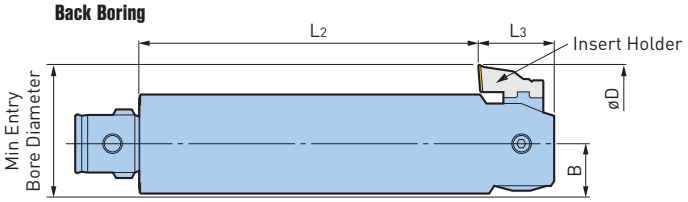
.0005" Accuracy

.0001" Vernier Precision

COOLANT THROUGH



Back Boring



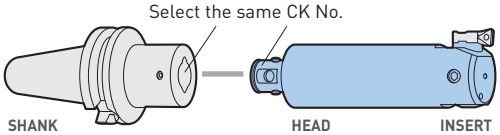
Min Bore = B + (Back Boring Diameter / 2)

Catalog Number	CK No.	Insert Holder	Boring			Back Boring			B	øD1	Weight (lbs.)	Insert
			øD	L	L1	øD	L2	L3				
CK1-EWN20EDP-100	CK1	ENH1-1	.787-1.024	3.937	3.819	—	3.071	.866	.394	.748	.9	TP..08
		ENH1-2	.984-1.220			—						
		ENH1-3	1.181-1.417			—						
CK2-EWN25EDP-125	CK2	ENH2-1	.984-1.299	4.921	4.803	—	3.976	.945	.472	.945	1.5	
		ENH2-2	1.260-1.575			—						
		ENH2-3	1.535-1.850			1.654-1.850						
CKB3-EWN32EDP-160	CKB3	ENH3-1	1.260-1.654	6.299	6.102	—	5.115	.984	.630	1.220	2.6	
		ENH3-2	1.614-2.008			—						
		ENH3-3	1.970-2.362			2.244-2.362						
CKB4-EWN41EDP-185	CKB4	ENH4-1	1.614-2.126	7.283	7.126	—	5.984	1.142	.787	1.535	5.1	TC..11
		ENH4-2	1.969-2.480			2.420-2.480						
		ENH4-3	2.402-2.913			2.638-2.913						
CKB5-EWN53EDP-210	CKB5	ENH5-1	2.087-2.756	8.268	8.110	—	6.772	1.339	.984	1.969	9.7	
		ENH5-2	2.559-3.228			2.913-3.228						
		ENH5-3	3.070-3.740			3.071-3.740						
CKB6-EWN68EDP-240	CKB6	ENH6-1	2.677-3.937	9.449	9.291	3.543-3.937	7.520	1.772	1.299	2.520	18.3	
		ENH6-2	3.700-4.960			3.701-4.961						
		ENH6-3	4.646-5.906			4.646-5.906						
CKB6-EWN100EDP-240	CKB6	ENH6-1	3.937-6.024	9.449	9.291	4.213-6.024	7.520	1.772	1.772	2.520	19.4	
		ENH6-2	4.961-7.047			4.961-7.047						
		ENH6-3	5.906-8.000			5.906-8.000						
CKB7-EWN100EDP-240	CKB7	ENH6-1	3.937-6.024	9.449	9.291	4.567-6.024	7.520	1.772	1.772	3.543	36.1	
		ENH6-2	4.961-7.047			4.961-7.047						
		ENH6-3	5.906-8.000			5.906-8.000						

- The diameter range is the values when nose radius .008 is used for insert TP08, and radius .016 for insert TC11
- During back boring, the rotation direction will be reversed
- Inserts and insert holders are not included; must be ordered separately
- CK1 and CK2 are interchangeable with CKB shanks, extensions, etc

ACCESSORIES

SPARE PARTS PG. 519



BCV PG. 92
HSK PG. 236 PG. 267
BIG CAPTO PG. 295
BBT PG. 168
INSERT HOLDER PG. 463

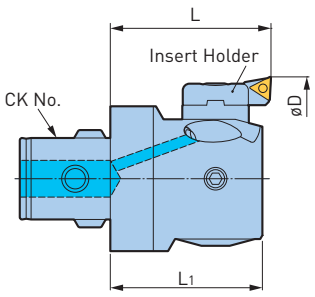
EWE DIGITAL BORING HEAD

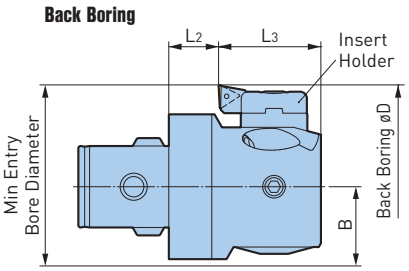
RANGE: ø1.614"-8.000" (ø41-203mm)

An advanced digital boring head, crafted with ultra-precision technology. The digital display enables instant reading of adjustment values, and the fully waterproof and dustproof structure (equivalent to IP69K) ensures durability in any environment.

Resolution: .00005"/Ø (.001mm/Ø)

COOLANT THROUGH





Min Bore = B + (Back Boring Diameter / 2)

Accurately displays the actual movement amount.

Simple operation allows ON and ZERO RESET with a single button.

Catalog Number	CK No.	Insert Holder	Boring			Back Boring				Weight (lbs.)	Insert
			øD	L	L1	øD	L2	L3	B		
EWE41-74CKB4	CK4	ENH4-1	1.614-2.126	1.850	1.693	—	.551	1.142	.787	.9	TC..11
		ENH4-2	1.969-2.480			2.087-2.480					
		ENH4-3	2.402-2.913			2.402-2.913					
EWE53-95CKB5	CK5	ENH5-1	2.087-2.756	2.244	2.087	2.441-2.756	.748	1.339	1.004	1.5	TC..11
		ENH5-2	2.559-3.228			2.559-3.228					
		ENH5-3	3.071-3.740			3.071-3.740					
EWE68-150CKB6	CK6	ENH6-1	2.677-3.937	2.795	2.646	3.150-3.937	.866	1.780	1.280	3.7	TC..11
		ENH6-2	3.701-4.961			3.701-4.961					
		ENH6-3	4.646-5.906			4.646-5.906					
EWE100-203CKB6	CK6	ENH6-1	3.937-6.024	2.795	2.646	4.409-6.024	.866	1.78	1.791	5.5	TC..11
		ENH6-2	4.961-7.047			4.961-7.047					
		ENH6-3	5.906-8.000			5.906-8.000					
EWE100-203CKB7	CK7	ENH6-1	3.937-6.024	3.425	3.276	4.409-6.024	1.496	1.78	1.791	8.8	TC..11
		ENH6-2	4.961-7.047			4.961-7.047					
		ENH6-3	5.906-8.000			5.906-8.000					

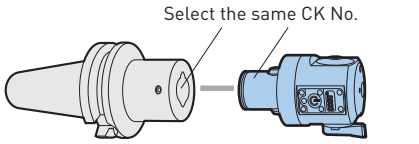
- Battery: CR1025 .... 1 pc (standard accessory included)
- Digital display units are set to inch by default; units can be changed between inch and mm with the KAISER boring tool app
- Max and Min diameters are the values when an insert with nose radius .016 is used
- During back boring, the rotation direction will be reversed
- ENH□-1 insert holder is included; other insert holder sizes must be ordered separately
- Inserts must be ordered separately
- Max recommended center-through coolant pressure: 290 PSI

The maximum allowable cutting speed Vc of the EWE BORING HEAD is 3,900 SFM, conditions differ according to the projection length of the holder and the rigidity of the machine. Set the spindle speed low and gradually increase until the optimum conditions are reached.

ACCESSORIES

SPARE PARTS PG. 521

INSERTS PG. 501



SHANK — HEAD — INSERT HOLDER

BCV PG. 92
HSK PG. 236 PG. 267
BIG CAPTO PG. 295
BBT PG. 168
PG. 463

NEW

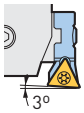
FULLY AUTOMATIC BORING SOLUTION

Available for ø2.667" and larger bore sizes.

EWA BORING HEAD

INSERT HOLDER

FOR TP/TC INSERT

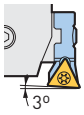


Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN20	**ENH1-1**	TP..08	S2S-6IP
	ENH1-2		
	ENH1-3		
	ENH1-1TP07	TP..07	10.694.103-2P
EWN25	**ENH2-1**	TP..08	S2S-6IP
	ENH2-2		
	ENH2-3		
	ENH2-1TP07	TP..07	10.694.103-2P
EWN32	**ENH3-1**	TP..08	S2S-6IP
	ENH3-2		
	ENH3-3		
EWN41 EWE41	**ENH4-1**	TC..11	S2.5S-7IP
	ENH4-2		
	ENH4-3		
EWN53 EWE53	**ENH5-1**	TC..11	S2.5S-7IP
	ENH5-2		
	ENH5-3		
EWN68 EWE68 EWN100 EWE100	**ENH6-1**	TC..11	S2.5S-7IP
	ENH6-2		
	ENH6-3		

• Inserts must be ordered separately

FOR TN INSERT

NEW Product



Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN41	**ENH4-1N**	TN...11	S2.5S-T7-L
EWN53	**ENH5-1N**		
EWN68	**ENH6-1N**		
EWN100			

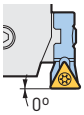
• Inserts must be ordered separately

ACCESSORIES

SPARE PARTS PG. 519

INSERTS PG. 501

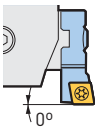
FOR TP/TC INSERT



Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN(E)41	**ENH4-1E**	TC..11	S2.5S-7IP
	ENH4-2E		
	ENH4-3E		
EWN(E)53	**ENH5-1E**	TC..11	S2.5S-7IP
	ENH5-2E		
	ENH5-3E		
EWN(E)68 EWN(E)100	**ENH6-1E**	TC..11	S2.5S-7IP
	ENH6-2E		
	ENH6-3E		

• Inserts must be ordered separately

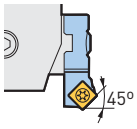
FOR CC INSERT



Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN(E)41	**ENH4-1F**	CC..06	S2.5S-7IP
	ENH4-2F		
	ENH4-3F		
EWN(E)53	**ENH5-1F**	CC..06	S2.5S-7IP
	ENH5-2F		
	ENH5-3F		
EWN(E)68 EWN(E)100	**ENH6-1F**	CC..07	S3S-10IP
	ENH6-2F		
	ENH6-3F		

• Inserts must be ordered separately

FOR SC INSERT

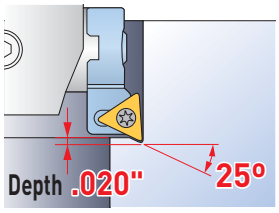


Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN(E)41	**ENH4-1S**	SC..06	S2.5S-7IP
	ENH4-2S		
	ENH4-3S		
EWN(E)53	**ENH5-1S**	SC..06	S2.5S-7IP
	ENH5-2S		
	ENH5-3S		
EWN(E)68 EWN(E)100	**ENH6-1S**	SC..07	S3S-10IP
	ENH6-2S		
	ENH6-3S		

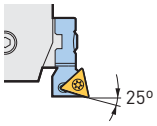
• Inserts must be ordered separately

INSERT HOLDER (TO UNDERCUT CORNERS)

Insert holder capable of boring and grooving (recessing).



FOR TP/TC INSERT



Head Type	Catalog Number	Insert	Insert Clamp Screw Set
EWN 32	**ENH3-1J**	TP..08	S2S-6IP
	ENH3-2J		
	ENH3-3J		
EWN41 EWE41	**ENH4-1J**	TP..08	S2S-6IP
EWN53 EWE53	**ENH5-1J**	TP..08	S2S-6IP
	ENH5-2J		
	ENH5-3J		
EWN68 EWE68 EWN100 EWE100	**ENH6-1J**	TC..11	S2.5S-7IP
	ENH6-2J		
	ENH6-3J		

- T Max and L are the values when nose radius .008 is used for insert TP08, and nose radius .016 for insert TC11
- Inserts must be ordered separately

ACCESSORIES

SPARE PARTS PG. 519

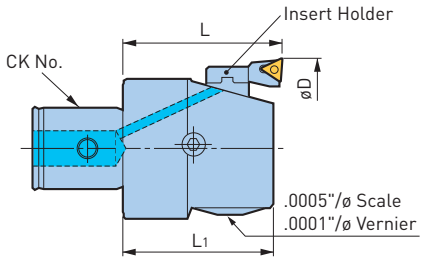
INSERTS PG. 501

EWB BORING HEAD

RANGE: ø1.260"-4.134" (ø32-105mm)

Ultra-precision boring head with a ø.0005" increment scale, featuring automatic precision balancing that enables high-speed machining with exceptional dynamic stability and accuracy.

COOLANT THROUGH

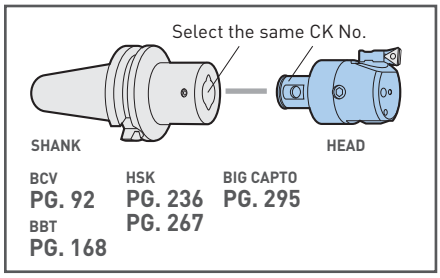


øD	Catalog Number	CK No.	L	L1	Weight (lbs.)	Insert Holder	Insert
1.260-1.654	**EWB32-42E-CK3**	CK3	1.575	1.457	.4	EBH3-1	TP..08
1.614-2.126	**EWB41-54E-CK4**	CK4	1.850	1.693	.8	EBH4-1	TC..11
2.087-2.756	**EWB53-70E-CK5**	CK5	2.244	2.087	1.7	EBH5-1	
2.677-3.465	**EWB68-88E-CK6**	CK6	2.795	2.638	3.6	EBH6-1	
3.346-4.134	**EWB85-105E-CK6**	CK6	2.795	2.638	3.7	EBH6-1	

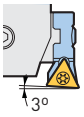
- The diameter range is the values when nose radius .008 is used for insert TP08, and radius .016 for insert TC11
- Insert holder is included; Inserts must be ordered separately

The maximum allowable cutting speed Vc of the EWB BORING HEAD is 6,600 SFM, conditions differ according to the projection length of the holder and the rigidity of the machine. Set the spindle speed low and gradually increase until the optimum conditions are reached.

ACCESSORIES



INSERT HOLDER



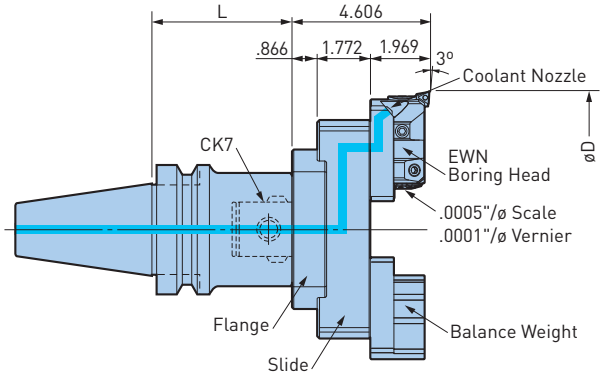
Catalog Number	Head Type	Insert	Insert Clamping Screw Set
EBH3-1	EWB32-42E-CK3	TP08	S2S-6IP
EBH4-1	EWB41-54E-CK4	TC11	S2.5-7IP
EBH5-1	EWB53-70E-CK5		
EBH6-1	EWB68-88E-CK6 EWB85-105E-CK6		

- EWB Boring Heads are provided with an insert holder; for replacement, order using the above model numbers

EWN200 BORING HEAD (STANDARD TYPE) RANGE: ø7.874"-34.646"

The fine boring system is delivering high precision and performance for large diameters.

COOLANT THROUGH



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

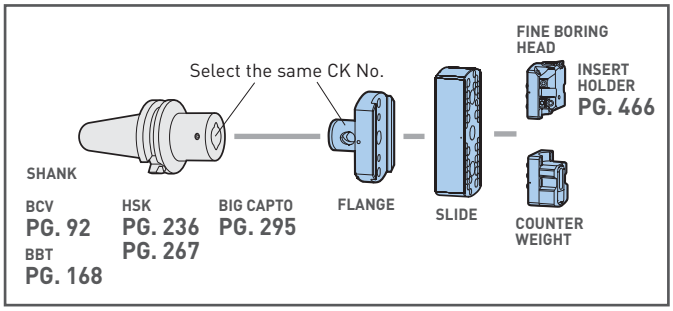
øD (with ENH7-1 Insert Holder)	CK7 Flange	Weight (lbs.)	Slide	Weight (lbs.)	EWN Boring Head	Weight (lbs.)	Balance Weight*	Weight (lbs.)	Insert
7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270	8.4	EWN200E	3.2	BWN200FBE	3.2	TC11
10.630-13.386			SLN270-340	12.1					
13.386-16.142			SLN340-410	15.9					
16.142-18.898			SLN410-480	19.0					
18.898-21.654			SLN480-550	23.4					
21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620❖	27.1					
24.409-27.165			SLN620-690❖	30.9					
27.165-29.921			SLN690-760❖	34.6					
29.921-32.677			SLN760-830❖	38.4					

* Balance weights can be adjusted according to the diameter
- Inserts and insert holders are not included; must be ordered separately
- Center-through coolant supply is available, except for ❖ marked models
- Cutting edge and drive keys are aligned in the same direction (It becomes 90° offset when the FLN135/90 or FLN220/90 flange is used)

ACCESSORIES

SPARE PARTS PG. 522

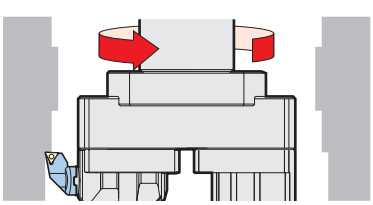
INSERTS PG. 501



INSERT HOLDER

Base Insert Holder	Optional Insert Holders				
ENH7-1	ENH7-2	ENH7-3	ENH7-1J (for recessing)	ENH7-1F	ENH7-1S
	+.984"/dia	+1.969"/dia	25° Max Depth .024	0°	45°
Insert TC11				Insert CC07	Insert SC07

Back Boring Available

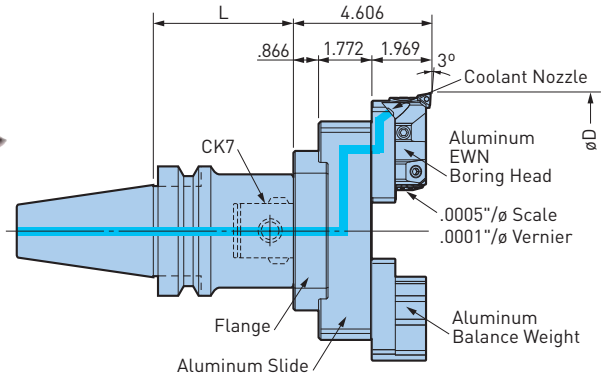


ENH7-2, 7-3 only can be used.

EWN200 BORING HEAD (HIGH-SPEED TYPE) RANGE: ø7.874"-34.646"

By combining a lightweight aluminum slide, EWN Boring Head, and a balance weight, we've reduced overall tool weight without compromising on performance.

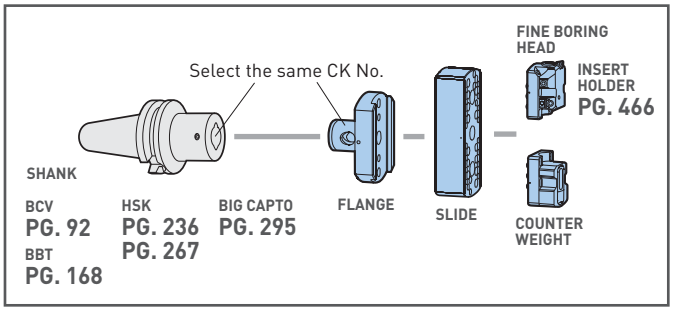
COOLANT THROUGH



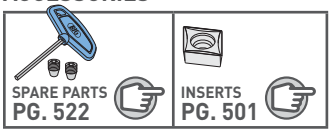
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

øD (with ENH7-1 Insert Holder)	CK7 Flange	Weight (lbs.)	Aluminum Slide	Weight (lbs.)	Aluminum EWN Boring Head	Weight (lbs.)	Aluminum Balance Weight*	Weight (lbs.)	Insert
7.874-10.630	FLN135 (FLN135/90)	6.1	SLN200-270AL	3.2	EWN200EAL	1.8	BWN200FBE-AL	1.8	TC11
10.630-13.386			SLN270-340AL	4.5					
13.386-16.142			SLN340-410AL	5.8					
16.142-18.898			SLN410-480AL	7.1					
18.898-21.654			SLN480-550AL	8.5					
21.654-24.409	FLN220 (FLN220/90)	8.8	SLN550-620AL❖	9.8					
24.409-27.165			SLN620-690AL❖	11.1					
27.165-29.921			SLN690-760AL❖	12.4					
29.921-32.677			SLN760-830AL❖	13.8					

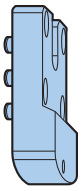
* Balance weights can be adjusted according to the diameter
- Inserts and insert holders are not included; must be ordered separately
- Center-through coolant supply is available, except for ❖ marked models
- Cutting edge and drive keys are aligned in the same direction (It becomes 90° offset when the FLN135/90 or FLN220/90 flange is used)



ACCESSORIES



SIMPLE BALANCE WEIGHT



Low-cost balance weights are also available.
Use under speed of 2,600SFM (800m/min).

Catalog Number	Weight (lbs.)	Head
BWN200PB	3.2	EWN200 (Standard Type)
BWN200PB-AL	1.8	EWN200AL (High-speed Type)

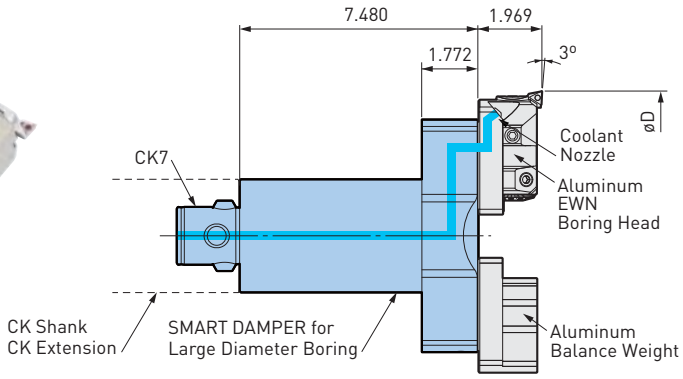
- Weights cannot be adjusted

SMART DAMPER BORING EWN200 (LARGE DIAMETER TYPE)

RANGE: ø7.87"-13.386"

A lightweight aluminum slide, combined with a SMART DAMPER featuring an integrated anti-vibration mechanism.

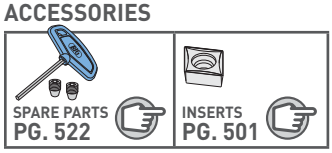
COOLANT THROUGH

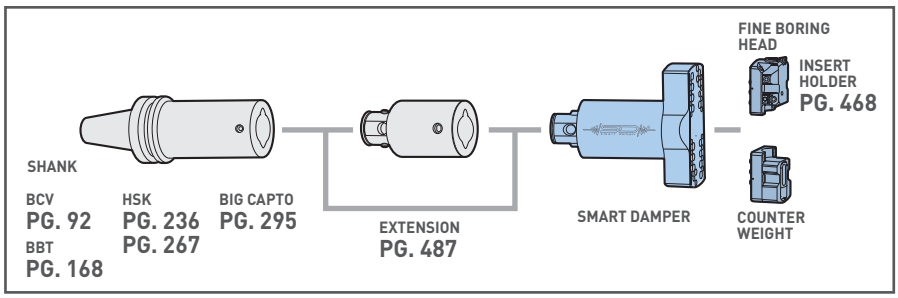


øD (with ENH7-1 Insert Holder)	CK7 SMART DAMPER	Weight (lbs.)	Aluminum EWN Boring Head	Weight (lbs.)	Aluminum Balance Weight	Weight (lbs.)	Insert
7.87-10.630	**CKB7-SLN200ALDP-190**	26.2	**EWN200EAL**	1.8	**BWN200FBE-AL**	1.8	TC11
10.630-13.386	**CKB7-SLN270ALDP-190**	27.5					

- Inserts and insert holders are not included; must be ordered separately
- Cutting edge and drive keys are aligned in the same direction

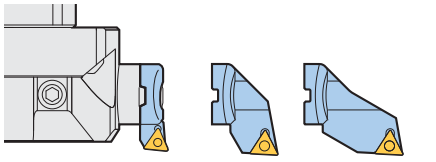
ACCESSORIES





3 Types of Insert Holders

By replacing the insert holder, the machining diameter range can be expanded.



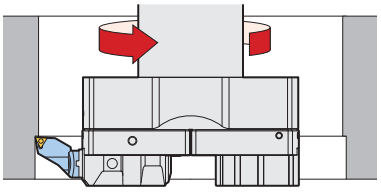
Standard **ENH7-1**

Optional **ENH7-2** +.984"/dia

Optional **ENH7-3** +1.969"/dia

Back Boring Available

Reverse



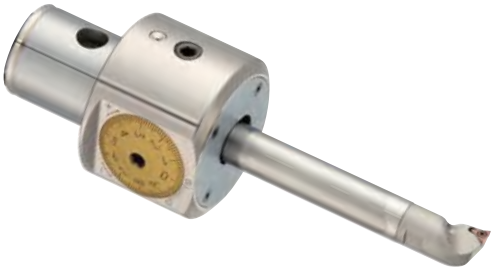
Back boring can be done with ENH7-2 and 3. ENH7-1 cannot be used for back boring.

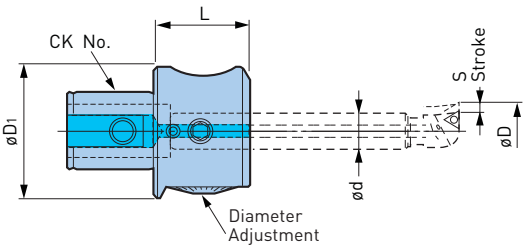
EWN BORING HEAD (CENTRIC BORING BAR TYPE)

RANGE: ø.039"-2.126"

Ultra-precision head with tenths adjustments. Equipped with a full range of carbide bars, to meet the challenges of small diameter deep hole machining. The inch graduated scale offers precise, reliable adjustments.

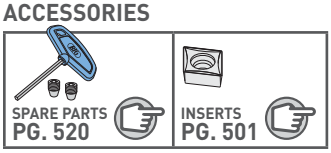
COOLANT THROUGH

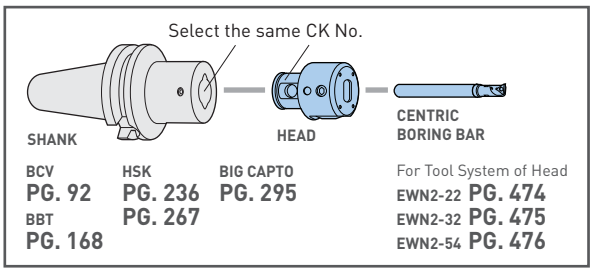




øD	Catalog Number	CK No.	ød	øD1	L	S	Diameter Adjustment	Max RPM	Weight (lbs.)
.039-.591	**EWN04-15E-CK3**	CK3	7mm	1.18	.87	-0.008-+.080	.0005" Scale (.0001" Vernier)	20,000	.3
.039-.866	**EWN2-22E-CK4**	CK4	10mm	1.54	1.12	-0.008-+.087	.0005" Scale (.0001" Vernier)	16,000	.6
.039-1.260	**EWN2-32E-CK5**	CK5	12mm	1.97	1.42	-0.008-+.138	.0002" Scale (.00005" Vernier)	14,000	1.1
.039-2.126	**EWN2-54EM-CK6**	CK6	16mm	2.50	1.77	-0.008-+.177	.0002" Scale (.00005" Vernier)	10,000	2.4
.039-2.126	**EWN2-54E-CK6**	CK6	.625	2.50	1.77	-0.008-+.177	.0002" Scale (.00005" Vernier)	10,000	2.4

ACCESSORIES



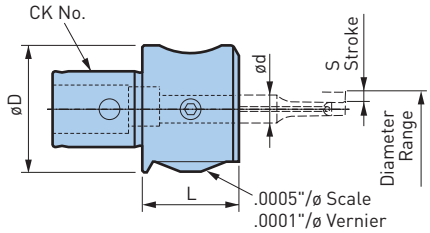


EWN04-15 BORING HEAD

RANGE: ø.039"-.591"

Micro-boring head with an outer diameter of ø1.181

COOLANT THROUGH



Catalog Number	Diameter Range	CK No.	øD	ød	L	S	Max Speed	Weight (lbs.)
EWN04-15E-CK3	.039-.591	CK3	1.181	7mm	.866	-.008 - + .079	20,000	.3

• Boring cutter must be ordered separately

BORING CUTTER

EWN04-15

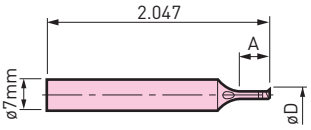
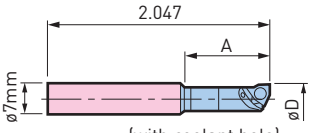
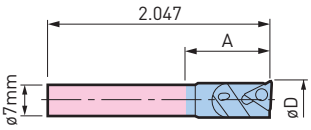


Fig. 1



(with coolant hole)

Fig. 2



(with coolant hole)

Fig. 3

Made of Carbide

øD	Fig.	Catalog Number	Engraved Number	A	Insert
.039-.059	1	**ST7W-EB1-3**	615.524	.118	Integrated Carbide Shank
.055-.079		**ST7W-EB1.5-5**	615.525	.197	
.075-.118		**ST7W-EB2-7**	615.501	.236	
.114-.157		**ST7W-EB3-10**	615.502	.394	
.154-.197		**ST7W-EB4-13**	615.503	.512	
.193-.236		**ST7W-EB5-16**	615.504	.630	
.228-.276	2	**ST7W-EB6-20**	615.505	.787	WC02
.268-.315		**ST7W-EB7-20**	615.506		
.307-.354	3	**ST7W-EB8-20**	615.507	1.181	TP07
.346-.394		**ST7W-EB9-20**	615.508		
.386-.472		**ST7W-EB10-20**	615.509		
.465-.591		**ST7W-EB12-30**	615.511		

• Inserts must be ordered separately

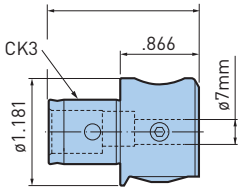
ACCESSORIES

SPARE PARTS PG. 516

INSERTS PG. 501

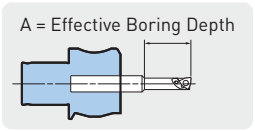
EWN04-15 BORING HEAD

Max Tool Insertion Amount = 1.654

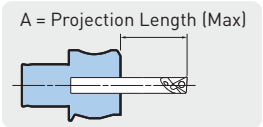


EWN04-15E-CK3
Stroke -.008" - +.079"

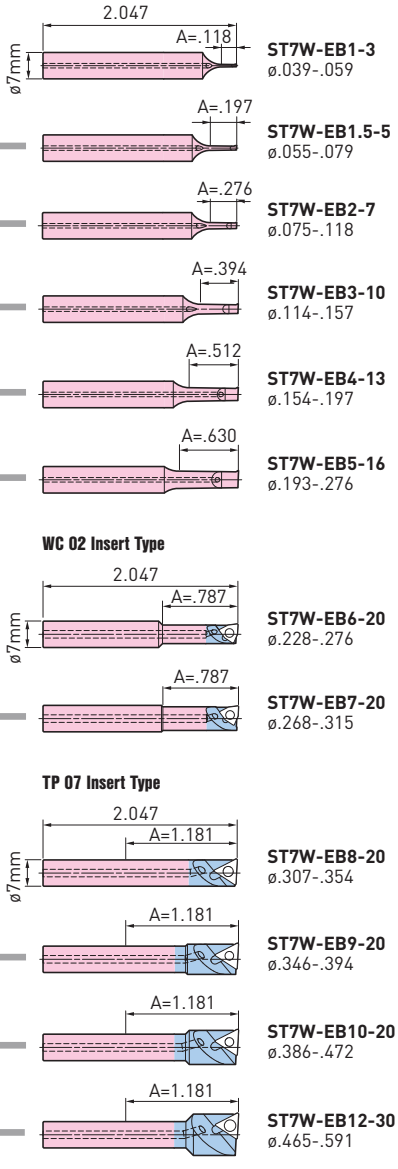
ST7W-EB1-EB7
ST7-REB



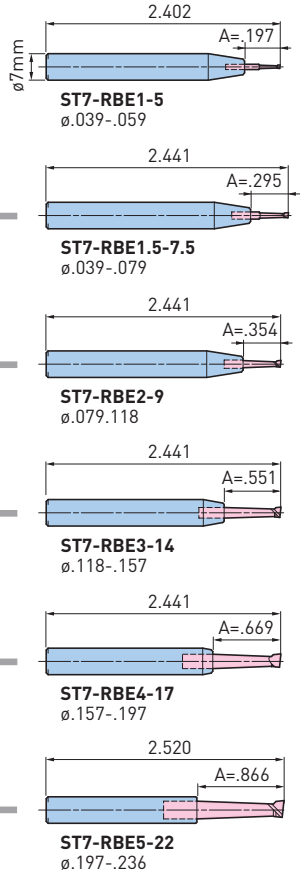
ST7W-EB8-EB12



BORING CUTTER

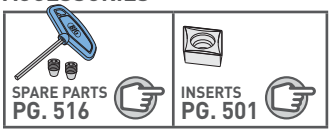


JIG BORING CUTTER



Made of Carbide

ACCESSORIES

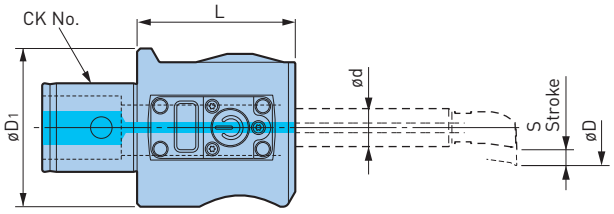


EWE DIGITAL BORING HEAD (CENTRIC BORING BAR TYPE)

Designed with an IP69K-rated structure, it provides complete protection against water and dust, ensuring durability and reliability.

COOLANT THROUGH

Resolution: .00005"/Ø (.001mm/Ø)



Center-Through Coolant Pressure Should Not Exceed 4MPa

Accurately displays the actual movement amount.

Simple operation allows ON and ZERO RESET with a single button.

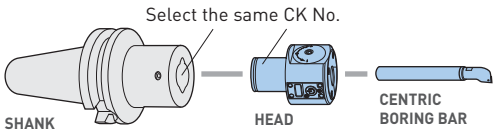
øD	Catalog Number	CK No.	ød	øD1	L	S	Max RPM	Weight (lbs.)
.039-1.260	**EWE2-32CK5**	CK5	12mm	1.97	1.97	-0.02-+0.08	16,000	1.4
.039-2.126	**EWE2-54CK6**	CK6	16mm	2.50	1.77	-0.02-+0.10	14,000	3.0
.039-2.126	**EWE2-54E-CK6**	CK6	.625	2.50	1.77	-0.02-+0.10	14,000	3.0

- Battery: CR1025 .... 1 pc (standard accessory included)
- Digital display units are set to inch by default; units can be changed between inch and mm with the KAISER boring tool app
- Boring cutter holder must be ordered separately
- Max recommended center-through coolant pressure: 290 PSI
- Inserts must be ordered separately

ACCESSORIES

SPARE PARTS PG. 521

INSERTS PG. 501



SHANK
BCV PG. 92
BBT PG. 168
HSK PG. 236 PG. 267
BIG CAPTO PG. 295

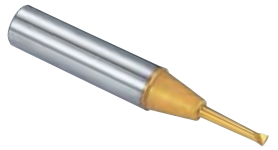
For Tool System of Head
EWE2-32 PG. 475
EWE2-54 PG. 476

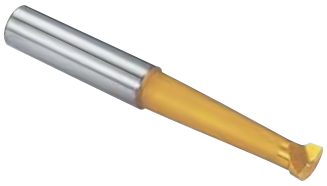
JIG BORING CUTTER

DIAMETER: ø.039"-.354" (ø1-9mm)

Designed with a sharp cutting edge, these tools are perfect for ultra-small diameter boring.

COOLANT THROUGH





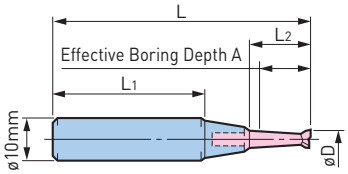


Fig. 1

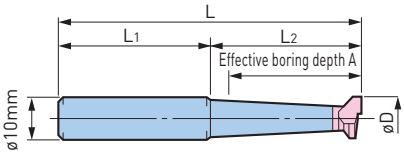
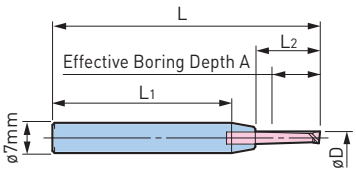


Fig. 2



øDs	Catalog Number	Fig.	øD	A	L	L1	L2
10mm	**RBE 1**	1	.039	.157	2.402	1.417	.197
	RBE1.5		.059	.236	2.441	1.417	.295
	RBE2		.079	.315	2.441	1.417	.354
	RBE3		.118	.472	2.441	1.417	.551
	RBE4		.157	.630	2.441	1.417	.669
	RBE5		.197	.787	2.520	1.417	.866
	RBE7	2	.276	.945	2.559	1.417	1.102
	RBE9		.354	1.181	2.953	1.417	1.457

- No oil holes
- Cutting edge is TiN coated carbide

øDs	Catalog Number	øD	A	L	L1	L2
7mm	**ST7-RBE1- 5**	.039	.157	2.402	1.654	.197
	ST7-RBE1.5-7.5	.059	.236	2.441	1.654	.295
	ST7-RBE2-9	.079	.315	2.441	1.654	.354
	ST7-RBE3-14	.118	.472	2.441	1.614	.551
	ST7-RBE4-17	.157	.630	2.441	1.614	.669
	ST7-RBE5-22	.197	.787	2.520	1.614	.866

- No oil holes
- Cutting edge is TiN coated carbide

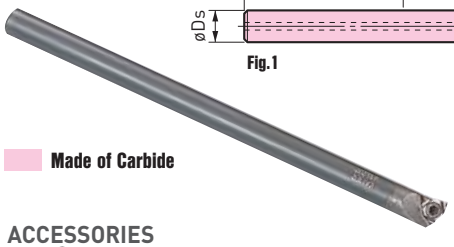
Made of Carbide

CARBIDE BORING BAR

DIAMETER: ø.157"-.354" (ø4-9mm)

Achieve stable, ultra-small diameter boring with an insert-type solid carbide bar. This tool features a specialized insert with a large rake angle to minimize chatter, ensuring smooth and precise performance.

COOLANT THROUGH



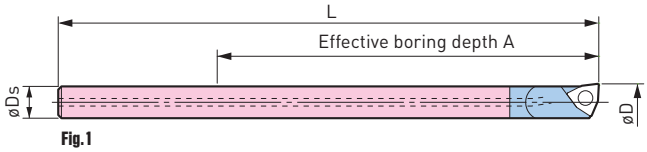


Fig.1

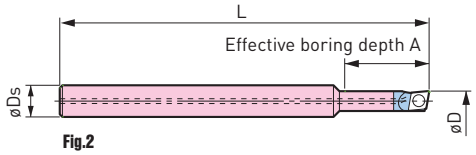


Fig.2

Made of Carbide

Fig.	Catalog Number	øDs	øD	A	L	Insert	Insert Clamp Screw Set
1	**ST05W-EB6-60**	5mm	.236-.295	2.362	3.346	WC..02	S2S-A-6IP
2	**ST06W-EB4-16**	6mm	.157-.197	.630	2.756	EC..03	S1.6S-T3-S
2	**ST06W-EB5-20**		.197-.236	.787	2.953	EC..03	S1.6S-T3
1	**ST06W-EB7.5-65**		.295-.354	2.559	3.740	WC..02	S2S-A-6IP

- Inserts are not included
- An exclusive straight collet is required when used with a boring head

ACCESSORIES

SPARE PARTS PG. 516
INSERTS PG. 501

BIG DAISHOWA

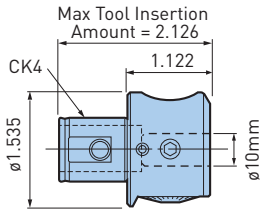
EWN2-22 BORING HEAD

Ideal For Small Machines

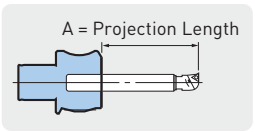
RANGE: ø.039"-.866"

Compact head reduces interference.

COOLANT THROUGH



EWN2-22E-CK4
Stroke 0"-.079"



Always observe the projection length range and tool insertion limit. Use outside these ranges may result in damage to the boring head or slippage of the bar shank

JIG BORING CUTTER, 8 Models ◀PG. 473
ø.039-.354

STRAIGHT COLLET ▶PG. 478

CARBIDE BORING BAR ◀PG. 473

EC1005 (ø10mm / ø5mm)
- 3.346, A=.787-2.362 — ST05W-EB6-60 ø.236-ø.295 — WC02

EC1006 (ø10mm / ø6mm)
- 2.756, A=.630 — ST06W-EB4-16 ø.157-ø.197 — EC03
- 2.953, A=.757 — ST06W-EB5-20 ø.197-ø.236
- 3.740, A=1.457-2.559 — ST06W-EB7.5-65 ø.295-ø.354 — WC02

BORING BAR

EC1008 (ø10mm / ø8mm)
- 2.559, A=.787-1.575 — ST08-M5-40 — *M5xP.8*
- 3.543, A=1.417-2.559 — ST08W-M5-65
- 4.134, A=2.008-3.150 — ST08W-M5-80

INSERT HOLDER
- .709 — EB09N ø.354-ø.413 — TP08
- EB10.5N ø.413-ø.472

ø10mm
- 2.953, A=1.024-1.969 — ST10-M6-50 — *M6xP1*
- 3.937, A=1.811-2.953 — ST10W-M6-75
- 4.724, A=2.598-3.740 — ST10W-M6-95

INSERT HOLDER
- .906 — EB12N ø.472-ø.551
- EB14N ø.551-ø.630
- EB16N ø.630-ø.709

ø10mm
- 3.346, A=1.378-2.362 — ST10-M10-58 — *M10xP1.25*

INSERT HOLDER
- 1.063 — EB18N ø.709-ø.787
- EB20N ø.787-ø.866

Made of Carbide

ACCESSORIES

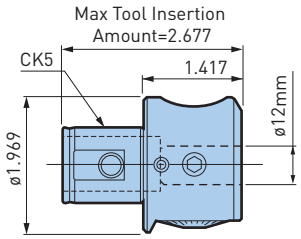
SPARE PARTS PG. 516
INSERTS PG. 501

BIG DAISHOWA

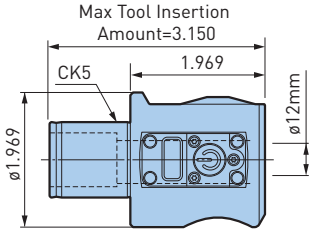
EWN2-32/EWE2-32 BORING HEAD
(CENTRIC BORING BAR TYPE)

RANGE: ø.039"-1.260"

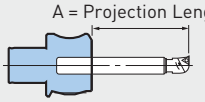
Flexible tool layout with versatile CK5 connection.



EWN2-32E-CK5
Stroke 0"-.138"



EWE2-32CK5
Stroke .020"-.079"



Always observe the projection length range and tool insertion limit. Use outside these ranges may result in damage to the boring head or slippage of the bar shank

Made of Carbide

ACCESSORIES

SPARE PARTS PG. 516
INSERTS PG. 501

STRAIGHT COLLET EC1210

JIG BORING CUTTER, 8 Models ◀PG. 473
ø.039-.354

COOLANT THROUGH

REDUCTION SLEEVE ▶PG. 478
85
ø12mm ø5mm
ST12-SL5

CARBIDE BORING BAR ◀PG. 473
3.346
A=.787-2.362
ø5mm
ST05W-EB6-60 ø.236-.295
WC02

2.756
A=.630
ø6mm
ST06W-EB4-16 ø.157-.197
EC03

STRAIGHT COLLET ▶PG. 478
ø12mm ø6mm
EC1206

2.953
A=.787
ST06W-EB5-20 ø.197-.236

3.740
A=1.063-2.559
ST06W-EB7.5-65 ø.295-.354
WC02

BORING BAR

2.559
A=.787-1.575
ø8mm
ST08-M5-40
M5xP.8

INSERT HOLDER
TP08

.709
EB09N ø.354-.413
EB10.5N ø.413-.472

ø12mm ø8mm
EC1208

3.543
A=.984-2.559
ST08W-M5-65

4.134
A=1.575-3.150
ST08W-M5-80

2.953
A=.984-1.969
ø10mm
ST10-M6-50
M6xP1

3.937
A=1.772-2.953
ST10W-M6-75

4.724
A=2.165-3.740
ST10W-M6-95

.906
EB12N ø.472-.551

ø12mm ø10mm
EC1210

3.937
A=1.260-2.362
ø12mm
ST12-M6-60
M6xP1

5.118
A=2.441-3.543
ST12W-M6-90

6.299
A=3.622-4.724
ST12W-M6-120

.906
EB14N ø.551-.630
EB16N ø.630-.709

1.063
EB18N ø.709-.787
EB20N ø.787-.866
EB22N ø.866-.945
EB24N ø.945-1.024
EB26N ø1.024-1.102
EB28N ø1.102-1.181
EB30N øø1.181-1.260

3.898
A=1.220-2.559
ø12mm
ST12-M10-65
M10xP1.25

5.472
A=2.795-4.134
ST12W-M10-105

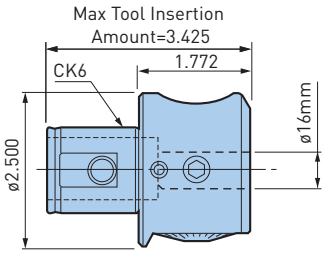
6.654
A=3.976-5.315
ST12W-M10-135

EWN2-54/EWE2-54 (CENTRIC BORING BAR TYPE)

RANGE: ø.039"-2.126"

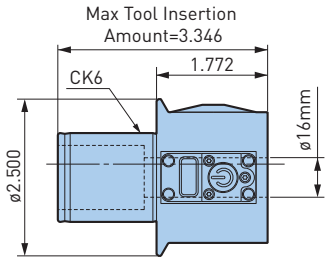
Features abundant range of tools capable of small-diameter deep boring.

COOLANT THROUGH

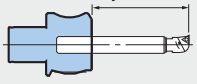


EWN2-54EM-CK6
Stroke 0"-.177"

- Center-through coolant pressure should not exceed 4MPa



EWE2-54CK6
Stroke .020"-.098"

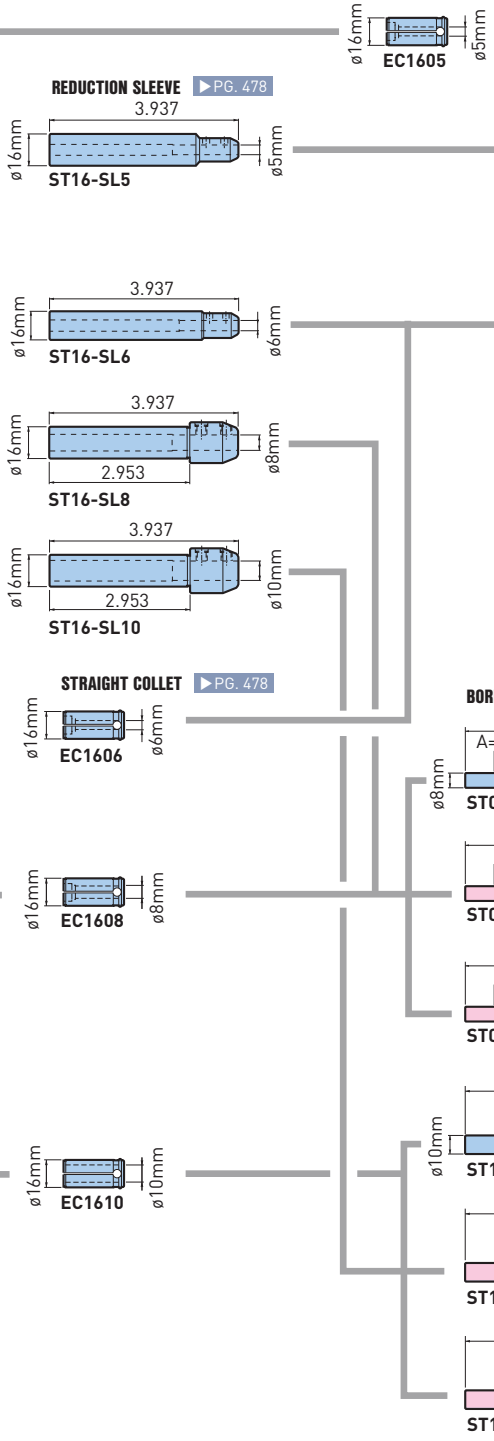


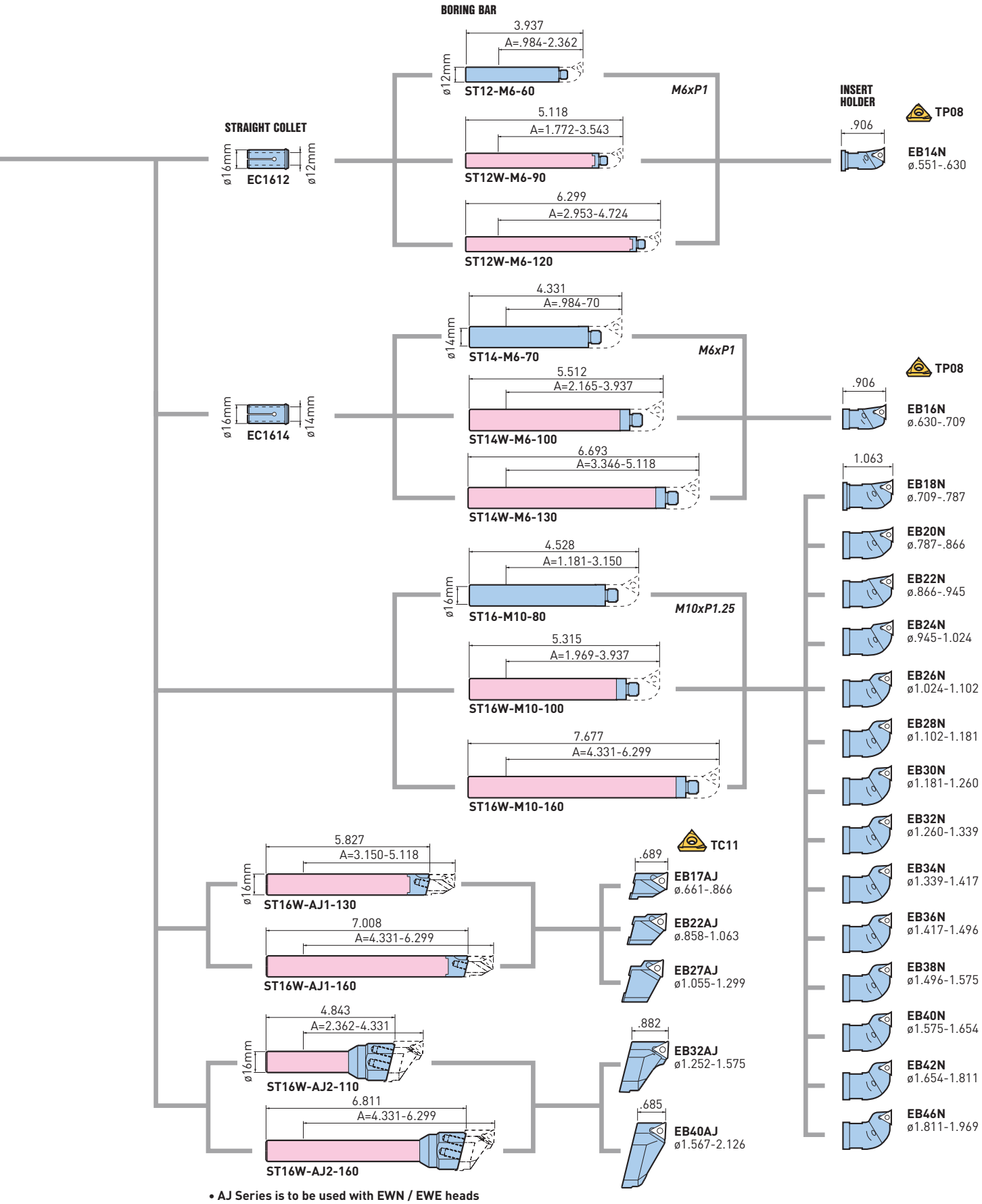
Always observe the projection length range and tool insertion limit. Use outside these ranges may result in damage to the boring head or slippage of the bar shank

Made of Carbide

ACCESSORIES

SPARE PARTS PG. 516
INSERTS PG. 501





• AJ Series is to be used with EWN / EWE heads

REDUCTION SLEEVE
(FOR EWN/EWE BORING HEAD, CENTRIC BORING BAR TYPE)
CLAMPING DIAMETER: ø3.5-10mm

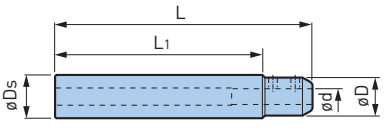


Fig. 1

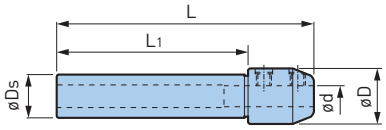
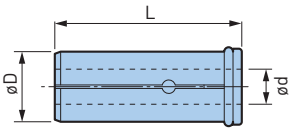


Fig. 2

Catalog Number	Fig	øDs	ød	øD	L	L1
ST12-SL3.5	1	12mm	3.5mm	.472	3.346	2.441
ST12-SL4			4mm			
ST12-SL4.5			4.5mm			
ST12-SL5			5mm			
ST12-SL6	2		6mm	.551		
ST16-SL3.5	1	16mm	3.5mm	.472	3.937	2.992
ST16-SL4			4mm			
ST16-SL4.5			4.5mm			
ST16-SL5			5mm			3.071
ST16-SL6			6mm	.551		3.110
ST16-SL7	2		7mm	.827	3.937	2.953
ST16-SL8			8mm	.866		
ST16-SL9			9mm	.906		
ST16-SL10			10mm	.945		

STRAIGHT COLLET (FOR EWN/EWE BORING HEAD, CENTRIC BORING BAR TYPE)



Catalog Number	ød	øD	L
EC10035	3.5mm	10mm	1.004
EC1004	4mm		
EC10045	4.5mm		
EC1005	5mm		
EC1006	6mm		
EC1007	7mm		
EC1008	8mm		

Catalog Number	ød	øD	L
EC1204	4mm	12mm	1.260
EC1205	5mm		
EC1206	6mm		
EC1207	7mm		
EC1208	8mm		
EC1209	9mm		
EC1210	10mm		

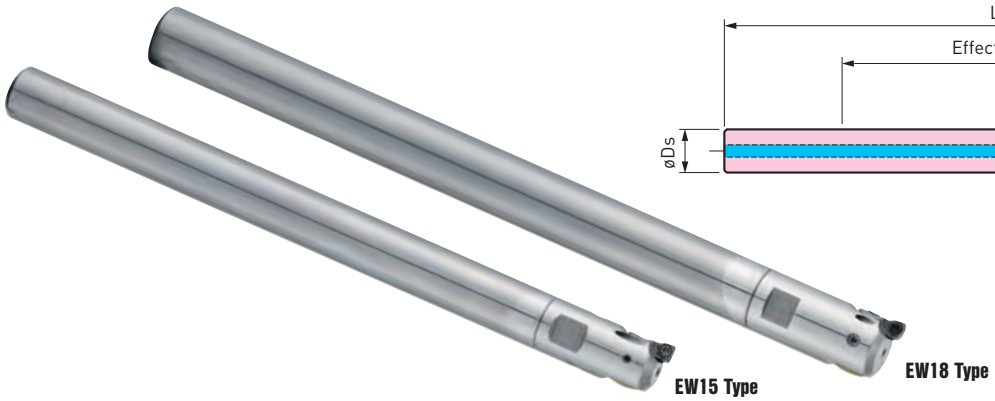
Catalog Number	ød	øD	L
EC1604	4mm	16mm	1.516
EC1605	5mm		
EC1606	6mm		
EC1607	7mm		
EC1608	8mm		
EC1609	9mm		
EC1610	10mm		
EC1611	11mm		
EC1612	12mm		
EC1613	13mm		
EC1614	14mm		

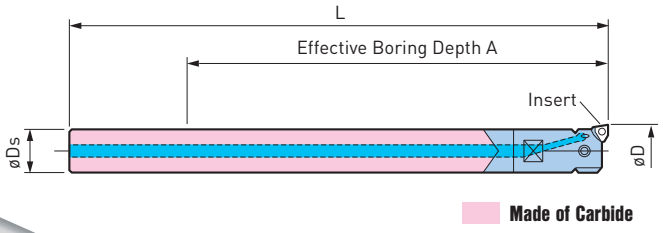
EW MICRO HEAD (WITH CARBIDE SHANK)

RANGE: ø.590"-.866"

Featuring a compact head design while retaining the popular ø.0005/div. adjustment mechanism, this tool enables precision adjustments with minimal tool carrier offset, preserving high-speed capability. Its solid carbide cylindrical shank ensures high rigidity.

