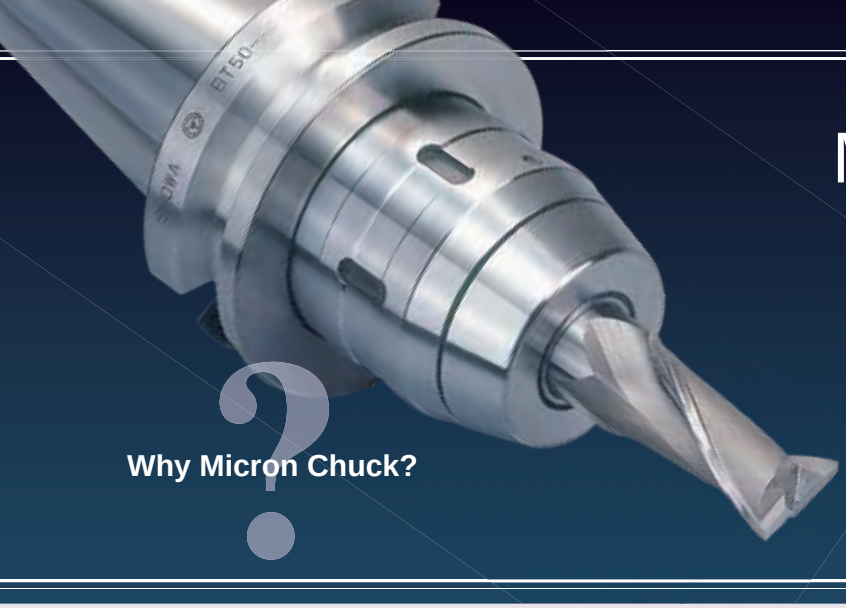


MICRON CHUCK

Why Micron Chuck?

Outstanding Clamping power.
Minimal runout.

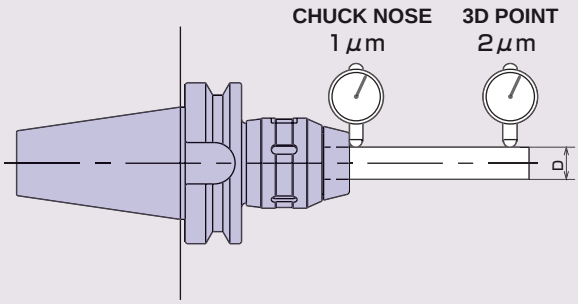
HIGH PRECISION MILLING CHUCK

POINT 1

Only Micron Chuck can guarantee such runouts as 0.001mm at chuck nose and 0.002mm at 3xD.

Micron Chuck was developed utilizing Showa original direct clamping mechanism and assembling technology acquired in manufacturing high quality machine spindles for a long experience.

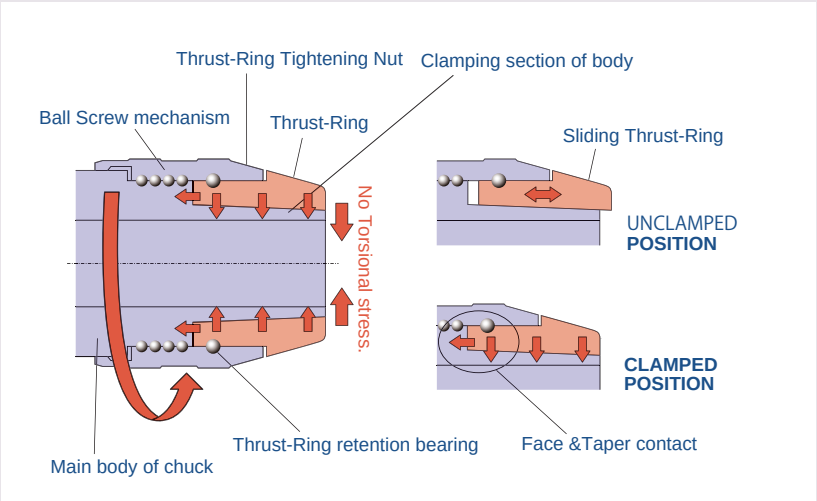
● How to measure runout



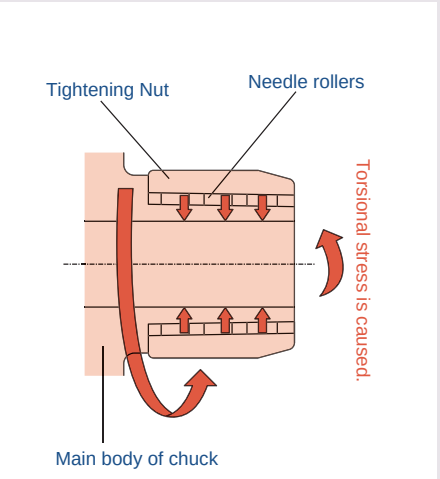
GRADE	NOSE	3D POINT
AA	1	2
A	3	5

Tool will be supplied with an inspection sheet.

● Structure of Micron Chuck



● Structure of other makers' chuck



POINT 2

Clamping power as high as other milling chucks.

High accuracy Micron Chuck has a high clamping power,too. The clamping power of ø32 ID Micron chuck is 2,450Nm, and ø6 ID 49Nm - about 2 times bigger than hydraulic chucks.