COOLANT THROUGH



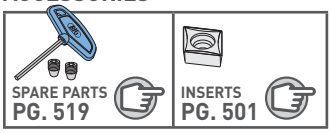


Catalog Number	øDs	øD	L	A	Insert Holder	Insert	Weight (lbs.)
ST14W-EW15E-110	14mm	.590-728	5.945	4.331	EN15	WC02	.2
ST14W-EW15E-140			7.126	5.512			.6
ST16W-EW18E-100	16mm	.708-.866	5.669	3.937	EN15	WC02	.6
ST16W-EW18E-160			8.031	6.299			.9

- The carbide shank and micro head are integrated and cannot be sold separately
- Insert holder is included; inserts must be ordered separately

The maximum boring depth differs depending on the workpiece material.

ACCESSORIES

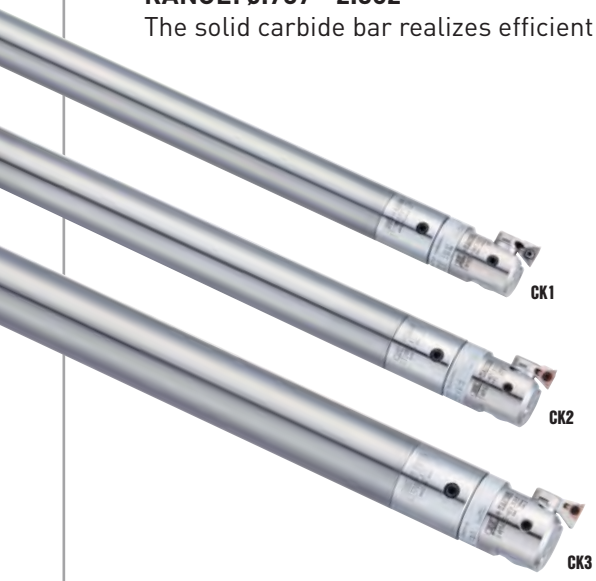


CK CARBIDE BAR

RANGE: ø.787"-2.362"

The solid carbide bar realizes efficient deep hole boring.

COOLANT THROUGH



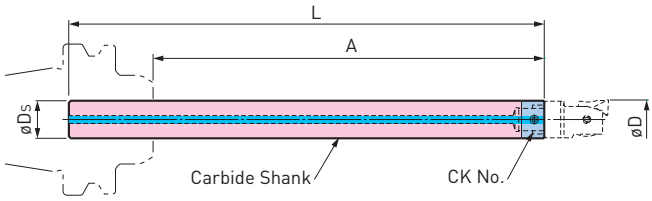


Fig. 1

Stepped Type

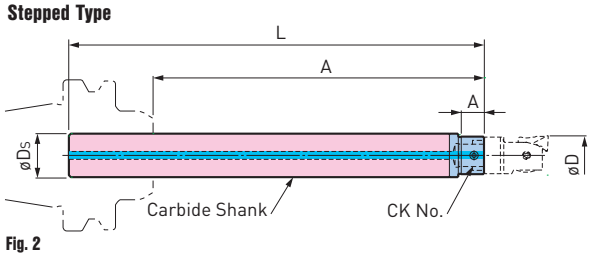


Fig. 2

Made of Carbide

Catalog Number	CK No.	øDs	Bore Diameter øD	L	A	Weight (lbs.)	Fig.
ST19W-CKB1-140	CK1	19mm	.787-1.417	5.512	3.819	1.1	1
ST19W-CKB1-190				7.480	5.787	1.5	
ST19W-CKB1-240				9.449	7.756	2.0	
ST22W-CKB1-210	CK1	22mm	.787-.874	8.268	.472	2.4	2
			.874-1.417		6.575		
ST24W-CKB2-160	CK2	24mm	.984-1.850	6.299	4.488	2.0	1
ST24W-CKB2-220				8.661	6.850	2.9	
ST24W-CKB2-290				11.417	9.606	3.7	
ST28W-CKB2-245	CK2	28mm	.984-1.110	9.646	.748	4.2	2
			1.110-1.850		7.835		
ST31W-CKB3-200	CK3	31mm	1.260-2.362	7.874	5.669	4.0	1
ST31W-CKB3-280				11.024	8.819	5.7	
ST31W-CKB3-350				13.780	11.575	7.3	

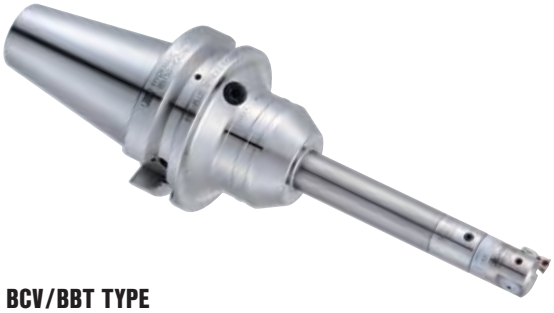
- The A dimension in the table is the reference value when used with Hydraulic Chuck
- Boring head and inserts are not included

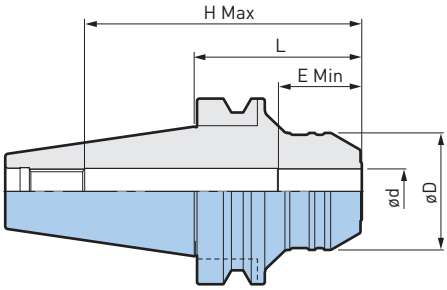
The maximum boring depth differs depending on the workpiece material.

HYDRAULIC CHUCK (FOR CK CARBIDE BAR)

Engineered for short projection lengths and deep insertion depths, this tool features hydraulic technology for enhanced damping performance.

COOLANT THROUGH



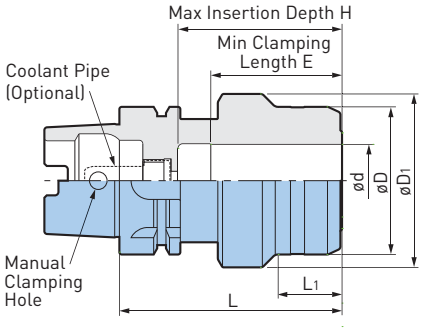


BCV/BBT TYPE

Taper	ød	Catalog Number	øD	L	E	H
CAT40	19mm	**BCV40-HDC19-75**	2.087	2.950	1.693	4.370
	24mm	**BCV40-HDC24-75**	2.480	2.950	1.772	4.094
	31mm	**BCV40H-HDC31-80**	2.913	3.150	2.205	2.992
CAT50	19mm	**BCV50-HDC19L-90**	1.937	3.543	1.693	5.866
	24mm	**BCV50-HDC24L-90**	2.480	3.543	1.772	5.866
	31mm	**BCV50-HDC31L-90**	2.913	3.543	2.205	5.787
BT40	19mm	**BBT40-HDC19-75**	1.937	2.950	1.693	4.370
	22mm	**BBT40-HDC22-75**	2.047	2.950	1.693	4.331
	24mm	**BBT40-HDC24-75**	2.480	2.950	1.772	4.094
	28mm	**BBT40-HDC28-75**	2.205	2.950	1.772	3.661
	31mm	**BBT40-HDC31-75**	2.913	2.950	2.205	2.992
BT50	19mm	**BBT50-HDC19L-90**	1.937	3.543	1.693	5.866
	22mm	**BBT50-HDC22L-90**	2.047	3.543	1.693	5.866
	24mm	**BBT50-HDC24L-90**	2.480	3.543	1.772	5.866
	28mm	**BBT50-HDC28L-90**	2.717	3.543	1.772	5.827
	31mm	**BBT50-HDC31L-90**	2.835	3.543	2.205	5.787

- Adjusting Screw cannot be used
- It is recommended to use a Grip Bar to periodically confirm the gripping force of the Hydraulic Chuck; see pg. 415

HSK-A TYPE



Catalog Number	ød	øD	øD1	L	L1	H	E	Weight (lbs.)
HSK-A63-HDC31-95	31mm	2.480	2.913	3.740	1.063	2.756	2.205	3.7

- It is recommended to use a Grip Bar to periodically confirm the gripping force of the Hydraulic Chuck; see pg. 415

ACCESSORIES

COLLET PG. 407

GRIP BAR PG. 415

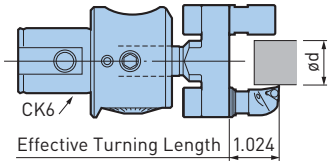
Do not clamp without a tool. Always insert the cutting tool into the holder beyond min. clamping length E.

PIN TURNING SERIES

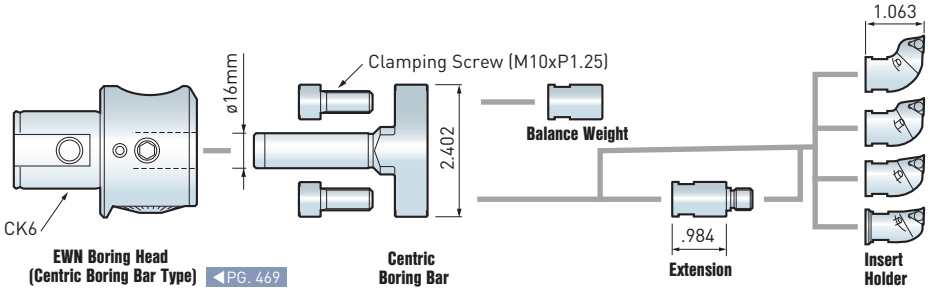
Solves all the issues in contouring operations, such as roundness, surface roughness and dimensional accuracy.

S TYPE (CK6)

RANGE: ø.020"-1.063"



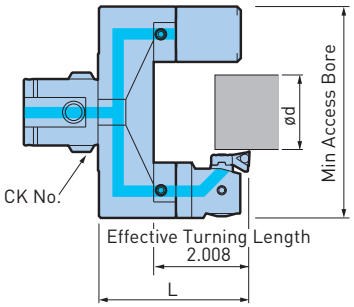
- Max and Min diameters are the values when an insert with nose radius .008 is used
- Inserts must be ordered separately
- The Min access bore may differ depending on the offset amount
- **Spindle rotation must be reverse (counterclockwise)**

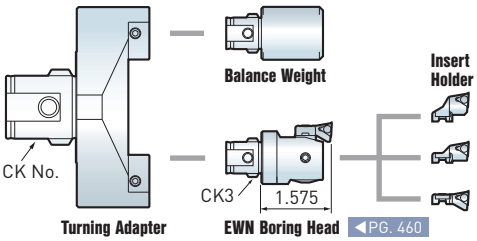


ød	EWN Boring Head	Centric Boring Bar	Balance Weight	Extension	Insert Holder	Insert
.020-.118	EWN2-54EM-CK6 (2.4 lbs.)	ST16-SL27-55 (.4 lbs.)	BW-M10 (.04 lbs.)	M1010-25 (.04 lbs.)	EB42N	TP..08
.118-.197					EB40N	
.197-.276					EB38N	
.276-.354					EB36N	
.354-.433					EB34N	
.433-.512					EB32N	
.512-.591					EB30N	
.591-.669					EB28N	
.669-.748					EB26N	
.748-.827					EB24N	
.827-.906					EB22N	
.906-.984					EB20N	
.984-1.063					EB18N	

M TYPE (CK6/CK7)

RANGE: ø.984"-5.984"





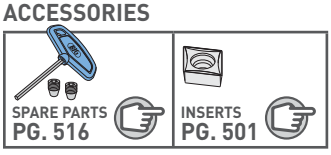
COOLANT THROUGH

Internal boring is enabled by changing the EWN Boring Head mounting direction (Range: ø4.606-8.819). Use in forward for internal boring. Pay attention to the rotation direction.

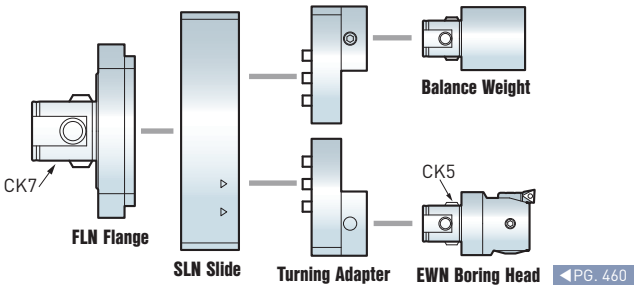
ød	Turning Adapter	CK No.	EWN Boring Head	Balance Weight	Insert Holder	Insert	L
.984-1.339	CKB63-SL2552-42 (3.1 lbs.) Min Access Bore 4.606	CK6	EWN32-60E-CKB3 (.5 lbs.)	BW-CKB3-EWN (.4 lbs.)	ENH3-3	TP..08	3.228
1.339-1.693					ENH3-2		
1.693-2.047					ENH3-1		
1.969-2.323	CKB63-SL5077-42 (3.5 lbs.) Min Access Bore 5.591				ENH3-3		
2.323-2.677					ENH3-2		
2.677-3.031					ENH3-1		
2.953-3.307	CKB63-SL75102-42 (4.2 lbs.) Min Access Bore 6.575				ENH3-3		
3.307-3.661					ENH3-2		
3.661-4.016					ENH3-1		
3.937-4.291	CKB73-SL100127-47 (8.4 lbs.) Min Access Bore 7.559	CK7			ENH3-3		3.425
4.291-4.646					ENH3-2		
4.646-5000					ENH3-1		
4.921-5.276	CKB73-SL125152-47 (9.3 lbs.) Min Access Bore 8.543				ENH3-3		
5.276-5.630					ENH3-2		
5.630-5.984					ENH3-1		

- Max and Min diameters are the values when an insert with nose radius .008 is used
- Inserts and insert holder are not included; must be ordered separately
- **For OD Turning, spindle rotation must be reverse (counterclockwise)**

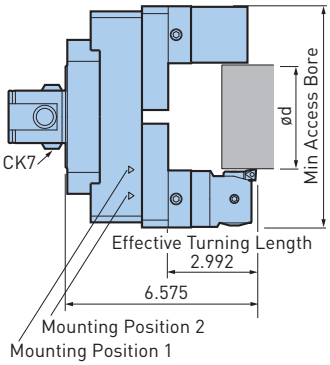
ACCESSORIES



L TYPE (CK7) RANGE: ø1.929"-27.008"



Internal boring is enabled by changing the EWN Boring Head mounting direction. Use in forward for internal boring. Pay attention to the rotation direction.



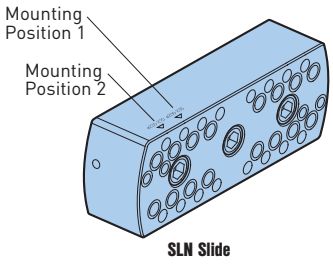
ød	FLN Flange*	SLN Slide		Min Access Bore		Turning Adapter (2 pcs./set)	EWN Boring Head	Balance Weight
		Catalog Number	Weight (lbs.)	Pos. 1	Pos. 2			
1.929-4.961	FLN135 FLN135/90 (6.1 lbs.)	SLN200-270	8.4	7.717	9.094	CBN91-CKB5-20 (2.6 lbs./1 pc)	EWN53-95E-CKB5 (2.4 lbs.) Insert TC11	BW-CKB5-EWN (2.0 lbs.)
4.685-7.717		SLN270-340	12.1	10.472	11.850			
7.441-10.472		SLN340-410	15.9	13.228	14.606			
10.197-13.228		SLN410-480	19.6	15.984	17.362			
12.953-15.984		SLN480-550	23.4	18.740	20.118			
15.709-18.740	FLN220 FLN220/90 (8.8 lbs.)	SLN550-620	27.1	21.496	22.874			
18.465-21.496		SLN620-690	30.9	24.252	25.630			
21.220-24.252		SLN690-760	34.6	27.008	28.386			
23.976-27.008		SLN760-830	38.4	29.764	31.142			

ACCESSORIES

*Cutting edge and drive keys are aligned in the same direction; it becomes 90° offset when the FLN135/90 or FLN220/90 flange is used

- Inserts and insert holder are not included; must be ordered separately
- Lightweight aluminum slides are also available as standard
- Center-through coolant supply (SLN550-620 and larger models are not supported)
- **For OD Turning, spindle rotation must be reverse (counterclockwise)**

INSERT HOLDER SELECTION



ød	SLN Slide	Mounting Pos.	Insert Holder		
			ENH5-3	ENH5-2	ENH5-1
1.929-4.961	SLN200-270	1	1.929-2.598	2.441-3.11	2.913-3.583
		2	3.307-3.976	3.819-4.488	4.291-4.961
4.685-7.717	SLN270-340	1	4.685-5.354	5.197-5.866	5.669-6.339
		2	6.063-6.732	6.575-7.244	7.047-7.717
7.441-10.472	SLN340-410	1	7.441-8.110	7.953-8.622	8.425-9.094
		2	8.819-9.488	9.331-10.000	9.803-10.472
10.197-13.228	SLN410-480	1	10.197-10.866	10.709-11.378	11.181-11.850
		2	11.575-12.244	12.087-12.756	12.559-13.228
12.953-15.984	SLN480-550	1	12.953-13.622	13.465-14.134	13.937-14.606
		2	14.331-15.000	14.843-15.512	15.315-15.984
15.709-18.740	SLN550-620	1	15.709-16.378	16.220-16.89	16.693-17.362
		2	17.087-17.756	17.598-18.268	18.071-18.740
18.465-21.496	SLN620-690	1	18.465-19.134	18.976-19.646	19.449-20.118
		2	19.843-20.512	20.354-21.024	20.827-21.496
21.220-24.252	SLN690-760	1	21.220-21.890	21.732-22.402	22.205-22.874
		2	22.598-23.268	23.110-23.780	23.583-24.252
23.976-27.008	SLN760-830	1	23.976-24.646	24.488-25.157	24.961-25.630
		2	25.354-26.024	25.866-26.535	26.339-27.008

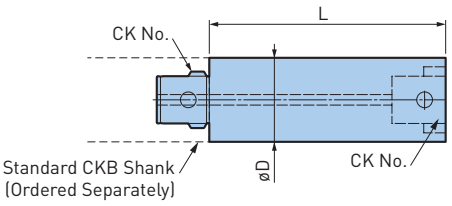
BIG DAISHOWA

KAISER BORING ACCESSORIES

B.2

SMART DAMPER EXTENSIONS

COOLANT THROUGH



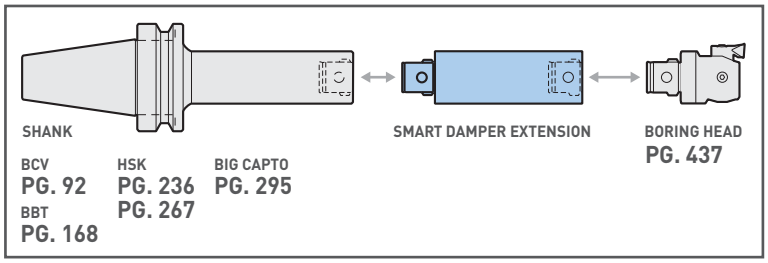
Catalog Number	CK	øD	L	Weight (lbs.)
CKB44DP-120	CK4	1.535	4.724	2.9
CKB55DP-150	CK5	1.969	5.906	5.7
CKB66DP-180	CK6	2.520	7.087	11.7

- Center-through coolant supply is available
- Should not be used with a conventional extension due to possible chatter

Damping function may become less effective over time due to the breakdown of special elastomers used in the damping mechanism. If excessive vibration occurs after 1 year of continued use, it is recommended to return SMART DAMPER bars for overhaul. Please contact BIG DAISHOWA for details of repair.

ACCESSORIES

SPARE PARTS
PG. 516

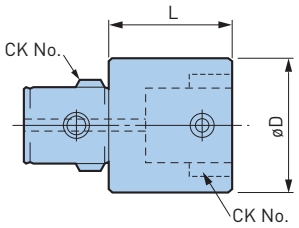


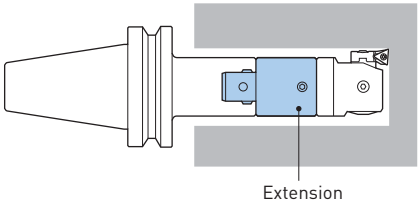
SMART DAMPER
integrated with boring head
is also available.

EWN BORING HEAD ◀PG. 461

SW BORING HEAD PAT. ◀PG. 444

EXTENSIONS





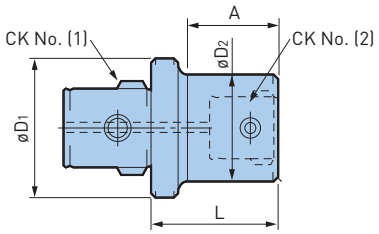
COOLANT THROUGH

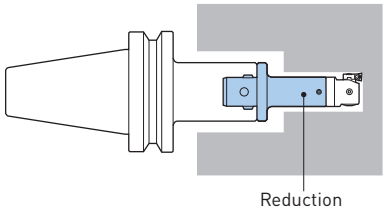
Catalog Number	Reference Number	CK No.	øD	L	Weight (lbs.)
CKB11-20	10.331.110	CK1	.748	.787	.1
CKB11-30	10.331.111			1.181	.2
CKB22-30	11.331.220	CK2	.945	1.181	.2
CKB22-45	11.331.221			1.772	.3
CKB33-30	11.331.330	CK3	1.220	1.181	.4
CKB33-45	11.331.331			1.772	.6
CKB44-45	11.331.440*	CK4	1.535	1.772	.9
CKB44-60	11.331.441			2.362	1.2
CKB55-60	11.331.550	CK5	1.969	2.362	1.9
CKB55-90	11.331.551			3.543	2.8
CKB66-60	11.331.660	CK6	2.520	2.362	3.0
CKB66-100	11.331.661			3.937	5.1
CKB77-105	11.331.770*	CK7	3.543	4.134	11.6
CKB77-160	11.331.771			6.299	13.5

*Length is different from original reference number
- Center-through coolant supply is available
- Using an extension to increase length my cause chatter depending on the L/D ratio

ACCESSORIES

REDUCTIONS





COOLANT THROUGH

Catalog Number	Reference Number	CK No. (1)	øD1	CK No. (2)	øD2	L	A	Weight (lbs.)
CKB21-36	10.332.210	CK2	.945	CK1	.748	1.417	1.063	.2
CKB31-41	10.332.310	CK3	1.220	CK1	.748	1.594	1.142	.3
CKB32-35	10.332.320			CK2	.945	1.358	.906	.4
CKB41-58	10.332.410	CK4	1.535	CK1	.748	2.264	1.732	.6
CKB42-52	10.332.420			CK2	.945	2.028	1.496	.6
CKB43-47	10.332.430			CK3	1.220	1.850	1.339	.7
CKB51-58	10.332.511	CK5	1.969	CK1	.748	2.264	1.575	.8
CKB52-52	11.332.521			CK2	.945	2.028	1.339	.9
CKB52-82	11.332.520					3.209	2.520	1.1
CKB53-47	10.332.531			CK3	1.220	1.850	1.181	1.2
CKB53-77	10.332.530					3.031	2.362	1.4
CKB54-40	11.332.541			CK4	1.535	1.575	.906	1.0
CKB54-70	11.332.540					2.756	2.087	1.8
CKB61-67	10.332.611	CK6	2.520	CK1	.748	2.618	1.378	1.9
CKB62-61	11.332.621			CK2	.945	2.382	1.693	1.5
CKB62-96	11.332.620					3.760	3.071	2.2
CKB63-56	11.332.631			CK3	1.220	2.205	1.535	1.7
CKB63-91	11.332.630					3.583	2.913	2.5
CKB63-136	11.332.632					5.354	4.685	2.6
CKB64-49	11.332.641			CK4	1.535	1.929	1.260	1.8
CKB64-84	11.332.640					3.307	2.638	2.8
CKB64-129	11.332.642					5.079	4.409	3.2
CKB65-39	11.332.651			CK5	1.969	1.535	.866	2.0
CKB65-74	11.332.650					2.913	2.244	2.9
CKB65-119	11.332.652					4.685	4.016	4.4
CKB74-70	10.332.741	CK7	3.543	CK4	1.535	2.756	2.087	3.3
CKB75-60	10.332.751			CK5	1.969	2.362	1.693	3.6
CKB76-76	11.332.761			CK6	2.520	2.992	2.323	5.1
CKB76-106	11.332.760					4.173	3.504	6.8

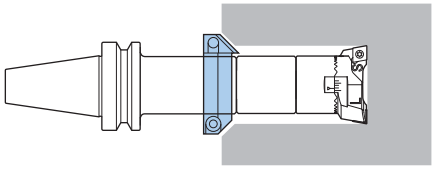
• Center-through coolant supply is available

ACCESSORIES

SPARE PARTS PG. 516

CK CHAMFERING TOOL

Mount the CK Chamfering Tool onto the CK Shank body at the desired location for easy chamfering and boring in a single setup.



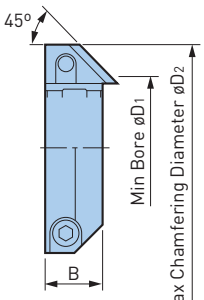


Fig. 1

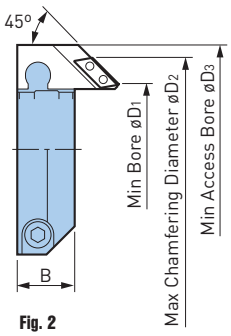


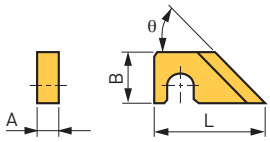
Fig. 2

Catalog Number	CK. No.	Blade	Fig.	øD1	øD2	øD3	B	Weight (lbs.)
CR1-35	CK1	CB1-45	1	.787	1.378	—	.512	.1
CR2-42	CK2	CB1-45	1	.984	1.654	—	.591	.2
CR3-49	CK3	CB1-45	1	1.260	1.929	—	.591	.2
CR4-57	CK4	CB1-45	1	1.614	2.244	—	.591	.3
CR5-90	CK5	CB2-45	1	2.087	3.543	—	.984	1.2
		CB2-45CW12A	2	2.165	2.953	3.465		
		CB2-45CW12B		2.756	3.543	3.819		
CR6-104	CK6	CB2-45	1	2.677	4.094	—	.984	1.5
		CB2-45CW12A	2	2.717	3.504	3.937		
		CB2-45CW12B		3.307	4.094	4.370		
CR6-138	CK6	CB2-45	1	3.858	5.433	—	.984	4.0
		CB2-45CW12A	2	4.055	4.843	5.315		
		CB2-45CW12B		4.646	5.433	5.709		
CR6-160	CK6	CB2-45	1	4.724	6.299	—	.984	5.5
		CB2-45CW12A	2	4.921	5.709	6.181		
		CB2-45CW12B		5.512	6.299	6.575		

- A 45° blade (carbide integrated type) is included with the CK Chamfering Tool
- Specify the blade model number when spare blades are required

ACCESSORIES

BLADE (CARBIDE INTEGRATED TYPE)



Catalog Number	L	A	B	θ
CB1-45	.925	.157	.354	45°
CB2-45	1.693	.315	.787	
CB1-30	1.083	.157	.354	30°
CB2-30	2.047	.315	.787	

- Tip material is M-class carbide

INSERT TYPE

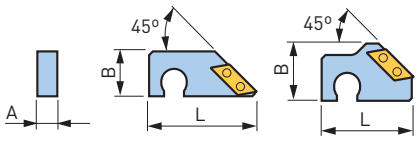
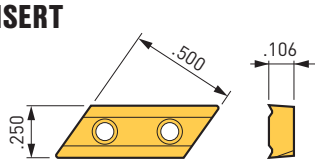


Fig. 1 Fig. 2

Catalog Number	Fig.	L	A	B	Insert
CB2-45CW12A	1	1.693	.315	.709	CW1206A
CB2-45CW12B	2	1.417		.886	

- A wrench and screws are included. Inserts must be ordered separately

INSERT



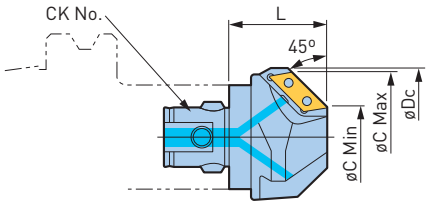
Catalog Number		
Non-Coating	ZX Coating	DLC Coating
CW1206A	**CW1206A(ZX)**	**CW1206A(DLC)**

- Insert is available from 1 pc.
- For details about 10-piece insert sets and coating, see pg. 490

C-CUTTER

Covers a wide range of chamfering diameters and reduces the number of tools and ATC required.

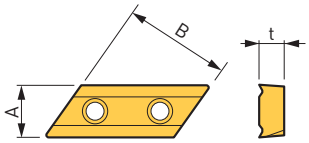
COOLANT THROUGH



Catalog Number	CK No.	Min Bore øC Min	Max Chamfer Diameter øC Max	Outer Diameter øDc	L	Number of Inserts	Insert	Clamping Screw Set	Weight (lbs.)
CKB2-C0525C	CK2	.197	.984	1.122	.984	1	CW1206A	S2S-B	.2
CKB4-C1040C	CK4	.394	1.575	1.772	1.378	2	CW1909A	S3S	.6
CKB5-C3060C	CK5	1.181	2.362	2.559	1.575	3	CW1909A	S3S	1.5
CKB6-C50100C	CK6	1.969	3.937	4.173	2.559	3	CW3115A	S5S	6.2

- Insert clamping screws and wrench are included; inserts must be ordered separately
- The screw set (optional) contains 10 insert clamp screws and 1 wrench.

INSERT



1 pc

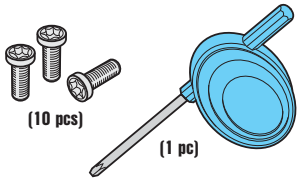
Catalog Number			A	B	t
Non-Coating	ZX Coating	DLC Coating			
CW1206A	**CW1206A(ZX)**	**CW1206A(DLC)**	.250	.500	.106
CW1909A	**CW1909A(ZX)**	**CW1909A(DLC)**	.375	.750	.177
CW3115A	**CW3115A(ZX)**	**CW3115A(DLC)**	.625	1.250	.276

10 pcs

Catalog Number		A	B	t
Non-Coating	ZX Coating			
CW1206A-10P	**CW1206A(ZX)-10P**	.250	.500	.106
CW1909A-10P	**CW1909A(ZX)-10P**	.375	.750	.177
CW3115A-10P	**CW3115A(ZX)-10P**	.625	1.250	.276

Non-Coating	Adopts P30-equivalent carbide material with emphasis on toughness for versatile use with materials from steel to aluminum.
ZX Coating	TiN and AlN multilayer coating increases speeds and extends insert life in chamfering of steel or cast iron.
DLC Coating	The exclusive substrate is treated with a thin DLC coating to prevent welding during aluminum machining. It retains sharpness and achieves a clean surface finish.

INSERT CLAMPING SCREW SET

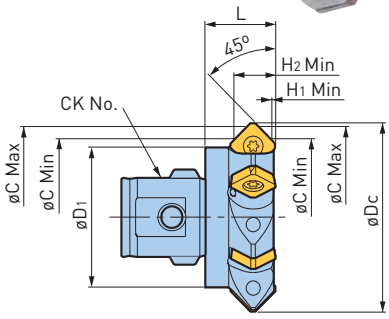


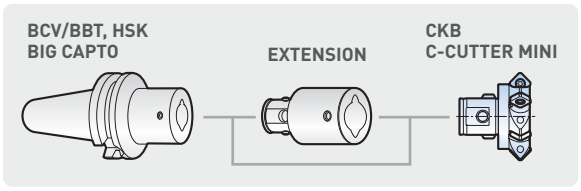
Insert	Catalog Number	Wrench
CW1206A	**S2S-B**	FLR-13S
CW1909A	**S3S**	FLR-20S
CW3115A	**S5S**	FLR-28S

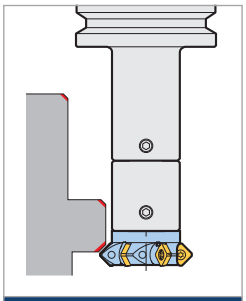
- The set contains 10 screws and 1 wrench
- Wrenches are also available separately

C-CUTTER MINI

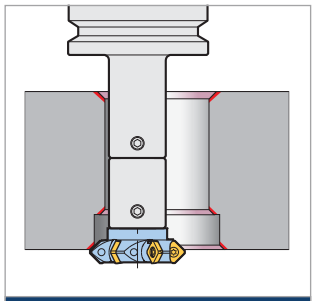
Modular system allows front and back chamfering of deep holes.







Front and back chamfering of grooves and steps located at a distance.

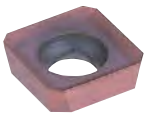


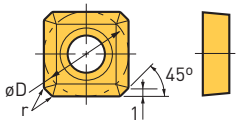
Front and back chamfering of deep holes

Catalog Number	CK. No.	Face Milling	øDc	øD1	L	Chamfering Dia.		H1 Min	H2 Min	Insert Model	No. of Inserts	Weight (lbs.)
						øC Min	øC Max					
CKB1-C2232-45B-20	CK1	O	1.287	.748	.787	.866	1.260	.012	.488	CM10C1	4	.1
CKB3-C3242-45B-20	CK3	O	1.681	1.220	.787	1.260	1.654	.012	.488	CM10C1	4	.3
CKB3-C5262-45B-20			2.469	1.220		2.047	2.441				6	.5
CKB4-C4252-45B-20	CK4	O	2.075	1.535	.787	1.654	2.047	.012	.488	CM10C1	6	.5
CKB5-C5262-45B-20	CK5	O	2.469	2.008	.787	2.047	2.441	.012	.488	CM10C1	6	.9
CKB6-C6575-45B-20	CK6	O	2.980	2.520	.787	2.559	2.953	.012	.488	CM10C1	8	1.6

- Wrench and screws are included; inserts must be ordered separately
- When plunge cutting, chatter may occur due to increased cutting force, so please reduce the number of inserts to 1 or 2

INSERTS





Insert Model	øD	Nose Radius	Insert Grade						Insert Clamping Screw Set
			ACP200	ACP300	CWS20A	ACM250F	DS20	NF15KA	
CM10C1	.394	.008	O	—	O	O	O	O	S4S-T15
CM10C1SE			O	—	—	—	—	—	

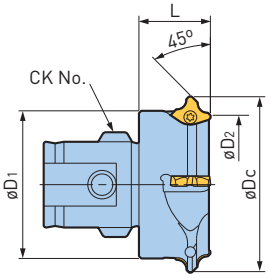
- Inserts are available in packages of 10 pcs.
- Please clarify the insert model and grade when ordering (ex: CM0402(ACP300))
- 10 screws and 1 wrench are included with insert clamping screw set
- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained
- **SE** in the Insert Model means Sharp Edge Type

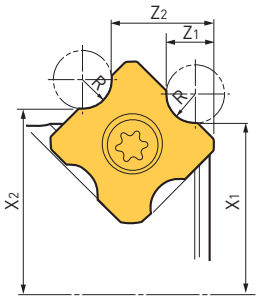
Insert Classifications

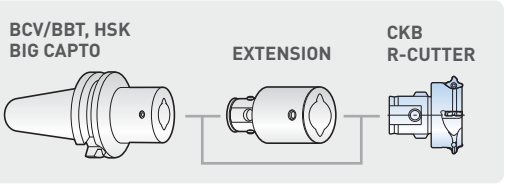
ACP200/ACP300	CWS20A	ACM250F	DS20	NF15KA
For all steel & stainless steel materials	For hardened steel	For stainless steel	For aluminum & / non-ferrous materials	For cast iron
Multi-layer PVD coating on carbide base with nanoscale TiAlN & AlCrN. Excellent performance and wear resistance.	Significantly improved toughness while maintaining hardness. Uses a tough carbide base material. AlTiSiN abrasion resistance due to the super multi-layered thin film structure of the system. Excellent PVD coated carbide.	PVD-coated carbide with excellent smoothness and resistance to welding and chipping, due to the ultra-multilayered thin film structure made of AlTiN and TiAlCrN	DLC coating on carbide base with very smooth surface for a low coefficient of friction. Excellent performance against built-up edge.	Adopts K15-equivalent carbide material with hardness & toughness for cast iron.

R-CUTTER

Automated rounded front & back chamfering.







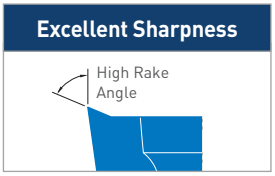
Catalog Number	CK No.	øDc	øD1	øD2	L	No. of Inserts	R	X1	Z1	X2	Z2	Insert Model	Weight (lbs.)
CKB3-RC064B-15	CK3	1.457	1.220	1.150	.591	4	.02	.624	.076	.656	.228	RC06....	.3
							.04	.615	.086	.642	.218		
							.06	.605	.096	.632	.208		
							.08	.595	.106	.622	.198		
CKB5-RC124B-25	CK5	2.441	1.969	1.823	.984	4	.04	1.016	.149	1.072	.458	RC12....	1.1
							.08	.996	.169	1.052	.438		
							.12	.976	.189	1.032	.419		
							.16	.957	.208	1.012	.399		

- Insert clamping screws and wrench are included; inserts must be ordered separately
- Values in the table are reference only; measure accurate values with a presetter

INSERTS

Type	Catalog Number	Radius R	Insert Clamping Screw Set
RC06	**RC06050(ACP300)**	.02	S2TS-T6
	RC06100(ACP300)	.04	
	RC06150(ACP300)	.06	
	RC06200(ACP300)	.08	
RC12	**RC12100(ACP300)**	.04	S4S-T15
	RC12200(ACP300)	.08	
	RC12300(ACP300)	.12	
	RC12400(ACP300)	.16	

- Wrench and screws are included
- Inserts are available in packages of 10 pcs.
- Material is coated carbide
- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained



Unique Insert Geometry

High rake angle reduces cutting resistance and minimizes the generation of burrs.

Insert set in a packet of 2 pcs. is also available.

Please add -2P before each model number.
RC06050-2P(ACP300)

Recommended Cutting Conditions

Workpiece Material	Cutting Speed (SFM)	Feed Rate (IPT)	Coolant
Structural, Carbon or Alloy Steel	330-1150	.002-008	Dry
Prehardened Steel <HRC40	195-260	.002-.004	Wet
Stainless Steel	330-820	.003-.008	Dry/Wet
Cast Iron	330-1150	.002-.010	Dry
Aluminum	330-2625	.002-.010	Dry/Wet

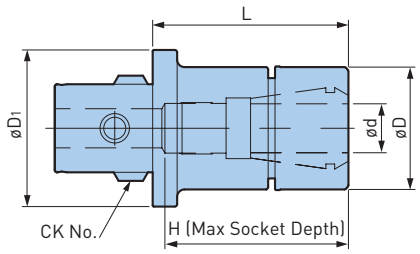
- The table is just a reference to determine cutting conditions and it should be adjusted according to the condition of the machine tool and workpiece
- Wet cutting is recommended to obtain a good surface finish
- In case built-up edge occurs cutting aluminum and stainless steel, use soluble oil

MEGA ER GRIP

CLAMPING RANGE: ø.108"-.787" (ø2.75-20mm)

For Drills, Reamers, Taps & Finishing End Mills

COOLANT THROUGH



Catalog Number	CK No.	ød	øD	øD1	L	H	Weight (lbs.)
CKB5-MEGAER32-80NL	CK5	.108-.787	1.969	1.969	3.150	2.87	4.7
CKB6-MEGAER32-80NL	CK6	.108-.787	1.969	2.520	3.150	2.95	5.8

***Nut, adjusting screw, collet and wrench are not included**

- MEGA ER GRIP is not able to use DIN6499 Form-A collets and ESX collets
- Weight does not include collet

To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's MEGA ER GRIP. We cannot guarantee the accuracy stated for our collets if they are assembled on the chuck body of another manufacturer.

ACCESSORIES


COLLET PG. 394


MEGA NUT* PG. 397


PERFECT SEAL PG. 398


SOLID NUT PG. 397


MEGA WRENCH PG. 410


SCREW PG. 433


SPARE PARTS PG. 516

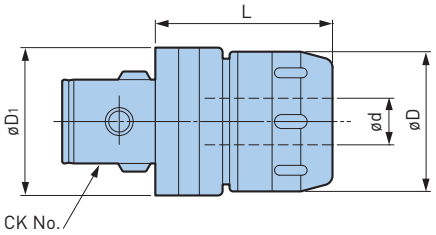
***MEGA NUT is the recommended nut to achieve high accuracy and clamping force**

NEW Hi-POWER MILLING CHUCK

CLAMPING RANGE: ø.750"-1.250" (ø20-32mm)

For Heavy Duty End Milling

COOLANT THROUGH



Catalog Number	CK No.	ød	øD	øD1	L	Weight (lbs.)
CKB5-HMC20S	CK5	20mm	1.97	1.968	2.24	1.7
CKB6-HMC.750	CK6	.750	2.36	2.500	2.95	3.7
CKB6-HMC20		20mm		2.520	2.20	2.7
CKB7-HMC1.250	CK7	1.250	3.15	3.543	4.13	9.1
CKB7-HMC32		32mm			4.02	8.7

- Wrench included
- Use c-collet for CKB5-HMC20S and CKB6-HMC20

ACCESSORIES

Straight Collet Selection Guide

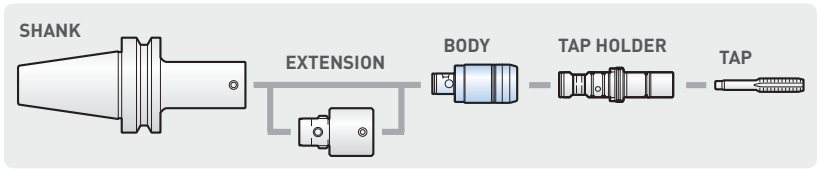
Catalog Number	PJC	PSC	OCA	C
CKB5-HMC20S				○
CKB6-HMC.750	○	○		○
CKB6-HMC20				○
CKB7-HMC1.250	○	○		○
CKB7-HMC32	○	○		○

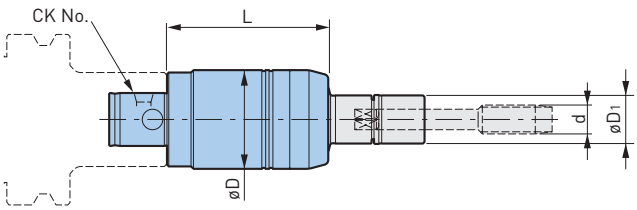
- OCA collet can be set, but cannot be used as oil feed collet because the oil leaks from the slit on the collet.

MEGA SYNCHRO TAPPING HOLDER

TAPPING RANGE: No.2-AU3/4 (M2-M20)

Improves thread quality and tap life by reducing thrust loads caused by synchronization errors up to 90%.





COOLANT THROUGH

Catalog Number	CK	Tapping Range d* (Inch)	Tapping Range d* (Metric)	ØD	ØD1	L	Wrench	Weight (lbs.)
CKB4-MGT6-62	CKB4	No.2-No.12	M2-M6	1.417	.629	2.441	MGR16	1.1
CKB4-MGT12-67		AU1/4-AU7/16*	M6-M12	1.614	.787	2.638	MGR20L	1.3
CKB5-MGT20-87	CKB5	AU1/2-AU3/4 AP1/8-AP1/4	M12-M20	2.126	1.181	3.425	MGR30L	2.6

***AU3/8 is included in the MGT20 series**

- MGT Set Screw is included; tap holder and wrench must be ordered separately

Cannot be used with machining center without synchronized tapping function.

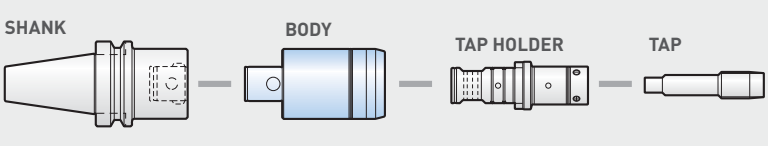
ACCESSORIES

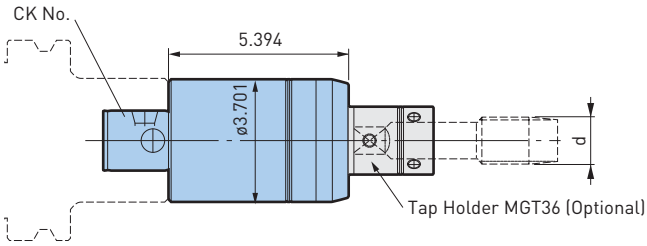
MEGA SYNCHRO TAPPING HOLDER (LARGE DIAMETER TAP)

TAPPING RANGE: AU13/16-AU1-3/8 (M20-M36)

Functions smoothly under high cutting torque of large diameter tapping.

COOLANT THROUGH



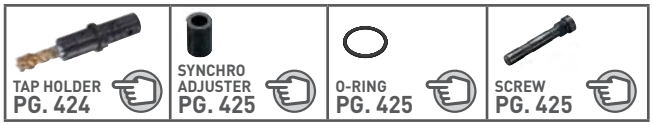


Catalog Number	CK No.	Tapping Range d (Inch)	Tapping Range d (Metric)	Weight (lbs.)
CKB7-MGT36-137	CK7	AU13/16-AU1-3/8 AP3/8-AP1	M20-M36	15.0

- MGT Set Screw and adjust screw are included, tap holder must be ordered separately

Cannot be used with machining center without synchronized tapping function.

ACCESSORIES

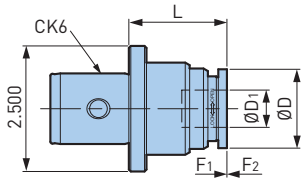


CK AUTO TAPPER E

For Tension & Compression Tapping Chuck

Heavy-duty tapping attachments for high production thread cutting on machine tools and machining centers.

- Extremely short, rigid design
- Large-length compensation in response to tension and compression
- Quick-change clutch for tap holders with or without torque control
- Bilz and Tapmatic compatible



Catalog Number	Reference Number	Tapping Range	Tap Adapter Size*	ØD	ØD1	L	F1	F2	Weight (lbs.)
CK6-ATE12E	10.335.762	0-9/16	1	1.850	.748	1.969	.197	.394	1.9
CK6-ATE24E	10.335.763	5/16-7/8	2	2.520	1.220	3.150	.275	.551	3.4

*Tap collets with torque control or positive drive available upon request

MORSE TAPER (CK SHANKS)

Ideal for precision boring

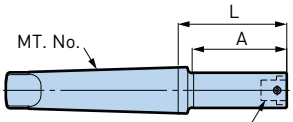


Fig. 1

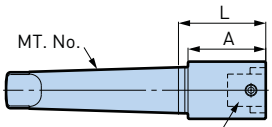


Fig. 2

Catalog Number	Fig.	CK No.	L	A	Weight (lbs.)
MT3-CKB1-47	1	CK1	1.850	1.575	.9
MT3-CKB2-68	2	CK2	2.657	2.520	1.1
MT3-CKB3-64		CK3	2.520	2.323	1.3
MT3-CKB5-48		CK5	1.890	1.693	1.8
MT4-CKB1-52	1	CK1	2.028	1.575	1.5
MT4-CKB2-74		CK2	2.913	2.520	1.8
MT4-CKB3-66		CK3	2.579	2.283	2.0
MT4-CKB4-60	2	CK4	2.343	2.087	2.2
MT4-CKB5-50		CK5	1.949	1.693	2.4
MT4-CKB6-61		CK6	2.382	2.126	3.5
MT5-CKB4-86	1	CK4	3.366	3.071	4.6
MT5-CKB5-75	2	CK5	2.933	2.677	7.3
MT5-CKB6-61		CK6	2.382	2.126	9.5
MT6-CKB6-61	2	CK6	2.382	2.047	11.0

- Boring head not included
- If a coolant hole is required, please let us know the machine specifications

ACCESSORIES

SPARE PARTS
PG. 516

JIG BORE (CK SHANKS)

Can be used for SIP and Mitsui Seiki exclusive machines.

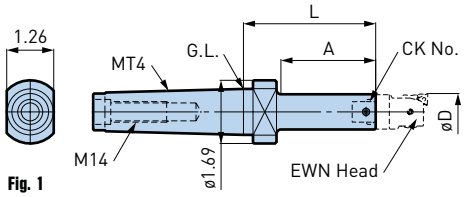


Fig. 1

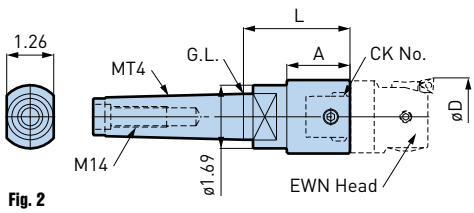


Fig. 2

Catalog Number	Fig.	CK No.	øD	L	A
MT4M-CKB1-68-M14	1	CK1	.787-1.417	2.657	1.614
MT4M-CKB2-90-M14		CK2	.984-1.850	3.543	2.520
MT4M-CKB3-86-M14		CK3	1.260-2.362	3.366	2.362
MT4M-CKB4-76-M14		CK4	1.614-2.913	2.972	2.087
MT4M-CKB5-73-M14	2	CK5	2.087-3.740	2.854	1.693
MT4M-CKB6-84-M14		CK6	2.677-5.906	3.287	2.126

ACCESSORIES

SPARE PARTS
PG. 516

CYLINDRICAL (CK SHANKS)

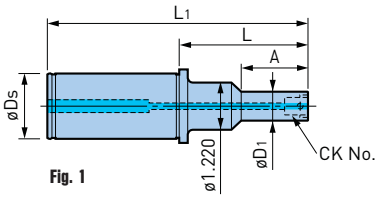


Fig. 1

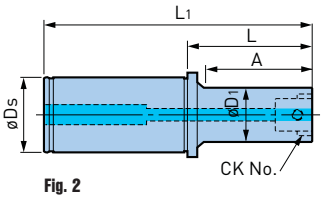


Fig. 2

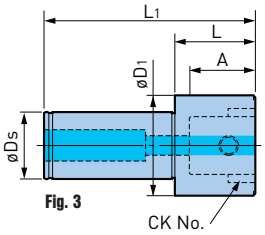


Fig. 3

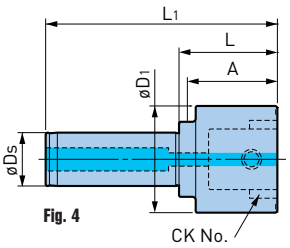
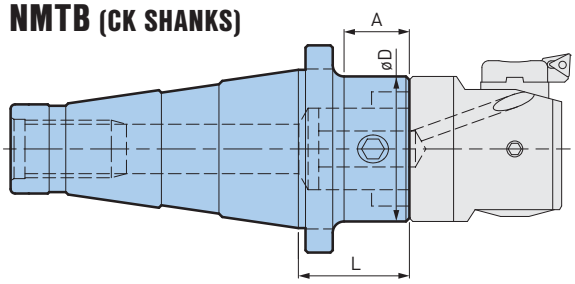


Fig. 4

Catalog Number	Fig.	CK No.	øD1	øDs	L	L1	A	Weight (lbs.)
ST32-CKB1-77	1	CK1	.748	32mm	3.031	6.181	1.614	1.5
ST32-CKB2-73	2	CK2	.945		2.854	6.004	2.520	1.5
ST32-CKB3-69		CK3	1.220		2.717	5.866	2.480	1.8
ST32-CKB4-58	3	CK4	1.535		2.283	5.433	2.087	2.0
ST32-CKB5-48	4	CK5	1.969		1.890	5.039	1.693	2.0
ST32-CKB6-59		CK6	2.520		2.323	5.472	2.126	3.3
ST42-CKB1-77	1	CK1	.748	42mm	3.031	6.181	1.575	2.2
ST42-CKB2-73	2	CK2	.945		2.854	6.004	2.441	2.2
ST42-CKB3-69		CK3	1.220		2.717	5.866	2.323	2.4
ST42-CKB4-63		CK4	1.535		2.480	5.630	2.244	2.6
ST42-CKB5-48	3	CK5	1.969		1.890	5.039	1.693	2.9
ST42-CKB6-59	4	CK6	2.520		2.323	5.472	2.126	4.0

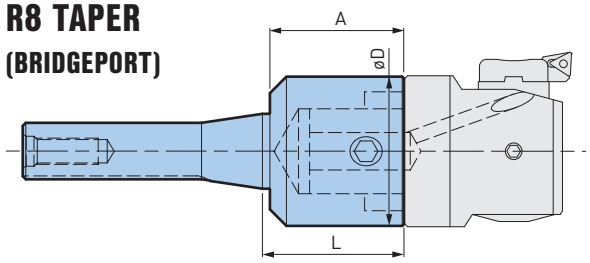
• Head and insert must be ordered separately

NMTB (CK SHANKS)



Catalog Number	Reference Number	CK No.	øD	L	A	Weight (lbs.)
NT40U-CKB6-45	11.321.562	CK6	2.500	1.772	1.224	3.0
NT50U-CKB6-49	11.321.962	CK6	2.500	1.929	1.133	7.0
NT50U-CKB7-63	11.321.974	CK7	3.543	2.480	1.259	8.5

R8 TAPER (BRIDGEPORT)



Catalog Number	Reference Number	CK No.	øD	L	A	Weight (lbs.)
R8-CKB6-60	11.362.261	CK6	2.500	2.362	2.237	2.4

ACCESSORIES

KAISER BORING INSERTS & SPARE PARTS

B.3

KAISER BORING INSERTS 502-515

KAISER BORING SPARE PARTS 516-523

T1500A
General purpose cermet from finishing to roughing. Special technology improves the material's resistance to thermal shock, allowing safe use even for wet machining.

Grade	Cermet P10 Grade
T R S	2.1 (GPa)
Hardness	92.0 (HRA)

T2000Z
Cermet is coated with newly developed PVD film for smooth surface and good adhesion. The material easily doubles tool life compared to non-coated cermet, and enables a high-quality finished surface.

Grade	Cermet P10-20 Grade
Coating film	TiN/AlN
T R S	2.1 (GPa)
Hardness	92.0 (HRA)

T2500A
Cermet with fine and uniform grain structure, achieving improved toughness and high hardness. Excellent thermal shock resistance helps enable stable finishing.

Grade	Cermet P30 Grade
T R S	2.4 (GPa)
Hardness	91.8 (HRA)

T2500F
Cermet insert is coated with smooth PVD film. This material has superior welding and chipping resistance compared to non-coated inserts.

Grade	Cermet P30 Grade
Coating film	AlTiCrN base
T R S	2.4 (GPa)
Hardness	91.8 (HRA)

T130A
The unique production process of this tough cermet achieves a fine and uniform structure that has excellent chipping resistance. Achieves longer tool life than T1500A when used for interrupted cutting finishing.

Grade	Cermet P10 Grade
T R S	2.1 (GPa)
Hardness	91.8 (HRA)

T130ZX
The cermet is treated further with a layer of ceramic kept uniform with the new PVD method This doubles the tool life while maintaining the toughness of the material.

Grade	Cermet Tough Grade
Coating film	TiN/AlN
T R S	2.0 (GPa)
Hardness	91.9 (HRA)

AC520U
The tough substrate is coated with multiple layers of nanometer-level thickness to create a material suitable for cutting difficult materials such as titanium with excellent wear resistance and notch wear resistance.

Grade	Carbide S20 Grade
Coating film	TiAlN/AlCrN
T R S	2.5 (GPa)
Hardness	91.7 (HRA)

H1
With slightly higher wear resistance than K10 material, this material is a best selling type of carbide that can be used across a wide range from roughing to finishing.

Grade	Fine Carbide K10 Grade
T R S	2.1 (GPa)
Hardness	92.9 (HRA)

H1ZX
For stable machining of ductile cast iron we recommend this material, made by coating carbide H1 with alumina for increased wear resistance.

Grade	Carbide K10 Grade
Coating film	TiN/Al_2O_3/TiCN
T R S	2.1 (GPa)
Hardness	92.9 (HRA)

A1
This ultra-fine alloy steel offers exceptional toughness, excellent welding resistance at low to medium speeds, a sharp cutting edge, and stable performance for fine-diameter machining

Grade	Ultra-Fine Particles Z20 Grade
T R S	3.3 (GPa)
Hardness	91.5 (HRA)

CW20PA
Suppressing abnormal damage through a smoother surface, this grade provides highly stable tool life in diverse conditions.

Grade	Coated Carbide P20 Grade
Coating film	TiN/Al_2O_3/TiCN
T R S	2.3 (GPa)
Hardness	9.1 (HRA)

AC820P
The main grade for steel. The newly developed CVD method allows for a dense yet smooth coating that achieves outstanding versatility and consistency.

Grade	Carbide P20 Grade
Coating film	TiN/Al_2O_3/TiCN
T R S	2.2 (GPa)
Hardness	9.1 (HRA)

AC830P
The tough substrate and the peel-resistant, dense and smooth coating deliver high reliability for heavy interrupted cutting of steel.

Grade	Carbide P30 Grade
Coating film	TiN/Al_2O3/TiCN
T R S	2.6 (GPa)
Hardness	89.4 (HRA)

AC630M
The extremely smooth thin film coating gives this material great sharpness. Ideal for stainless steel or other materials that are easily work hardened.

Grade	Carbide M30 Grade
Coating film	TiAlN/AlCrN
T R S	2.7 (GPa)
Hardness	89.5 (HRA)

CW15KA
This cast iron grade has excellent wear resistance in high-speed cutting due to its high-adhesion, high-strength coating.

Grade	Coated Carbide K10 Grade
Coating film	Al_2O_3/TiCN
T R S	2.5 (GPa)
Hardness	91.1 (HRA)

AC410K
The hardest material for cast iron. Use if not satisfied with the wear resistance of AC700G. Note that this type is not suitable for heavy duty interrupted cutting.

Grade	Carbide K10 Grade
Coating film	TiAlN/AlCrN
T R S	2.4 (GPa)
Hardness	92.0 (HRA)

AC700G
Heat resistant carbide alloy is coated with multiple layers of mainly tough alumina, with additional surface smoothing treatment, to produce a highly reliable material for machining cast iron.

Grade	Carbide K20 Grade
Coating film	TiN/Al_2O_3/TiCN
T R S	2.2 (GPa)
Hardness	91.0 (HRA)

CW10HA
This material exhibits excellent wear resistance when cutting high-hardness steel by combining a high-hardness carbide base material with a nanometer-level ultra-multilayer coating.

Grade	Fine Carbide K10 Grade
Coating film	TiAlN/AlCrN
T R S	1.7 (GPa)
Hardness	93.2 (HRA)

BNX20

Crater resistant CBN grade. Cutting edge is arranged to suit small diameter boring of hardened materials.

BNC200

A combination of exclusive CBN substrate, selected for its strength, and special wear resistant TiAlN coating achieves a long and stable tool life across a wide range from low to high speed cutting, interrupted cutting, and high-efficiency cutting of hardened steel.

BNC500

By combining a ceramic coating with excellent heat resistance and a substrate with excellent wear resistance, stable long life can be achieved even when finishing difficult-to-cut cast iron materials.

BN2000

A CBN material with an excellent balance of wear resistant and chipping resistant properties. Reliable performance is achieved in a wide range of cutting conditions in continuous and medium-heavy interrupted cutting.

NB10HA

The use of a newly developed ceramic binder balances chipping resistance with wear resistance in this general-purpose grade, supporting machining of hardened steel across the board.

BN500/BN7000

A CBN material with Co binder developed for cast iron. BN7000 is a material with excellent wear resistant and chipping resistant properties. BN7000 is recommended for high speed cutting of cast iron. If not satisfied with the wear resistance, use BN500.

DA2200/DA1000

Ultra-precise sintering of ultra-fine diamond particles drastically improves the material's chipping resistance. With strength comparable to that of carbide (K10 type), it achieves a stable long tool life in interrupted cutting of aluminum alloys. Furthermore, the material boasts great cutting edge efficiency and achieves a good finish surface.

FOR FINISHING

ELA


EC03 **WC02**

Excellent sharpening breaker

EFM


TP07/TP08 **TC11**

3D breaker (M class) with excellent chip breaking properties

ELM


TP08 **TC11**

3D breaker (G class) with excellent chip breaking properties

EL

TP07/TP08/TC11

First choice for steel

Low resistance sharpening breaker

L

TP07/TP08/TC11

For stainless steel and hard-to-cut materials

Sharpened chipbreaker

FN

TP07/TP08/TC11

Non-breaker

FN (cBN)



EC03 **WC02** **TP07/TP08/TC11**

Non-breaker (cBN cutting edge)

FN3 (cBN)

TP08/TC11

Non-breaker (cBN cutting edge)

3-corner use specification

FLA

TP07/TP08/TC11

Aluminum sharpening breaker

FN (diamond)


WC02 **TP07/TP08 TC11**

Excellent sharpness with scooping

FN (diamond)

TP08/TC11

3D breaker for aluminum

FOR ROUGHING

EFM

SC06/SC07 SC09 | SC12 | CC06/CC07 CC09 | CC12/CC16

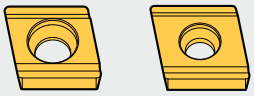
First choice 3D breaker for steel

ESM

SC06/SC07 SC09 | SC12 | CC06/CC07 CC09 | CC12/CC16

Effective for light cutting of SS material, stainless steel, and steel

ESS



CC07/CC09 CC12 | CC16

SS material breaker

FN

SC06/SC07 SC09/SC12 | CC06/CC07 CC09/CC12

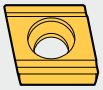
Non-breaker

FLA

SC06/SC07 SC09/SC12 | CC06/CC07 CC09/CC12

Aluminum breaker

FLB

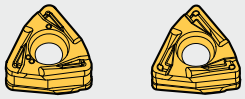


CC06/CC07 CC09/CC12

Effective for light cutting

Flat breaker for aluminum

EM

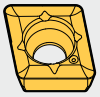


ZN05 | ZN08

Excellent cutting ability

Double-sided 6-corner design

F



MW0404

Steel and stainless steel chip breaker

S

MW0404

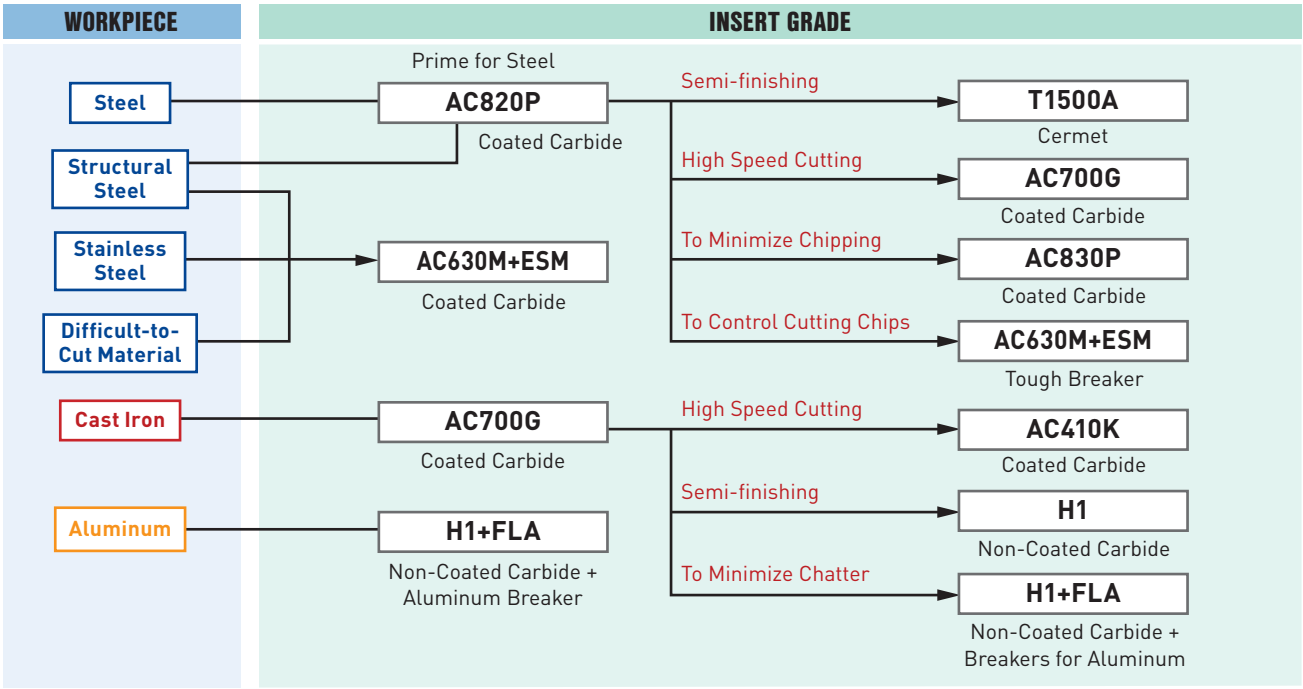
Cast iron and ductile iron breaker

E

MW0404

Non-ferrous and aluminum breakers

FOR ROUGHING



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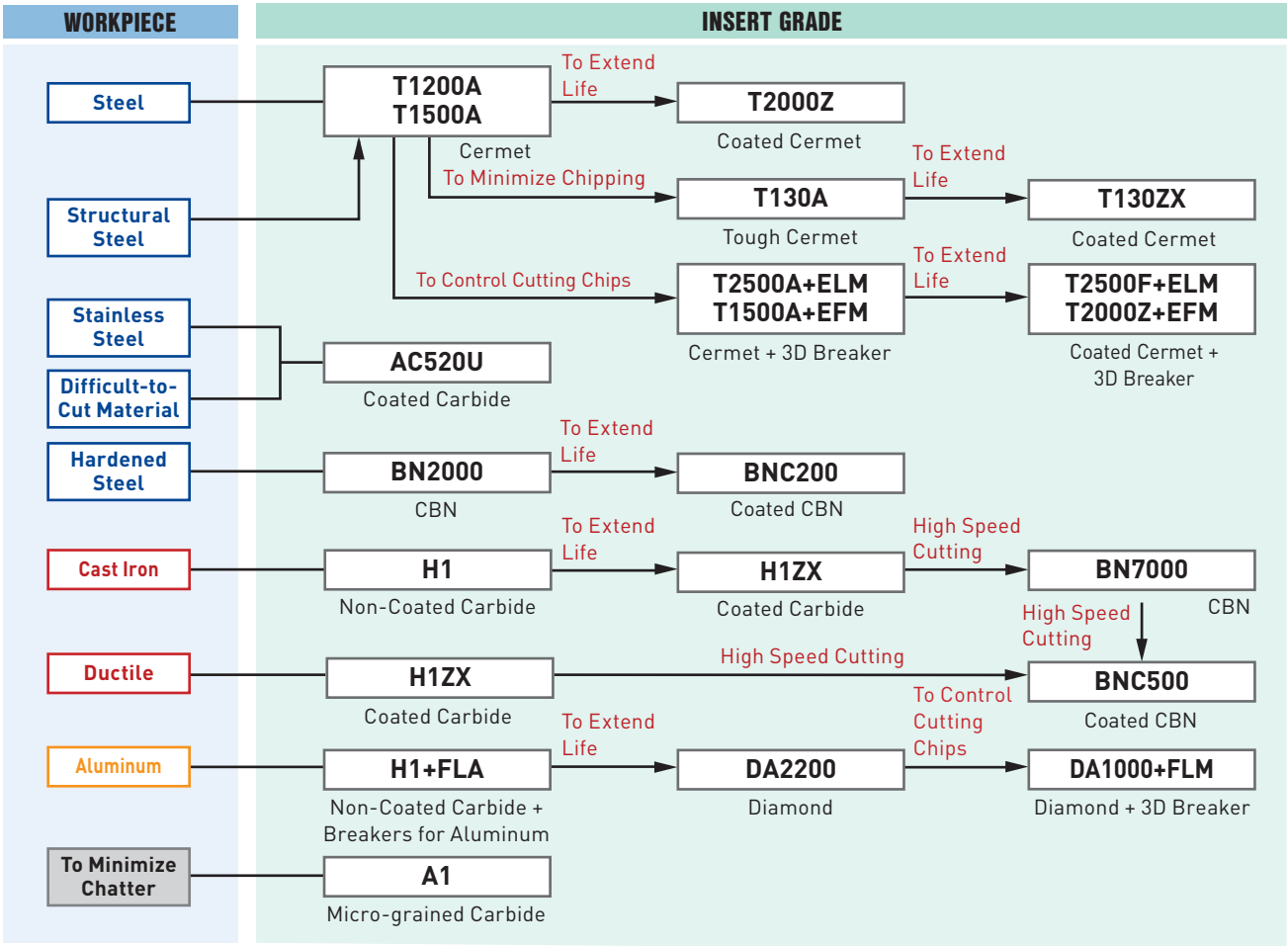
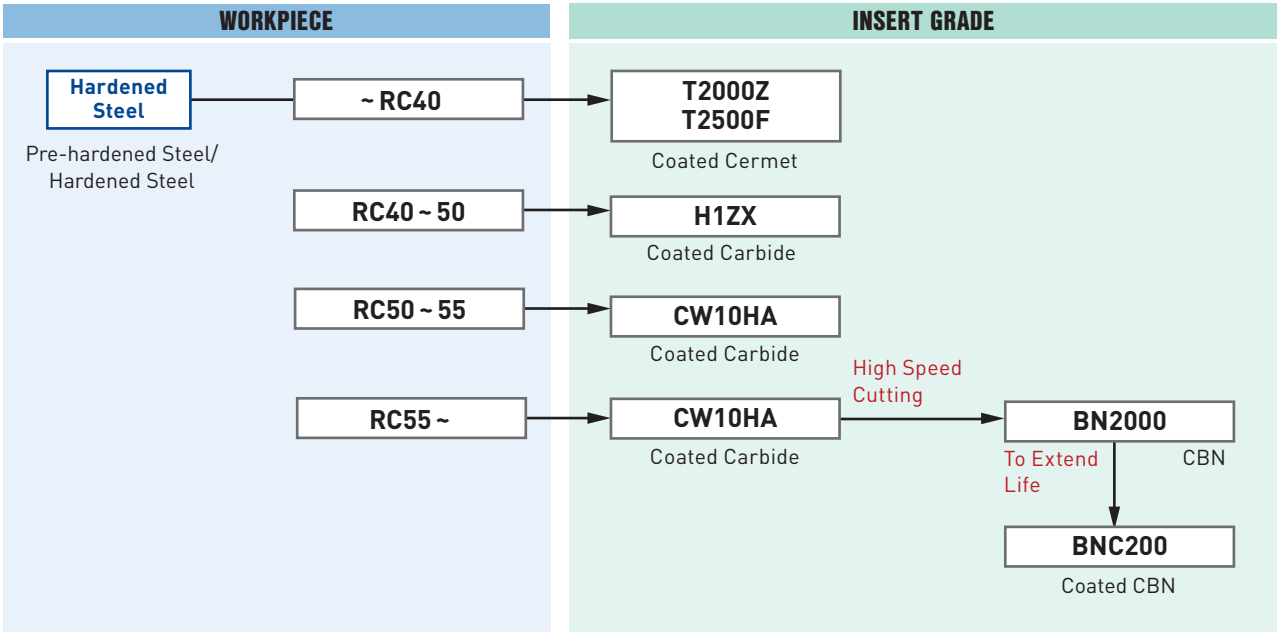


FOR FINISHING



Application Table (Corresponding to Hardness)

Insert Grade		Hardness (RC) 40 45 50 55 60
Coated Cermet	T2000Z T2500F	
Coated Carbide	H1ZX	
	CW10HA	
CBN	BNC200 (BN2000)	

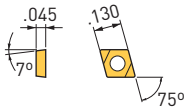
Recommended Conditions

Hardness (RC)	Insert Grade	Cutting Speed SFM	Depth of Cut	Coolant
40-50	H1ZX	330-429	.004-.008	Wet Recommended
50-55	CW10HA	164-330	.004-.008	
55-59		98-164	.004-.008	
55+	BNC200 (BN2000)	231-330	.004-.008	

- The standard is f=.002", corner R.008" and f=.004" for corner R.016"
- For centric boring bar types, the stability limits vary based on the tool's protrusion length; please refer to the recommended cutting conditions table for round tool types on pg. 531, and adjust the settings accordingly
- If tool life is reduced due to interrupted cutting, we recommend low speed conditions or dry cutting

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

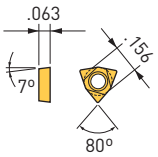
<EC03>



Carbide Boring Bar: EB04, EB05

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**ECGM03X102ELA(T1500A)**	.008	2	Alloy Steel / Carbon Steel	Cermet
2	**ECGM03X102ELA(H1)**	.008	2	Aluminium / Cast Iron	Carbide (K10)
3	**ECGM03X102FN(NB10HA)**	.008	2	Hardened Steel	CBN

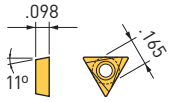
<WC02>



For EW Micro Head: EW15, 18
Carbide Boring Bar: EB06, EB7.5
Carbide Boring Bar for EWN04-15: ST7W-EB6-EB7

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**WCGT020102ELA(T1200A)**	.008	3	Alloy Steel / Carbon Steel	Cermet
2	**WCGT020102ELA(H1)**	.008	3	Aluminium / Cast Iron	Carbide (K10)
3	**WCGT020102FN(DA2200)**	.008	1	Aluminium	PCD
4	**WCGT020102FN(BNX20)**	.008	1	Hardened Steel	CBN
5	**WCGT020102FN(BN7000)**	.008	1	Cast Iron GGG	CBN

<TP07>



NEW Sizes

Boring Bar for EWN04-15: ST7W-EB8-EB12

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**TPMT070202EFM(T2000Z)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
2	**TPMT070204EFM(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
3	**TPGP070202EL(T1500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet
4	**TPGP070204EL(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet
5	**TPGD070202FN(CW10HA)** ●	.008	3	Hardened Steel Rc50-55	Coated Carbide
6	**TPGD070204FN(CW10HA)** ●	.016	3	Hardened Steel Rc50-55	Coated Carbide
7	**TPGD070202FN(BN2000)**	.008	1	Hardened Steel Rc56+	CBN
8	**TPGP070202L(AC520U)**	.008	3	Stainless / Inconel / Titanium	Coated Carbide
9	**TPGP070204L(AC520U)**	.016	3	Stainless / Inconel / Titanium	Coated Carbide
10	**TPGD070202FN(H1)**	.008	3	Cast Iron GG	Carbide (K10)
11	**TPGD070204FN(H1ZX)**	.016	3	Cast Iron GG	Coated Carbide (K10)
12	**TPGD070202FN(BN500)**	.008	1	Cast Iron GGG	CBN
13	**TPGD070204FN(BN500)**	.016	1	Cast Iron GGG	CBN
14	**TPGP070202FLA(H1)**	.008	3	Aluminium	Carbide (K10)(High Rake Angle)
15	**TPGP070204FLA(H1)**	.016	3	Aluminium	Carbide (K10)(High Rake Angle)
16	**TPGD070202FN(DA2200)**	.008	1	Aluminium	PCD
17	**TPGD070204FLM(DA1000)**	.016	1	Aluminium	PCD (with Chip-Breakers)

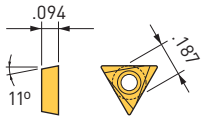
• Inserts are available in a packet of 10 pcs except diamond and CBN inserts; diamond and CBN inserts are available from 1 pc.

When ordering specify the catalog number and grade

Example: ECGM03X102ELA (T1500A)... 10 pcs
Catalog Number **Grade**

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

<TP08>



NEW Sizes

For EWB: EBH3-1
For EWN/EWE: ENH1-3, ENH3-1J - ENH5-3J
Insert Holder: EB09N - EB46N

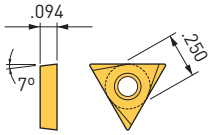
No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**TPMT080202EFM(T1500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
2	**TPMT080204EFM(T1500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
3	**TPMT080202EFM(T2000Z)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
4	**TPMT080204EFM(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
5	**TPGP080202ELM(T2500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
6	**TPGP080204ELM(T2500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
7	**TPGP080202ELM(T2500F)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
8	**TPGP080204ELM(T2500F)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
9	**TPGP080202EL(T1500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet
10	**TPGP080204EL(T1500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet
11	**TPGP080202EL(T2000Z)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet
12	**TPGP080204EL(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet
13	**TPGP080202EL(T130A)**	.008	3	Interrupted Cutting	Cermet
14	**TPGP080204EL(T130A)**	.016	3	Interrupted Cutting	Cermet
15	**TPGP080202EL(T130ZX)**	.008	3	Interrupted Cutting	Coated Cermet
16	**TPGP080204EL(T130ZX)**	.016	3	Interrupted Cutting	Coated Cermet
17	**TPGD080204FN(CW10HA)** ●	.008	3	Hardened Steel Rc50-55	Coated Carbide
18	**TPGD080202FN(CW10HA)** ●	.016	3	Hardened Steel Rc50-55	Coated Carbide
19	**TPGD080202FN(BN2000)**	.008	1	Hardened Steel Rc56+	CBN
20	**TPGD080204FN(BN2000)**	.016	1	Hardened Steel Rc56+	CBN
21	**TPGD080202FN(BNC200)**	.008	1	Hardened Steel Rc56+	Coated CBN
22	**TPGD080204FN(BNC200)**	.016	1	Hardened Steel Rc56+	Coated CBN
23	**TPGP080202L(AC520U)**	.008	3	Stainless / Inconel / Titanium	Coated Carbide
24	**TPGP080204L(AC520U)**	.016	3	Stainless / Inconel / Titanium	Coated Carbide
25	**TPGD080202FN(H1)**	.008	3	Cast Iron GG	Carbide (K10)
26	**TPGD080204FN(H1)**	.016	3	Cast Iron GG	Carbide (K10)
27	**TPGD080202FN(H1ZX)**	.008	3	Cast Iron GG	Coated Carbide (K10)
28	**TPGD080204FN(H1ZX)**	.016	3	Cast Iron GG	Coated Carbide (K10)
29	**TPGD080202FN(BN7000)**	.008	1	Cast Iron GGG	CBN
30	**TPGD080204FN(BN7000)**	.016	1	Cast Iron GGG	CBN
31	**TPGD080202FN(BN500)**	.008	1	Cast Iron GGG	CBN
32	**TPGD080204FN(BN500)**	.016	1	Cast Iron GGG	CBN
33	**TPGD080202FN(BNC500)**	.008	1	Cast Iron GGG	Coated CBN
34	**TPGD080204FN(BNC500)**	.016	1	Cast Iron GGG	Coated CBN
35	**TPGD080204FN3(BNC500)**	.016	3	Cast Iron GGG	Coated CBN
36	**TPGP080202FLA(H1)**	.008	3	Aluminium	Carbide (K10)(High Rake Angle)
37	**TPGP080204FLA(H1)**	.016	3	Aluminium	Carbide (K10)(High Rake Angle)
38	**TPGD080202FN(DA2200)**	.008	1	Aluminium	PCD
39	**TPGD080204FN(DA2200)**	.016	1	Aluminium	PCD
40	**TPGD080202FLM(DA1000)**	.008	1	Aluminium	PCD (with Chip-Breakers)
41	**TPGD080204FLM(DA1000)**	.016	1	Aluminium	PCD (with Chip-Breakers)
42	**TPGP080201FLA(A1)**	.004	3	Chatter Resistant	Micro-Grained Carbide

- Inserts are available in a packet of 10 pcs except diamond and CBN inserts; diamond and CBN inserts are available from 1 pc.

When ordering specify the catalog number and grade

Example: TPMT080202EFM (T1500A)... 10 pcs
Catalog Number **Grade**

<TC11>



NEW Sizes

For EWB: EBH4-6 **For EWN/EWE**: ENH4 - 7, ENH6-1J - ENH6-3J, ENH7-1J
Insert Holder: EB17AJ-40AJ

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**TCMT110204EFM(T1500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
2	**TCMT110208EFM(T1500A)**	.031	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
3	**TCMT110204EFM(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
4	**TCMT110208EFM(T2000Z)**	.031	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
5	**TCGT110202ELM(T2500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
6	**TCGT110204ELM(T2500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet (with Chip-Breakers)
7	**TCGT110202ELM(T2500F)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
8	**TCGT110204ELM(T2500F)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet (with Chip-Breakers)
9	**TCGT110202EL(T1500A)**	.008	3	Alloy Steel / Carbon Steel	Cermet
10	**TCGT110204EL(T1500A)**	.016	3	Alloy Steel / Carbon Steel	Cermet
11	**TCGT110208EL(T1500A)**	.031	3	Alloy Steel / Carbon Steel	Cermet
12	**TCGT110202EL(T2000Z)**	.008	3	Alloy Steel / Carbon Steel	Coated Cermet
13	**TCGT110204EL(T2000Z)**	.016	3	Alloy Steel / Carbon Steel	Coated Cermet
14	**TCGT110208EL(T2000Z)**	.031	3	Alloy Steel / Carbon Steel	Coated Cermet
15	**TCGT110202FN(CW10HA)** 🔴	.008	3	Hardened Steel Rc50-55	Coated Carbide
16	**TCGT110204FN(CW10HA)** 🔴	.016	3	Hardened Steel Rc50-55	Coated Carbide
17	**TCGT110202FN(BN2000)**	.008	1	Hardened Steel Rc56+	CBN
18	**TCGT110204FN(BN2000)**	.016	1	Hardened Steel Rc56+	CBN
19	**TCGT110202FN(BNC200)**	.008	1	Hardened Steel Rc56+	Coated CBN
20	**TCGT110204FN(BNC200)**	.016	1	Hardened Steel Rc56+	Coated CBN
21	**TCGT110202L(AC520U)**	.008	3	Stainless / Inconel / Titanium	Coated Carbide
22	**TCGT110204L(AC520U)**	.016	3	Stainless / Inconel / Titanium	Coated Carbide
23	**TCGT110202FN(H1)**	.008	3	Cast Iron GG	Carbide (K10)
24	**TCGT110204FN(H1)**	.016	3	Cast Iron GG	Carbide (K10)
25	**TCGT110208FN(H1)**	.031	3	Cast Iron GG	Carbide (K10)
26	**TCGT110202FN(H1ZX)**	.008	3	Cast Iron GG	Coated Carbide (K10)
27	**TCGT110204FN(H1ZX)**	.016	3	Cast Iron GG	Coated Carbide (K10)
28	**TCGT110208FN(H1ZX)**	.031	3	Cast Iron GG	Coated Carbide (K10)
29	**TCGT110202FN(BN7000)**	.008	1	Cast Iron GGG	CBN
30	**TCGT110204FN(BN7000)**	.016	1	Cast Iron GGG	CBN
31	**TCGT110208FN(BN7000)**	.031	1	Cast Iron GGG	CBN
32	**TCGT110202FN(BN500)**	.008	1	Cast Iron GGG	CBN
33	**TCGT110204FN(BN500)**	.016	1	Cast Iron GGG	CBN
34	**TCGT110202FN(BNC500)**	.008	1	Cast Iron GGG	Coated CBN
35	**TCGT110204FN(BNC500)**	.016	1	Cast Iron GGG	Coated CBN
36	**TCGT110208FN(BNC500)**	.031	1	Cast Iron GGG	Coated CBN
37	**TCGT110204FN3(BNC500)**	.016	3	Cast Iron GGG	Coated CBN
38	**TCGT110208FN3(BNC500)**	.031	3	Cast Iron GGG	Coated CBN
39	**TCGT110202FLA(H1)**	.008	3	Aluminium	Carbide (K10)(High Rake Angle)
40	**TCGT110204FLA(H1)**	.016	3	Aluminium	Carbide (K10)(High Rake Angle)
41	**TCGT110208FLA(H1)**	.031	3	Aluminium	Carbide (K10)(High Rake Angle)
42	**TCGT110202FN(DA2200)**	.008	1	Aluminium	PCD
43	**TCGT110204FN(DA2200)**	.016	1	Aluminium	PCD
44	**TCGT110208FN(DA2200)**	.031	1	Aluminium	PCD
45	**TCGT110202FLM(DA1000)**	.008	1	Aluminium	PCD (with Chip-Breakers)
46	**TCGT110204FLM(DA1000)**	.016	1	Aluminium	PCD (with Chip-Breakers)
47	**TCGT110208FLM(DA1000)**	.031	1	Aluminium	PCD (with Chip-Breakers)

- Inserts are available in a packet of 10 pcs. except diamond and CBN inserts
- Diamond and CBN inserts are available from 1 pc.

When ordering specify the catalog number and grade

Example: TCMT110204EFM (T1500A)... 10 pcs
Catalog Number **Grade**

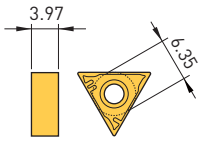
BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

<TN11>

NEW Product

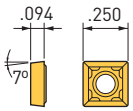
For EWN/EWE: ENH4-1N – ENH6-1N



No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**TNMU11T302ELM (T2500A)**	.008	6	Alloy Steel / Carbon Steel	Cermet P30 Grade
2	**TNMU11T304ELM (T2500A)**	.016	6	Alloy Steel / Carbon Steel	Cermet P30 Grade
3	**TNMU11T302ELM (H1)**	.008	6	Cast Iron Steel	Fine Carbide (K10)
4	**TNMU11T304ELM (H1)**	.016	6	Cast Iron Steel	Fine Carbide (K10)

<SC06>

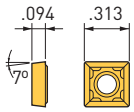
For EWN/EWE: ENH4-1S - ENH5-3S
For SW: SW2026A, SW2531A, SW2533A, SW3240A



No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**SCMP060204EFM(T1500A)**	.016	4	Alloy Steel / Carbon Steel	Cermet (P10)
2	**SCMP060204EFM(AC820P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
3	**SCMP060204EFM(AC830P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P30)
4	**SCMP060204ESM(AC630M)**	.016	4	Stainless Steels	Coated Carbide (M30)
5	**SCMP060204EFM(AC410K)**	.016	4	Cast Iron GG	Coated Carbide (K10)
6	**SCMP060204EFM(AC700G)**	.016	4	Cast Iron GG	Coated Carbide (K20)
7	**SCGA060204FN(H1)**	.016	4	Cast Iron GG	Carbide (K10)
8	**SCGP060204FLA(H1)**	.016	4	Aluminium	Carbide (High Rake Angle)

<SC07>

For EWN/EWE: ENH6-1S - ENH6-3S, ENH7-1S



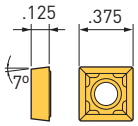
No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**SCGP070204EFM(T1500A)**	.016	4	Alloy Steel / Carbon Steel	Cermet (P10)
2	**SCMP070204EFM(AC820P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
3	**SCMP070204EFM(AC830P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P30)
4	**SCMP070204ESM(AC630M)**	.016	4	Stainless Steels	Coated Carbide (M30)
5	**SCMP070204EFM(AC410K)**	.016	4	Cast Iron GG	Coated Carbide (K10)
6	**SCMP070204EFM(AC700G)**	.016	4	Cast Iron GG	Coated Carbide (K20)
7	**SCGA070204FN(H1)**	.016	4	Cast Iron GG	Carbide (K10)
8	**SCGP070204FLA(H1)**	.016	4	Aluminium	Carbide (High Rake Angle)

- Inserts are available in a packet of 10 pcs.

When ordering specify the catalog number and grade

Example: SCMP060204EFM (T1500A)... 10 pcs
Catalog Number **Grade**

<SC09>



For SW: SW3242A, SW4151A, SW4154A, SW5366A

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**SCGM090304EFM(T1500A)**	.016	4	Alloy Steel / Carbon Steel	Cermet (P10)
2	**SCGM090308EFM(T1500A)**	.031	4	Alloy Steel / Carbon Steel	Cermet (P10)
3	**SCMM090304EFM(AC820P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
4	**SCMM090308EFM(AC820P)**	.031	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
5	**SCMM090308EFM(AC830P)**	.031	4	Alloy Steel / Carbon Steel	Coated Carbide (P30)
6	**SCMM090308ESM(AC630M)**	.031	4	Stainless Steels	Coated Carbide (M30)
7	**SCMM090308EFM(AC410K)**	.031	4	Cast Iron GG	Coated Carbide (K10)
8	**SCMM090308EFM(AC700G)**	.031	4	Cast Iron GG	Coated Carbide (K20)
9	**SCGA090304FN(H1)**	.016	4	Cast Iron GG	Carbide (K10)
10	**SCGM090308FLA(H1)**	.031	4	Aluminium	Carbide (High Rake Angle)

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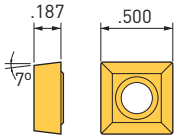

For SW: SW5370A, SW6986A, SW6890A, SW88110A, SW98126A, SW125153A, SW148176A, SW175203A

For TW: TW200A

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**SCGM120404EFM(T1500A)**	.016	4	Alloy Steel / Carbon Steel	Cermet (P10)
2	**SCGM120408EFM(T1500A)**	.031	4	Alloy Steel / Carbon Steel	Cermet (P10)
3	**SCMM120404EFM(AC820P)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
4	**SCMM120404EFM(CW20PA)**	.016	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
5	**SCMM120408EFM(AC820P)**	.031	4	Alloy Steel / Carbon Steel	Coated Carbide (P20)
6	**SCMM120408EFM(AC830P)**	.031	4	Alloy Steel / Carbon Steel	Coated Carbide (P30)
7	**SCMM120408ESM(AC630M)**	.031	4	Stainless Steels	Coated Carbide (M30)
8	**SCMM120408EFM(AC410K)**	.031	4	Cast Iron GG	Coated Carbide (K10)
9	**SCMM120408EFM(AC700G)**	.031	4	Cast Iron GG	Coated Carbide (K20)
10	**SCGA120404FN(H1)**	.016	4	Cast Iron GG	Carbide (K10)
11	**SCGM120408FLA(H1)**	.031	4	Aluminium	Carbide (High Rake Angle)

- Inserts are available in a packet of 10 pcs.

When ordering specify the catalog number and grade

Example: SCGM090304EFM (T1500A)... 10 pcs

Catalog Number **Grade**

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

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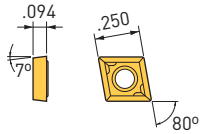
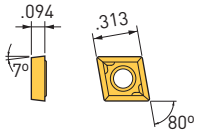


For EWN/EWE: ENH4-1F - ENH5-3F
For SW: SW2026E, SW2531E, SW2533E, SW3240E

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**CCMP060204EFM(T1500A)**	.016	2	Alloy Steel / Carbon Steel	Cermet (P10)
2	**CCMP060204EFM(AC820P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
3	**CCMP060204EFM(AC830P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P30)
4	**CCMP060204ESM(AC630M)**	.016	2	Stainless Steels	Coated Carbide (M30)
5	**CCMP060204EFM(AC410K)**	.016	2	Cast Iron GG	Coated Carbide (K10)
6	**CCMP060204EFM(AC700G)**	.016	2	Cast Iron GG	Coated Carbide (K20)
7	**CCGA060204FN(H1)**	.016	2	Cast Iron GG	Carbide (K10)
8	**CCGP060204FLA(H1)**	.016	2	Aluminium	Carbide (High Rake Angle)
9	**CCGP060204FLB(H1)**	.016	2	Aluminium	Carbide (Flat Breaker)

<CC07>



For EWN/EWE: ENH6-1F - ENH6-3F, ENH7-1F

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**CCGP070204EFM(T1500A)**	.016	2	Alloy Steel / Carbon Steel	Cermet (P10)
2	**CCMP070204EFM(AC820P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
3	**CCMP070204EFM(AC830P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P30)
4	**CCMP070204ESM(AC630M)**	.016	2	Stainless Steels	Coated Carbide (M30)
5	**CCMM070204ESS(AC830P)**	.016	2	Construction steel	Coated Carbide (P30)
6	**CCMP070204EFM(AC410K)**	.016	2	Cast Iron GG	Coated Carbide (K10)
7	**CCMP070204EFM(AC700G)**	.016	2	Cast Iron GG	Coated Carbide (K20)
8	**CCGA070204FN(H1)**	.016	2	Cast Iron GG	Carbide (K10)
9	**CCGP070204FLA(H1)**	.016	2	Aluminium	Carbide (High Rake Angle)
10	**CCGP070204FLB(H1)**	.016	2	Aluminium	Carbide (Flat Breaker)

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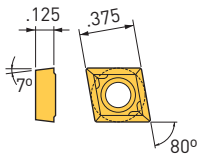

For SW: SW3242E, SW4151E, SW4154E, SW5366E

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**CCGM090304EFM(T1500A)**	.016	2	Alloy Steel / Carbon Steel	Cermet (P10)
2	**CCGM090308EFM(T1500A)**	.031	2	Alloy Steel / Carbon Steel	Cermet (P10)
3	**CCMM090304EFM(AC820P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
4	**CCMM090308EFM(AC820P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
5	**CCMM090308EFM(AC830P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P30)
6	**CCMM090308ESM(AC630M)**	.031	2	Stainless Steels	Coated Carbide (M30)
7	**CCMM090308ESS(AC830P)**	.031	2	Construction steel	Coated Carbide (P31)
8	**CCMM090308EFM(AC410K)**	.031	2	Cast Iron GG	Coated Carbide (K10)
9	**CCMM090304EFM(AC700G)**	.016	2	Cast Iron GG	Coated Carbide (K20)
10	**CCMM090308EFM(AC700G)**	.031	2	Cast Iron GG	Coated Carbide (K20)
11	**CCGA090304FN(H1)**	.016	2	Cast Iron GG	Carbide (K10)
12	**CCGM090308FLA(H1)**	.031	2	Aluminium	Carbide (High Rake Angle)
13	**CCGM090304FLB(H1)**	.016	2	Aluminium	Carbide (Flat Breaker)

- Inserts are available in a packet of 10 pcs.

When ordering specify the catalog number and grade

Example: CCMP060204EFM (T1500A)... 10 pcs
Catalog Number **Grade**

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

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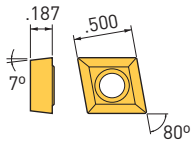

For SW: SW5370E, SW6986E, SW6890E, SW88110E, SW98126E, SW125153E, SW148176E, SW175203E
For TW: TW200E

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**CCGM120404EFM(T1500A)**	.016	2	Alloy Steel / Carbon Steel	Cermet (P10)
2	**CCGM120408EFM(T1500A)**	.031	2	Alloy Steel / Carbon Steel	Cermet (P10)
3	**CCMM120404EFM(AC820P)**	.016	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
4	**CCMM120408EFM(AC820P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
5	**CCMM120408EFM(AC830P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P30)
6	**CCMM120408ESM(AC630M)**	.031	2	Stainless Steels	Coated Carbide (M30)
7	**CCMM120408ESS(AC830P)**	.031	2	Construction steel	Coated Carbide (P32)
8	**CCMM120408EFM(AC410K)**	.031	2	Cast Iron GG	Coated Carbide (K10)
9	**CCMM120404EFM(AC700G)**	.016	2	Cast Iron GG	Coated Carbide (K20)
10	**CCMM120408EFM(AC700G)**	.031	2	Cast Iron GG	Coated Carbide (K20)
11	**CCGA120404FN(H1)**	.016	2	Cast Iron GG	Carbide (K10)
12	**CCGM120408FLA(H1)**	.031	2	Aluminium	Carbide (High Rake Angle)
13	**CCGM120404FLB(H1)**	.016	2	Aluminium	Carbide (Flat Breaker)

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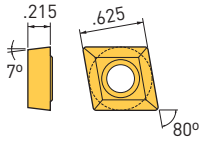

For SW: SW6890EL, SW88110EL, SW98126EL, SW125153EL, SW148176EL, SW175203EL
For TW: TW200EL

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**CCMM160508EFM(AC820P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P20)
2	**CCMM160508EFM(AC830P)**	.031	2	Alloy Steel / Carbon Steel	Coated Carbide (P30)
3	**CCMM160508ESS(AC830P)**	.031	2	Construction steel	Coated Carbide (P33)
4	**CCMM160508EFM(AC700G)**	.031	2	Cast Iron GG	Coated Carbide (K20)

• Inserts are available in a packet of 10 pcs.

When ordering specify the catalog number and grade

Example: CCGM120404EFM (T1500A)... 10 pcs
Catalog Number **Grade**

BIG DAISHOWA designs optimal inserts exclusive for boring. Select the suitable insert to the application.

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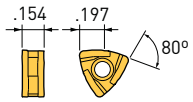
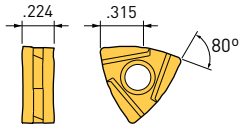


For SW: SW3242N, SW4151N, SW4154N, SW5366N

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**ZNMU050308EM(CW20PA)**	.8	6	General Steels	Coated Carbide
2	**ZNMU050308EM(CW15KA)**			Cast Iron	

<ZN08>



For SW: SW5370N, SW6986N, SW6890N, SW88110N, SW98126N, SW125153N, SW148176N, SW175203N

No.	Catalog Number	Radius	Corner	Workpiece	Cutting Materials
1	**ZNMU080508EM(CW20PA)**	.8	6	General Steels	Coated Carbide
2	**ZNMU080508EM(CW15KA)**			Cast Iron	

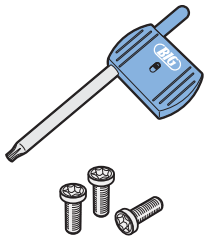
- Inserts are available in a packet of 10 pcs.

When ordering specify the catalog number and grade

Example: ZNMU050308EM (CW20PA)... 10 pcs
Catalog Number **Grade**

SCREW/WRENCH SET

INSERT CLAMPING SCREW SET

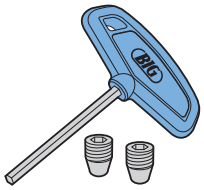


Catalog Number	Insert Size	Shank/Insert Holder/Cartridge	Insert Clamp Screw	
			Thread	Wrench Model
S1.6S-T3-S	EC03	EB04	M1.6F×2	DA-T3
S1.6S-T3		EB05	M1.6F×2.5	
S2S-A-6IP	WC02	ST05W-EB6-60 / ST06W-EB7.5-65	M2×3	FS-6IP
S2S-B-6IP		EN15	M2S×4	
10.694.101-2P	WC02	ST7W-EB6 / EB7	M2×3.6	FS-6IP
10.694.102-2P	TP07	ST7W-EB8 / EB9	M2×4.1	
10.694.103-2P		ST7W-EB10 / EB12 ENH1-1TP07, ENH2-1TP07	M2×4.8	
S2S-S-6IP	TP08	EB09N / EB1.5N / EB12N	M2×4	FS-6IP
S2S-6IP		EB14N - EB46N / ENH1 - ENH3 ENH3J - ENH5J EBH3	M2×5.5	
S2.5S-7IP	TC11 SC06 CC06	SW2026 / SW2531 / SW2533 / SW3240 ENH4 - ENH7 / ENH4E - ENH6E / ENH6J - ENH7J ENH4F - ENH5F / ENH4S - ENH5S EBH4 - EBH6 EB17AJ - EB40AJ	M2.5×6.5	FS-7IP
S2.5S-T7-L	TN11	ENH4N - ENH6N	M2.5x8.5	FA-T7
S2.508S-7IP	ZN05	SW3242N / SW4151N / SW4154N / SW5366N	M2.5×8	FS-7IP
S3S-10IP	SC07 CC07	ENH6F - ENH7F / ENH6S - ENH7S RW2533 RW3037	M3×7	FS-10IP
S4S-15IP	SC09 CC09	SW3242 / SW4151 / SW4154 / SW5366 RW3242 RW4048 RW4154 RW5162	M4×8	FS-15IP
S412S-15IP	ZN08	SW5370N / SW6986N / SW6890N / SW88110N / SW98126N / SW125153N / SW148176N / SW175203N	M4×12	FS-15IP
S5S-20IP	SC12 CC12 CC16	SW5370 / SW6986 / SW6890 / SW88110 SW98126 / SW125153 / SW148176 / SW175203 / TW200 RW5370 / RW6681 / RW6888 RW86106 RW100125 RW125150	M5×12	FS-20IP
S1.6S-T6	MW04	MW1619 - MW1821	M1.6×4.2	FA-T6

- Set contains 10 screws and 1 wrench; if part number ends in -2P, set contains 2 screws and no wrench
- Wrenches are also sold individually; please order the wrench model

CK SET SCREW

Key element of the CK Connection.
Periodical replacement is recommended in order to maintain accurate clamping.