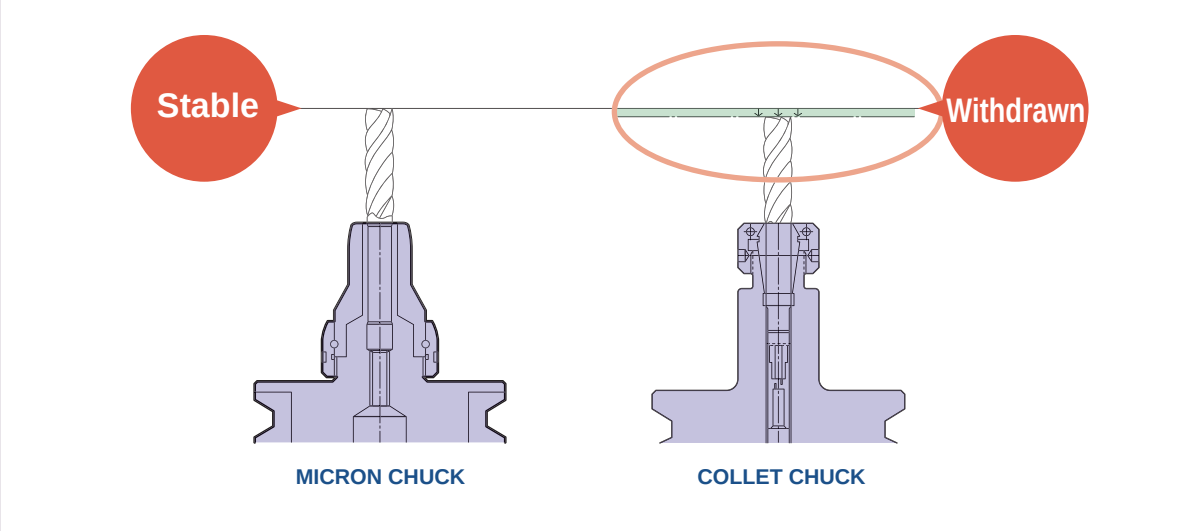
Standard type Micron Chuck

2,450N•m

POINT 3

The cutter is not axially moved by clamping

The cutter is not withdrawn by clamping like collet chucks, due to its unique mechanism. It is required in mass manufacturing line to preset cutter length to close tolerance. In case of collet chuck, the axial cutter projection is shortened by clamping. The back end of the cutter is pressed to the back-up screw at that time, which may cause bending and breakage of small dimeter cutters.



POINT 4

Highly balanced and sealed chuck.

Maximum speed :
20,000min^{-1} (Standard HPC-H chuck)
30,000min^{-1} ("G" type HPC-H chuck)

		#30,#40 HSK50, 63	#50 HSK100
Standard	A	10,000min^{-1}	8,000min^{-1}
	AA		
H	A	20,000min^{-1}	12,000min^{-1}
	AA		
	G	30,000min^{-1}	–
M	–	15,000min^{-1}	10,000min^{-1}

"G" type HPC-H chuck

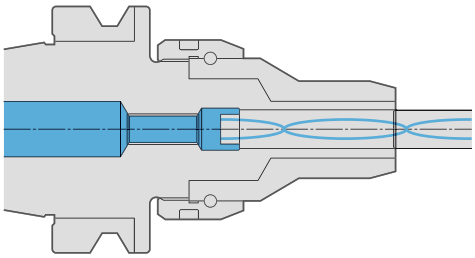
30,000min^{-1}

POINT 5

Thru-the-tool coolant type.

Thru-the-tool coolant type Micron Chucks available.
Please specify it at the time of ordering.

■ Thru-the-tool application



POINT 6

Mechanical chuck, Heater is not required.

Shrink-fit holders have restrictions of cutter material. But, Micron Chucks are applicable to any material of cutters, keeping high accuracy for a long period of time.

"M" type
Micron Chuck

POINT 7

Wide range of IDs are available.

Standard type, "H" type and "M" type Micron Chucks covers from ø3mm to ø50mm ID.

POINT 8

Wide application range.

You can extend application range of Micron Chucks by using straight collets. But, direct chucking is recommended to obtain the highest performance.

COMPARISON OF RUNOUT & SURFACE FINISH

	MICRON CHUCK	HYDRAULIC CHUCK	COLLET CHUCK	REMARKS
Runout	◎	△	△	Micron chuck : Measured runout. Others : From catalog.
	AA grade : 1μm at chuck nose, 2μm at 3×D guranteed.	3μm at chuck nose, 5μm at 3×D.	N made AA grade collet : 5μm at 4×D (There is no guarantee at the time of attaching the holder)	
Clamping Power	◎	△	◎	Measure value
	ϕ6 49N·m ϕ32 2450N·m	26.5N·m (N made ø6 chuck)	49N·m Showa ø6 collet (10 ID max. holder)	[ø6 49N•m] is the maximum of HPC06H long type
Maintenance	○	×	△	
	Periodical greasing since a mechanical chuck.	Periodical check of oil leak required.	Chips must be removed from collet.	
Presetting	◎	◎	×	
	Easy presetting, since cutter is stable.	Easy presetting, since cutter is stable.	Cutter is axially moved by chucking.	

DIMENSIONS BT›P.37-44 | SK›P.100-102 | HSK›P.109-116

Clamping power & Tightening Force

Standard

Chuck size	Clamping Power（MIN） (N・m)	Tightening Force (N・m)	Loosening Force (N・m)
HPC16	780	62	40
HPC20	1180		
HPC25	1760		
HPC32	2450		
HPC42	3920		

H-series

Chuck size	Clamping Power（MIN） (N・m)	Tightening Force (N・m)	Loosening Force (N・m)
HPC03H	10（10）	67	67
HPC04H	15（15）		
HPC06H	30（20）		
HPC08H	40（24）		
HPC10H	60（35）		
HPC12H	70（41）		
HPC14H	80		
HPC16H	90		

※Clamping power of short type chucks (L=75mm max) is shown in (　).

M-series

Chuck size	Clamping Power（MIN） (N・m)	Tightening Force (N・m)	Loosening Force (N・m)
HPC03M	5	57	57
HPC04M	7		
HPC06M	20		
HPC08M	26		
HPC10M	33		
HPC12M	46		

NEW

N-series

Chuck size	Clamping Power（MIN） (N・m)	Tightening Force (N・m)	Loosening Force (N・m)
HPC03N	2	50	50
HPC04N	4		
HPC06N	20		
HPC08N	26		
HPC10N	33		
HPC12N	46		

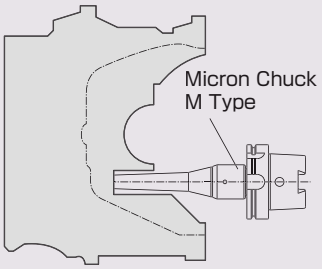
Application examples

1

Workplace	Cylinder Head Valve Guide Hole (FCD)
Cutting tool	Carbide Reamer 6mm×135L
Conventional Chuck	Competitor's Collet Chuck
SHOWA Chuck	SHOWA Micron Chuck HSKA63-HPC10H-105A
Test result	①Though conventional collet chuck required 30min to achive 10micron runout. SHOWA Micron chuck was able to achieve 3 - 5micron at 8×D with just one clamping. ②As a result, a longer tool life is realized from 50 - 100 holes to 1600 holes.