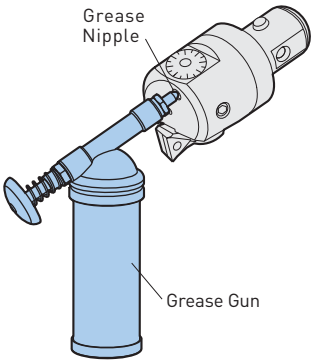


Catalog Number	CK No.	Thread Size	T Wrench Model
CK1S	CK1	M4xP.5	CK-T2
CK2S	CK2	M5xP.5	CK-T2.5
CK3S	CK3	M6xP.75	CK-T3
CK4S	CK4	M8xP.75	CK-T4
CK5S	CK5	M10xP1.0	CK-T5
CK6S	CK6	M12xP1.0	CK-T6
CK7S	CK7	M20xP1.5	—

- Set contains 2 screws and 1 exclusive T-wrench
- Wrenches are also sold individually; please order the wrench model ("T" in the wrench model indicates T-shape of the wrench. This has nothing to do with Torx.)
- An L wrench is included with CK7S

GREASE GUN

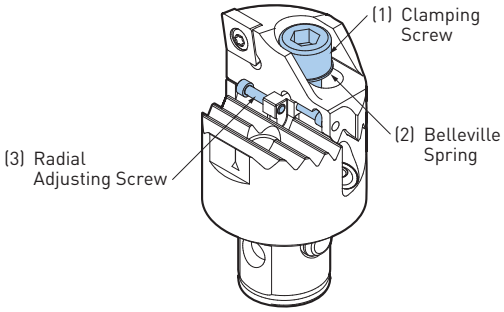
Essential for maintenance. Can be used with all types of finishing heads.
(Grease not included)



Catalog Number
GRG-02

- The grease is effective for removing coolant and particles; we recommend injecting grease into the grease/oil nipple as required
- GRG-02 is not compatible with low-viscosity greases or oils; leakage may occur
- We recommend using a moisture-resistant bearing grease of a mineral or synthetic oil base, lithium or barium thickener and a viscosity of NLGI grade 2 or thinner (for example, Klüber ISOFLEX NBU 15)

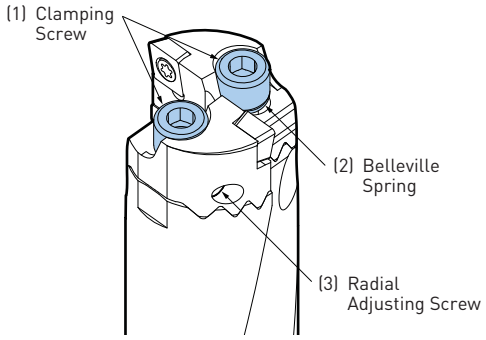
SW BORING HEAD (COMMON FOR A/E TYPES)



Head	(1)	SW	N • m	(2)	(3)	SW
SW20-31CKB1	**SW20SS**	3	4	**SW20BS**	**SW20RS**	1.5
SW25-40CKB2	**SW25SS**	4	7	**SW25BS**	**SW25RS**	1.5
SW32-51CKB3	**SW32SS**	5	12	**SW32BS**	**SW32RS**	2
SW41-66CKB4	**SW41SS**	6	20	**SW41BS**	**SW41RS**	2.5
CKB4-SW41DP-190						
SW53-86CKB5	**SW53SS**	8	35	**SW53BS**	**SW53RS**	2.5
CKB5-SW53DP-220						
SW68-110CKB6	**SW68SS**	8	35		**SW68RS**	3
CKB6-SW68DP-245						
SW98-153CKB□	**SW98SS**	10	40	**SW98BS**	**SW98RS**	4
CKB□-SW98DP						
SW148-203CKB□						
CKB□-SW148DP						

(1) Clamping Screw x 2p, Belleville Spring x 2p
(2) Belleville Spring x 4 pcs
(3) Radial Adjusting Screw 1p

MW BORING HEAD

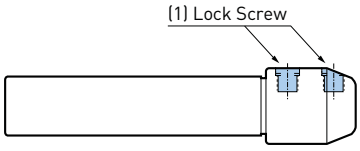


Head	(1)	SW	N • m	(2)	(3)	SW
MW16	**MW16SS**	2.5	1.0	**MW16BS**	**H02503-5P**	1.3
MW18					**H02504-5P**	

(1) Clamping Screw x 2p, Belleville Spring x 2p
(2) Belleville Spring x 4p
(3) Radial Adjusting Screw x 5p

EWN/EWE/EWB BORING HEAD (CENTRIC BORING BAR TYPE)

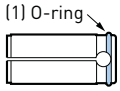
REDUCTION SLEEVE



Reduction Sleeve	Lock Screw	SW
ST-SL 4.5 / 5	**H0403-5P**	2
ST-SL 3.5 / 4 / 6	**H0404-5P**	
ST-SL 7 / 8 / 9 / 10	**H0606-5P**	2.5

(1) Lock Screw x 5p

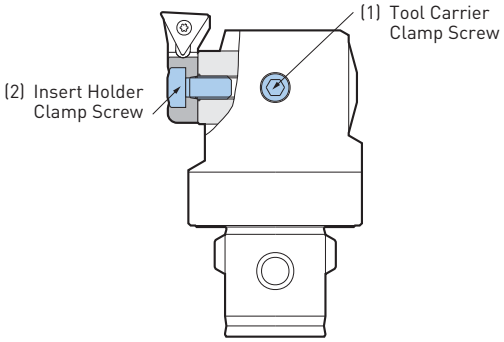
STRAIGHT COLLET



Collet	O-Ring (2 pcs)
EC1004-EC1008	**OR-S8-2P**
EC1206-EC1210	**OR-S10-2P**
EC1606-EC1614	**OR-S14-2P**

(1) O-ring x 2p

EWN BORING HEAD
EW MICRO HEAD

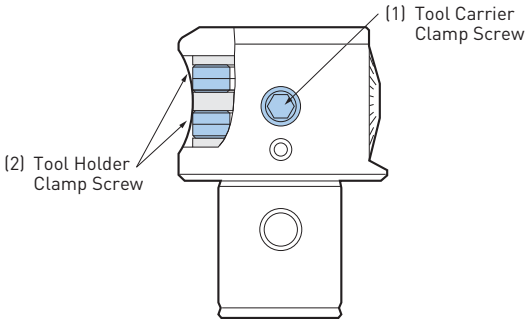


Head	(1)	SW	N • m	(2)	SW	N • m
EWN20-36E-CKB1	**K0405**	2	.5	**B0304-1**	2	1.0
CK1-EWN20EDP-100						
EWN25-47E-CKB2	**K0406**	2	.5	**B0306-1**	2	1.0
CK2-EWN25EDP-125						
EWN32-60E-CKB3	**K0509**	2.5	1.5	**B0408-2**	2.5	2.5
CKB3-EWNEDP-160						
EWN41-74E-CKB4	**K0610**	3	2.5	**B0510-3**	3	3.0
CKB4-EWN41EDP-185						
EWN53-95E-CKB5	**K0814**	4	6	**B0510-4**	4	6
CKB5-EWN53EDP-210						
EWN68-150E-CKB6	**K1016**	5	10	**B0816-5**	5	12
CKB6-EWN68EDP-240						
EWN100-203E-CKB6						
CKB6-EWN100EDP-240						
EWN100-203E-CKB7						
CKB7-EWN100EDP-240						
EW15E	**H0303-2P**	1.5	.3	**M25526IP-2P***	T6IP	.6
EW18E	**H0304-2P**					

• The screws marked with * are Torx Plus screws
(1) Tool Carrier Clamp Screw x 1p (EW15/18 x 2p)
(2) Insert Holder Clamp Screw x 1p (EW15/18 x 2p)

EWN BORING HEAD

(CENTRIC BORING BAR TYPE)



EWN04 Series

Head	(1)	SW	N • m	(2)	SW	N • m
EWN04-7CK1	**H0303KS**	1.5	.6	**H0306/R-5P**	1.5	.8
EWN04-7ST10						
EWN04-15E-CK3	**H0505-5P**	2.5	1.2	**H0504-5P**	2.5	1.5
EWN04-15ST16						

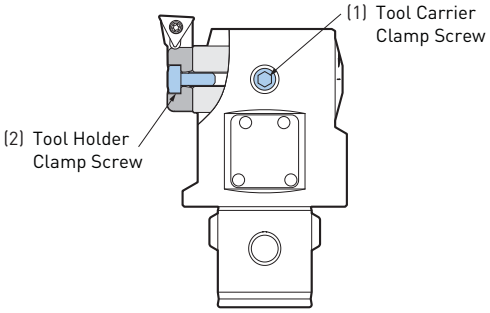
(1) Tool Carrier Clamp Screw : H0303KS x 1p / H0505-5P x 5p
(2) Tool holder Clamp Screw x 5p

EWN2-22 / EWN2-32 / EWN2-54 Series

Head	(1)	SW	N • m	(2)	SW	N • m	(3)
EWN2-22E-CK4	**K0606**	3	2.5	**H0605-5P**	3	2.5	—
EWN2-22ER25							**H0404-5P**
EWN2-32E-CK5	**K0809**	4	4	**H0806-5P**	4	5	—
EWN2-32ER32							**K0406KS**
EWN2-54E-CK6	**K1011**	5	8	**H1008-5P**	5	10	—
EWN2-54EM-CK6							

(1) Tool Carrier Clamp Screw x 1p
(2) Tool holder Clamp Screw x 5p

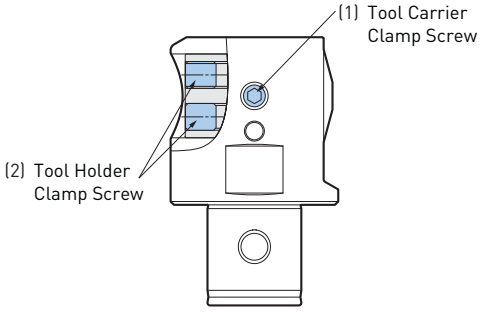
EWE DIGITAL BORING HEAD



Head	(1)	SW	N • m	(2)	SW	N • m
EWE41-74CKB4	**K0608**	3	3	**B0510-3**	3	3
EWE53-93CKB5	**K0809**	4	6	**B0510-4**	4	6
EWE68-105CKB6	**K1013**	5	10	**B0816-5**	5	12
EWE100-203CKB□	**K1016**					

(1) Tool Carrier Clamp Screw x 1p
(2) Insert Holder Clamp Screw x 1p

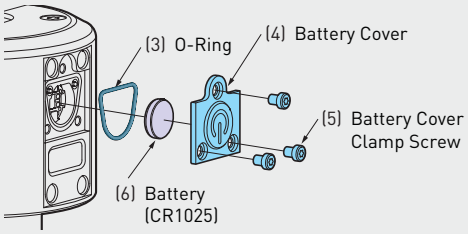
(CENTRIC BORING BAR TYPE)



Head	(1)	SW	N • m	(2)	SW	N • m
EWE2-32CK5	**K0809**	4	4	**H0806-5P**	4	4
EWE2-54CK6	**K1011**	5	8	**H1008-5P**	5	8
EWE2-54E-CK6						

(1) Tool Carrier Clamp Screw x 1p
(2) Tool holder Clamp Screw x 5p

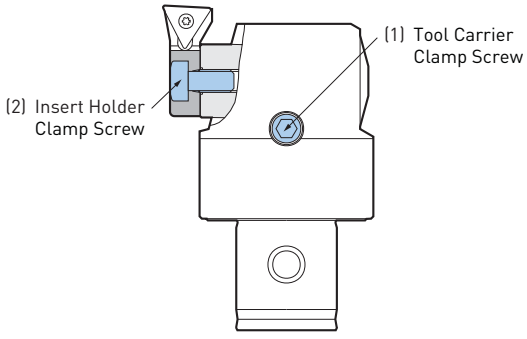
EWE COMMON PARTS (INSERT HOLDER / CENTRIC BORING BAR TYPE)



Common Parts	Catalog Number
(3) O-Ring	**EWE-OR**
(4) Battery Cover	**EWE-BC**
(5) Clamp Screw	**EWE-S2.5FS-8IP**
(6) Battery	**CR1025**

(5) Clamp Screw-3p / Wrench-1p included

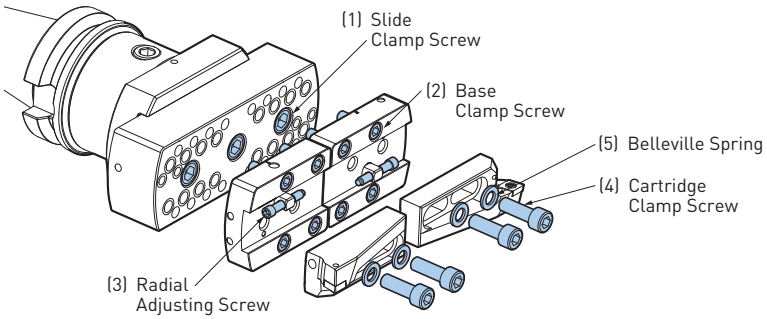
EWB BORING HEAD



Head	(1)	SW	N • m	(2)	SW	N • m
EWB32-42E-CK3	**S0705**	2.5	2.5	**B0408-2**	2.5	2.5
EWB41-54E-CK4	**S0706**	3	3	**B0510-3**	3	3
EWB53-70E-CK5	**S0808**	4	6	**B0510-4**	4	6
EWB68-88E-CK6	**S1012**	6	10	**B0612-5**	6	12
EWB85-105E-CK6						

(1) Tool Carrier Clamp Screw x 1p
(2) Insert Holder Clamp Screw x 1p

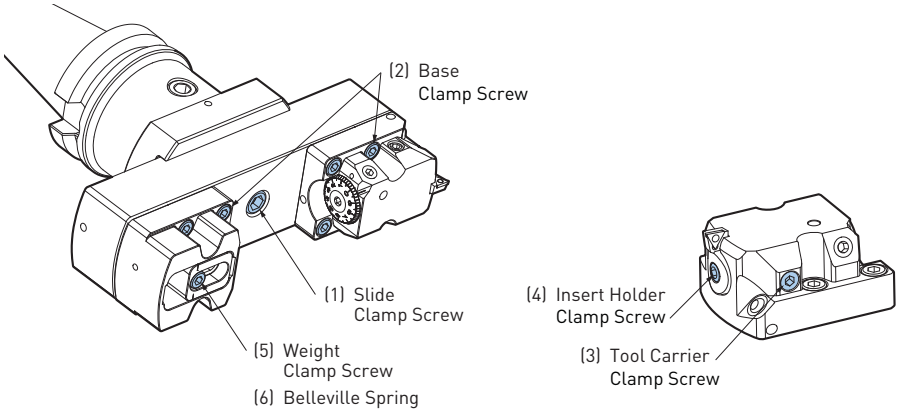
TW200 BORING HEAD (FOR LARGE DIAMETER)



Clamp Base	(1)	SW	N • m	(2)	SW	N • m	(3)	SW	(4)	SW	N • m	(5)
CB-TW200	**C1250**	10	45	**C0825**	6	20	**TW200RS**	5	**C1030**	8	30	**TW53BS**
CB-TW200AL												

(1) Slide Clamp Screw x 1p
(2) Base Clamp Screw x 1p
(3) Radial Adjusting Screw x1p
(4) Cartridge Clamp Screw x1p
(5) Belleville Spring x 4 pcs

EWN200 BORING HEAD (FOR LARGE DIAMETER)



Head	(1)	SW	N • m	(2)	SW	N • m	(3)	SW	N • m	(4)	SW	N • m	(5)	SW	N • m	(6)
EWN200(AL)										**B0612-5**	5	10	**—**	—	—	**—**
BWN200FB(AL)	**C1250**	10	45	**C0825**	6	20	**K1016**	5	12	**—**	—	—	**C0830**	6	20	**TW41BS**
BWN200PB(AL)																

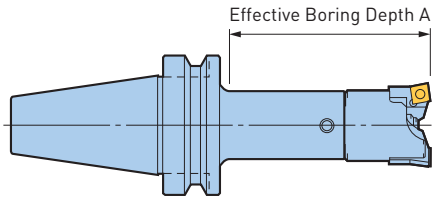
(1) Slide Clamp Screw x 1p
(2) Base Clamp Screw x 1p
(3) Tool Carrier Clamp Screw x 1p
(4) Insert Holder Clamp Screw x 1p
(5) Weight Clamp Screw x1p
(6) Belleville Spring x 4 pcs

KAISER BORING CUTTING TABLES

B.4

KAISER BORING CUTTING CONDITIONS 526-537

SW BORING HEAD



SW E TYPE/A TYPE (40 TAPER)

Head	Workpiece Material	A	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)		Feed f (IPR)	
			Nose Radius	Grade		Recommended	Max	Recommended	Max
SW20	Carbon Steel	2.870	.016	AC820P	495	.08	.10	.008	.010
	Alloy Steel			AC820P	430	.06	.08	.008	.010
	Stainless Steel			AC630M	265	.06	.08	.008	.010
	Cast Iron			AC700G	430	.10	.12	.010	.012
	Ductile			AC410K	265	.08	.10	.008	.010
	Aluminum			H1	660	.10	.12	.010	.012
SW25	Carbon Steel	3.460	.016	AC820P	530	.10	.12	.010	.012
	Alloy Steel			AC820P	460	.08	.12	.008	.010
	Stainless Steel			AC630M	295	.08	.12	.008	.010
	Cast Iron			AC700G	460	.12	.16	.010	.012
	Ductile			AC410K	295	.10	.12	.008	.010
	Aluminum			H1	660	.12	.16	.012	.014
SW32	Carbon Steel	4.060	.031	AC820P	660	.14	.18	.012	.016
	Alloy Steel			AC820P	595	.12	.16	.010	.014
	Stainless Steel			AC630M	330	.12	.16	.010	.014
	Cast Iron			AC700G	595	.16	.22	.012	.016
	Ductile			AC410K	330	.14	.18	.010	.014
	Aluminum			H1	725	.16	.20	.012	.016
SW41	Carbon Steel	4.060	.031	AC820P	660	.18	.22	.014	.018
	Alloy Steel			AC820P	595	.16	.20	.012	.016
	Stainless Steel			AC630M	330	.16	.20	.012	.016
	Cast Iron			AC700G	595	.20	.28	.014	.018
	Ductile			AC410K	330	.16	.24	.012	.016
	Aluminum			H1	725	.20	.28	.014	.018
SW53	Carbon Steel	4.060	.031	AC820P	725	.24	.32	.016	.020
	Alloy Steel			AC820P	660	.20	.24	.014	.018
	Stainless Steel			AC630M	395	.20	.24	.014	.018
	Cast Iron			AC700G	660	.32	.39	.016	.020
	Ductile			AC410K	330	.24	.32	.014	.018
	Aluminum			H1	825	.32	.39	.018	.022
SW68 SW98 SW148	Carbon Steel	4.060	.031	AC820P	725	.32	.39	.016	.020
	Alloy Steel			AC820P	660	.28	.35	.014	.018
	Stainless Steel			AC630M	395	.28	.35	.014	.018
	Cast Iron			AC700G	660	.35	.47	.016	.020
	Ductile			AC410K	330	.32	.39	.014	.018
	Aluminum			H1	825	.35	.47	.018	.022

- This table is a guideline for selecting cutting parameters; adjust them as needed according to the machine and workpiece conditions
- For blind holes; adjust the parameters by observing the chip evacuation
- Cermet T1500A is recommended for good surface finish for light roughing of steel
- AC830P is recommended for interrupted cutting of steel
- AC820P is recommended for interrupted cutting of ductile cast iron
- For step cutting; it is recommended to increase the depth of cut by 1.6 times and reduce the feed rate by 60%

Spindle Speed Calculation

$N = SFM \times 3.82 / D$

N: Spindle Speed
SFM: Cutting Speed
D: Diameter

SW E TYPE/A TYPE (50 TAPER)

Head	Workpiece Material	A	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)		Feed f (IPR)	
			Nose Radius	Grade		Recommended	Max	Recommended	Max
SW20	Carbon Steel	2.870	.016	AC820P	495	.08	.10	.008	.010
	Alloy Steel			AC820P	430	.06	.08	.008	.010
	Stainless Steel			AC630M	265	.06	.08	.008	.010
	Cast iron			AC700G	430	.10	.12	.010	.012
	Ductile Iron			AC410K	265	.08	.10	.008	.010
	Aluminum			H1	660	.10	.12	.010	.012
SW25	Carbon Steel	4.210	.016	AC820P	495	.10	.14	.010	.012
	Alloy Steel			AC820P	430	.08	.12	.008	.010
	Stainless Steel			AC630M	265	.08	.12	.008	.010
	Cast iron			AC700G	430	.12	.16	.010	.012
	Ductile			AC410K	265	.10	.12	.008	.010
	Aluminum			H1	660	.12	.16	.012	.014
SW32	Carbon Steel	4.800	.031	AC820P	595	.14	.18	.012	.016
	Alloy Steel			AC820P	530	.12	.16	.010	.014
	Stainless Steel			AC630M	330	.12	.16	.010	.014
	Cast iron			AC700G	530	.16	.22	.012	.016
	Ductile			AC410K	330	.14	.18	.010	.014
	Aluminum			H1	660	.16	.20	.012	.016
SW41	Carbon Steel	4.800	.031	AC820P	660	.18	.22	.014	.018
	Alloy Steel			AC820P	595	.16	.20	.012	.016
	Stainless Steel			AC630M	330	.16	.20	.012	.016
	Cast iron			AC700G	595	.20	.28	.014	.018
	Ductile			AC410K	330	.16	.24	.012	.016
	Aluminum			H1	725	.20	.28	.014	.018
SW53	Carbon Steel	4.800	.031	AC820P	725	.28	.35	.016	.022
	Alloy Steel			AC820P	660	.24	.31	.014	.020
	Stainless Steel			AC630M	395	.24	.31	.014	.020
	Cast iron			AC700G	660	.35	.47	.018	.022
	Ductile			AC410K	395	.28	.39	.014	.020
	Aluminum			H1	825	.35	.47	.018	.022
SW68	Carbon Steel	4.800	.031	AC820P	725	.39	.47	.016	.024
	Alloy Steel			AC820P	660	.31	.47	.014	.022
	Stainless Steel			AC630M	395	.31	.39	.014	.022
	Cast iron			AC700G	660	.39	.55	.018	.024
	Ductile			AC410K	395	.35	.47	.014	.022
	Aluminum			H1	825	.39	.47	.018	.024
SW98 SW148	Carbon Steel	4.800	.031	AC820P	725	.39	.47	.016	.024
	Alloy Steel			AC820P	660	.31	.47	.014	.022
	Stainless Steel			AC630M	395	.31	.39	.014	.022
	Cast iron			AC700G	660	.39	.55	.018	.024
	Ductile			AC410K	395	.35	.47	.014	.022
	Aluminum			H1	825	.39	.47	.018	.024
TW200 ≤ ø13.38	Carbon Steel	6.770	.031	AC820P	725	.39	.47	.016	.024
	Alloy Steel			AC820P	660	.31	.47	.014	.022
	Stainless Steel			AC630M	395	.31	.39	.014	.022
	Cast iron			AC700G	660	.39	.55	.018	.024
	Ductile			AC700G	395	.35	.47	.014	.022
	Aluminum			H1	825	.39	.47	.018	.024
TW200 > ø13.38	Carbon Steel	6.770	.031	AC820P	725	.28	.35	.016	.024
	Alloy Steel			AC820P	660	.24	.31	.014	.022
	Stainless Steel			AC630M	395	.24	.31	.014	.022
	Cast iron			AC700G	660	.28	.39	.018	.024
	Ductile			AC700G	395	.24	.31	.014	.022
	Aluminum			H1	825	.28	.35	.018	.024

SW N TYPE

Head	Workpiece Material	A	Grade	Cutting Speed (RPM)	Cutting Depth (in./ø)		Feed f (IPR)	
					Recommended	Max	Recommended	Max
SW32	Carbon Steel	4.06	CW20PA	600	.120	.160	.012	.016
	Stainless Steel		CW20PA	530	.100	.140	.010	.014
	Alloy Steel		CW15KA	530	.140	.200	.012	.016
	Cast Iron		CW15KA	330	.120	.160	.010	.014
SW41	Carbon Steel	4.06	CW20PA	660	.140	.200	.012	.016
	Stainless Steel		CW20PA	600	.120	.180	.010	.014
	Alloy Steel		CW15KA	600	.160	.255	.014	.018
	Cast Iron		CW15KA	330	.120	.220	.012	.016
SW53	Carbon Steel	4.06	CW20PA	725	.240	.315	.016	.020
	Stainless Steel		CW20PA	660	.200	.235	.014	.018
	Alloy Steel		CW15KA	660	.315	.400	.016	.020
	Cast Iron		CW15KA	330	.235	.315	.014	.018
SW68 SW98 SW148	Carbon Steel	4.06	CW20PA	725	.315	.400	.016	.020
	Stainless Steel		CW20PA	660	.200	.315	.014	.018
	Alloy Steel		CW15KA	660	.355	.470	.016	.020
	Cast Iron		CW15KA	330	.315	.400	.014	.018

Application Examples

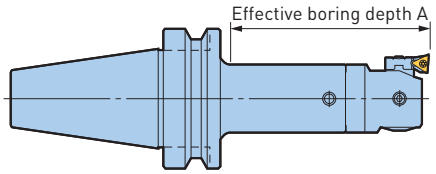
Rough Boring of Carbon Steel (S55C) Using SMART DAMPER SW Head

Machine		Horizontal MC (BBT50)
Insert	E Type	CCMM120404EFM
	A Type	SCMM120404EFM
Workpiece Material		S55C
Cutting Speed (SFM)		1,650
Feed f ("/rev)		.016
Cutting Depth ("/dia)		.275
Coolant		Water-Soluble (Center Through)

Head	Holder	Extension	Effective Boring Depth (in)	Cartridge	
				E Type	A Type
CKB5-SW53DP-220	BBT50-CKB5-228	None	15.9	O	O
	BBT50-CKB5-263	None	17.3	O	Chatter
		CKB55-60	19.7	O	Chatter

The SMART DAMPER SW head enabled stable rough boring without chatter, even at lengths of L/D = 6 or greater. Additionally, stable machining was achieved at even longer lengths by selecting an E-type cartridge with a 0° approach angle.

EWN/EWE/EWB BORING HEAD



(40 Taper)

Head	Workpiece Material	A	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)	Feed f (IPR)	
			Nose Radius	Grade			Recommended	Max
EWN20	Carbon Steel/Alloy Steel	2.874	.008	T1500A	530	.006	.002	.005
	Stainless Steel		.008	AC520U	400	.006	.002	.004
	Hardened Steel		.008	BN2000	230	.004	.002	.004
	Cast Iron		.008	H1	400	.008	.002	.005
	Ductile Iron		.008	H1ZX	330	.006	.002	.004
	Ductile Iron (CBN)		.008	BNC500	400	.006	.002	.004
	Aluminum		.008	H1	660	.008	.002	.005
	Aluminum (PCD)		.008	DA2200	990	.008	.002	.005
EWN25	Carbon Steel/Alloy Steel	3.465	.008	T1500A	600	.006	.002	.005
	Stainless Steel		.008	AC520U	460	.006	.002	.005
	Hardened Steel		.008	BN2000	265	.004	.002	.004
	Cast Iron		.008	H1	460	.008	.002	.005
	Ductile Iron		.008	H1ZX	400	.006	.002	.005
	Ductile Iron (CBN)		.008	BNC500	600	.006	.002	.004
	Aluminum		.008	H1	660	.008	.002	.005
	Aluminum (PCD)		.008	DA2200	1320	.008	.002	.005
EWN32 EWB32	Carbon Steel/Alloy Steel	4.055	.008	T1500A	660	.008	.002	.005
	Stainless Steel		.008	AC520U	530	.008	.002	.005
	Hardened Steel		.008	BN2000	330	.004	.002	.004
	Cast Iron		.008	H1	530	.008	.002	.005
	Ductile Iron		.008	H1ZX	400	.006	.002	.005
	Ductile Iron (CBN)		.008	BNC500	660	.006	.002	.004
	Aluminum		.016	H1	990	.008	.004	.008
	Aluminum (PCD)		.016	DA2200	2640	.008	.004	.008
EWN41 EWE41 EWB41	Carbon Steel/Alloy Steel	4.055	.008	T1500A	660	.008	.002	.005
	Stainless Steel		.008	AC520U	530	.008	.002	.005
	Hardened Steel (CBN)		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	530	.008	.004	.008
	Ductile Iron		.016	H1ZX	400	.006	.004	.006
	Ductile Iron (CBN)		.016	BNC500	660	.006	.004	.006
	Aluminum		.016	H1	990	.008	.005	.008
	Aluminum (PCD)		.016	DA2200	2640	.008	.005	.008
EWN53 EWE53 EWB53 EWN68 EWE68 EWB68 EWB85 EWN100 EWE100	Carbon Steel/Alloy Steel	4.055	.016	T1500A	825	.010	.004	.008
	Stainless Steel		.016	AC520U	600	.010	.004	.008
	Hardened Steel (CBN)		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	600	.010	.004	.008
	Ductile Iron		.016	H1ZX	400	.008	.004	.008
	Ductile Iron (CBN)		.016	BNC500	660	.008	.004	.008
	Aluminum		.031	H1	990	.010	.006	.012
	Aluminum (PCD)		.016	DA2200	2640	.010	.005	.008

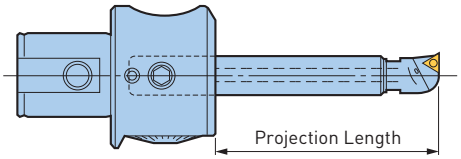
(50 Taper)

Head	Workpiece Material	A	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)	Feed f (in./rev)	
			Nose Radius	Grade			Recommended	Max
EWN20	Carbon Steel/Alloy Steel	2.874	.008	T1500A	530	.006	.002	.005
	Stainless Steel		.008	AC520U	400	.006	.002	.004
	Hardened Steel		.008	BN2000	230	.004	.002	.004
	Cast Iron		.008	H1	400	.008	.002	.005
	Ductile Iron		.008	H1ZX	330	.006	.002	.004
	Ductile Iron (CBN)		.008	BNC500	400	.006	.002	.004
	Aluminum		.008	H1	660	.008	.002	.005
	Aluminum (PCD)		.008	DA2200	990	.008	.002	.005
EWN25	Carbon Steel/Alloy Steel	4.213	.008	T1500A	600	.006	.002	.005
	Stainless Steel		.008	AC520U	460	.006	.002	.005
	Hardened Steel		.008	BN2000	265	.004	.002	.004
	Cast Iron		.008	H1	460	.008	.002	.005
	Ductile Iron		.008	H1ZX	400	.006	.002	.005
	Ductile Iron (CBN)		.008	BNC500	600	.006	.002	.004
	Aluminum		.008	H1	660	.008	.002	.005
	Aluminum (PCD)		.008	DA2200	1320	.008	.002	.005
EWN32 EWB32	Carbon Steel/Alloy Steel	4.803	.008	T1500A	660	.008	.002	.005
	Stainless Steel		.008	AC520U	530	.008	.002	.005
	Hardened Steel		.008	BN2000	330	.004	.002	.004
	Cast Iron		.008	H1	530	.008	.002	.005
	Ductile Iron		.008	H1ZX	400	.006	.002	.005
	Ductile Iron (CBN)		.008	BNC500	660	.006	.002	.004
	Aluminum		.016	H1	990	.008	.004	.008
	Aluminum (PCD)		.016	DA2200	2640	.008	.004	.008
EWN41 EWE41 EWB41	Carbon Steel/Alloy Steel	4.803	.008	T1500A	660	.008	.002	.005
	Stainless Steel		.008	AC520U	530	.008	.002	.005
	Hardened Steel		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	530	.008	.004	.008
	Ductile Iron		.016	H1ZX	400	.006	.004	.006
	Ductile Iron (CBN)		.016	BNC500	660	.006	.004	.006
	Aluminum		.016	H1	990	.008	.005	.008
	Aluminum (PCD)		.016	DA2200	2640	.008	.005	.008
EWN53 EWE53 EWB53	Carbon Steel/Alloy Steel	4.803	.016	T1500A	825	.010	.004	.008
	Stainless Steel		.016	AC520U	600	.010	.004	.008
	Hardened Steel		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	600	.010	.004	.008
	Ductile Iron		.016	HNZX	400	.008	.004	.008
	Ductile Iron (CBN)		.016	BNC500	660	.008	.004	.008
	Aluminum		.031	H1	990	.010	.006	.012
	Aluminum (PCD)		.016	DA2200	2640	.010	.005	.008
EWN68 EWE68 EWB68 EWB85 EWN100 EWE100	Carbon Steel/Alloy Steel	4.803	.016	T1500A	825	.010	.004	.008
	Stainless Steel		.016	AC520U	600	.010	.004	.008
	Hardened Steel		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	600	.010	.004	.008
	Ductile Iron		.016	H1ZX	400	.008	.004	.008
	Ductile Iron (CBN)		.016	BNC500	660	.008	.004	.008
	Aluminum		.031	H1	990	.010	.006	.012
	Aluminum (PCD)		.031	DA2200	2640	.010	.006	.012
EWN200 (CK7)	Carbon Steel/Alloy Steel	6.772	.016	T1500A	825	.010	.004	.008
	Stainless Steel		.016	AC520U	600	.010	.004	.008
	Hardened Steel		.016	BN2000	330	.004	.003	.005
	Cast Iron		.016	H1	600	.010	.004	.008
	Ductile Iron		.016	H1ZX	400	.008	.004	.008
	Ductile Iron (CBN)		.016	BNC500	660	.008	.004	.008
	Aluminum		.031	H1	990	.010	.006	.012
	Aluminum (PCD)		.031	DA2200	2640	.010	.006	.012

CENTRIC BORING BAR TYPE

Recommended Cutting Conditions

- This table is a guideline for selecting cutting parameters; adjust them as needed according to the machine and workpiece conditions
- If chatter occurs, either lower the cutting speed or use an insert with a smaller nose radius
- Internal high pressure coolant may cause deflection of the boring bar holder; lower the pressure when close tolerance is required
- Coated cermet T2000Z or T2500F is recommended to reduce wear when machining steel
- Dry cutting is recommended for CBN BN2000, BNC200, BNC500 and BN7000 inserts



Max Spindle Speed for Centric Boring Bar Type

Head	Max Spindle Speed (RPM)
EWN04-15E-CK3	20,000
EWN2-22E-CK4	18,000
EWE2-32-CK5	16,000
EWN2-32E-CK5	14,000
EWE2-54CK6	14,000
EWN2-54E(M)-CK6	10,000

The max spindle speeds listed in this table are the speeds allowable for safe use of the boring head only. Note that these values differ depending on the boring bar used, machine rigidity, etc.

JIG BORING CUTTER

Workpiece	Model	Cutting Speed (SFM)	Cutting Depth (in./ø)	Feed f (in./rev)
Carbon Steel Alloy Steel	RBE1	80	.001	.001
	RBE1.5			
	RBE2	165	.002	
	RBE3			
	RBE4	200	.002	
	RBE5			
	RBE7	265	.004	
	RBE9			
Aluminum	RBE1	100	.001	.001
	RBE1.5			
	RBE2	200	.002	
	RBE3			
	RBE4	265	.002	
	RBE5			
	RBE7	330	.004	
	RBE9			

CENTRIC BORING BAR TYPE ST05 / ST06 (ø.236"-.354")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	.787	.008	T1500A T1200A	330	.008
	1.575			230	.008
	1.969			165	.008
	2.362			100	.004
Stainless Steel	.787	.008	T1500A T1200A	300	.008
	1.575			200	.008
	1.969			130	.008
	2.362			100	.004
Hardened Steel	.787	.008	NB10HA NBX20	200	.004
	1.181			130	.004
Cast Iron	.787	.008	H1	330	.008
	1.575			230	.008
	1.969			165	.008
	2.362			100	.004
Aluminum	.787	.008	H1	400	.008
	1.575			330	.008
	1.969			265	.008
	2.362			200	.008

- Red figures are achievable with boring bars made of carbide
- Feed Rate Selection information; pg. 534

CENTRIC BORING BAR TYPE ST08 (ø.354"-.472")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	.787	.008	T1500A T1200A	330	.008
	1.575			230	.008
	1.969			165	.008
	2.362			100	.004
Stainless Steel	.787	.008	T1500A T1200A	300	.008
	1.575			200	.008
	1.969			130	.008
	2.362			100	.004
Hardened Steel	.787	.008	NB10HA NBX20	200	.004
	1.181			130	.004
Cast Iron	.787	.008	H1	330	.008
	1.575			230	.008
	1.969			165	.008
	2.362			100	.004
Aluminum	.787	.008	H1	400	.008
	1.575			330	.008
	1.969			265	.008
	2.362			200	.008

- Red figures are achievable with boring bars made of carbide
- Feed Rate Selection information; pg. 534

CENTRIC BORING BAR TYPE ST10 (ø.472"-.551")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	1.181	.008	T1500A	400	.008
	1.772			460	.008
	2.362			330	.008
	2.756			250	.006
	3.150	.004	A1	165	.004
Stainless Steel	1.181	.008	AC520U	400	.008
	1.772			430	.008
	2.362			300	.008
	2.756			180	.006
	3.150	.004	A1	130	.004
Hardened Steel	1.181	.008	BN2000	260	.004
	1.772			200	.004
	2.362			100	.004
Cast Iron	1.181	.008	H1 (FN)	400	.008
	1.772			430	.008
	2.362			300	.006
	2.953			200	.006
	3.543	.004	A1	100	.004
Aluminum	1.181	.008	H1 (FLA)	500	.010
	1.772			600	.010
	2.362			500	.008
	2.953			300	.008
	3.543	.004	A1	200	.006

- Red figures are achievable with boring bars made of carbide
- Feed Rate Selection information; pg. 534

CENTRIC BORING BAR TYPE ST12 (ø.551"-.630")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	1.575	.008	T1500A	400	.008
	2.362			600	.008
	3.150			500	.008
	3.740			300	.006
	4.331	.004	A1	165	.004
Stainless Steel	1.575	.008	AC520U	400	.008
	2.362			430	.008
	3.150			330	.008
	3.740			230	.006
	4.331	.004	A1	130	.004
Hardened Steel	1.575	.008	BN2000	265	.004
	1.969			200	.004
	2.559			100	.004
Cast Iron	1.575	.008	H1 (FN)	400	.008
	2.362			430	.008
	3.150			330	.006
	3.740			230	.006
	4.331	.004	A1	130	.004
Aluminum	1.575	.008	H1 (FLA)	500	.010
	2.362			660	.010
	3.150			600	.008
	3.937			430	.008
	4.724	.004	A1	200	.006

- Red figures are achievable with boring bars made of carbide
- Feed Rate Selection information; pg. 534

CENTRIC BORING BAR TYPE ST14 (ø.630"-.709")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	1.772	.008	T1500A	430	.008
	2.559			600	.008
	3.150			500	.008
	3.937			300	.006
	4.724	.004	A1	165	.004
Stainless Steel	1.772	.008	AC520U	400	.008
	2.559			430	.008
	3.150			400	.008
	3.937			265	.006
	4.724	.004	A1	130	.004
Hardened Steel	1.772	.008	BN2000	265	.004
	2.362			200	.004
	2.953			100	.004
Cast Iron	1.772	.008	H1 (FN)	400	.008
	2.559			430	.008
	3.150			400	.006
	3.937			265	.006
	4.724	.004	A1	130	.004
Aluminum	1.772	.016	H1 (FLA)	500	.010
	2.559			660	.010
	3.150	.008		600	.008
	3.937			400	.008
	4.724	.004	A1	200	.006

- Red figures are achievable with boring bars made of carbide
- Feed Rate Selection information; pg. 534

BORING BAR ST16
(ø.709"-1.969")

Workpiece	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)
		Nose Radius	Grade		
Carbon Steel Alloy Steel	1.772	.016	T1500A	430	.008
	2.362			600	.008
	3.150	.008		500	.008
	4.331			300	.006
	5.512	.004	A1	165	.004
Stainless Steel	1.772	.016	AC520U	400	.008
	2.362			430	.008
	3.150	.008		400	.008
	4.331			265	.006
	5.512	.004	A1	130	.004
Hardened Steel	1.772	.008	BN2000	265	.004
	2.362			200	.004
	3.150			100	.004
Cast Iron	1.772	.016	H1 (FN)	400	.008
	2.362			430	.008
	3.150	.008		400	.006
	4.331			265	.006
	5.512	.004	A1	130	.004
Aluminum	1.772	.016	H1 (FLA)	500	.010
	2.362			660	.010
	3.150	.008		600	.008
	4.331			400	.008
	5.512	.004	A1	200	.006

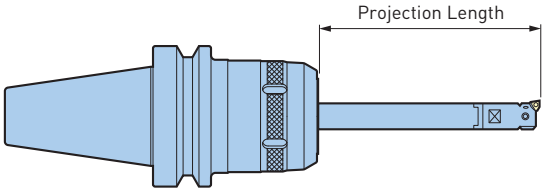
• Red figures are achievable with boring bars made of carbide

Feed Rate Selection

Suitable feed rate varies depending on the desired accuracy. Refer to the following formula and determine the best parameters.

- In general, nose radius .008" should be used with f = .002" and radius .016" with f = .004"
- These values are reference only

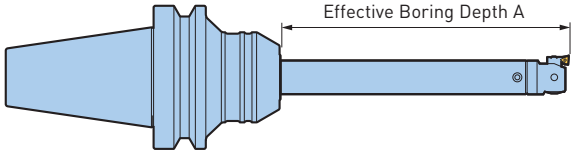
EW MICRO HEAD



Workpiece	Projection Length	Diameter: ø.590 - .709				Diameter ø.709 - .866			
		ST14W-EW15E-110 (140)				ST16W-EW18E-100 (160)			
		Insert		Cutting Speed	Cutting Depth	Insert		Cutting Speed	Cutting Depth
		Nose Radius	Grade	SFM	in./ø	Nose Radius	Grade	SFM	in./ø
Carbon Steel Alloy Steel	.787	.008	T1200A	660	.008	.008	T1200A	660	.008
	1.575			660	.008			660	.008
	2.362			600	.008			660	.008
	3.150			530	.006			600	.007
	3.937			400	.006			500	.006
	4.724			230	.004			330	.004
	5.512			100	.004			200	.004
	6.299			—	—			100	.004
Stainless Steel	.787	.008	T1200A	500	.008	.008	T1200A	500	.008
	1.575			500	.008			500	.008
	2.362			500	.008			500	.008
	3.150			430	.006			460	.007
	3.937			330	.006			400	.006
	4.724			230	.004			330	.004
	5.512			100	.004			200	.004
	6.299			—	—			100	.004
Cast Iron	.787	.008	H1	500	.008	.008	H1	500	.008
	1.575			500	.008			500	.008
	2.362			460	.008			500	.008
	3.150			400	.006			460	.007
	3.937			330	.006			400	.006
	4.724			200	.004			330	.004
	5.512			100	.004			200	.004
	6.299			—	—			100	.004
Aluminum	.787	.008	H1	925	.008	.008	H1	1060	.008
	1.575			925	.008			1060	.008
	2.362			925	.008			1060	.008
	3.150			825	.008			925	.008
	3.937			600	.006			725	.006
	4.724			330	.005			530	.005
	5.512			200	.005			330	.005
	6.299			—	—			200	.004

- This table is a guideline for selecting cutting parameters; adjust them as needed according to the machine and workpiece conditions
- Internal high pressure coolant may cause deflection of the holder; lower the pressure when close tolerance is required
- These conditions are determined when the boring bar is mounted on the BIG NEW Hi-POWER MILLING CHUCK or NEW BABY CHUCK

CK CARBIDE BAR



Head	Workpiece Material	Projection Length	Insert		Cutting Speed (SFM)	Cutting Depth (in./ø)	Feed f (IPR)	
			Nose Radius	Grade			Recommended	Max
EWN20	Carbon Steel	3.543	.008	T1500A	660	.008	.002	.005
		5.906	.008	T1500A	400	.008	.002	.005
		6.890	.008	T1500A	200	.006	.002	.004
		7.874	.008	T1500A	80	.006	.002	.004
	Cast Iron	3.543	.008	H1 (FN)	600	.008	.002	.005
		5.906	.008	H1 (FN)	400	.008	.002	.005
		6.890	.008	H1 (FN)	200	.006	.002	.004
		7.874	.008	H1 (FN)	80	.006	.002	.004
	Aluminum	3.543	.008	DA2200	1320	.008	.002	.005
		5.906	.008	H1 (FLA)	660	.008	.002	.005
		6.890	.008	H1 (FLA)	330	.008	.002	.004
		7.874	.008	H1 (FLA)	130	.006	.002	.004
		9.055	.004	A1 (FLA)	80	.006	.002	.003
EWN25	Carbon Steel	4.921	.016	T1500A	660	.010	.003	.006
		6.890	.008	T1500A	400	.008	.002	.005
		7.874	.008	T1500A	200	.008	.002	.004
		9.843	.008	T1500A	80	.006	.002	.004
	Cast Iron	4.921	.016	H1 (FN)	600	.010	.003	.006
		6.890	.008	H1 (FN)	400	.008	.002	.005
		7.874	.008	H1 (FN)	200	.008	.002	.004
		9.843	.008	H1 (FN)	80	.006	.002	.004
	Aluminum	4.921	.016	DA2200	1650	.010	.003	.006
		6.890	.016	H1 (FLA)	660	.010	.003	.006
		7.874	.008	H1 (FLA)	330	.008	.002	.004
		9.843	.008	H1 (FLA)	130	.008	.002	.004
		11.220	.004	A1 (FLA)	80	.006	.002	.003
EWN32 EWB32	Carbon Steel	5.315	.016	T1500A	660	.010	.003	.006
		6.299	.008	T1500A	430	.008	.002	.005
		7.874	.008	T1500A	260	.008	.002	.004
		9.843	.008	T1500A	80	.006	.002	.004
	Cast Iron	5.315	.016	H1 (FN)	600	.010	.003	.006
		6.299	.008	H1 (FN)	430	.008	.002	.005
		7.874	.008	H1 (FN)	260	.008	.002	.004
		9.843	.008	H1 (FN)	80	.006	.002	.004
	Aluminum	5.315	.016	DA2200	1650	.010	.003	.006
		6.299	.016	H1 (FLA)	730	.010	.003	.006
		7.874	.008	H1 (FLA)	400	.008	.002	.004
		9.843	.008	H1 (FLA)	130	.008	.002	.004
		12.205	.004	A1 (FLA)	80	.006	.002	.003

- This table is a guideline for selecting cutting parameters; adjust them as needed according to the machine and workpiece conditions
- Internal high pressure coolant may cause deflection of the holder; lower the pressure when close tolerance is require.
- Coated cermet T2000Z or T2500F is recommended to reduce wear when machining steel.
- T130A is recommended to prevent edge chipping for interrupted cutting of steel
- These conditions are determined when the boring bar is mounted on the BIG HYDRAULIC CHUCK

CUTTING SPEED SELECTION GRAPH FOR CUTTING STEEL

Chatter is always an issue in boring. The figure at right shows how the cutting speed (rotational speed) inevitably decreases as the bar becomes longer.

Refer to the cutting conditions listed in this graph and on the previous pages when selecting the optimum cutting conditions.

For cast iron, 10-20% longer projection length is generally permissible.

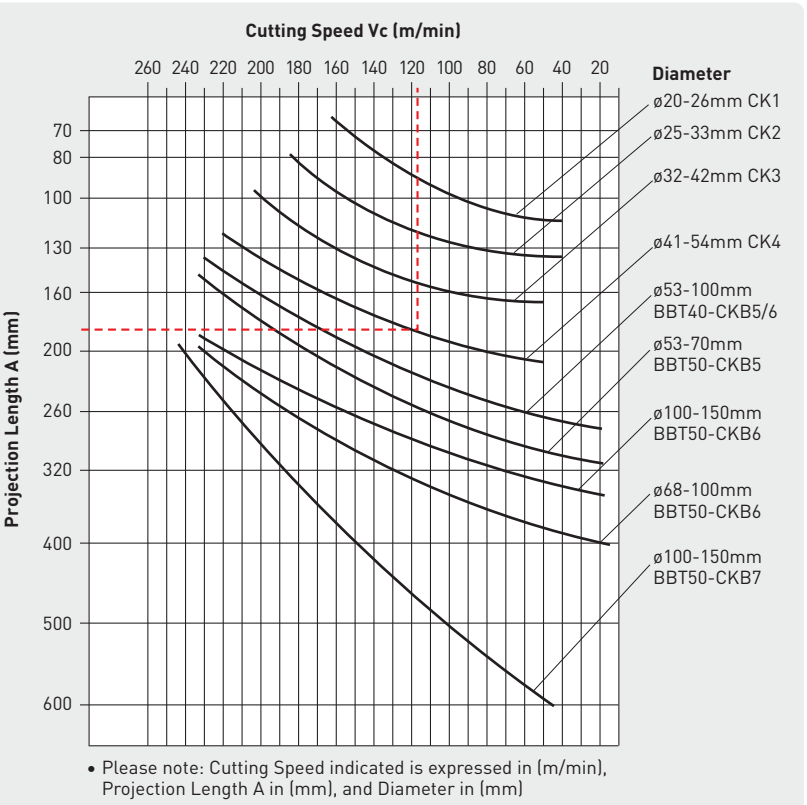
Reference Example

Indicated by ------- in the graph at right

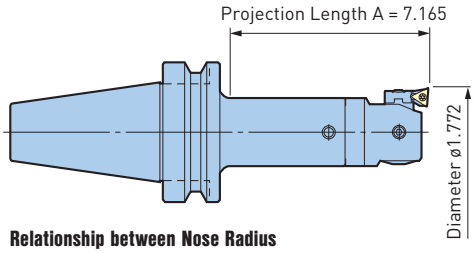
Reference example shows the projection length A of 182mm; and the diameter of ø45mm (ø41-54mm CK4).

The recommended cutting speed is 118m/min.

Select an appropriate cutting speed based on this reference example.

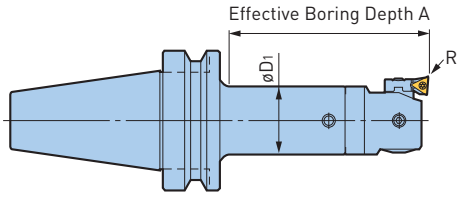


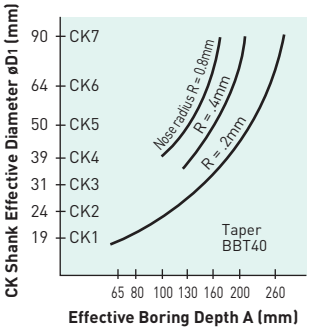
• Please note: Cutting Speed indicated is expressed in (m/min), Projection Length A in (mm), and Diameter in (mm)

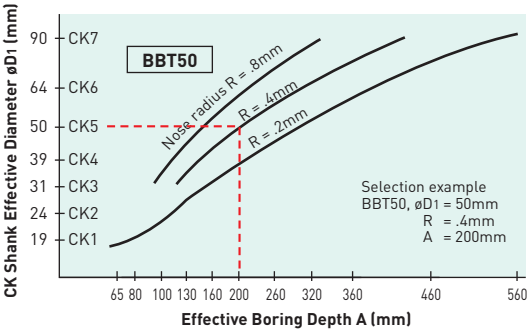


Relationship between Nose Radius and Effective Boring Depth

The insert nose radius and boring bar length (machining depth limit) are closely related. Refer to the graph below when selecting a CK Shank. Depths 1.1 - 1.3 times greater than listed in the graph are possible for cast iron (FC). Refer to the cutting conditions table on the previous page for information about cutting conditions. The cutting speed, in particular, inevitably decreases when the bar projection length increases. Refer to the above graph for details.







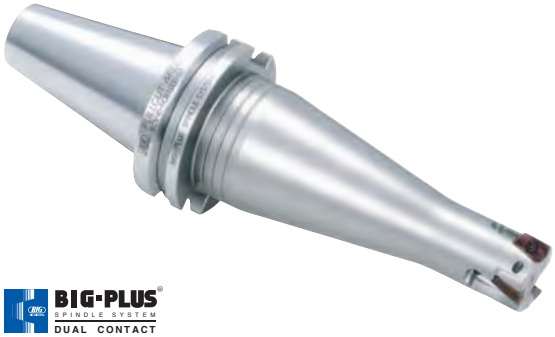
BIG DAISHOWA

CUTTING TOOLS

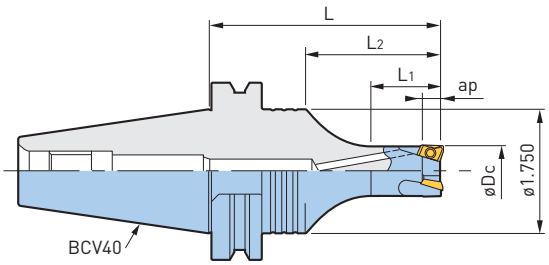
C.1

FULLCUT MILL (FCR TYPE, INCH STYLE)

ASME B5.50-1994



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	øDc	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BCV40-FCR.750-5.5	.750	.315	5.500	1.250	4.120	3	BRG200808	3.8
BCV40-FCR1.000-5.5	1.000	.315	5.500	1.500	4.120	3	BRG250808	4.0
BCV40-FCR1.250-5.5	1.250	.394	5.500	1.500	4.120	3	BRG3210□□	4.2

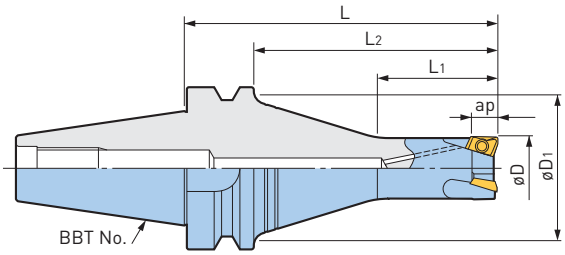
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

FULLCUT MILL (FCR TYPE, METRIC STYLE)

JIS B6339

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



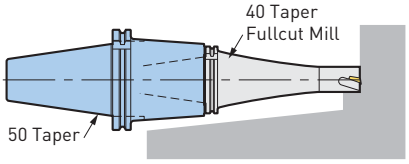
Catalog Number	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BBT30-FCR16082-65	16mm (.630)	1.575	.315	2.559	1.102	1.693	2	BRG160808	1.0
BBT30-FCR20083-65	20mm (.787)			2.559	1.102	1.693	3	BRG200808	1.1
BBT30-FCR25083-65	25mm (.984)			2.559	1.299	1.693		BRG250808	1.1
BBT30-FCR25083-105		1.654		1.654	1.378	3.268			1.6
BBT30-FCR32103-65	32mm (1.260)	1.575	.394	2.559	1.575	1.693		BRG3210□□	1.2
BBT30-FCR32103-105		1.654		1.654	1.772	3.268			1.8
BBT40-FCR16082-85	16mm (.630)	2.362	.315	3.346	.984	2.283	2	BRG160808	2.6
BBT40-FCR16082-120				4.724	1.181	3.661			3.3
BBT40-FCR16082-135				5.315	.984	4.252			3.5
BBT40-FCR20083-85	20mm (.787)	2.362	.315	3.346	1.378	2.283	3	BRG200808	2.7
BBT40-FCR20083-120				4.724	1.181	3.661			3.3
BBT40-FCR20083-135				5.315	1.181	4.252			3.5
BBT40-FCR25083-85	25mm (.984)	2.362	.315	3.346	1.575	2.283	3	BRG250808	2.6
BBT40-FCR25083-120				4.724	1.772	3.661			3.3
BBT40-FCR25083-135				5.315	1.378	4.252			3.7
BBT40-FCR32103-85	32mm (1.260)	2.362	.394	3.346	1.772	2.283	3	BRG3210□□	2.9
BBT40-FCR32103-120				4.724	1.969	3.661			3.5
BBT40-FCR32103-135				5.315	1.575	4.252			4.0

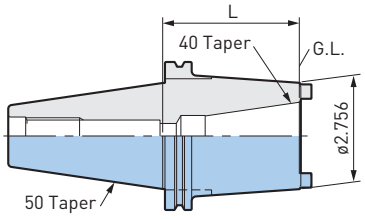
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

50 TAPER SHANK ADAPTER

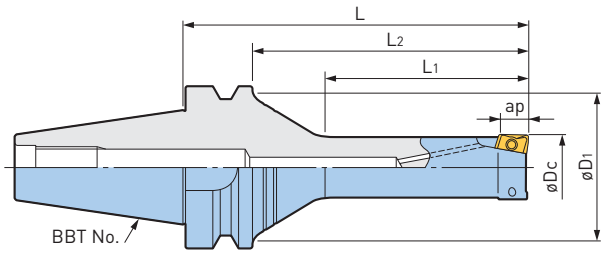
Catalog Number	L
BBT50-BBT40-50	1.969
BBT50-BBT40-90	3.543





FULLCUT MILL (FCR TYPE LONG NOSE, METRIC STYLE)

JIS B6339



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

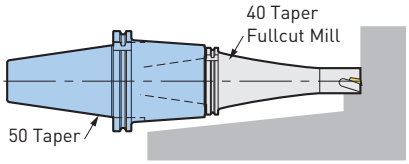
Catalog Number	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BBT30-FCR16082L-85	16mm (.630)	1.575	.315	3.346	1.772	2.480	2	BRG160808	1.1
BBT30-FCR20082L-85	20mm (.787)			3.346	1.969	2.480		BRG200808	1.2
BBT30-FCR25082L-85	25mm (.984)			3.346	1.969	2.480		BRG250808	1.3
BBT30-FCR32102L-85	32mm (1.260)		.394	3.346	2.362	2.480		BRG3210□□	1.5
BBT40-FCR16082L-105	16mm (.630)	2.362	.315	4.134	1.772	3.071	2	BRG160808	2.9
BBT40-FCR16082L-120				4.724	1.772	3.661			3.1
BBT40-FCR20082L-120	20mm (.787)	2.362	.315	4.724	2.362	3.661	2	BRG200808	3.1
BBT40-FCR20082L-135				5.315	2.362	4.252			3.3
BBT40-FCR25082L-135	25mm (.984)	2.362	.315	5.315	2.953	4.252	2	BRG250808	3.3
BBT40-FCR25082L-150				5.906	2.953	4.843			3.7
BBT40-FCR32102L-135	32mm (1.260)	2.362	.394	5.315	3.150	4.252	2	BRG3210□□	3.7
BBT40-FCR32102L-150				5.906	3.543	4.843			4.2

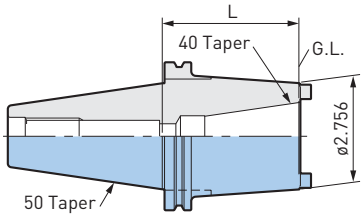
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

50 TAPER SHANK ADAPTER

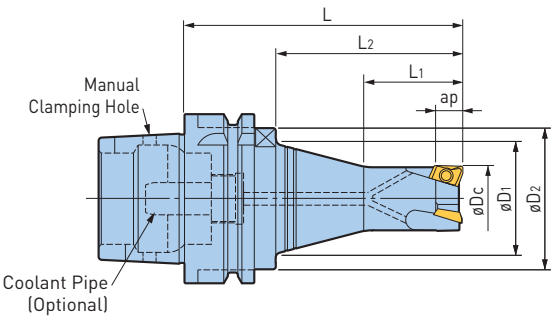
Catalog Number	L
BBT50-BBT40-50	1.969
BBT50-BBT40-90	3.543





FULLCUT MILL (FCR TYPE, METRIC STYLE)

HSK



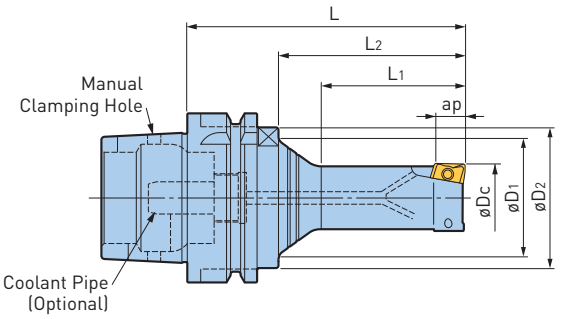
Catalog Number	øDc	øD1	øD2	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
HSK-A63-FCR16082-85	16mm (.630)	1.772	2.087	.315	3.346	.984	2.008	2	BRG160808	2.0
HSK-A63-FCR16082-120					4.724	1.181	3.386			2.4
HSK-A63-FCR16082-135					5.315	.984	3.976			2.6
HSK-A63-FCR20083-85	20mm (.787)	1.772	2.087	.315	3.346	1.260	2.008	3	BRG200808	2.2
HSK-A63-FCR20083-120					4.724	1.181	3.386			2.6
HSK-A63-FCR20083-135					5.315	1.181	3.976			2.9
HSK-A63-FCR25083-85	25mm (.984)	1.772	2.087	.315	3.346	1.378	2.008	3	BRG250808	2.2
HSK-A63-FCR25083-120					4.724	1.772	3.386			2.6
HSK-A63-FCR25083-135					5.315	1.378	3.976			3.1
HSK-A63-FCR32103-85	32mm (1.260)	1.772	2.087	.394	3.346	1.575	2.008	3	BRG3210□□	2.4
HSK-A63-FCR32103-120					4.724	1.969	3.386			3.1
HSK-A63-FCR32103-135					5.315	1.575	3.976			3.3

- ap = length of effective cutting edge
- Coolant pipe and inserts are not included; must be ordered separately

ACCESSORIES

FULLCUT MILL (FCR TYPE LONG NOSE, METRIC STYLE)

HSK



Catalog Number	øDc	øD1	øD2	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
HSK-A63-FCR16082L-85	16mm (.630)	1.772	2.087	.315	3.346	1.575	2.008	2	BRG160808	2.0
HSK-A63-FCR16082L-120					4.724	1.771	3.386			2.2
HSK-A63-FCR20082L-105	20mm (.787)	1.772	2.087	.315	4.134	1.969	2.795	2	BRG200808	2.4
HSK-A63-FCR20082L-120					4.724	2.362	3.386			2.6
HSK-A63-FCR25082L-105	25mm (.984)	1.772	2.087	.315	4.134	2.165	2.795	2	BRG250808	2.4
HSK-A63-FCR25082L-120					4.724	2.559	3.386			2.4
HSK-A63-FCR32102L-120	32mm (1.260)	1.772	2.087	.394	4.724	2.756	3.386	2	BRG3210□□	3.1
HSK-A63-FCR32102L-135					5.315	3.150	3.976			3.1

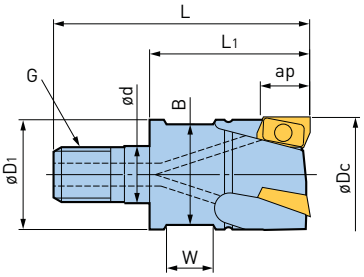
- ap = length of effective cutting edge
- Coolant pipe and inserts are not included; must be ordered separately

ACCESSORIES

COOLANT PIPE
PG. 268

INSERTS
PG. 546

FULLCUT MILL (FCR SCREW-ON)



Catalog Number	øDc	G	ød	øD1	ap	L	L1	No. of Inserts	Spanner Part		Insert	Weight (lbs.)
									B	W		
M8-FCR16082-25	16mm (.630)	M8	.335	.591	.315	1.673	.984	2	12mm	6.2mm	BRG1608□□	.1
M10-FCR20083-30	20mm (.787)	M10	.413	.748		1.929	1.181	3	17mm	8.2mm	BRG2008□□	.1
M12-FCR25083-35	25mm (.984)	M12	.492	.945		2.205	1.378		22mm	10.2mm	BRG2508□□	.2
M16-FCR32102-40	32mm (1.260)	M16	.669	1.142	.394	2.480	1.575	2	26mm	12.2mm	BRG3210□□	.4
M16-FCR32103-40								3				.4

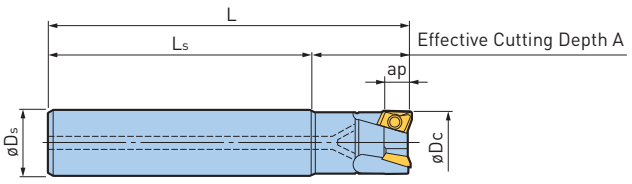
- ap = length of effective cutting edge
- A screwdriver wrench for insert clamps is included; inserts must be ordered separately
- A single-ended spanner for tightening the head is not included; use commercially available products

ACCESSORIES

INSERTS
PG. 546

SCREW-ON HOLDERS
PG. 154/225

FULLCUT MILL (FCR TYPE STRAIGHT SHANK, INCH STYLE)



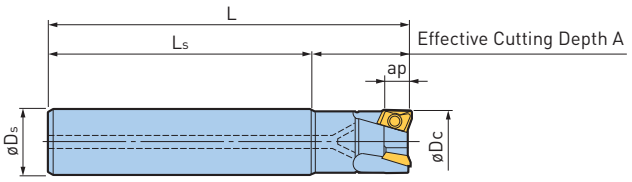
ACCESSORIES

Catalog Number	øDc	øDs	ap	L	A	Ls	No. of Inserts	Insert Model	Weight (lbs.)
ST.750-FCR.750-4	.750	.750	.315	4.000	1.250	2.750	3	BRG200808	.5
ST1.000-FCR1.000-5	1.000	1.000	.315	5.000	1.500	3.500	3	BRG250808	1.1
ST1.250-FCR1.250-5	1.250	1.250	.394	5.000	1.500	3.500	3	BRG3210□□	1.7

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

FULLCUT MILL (FCR TYPE OVERSIZE, METRIC STYLE)

Cutter diameter is ø1mm larger than the shank diameter to avoid any interference with the workpiece.



Cutter Diameter

øDc=øDs+1mm

Catalog Number	øDc	øDs	ap	L	A	Ls	No. of Inserts	Insert Model	Weight (lbs.)
ST15-FCR16082-120	16mm (.630)	15mm (.591)	.315	4.724	.984	3.740	2	BRG160808	.4
ST16-FCR17082-120	17mm (.670)	16mm (.630)	.315	4.724	.984	3.740	2	BRG160808	.4
ST19-FCR20082-165	20mm (.787)	19mm (.748)	.315	6.496	1.181	5.315	2	BRG200808	.9
ST19-FCR20083-135				5.315		4.134	3		.7
ST20-FCR21082-165	21mm (.827)	20mm (.787)	.315	6.496	1.181	5.315	2	BRG200808	.9
ST20-FCR21083-135				5.315		4.134	3		.7
ST24-FCR25082-180	25mm (.984)	24mm (.945)	.315	7.087	1.378	5.709	2	BRG250808	1.5
ST24-FCR25083-150				5.906		4.528	3		1.3
ST25-FCR26082-165	26mm (1.024)	25mm (.984)	.315	6.496	1.496	5.000	2	BRG250808	1.3
ST25-FCR26083-150				5.906		4.409	3		1.3
ST28-FCR32102-180	32mm (1.260)	28mm (1.102)	.394	7.087	1.890	5.197	2	BRG3210□□	2.4
ST28-FCR32103-180				7.087		5.197	3		2.2
ST32-FCR33102-180	33mm (1.299)	32mm (1.260)	.394	7.087	1.890	5.197	2	BRG3210□□	2.4
ST32-FCR33103-180				7.087		5.197	3		2.2

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

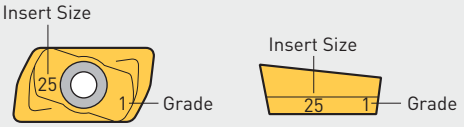
FULLCUT MILL (FCR TYPE)

INDEXABLE INSERTS

Insert Classifications

ISO Material	Grade	Material	Coating
P30	ACP300	General Steel	TiAlN / TiCN
M30	ACM300F	Stainless Steel	
K10	ACZ310	Cast Iron	
N20	DS20	Aluminum	DLC

Marking Description



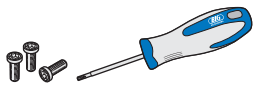
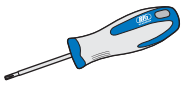
1: ACZ310
2: DS20
P3: ACP300
3F: ACM300F

Cutter Dia.		Insert Model	Effective Cutting Length (ap)	Nose Radius	P	M	K	N
					ACP300	ACM300F	ACZ310	DS20
in	mm				General Steel	Stainless Steel	Cast Iron	Aluminum
.625	16-17	**BRG160808**	.315	.031	○	○	○	○
.750	20-21	**BRG200808**			○	○	○	○
1.000	25-26	**BRG250808**			○	○	○	○
1.250	32-33	**BRG321008**	.394	.031	○	○	○	○
		BRG321032		.125	—	—	—	○

- Inserts are available in packages of 10 pcs.
- Please clarify the insert model and grade when ordering (ex: BRG160808(ACZ350S))

FULLCUT MILL uses a different insert for each cutter diameter and if an incorrect insert is used, a problem will result. There is no compatibility with those of FCM Type.

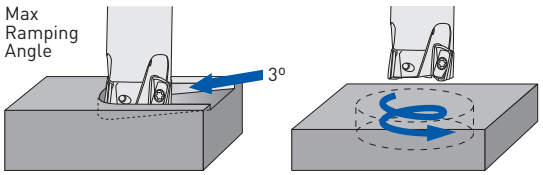
SPARE PARTS

			Insert Clamping Screw Set (10 Screws & 1 Wrench)	**Wrench**
				
Cutter Dia.		Insert Model	Catalog Number	Catalog Number
in	mm			
.625	16-17	BRG160808	**S2506DS**	**DA-T8**
.750	20-21	BRG200808		
1.000	25-26	BRG250808		
1.250	32-33	BRG3210□□	**S3508DS**	**DA-T15**

- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained

FULLCUT MILL (FCR TYPE) CUTTING DATA

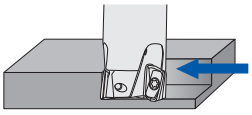
Ramping and Helical Interpolation



øD	Flat Bottom		Through Hole
	Max Hole ø	Min Hole ø	Min Hole ø
.625 (16mm)	1.181	1.063	.866
.750 (20mm)	1.496	1.417	1.142
1.000 (25mm)	1.890	1.772	1.535
1.250 (32mm)	2.441	2.323	1.890

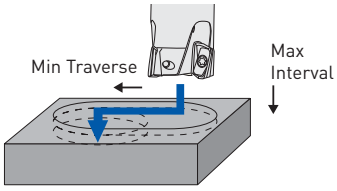
øD	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Prehardened Steel <HRC40	Stainless Steel	Die Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACM300F			ACZ310	DS20
	Cutting Fluid	Dry		Dry	Dry	Dry		Dry/Wet
.630 (16mm) .669 (17mm)	Speed (SFM)	330-655	490-720	195-260	330-490	195-260	330-590	655-3280
	Feed (IPT)	.002-.005	.002-.005	.002-.003	.003-.006	.002-.004	.003-.007	.002-.009
.750 (20mm) 1.024 (26mm)	Speed (SFM)	330-655	490-655	195-330	395-490	195-330	330-590	655-3280
	Feed (IPT)	.003-008	.003-.008	.002-.004	.005-.008	.002-.004	.001-.007	.004-.014
1.250 (32mm) 1.299 (33mm)	Speed (SFM)	330-655	490-655	195-330	395-490	195-395	330-590	655-3280
	Feed (IPT)	.003-.008	.003-.008	.002-.004	.005-.008	.003-.005	.002-.008	.004-.014

Shouldering and Slotting



øD	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Prehardened Steel <HRC40	Stainless Steel	Die Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACM300F			ACZ310	DS20
	Cutting Fluid	Dry		Dry	Dry	Dry		Dry/Wet
.625 (16mm) .827 (21mm)	Speed (SFM)	330-655	330-655	195-260	395-590	260-395	330-590	655-3280
	Feed (IPT)	.003-.007	.003-.007	.002-.004	.005-.007	.003-.005	.003-.007	.004-.012
1.000 (25mm) 1.299 (33mm)	Speed (SFM)	330-655	330-655	195-330	395-590	260-395	330-590	655-4920
	Feed (IPT)	.003-.008	.003-.008	.002-.004	.005-.008	.003-.005	.003-.008	.004-.014

Plunge Milling



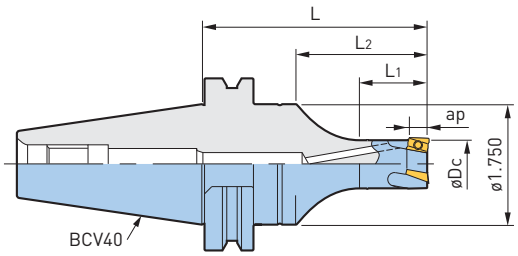
øD	Max Interval	Min Traverse
.625 (16mm)	.020	.551
.750 (20mm)	.040	.709
1.000 (25mm)	.040	.906
1.250 (32mm)	.079	1.181

øD	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Prehardened Steel <HRC40	Stainless Steel	Die Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACM300F			ACZ310	DS20
	Cutting Fluid	Dry/Air Blow		Dry/Air Blow	Dry/Air Blow	Dry/Air Blow		Air/Wet
.630 (16mm) .669 (17mm)	Speed (SFM)	260-395	260-395	197	260-395	197-262	260-525	655-1150
	Feed (IPR)	.002-.004	.002-.004	.001-.002	.002-.003	.002-.003	.002-.004	.002-.004
.750 (20mm) 1.024 (26mm)	Speed (SFM)	330-525	330-525	197-328	330-525	197-328	260-590	655-1640
	Feed (IPR)	.004-.001	.004-.001	.004-.001	.005-.001	.004-.008	.003-.012	.004-.012
1.250 (32mm) 1.299 (33mm)	Speed (SFM)	330-525	330-525	197-328	330-525	197-328	260-590	655-1970
	Feed (IPR)	.004-.012	.004-.012	.001-.012	.0047-.0118	.004-.008	.003-.016	.004-.012

This table is a guideline for selecting cutting parameters. Adjust them as needed according to the machine and workpiece conditions. Be sure to use safety enclosures, as chips may scatter. Do not use oil-based cutting fluid, as there is a risk of fire. Dry cutting is recommended for stainless steel as well; however, wet cutting may extend insert life in case severe built-up edge occurs.

FULLCUT MILL (FCM TYPE, INCH STYLE)

ASME B5.50-1994



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øDc	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BCV40-FCM1.250-5	1.250	.433	5.000	2.250	3.620	3	ARG3211□□	3.7
BCV40-FCM1.500-3	1.500	.433	3.000	1.500	1.620	4	ARG4011□□	3.1
BCV40-FCM1.500-5			5.000	2.500	3.620			4.4
BCV40-FCM2.000-3	2.000	.433	3.000	2.250	—	5		3.5

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

FULLCUT MILL (FCM TYPE)

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

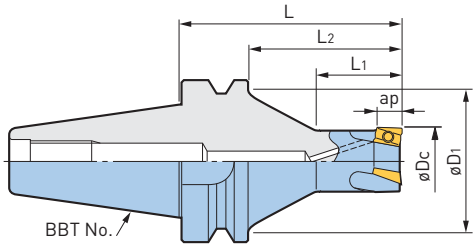


Fig. 1

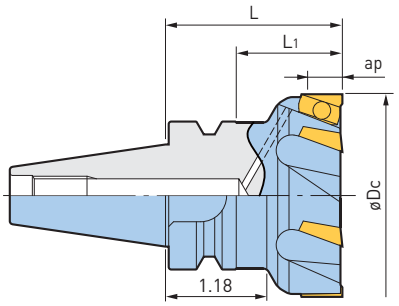


Fig. 2

Catalog Number	Fig.	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BBT30-FCM16092-65	1	16mm (.630)	1.525	.354	2.559	.906	1.693	2	ARG1609□□	1.1
BBT30-FCM20093-65	1	20mm (.787)			2.559	1.102	1.693		ARG2009□□	1.1
BBT30-FCM25093-65	1	25mm (.984)			2.559	1.299	1.693	3	ARG2509□□	1.1
BBT30-FCM25093-105			1.653		4.134	1.339	3.268			1.6
BBT30-FCM32113-65	1	32mm (1.260)	1.614	.433	2.559	1.496	1.693		ARG3211□□	1.2
BBT30-FCM32113-105			1.653		4.134	1.732	3.268			1.8
BBT30-FCM40114-50	1	40mm (1.575)	—		1.969	.984	1.102	4	ARG4011□□	1.2
BBT30-FCM50115-50	2	50mm (1.969)			1.969	1.102	1.102	5		1.4
BBT30-FCM63116-55	2	62mm (2.480)	—	.433	2.165	1.181	—	6	ARG6311□□	1.9

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

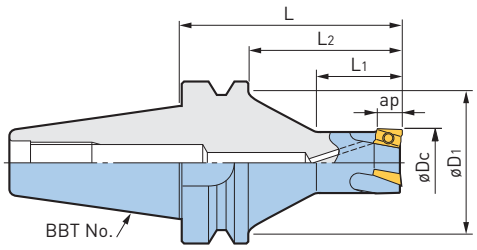
The integral version of the FULLCUT MILL provides increased rigidity as a result of the reduced gage length. It is particularly recommended for use in machines having a small spindle taper. Additionally, there is a cost savings as no tool holder is necessary.

ACCESSORIES

INSERTS
PG. 558/560

FULLCUT MILL (FCM TYPE, METRIC STYLE)

JIS B6339



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BBT40-FCM16092-85	16mm (.630)	2.165	.354	3.346	.906	2.283	2	ARG1609□□	2.6
BBT40-FCM16092-105		2.283		4.134	1.181	3.071			2.9
BBT40-FCM16092-120		2.362		4.724	.984	3.661			3.1
BBT40-FCM16092-150				5.906	.984	4.843			3.7
BBT40-FCM20093-85	20mm (.787)	2.165	.354	3.346	1.102	2.283	3	ARG2009□□	2.6
BBT40-FCM20093-105		2.283		4.134	1.378	3.071			2.9
BBT40-FCM20093-120		2.362		4.724	1.181	3.661			3.1
BBT40-FCM20093-150				5.906	1.181	4.843			4.0
BBT40-FCM25093-85	25mm (.984)	2.165	.354	3.346	1.299	2.283	3	ARG2509□□	2.6
BBT40-FCM25093-120		2.283		4.724	1.772	3.661			3.3
BBT40-FCM25093-135		2.362		5.315	1.575	4.252			3.5
BBT40-FCM25093-165				6.496	1.575	5.433			4.2
BBT40-FCM32113-85	32mm (1.260)	2.165	.433	3.346	1.496	2.283	3	ARG3211□□	2.9
BBT40-FCM32113-120		2.283		4.724	2.362	3.661			3.5
BBT40-FCM32113-135		2.362		5.315	1.969	4.252			3.7
BBT40-FCM32113-165				6.496	1.575	5.433			4.9
BBT40-FCM40114-85	40mm (1.575)	2.126	.433	3.346	1.693	2.283	4	ARG4011□□	3.1
BBT40-FCM40114-120				4.724	2.559	3.661			4.0
BBT40-FCM40114-135				5.315	2.362	4.252			4.4
BBT40-FCM40114-165				6.496	1.969	5.433			5.5
BBT40-FCM50115-70	50mm (1.969)	2.362	.433	2.756	1.496	1.693	5	ARG4011□□	3.1
BBT40-FCM50115-120				4.724	2.559	3.661			4.8
BBT40-FCM50115-135				5.315	2.362	4.252			5.3
BBT40-FCM50115-165				6.496	1.969	5.433			6.6

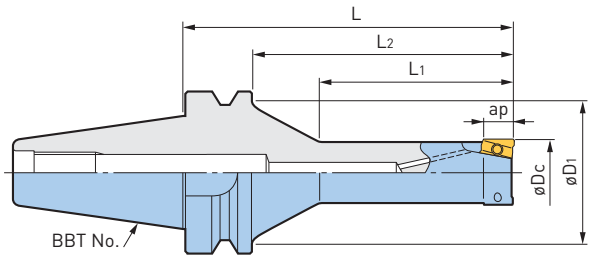
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

The integral version of the FULLCUT MILL provides increased rigidity as a result of the reduced gage length. It is particularly recommended for use in machines having a small spindle taper. Additionally, there is a cost savings as no tool holder is necessary.

ACCESSORIES

FULLCUT MILL (FCM TYPE LONG NOSE, METRIC STYLE)

JIS B6339



BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
BBT30-FCM16092L-85	16mm (.630)	1.575	.354	3.346	1.772	2.480	2	ARG1609□□	1.1
BBT30-FCM20092L-85	20mm (.787)			3.346	1.969	2.480		ARG2009□□	1.2
BBT30-FCM25092L-85	25mm (.984)			3.346	1.969	2.480		ARG2509□□	1.4
BBT30-FCM32112L-85	32mm (1.260)		.433	3.346	2.362	2.480		ARG3211□□	1.6
BBT40-FCM16092L-105	16mm (.630)	2.362	.354	4.134	1.772	3.071	2	ARG1609□□	2.9
BBT40-FCM16092L-120				4.724	1.772	3.661			3.1
BBT40-FCM20092L-120	20mm (.787)	2.362	.354	4.724	2.362	3.661	2	ARG2009□□	3.1
BBT40-FCM20092L-135				5.315	2.362	4.252			3.3
BBT40-FCM25092L-135	25mm (.984)	2.362	.354	5.315	2.953	4.252	2	ARG2509□□	3.3
BBT40-FCM25092L-150				5.906	2.953	4.843			3.7
BBT40-FCM32112L-135	32mm (1.260)	2.362	.433	5.315	3.150	3.661	2	ARG3211□□	3.7
BBT40-FCM32112L-150				5.906	3.543	4.843			4.2

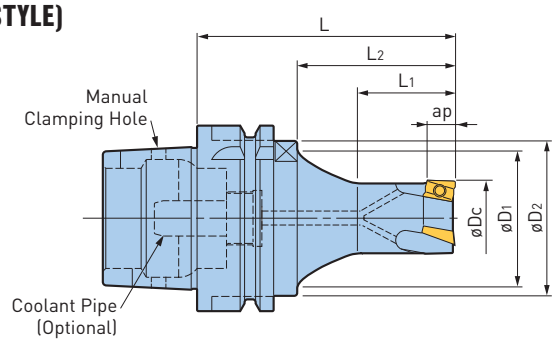
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

The integral version of the FULLCUT MILL provides increased rigidity as a result of the reduced gage length. It is particularly recommended for use in machines having a small spindle taper. Additionally, there is a cost savings as no tool holder is necessary.

ACCESSORIES

FULLCUT MILL (FCM TYPE, METRIC STYLE)

HSK



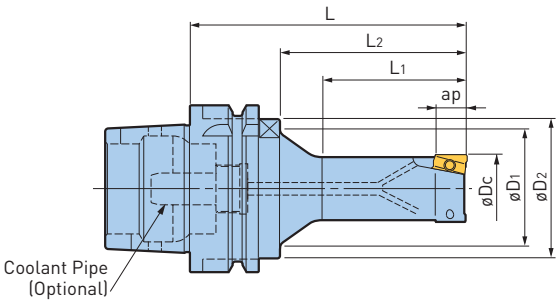
ACCESSORIES

Catalog Number	øDc	øD1	øD2	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
HSK-A63-FCM16092-85	16mm (.630)	1.811	2.087	.354	3.346	.906	2.008	2	ARG1609□□	2.0
HSK-A63-FCM16092-105					4.134	1.181	2.795			2.2
HSK-A63-FCM16092-120					4.720	.984	3.386			2.4
HSK-A63-FCM16092-150					5.906	.984	4.567			2.9
HSK-A63-FCM20093-85	20mm (.787)	1.811	2.087	.354	3.346	1.102	2.008	3	ARG2009□□	2.2
HSK-A63-FCM20093-105					4.134	1.378	2.795			2.4
HSK-A63-FCM20093-120					4.724	1.181	3.386			2.6
HSK-A63-FCM20093-150					5.906	1.181	4.567			3.1
HSK-A63-FCM25093-85	25mm (.984)	1.811	2.087	.354	3.346	1.299	2.008	3	ARG2509□□	2.2
HSK-A63-FCM25093-120					4.724	1.772	3.386			2.6
HSK-A63-FCM25093-135					5.315	1.575	3.976			2.9
HSK-A63-FCM25093-165					6.496	1.575	5.157			3.3
HSK-A63-FCM32113-85	32mm (1.260)	1.811	2.087	.433	3.346	1.496	2.008	3	ARG3211□□	2.4
HSK-A63-FCM32113-120					4.724	2.362	3.386			2.9
HSK-A63-FCM32113-135					5.315	1.969	3.976			3.1
HSK-A63-FCM32113-165					6.496	1.575	5.157			3.7
HSK-A63-FCM40114-85	40mm (1.575)	1.811	2.087	.433	3.346	1.693	2.008	4	ARG4011□□	2.9
HSK-A63-FCM40114-120					4.724	2.559	3.386			3.3
HSK-A63-FCM40114-135					5.315	2.362	3.976			3.7
HSK-A63-FCM40114-165					6.496	1.969	5.157			4.6
HSK-A63-FCM50115-70	50mm (1.969)	—	2.087	.433	2.756	1.575	1.102	5	ARG4011□□	2.9
HSK-A63-FCM50115-120					4.724	3.071	3.071			4.2
HSK-A63-FCM50115-135					5.315	3.661	3.661			4.8
HSK-A63-FCM50115-165					6.496	4.843	4.843			6.2

- ap = length of effective cutting edge
- Coolant pipe and inserts are not included; must be ordered separately

FULLCUT MILL (FCM TYPE LONG NOSE, METRIC STYLE)

HSK

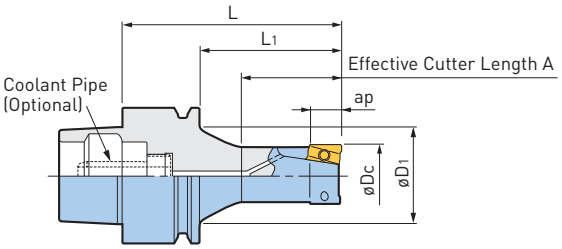


Catalog Number	øDc	øD1	øD2	ap	L	L1	L2	No. of Inserts	Insert Model	Weight (lbs.)
HSK-A63-FCM16092L-85	16mm (.630)	1.772	1.969	.354	3.346	1.575	2.008	2	ARG1609□□	2.0
HSK-A63-FCM16092L-120					4.724	1.772	3.386			2.2
HSK-A63-FCM20092L-105	20mm (.787)	1.772	1.969	.354	4.134	1.969	2.795	2	ARG2009□□	2.4
HSK-A63-FCM20092L-120					4.724	2.362	3.386			2.6
HSK-A63-FCM25092L-105	25mm (.984)	1.772	1.969	.354	4.134	2.165	2.795	2	ARG2509□□	2.4
HSK-A63-FCM25092L-120					4.724	2.559	3.386			2.6
HSK-A63-FCM32112L-120	32mm (1.260)	1.772	1.969	.433	4.724	2.756	3.386	2	ARG3211□□	2.9
HSK-A63-FCM32112L-135					5.315	3.150	3.976			3.1

- ap = length of effective cutting edge
- Coolant pipe and inserts are not included; must be ordered separately

(FCM TYPE)

HSK



Catalog Number	øDc	ap	øD1	L	L1	A	No. of Inserts	Insert Model	Weight (lbs.)
HSK-E25-FCM16092-45	16mm (.630)	.354	.748	1.77	1.38	.906	2	ARG1609□□	.4
HSK-E32-FCM16092-55	16mm (.630)	.354	1.02	2.17	1.38	.906	2	ARG1609□□	.4
HSK-E40-FCM16092-65	16mm (.630)	.354	1.34	2.56	1.77	1.102	2	ARG1609□□	1.0

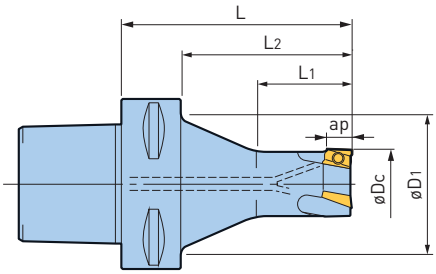
- ap = length of effective cutting edge
- Wrench included; coolant pipe and inserts must be ordered separately

As the HSK-E type interface does not have drive key grooves, there is a risk that it may slip in the machine spindle and damage it if cutting load exceeds clamping force of the machine tool. Starting from the lowest possible conditions, increase them gradually while observing the cutting status, and find the optimum with sufficient safety margin.

ACCESSORIES

FULLCUT MILL (FCM TYPE, METRIC STYLE)

BIG CAPTO



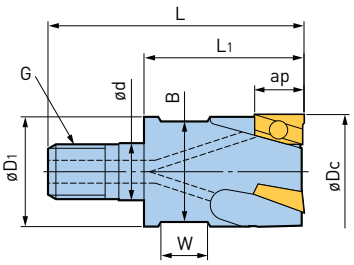
Catalog Number	øDc	øD1	ap	L	L1	L2	No. of Inserts	Insert Model
C5-FCM16092-65	16mm (.630)	1.575	.354	2.560	.906	1.772	2	ARG1609□□
C5-FCM16092-90		1.732		3.543	1.181	2.756		
C5-FCM20093-65	20mm (.787)	1.575	.354	2.560	1.102	1.772	3	ARG2009□□
C5-FCM20093-90		1.732		3.543	1.378	2.756		
C5-FCM25093-65	25mm (.984)	1.575	.354	2.560	1.299	1.772	3	ARG2509□□
C5-FCM25093-90		1.732		3.543	1.575	2.756		
C5-FCM32113-65	32mm (1.260)	1.575	.433	2.560	1.496	1.772	3	ARG3211□□
C5-FCM32113-90		1.732		3.543	1.772	2.756		
C5-FCM40114-50	40mm (1.575)	—	.433	1.969	.984	1.181	4	ARG4011□□
C5-FCM40114-90		1.811		3.543	2.362	2.756		
C5-FCM50115-50	50mm (1.969)	—	.433	1.969	.984	1.181	5	
C5-FCM50115-90				3.543	2.559	2.756		
C6-FCM16092-85	16mm (.630)	2.283	.354	3.346	.945	2.480	2	ARG1609□□
C6-FCM16092-110				4.331	1.181	3.465		
C6-FCM16092-135		2.362		5.315	1.063	4.449		
C6-FCM20093-85	20mm (.787)	2.283	.354	3.346	1.102	2.480	3	ARG2009□□
C6-FCM20093-110				4.331	1.339	3.465		
C6-FCM20093-135		2.362		5.315	1.260	4.449		
C6-FCM25093-85	25mm (.984)	2.283	.354	3.346	1.299	2.480	3	ARG2509□□
C6-FCM25093-110				4.331	1.850	3.465		
C6-FCM25093-135		2.362		5.315	1.732	4.449		
C6-FCM32113-85	32mm (1.260)	2.283	.433	3.346	1.496	2.480	3	ARG3211□□
C6-FCM32113-110				4.331	2.402	3.465		
C6-FCM32113-135		2.362		5.315	2.126	4.449		
C6-FCM40114-85	40mm (1.575)	2.283	.433	3.346	1.732	2.480	4	ARG4011□□
C6-FCM40114-110				4.331	2.559	3.465		
C6-FCM40114-135		2.362		5.315	2.402	4.449		
C6-FCM50115-70	50mm (1.969)	2.323	.433	2.756	1.693	1.890	5	
C6-FCM50115-110		2.362		4.331	2.756	3.465		
C6-FCM50115-135				5.315	2.835	4.449		

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

INSERTS PG. 558

FULLCUT MILL (FCM SCREW-ON)



Catalog Number	øDc	G	ød	øD1	ap	L	L1	No. of Inserts	Spanner Part		Insert	Weight (lbs.)
									B	W		
M8-FCM16092-25	16mm (.630)	M8	.335	.591	.354	1.673	.984	2	12mm	6.2mm	ARG1609□□	.1
M10-FCM20093-30	20mm (.787)	M10	.413	.748	.354	1.929	1.181	3	17mm	8.2mm	ARG2009□□	.1
M12-FCM25093-35	25mm (.984)	M12	.492	.945	.354	2.205	1.378	3	22mm	10.2mm	ARG2509□□	.2
M16-FCM32112-40	32mm (1.260)	M16	.669	1.142	.433	2.480	1.575	2	26mm	12.2mm	ARG3211□□	.4
M16-FCM32113-40								3				.4
M16-FCM40112-40	40mm (1.575)							2	32mm	16.8mm	ARG4011□□	.7
M16-FCM40114-40								4				.6

- ap = length of effective cutting edge
- A screwdriver wrench for insert clamps is included; inserts must be ordered separately
- A single-ended spanner for tightening the head is not included; use commercially available products

ACCESSORIES

INSERTS PG. 558

SCREW-ON HOLDERS PG. 154/225

FULLCUT MILL (FCM TYPE, METRIC STYLE)

STRAIGHT SHANK

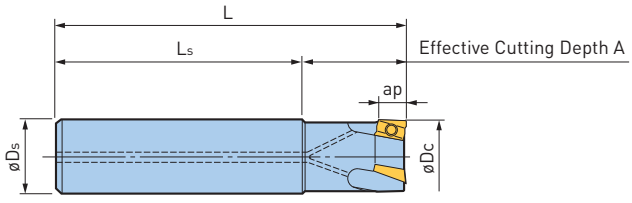


Fig. 1

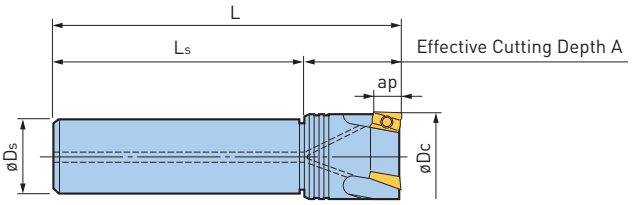


Fig. 2

Catalog Number	Fig.	øDc	øDs	ap	L	A	Ls	No. of Inserts	Insert Model	Weight (lbs.)
ST16-FCM12091-90	1	12mm (.472)	16mm (.630)	.354	3.543	.591	2.756	1	ARG1609□□	.2
ST16-FCM14091-90		14mm (.551)			3.543	.669	2.756			.2
ST16-FCM16092-90		16mm (.630)			3.543	.984	2.559	2		.2
ST20-FCM20093-110	1	20mm (.787)	20mm (.787)	.354	4.331	1.181	3.150	3	ARG2009□□	.4
ST25-FCM25093-120	1	25mm (.984)	25mm (.984)	.354	4.724	1.378	3.346	3	ARG2509□□	.9
ST32-FCM32113-130	1	32mm (1.260)	32mm (1.260)	.433	5.118	1.378	3.740	3	ARG3211□□	1.5
ST32-FCM40114-130	2	40mm (1.575)				1.575	3.543	4	ARG4011□□	1.8
ST32-FCM40114-180		40mm (1.575)				7.087	5.512			2.6
ST32-FCM50115-130		50mm (1.969)				1.575	3.543	5		2.2

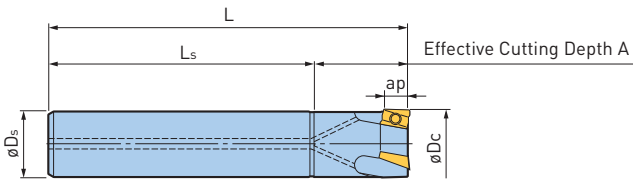
- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately

ACCESSORIES

FULLCUT MILL (FCM TYPE, METRIC STYLE)

STRAIGHT SHANK OVERSIZE

Cutter diameter is ø1mm larger than the shank diameter to avoid any interference with the workpiece.



Cutter Diameter

øDc=øDs+1mm

Catalog Number	øDc	øDs	ap	L	A	Ls	No. of Inserts	Insert Model	Weight (lbs.)
ST15-FCM16092-120	16mm (.630)	15mm (.591)	.354	4.724	.984	3.740	2	ARG1609□□	.4
ST16-FCM17092-120	17mm (.669)	16mm (.630)	.354	4.724	.984	3.740	2	ARG1609□□	.4
ST19-FCM20092-165	20mm (.787)	19mm (.748)	.354	6.496	1.181	5.315	2	ARG2009□□	.9
ST19-FCM20093-135				5.315		4.134	3		.7
ST20-FCM21092-165	21mm (.827)	20mm (.787)	.354	6.496	1.181	5.315	2	ARG2009□□	.9
ST20-FCM21093-135				5.315		4.134	3		.7
ST24-FCM25092-180	25mm (.984)	24mm (.945)	.354	7.087	1.496	5.709	2	ARG2509□□	1.5
ST24 -FCM25093-150				5.905		4.528	3		1.3
ST25-FCM26092-165	26mm (1.024)	25mm (.984)	.354	6.496	1.496	5.000	2	ARG2509□□	1.3
ST25-FCM26093-150				5.906		4.409	3		1.3
ST28-FCM32112-180	32mm (1.260)	28mm (1.102)	.354	7.087	1.890	5.197	2	ARG3211□□	2.4
ST28-FCM32113-180				7.087			3		2.2
ST32-FCM33112-180	33mm (1.299)	32mm (1.260)	.433	7.087	1.890	5.197	2	ARG3211□□	2.4
ST32-FCM33113-180				7.087			3		2.2

- ap = length of effective cutting edge
- Inserts are not included; must be ordered separately
- For long projection lengths and cutters with 3 inserts, please reduce the cutting parameters

ACCESSORIES

Application Example (Material: 1055 Carbon Steel)

FULLCUT MILL Model ST32-FCM33112-180	
Cutting Speed	394 SFM
Feed Rate	.004 IPT
Axial DOC	.394 x 10 steps
Radial DOC	Max 1.299

Results

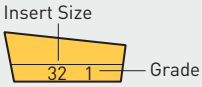
Deep shoulder end milling is achieved with 4.331" projection length and .394" axial depth.

FULLCUT MILL (FCM TYPE) INSERTS

Insert Classifications

ISO Material	Grade	Material	Coating
P20	ACP200	Prehardened Steel	TiAlN/AlCrN
P30	ACP300	General Steel	
M30	ACM300F	Stainless Steel	TiAlN/TiCN
K10	ACZ310	Cast Iron	
N20	DS20	Aluminum	DLC

Marking Description



1: ACZ310
2: DS20
P2: ACP200
P3: ACP300
3F: ACM300F

Selection Between ACP200 & ACP300 for Steel

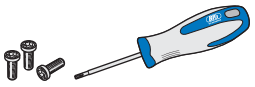
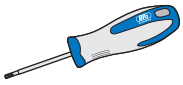
ACP200 is superior in anti-wear resistance, while ACP300 is superior in its anti-chipping property. ACP300 is the first recommendation for cutting steel. Choose ACP200 over ACP300 in cases where further speed or wear-resistance is needed. ACP200 is not, however, recommended for either heavily-interrupted or heavy-duty cutting.

Cutter Dia.		Insert Model	ap	Nose Radius	P		M	K	N
in	mm				ACP200	ACP300	ACM300F	ACZ310	DS20
					Prehardened Steel	General Steel	Stainless Steel	Cast Iron	Aluminum
.500-.625	12-17	**ARG160902**	.354	.008	—	O	O	O	O
		ARG160904		.016	O	O	O	O	O
.750	20-21	**ARG200902**	.354	.008	—	O	O	O	O
		ARG200904		.016	O	O	O	O	O
1.000	25-26	**ARG250902**	.354	.008	—	O	O	O	O
		ARG250904		.016	O	O	O	O	O
1.250	32-33	**ARG321102**	.433	.008	—	O	O	O	O
		ARG321104		.016	O	O	O	O	O
1.500-2.000	40-50	**ARG401102**	.433	.008	—	O	O	O	O
		ARG401104		.016	O	O	O	O	O

- Inserts are available in packages of 10 pcs.
- Please clarify the insert type and model when ordering (ex: ARG160902(ACP300))

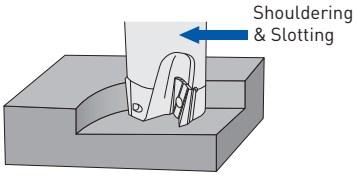
FULLCUT MILL uses a different insert for each cutter diameter (except for ø.500"-.625" & ø1.500"-2.000") and if an incorrect insert is used, a problem will result. There is no compatibility with those of FCR Type. Inserts with .008" nose radius are suitable for light cutting.

SPARE PARTS

			Insert Clamping Screw Set (10 Screws & 1 Wrench)	Wrench
				
Cutter Dia.		Insert Model	Catalog Number	Catalog Number
in	mm			
.500	12	ARG1609□□	**S2505DS**	**DA-T8**
.563-.625	14-17		**S2506DS**	
.750	20-21	ARG2009□□		
1.000	25-26	ARG2509□□		
1.250	32-33	ARG3211□□	**S3508DS**	**DA-T15**
1.500	40	ARG4011□□		
2.000	50			

- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained

FULLCUT MILL (FCM TYPE)
CUTTING DATA



Finish-Light Cutting

øD	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Prehardened Steel <HRC40	Stainless Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACP200	ACM300F	ACZ310	DS20
	Cutting Fluid	Dry			Dry	Dry	Dry/Wet
.500-.563 (12-14mm)	Speed (SFM)	490-820	590-820	260-455	455-590	325-655	655-2460
	Feed (IPT)	.004-.008	.004-.008	.003-.005	.005-.007	.004-.008	.004-.012
.625-.750 (16-21mm)	Speed (SFM)	490-820	590-820	260-455	455-590	325-655	655-3280
	Feed (IPT)	.004-.008	.004-.008	.003-.005	.005-.007	.004-.008	.004-.012
1.000-1.250 (25-33mm)	Speed (SFM)	590-915	655-915	260-455	455-655	325-655	655-4920
	Feed (IPT)	.004-.009	.004-.009	.003-.006	.005-.008	.004-.008	.004-.014
1.500-2.000 (40-50mm)	Speed (SFM)	590-915	655-915	260-455	455-655	260-655	655-4920
	Feed (IPT)	.004-.009	.004-.009	.003-.006	.005-.008	.004-.008	.004-.014

FULLCUT MILL FCM Type cannot be used for feeding in Z-axis such as for ramping, plunging and boring.

Medium-Heavy Cutting

øD	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Stainless Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACM300F	ACZ310	DS20
	Cutting Fluid	Dry		Dry	Dry	Dry/Wet
.500-.563 (12-14mm)	Speed (SFM)	325-655	490-655	390-590	325-590	655-2460
	Feed (IPT)	.003-.006	.003-.006	.005-.006	.003-.007	.003-.008
.625-.750 (16-21mm)	Speed (SFM)	325-655	490-655	390-590	325-590	655-3280
	Feed (IPT)	.003-.006	.003-.006	.005-.006	.003-.007	.003-.008
1.000-1.250 (25-33mm)	Speed (SFM)	325-655	525-720	390-590	325-655	655-4920
	Feed (IPT)	.003-.006	.003-.006	.005-.006	.003-.008	.003-.012
1.500-2.000 (40-50mm)	Speed (SFM)	325-655	525-720	390-590	325-720	655-4920
	Feed (IPT)	.003-.006	.003-.006	.005-.006	.003-.008	.003-.012

- Inserts with .008 nose radius are suitable for light cutting, however, care should be taken in the selection of both axial & radial depth of cut as well as the feed rate
- This table is a general guideline for cutting data so please adjust according to machine and workpiece conditions, as well as width of cutting

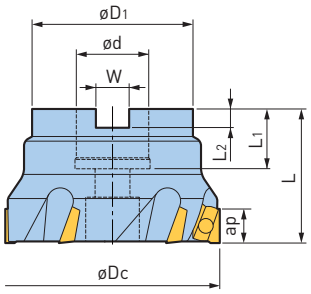
When a long projection model is used, it is necessary to lower the feed rate. Dry cutting (including air blow) is recommended when cutting steel, except for finishing. Dry cutting is recommended for stainless steel, however, use soluble oil in cases where severe edge build-up occurs.

FULLCUT MILL (ARBOR TYPE FORM FMH)

For Square Shoulder & Face Milling

CUTTER DIAMETER: ø50mm, ø63mm, ø80mm & ø100mm

Conforms to Form FMH of the new standard face milling adapters.



Catalog Number	øDc	ap	ød	øD1	L	L1	L2	W	No. of Inserts	Insert Size	Weight (lbs.)
FMH22-FCM50115-40	50mm	.433	22mm	1.850	1.575	.787	.236	.409	5	ARG40	1.1
FMH22-FCM63116-40	63mm								6	ARG63	1.5
FMH27-FCM80116-50	80mm	.433	27mm	2.362	1.969	.866	.276	.488	6	ARG80	2.7
FMH27-FCM100116-50	100mm			2.992					6	ARG80	4.4

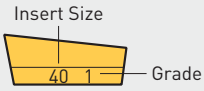
- ap = length of effective cutting edge
- Wrench and screws are included; inserts must be ordered separately

FULLCUT MILL (FCM ARBOR TYPE) INSERTS

Insert Classifications

ISO Material	Grade	Material	Coating
P20	ACP200	Prehardened Steel	TiAlN/AlCrN
P30	ACP300	General Steel	
M30	ACM300F	Stainless Steel	TiAlN/TiCN
K10	ACZ310	Cast Iron	
N20	DS20	Aluminum	DLC

Marking Description



1: ACZ310
2: DS20
P2: ACP200
P3: ACP300
3F: ACM300F

Selection Between ACP200 & ACP300 for Steel

ACP200 is superior in anti-wear resistance, while ACP300 is superior in its anti-chipping property. ACP300 is the first recommendation for cutting steel. Choose ACP200 over ACP300 in cases where further speed or wear-resistance is needed. ACP200 is not, however, recommended for either heavily-interrupted or heavy-duty cutting.

Cutter Dia.	Insert Model	ap	Nose Radius	P		M	K	N
				ACP200	ACP300	ACM300F	ACZ310	DS20
50mm	**ARG401102**	.433	.008	—	○	○	○	○
	ARG401104		.016	○	○	○	○	○
63mm	**ARG631104**		.016	—	○	○	—	○
	ARG631108		.031	○	○	○	○	○
80mm, 100mm	**ARG801104**		.016	—	○	○	—	○
	ARG801108		.031	○	○	○	○	○

- Inserts are available in packages of 10 pcs.
- Please clarify the insert model and grade when ordering (ex: ARG401104(ACP300))

It is important to use the correct insert for the specific diameter of FULLCUT MILL. Failure to use the correct insert will result in incorrect cutting conditions and poor results.

FULLCUT MILL (FCM ARBOR TYPE)

APPLICATION EXAMPLE

Perpendicularity and Surface Finish Unmatched in Indexable Insert Cutters

Machined by FULLCUT MILL Model: FMH22-FCM63116-40
Arbor Model: BBT40-FMH22-27-45

Squareness	
Cutting Speed (SFM)	500
Feed Rate (IPT)	.004"
Axial DOC (Ad)	.200"
Radial DOC (Rd)	.004"

BIG DAISHOWA	.0004"
Other Manufacturer	.0016"

Surface Roughness	
Cutting Speed (SFM)	825
Feed Rate (IPT)	.008"
Axial DOC (Ad)	.004"
Radial DOC (Rd)	2"

	Ra
BIG DAISHOWA	.51µm
Other Manufacturer	1.56µm

- The perpendicularity & surface roughness will vary depending on the cutting conditions, material, machine tool & workpiece rigidity.

Cutting Conditions

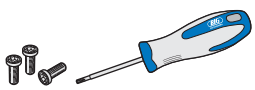
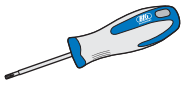
Medium-Heavy Cutting						
Cutter Dia.	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Stainless Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACM300F	ACZ310	DS20
	Cutting Fluid	Dry		Dry	Dry	Dry/Wet
ø50/ø63/ø80/ø100mm	Speed (SFM)	330-725	500-800	400-600	330-650	650-5000
	Feed (IPT)	.003-.007	.003-.006	.005-.006	.004-.008	.004-.012

FULLCUT MILL FCM Arbor Type cannot be used for feeding Z-axis such as ramping, plunging and boring.