2

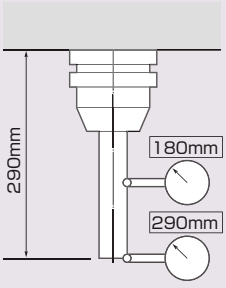
Workplace	Cylinder Block Oil Jet Hole (FC230)
Cutting tool	Carbide Reamer 9mm×180L
Conventional Chuck	Hydraulic Chuck+Straight shank shrink fit extension
SHOWA Chuck	SHOWA Micron Chuck HSKA63-HPC10M-254
Test result	Increased cutting tool life from 400 to 1000 holes, thereby reducing cutting tool costs and tool changing costs



3

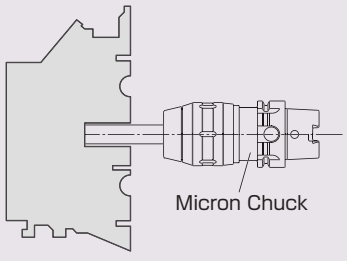
Workplace	Hydraulic Parts Cover（ADC12）
Cutting tool	Carbide Step Reamer 20mm×200L
Conventional Chuck	Competitor's Milling Chuck
SHOWA Chuck	SHOWA Micron Chuck BT40-HPC25-105A
Test result	①Runout Comparison on the M/C ②No more chattering

Measuring Position	SHOWA	Competitor
180mm	0.005	0.015
290mm	0.017	0.03



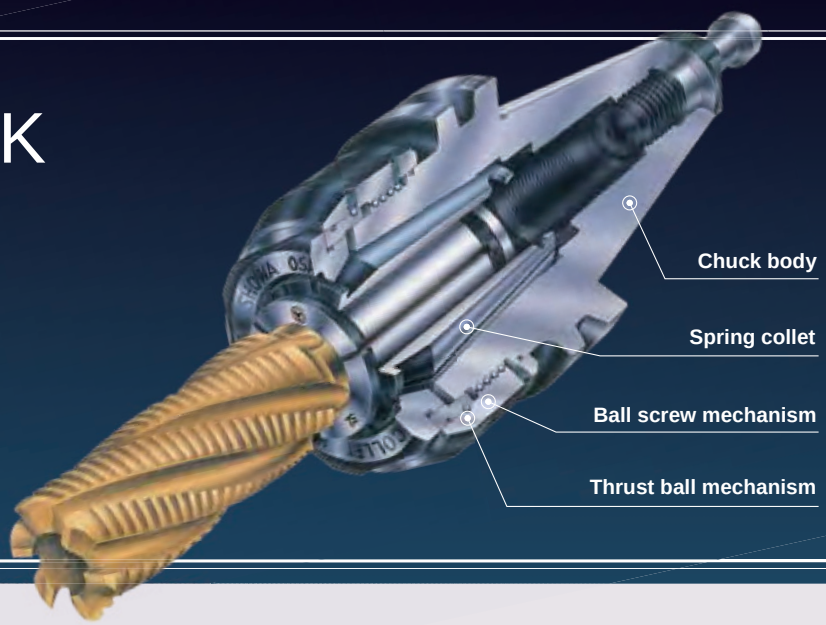
4

Workplace	Cylinder Head Cubing (ADC)
Cutting tool	Diamond Reamer
Conventional Chuck	Competitor'S Hydraulic Chuck
SHOWA Chuck	SHOWA Micron Chuck HSKA63-HPC25-115AA
Test result	Hydraulic chuck produced oval holes.Micron chuck produced perfect circular holes.



HARD CHUCK

Outstanding power and accuracy created by ball screws



Ball screw mechanism is employed first time to milling chuck.

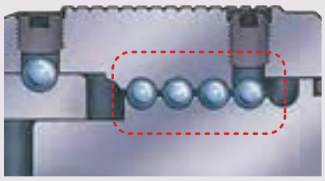
USA PAT. JP PAT.

A long seller Collet Chuck which employs ball screw mechanism for the first time in the world. Various shank types and sizes are available for wide range of applications.

POINT 1

Clamping power increased by 3～5 times.

The ball screw creates high clamping power by drawing in the cutter when the nut is tightened.
The high clamping power is obtained in any place of the spring collet. Clamping power is multiplied by 3～5 times compared with non-ball screw chucks.



POINT 2

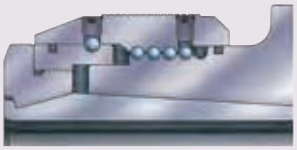
Accuracy is increased by original spring collet.

High accuracy is obtained, since the collet is free from twisting force due to the thrust ball structure.
SHOWA original way of manufacture and heat treatment, high accuracy of the Spring Collet is maintained for a long period of time.

POINT 3

High rigidity is realized by thick wall structure.

Very thick wall of Hard Chuck provides high chucking power, high rigidity and accuracy, even in hard jobs.



POINT 4

Very easy to clamp and unclamp.

The SHOWA original ball screw mechanism provides easy chucking. clamped and unclamped only by a half turn of the nut.
(The nut is fixed by a built-in braking mechanism)

Standard type

Wonderful power of steel ball

Steel balls are used as a rolling transmission, by which the chuck can be clamped with less hand power. The ball screw race of the nut and chuck body is finished by close tolerance grinding, to realize highest accuracy, chucking power and rigidity.

DIMENSIONS BT ▸ P.45,46 | HSK ▸ P.117 | ST ▸ P.149 | NT ▸ P.157 | MT ▸ P.159

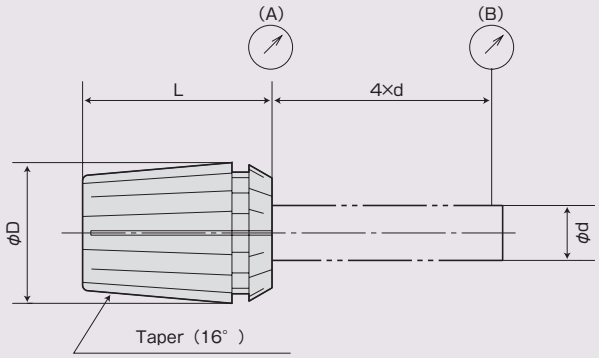
COLLET CHUCK

This chucks are most suitable chuck for drilling, milling, reaming, tapping.

POINT 1

High accuracy collet

①High accuracy collets are used.
②The Collet is made of quality alloy steel which minimizes strain and wear.



Grade	Runout	
	Nose	4D Point
AA	1μm	3μm

POINT 2

Smallest diameter is 0.5mm.

CHUCK	COLLET I.D. (mm)	GRIPPING RANGE (mm)
RSC07	ø1～ø7	0.5
RSC10	ø1～ø3	0.5
	ø4～ø10	1.0
RSC13	ø1～ø3	0.5
	ø4～ø13	1.0
RSC16	ø1.5～ø3	0.5
	ø4～ø16	1.0
RSC20	ø2～ø3	0.5
	ø4～ø20	1.0

POINT 3

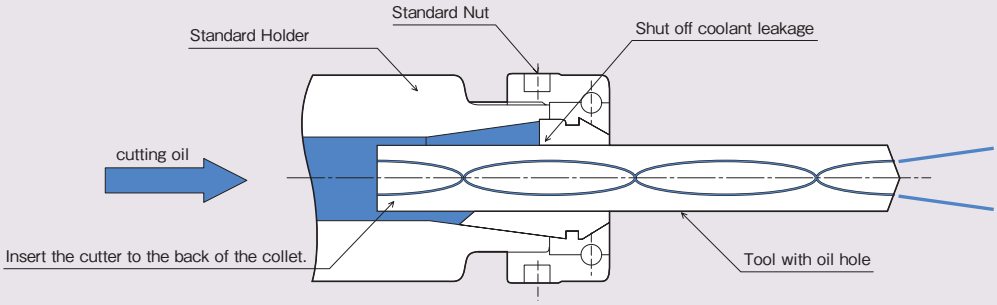
Wide use collet.

Standard 16°(DIN6499/ISO15488) taper collet,
the most popular in world.
Major CNC makers are adopting this collet as standard items for milling collet chucks.

POINT 4

Through-the-tool coolant

For coolant thru the tool application.
High pressure up to 7 Mpa is acceptable.
Standard holders and nuts can be used.
Bearing of nut is not affected by coolant.



POINT 5

Nut and Adjust screw

Ball bearings are used to reduce friction.
Trapezoidal thread is used for higher accuracy.

Two pieces structure is used to reduce run out caused by set off cutting tool.
Adjustment is projection length of the cutting tool from holder shank side.
It is available for tang shape cutting tools.

POINT 6

Special coating

Holder doesn't rust due to special rust proof treatment on full surface.

SYNCHRO TAP HOLDER
MODEL SYFN, SYFS

INFINITESIMAL FLOATING SYNCHRONIZED TAP HOLDER

Screw processing is processed by self-propelled rotation of one rotation and one pitch, so there is no stability of screw precision (angle) and blade life unless it is 100% synchronized. Gauge is also required for screw precision, but unless angle and circularity are out, it can not be said that the accuracy of first and second grade is high. Machine and tap as well as manufacturing, because there is processing tolerance, it is impossible to make it 100%, so tap holder with minute stretch and radial float mechanism is necessary.

POINT 1

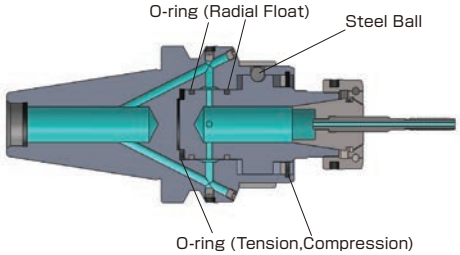
Compensates for synchronous error

It compensates for synchronous error not only axially,but also radially. Infinitesimal radial error caused by machining can be corrected by the original mechanism.

POINT 2

Structure

Maintenance is not needed by using durable O-ring. Since through-the-tool coolant and also alongside-the cutter coolant can be applicable, standard tap can be usable as well.
Maximum coolant pressure of
SYFN : 7 M pa is applicable.
SYFS : 5 M pa is applicable.



POINT 3

Tap holder for small diameter

Tap holder for small diameter doesn't clamp tap by collet, but clamps tap directly, and this makes it possible to avoid breakage of M1, M1.6 and M2, too.

POINT 4

Acceptable tap size

HOLDER	COLLET	JIS TAP SIZE
SYFS02	—	M1、M1.6、M2、No3、No4
SYFS03	—	M3、No5、No6
SYFN12	CR13GB/GH	M4～M12、No8～U1/2、P1/8
SYFN20	CR20GB/GH	M4～M20、U5/16～U5/8、P1/8～P3/8

POINT 5

Machining Performance

Test cut with synchro tap holder and collet chuck with the same program.

Difference when processing resin material

Left: Synchro tap holder SYFN type has good thread thread accuracy, and transparency is high because the load on the cutter is reduced.
Right: In the fixed holder (collet chuck), transparency is low.

With the Synchro Tap infinitesimal float is used,
increasing the degree of transparency,
thereby illustrating the accurancy of threads are improved.

Left:SYFN　Right:Collet Chuck

Difference when small diameter tapping.

Work	R6-Block	
Material	Aluminum	
Holders	BT30-EDC06-090	BT30-SYFS02-095
Cutting tools	M1.6×0.35 TAP	
Cutting conditions	N=260min-1　F=910min/min	
Life	Exchange in about 200 holes (requiring regrinding)	Exchange in about 200 holes (requiring regrinding)
Effect	Improvement of cutting tool life (about twice)	

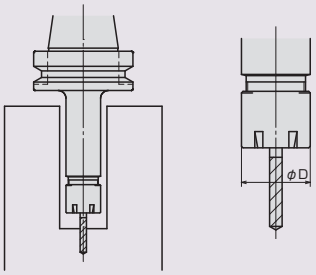
DIMENSIONS BT▸P.63 | SK▸P.103-105 | HSK▸P.130

COLLET CHUCK (SLIM TYPE)

**By a super slim body,
it minimizes the interference of work & jig.**

POINT 1

Super slim nut and body diameter.