Finish-Light Cutting							
Cutter Dia.	Work Material	Carbon Steel Alloy Steel	Unalloyed Steel	Prehardened Steel <HRC40	Stainless Steel	Cast Iron	Aluminum
	Insert Grade	ACP300		ACP200	ACM300F	ACZ310	DS20
	Cutting Fluid	Dry			Dry	Dry	Dry/Wet
ø50/ø63/ø80/ ø100mm	Speed (SFM)	330-725	500-800	250-400	400-600	330-650	650-5000
	Feed (IPT)	.004-.010	.004-.009	.003-.006	.005-.008	.004-.010	.004-.014

This table is a general guideline for cutting data. Please adjust according to machine and workpiece conditions, as well as width of cutting. Dry cutting (including air blow) is recommended when cutting steel, except for finishing. Dry cutting is recommended for stainless steel. However, use soluble oil in a case where severe built-up edge occurs.

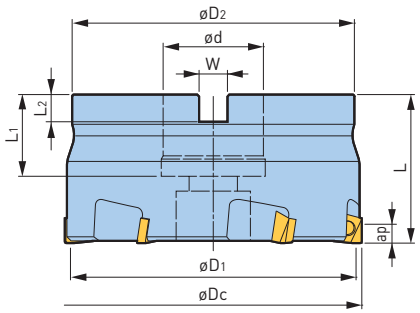
SPARE PARTS

		Insert Clamping Screw Set (10 Screws & 1 Wrench)	Wrench
			
Cutter Dia.	Insert Model	Catalog Number	Catalog Number
50mm	ARG4011□□	**S3508DS**	**DA-T15**
63mm	ARG6311□□		
80mm, 100mm	ARG8011□□		

- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained

SPEED FINISHER

High Speed Cutter for Aluminum and Cast Iron

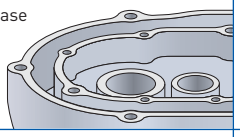
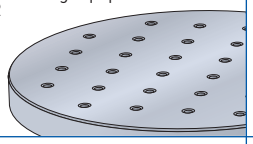
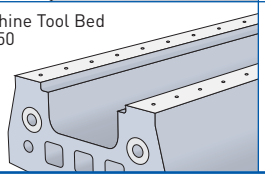


Catalog Number	øDc	øD1		øD2	ød	L	L1	L2	W	No. of Inserts	Max RPM	Weight (lbs.)
		DA2200	CBN									
FM22-PLS505-35	50mm	1.846	1.768	1.850	22mm	1.378	.748	.236	.409	5	20,000	.9
FM22-PLS636-35	63mm	2.358	2.280	2.362						6		1.5
FM27-PLS806-40	80mm	3.028	2.949	2.992	27mm	1.575	.866	.276	.488	6	16,000	2.6
FM27-PLS1006-35●	100mm	2.752	3.736	2.362	27mm	1.378	.157	.276	.488		12,800	2.9
FM27-PLS1256-35●	125mm	121.9	119.9	2.362							10,200	4.2
FM32-PLS1006-42	100mm	3.815	3.736	3.780	32mm	1.654	.945	.315	.567	6	12,800	4.4
FM40-PLS1258-50	125mm	4.799	4.720	3.780	40mm	1.969	1.102	.394	.646	8	10,000	7.3
FM40-PLS16010-50	160mm	6.177	6.098	3.780						10	8,000	9.0

- Wrench and screws are included; inserts must be ordered separately
- When using at 12,000 RPM or higher, contact BIG DAISHOWA agent for balancing of the cutter and arbor assembly
- Effective cutting edge length ap varies depending on insert models—refer to the table for insert shown below
- Adjusting amount of cutting edge is .004"—note this when using reground insert
- Models marked ● are designed for BT30 holders

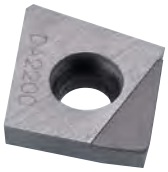
ACCESSORIES

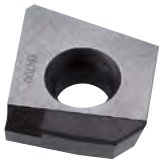
Application Examples (Cutter Diameter: ø80mm)

Workpiece	Conditions	Surface Roughness	Height Difference	No. of Workpieces	Result
Crank Case ADC12 	Cutting Speed: 13,123 SFM Spindle Speed: 15,900 RPM Feed Rate: 376 IPM D.O.C.: .098"	**Ra=.08µm** **Rz=.55µm**	Within 1µm	24,000	Rough & Fine Processes are Combined in a Single Operation
Parts of Semiconductor Manufacturing Equipment A5052 	Cutting Speed: 13,123 SFM Spindle Speed: 15,900 RPM Feed Rate: 376 IPM D.O.C.: .079"	**Ra=.07µm** **Rz=.32µm**	Within 1µm	320	Mirror Finish is Achieved
Machine Tool Bed FC250 	Cutting Speed: 4,921 SFM Spindle Speed: 6,000 RPM Feed Rate: 142 IPM D.O.C.: .020"	**Ra=.12µm** **Rz=.67µm**	Within 2µm	20	1-2µm Flatness is Obtained

SPEED FINISHER

INSERTS





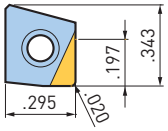


Fig. 1

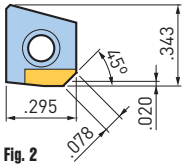


Fig. 2

Catalog Number	Workpiece	Fig.	Material	Cutting Edge Length (ap)
PL0705-DA2200	Aluminum & Nonferrous	1	Diamond	.197
PL0705-CBN	Cast Iron	2	CBN	.020

- Each insert is packed in a case (order example: PL0705(DA2200) 5 pcs.)
- Regrinding of the insert is possible only once (grinding amount .008")
- Early regrinding is recommended, since regrinding becomes unavailable after excessive wear or once chipping occurs

Insert Classifications

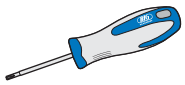
DA2200	CBN
High density sintered material made of ultra-micro diamond particles. Superior wear resistance and hardness comparable to carbide alloy.	Newly designed CBN sintered body with high content rate of CBN improves toughness and thermal conductivity.

Cutting Conditions

Workpiece Material		Insert Material	Cutting Speed (SFM)	Feed Rate (IPT)	Coolant
Aluminum Alloy	Si Content 13%≥	DA2200	6,600-13,000	.002-.008	Wet
	Si Content 13%<		1,300-2,600		
Copper Alloy		DA2200	1,600-8,200	.002-.008	Wet
Gray Cast Iron		CBN	2,600-6,600	.004-.012	Dry

- The table is a reference to determine cutting conditions and it should be adjusted according to cutting width and conditions of the machine tool and workpiece

SPARE PARTS

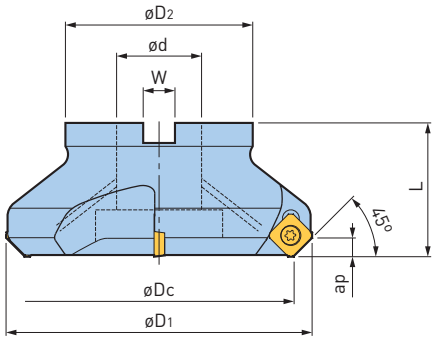
Lifting Screw Set (1 Lifting Screw & 1 Lifting Nut)	Insert Clamping Screw Set (10 Screws & 1 Wrench)	Wrench
		
Catalog Number	Catalog Number	Catalog Number
LSN35	**S2506DS**	**DA-T8**

- Insert clamping screws and wrenches are consumables, therefore regular replacement and extra stock are recommended

SURFACE MILL

CUTTER DIAMETER: ø50mm, ø63mm, ø80mm, ø100mm

45º Approach Face Milling Cutter



Catalog Number	øDc	ap	øD1	ød	øD2	L	W	No. of Inserts	Insert Size	Recommended Arbor	Clamp Bolt	Weight (lbs.)
FM22-SFM503-35	50mm	.197	2.425	22mm	1.850	1.378	.394	3	CM10C1	FMH22	—	.9
FM22-SFM634-35	63mm		2.937					4				1.1
FM25.4-SFM804-40	80mm		3.606	1.000	2.205	1.575	.374	4	CM10C1	FMA25.4 FMH25.4❖	—	2.0
FM27-SFM804-40				27mm	2.362		.488		CM10C1	FMH27	MBA-M12H	
FM27-SFM1005-35 ●	100mm		4.394	27mm	2.362	1.378	.488	5	CM10C1	FMH27	MBA-M12H	2.2
FM31.75-SFM1006-45				1.250	2.992	1.772	.512	6	CM10C1	FMA31.75 FMH31.75❖	—	3.7
FM32-SFM1006-45				32mm			.551		CM10C1	FMH32	MBA-M16H	

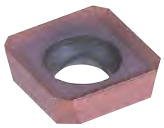
- ap = length of effective cutting edge
- Wrench and screws are included; inserts must be ordered separately
- When using an arbor marked with ❖, please order the clamp bolt separately
- Items marked ● indicates a lightweight design; by using it in conjunction with BBT30-FMH27-60-45, it can be kept within 4.4 lbs.

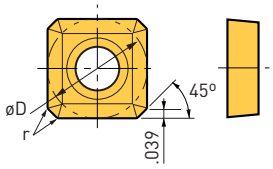
ACCESSORIES

INSERTS PG. 565

SURFACE MILL

INSERTS





Insert Classifications

ACP200	ACM250F	DS20	NF15KA
For all steel & stainless steel materials	For stainless steel	For aluminum & / non-ferrous materials	For cast iron
Multi-layer PVD coating on carbide base with nanoscale TiAlN & AlCrN. Excellent performance and wear resistance.	PVD-coated carbide with excellent smoothness and resistance to welding and chipping, due to the ultra-multilayered thin film structure made of AlTiN and TiAlCrN	DLC coating on carbide base with very smooth surface for a low coefficient of friction. Excellent performance against built-up edge.	Adopts K15-equivalent carbide material with hardness & toughness for cast iron.

Insert Model	Fig.	øD	Nose Radius	Insert Grade			
				ACP200	ACM250F	DS20	NF15KA
CM10C1	3	.394	.008	○	○	○	○

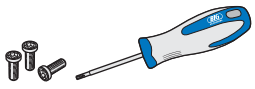
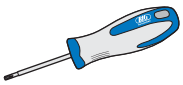
- Inserts are available in packages of 10 pcs.
- Please clarify the insert model and grade when ordering (ex: CM10C1(ACP200))
- 10 screws and 1 wrench are included with insert clamping screw set
- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained

Cutting Conditions

Workpiece Material	Insert Grade	Cutting Speed Vc (SFM)	Feed Rate fz (IPT)	Axial DOC ap Max (in)
General Steel	ACP200	492 - **656** - 820	.004 - **.008** - .012	.118
Mild Steel		591 - **787** - 984	.004 - **.010** - .016	.157
Cast Iron		328 - **574** - 820	.006 - **.009** - .012	.157
Stainless Steel	ACM250F	525 - **673** - 820	.006 - **.009** - .012	.118
Light Alloy	DS20	1640 - **2461** - 3281	.006 - **.009** - .012	.197

- The table is a reference to determine cutting conditions and it should be adjusted according to cutting width and conditions of the machine tool and workpiece

SPARE PARTS

Insert Clamping Screw Set (10 Screws & 1 Wrench)	Wrench
	
Catalog Number	Catalog Number
S4S-T15DS	**DA-T15**

- Insert clamping screws and wrenches are consumables, therefore regular replacement and extra stock are recommended

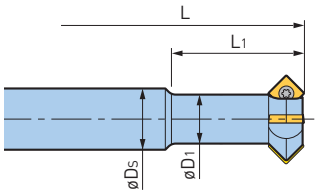
C-CUTTER MINI (MULTI-INSERT TYPE)

Front Chamfer 30°
Back Chamfer 60°

Front Chamfer 45°
Back Chamfer 45°

Front Chamfer 60°
Back Chamfer 30°

Cutting Edge Details



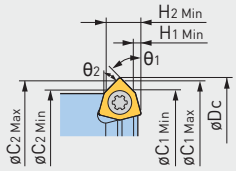


Fig. 1

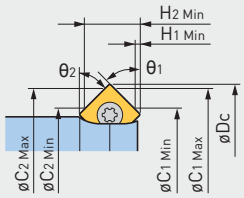


Fig. 2

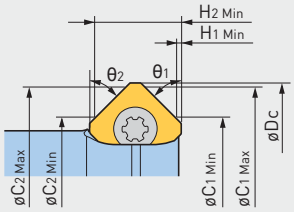


Fig. 3

Front Chamfer Angle θ1	Back Chamfer Angle θ2	Catalog Number	Face Milling	Fig.	øDc	øDs	øD1	L	L1	øC1 Min	øC1 Max	øC2 Min	øC2 Max	H1 Min	H2 Min	Insert Model	No. of Inserts
30°	60°	ST12-C0916-3060B-25	–	2	16.7mm	.472	.441	3.858	.984	.354	.630	.512	.630	.008	.224	CM05...	4
		ST20-C1931-3060B-50	–	3	32.7mm	.787	.764	5.118	1.969	.748	1.220	1.024	1.260	.008	.441	CM10...	
45°	45°	ST10-C0810-45B-15	–	1	10.5mm	.394	.291	3.071	.591	.315	.394	.315	.394	.028	.126	CM03...	3
		ST10-C0810-45B-27						3.543	1.063								
		ST12-C1012-45B-20	–	1	12.7mm	.472	.354	3.661	.787	.394	.472	.394	.472	.039	.146	CM0402	3
		ST12-C1012-45B-35●						4.252	1.378								
		ST12-C1116-45B-25	–	2	17.1mm	.472	.378	3.858	.984	.433	.630	.433	.630	.016	.256	CM0502	4
		ST12-C1116-45B-40●						4.449	1.575								
		ST16-C1520-45B-50	–	2	20.7mm	.630	.520	4.843	1.969	.591	.787	.591	.787	.024	.248	CM0502	4
		ST20-C1924-45B-60	–	2	24.7mm	.787	.677	5.630	2.362	.748	.945	.748	.945	.024	.248	CM0502	4
		ST20-C2232-45B-50	○	3	32.7mm	.787	.756	5.118	1.969	.866	1.260	.866	1.260	.016	.488	CM10C1	
		ST20-C2232-45B-80●						6.299	3.150								
		ST32-C3242-45B-65	○	3	42.7mm	1.260	1.205	6.890	2.559	1.260	1.654	1.260	1.654	.016	.488	CM10C1	4
		ST32-C3242-45B-100●						8.307	3.937								
60°	30°	ST12-C1317-6030B-25	–	2	17.4mm	.472	.331	3.858	.984	.512	.669	.394	.630	.012	.252	CM03...	4
		ST20-C2632-6030B-50	–	3	32.7mm	.787	.669	5.118	1.969	1.024	1.260	.748	1.220	.059	.488	CM10...	

- Wrench and screws are included; inserts must be ordered separately
- In case of chamfering, chatter may occur due to increasing cutting force when plunge cutting, so please try a different model with less inserts
- Items marked ● indicates Long Type

ACCESSORIES

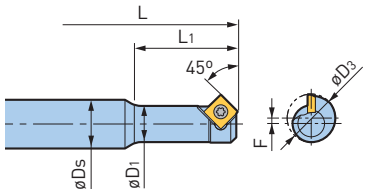
INSERTS
PG. 572

Modular CKB Type Also Available
PG. 491

C-CUTTER MINI (SINGLE INSERT TYPE)

WORLD'S SMALLEST INSERTS

Cutting Edge Details



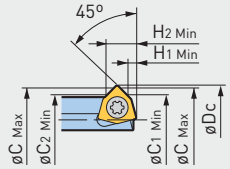


Fig. 1

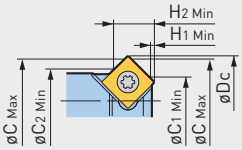


Fig. 2

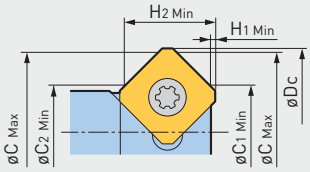
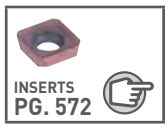


Fig. 3

Catalog Number	Fig.	øDc	øDs	øD1	øD3	L	L1	øC1 Min	øC2 Min	øC Max	H1 Min	H2 Min	Offset F	Insert Model
ST10-C0608-45B-16	1	8.8mm	.394	.224	.224	3.071	.630	.236	.236	.315	.039	.150	.061	CM0402
ST10-C0409-45B-20	2	9.8mm	.394	.213	.303	3.386	.787	.157	.236	.354	.020	.213	.043	CM0502
ST10-C0611-45B-20	2	12.0mm	.394	.291	.386	3.189	.787	.236	.315	.433	.016	.217	.043	CM0502
ST10-C0611-45B-35●						3.780	1.378							
ST16-C1222-45B-40	3	22.6mm	.630	.433	.665	4.606	1.575	.472	.472	.866	.012	.488	.114	CM10C1

- Wrench and screws are included; inserts must be ordered separately
- Items marked ● indicates Long Type

ACCESSORIES



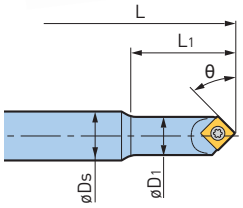
C-CUTTER MINI (SINGLE INSERT TYPE)

WORLD'S SMALLEST INSERTS

Front Chamfer 30°

Front Chamfer 45°

Front Chamfer 60°



Cutting Edge Details

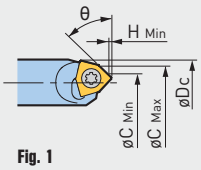


Fig. 1

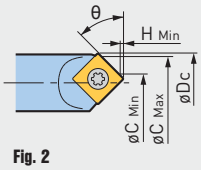


Fig. 2

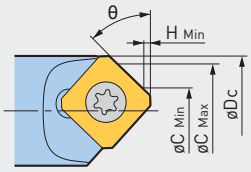


Fig. 3

ACCESSORIES

INSERTS PG. 572

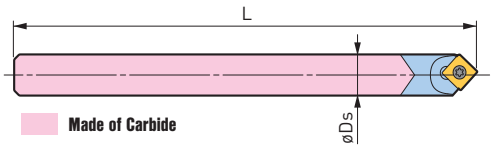
Surface Chamfer Angle θ1	Catalog Number	Fig.	øDc	øDs	øD1	L	L1	øC Min	øC Max	H Min	Insert Model
30°	**ST10-C0209-30-20**	2	9.7mm	.394	.370	3.189	.787	.789	.354	.008	CM05...
	ST16-C0214-30-40	3	15.9mm	.630	.606	4.134	1.575	.079	.551	.008	CM10C1
45°	**ST8-C0103-45-16**	1	4.9mm	.315	.185	2.677	.630	.039	.118	.004	CM03...
	ST10-C0204-45-15	1	6.3mm	.394	.236	3.071	.591	.079	.157	.016	CM0402
	ST10-C0204-45-25					3.465	.984				
	ST10-C0207-45-20	2	8.1mm	.394	.307	3.189	.787	.079	.276	.016	CM0502
	ST10-C0207-45-35					3.780	1.378				
	ST16-C0515-45-50	3	15.8mm	.630	.598	4.803	1.969	.197	.591	.016	CM10C1
60°	**ST10-C0408-60-20**	2	8.4mm	.394	.315	3.189	.787	.157	.315	.012	CM05...
	ST16-C0916-60-40	3	16.5mm	.630	.614	4.134	1.575	.354	.630	.031	CM10C1

- Wrench and screws are included; inserts must be ordered separately
- Centering is not possible

(SINGLE INSERT CARBIDE SHANK TYPE)

Carbide shank ideal for deep chamfering

NEW Product



Cutting Edge Details

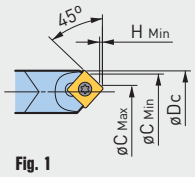


Fig. 1

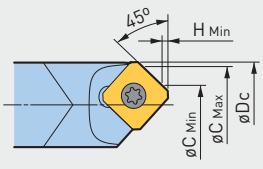


Fig. 2

ACCESSORIES

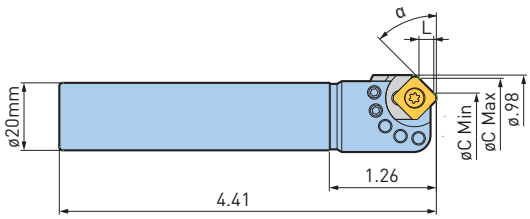
INSERTS PG. 572

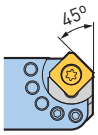
Catalog Number	Fig.	øDs	øD1	L	øC Min	øC Max	H Min	Insert Model
ST08W-C0207-45-90	1	8.3mm	.315	3.543	.079	.276	.012	CM05...
ST16W-C0616-45-160	2	16.8mm	.630	6.299	.236	.630	.016	CM10...

- Wrench and screws are included; inserts must be ordered separately
- Centering is not possible

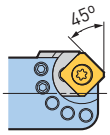
C-CUTTER MINI (UNIVERSAL TYPE)

Chamfering angle adjustment from 5º to 85º with a hex key.





45º (A)



45º (B)

Catalog Number	Inserts
ST20-CM5/85A-30	CM10C1

ACCESSORIES

INSERTS PG. 572

Chamfering Range

Angle α	Smallest Hole øC Min	Largest Hole øC Max	L
5º	.224	.740	.024
10º	.264	.776	.047
15º	.299	.807	.067
20º	.335	.835	.091
25º	.378	.858	.114
30º	.417	.878	.134
35º	.457	.894	.154
40º	.500	.906	.173
45º [A]	.539	.917	.189
45º [B]	.528	.906	.189

Angle α	Smallest Hole øC Min	Largest Hole øC Max	L
50º	.567	.913	.205
55º	.610	.917	.220
60º	.646	.917	.232
65º	.685	.913	.244
70º	.720	.906	.252
75º	.752	.894	.260
80º	.783	.878	.264
85º	.815	.862	.268

C-CUTTER MINI (BOLT AND TAPPED HOLE TYPE)

WORLD'S SMALLEST INSERTS

ACCESSORIES

INSERTS PG. 572

TAP HOLE SIZES M4 / M5 PG. 579

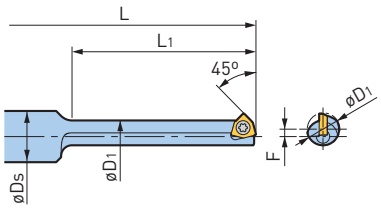
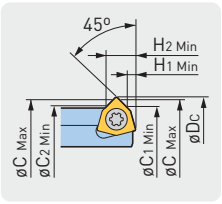


Fig. 1

Cutting Edge Details



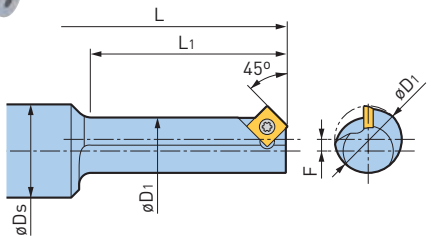
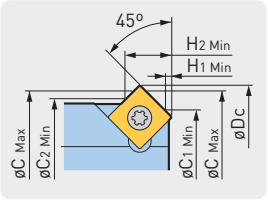


Fig. 2

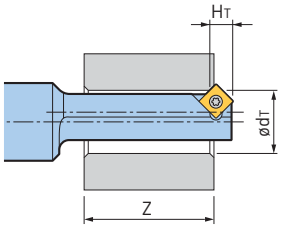
Cutting Edge Details



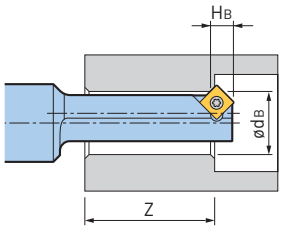
Catalog Number	Fig.	øDc	øDs	øD1	L	L1	øC1 Min	øC2 Min	øC Max	H1 Min	H2 Min	Offset F	Insert Model
ST8-CM06-45B-14	1	7.0mm	.315	.181	2.598	.551	.193	.193	.248	.035	.122	.047	CM03...
ST8-CM06-45B-26●					3.071	1.024							
ST10-CM08-45B-19	1	9.2mm	.394	.248	3.189	.748	.252	.260	.331	.039	.146	.057	CM0402
ST10-CM08-45B-35●					3.819	1.378							
ST12-CM10-45B-25	2	11.3mm	.472	.315	3.898	.984	.217	.327	.413	.020	.197	.065	CM0502
ST12-CM10-45B-45●					4.685	1.772							
ST12-CM12-45B-29	2	13.4mm	.472	.382	4.016	1.142	.299	.394	.496	.020	.205	.073	
ST12-CM12-45B-53●					4.961	2.087							
ST16-CM14-45B-33	2	15.5mm	.630	.453	4.213	1.299	.382	.465	.579	.020	.209	.078	CM0502
ST16-CM14-45B-61●					5.315	2.402							
ST16-CM16-45B-37	2	17.6mm	.630	.531	4.331	1.457	.465	.543	.661	.020	.213	.081	
ST16-CM16-45B-69●					5.591	2.717							
ST20-CM18-45B-42	2	19.7mm	.787	.587	4.961	1.654	.547	.598	.744	.020	.224	.094	CM0502
ST20-CM18-45B-78●					6.378	3.071							
ST20-CM20-45B-46	2	21.8mm	.787	.665	5.079	1.811	.630	.677	.827	.020	.228	.096	
ST20-CM20-45B-86●					6.654	3.386							

- Wrench and screws are included; inserts must be ordered separately
- For Long Type, standard inserts are recommended rather than "SE" (Sharp Edge) inserts to avoid chatter
- Items marked ● indicates Long Type

Tap Hole



Bolt Hole



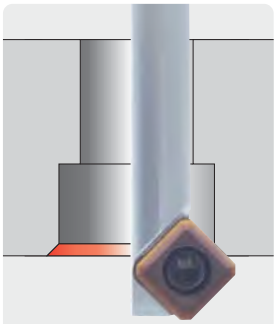
Body	Tap Hole		Bolt Hole		Z	
	ødT	HT	ødB	HB	Standard	Long
CM06	.197 (M6)	.118	.217 (M5)	.110	.394	.866
CM08	.268 (M8)	.142	.260 (M6)	.146	.512	1.142
CM10	.335 (M10)	.193	.354 (M8)	.181	.669	1.457
CM12	.406 (M12)	.197	.433 (M10)	.185	.827	1.772
CM14	.472 (M14)	.205	—	—	.984	2.087
CM16	.551 (M16)	.209	.551 (M12)	.209	1.142	2.402
CM18	.610 (M18)	.220	.630 (M14)	.209	1.299	2.717
CM20	.689 (M20)	.220	.709 (M16)	.213	1.457	3.031

- See pg. 578 for M4 and M5

C-CUTTER MINI (COUNTERBORE TYPE)

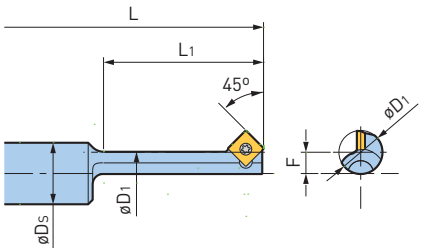
LOWER HOLE DIAMETER: ø10-20mm

Available with front & back chamfering.



Chamfering at the counterbore is achieved by utilizing the larger insert offset.

Cutting Edge Details



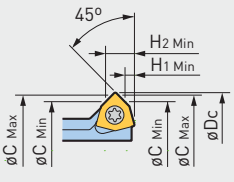


Fig. 1

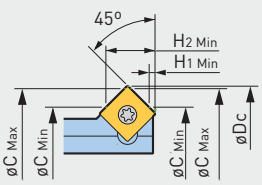


Fig. 2

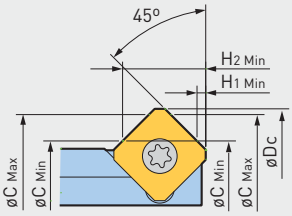
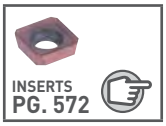


Fig. 3

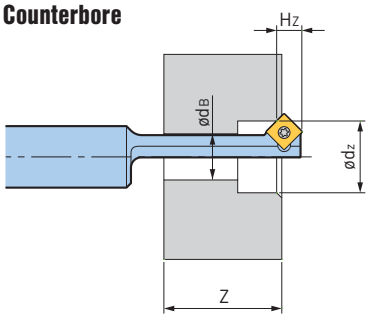
Catalog Number	Fig.	øDc	øDs	øD1	L	L1	øC Min	øC Max	H1 Min	H2 Min	Offset Amount F	Insert
ST10-CZ06-45B-23	1	12.8mm	.394	.240	3.346	.906	.394	.472	.039	.150	.132	CM04...
ST12-CZ08-45B-31	2	16.8mm	.472	.335	4.094	1.220	.433	.630	.020	.248	.163	CM05...
ST16-CZ10-45B-37	2	20.3mm	.630	.413	4.370	1.457	.571	.768	.020	.248	.193	CM05...
ST16-CZ12-45B-50	3	24.8mm		.531	4.882	1.969	.551	.945	.012	.472	.222	CM10...
ST20-CZ14-45B-56	3	27.8mm	.787	.610	5.472	2.205	.669	1.063	.012	.472	.242	CM10...

• Wrench and screws are included; inserts must be ordered separately

ACCESSORIES



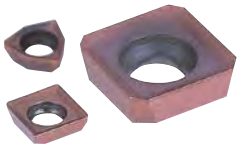
Counterbore



Cutter Size	ødB	Counterbore		Z
		ødz	Hz	
CZ06	6.6mm (M6)	11mm (M6)	.130	.669
CZ08	9mm (M8)	14mm (M8)	.193	.906
CZ10	11mm (M10)	17.5mm (M10)	.193	1.142
CZ12	14mm (M12)	20mm (M12)	.370	1.457
CZ14	16mm (M14)	23mm (M14)	.370	1.693

C-CUTTER MINI

INSERTS



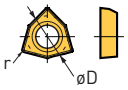


Fig. 1

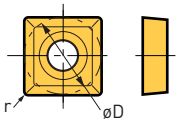


Fig. 2

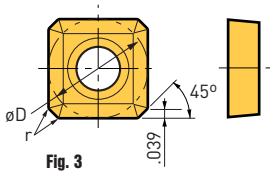
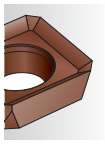


Fig. 3



SE (Sharp Edge) Type

Sharp edge prevents burrs. Recommended for stainless steel & mild steel.

Insert Classifications

ACP200/ACP300	CWS20A	ACM250F	DS20	NF15KA
For all steel & stainless steel materials	For hardened steel	For stainless steel	For aluminum & / non-ferrous materials	For cast iron
Multi-layer PVD coating on carbide base with nanoscale TiAlN & AlCrN. Excellent performance and wear resistance.	Significantly improved toughness while maintaining hardness. Uses a tough carbide base material. AlTiSiN abrasion resistance due to the super multi-layered thin film structure of the system. Excellent PVD coated carbide.	PVD-coated carbide with excellent smoothness and resistance to welding and chipping, due to the ultra-multilayered thin film structure made of AlTiN and TiAlCrN	DLC coating on carbide base with very smooth surface for a low coefficient of friction. Excellent performance against built-up edge.	Adopts K15-equivalent carbide material with hardness & toughness for cast iron.

Insert Model	Fig.	øD	Nose Radius	Insert Grade						Insert Clamping Screw Set
				ACP200	ACP300	CWS20A	ACM250F	DS20	NF15KA	
CM0302	1	.130	.008	—	○	—	○	○	—	S1.6S-T3
CM0402	1	.156	.008	—	○	—	○	○	—	S2SS-T6
CM0502	2	.197	.008	○	—	○	○	○	○	S2TS-T6
CM0502SE				○	○	—	—	—	—	
CM10C1	3	.394	.008	○	—	○	○	○	○	S4S-T15
CM10C1SE				○	—	—	—	—	—	

- Inserts are available in packages of 10 pcs.
- Please clarify the insert model and grade when ordering (ex: CM0402(ACP300))
- 10 screws and 1 wrench are included with insert clamping screw set
- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained
- **SE** in the Insert Model means Sharp Edge Type

C-CUTTER MINI

Cutting Conditions

Material	Insert Grade	Cutting Speed (SFM)	Feed (IPT)		Coolant
			Chamfering	Face Milling	
Stainless Steel, Carbon Steel, Alloy Steel	ACP200, ACP300	330-1150	.002-.016	.002-.008	Dry
Alloy Tool Steel	CWS20A	330-655	.002-.016	.002-.008	Dry
Pre-hardened Steel, Hardened steel <HRC50		265-525	.002-.016	.002-.008	Dry
Hardened Steel HRC50-62		165-260	.002-.016	.002-.008	Dry
Stainless Steel	ACM250F	330-825	.003-.012	.003-.008	Dry/Wet
Titanium		130-195	.001-.003	.001-.003	Wet
Inconel		65-100	.001-.003	.001-.003	Wet
Cast Iron	NF15KA	330-1155	.004-.020	.002-.010	Dry
Aluminum/Non-Ferrous	DS20, ACP300	330-2640	.004-.020	.002-.012	Dry/Wet

- This table is a guideline for selecting cutting parameters; adjust them as needed according to the machine and workpiece conditions.
- Generally, wet cutting effectively improves finishing surfaces
- Wet cutting effectively suppresses built-up edges occurring on stainless steel or aluminum chamfering
- For aluminum/non-ferrous materials marked with ❖ DS20 is the No.1 recommendation; if chatter occurs with DS20, use ACP300

For Spot Facing Hole Type And Long Type Of Bolt Hole & Tap Starting Hole Type

Material	Insert Grade	Cutting Speed (SFM)	Feed (IPT)	Coolant
Unalloyed Steel, Carbon Steel, Alloy Steel	ACP200, ACP300	66-330	.001-.005	Wet
Cast Iron	NF15KA	165-525	.002-.008	Dry
Aluminum/Non-ferrous	ACP200, ACP300	99-330	.001-.005	Wet

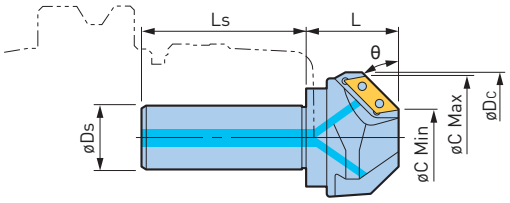
- This table is a guideline for selecting cutting parameters. Adjust them as needed according to the machine and workpiece conditions
- Short projection length types other than the LONG TYPE are recommended for stainless steel and pre-hardened steel

C-CUTTER

Covers a Wide Range of Chamfering Diameters and Reduces the Number of Tools and ATC Required

Designed exclusively for chamfering, the insert has a large rake angle and produces a clean chamfering surface. A wide machining range reduces the number of tools in the magazine and is especially effective for reducing ATC time loss.

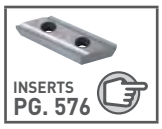
COOLANT THROUGH



Chamfering Angle θ	Catalog Number	øDs	Min Hole øC Min	Max Chamfer Diameter øC Max	Outer Diameter øDC	L	Ls	Number of Inserts	Applicable Insert
30°	**ST32-C1652C-30**	32mm	.63	2.05	2.677	1.890	3.15	2	CW1909A
	ST42-C5085C-30	42mm	1.97	3.35	3.780	2.047		3	
45°	**ST20-C0525C**	20mm	.20	.98	1.299	.985	2.36	1	CW1206A
	ST25-C1040C	25mm	.39	1.57	1.772	1.378	2.76	2	CW1909A
	ST32-C3060C	32mm	1.18	2.36	2.559	1.772	3.15	3	
	ST42-C50100C	42mm	1.97	3.94	4.173	2.756		3	CW3115A
60°	**ST25-C1434C-60**	25mm	.55	1.34	1.535	1.457	2.76	2	CW1909A
	ST32-C3050C-60	32mm	1.18	1.97	2.126	1.772	3.15	3	
	ST32-C4565C-60		1.77	2.56	2.717	1.969		3	

• Insert clamping screws and wrench are included; inserts must be ordered separately

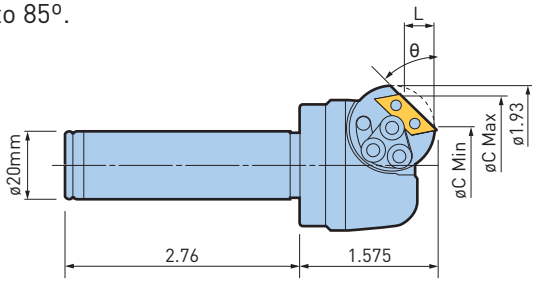
ACCESSORIES



Modular CKB Type Also Available
PG. 490

C-CUTTER (UNIVERSAL TYPE)

Handles chamfering angles from 5º to 85º.



Catalog Number	Insert
ST20-C5/85A-40	CW1206A

ACCESSORIES

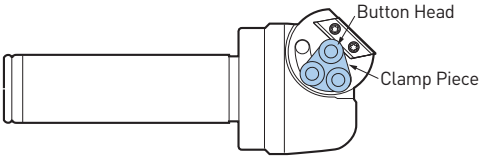
Chamfering Range

Angle θ	Smallest Hole øC Min	Largest Hole øC Max	L
5º	.217	1.319	.047
10º	.287	1.366	.094
15º	.354	1.425	.142
20º	.441	1.472	.185
25º	.512	1.520	.232
30º	.598	1.559	.276
35º	.685	1.594	.315
40º	.772	1.622	.354
45º	.858	1.646	.394

Angle θ	Smallest Hole øC Min	Largest Hole øC Max	L
50º	.945	1.661	.433
55º	1.04	1.669	.433
60º	1.12	1.673	.472
65º	1.21	1.669	.512
70º	1.30	1.657	.512
75º	1.37	1.642	.512
80º	1.45	1.618	.472
85º	1.53	1.586	.339

• Chamfering range and L are reference only, measure accurate values with a presetter

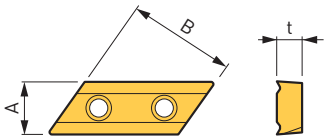
SPARE PARTS



Button Head (1 pc.)	Clamp Piece (1 pc.)
B0416	**C5/85A**

C-CUTTER

INSERTS



Non-Coating	Adopts P30-equivalent carbide material with emphasis on toughness for versatile use with materials from steel to aluminum.
ZX Coating	TiN and AlN multilayer coating increases speeds and extends insert life in chamfering of steel or cast iron.
DLC Coating	The exclusive substrate is treated with a thin DLC coating to prevent welding during aluminum machining. It retains sharpness and achieves a clean surface finish.

• DLC coating types do not come in 10 pcs. sets

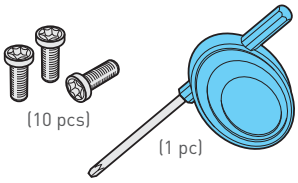
1 pc.

Catalog Number			A	B	t
Non-Coating	ZX Coating	DLC Coating			
CW1206A	**CW1206A(ZX)**	**CW1206A(DLC)**	.250	.500	.106
CW1909A	**CW1909A(ZX)**	**CW1909A(DLC)**	.375	.750	.177
CW3115A	**CW3115A(ZX)**	**CW3115A(DLC)**	.625	1.250	.276

10 pcs.

Catalog Number		A	B	t
Non-Coating	ZX Coating			
CW1206A-10P	**CW1206A(ZX)-10P**	.250	.500	.106
CW1909A-10P	**CW1909A(ZX)-10P**	.375	.750	.177
CW3115A-10P	**CW3115A(ZX)-10P**	.625	1.250	.276

INSERT CLAMPING SCREW SET



Insert	Set Model	Wrench
CW1206A	**S2S-B**	FLR-13S
CW1909A	**S3S**	FLR-20S
CW3115A	**S5S**	FLR-28S

• The set contains 10 screws and 1 wrench
• Wrenches are also available separately

C-CUTTER

Cutting Data

Vc: Cutting speed (SFM), f = Feed per revolution (in/rev)

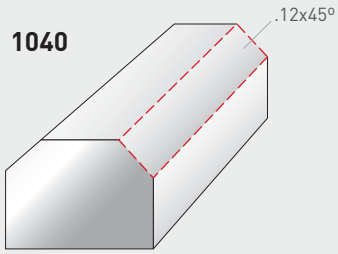
Catalog Number	Max Chamfering Amount	Chamfering Mode	General Steels		Stainless Steel		Cast Iron		Aluminum	
			Vc	f	Vc	f	Vc	f	Vc	f
ST20-C5/85A-40	.08❖	Plunge	165	.004	100	.003	130	.004	265	.004
		Side	265	.006	200	.004	165	.006	330	.008
ST20-C0525C	.08	Plunge	165	.004	100	.003	130	.004	265	.004
		Side	265	.006	200	.004	165	.006	330	.006
ST25-C1040C	.12	Plunge	300	.006	130	.005	200	.006	330	.008
		Side	400	.012	200	.008	300	.012	500	.012
ST25-C1434C-60 ST32-C1652C-30	.12❖	Plunge	300	.006	130	.005	200	.006	330	.008
		Side	400	.012	200	.008	300	.012	500	.012
ST32-C3060C	.16	Plunge	400	.012	200	.007	300	.010	500	.012
		Side	500	.018	200	.012	400	.024	650	.022
ST32-C3050C-60 ST32-C4565C-60 ST42-C5085C-30	.16❖	Plunge	400	.012	200	.007	300	.010	500	.012
		Side	500	.018	200	.012	400	.024	650	.022
ST42-C50100C	.16	Plunge	500	.016	265	.010	400	.014	600	.016
		Side	500	.018	200	.014	400	.024	800	.022

- Cutting conditions are the same for coated and non-coated inserts.
- The use of coated inserts enables better surface finish and extended insert life
- Lower the cutting speed if the maximum chamfering amount is exceeded
- If plunge cutting produces long chips, use step feed
- We recommend the use of a high-rigidity holder for chucking (HMC, MEGA-D etc.)
- Max chamfering amount for the 30°, 60° and Universal Types marked with ❖ is the chamfering length of the longer side

Application Example

C3 Traverse Chamfering

A clean surface with no chatter was achieved even in traverse chamfering, under high cutting conditions.



C-Cutter Model	ST25-C1040C
Insert Model	CW1909A
Spindle Speed n	3,000 RPM
Feed Vf	70"/min

C-CUTTER MICRO

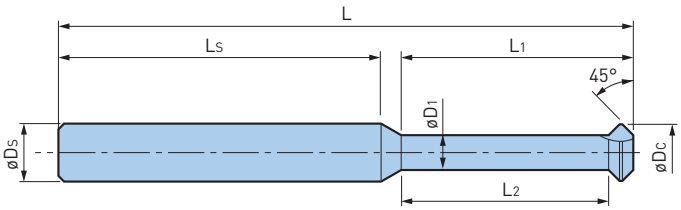
Ultra-Fine Diameter Allows Both Front and Back Chamfering Even on Workpieces with Complex Shapes

CUTTER DIAMETER: ø.075"-.311"

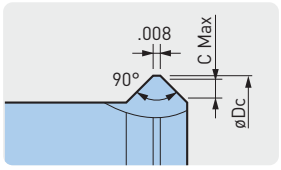
The long-neck size is convenient for deep workpiece edges, or back chamfering of drilled holes. Uses a chromium nitride coating for high resistance to build up edge.

Effective Twisted Edges

CrN Coating



Cutting Edge Details



Catalog Number	øDc	øDs	øD1	L	Ls	L1	L2	C Max
ST3W-CS2-45B-04 ●	.075	3mm	.043	1.575	1.34	.157	.118	.012
ST3W-CS2-45B-08 ●			.047		1.18	.315	.276	.010
ST3W-CS2-45B-04	.075	3mm	.043	1.575	1.34	.157	.118	.012
ST3W-CS2-45B-08			.047		1.18	.315	.276	.010
ST3W-CS3-45B-06	.114	3mm	.067	1.575	1.30	.236	.177	.020
ST3W-CS3-45B-12			.075		1.06	.472	.413	.016
ST4W-CS4-45B-08	.154	4mm	.083	1.772	1.40	.315	.236	.031
ST4W-CS4-45B-16			.094		1.08	.630	.551	.026
ST5W-CS5-45B-10	.193	5mm	.098	1.969	1.48	.394	.276	.043
ST5W-CS5-45B-20			.110		1.10	.787	.689	.037
ST6W-CS6-45B-12	.232	6mm	.118	1.969	1.40	.472	.335	.053
ST6W-CS6-45B-24			.134	2.362	1.32	.945	.827	.045
ST8W-CS8-45B-16	.311	8mm	.157	2.362	1.59	.630	.453	.073
ST8W-CS8-45B-32			.177	2.756	1.38	1.260	1.102	.063

- Cutting edge material is CrN coated carbide
- Number of inserts is 3 for all models

Cutting Conditions

Workpiece Material	Cutting Speed Vc (SFM)	Feed per Tooth fz (IN/flute)
Unalloyed Steel, Carbon Steel, Alloy Steel	230-330	.002-.004
Stainless Steel	200-265	.001-.003
Cast Iron/Ductile Cast Iron	130-265	.002-.004
Aluminum/Non-ferrous	265-500	.002-.005

This table is a guideline for selecting cutting parameters. Adjust them as needed according to the machine and workpiece conditions. Generally, wet cutting provides a better surface finish. Back chamfering may require lower cutting conditions than front. Lower the feed if secondary burrs appear.

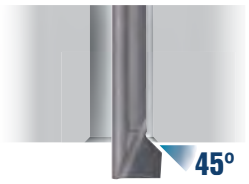
Keep the tool projection length as short as possible. Stop using the tool if it receives strong impact such as collision. The tool becomes hot during cutting. There is a risk of burn if touched immediately after use. Use protective equipment such as safety enclosures and glasses against scattering chips or tool breakage caused by accidents.

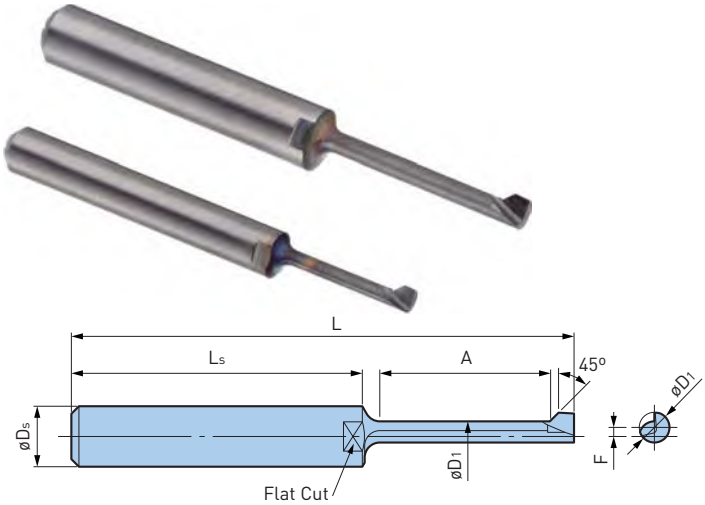
C-CUTTER MICRO (FOR BACK CHAMFERING)

TAP HOLE SIZE: M4, M5

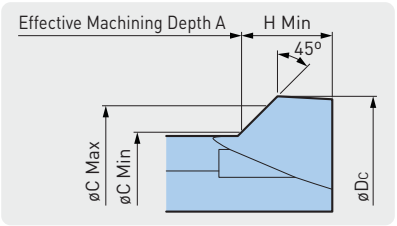
Designed for efficient back chamfering of tapped holes

NEW Product





Cutting Edge Details



Back Chamfer Angle	Catalog Number	øDc	øDs	øD1	Minimum Pilot Hole Diameter øD	L	Ls	Effective Machining Depth A	øC Min	øC Max	H Min	Offset Amount F
45°	**ST6W-CM04-45B-14**	.205	6mm	.122	.130	2.283	1.50	.551	.130	.177	.094	.043
	ST8W-CM05-45B-17	.248	8mm	.157	.165	2.441	1.50	.669	.165	.220	.122	.047
	ST8W-CM05-45B-22					2.638		.866				

- Cutting edge material is CrN coated carbide
- When aligning the machine spindle, the offset direction and phase position of the cutting edge should be within .004" when measured on a flat surface with a test indicator

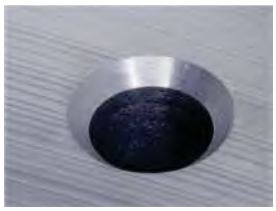
Cutting Conditions

Workpiece Material	Cutting Speed Vc (SFM)	Feed per Tooth f (IPT)
Carbon Steel, Alloy Steel	100-200	.001-.003
Cast Iron	100-260	.002-.004
Aluminum/Non-ferrous	160-330	.001-.004

This table is a guideline for selecting cutting parameters. Adjust them as needed according to the machine and workpiece conditions.
Generally, wet cutting provides a better surface finish.
Lower the feed if secondary burrs appear.

Application Example

Back chamfering of M4 tapped holes



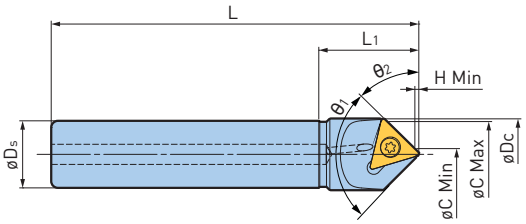
C-Cutter Micro Model	ST6W-CM04-45B-14
Material	1050 Carbon Steel
Pilot Hole Diameter (in)	ø.130
Chamfer Amount (in)	ø.177
Cutting Speed Vc (SFM)	164
Rotational Speed n (min-1)	3,537
Feed Rate f (IPT)	.002
Feed Rate Vf (IPM)	7

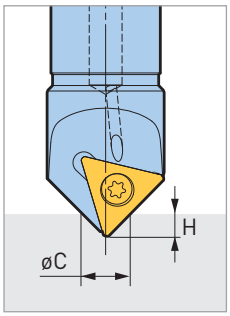
Keep the tool projection length as short as possible. Stop using the tool if it receives strong impact such as collision. The tool becomes hot during cutting. There is a risk of burn if touched immediately after use. Use protective equipment such as safety enclosures and glasses against scattering chips or tool breakage caused by accidents.

C-CENTERING CUTTER

A multifunction cutter capable of both spot drilling and chamfering.

COOLANT THROUGH





Chamfering Angle θ1	Chamfering Angle θ2	Catalog Number	øDs	øDc	L	L1	øC Min	øC Max	H Min	Insert
90°	45°	**ST8-CN0209-45-65**	8mm	.393	2.56	.590	.079	.354	.024	CN0406
		ST12-CN0213-45-90	12mm	.551	3.54	.787	.079	.512	.024	CN0606
		ST20-CN0220-45-110	20mm	.866	4.33	1.181	.079	.787	.012	CN0906
120°	30°	**ST10-CN0211-30-70**	10mm	.512	2.76	.590	.079	.433	.016	CN0406
		ST16-CN0216-30-90	16mm	.669	3.54	.787	.079	.630	.016	CN0606
		ST20-CN0225-30-110	20mm	1.063	4.33	1.181	.079	.984	.016	CN0906

90 Degree

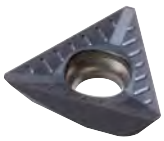
H = (C-Cmin)/2 + Hmin

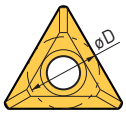
120 Degree

H = (C-Cmin)/3.46 + Hmin

- Wrench and screw is included; inserts must be ordered separately
- As the insert has a nose radius, spot drilled tip is not acute
- Use with hand feed is not recommended

INSERTS





Catalog Number	øD	Insert Grade			Screw Set Catalog Number
		ACM250F (For Steel/Cast Iron/Stainless Steel)	DS20 (For Aluminum)	ACZ150 (For Steel/Cast Iron/Stainless Steel)	
CN0406	.187	○	○	○	S2TS-6IP
CN0606	.250	○	○	○	S2.5S-8IP
CN0906	.375	○	○	○	S4S-15IP

- Inserts are available in a packet of 10 pcs.; please specify the insert model number and grade when ordering Example: CN0906 ACM250F.....10 pcs.
- The insert clamping screw set contains 10 screws and 1 wrench
- Insert clamping screws and tightening wrench are consumables; order periodically for replacement or spares.

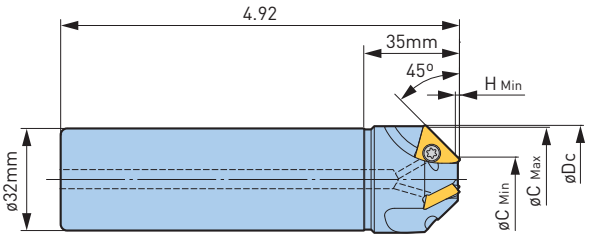
Cutting Conditions

Workpiece Material	Cutting Speed Vc (SFM)	Feed (IPT)	
		Spot Drilling	Traverse Chamfering
Carbon Steel, Alloy Steel	165-500	.001-.003	.002-.008
Stainless Steel	165-400	.001-.002	
Cast Iron	230-650	.001-.003	
Aluminium, Non-ferrous Metals	330-1000		

- The table is just a reference to determine cutting conditions, it should be adjusted according to the condition of the machine tool and workpiece
- Be sure to use water-soluble cutting fluid during spot drilling
- For traverse chamfering, dry cutting (including air blowing) is recommended; however, if severe built-up edge occurs in aluminum machining, use water-soluble cutting fluid

C-CENTERING CUTTER (3 INSERT)

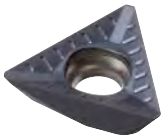
COOLANT THROUGH

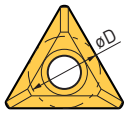


Catalog Number	øDc	øC Min	øC Max	H Min	Insert
ST32-CN1433-45-125	1.339	.551	1.299	.024	CN0906

- Wrench and screw is included; inserts must be ordered separately
- Centering is not possible

INSERTS





Catalog Number	øD	Insert Grade			Screw Set Catalog Number
		ACM250F (For Steel/Cast Iron/Stainless Steel)	DS20 (For Aluminum)	ACZ150 (For Steel/Cast Iron/Stainless Steel)	
CN0906	.375	○	○	○	S4S-15IP

- Inserts are available in a packet of 10 pcs.; please specify the insert model number and grade when ordering Example: CN0906 ACM250F.....10 pcs.
- The insert clamping screw set contains 10 screws and 1 wrench
- Insert clamping screws and tightening wrench are consumables; order periodically for replacement or spares.