CODE	øD	CHUCK
ER11MN	16	SSC07
ER16MN	22	SSC10
ER20MN	28	SSC13
ER25MN	35	SYFN16S

POINT 2

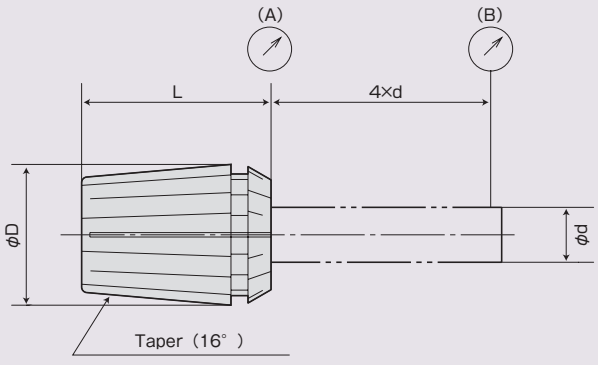
Standard 16° (DIN6499/ISO15488) taper collet, the most popular in world.

①Smallest diameter is 0.5mm

CHUCK	COLLET I.D. (mm)	GRIPPING RANGE (mm)
SSC07	ø1～ø7	0.5
SSC10	ø1～ø3	0.5
	ø4～ø10	1.0
SSC13	ø1～ø3	0.5
	ø4～ø13	1.0
SYFN16S	ø1.5～ø3	0.5
	ø4～ø16	1.0

②High accuracy collets are used.

③The Collet is made of quality alloy steel which minimizes strain and wear.



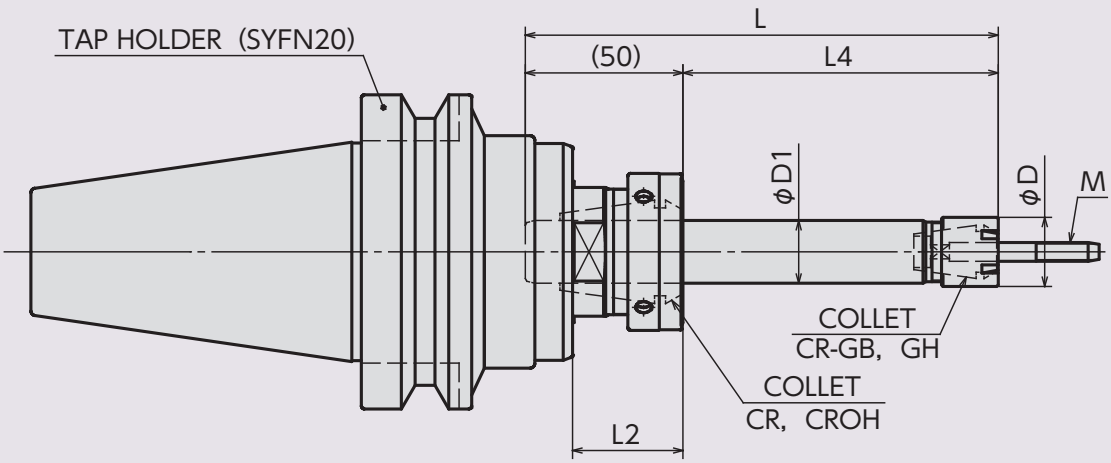
GRADE	RUNOUT	
	NOSE	4D POINT
AA	1μm	3μm

DIMENSIONS BT ▸ P.59 | HSK ▸ P.127

POINT 3

Long adapter for synchronized tap holder （COLLET CHUCK SLIM TYPE）

It is possible to use it as a long adapter by chucking it with Synchro Tap Holder SYFN20 type.



ADAPTER MODEL	øD	øD1	L4	M
ST16-SSC07-L	16	16	50, 100 150	M6
ST20-SSC10-L	22	20	50, 100 150, 200	M10
ST20-SSC13-L	28	20	100 150	M12

TAP HOLDER MODEL	øD	øD1	L2	M
SYFN16S-L2	35	—	35,65 95,125,155	M16

When it is necessary to dig a deeper hole for tap processing of M14-M16, it is possible to use by tap holder SYFN16S type without long adopter.

POINT 4

It is available as a long adopter for small diameter drill processing

DIMENSIONS BT▸P.64 | SK▸P.106 | HSK▸P.131 | ST▸P.148

TRACTION DRIVE SPEED ACCELERATOR

Full-functions in a compact body.

POINT 1

Basic principle

①Power of the traction drive is transmitted by the rolling contact mechanism via oil film of traction grease characterized by high viscosity at high pressures.

②Contact pressure P is created at each contact surface on planetary rollers, a sun roller and a stationary housing, which are assembled with elastic deformation.
By this pressure, the oil films changes to high viscosity one (only when contact pressure P is imposed) so that the power can be transmitted at the roller contact area.

③The traction force T is formulated by Equation (1).

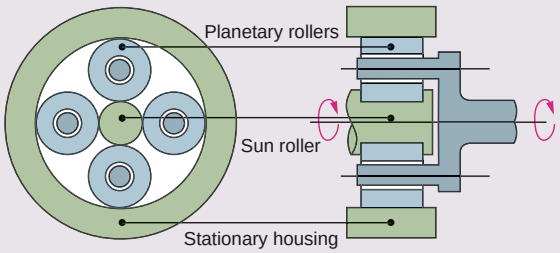
$$T=\mu P \cdots\cdots\cdots (1)$$

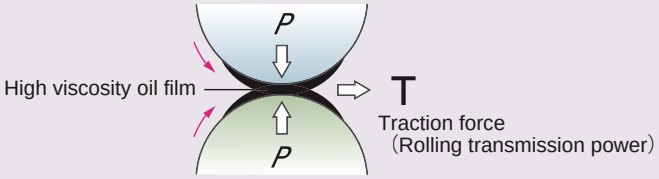
where, μ:Traction coefficient, P:Contact pressure

④This unit is a speed increasing device which the revolution of the planetary roller is used for input side and the rotation of the sun roller is output side.
The speed increasing ratio is formulated by Equation (2).

$$n=1+\frac{D}{d} \cdots\cdots\cdots (2)$$

where, D:Bore diameter of stationary housing
d:Outside diameter of sun roller





POINT 2

Features

Positioning Block

(Optional for use on M/C)
The positioning block and pin mechanism supplies coolant to the tool.

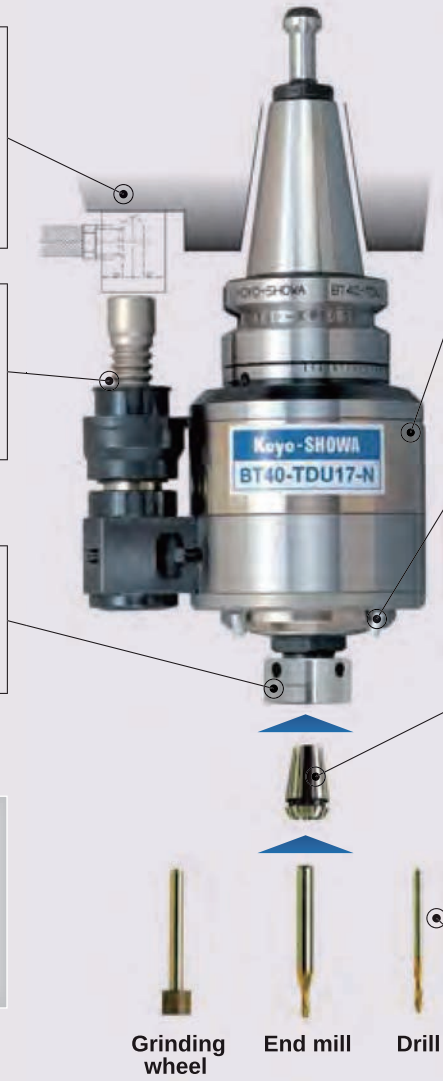
Positioning Pin

"One-touch" adjustment, with in a height range of 40mm.
PAT.P

Nut

The balance adjustment is already made in the factory.

More widely usable, due to its adaptability to a great variety of M/C spindles.



Grinding wheel | End mill | Drill

Orientation Ring

The fitting position of a positioning block differs among machining centers. The position can be adjusted by rotating the orientation ring within 360°.

Coolant Nozzle

The angle adjustment of the coolant nozzle can be made easily by hand.
The spray angle of the coolant is adjusted to match the inserted cutter length.

Collet

Only a under super precision collet, runout within 3 microns, should be used.
Various sizes can be supplied by mm unit.
Please order sizes to match the shanks of tools to be used.

Cutters

A drill, end mill and grinding wheel with a straight shank can be applied.

ATC-Ready

Compact and light, the TDU is ready for ATC… with no extra attachments necessary.

Low Vibration

The Traction Drive Unit is particularly smooth-running, and without noise vibration, it even makes grinding possible on your M/C.

Transmission Power

A stable torque transmission produced stable rpm, unlike air motor speed accelerators.

High Speed

Since the traction drive is run by a transmission mechanism based on rolling contact, high lubrication can be maintained even at high speed rotation.
The uses of ceramic bearings and through-body coolant are incorporated to ensure reliable, long-lasting high speed operation.

DIMENSIONS BT ▸ P.93,94

POINT 3

A complete series supports a full range of applications.

TDU40

Super rigid Type

3.4×Spindle rev. Max.12,000rpm

Cutting Example [Groove Milling]

Material	:	Aluminum alloy
End mill	:	16mm dia. T/C, 2-blade
Speed	:	12,000rpm
Cut. depth	:	5mm
Feed	:	1000mm/min

TDU17-N

Standard Type

6×Spindle rev. Max.30,000rpm

Cutting Example [Groove Milling]

Material	:	Aluminum alloy
End mill	:	4mm dia. T/C, 2-blade
Speed	:	28,000rpm
Cut. depth	:	2mm
Feed	:	1,000mm/min

	Super rigid type	Standard type
Type	TDU40	TDU17-N
Speed increasing ratio	3.4×	6×
Speed (rpm) (min⁻¹)	MAX. 12,000	MAX. 30,000
Output torque (Nm)	7	1
Output power (kw)*1	8.8	3.1
Taper *2	BT50	BT40 / BT50
Tool grip diameter (mm)	φ1.5~20	φ0.5~10
Net weight (kgW)	11.5	5.4 / 7.9

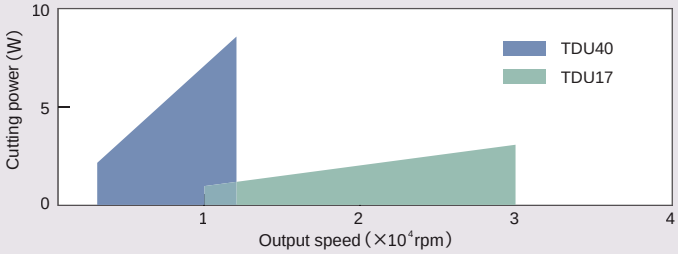
*1 Max. output for each max. speed.
*2 Other tapers are also available:
SK40,CV40,HSK63 equivalent to BT40.
SK50,CV50,HSK100 equivalent to BT50.

Warranted total running time : 2,000hrs
Period of warranted : One year

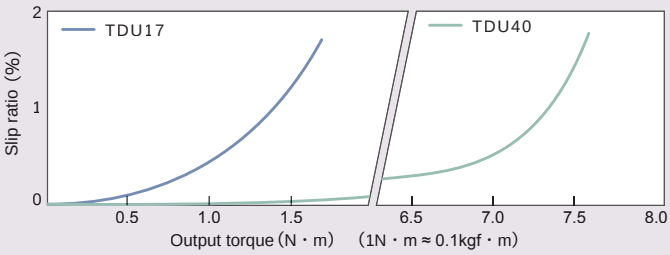
POINT 4

Covering a wide application range…

1 Application range



2 Torque transmission characteristics



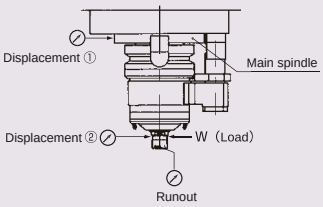
3 Runout and Bending rigidity

Type	Runout (μm) *1	Bending rigidity (N/μm) *2
TDU40	≦5	30≦
TDU17	≦5	10≦

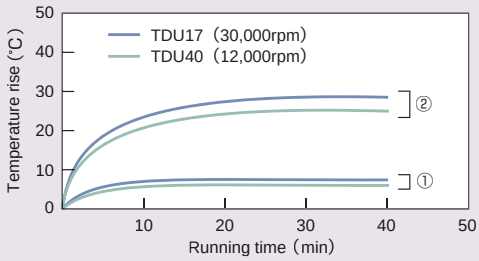
*1) : Runout of main spindle

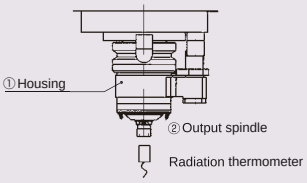
*2) : Bending rigidity = W / (Displacement② - Displacement①)