Cutting Conditions

Workpiece Material	Cutting Speed Vc (SFM)	Feed (IPT)	
		Spot Drilling	Traverse Chamfering
Carbon Steel, Alloy Steel	165-500	.001-.003	.002-.008
Stainless Steel	165-400	.001-.002	
Cast Iron	230-650	.001-.003	
Aluminium, Non-ferrous Metals	330-1000		

- The table is just a reference to determine cutting conditions, it should be adjusted according to the condition of the machine tool and workpiece
- Be sure to use water-soluble cutting fluid during spot drilling
- For traverse chamfering, dry cutting (including air blowing) is recommended; however, if severe built-up edge occurs in aluminum machining, use water-soluble cutting fluid

CENTER BOY

Accurate Positioning of Drill Holes and Chamfering Can be Performed Simultaneously

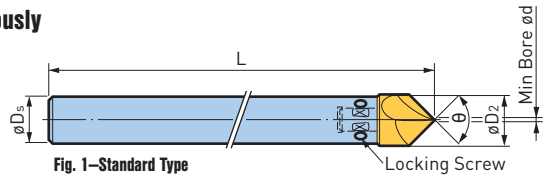


Fig. 1–Standard Type

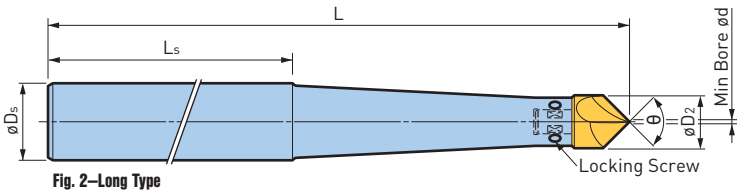


Fig. 2–Long Type

Point Angle	Fig.	Catalog Number	øDs	D2	ød	L	Ls	Insert Model	Spare Locking Screw
90°	1	**ST10-CBY09010**	10mm (.394)	.394	.035	5.906	—	CBY09010-5P	H0403-5P
	1	**ST12-CBY09013**	12mm (.472)	.512	.035	5.906		CBY09013-5P	H0504-5P
	1	**ST16-CBY09016**	16mm (.630)	.630	.039	7.087		CBY09016-5P	H0504-5P
	1	**ST20-CBY09022**	20mm (.787)	.866	.059	7.087		CBY09022-5P	H0505-5P
	2	**ST20-CBY09013-220**	20mm (.787)	.512	.035	8.661	4.724	CBY09013-5P	H0403-5P
		ST20-CBY09013-260				10.236			
	2	**ST32-CBY09022-260**	32mm (1.260)	.866	.059	10.236	4.724	CBY09022-5P	H0505-5P
		ST32-CBY09022-300				11.811			
120°	1	**ST12-CBY12013**	12mm (.472)	.512	.035	5.906	—	CBY12013-5P	H0403-5P

• Wrench, screws, and two inserts are included; additional inserts must be ordered separately

Hand feeding is not recommended.

THROWAWAY BIT

Precision-Finished Cutting Edge with Superb Sharpness

Since the bit can be replaced, there is no need for regrinding and the performance remains stable at all times.

Point Angle	Catalog Number	Body Model
90°	**CBY09010-5P**	ST10-CBY09010
	CBY09013-5P	ST12-CBY09013/ST20-CBY09013
	CBY09016-5P	ST16-CBY09016
	CBY09022-5P	ST20-CBY09022/ST32-CBY09022
120°	**CBY12013-5P**	ST12-CBY12013

• Bits are available in 5 pcs.
• High-speed steel/TiN coating (Bit material)

Cutting Conditions

Vc: Cutting speed (SFM), f = Feed per revolution (in/rev)

Catalog Number	Chamfering						Centering					
	Steel		Cast Iron		Aluminum		Steel		Cast Iron		Aluminum	
	Vc	f	Vc	f	Vc	f	Vc	f	Vc	f	Vc	f
CBY09010...	65	.004	65	.005	150	.006	80	.003	100	.004	165	.006
CBY09013...	80		80		165		100		115		180	
CBY12013...												
CBY09016...	100		115		180		150		130		200	
CBY09022...	115		130		200		165		150		215	

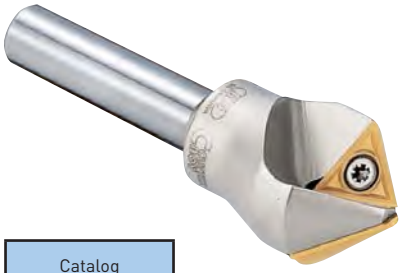
• The values in this table are only for reference and should be adjusted based on workpiece hardness, rigidity, and chamfering amount
• Lower the cutting speed Vc if chatter occurs
• Keep the projection length as short as possible

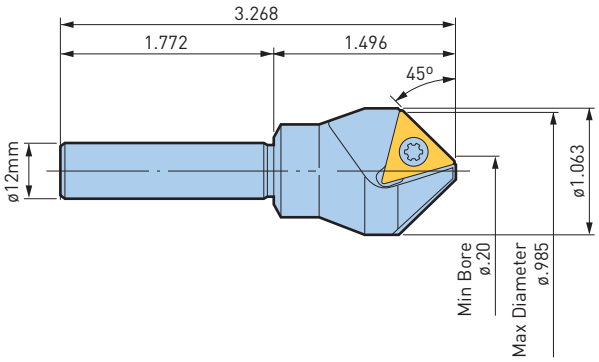
C-CUTTER BOY

Ideal for Chamfering with a Bench Drill

- Carbide insert achieves excellent chamfering
- Carbide guide prevents chatter, enabling easy operation
- ø12 shank diameter—no chatter with a bench drill

CARBIDE GUIDE PREVENTS CHATTER



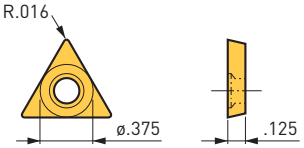


Catalog Number
ST12B-C0525

- One insert is included

INSERT

Catalog Number
C1603B



(Insert Material: Coated Carbide)

- Inserts sold in packs of 10 pcs.

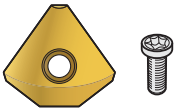
INSERT CLAMPING SCREW SET

Catalog Number	Thread size	Wrench
S4S	M4 x 8	FLR-20S

- The set contains 10 screws and 1 wrench
- Wrench is also available separately

CARBIDE GUIDE SET

Catalog Number	Carbide Guide	Thread Size
CG0525S	CG0525	M4 x 7



- The set contains 1 carbide guide and 1 screw
- The screw compatible wrench is FLR-20S

Cutting Conditions

Hole Diameter	Spindle Speed (RPM)		
	Steel	Cast Iron	Aluminum
ø.20	600	800	1,000
ø.40	500	600	800
ø.60	400	500	600
ø.75	300	400	500

- The values in this table are only for reference and should be adjusted based on workpiece hardness, rigidity and chamfering amount
- Keep runout as low as possible while machining
- We recommend the use of cutting fluid


BIG-PLUS SPINDLE SYSTEM
No.GBE01
CKB3-RC064B-15

R-CUTTER

Ultra High Feed Radius Chamfer Mill

Automated R-Chamfering available with front & back chamfering. Four insert design multiplies the feed rate.

(FRONT CHAMFER TYPE)

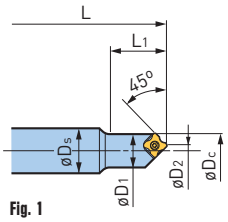


Fig. 1

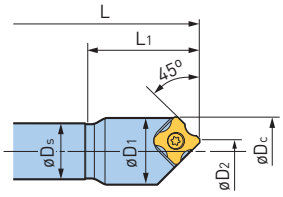
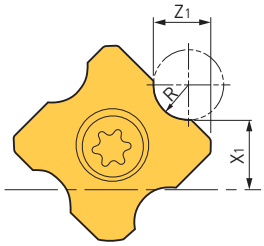


Fig. 2



Catalog Number	Fig.	øDc	øDs	øD1	øD2	L	L1	No. of Inserts	R	X1	Z1	Insert Model
ST16-RC061-20	1	.484	16mm (.630)	.469	.177	3.701	.787	1	.02	.142	.076	RC06....
									.04	.132	.086	
									.06	.122	.096	
									.08	.111	.106	
ST20-RC121-40	2	.961	20mm (.787)	.937	.350	4.764	1.575	1	.04	.282	.149	RC12....
									.08	.262	.169	
									.12	.241	.189	
									.16	.220	.208	

• Wrench and screws are included; inserts must be ordered separately

ACCESSORIES

R-CUTTER (FRONT & BACK CHAMFER TYPE)

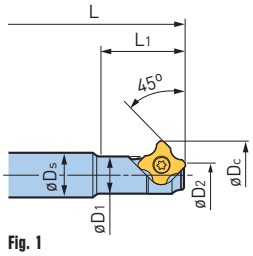


Fig. 1

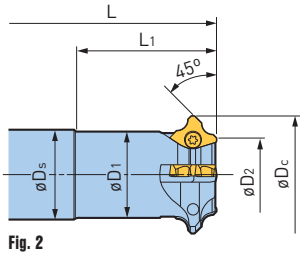
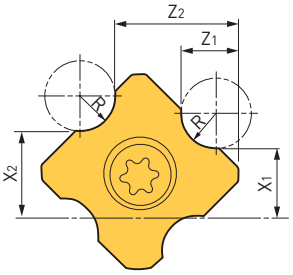


Fig. 2



Catalog Number	Fig.	øDc	øDs	øD1	øD2	L	L1	R	X1	Z1	X2	Z2	No. of Inserts	Insert Model
ST10-RC061B-15	1	.484	10mm (.394)	.260	.173	3.071	.591	.02	.142	.076	.169	.228	1	RC06....
								.04	.132	.086	.159	.218		
								.06	.122	.096	.149	.208		
								.08	.111	.106	.139	.198		
ST16-RC121B-30	1	.961	16mm (.630)	.524	.339	4.055	1.181	.04	.282	.149	.337	.442	1	RC12....
								.08	.262	.169	.316	.422		
								.12	.241	.189	.296	.402		
								.16	.220	.208	.275	.383		
ST16-RC064B-30	2	.827	16mm (.630)	.598	.520	3.976	1.181	.02	.311	.076	.338	.228	4	RC06....
								.04	.301	.086	.328	.218		
								.06	.291	.096	.319	.208		
								.08	.281	.106	.309	.198		
ST32-RC124B-50	2	1.654	32mm (1.260)	1.213	1.035	5.551	1.969	.04	.624	.149	.680	.458	4	RC12....
								.08	.604	.169	.659	.438		
								.12	.584	.189	.639	.419		
								.16	.563	.208	.619	.399		

• Wrench and screws are included; inserts must be ordered separately

ACCESSORIES

Modular CKB Type Also Available
PG. 492

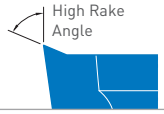
R-CUTTER

INSERTS

Type	Catalog Number	Radius R	Insert Clamping Screw Set
RC06	**RC06050(ACP300)**	.02	S2TS-T6
	RC06100(ACP300)	.04	
	RC06150(ACP300)	.06	
	RC06200(ACP300)	.08	
RC12	**RC12100(ACP300)**	.04	S4S-T15
	RC12200(ACP300)	.08	
	RC12300(ACP300)	.12	
	RC12400(ACP300)	.16	

- Wrench and screws are included
- Inserts are available in packages of 10 pcs.
- Material is coated carbide
- It is recommended to regularly replace clamping screws and wrench to ensure the correct clamping force is maintained

Excellent Sharpness



Unique Insert Geometry

High rake angle reduces cutting resistance and minimizes the generation of burrs.

Cutting Conditions

Workpiece Material	Cutting Speed (SFM)	Feed Rate (IPT)	Coolant
Structural, Carbon or Alloy Steel	330-1150	.002-008	Dry
Prehardened Steel <HRC40	195-260	.002-.004	Wet
Stainless Steel	330-820	.003-.008	Dry/Wet
Cast Iron	330-1150	.002-.010	Dry
Aluminum	330-2625	.002-.010	Dry/Wet

- The table is just a reference to determine cutting conditions and it should be adjusted according to the condition of the machine tool and workpiece
- Wet cutting is recommended to obtain a good surface finish
- In case built-up edge occurs cutting aluminum and stainless steel, use soluble oil

BF-CUTTER

Exclusively Designed for Back Spot Facing of Cap Bolt Holes

HOLE DIAMETER: ø.256"-1.299" (ø6.5-33mm)

Cap bolt size M6-M30, for ø1/4"-1"

COOLANT THROUGH

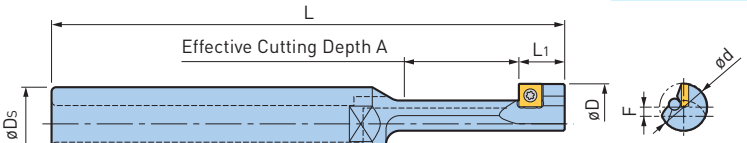


Fig. 1

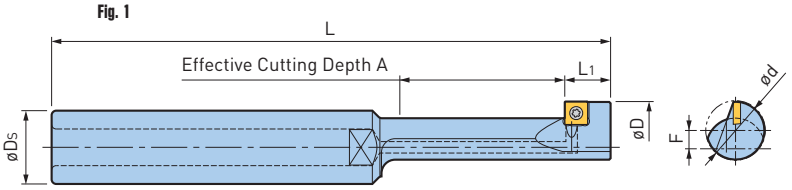
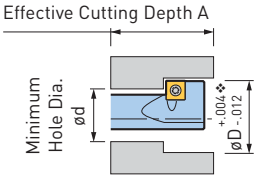


Fig. 2



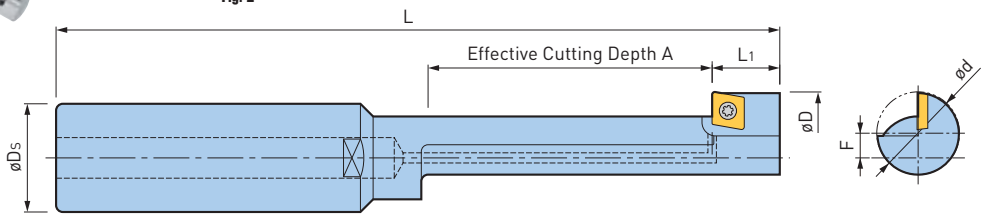


Fig. 3

Catalog Number	Fig.	Facing øD	øDs	Min Hole Dia. ød	L	A	L1	Offset F	Insert Model
ST16-BFM6/11-12	1	.433	16mm	.256	4.016	.472	.354	.094	CM0502
ST16-BFM8/14-20		.551		.335	4.252	.787		.114	
ST16-BFM10/17.5-25		.689		.413	4.409	.984	.394	.144	
ST16-BFM12/20-36	2	.787		.512	4.803	1.417		.144	
ST20-BFM14/23-49	2	.906	20mm	.591	5.354	1.929	.394	.163	CM0502
ST20-BFM16/26-56		1.024		.669	5.591	2.205		.183	
ST32-BFM18/29-63	3	1.142	32mm	.748	7.402	2.480	.590	.205	CC□□07..
ST32-BFM20/32-70		1.260		.827	7.677	2.756		.224	
ST32-BFM22/35-77		1.378		.906	7.953	3.031		.244	
ST32-BFM24/39-84		1.535		.984	8.425	3.307	.787	.287	CC□□09..
ST32-BFM27/43-95		1.693		1.181	8.858	3.740		.268	
ST32-BFM30/48-105		1.890		1.299	9.252	4.134		.307	

- Wrench and screws are included; inserts must be ordered separately
- The tolerance marked with ❖ is only for reference; the actual diameter varies depending on the rigidity of the machine or workpiece, as well as the cutting conditions

ACCESSORIES

INSERTS PG. 589

INSERT CLAMPING SCREW SET

Cutter Type	Catalog Number
BFM6/11	**S2SS-T6**
BFM8/14	
BFM10/17.5	
BFM12/20	**S2TS-T6**
BFM14/23	
BFM16/26	

Cutter Type	Catalog Number
BFM18/29	**S3S**
BFM20/32	
BFM22/35	
BFM24/39	**S4S-T15**
BFM27/43	
BFM30/48	

Cutting Conditions

Material	Cutting Speed (SFM)	Feed (IPT)
Carbon/Alloy Steel	100	.001
Cast Iron		
Aluminum/ Non-Ferrous Material	100-165	

BF-CUTTER

INSERTS

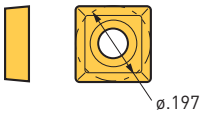


Fig. 1

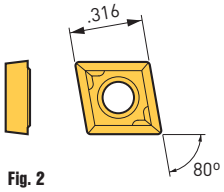


Fig. 2

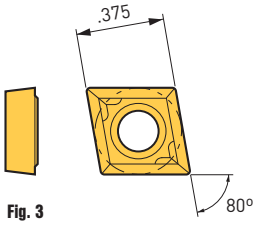


Fig. 3

Catalog Number	Fig.	Radius	Corner	Workpiece	Cutting Materials
CM0502(ACP200)	1	.008	4	General Steel	Coated Carbide (P20)
CM0502(ACM250F)				Stainless Steels	Coated Carbide (M30)
CM0502(NF15KA)				Cast Iron	Carbide (K15)
CM0502(DS20)				Aluminium	DLC Coated Carbide (K20)
CCGP070204EFM(T1500A)	2	.016	2	General Steel	Cermet (P10)
CCMP070204EFM(AC820P)					Coated Carbide (P20)
CCMP070204EFM(AC830P)					Coated Carbide (P30)
CCMP070204ESM(AC630M)				Stainless Steels	Coated Carbide (M30)
CCMP070204EFM(AC700G)				Cast Iron	Coated Carbide (K20)
CCMP070204EFM(AC410K)				Cast Iron / Aluminium	Coated Carbide (K10)
CCGA070204FN(H1)					Carbide (K10)
CCGM090308EFM(T1500A)	3	.031	2	General Steel	Cermet (P10)
CCMM090308EFM(AC820P)					Coated Carbide (P20)
CCMM090308EFM(AC830P)					Coated Carbide (P30)
CCMM090308ESM(AC630M)				Stainless Steels	Coated Carbide (M30)
CCMM090308EFM(AC700G)				Cast Iron	Coated Carbide (K20)
CCMM090308EFM(AC410K)				Aluminium	Coated Carbide (K10)

• Inserts are available in packages of 10 pcs.

Insert Classifications

ACP200	ACM250F	DS20	T1500A	AC820P	AC830P
For general steel	For stainless steel	For aluminum/non-ferrous	For general steel	For general steel	For general steel
PVD-coated carbide with superior wear resistance due to its nanometer-level thickness ultra-multilayered TiAlN and AlCrN film.	PVD-coated carbide with excellent smoothness and resistance to welding and chipping, due to the ultra-multilayered thin film structure made of AlTiN and TiAlCrN.	DLC-coated carbide exclusive for aluminum and non-ferrous metals, ultra-smooth with a low wear coefficient and superior welding resistance.	General purpose cermet for applications in regions from finishing to roughing. Special technology improves the material's resistance to thermal shock, allowing safe use even for wet machining.	The newly developed CVD method allows for a dense yet smooth coating that achieves outstanding versatility and consistency as the main material for steel.	The tough substrate and the peel-resistant, dense and smooth coating deliver high reliability for interrupted cutting of steel.

AC630M	AC700G	AC410K	H1	NF15KA
For stainless steel	For cast iron	For cast iron/aluminum/ non-ferrous	For cast iron/aluminum/ non-ferrous	For cast iron
The extremely smooth thin film coating gives this material great sharpness. Ideal for stainless steel or other materials that are easily work hardened.	Heat resistant carbide alloy is coated with multiple layers of mainly tough alumina, with additional surface smoothing treatment, to produce a highly reliable material for machining cast iron.	The hardest material for cast iron. Use if not satisfied with the wear resistance of AC700G. Note that this type is not suitable for heavy duty interrupted cutting.	With slightly higher wear resistance than K10 material, this material is a best selling type of carbide that can be used across a wide range from roughing to finishing.	Adopts K15-equivalent carbide material with hardness & toughness for cast iron.

BIG DAISHOWA

MEASURING INSTRUMENTS & ACCESSORIES

D.1

SPERONI MAGIS

Intuitive Vision System

The new SIMPLE VISION PC-based control and image processing system is supplied with a high-resolution 22" monitor for a crisp and clear visualization of tool data.

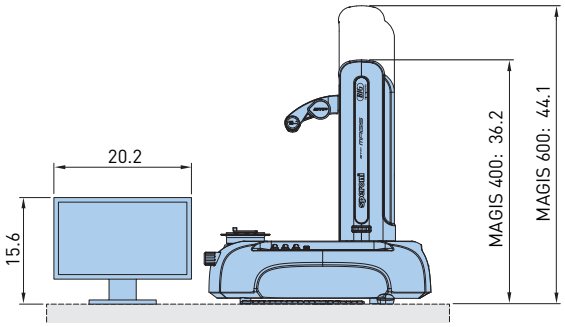
The graphical interface and powerful online help function guarantee a trouble-free and secure experience.

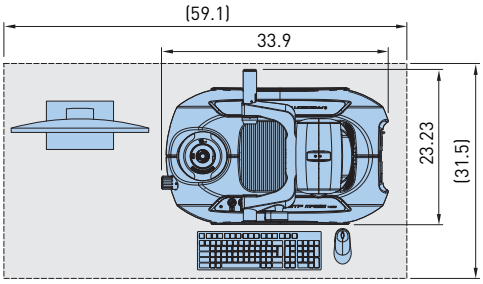
Rapid Axis Movement

High Precision Spindle with Integrated Calibration Edge

X & Z-Axis Knobs for the Micrometric Movement

Front Light For Cutting Edge Inspection

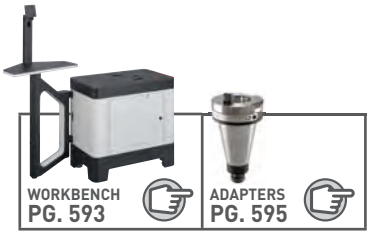




( ) Recommended workbench dimensions

Catalog Number	Control	X-Axis Max ø	Z-Axis Max Length	Spindle Taper	Mechanical Clamping	Weight
32.M45S	SimpleVision	14.0 (355mm)	16.0 (400mm)	ISO50		440 lbs (200kg)
32.M45SC					○	
32.M65SC			24.0 (600mm)		○	570 lbs (260kg)
32.M45E	EDGE 2.0	14.0 (355mm)	16.0 (400mm)	ISO50		440 lbs (200kg)
32.M45EC					○	
32.M65EC			24.0 (600mm)		○	570 lbs (260kg)

- Use of battery backup is recommended
- For entire system please see Tool Presetting, Measuring & Management Solutions



SPERONI MAGIS AUTOFOCUS/CNC SPINDLE (UPGRADE)

Motorized spindle allows for automatic focusing, location of max diameter and runout.

Catalog Number	Description
32.MSU-AUTOFOCUS	MAGIS SimpleVision Upgrade, Autofocus

- Autofocus spindle does not require CNC control
- All axes can also be moved manually

Catalog Number	Description
32.MEU-CNC-A	MAGIS EDGE Upgrade, CNC A Axis

- CNC spindle does not require CNC control
- All axes can also be moved manually

SPERONI MAGIS WORKBENCH

Prevent dirt and debris from corrupting your measuring instrument control with this enclosed and ventilated workbench. Complete with storage area and lockable door. The black-and-white steel workbench provides working area for all presetting requirements.

Catalog Number	Description	Length	Width	Height
32.105.173	SPERONI Workbench - MAGIS	37	20	31

- Plastic holders can be purchased separately depending on tapers needed; see below

PLASTIC HOLDER (FOR SLEEVE/TOOL HOLDER)

Catalog Number	Type	
	Taper	Size
32.105.180	ISO	30
32.105.181		40
32.105.182		50
32.105.184	HSK	63A

SPERONI ESSENTIA

Designed for Maximum Ergonomics

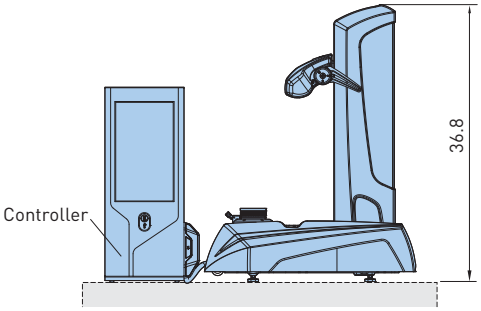
With an ESSENTIA, efficiently measure tools, easily and independently of the operator to achieve full machining productivity. Deliver results right next to your CNC machine.

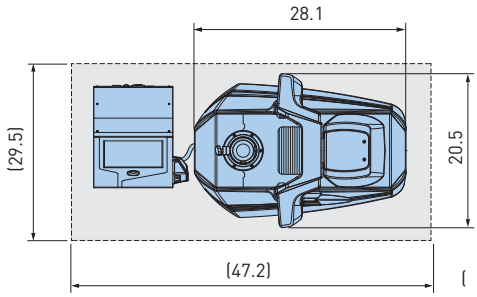
Rapid X & Z Axes Movement

High Precision ISO 50 Spindle

Hi-Res Camera with
45x Magnification Optics

Aged Pearlitic Cast Iron
Guarantees Maximum Isostaticity





( ) Recommended workbench dimensions

Catalog Number	X-Axis Max ø	Z-Axis Max Length	Spindle Taper	Weight
32.E44R	11.8 (300mm)	16.0 (400mm)	ISO40	200 lbs (90kg)
32.E45R			ISO50	
32.E45RF				

ADAPTERS PG. 595

- Use of battery backup is recommended
- For entire system please see SPERONI Tool Presetting, Measuring & Management Solutions

SPERONI ESSENTIA WORKBENCH

Enclosed and ventilated workbench with storage area and lockable door.
The steel workbench provides working area for all presetting requirements.

Catalog Number	Description	L	W	H
32.105.173.2	SPERONI Workbench - ESSENTIA	47.25 (1200mm)	20.5 (520mm)	31.5 (800mm)

- Plastic holders can be purchased separately depending on tapers needed; see w 557

Tapered Adapter (ESSENTIA & MAGIS)

Reference Edge Provided on the Adapter Face for Zero Setting

BT

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
BT40-30STP	BT40	ISO30	1.97 (50mm)
BT50-30STP	BT50	ISO40	
BT50-40STP	BT50	ISO40	

Auto Clamp Adapter (MAGIS)

ISO

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
32.310.101	ISO50	ISO30	1.38 (35mm)
32.310.100		ISO40	
32.310.102		ISO45	

ISO/HSK

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
32.310.110	ISO50	HSK-A40	3.15 (80mm)
32.310.111		HSK-A50	
32.310.112		HSK-A63	

ISO/BIG CAPTO

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
32.310.119	ISO50	C3	3.15 (80mm)
32.310.120		C4	
32.310.121		C5	
32.310.122		C6	

Manual Front Clamp Adapter (ESSENTIA & MAGIS)

With the adapter mounted on the presetter, tools can be mounted/demounted using an allen key.

BT/HSK

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
BT50-TPA/HSK32C-80STP	BT50	HSK-32A/E	3.15 (80mm)
BT50-TPA/HSK40C-80STP	BT50	HSK-40A/E	
BT50-TPA/HSK50C-85STP	BT50	HSK-50A/E	3.35 (85mm)
		HSK-63F	
BT50-TPA/HSK63C-85STP	BT50	HSK-63A/E	3.35 (85mm)
BT50-TPA/HSK100C-140STP	BT50	HSK-100A	5.51 (140mm)

- Reference edge is provided for zero set
- The adapter is designed for the presetter and cannot be used on a machining center
- For models marked ❖ A32 cannot be used with a coolant pipe

BT/BIG CAPTO

Catalog Number	Type		Z Offset
	Outer Taper	Inner Taper	
BT50-TPA/C4C-90STP	BT50	C4	3.54 (90mm)
BT50-TPA/C5C-95STP		C5	3.74 (95mm)
BT50-TPA/C6C-100STP		C6	3.94 (100mm)
BT50-TPA/C8C-130STP		C8	5.12 (130mm)

- Reference edge is provided for zero set
- The adapter is designed for the presetter and cannot be used on a machining center
- Holders can be mounted with or without a coolant pipe

CLEANING PUTTY

Keep your measurements accurate by wiping away dust particles, oil or coolant from your tools.

Catalog Number	Description
32.400.049	Tool Cleaning Putty – 2oz.

LABEL PRINTER

Print text and bar code labels.

Catalog Number	Description
32.300.021	Thermal Alphanumeric

POINT MASTER (PMPC SERIES)

Touch Probe & Edge Finder

Instantaneously detects reference points even on non-conductive work-pieces and machines. Notification of touchpoint with LED and beep.

All Supported — For All Workpieces and Machine Tools

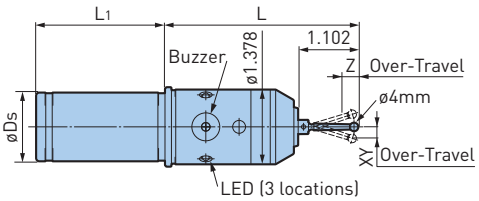
Battery Alarm — LED flashes to indicate that battery life is low

Buzzer — Notifies via buzzer

LED — Notifies via LED

Cylindrical Shank Type

Catalog Number	øDs	L	L1	Weight (lbs.)
PMPC-20	20mm	3.937	1.969	1.1
PMPC-32	32mm	3.543	2.362	1.5



- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

BBT Shank Type

BIG-PLUS SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Fig.	L	L1	Weight (lbs.)
BBT30-PMPC-115	1	4.528	2.480	1.76
BBT40-PMPC-120	2	4.724	3.661	2.86

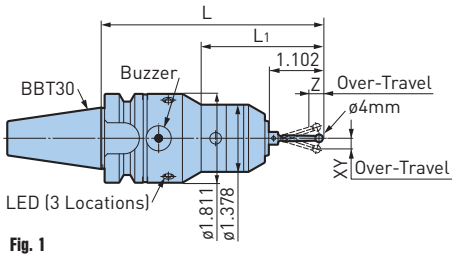


Fig. 1

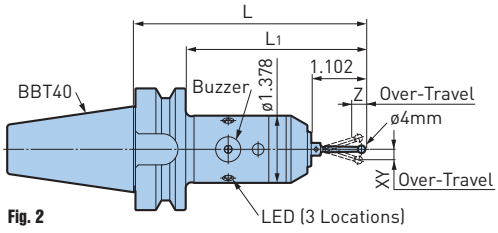
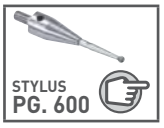


Fig. 2

- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

ACCESSORIES



Specifications

Repeatability	±1µm (.00004")	
Over-Travel	XY ±12mm Z 5mm (XY±.472" Z.197")	
Measuring pressure	XY 0.4N Z 1.5N	
Battery	PMPC-20, 32	LR1 x 2P
	BBT40-PMPC-120	
	BBT30-PMPC-115	CR2 x 1
Battery Life	PMPC-20, 32	280 Continuous Hours
	BBT40-PMPC-120	
	BBT30-PMPC-115	260 Continuous Hours

- The specifications above are values when **ST28-4R** stylus is used
- Repeatability is affected by stylus length
- There is a delay of approx. 5µm in XY direction and 2µm in Z direction when the stylus contacts the workpiece measuring surface to illuminate the LED

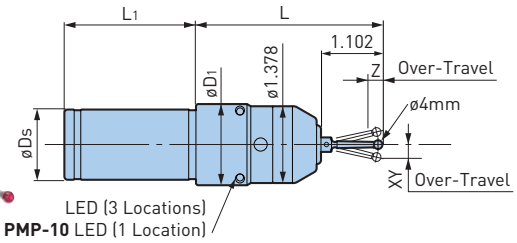
POINT MASTER (PMP SERIES)

Ideal for high-speed machining centers with ceramic bearings.

All Supported — For All Workpieces and Machine Tools

LED — Notifies via LED

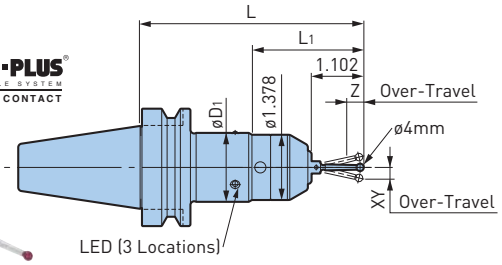
Cylindrical Shank Type



Catalog Number	øDs	øD1	L	L1	Weight (lbs.)
PMP-10	10mm	1.378	2.953	1.929	.9
PMP-20	20mm	1.457	3.543	1.969	1.1
PMP-32	32mm		3.150	2.362	1.3

- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

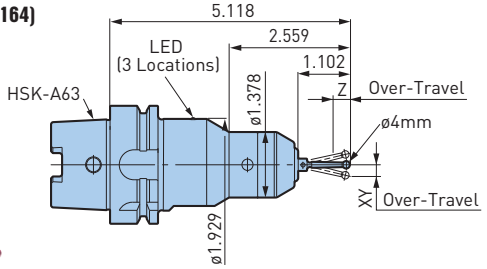
BBT Shank Type



Catalog Number	øD1	L	L1	Weight (lbs.)
BBT30-PMP-115	1.811	4.528	2.480	1.8
BBT40-PMP-120	1.457	4.724	2.362	2.9
BBT50-PMP-150	1.457	5.906	2.362	8.4

- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

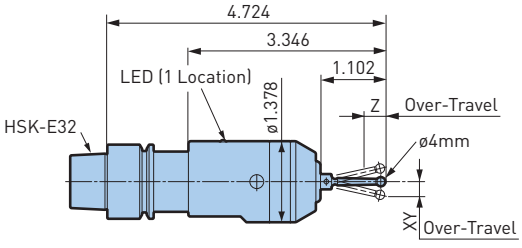
HSK-A63 Shank Type (DIN 69893-1 & ISO 12164)



Catalog Number	Weight (lbs.)
HSK-A63-PMP-130	2.9

- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

HSK-E32 Shank Type (DIN 69893-5)



Catalog Number	Weight (lbs.)
HSK-E32-PMP-120	1.1

- **ST28-4R** stylus is included
- Batteries not included; use batteries commercially available on the market

ACCESSORIES

Specifications

Repeatability	±1µm (.00004")	
Over-Travel	XY ±12mm Z 5mm (XY ±.472" Z.197")	
Measuring Pressure	XY .4N Z 1.5N	
Battery	PMP-10	Panasonic Lithium Battery BR435 x 1P
	PMP-20, 32 BBT40-PMP-120	LR1 x 2P
	HSK-A63-PMP-130 BBT30-PMP-115	CR2 x 1
	HSK-E32-PMP-120	SR44 x 2P
	BBT50-PMP-150	LR03 x 2P

Battery life	PMP-10	180 continuous hours
	PMP-20, 32 BBT40-PMP-120	500 continuous hours
	HSK-A63-PMP-130 BBT30-PMP-115	900 continuous hours
	HSK-E32-PMP-120	90 continuous hours
	BBT50-PMP-150	600 continuous hours

- The specifications above are values when **ST28-4R** stylus is used.
- Repeatability is affected by stylus length.
- There is a delay of approx. 5µm in XY direction and 2µm in Z direction when the stylus contacts the workpiece measuring surface to illuminate the LED.

POINT MASTER (PMC SERIES)

Instantaneous detection with LED and beep. LED flashes to notify low battery life while measuring workpieces.

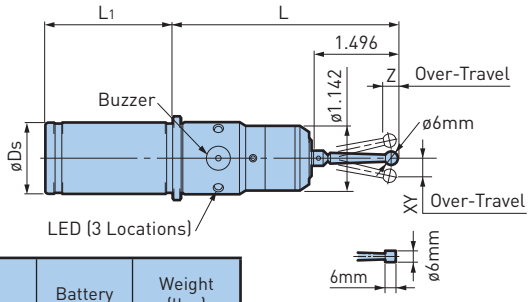
For use with conductive workpieces and machine tools

LED flashes to indicate that battery life is low

Notifies via buzzer

Notifies via LED

Cylindrical Shank Type

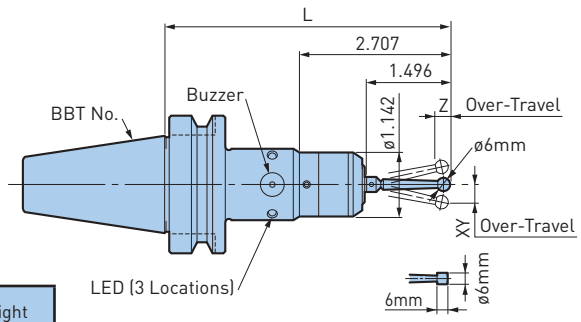


Catalog Number	øDs	L	L1	Battery	Weight (lbs.)
PMC-20	20mm	4.331	1.969	LR1x2	.88
PMC-20S					
PMC-32	32mm	4.016	2.283	LR1x2	1.32
PMC-32S					

- **ST38-6P** stylus is included; models with an S at the end of the model number include ø6 cylindrical **ST38-6X6** stylus
- Batteries not included; use batteries commercially available on the market
- Cannot be used with non-conductive workpieces and machines with ceramic bearings, use POINT MASTER

BBT Shank Type

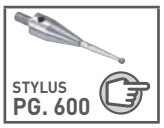
BIG-PLUS SPINDLE SYSTEM DUAL CONTACT



Catalog Number	L	Battery	Weight (lbs.)
BBT40-PMC-130	5.118	LR1x2	2.64
BBT40-PMC-130S			
BBT50-PMC-160	6.300	LR03x2	8.8
BBT50-PMC-160S			

- **ST38-6P** stylus is included; models with an S at the end of the model number include ø6 cylindrical **ST38-6X6** stylus
- Batteries not included; use batteries commercially available on the market
- Cannot be used with non-conductive workpieces and machines with ceramic bearings. Use POINT MASTER

ACCESSORIES



Specifications

Probe Repeatability	±1µm (.00004")	
Over-Travel	XY ±12mm Z 5mm (XY ±.472" Z .197")	
Measuring Pressure	XY 0.6N	Z 2.7N
Battery Life	PMC-20, 20S, 32, 32S	300 continuous hours
	BBT40-PMC-130, 130S	
	BBT50-PMC-160, 160S	380 continuous hours

- The specifications above are values when the standard accessory stylus is used

Pullstud bolts with a center through hole cannot be used. In the case of machines that require a hole on the pullstud bolts due to the coolant nozzle, please contact BIG DAISHOWA.

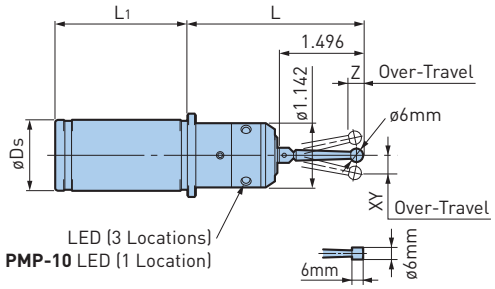
POINT MASTER (PMG SERIES)

Instantaneous detection with LED.

For use with conductive workpieces and machine tools

Notifies via LED

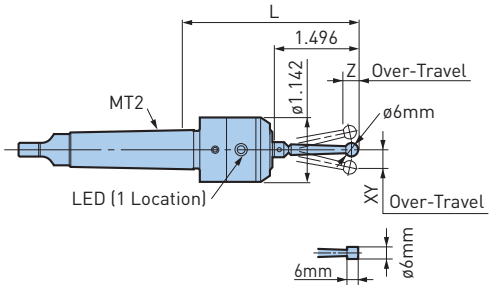
Cylindrical Shank Type



Catalog Number	øDs	L	L1	Battery	Weight (lbs.)
PMG-10	10mm	2.953	1.969	Panasonic Lithium BR435 x 1	.44
PMG-10S					
PMG-20	20mm	3.543	1.969	LR1x2	.66
PMG-20S					
PMG-.750	.750	3.543	1.969	LR1x2	.66
PMG-32	32mm	3.150	2.362	LR1x2	1.1
PMG-32S					

- **ST38-6P** stylus is included, except for PMG-.750, **ST38-.25P** (1/4")
- Batteries not included; use batteries commercially available on the market
- Models with an S at the end of the model number include ø6 cylindrical ST38-6X6 stylus

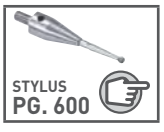
Morse Taper Type



Catalog Number	MT	L	Battery	Weight (lbs.)
PMG-MT2	MT2	3.150	Panasonic Lithium BR435 x 1	.44
PMG-MT2S				

- **ST38-6P** stylus is included; models with an S at the end of the model number include ø6 cylindrical **ST38-6X6** stylus
- Batteries not included; use batteries commercially available on the market
- LED in 1 location only

ACCESSORIES



Specifications

Probe Repeatability	±1µm (.00004")	
Over-Travel	XY ±12mm Z 5mm (XY ±.472" Z .197")	
Measuring Pressure	XY 0.6N	Z 2.7N
Battery Life	PMG-20, 20S, .750, 32, 32S	80 continuous hours
	PMG-10, 10S, MT2, MT2S	150 continuous hours

- The specifications above are values when the standard accessory stylus is used

REPLACEABLE STYLUS (OPTIONAL PRODUCT)

For PMPC, PMP, PMC, PMG Series

M3 thread is used to make the stylus replaceable, allowing replacement if it is damaged or according to the workpiece shape.

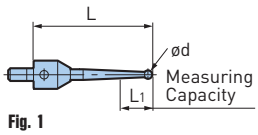


Fig. 1

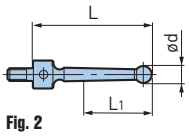


Fig. 2

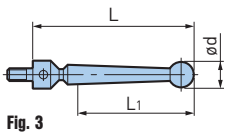


Fig. 3

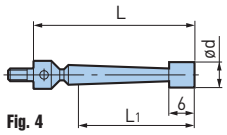


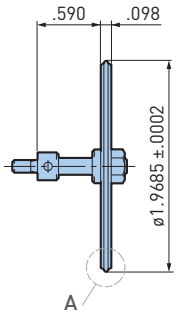
Fig. 4

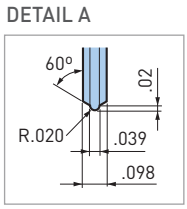
Catalog Number	Fig.	L	L1	ød	Weight (g)	Stylus Tip	POINT MASTER Model
ST28-1P	1	1.102	.078	**1mm**	2.0	Carbide	PMG/PMC PMP/PMPC
ST28-2P			.315	**2mm**	2.0		
ST28-3P	2		.669	**3mm**	2.5		
ST28-4P			.866	**4mm**	2.9		
ST28-4R				**4mm**	2.6	Ruby	PMP/PMPC
ST38-6P	3	1.496	1.260	**6mm**	4.8	Stainless Steel	PMG/PMC
ST38-.25P			—	**.250**			
ST38-6x6	4		1.260	**6mm**	4.8		PMG□□S/PMC□□S

- **ST38-6** x 6 stylus is exclusive for PMG□□S/PMC□□S models, mounting on other models will negatively affect the runout accuracy
- POINT MASTER (chime) - PMBS (5x screws and 5x covers)
- POINT MASTER PRO - PMPBS (5x screws and hex wrench)

For PMC, PMG Series

Ideal for measuring the taper of irregularly shaped workpieces or plastic molds.

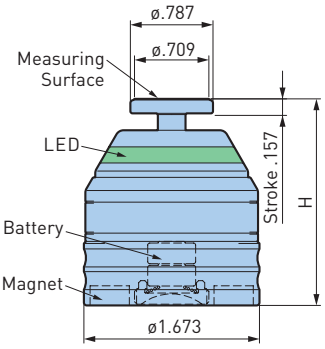




Catalog Number
ST15-50K

BASE MASTER

Electronic detection of the cutting edge position. Repeatability ±1µm (.00004").



Catalog Number	H
BM-50H	50mm
BM-2H	2.000

- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: BM-50H/N)
- Batteries not included; use batteries commercially available on the market

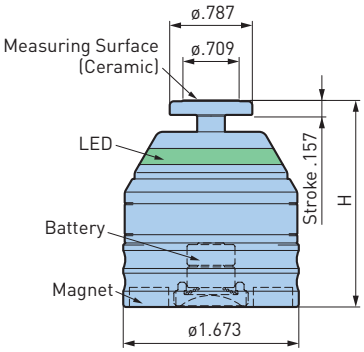
LIVE Conductivity — For use with conductive cutting tools, workpieces and machine tools

LED — Notifies via LED

Height Accuracy	+0.005mm, 0 (.0002")
Repeatability	±1µm (.00004")
Min Tool Diameter	ø1mm (.04")
Measuring Pressure	2N
Stroke	4mm (.157")
Touch Signal	LED Illuminates (Green)
Battery	SR44 x 2
Battery Life	8 Continuous Hours
Weight	.5 lbs.

BASE MASTER

Electronic detection of the cutting edge position.
Repeatability ±1µm (.00004").



Catalog Number	H
BM-50GH	50mm
BM-2GH	2.000

- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: BM-50GH/N)
- Batteries not included; use batteries commercially available on the market

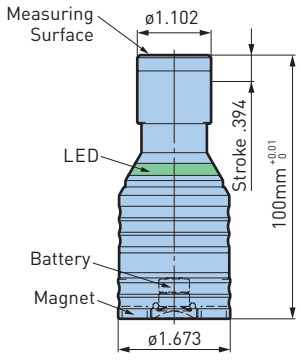
All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED

Height Accuracy	+0.005mm, 0 (+.00004", -0)
Repeatability	±1µm (.00004")
Min Tool Diameter	ø1mm (.040")
Measuring Pressure	2N
Stroke	4mm (.157")
Touch Signal	LED Illuminates (Green)
Battery	SR44 x 2
Battery Life	8 Continuous Hours
Weight	.5 lbs.

Easily Visible Measuring Surface, Even With Large Machines

Cutting edge detection position of 100mm from machining object top surface.



Catalog Number
BM-100GH

- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: BM-100GH/N)
- Batteries not included; use batteries commercially available on the market

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED

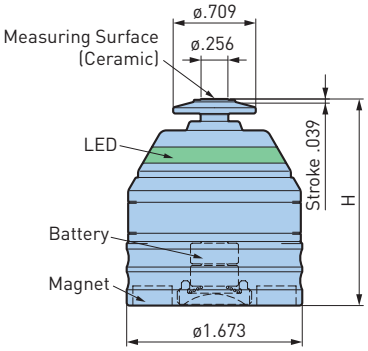
Height Accuracy	100 +0.01mm 0
Repeatability	±1µm (.00004")
Min Tool Diameter	ø1mm (.04")
Measuring Pressure	2N
Stroke	10mm (.394")
Touch Signal	LED Illuminates (Green)
Battery	SR44 x 2
Battery Life	10 Continuous Hours
Weight	.80 lbs.

BASE MASTER

Cutting edge position detection of ø.05mm (ø.002") tool. Low-contact pressure cushion mechanism realizes measurement of ultra-small tools.

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED



Small-Diameter Tools Supported

Min Measurable Tool Diameter ø.05mm

Height Accuracy	+0.005mm, 0 (+.0002", -0)
Repeatability	±1µm (.00004")
Min Tool Diameter	ø.05mm (.002")
Measuring Pressure	.3N
Stroke	1mm (.040")
Touch Signal	LED Illuminates (Green)
Battery	SR44 x 2
Battery Life	10 Continuous Hours
Weight	.53 lbs.

Catalog Number	H
BM-50MH	50mm
BM-2MH	2.000

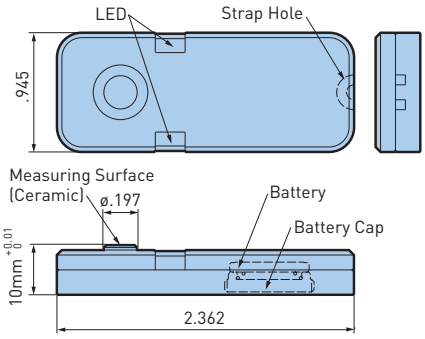
- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: BM-50MH/N)
- Batteries not included; use batteries commercially available on the market

BASE MASTER MINI (ULTRA-THIN TYPE)

- Cutting edge position measuring device with a reference height of 10mm
- Ultra-compact design considering tool interference prevention
- High brightness LED (green) lights to instantly detect the reference point

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED



Catalog Number
BMM-10H

Height Accuracy	+.01mm 0 (+.0003" 0)
Repeatability	±1µm (.00004")
Min Tool Diameter	ø0.1mm (.004")
Measuring Pressure	1.0N
Stroke	1mm (.039")
Touch Signal	LED Illuminates (Green)
Battery	CR1620x1
Battery Life	10 Continuous Hours
Weight	.12 lbs.

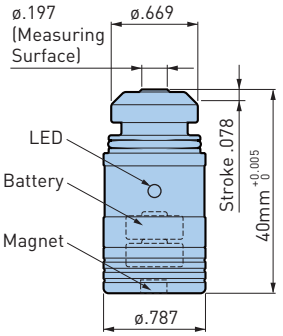
- Batteries not included; use batteries commercially available on the market

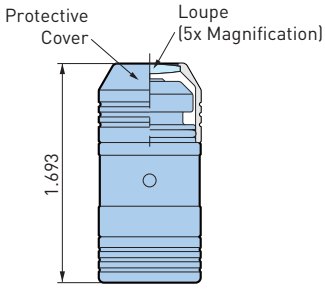
BASE MASTER MINI

Electronic detection of the cutting edge position.
Repeatability ±1µm (.00004").

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED





With Protective Cover Attached

Catalog Number
BMM-20D

Height Accuracy	+.005mm 0 (+.0002" 0)
Repeatability	±1µm (.00004")
Min Tool Diameter	ø.1mm (.004")
Measuring Pressure	1.8N
Stroke	2mm (.078")
Touch Signal	LED Illuminates (Green)
Battery	LR43×2
Battery Life	40 Continuous Hours
Weight	.12 lbs.

- Wrench for battery cap is included
- Batteries not included; use batteries commercially available on the market
- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: BMM-20D/N)

BASE MASTER MINI

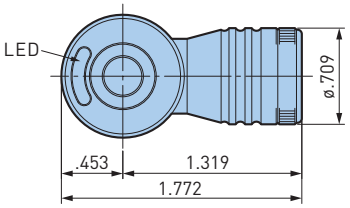
For Lathe or Mill

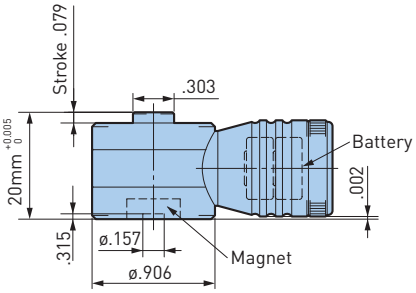
- Standard height of .787" (20mm)
- LED light for easy confirmation
- Low measurement pressure corresponding to the blade diameter of ø.1mm
- Achieves measurement of the cutting edge position of small lathes

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED

Catalog Number
BMM-20H





Height Accuracy	+0.005mm 0 (+.0002" 0)
Repeatability	±1µm (.00004")
Min Tool Diameter	ø.1mm (.004")
Measuring Pressure	1N
Stroke	2mm (.078")
Touch Signal	LED Illuminates (Green)
Battery	SR44 x 2
Battery Life	10 Continuous Hours
Weight	.15 lbs.

- Batteries not included; use batteries commercially available on the market

TOOL MASTER

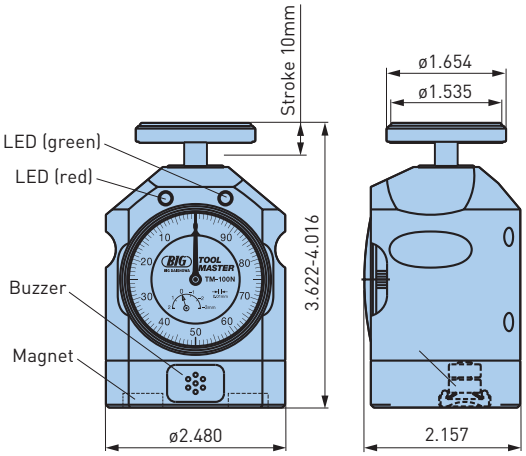
Non-Conductive Workpieces and Tools can Also be Measured

Uses a large, easily read dial (with buzzer and LED), one-touch height adjustment mechanism and a firmly fixed powerful magnet.