(1 N/μm ≈ 0.1kgf/μm)



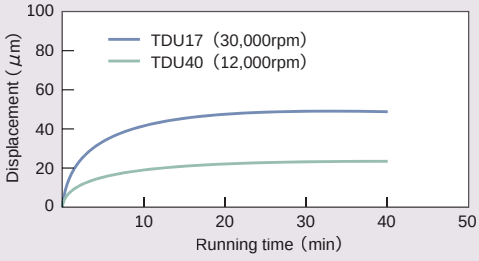
4 Temperature rise (Temperature-Coolant temperature)

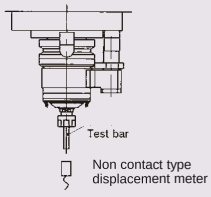




Coolant pressure : 200kPa (2kgf/F)
Coolant temperature : 20:
Room temperature : 20:
(Coolant amount : 15R/X)

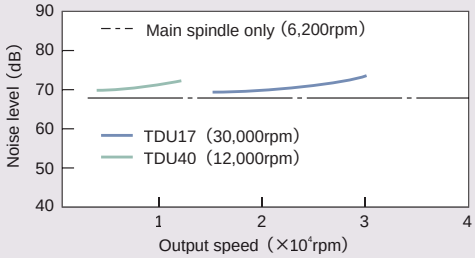
5 Axial displacement

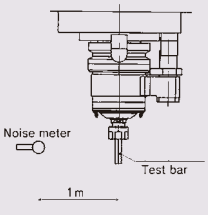




Coolant pressure : 200kPa (2kgf/F)
Coolant temperature : 20:
Room temperature : 20:
(Coolant amount : 15R/X)

6 Noise level





HY-DUAL CHUCK PAT.

TOOL HOLDER FOR DIFFICULT TO MACHINE MATERIALS

POINT 1

Dual-clamping method

Dual chucking by Hydraulic & Mechanical
Only high rigidity & high clamping power can prevent the end mill from being pull-out and can prevent chattering.
SHOWA has solved the so-called "wooden pestel phenomenon" which causes the pulling out of end mill,
by clamping the cutting tool's shank nose & shank end.
"Vibration" caused by chattering is removed by the attenuation mechanism of hydraulic and spring.

POINT 2

Structure

Simple chuking by a single to be made by SHOWA（Japanese and American, patent acquistion finished） SHOWA present one action, easy chuking（Patent acquired in Japan and USA）.

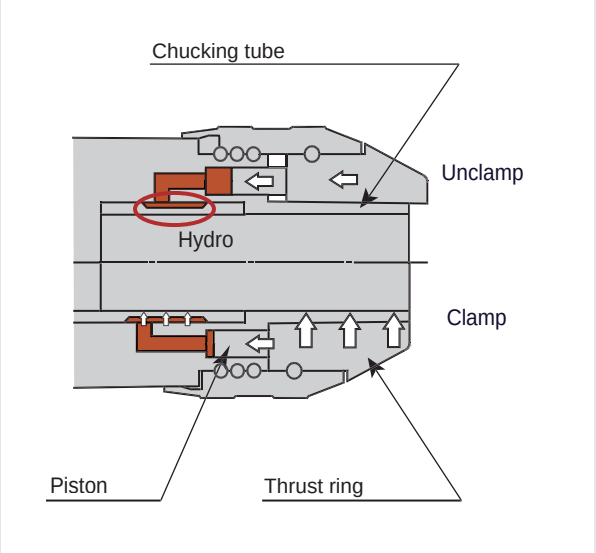
① **Thrust rilg is plled down.**

② **At the same time, the piston is being pressed down.**

③ **Chucking tube shrink.**

④ **At the same time, the hydraulic clamping is activated.**

⑤ **Clamping is complete.**



POINT 3

"Wooden pestel phenomenon"

A tool, while being deformed by a bending moment in the milling process, twists in the tool holder, the deformation occurs repeatedly by high pressure in a short stroke.(Bending moment: Bending resistance R (N) x tool protruding amount L (m)). The mouths of both the collet and the holder will expand and wear flare by this movement. These mouths are easily deformed by the principle of leverage, as the ratio below is increased. L (tool protruding amount) /H (tool gripping length) The material such as steel having a lower Young's modulus is more likely to deform than the carbide of the tool. A circumference difference [e=π(D1-D)] occurs between the tool shank and the holder mouth because of abrasion expansion.
The tool turns more than the holder and at the same time it starts pulling out little by little. In addition, debr is generated in the worn area creates a rust ring and is adhered mainly to the shank. It is considered that, as measures, to reduce the bending moment is mainly common.

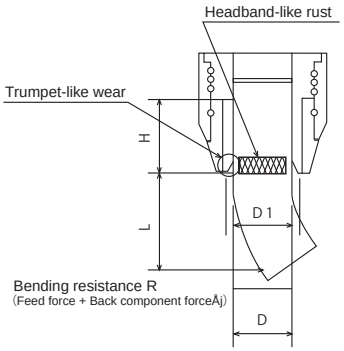


図1 direct chucking

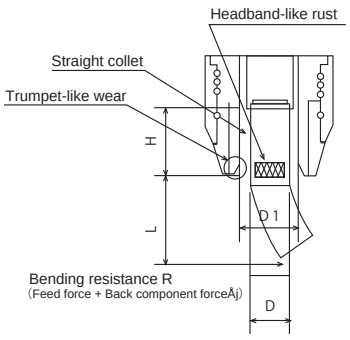


図1 Chucking throgh collet

POINT 4

Machining Performance

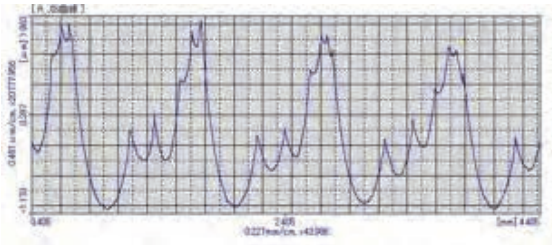
Test cut with Hy-Dual chuck and conventional milling chuck in the same program