All Supported — For all cutting tools, workpieces and machine tools

LED — Notifies via LED

Buzzer — Notifies via Buzzer



Catalog Number
TM-100N

Height Accuracy		100 +.02/0mm	
Min Tool Diameter		ø1mm	
Measuring Pressure		3N (at 100mm)	
Stroke		10mm	
Stroke Range		92-102mm	
Notification Signal	Around 100.5mm	LED	Lit (Green)
		Buzzer	"Beep"
	Around 99.5mm	LED	Flashing (Green/Red)
		Buzzer	"Beep Beep Beep"
Battery		SR44 x 2	
Weight		2.2 lbs.	
Standard Accessory		Setting Gage x 1P	
Dial Gage Accuracy	Min Scale	.01mm	
	Indicator Error	±15µm	
	Repeatability	5µm	
	Return Error	5µm	

- Dial gage accuracy conforms to JIS B7503:2015
- Batteries not included; use batteries commercially available on the market
- Model without magnets is available; if required, add /N at the end of the model number when ordering (Example: TM-100N/N)

3D MASTER RED

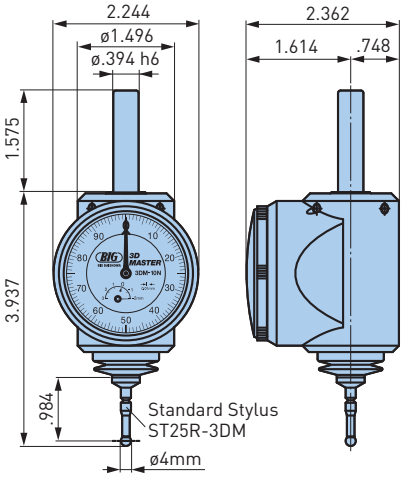
Dial-Type Reference Position Measuring Instrument

- Available for non-conductive workpieces
- Measure X, Y & Z directions
- Calculation of the stylus ball radius not required

All Supported

For all cutting tools, workpieces and machine tools

Min Scale	.01mm
Repeatability	Within .01mm
XY Stroke	±4mm
Z Stroke	4mm
Protection Rating	IP67
Weight	1.3 lbs.
Accessory	Stylus ST25R-3DM

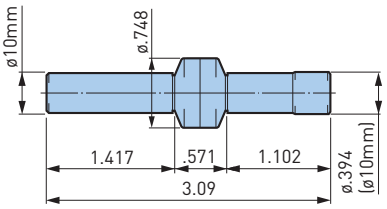


Catalog Number
3DM-10N

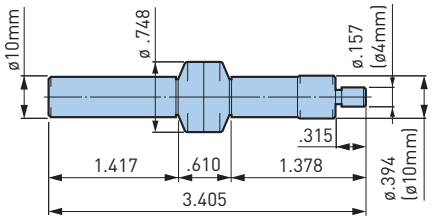
ACCU CENTER

Simple Mechanical Design for High-Precision Positioning

- Just touch the stylus to the workpiece surface to complete measurement
- Repeatability within 3μm (when used on vertical machines)
- Hard chrome plated stylus for superior durability

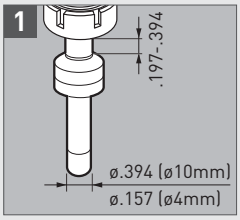


Catalog Number
ACCU-C10

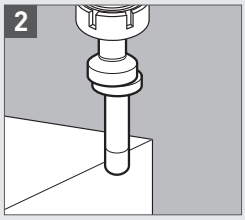


Catalog Number
ACCU-C104

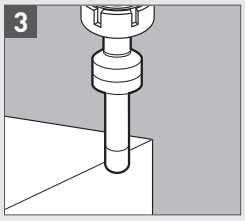
Operation Instructions



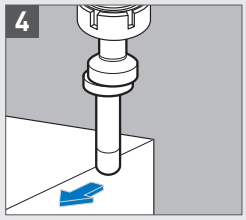
Mount the ø10 straight part to a Milling Chuck or NEW BABY CHUCK.



Press the stylus lightly with fingers to move off center and rotate at 400-600 RPM.

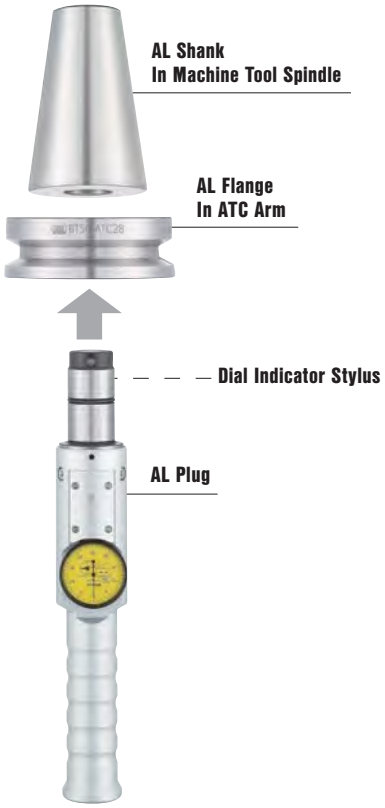


Touch the stylus to the workpiece; its runout will gradually decrease and it will seem to come to a stop.



Apply finer feed and keep the stylus in contact; it will begin to slide in one direction. Where it begins to slide, compensate the position by radius of the stylus 5mm (2mm) to detect the reference position.

Not suitable for horizontal type machines.



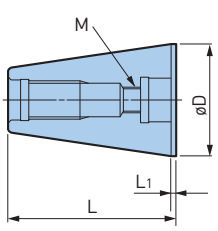
ATC ALIGNMENT TOOL

Misalignment of the center between the machine tool spindle and ATC gripper may cause damage to the spindle taper when a tool holder is loaded into the spindle. A clamped tool holder under misalignment leads to increased runout, resulting in shorter life of machine tools and tool holders, as well as cutting tools. The ATC Alignment Tool can also be used for re-aligning the ATC gripper and tool magazine pots. Overall cost reduction is achieved by using equipment in good condition.

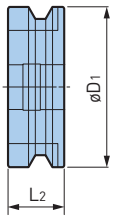
How To Use

1. Load the AL Shank in the machine spindle and mount the AL Flange on the ATC arm.
2. Insert the AL Plug into the AL Flange.
3. Rotate the AL Plug and read the highest and lowest values of the dial indicator. This direction is the eccentric direction. Half of the gap of the values is the eccentric amount.
4. Adjust the position of the ATC arm so that the front end of the AL Plug will be inserted into the AL Flange fully.

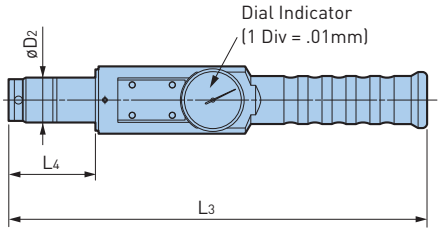
Provided with ATC Alignment Tool & Plastic Storage Case



AL Shank



AL Flange



AL Plug

CV Taper

Catalog Number	øD	D1	D2	L	L1	L2	L3	L4	M
CV40-ATC20	1.75	2.500	.787	2.812	.123	.958	9.882	1.732	1/2"-13
CV50-ATC28	2.75	3.875	1.102	4.125	.123	1.301	10.276	2.126	5/8"-11

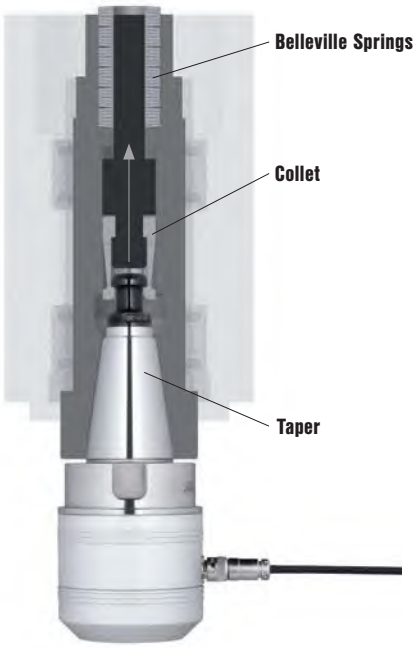
• DIN 7/24 taper spindle models available

BT Taper

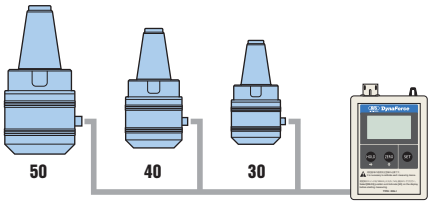
Catalog Number	øD	D1	D2	L	L1	L2	L3	L4	M
BT30-ATC18	1.25	1.811	.709	1.984	.079	.787	9.882	1.732	M12
BT40-ATC20	1.75	2.480	.787	2.654	.079	.984	9.882	1.732	M12
BT50-ATC28	2.75	3.937	1.102	4.126	.118	1.378	10.276	2.126	M16

DYNA FORCE

Machine tool maintenance is a necessity. Periodical measurement of the spindle retention force avoids unknown reduced rigidity, which leads to vibrations, loss of machining quality and shortened tool life. A full length taper stabilizes the value of measurements.



Provided with DYNA FORCE, Plastic Storage Case, Display & Cable



Only One Display for All Taper Sizes

One common display can be used for all taper sizes.

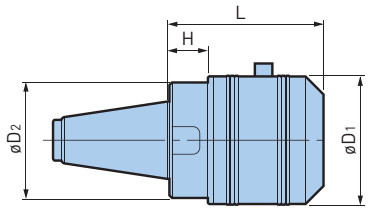


Fig. 1

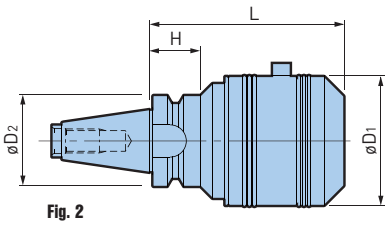


Fig. 2

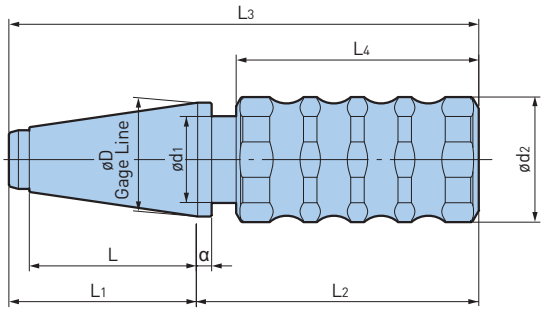
Catalog Number	Contents of Set				Taper No.	Rated Capacity	øD1	øD2	L	H	Weight (lbs.)
	Measuring Device	Fig.	Display	Cable							
SNT30-DF10	NT30-DF10	1	DFA-1 (AA battery x2)	DFC-1 (2m)	30	10 kN (980 kgf)	2.559	2.283	3.150	.787	3.3
SBT30-DF10	BT30-DF10	2						1.811	2.858	1.024	3.5
SNT40-DF30	NT40-DF30	1			40	30 kN (2,940 kgf)	2.874	2.958	3.543	.945	5.5
SNT50-DF50	NT50-DF50	1			50	50 kN (4,900 kgf)	3.780	3.543	4.331	1.299	13.2
SNT50-DF30●	NT50-DF30	1				30 kN (2,940 kgf)	2.874	2.756	3.386	.787	8.6

- Batteries not included; use batteries commercially available on the market
- Each component is also available separately
- **SBT30-DF10** is designed exclusively for machines not capable of automatic tool change
- **SBT30-DF10** is suitable for BT/BBT30 machines only
- **SNT50-DF30** marked ● indicates light-weight model
- Certificate of calibration and diagram of traceability system are available for a charge in order to maintain the reliability of the device

DYNA CONTACT

A ceramic taper gage allowing inspection of machine spindle tapers at a glance.

- Made of ceramic
- Clearly shows Prussian blue



Taper Angle: 8º 17' 50" ±1"

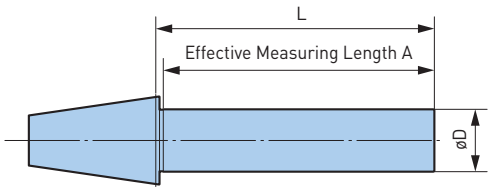
Provided with an Aluminum Case

Catalog Number	Taper Number	øD	ød1	ød2	L	L1	L2	L3	L4	α	Weight (lbs.)
DC-30P	30	1.250	.91	1.42	1.906	2.22	4.2	6.4	3.69	.236	1.14
DC-40P	40	1.750	1.34	1.93	2.575	2.89	4.4	7.2	3.74	.236	2.64
DC-50P	50	2.750	1.93	1.93	4.008	4.40	4.5	8.9	3.74	.315	5.76

- It can be used for BBT (BT=JISB6339), BDV (DV=DIN69871) and BCV (CV = ANSI)

DYNA TEST (BASIC TYPE)

Regular inspections using a DYNA TEST bar can help identify potential issues with spindles and bearings, reducing downtime and costly repairs. The precise test bar is designed to test the spindle's runout, check the parallelism of z-axis movement and can also be used as a setting gage for tool presetters.



Catalog Number	L	A	øD
NT30-32-L150	5.906	5.591	1.260
NT30-32-L225	8.858	8.543	
NT40-50-L200	7.874	7.244	1.970
NT40-50-L335	13.189	12.559	
NT50-50-L200	7.874	7.520	1.970
NT50-50-L335	13.189	12.835	

- JIS taper length with metric pullstud bolt thread

LEVEL MASTER

Two-axis simultaneous detection leveler. LED displays level conditions for both axis simultaneously. LED and buzzer indicate when leveling is completed.

Wireless

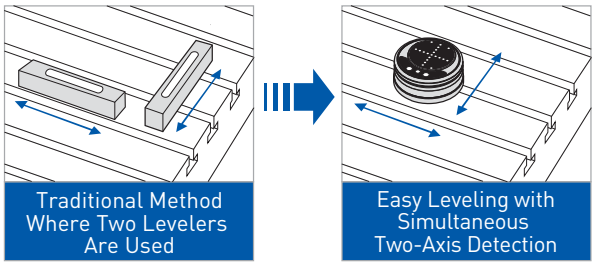
Standard Type

Catalog Number
LVM-01

Wireless Type

Catalog Number
LVM-WL

Simultaneous 2-Axis Detection Saves The Extra Time & Cost Of Using Two Levelers



Traditional Method Where Two Levelers Are Used

Easy Leveling with Simultaneous Two-Axis Detection

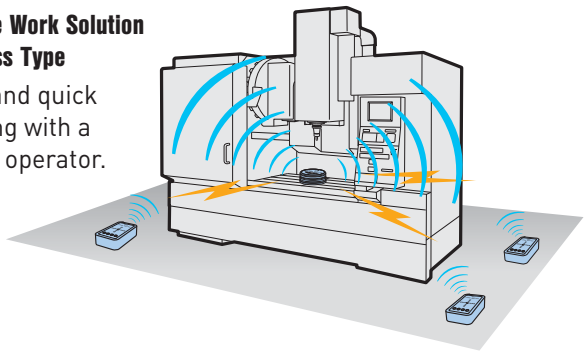
LED and Buzzer Indicate Leveling Completion

HIGH MODE	LOW MODE
When the required level condition is **within .01mm/m**	When the required level condition is **within .1mm/m**

LED (Blue) & Buzzer are Simultaneously Activated

Remote Work Solution Wireless Type

Easy and quick leveling with a single operator.



Provided with LEVEL MASTER, Aluminum Storage Case, Manual & Inspection Sheet

	LVM-01	LVM-WL	
		Body	Receiver
Minimum Read Value	.01mm Inclination/m	.01mm Inclination/m	
Power Source	AAA batteries (4 pcs.)	AAA batteries (4 pcs.)	AAA batteries (4 pcs.)
Auto Power Off	30 minutes after power is turned on	30 minutes after power is turned on	
Operational Temperature	32-104° F (Recommended 66° F ±9°)	32-104° F (Recommended 66° F ±9°)	
Battery Life	50 hours	30 hours	
Dimensions	ø4.3" x 2.2" H	ø4.3" x 1.7" H	5.6" H x 3.2" W x 1.7" D
Weight	2.2 lbs.	2.2 lbs.	.62 lbs.

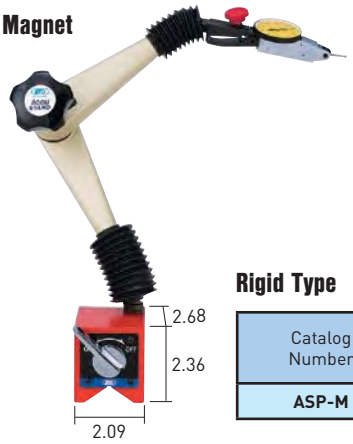
- Batteries not included; use batteries commercially available on the market
- In the case of high precision leveling, we recommend that you check the LEVEL MASTER in advance on a reference level, such as a level block

ACCU STAND

The flexible arm stand features a unique cam mechanism for solid, reliable locking.

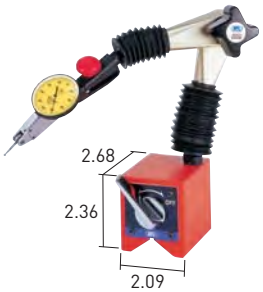
(MAGNETIC BASE TYPE)

Firmly Fixed with a Powerful Magnet



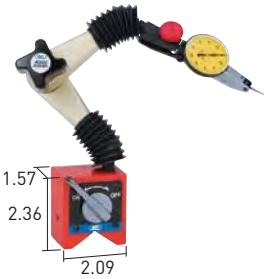
Rigid Type

Catalog Number
ASP-M



Mini Rigid Type

Catalog Number
AMP-M

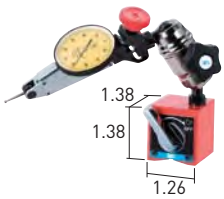


Mini Type

Catalog Number
AM-M

(MINI-MINI TYPE)

Compact Yet Tough Arm and Powerful Clamp



Short Arm

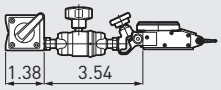
Catalog Number
AMM-M

Long Arm

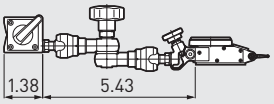
Catalog Number
AML-M

The thread size of the joint between the magnet and arm:
M8 x P1.25 for **AMM, AML and AM**
M10 x P1.5 for **AMP and ASP**

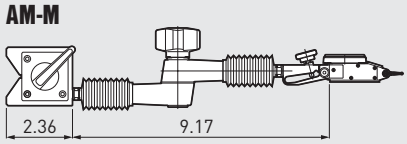
AMM-M



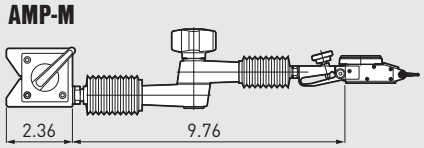
AML-M



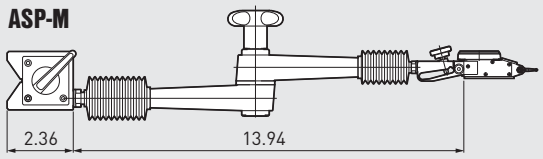
AM-M



AMP-M



ASP-M



Test indicators and dial gages are not included with any model
See pg. 613 for gage support details

ACCU STAND

(CAST BASE TYPE)

Ideal for Precision Measurement on a Surface Plate

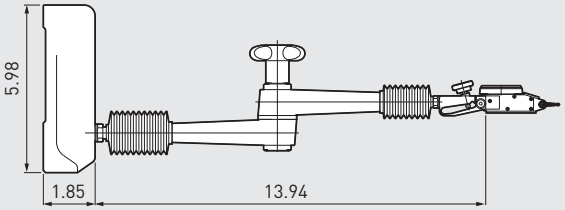
The base shape is designed for stability, with a precision-ground bottom surface that enables higher-precision measurement. The side is also ground perpendicular to the bottom, allowing measurement while sliding.

Rigid Type

Catalog Number
ASP-B

The thread size of the joint between the cast base and arm: M10 x P1.5

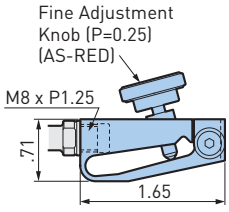
ASP-B



See below for gage support details

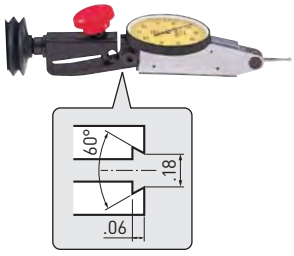
GAGE SUPPORT DETAILS

Standard/Mini Type Set

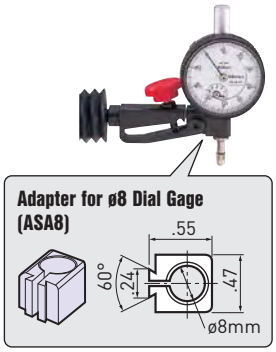


Catalog Number
DGH-3

Set Contents
Gage Support
Fine Adjustment Knob
Adapter for ø8 Dial Gage



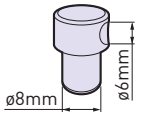
Test indicator mounting groove



Dial gage mounting hole

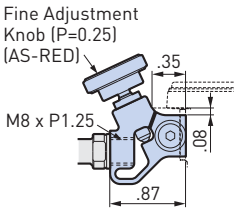
Optional Product

Clamp Piece for ø6mm
For when using a ø6mm dial gage



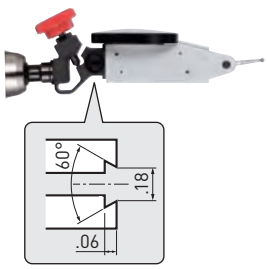
Catalog Number
ASA8-6

Mini-Mini Type Set



Catalog Number
DGH-MM

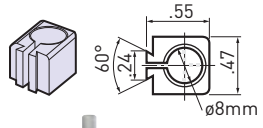
Set Contents
Gage Support
Fine Adjustment Knob



Test indicator mounting groove

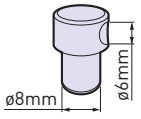
Optional Products

Adapter for ø8mm Dial Gage



Catalog Number
ASA8

Clamp Piece for ø6mm
For when using a ø6mm dial gage



Catalog Number
ASA8-6

Test indicators and dial gages are not included with any model

ACCU STAND

(CYLINDRICAL SHANK TYPE)

For Workpiece Centering

Rigid Type

Catalog Number	Shank Diameter
ASP-32	32mm
ASP-42	42mm

Not suitable for horizontal machines.

Mini Type

Catalog Number	Shank Diameter
AM-20	20mm
AM-32	32mm

(MINI-MINI TYPE)

Compact Yet Tough Arm and Powerful Clamp

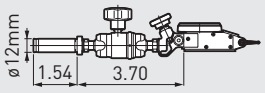
Short Arm

Catalog Number	Shank Diameter
AMM-12	12mm
AMM-20	20mm

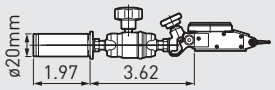
Long Arm

Catalog Number	Shank Diameter
AML-12	12mm
AML-20	20mm

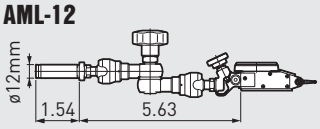
AMM-12



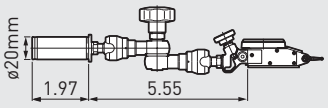
AMM-20



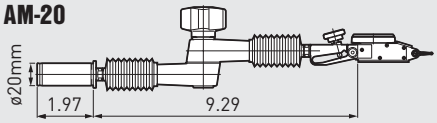
AML-12



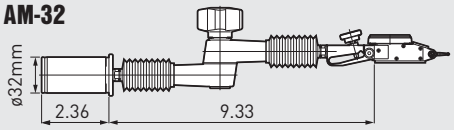
AML-20



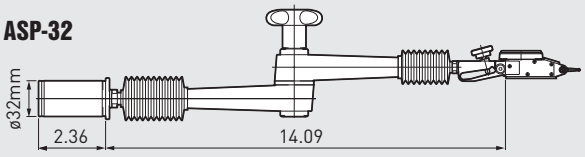
AM-20



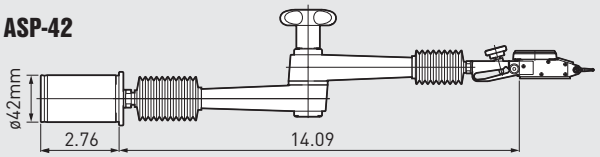
AM-32



ASP-32



ASP-42



The thread size of the joint between the cylindrical shank and arm:
M8 x P1.25 for **AMM, AML, and AM**
M10 x P1.5 for ASP

ACCU STAND

(HSK SHANK TYPE)

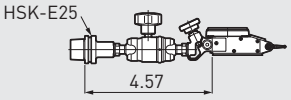
For Small Machining Centers with HSK-E Spindles

HSK-E shank type can be directly mounted on spindle.

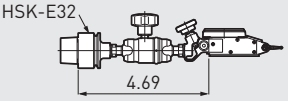
Mini-Mini Type Pat.

Catalog Number	Shank
HSK-E25-AMM	HSK-E25
HSK-E32-AMM	HSK-E32

HSK-E25-AMM



HSK-E32-AMM

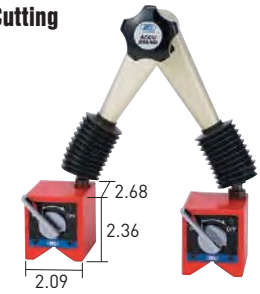


The thread size of the joint between the HSK shank and arm: M8 x P1.25

Test indicators and dial gages are not included with any model
See pg. 613 for gage support details

(DOUBLE MAGNETIC BASE TYPE)

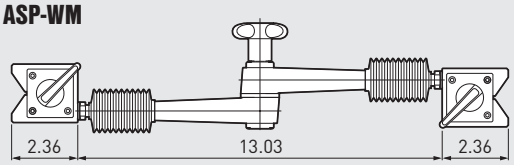
For Workpiece Machining and Cutting



Rigid Type

Catalog Number
ASP-WM

ASP-WM



The thread size of the joint between the magnet and arm: M10 x P1.5

(ARM ONLY TYPE)

Adaptable for Multiple Applications

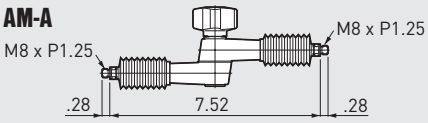
Rigid Type

Catalog Number
ASP-A

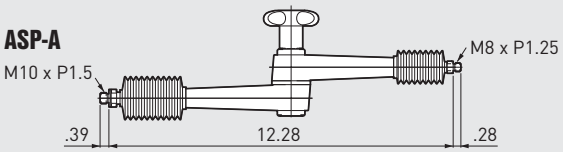
Mini Type

Catalog Number
AM-A

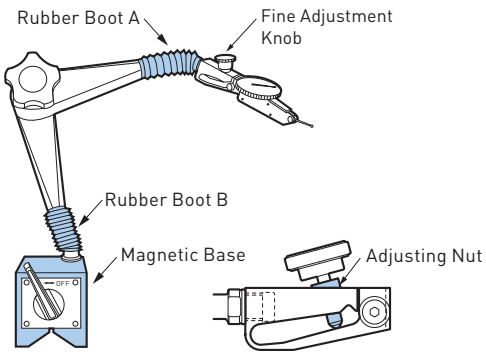
AM-A



ASP-A



SPARE PARTS



Description	Body Model	Catalog Number	Remarks
Magnetic Base	ASP-M, AMP-M	**AS-MGB**	
	AM-M	**AM-MGB**	
	AMM-M, AML-M	**AMM-MGB**	
Fine Adjustment Knob	Common	**AS-RED**	Bolt and Red Knob are Integrated (w/o adjusting nut)
Adjusting Nut	DGH-3	**DGH-AJ**	
Rubber Boot	ASP- ,AMP-	**AS-RBS**	Rubber Boot A (small size)
		AS-RBL	Rubber Boot B (large size)
	AM-M	**AS-RBS**	Rubber Boot A & B (both have same catalog number)

TOOL PRO

Tool holding device for the assembly and disassembly of tooling systems.

Steep Taper

Catalog Number	Type	
	Taper	Size
31.300.001	ISO	30
31.300.002		40
31.300.004		50
31.300.020		60

HSK Taper

Catalog Number	Type	
	Taper	Size
31.300.015	HSK	A40
31.300.008		A50
31.300.006		A63
31.300.005		A100
31.300.029		A125

Polygon Taper

Catalog Number	Type	
	Taper	Size
31.300.065	C	5
31.300.066		6

- HSK Type E/F and VDI also available
- For full 360º rotation, remove safety pin from rear of base; consult BIG DAISHOWA engineering for additional details

VARIO

Quick-change system uses one permanently mounted base unit and multiple adapters for different types and sizes of tool shanks.

Catalog Number	Description
31.300.100	Base Unit

Steep Taper Adapters

Catalog Number	Description	Type	
		Taper	Size
31.300.110	Fixed	ISO	30
31.300.112			40
31.300.114			50
31.300.271	Spin	ISO	30
31.300.272			40
31.300.273			50
31.300.117	Fixed	AGH	35

HSK Taper Adapters

Catalog Number	Description	Type	
		Taper	Size
31.300.130	Fixed	HSK	A32
31.300.131			A40
31.300.132			A50
31.300.133			A63
31.300.134			A80
31.300.135			A100
31.300.283	Spin	HSK	A63
31.300.284			A80

Polygon Taper Adapters

Catalog Number	Description	Type	
		Taper	Size
31.300.153	Fixed	C	3
31.300.154			4
31.300.155			5
31.300.156			6
31.300.158			8
31.300.292	Spin	C	6
31.300.293			8

- HSK Type E/F and VDI also available
- For tapers not shown please contact BIG DAISHOWA

SPIN

Tools can be locked at increments of 30º by engaging an index pin. The adapter can also be rotated 180º and locked into any position in increments of 45º.

Steep Taper

Catalog Number	Type	
	Taper	Size
31.300.202	ISO	40
31.300.204		50

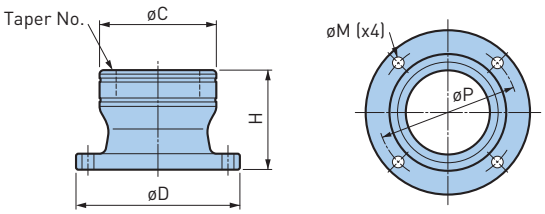
HSK Taper

Catalog Number	Type	
	Taper	Size
31.300.214	HSK	A63
31.300.215		A80
31.300.216		A100
31.300.217		A125

- For full 360º rotation, remove safety pin from rear of base; consult BIG DAISHOWA engineering for additional details
- For tapers not shown please contact BIG DAISHOWA

KOMBI GRIP

Innovative two-way clutch and needle roller clamping system ensures secure clamping at the tool flange periphery. Safe design eliminates any possibility of damage to the shank taper during the tightening process.



Catalog Number	HSK (Form A/E/F)	BIG CAPTO	øC	øD	H	øP	øM
KG25R	25	—	1.890	3.110	2.559	2.441	.276 (For M6) or UNC 1/4
KG32R	32	C3	2.165	3.346		2.717	
KG40R	40	C4	2.480	3.661	2.756	3.031	
KG50R	50	C5	2.953	4.134		3.504	
KG63R	63	C6	3.465	4.862	2.953	4.154	.354 (For M8) or UNC 5/16
KG80R	80	C8	4.213	5.591	3.543	4.882	
KG100R	100	—	5.000	6.378	3.937	5.669	

- Mounting bolts (4 pcs.) not included
- KOMBI GRIP can be used for BIG CAPTO; polygon taper made by other manufacturers cannot be used

KOMBI GRIP must be securely fixed to a bench with 4 mounting bolts.

ST LOCK

Ideal fixture for the setup of cylindrical shank tool holders. Clamps ø20, 25 & 32mm shanks by replacing the sleeve.

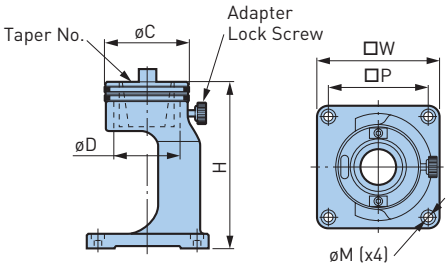
Catalog Number
STL40

- 1 pc. each of ø20mm, 25mm and 32mm sleeves are included
- Mounting bolts (4 pcs.) not included

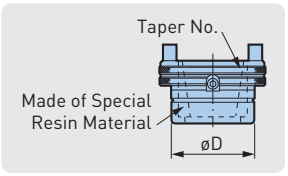
ST LOCK must be securely fixed to a bench with 4 mounting bolts.

TOOLING MATE

For mounting and removal of pullstud bolts and tools.



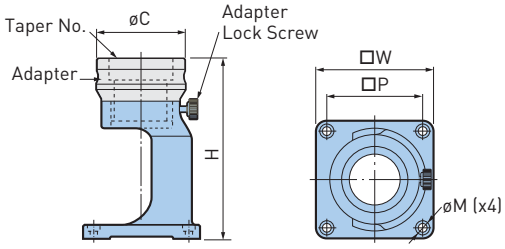
Replaceable Adapter



Catalog Number	CV/BT	øC	øD	H	□W	□P	øM	Adapter Model
TMS40-30	30	2.992	2.362	5.906	4.331	3.543	.276 (for M6)	**TMA40-30**
TMS40-40	40							**TMA40-40**
TMS50-40	40	4.134	3.465	7.480	6.299	5.118	.354 (for M8)	**TMA50-40**
TMS50-50	50							**TMA50-50**

- 1 adapter is included
- Adapters can be ordered individually
- Adapter lock screw is available as a spare part (Model: RTM0615)
- Mounting bolts (4 pcs.) not included

TOOLING MATE must be securely fixed to a bench with 4 mounting bolts.



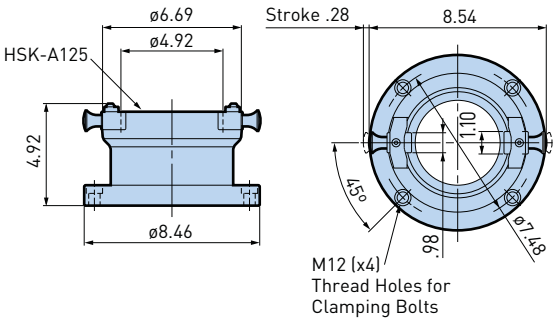
Catalog Number	HSK	BIG CAPTO	øC	H	□W	□P	øM	Adapter Model
TMS40-32R	32	—	2.992	6.496	4.331	3.543	.276 (for M6) or UNC 1/4	**TMA40-32R**
TMS40-40R	40	C4						**TMA40-40R**
TMS40-50R	50	C5						**TMA40-50R**
TMS40-63R	63	C6	3.425	6.772				**TMA40-63R**
TMS50-63R	63	C6	4.094	8.071	6.299	5.118	.354 (for M8) or UNC 5/16	**TMA50-63R**
TMS50-80R	80	C8	4.488	8.465				**TMA50-80R**
TMS50-100R	100	—	4.882	8.622				**TMA50-100R**

- 1 adapter is included
- Adapters can be ordered individually
- Adapter lock screw is available as a spare part (Model: RTM0615)
- Mounting bolts (4 pcs.) not included
- Tooling Mate can be used with BIG CAPTO; polygon taper made by other manufacturers cannot be used

TOOLING MATE must be securely fixed to a bench with 4 mounting bolts.

TOOLING MATE

For assembling and disassembling cutting tools.



Catalog Number
TMS-HSK-A125

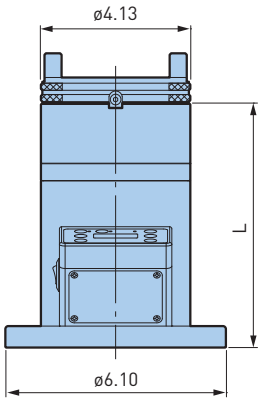
- Dedicated for HSK-A125 interface
- Mounting bolts (4 pcs.) not included

TOOLING MATE must be securely fixed to a bench with 4 mounting bolts.

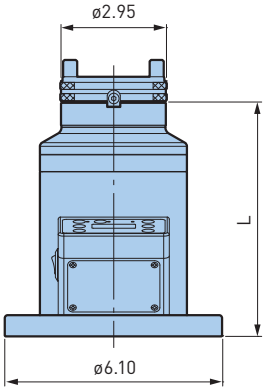
TORQUE FIT

Tooling Fixture with Tightening Torque Indication Function

- Torque values of all BIG DAISHOWA collet chucks are preset
- Notification by buzzer near the correct torque
- USER-Mode allows setting of desired torque value



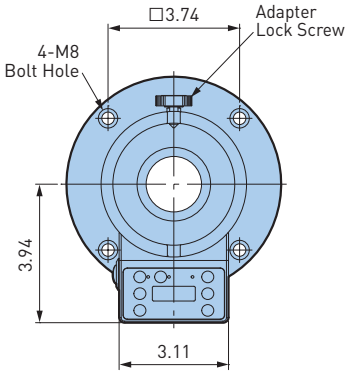
TF-50



TF-40

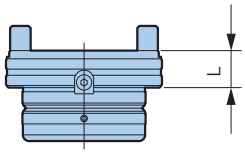
Catalog Number	Torque Setting Range	L	Adapter	Input Voltage	Weight (lbs.)
TF-40	4-80 Nm	6.57	TMA40-□	100-240V	17.6
TF-50		6.77	TMA50-□		

• Adapter must be ordered separately



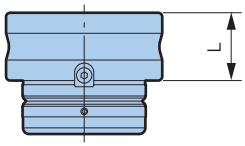
ADAPTERS (OPTIONAL)

For CV/BT



Catalog Number	Body Model	Taper	L	Weight (lbs.)
TMA40-30	TF-40	BT30	.709	1.8
TMA40-40		CV/BT40		1.3
TMA50-40	TF-50	CV/BT40		5.1
TMA50-50		CV/BT50		2.9

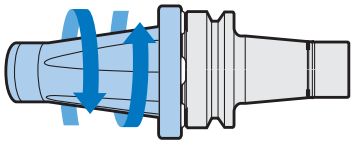
For HSK/BIG CAPTO



Catalog Number	Body Model	HSK	BIG CAPTO	L	Weight (lbs.)
TMA40-32R	TF-40	32	—	1.30	3.1
TMA40-40R		40	C4		2.7
TMA40-50R		50	C5		2.0
TMA40-63R		63	C6	1.57	2.0
TMA50-63R	TF-50	63	C6	1.30	5.5
TMA50-80R		80	C8	1.69	5.5
TMA50-100R		100	—	1.85	4.0

α TOOLING CLEANER

For the cleaning of both mating surfaces of BIG-PLUS tool holders, which require absolute cleanliness for optimum performance. Oil and particles on both the taper and flange of 7/24 taper shanks are easily removed.



BIG-PLUS® SPINDLE SYSTEM DUAL CONTACT

Catalog Number	Shank Size
SCE-30	No. 30
SCE-40	No. 40

TAPER CLEANER (HSK EXTERNAL)

Reliable taper cleaners for the efficient cleaning of HSK tool holder shanks. Cleaning strips positioned at well spaced intervals will remove even large residual particles. Sturdy construction with high oil and grease resistance.

Catalog Number	Description	Taper Size
SCE-HSK40	Taper Cleaner w/ Handy Cap	HSK40
SCE-HSK40H	Taper Cleaner w/ Cylindrical Handle	HSK40
SCE-HSK50	Taper Cleaner w/ Handy Cap	HSK50
SCE-HSK50H	Taper Cleaner w/ Cylindrical Handle	HSK50
SCE-HSK63	Taper Cleaner w/ Handy Cap	HSK63
SCE-HSK63H	Taper Cleaner w/ Cylindrical Handle	HSK63
SCE-HSK80	Taper Cleaner w/ Handy Cap	HSK80
SCE-HSK80H	Taper Cleaner w/ Cylindrical Handle	HSK80
SCE-HSK100	Taper Cleaner w/ Handy Cap	HSK100
SCE-HSK100H	Taper Cleaner w/ Cylindrical Handle	HSK100

SPINDLE CLEANERS

Clean tapered spindles maintain precision and prolong the life of machine tools, cutting tools and tool holders.

- High oil- and grease-resistance
- Plastic injection molded core with fluted locations for cleaning strips ensures accurate sizing and cleaning efficiency
- Cleaning strips maintain adhesion to the taper core due to inset location even under scrubbing action
- Cleaning strips positioned at well spaced intervals to remove large residual particles
- A quality control product

Steep Taper (With Pull Stud Recess)

Catalog Number	Type	
	Taper	Size
SC20	ISO	20
SC30		30
SC40		40
SC45		45
SC50		50

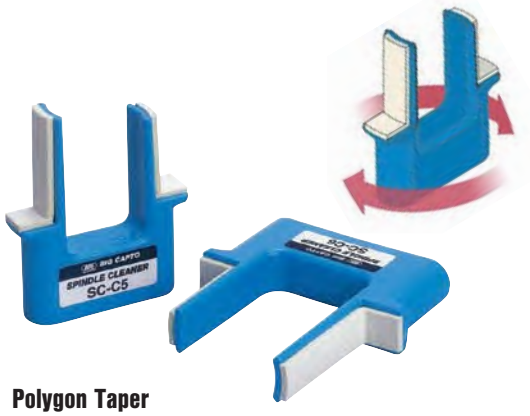
Morse Taper

Catalog Number	Type	
	Taper	Size
SC1	MT	1
SC2		2
SC3		3
SC4		4
SC5		5
SC6		6

HSK Taper

Catalog Number	Type	
	Taper	Size
SC-HSK20E	HSK-E	20
SC-HSK25	HSK-A	25
SC-HSK25E	HSK-E	
SC-HSK32	HSK-A	32
SC-HSK32E	HSK-E	
SC-HSK40	HSK-A	40
SC-HSK40E	HSK-E	
SC-HSK40F	HSK-F	
SC-HSK50	HSK-A	50
SC-HSK50E	HSK-E	

Catalog Number	Type	
	Taper	Size
SC-HSK63	HSK-A	63
SC-HSK63E	HSK-E	
SC-HSK63F	HSK-F	
SC-HSK80	HSK-A	80
SC-HSK80F	HSK-F	
SC-HSK100	HSK-A	100
SC-HSK100E	HSK-E	
SC-HSK125	HSK-A	125



Polygon Taper

Catalog Number	Type	
	Taper	Size
SC-C3	C	3
SC-C4		4
SC-C5		5
SC-C6		6
SC-C8		8

CHIP BLOWER

Air Pressure Removes Cutting Chips and Coolant

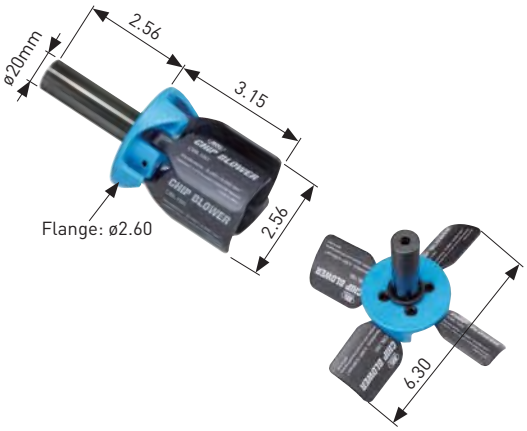
- Reduce environmental impact
- Improved machine utilization rate
- Increased productivity
- Can be used with vertical and horizontal machining centers

COOLANT THROUGH

High-pressure washing with center-through coolant

Blows away cutting chips with powerful air pressure

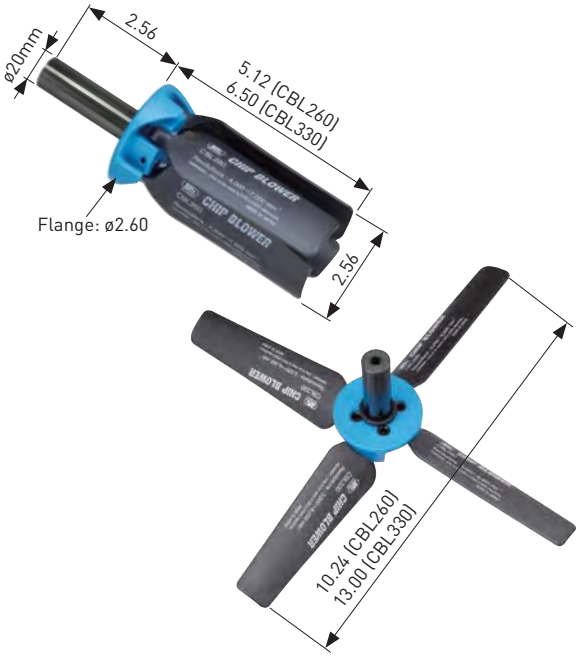
ø160 Steel Shank Type



Catalog Number	ST20S-CBL160
Startup Spindle Speed*	500 rpm (.5 sec) → 1,000 rpm (.5 sec) → 2,000 rpm (.5 sec)
Recommended Spindle Speed	Min 6,000 Max 9,000 rpm
Rotation Direction	Forward
Distance to the Workpiece Surface to be Cleaned (with wing opened to maximum)	3.94"-5.91"
Recommended Movement Feed	118-394 ipm

The Wing May Open During ATC When it is Used with an Ultra-High Speed ATC Machining Center

ø260 & ø330 Steel Shank Type



Catalog Number	ST20S-CBL260	ST20S-CBL330
Startup Spindle Speed*	500 rpm (.5 sec) → 1,000 rpm (.5 sec) → 2,000 rpm (.5 sec)	
Recommended Spindle Speed	Min 4,000 Max 7,000 rpm	Min 3,000 Max 6,000 rpm
Rotation Direction	Forward	
Distance to the Workpiece Surface to be Cleaned (with wing opened to maximum)	3.94"-5.91"	
Recommended Movement Feed	118-394 ipm	

The Wing May Open During ATC When it is Used with an Ultra-High Speed ATC Machining Center

CHIPFAN

Chip & Coolant Fan

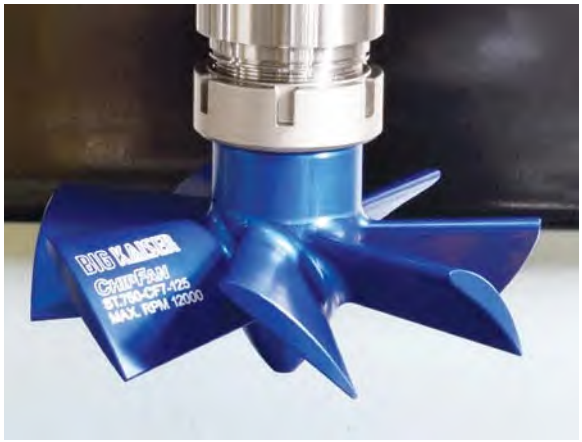
Fast, safe chip and coolant cleaning without stopping production. Your machine spindle spins the ChipFan to provide high-volume air cleaning power.

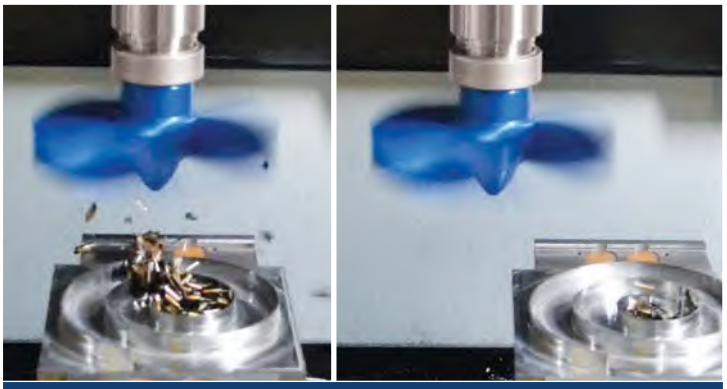
- Coolant through
- 12,000 RPM Max
- Safe, fast method of removing chips and coolant
- Balanced integral design for high speed
- Made from high-strength aluminum with anodized coating for long life and durability
- Quieter work environment

MAX 12,000 RPM

COOLANT THROUGH

Catalog Number	Shank	Blade	Length
ST.750-CF125	.750	4.92	2.36
ST20-CF125	20mm		





Blows away cutting chips and coolant wtih high-volume air

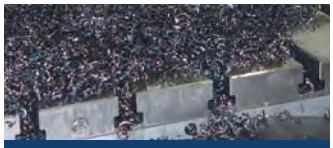
Operating Instructions

- Use in enclosed machine centers
- Install into a collet chuck
- Rotation is clockwise
- Optimum feed rate is 120-390 in/min

T-SLOT CLEAN

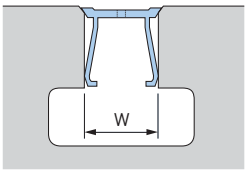
Improve your work safety environment and efficiency of table cleaning. Save the time required to clean T-Slots packed with chips. Coolant quickly removes heated swarf and helps to prevent thermal displacement of the machine.

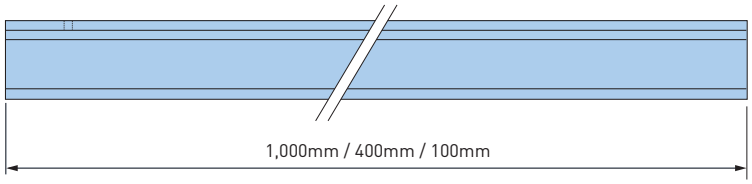
- Quick removal of chips from a machine
- Faster table cleaning—a reduction of clean-up time
- Volume control of heated chips—better machining precision
- Three sizes of T-Slot widths are available to fit your machine table



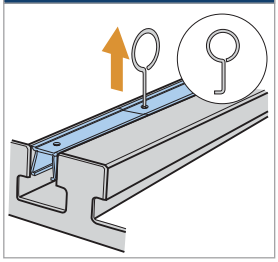
T-Slots Packed with Difficult to Remove Chips

T-Slots Protected & Clear by T-Slot Clean





Removal Pin for Easy Removal



Standard Set

Type	Catalog Number	Width W	Width Tol. (mm)	Contents
Metric	**TS14-S**	14mm	+0.18 0	100mm x 4 pcs. 400mm x 4 pcs.
	TS18-S	18mm		
	TS22-S	22mm	+0.21 0	

- If necessary, cut to the length that you need
- Removal pin is included

Cost Saving Set

Type	Catalog Number	Width W	Width Tol. (mm)	Contents
Metric	**TS14-10S**	14mm	+0.18 0	TS14-S x 10 sets
	TS18-10S	18mm		TS18-S x 10 sets
	TS22-10S	22mm	+0.21 0	TS22-S x 10 sets

- Contains 10 Standard Sets for cost savings

Long Set

Type	Catalog Number	Width W	Width Tol. (mm)	Contents
Metric	**TS14-400L-100P**	14mm	+0.18 0	400mm x 100 pcs.
	TS18-400L-100P	18mm		
	TS22-400L-100P	22mm	+0.21 0	

Extra Long Set

Type	Catalog Number	Width W	Width Tol. (mm)	Contents
Metric	**TS18-1000L-10P**	18mm	+0.18 0	1,000mm x 10 pcs.
	TS22-1000L-10P	22mm	+0.21 0	

HIGHER PERFORMANCE. GUARANTEED.

BIG DAISHOWA designs, manufactures and markets premium high-precision tooling systems and solutions for the automotive, military, aerospace, energy, and micro-technology industries. Our product portfolio comprises of more than 20,000 precision tools, which adhere to the highest quality standards. Our products are of the utmost quality—manufactured with materials and craftsmanship that enable superior performance. BIG DAISHOWA has grown into a well-recognized global manufacturer, with facilities in Japan, Switzerland, Germany and the USA.

We have exceptionally high standards for the products we represent. Not every shop requires extreme accuracy or total efficiency. But for those that do, there is no better partner than BIG DAISHOWA. If your challenge is to manufacture with greater responsibility and accuracy, and to find products and processes to improve the efficiency of your applications, we want to partner with you.

BIG DAISHOWA delivers the most accurate and efficient tooling solutions – guaranteed.

BIG DAISHOWA — USA

BIG DAISHOWA — JAPAN

BIG DAISHOWA — SWITZERLAND

BIG DAISHOWA — GERMANY

TOTAL TOOLING SOLUTIONS

BIG DAISHOWA offers a wide range of premium products for the highest performance guaranteed.

TOOL HOLDERS

- BIG-PLUS, HSK, BIG CAPTO
- Collet Chucks
- Hydraulic Chucks
- Milling Chucks
- Spindle Attachments

BORING TOOLS

- Rough Boring
- Large Dia. Boring
- Automatic Boring
- Fine Boring
- Digital Boring

TURNING TOOLS

- CNC Lathe Tooling
- Muti-Axis Turning Tools
- Swiss Automatic Lathe Tooling

CUTTING TOOLS

- Indexable Cutting Tools
- Solid Carbide Cutting Tools
- High Speed Steel (HSS)

TOOL MEASURING & MANAGEMENT

- Tool Presetters
- Tool Management
- Measuring Devices

ZERO-POINT WORKHOLDING

- Round Chucks
- Multi-Axis Systems
- Stabilizer System
- Preassembled Chucks
- Chain Clamping

BIG DAISHOWA

Driven by PRECISION
Defined by QUALITY

BIG DAISHOWA Inc.
Tool Holders | Boring Tools | Cutting Tools | Workholding | Tool Measuring
2600 Huntington Blvd | Hoffman Estates, IL 60192