Comparison of surface roughness

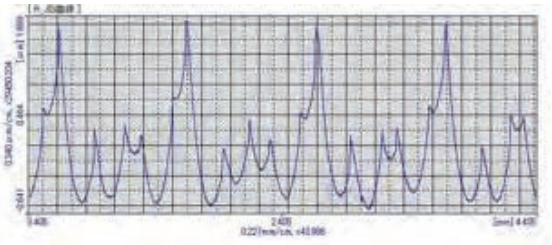
- Holder in use : BT50-HDU20-100(HY-DUAL CHUCK)
  BT50-HPC20-105(MICRON CHUCK)
- Cutting tool : Six flutes Cemented carbide endmill
- Work materials : SKD61
- Cutting condition

Ap	Ae	Rotational speed	Feeding rate	Tool projection
30mm	1mm	1900min^{-1}	1920mm/min	55(L/D=2.75)mm

- Result: improvement of surface roughness was observed



HPC Ra=0.64μ



HDU Ra=0.360μ

DIMENSIONS BT▸P.61,62 | HSK▸P.130

<BORING SYSTEM> FIRSTCUT [Small-hole Boring Tool]

Precision Tuning Small-holeBoring Tool

NEW

A Higher Level of Stability
A Higher Level of Stability

Adjustment dial
High feeding precision

Auxiliary ring
Eliminates dimension matching errors.

Collet
Allows the operator to change the diameter of the boring bar handle.

Lock bolt
Can be locked with light force.

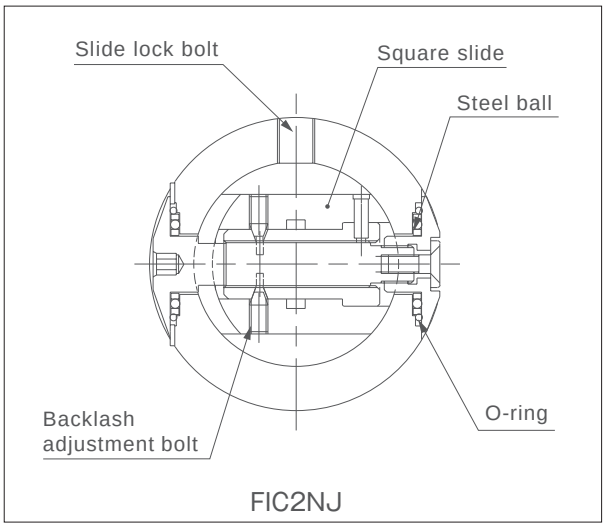
Throwaway jig borer tool
The tip is mounted so as to minimize cutting resistance.
Ensures that hole diameters will not diverge.

DIMENSIONS	BT ▸ P.72 | HSK ▸ P.135 | ST ▸ P.150
DIMENSIONS	JIG BORER TOOLS, COLLET, INSERTS ▸ P.73, 136
DIMENSIONS	EXTENSION, REDUCTION ▸ P.74, 137

High Rigidity Pre-balanced Design

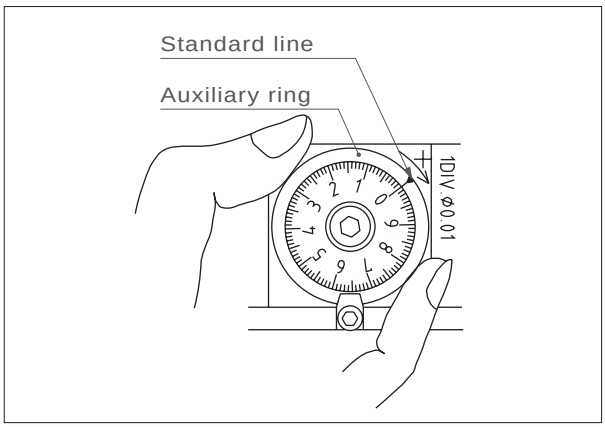
Square slide, through feed screw, steel balls on both sides of feed screw, feed screw fixed with double screws, and backlash-adjusted internal thread: very robust structure without any gaps.

The feed screw is polished at high precision and thus moves smoothly, allowing for accurate dimensional adjustment with the dial scale (backlash-free).
The dial is calibrated to 0.01 mm for FIC2NJ, 0.005 mm for FIC1NJ.



With auxiliary ring

An auxiliary ring is placed on the outer circumference of the dial. Rotating this manually makes dimensional adjustment easier and eliminates reading errors.



Throwaway Boring Tool

We utilize our own proprietary design for our throwaway boring tools. These tools are designed to minimize cutting resistance and fully utilize the tip features, in order to avoid making trumpet-shaped machined holes. ISO tips can be used. The shank has a coolant hole that allows the reliable supply of through coolant to the blade edge.
The heads can be used with through coolant systems, provided that you use our dedicated throwaway tools.

<BORING SYSTEM> FIRSTCUT [Machining diameter Φ25-Φ73]

Adjustable Boring for Ultra-precision Finish

NEW

Adjustable Boring System for Ultra-precision Finish
Achieved by High-precision Feeding

Maintenance Hole

The body has an opening for cleaning and filling.

Air for cleaning is injected and oil is supplied via the maintenance hole, ensuring continuous stable movement of the slide.

Lock bolt

Stable locking with inserted locking pad

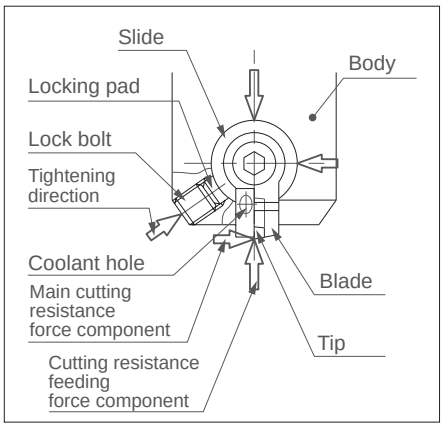
The slight clearance between the slide and the body hole is properly adjusted.

DIMENSIONS	BT ▸ P.71 | HSK ▸ P.134 | ST ▸ P.150
DIMENSIONS	THROWAWAY SQUARE SHANK TOOLS, INSERTS ▸ P.73, 136
DIMENSIONS	EXTENSION, REDUCTION ▸ P.74, 137

Eliminating the Staggering of Blade Edge Dimensions

The blade edge does not stagger even when the slide is locked.

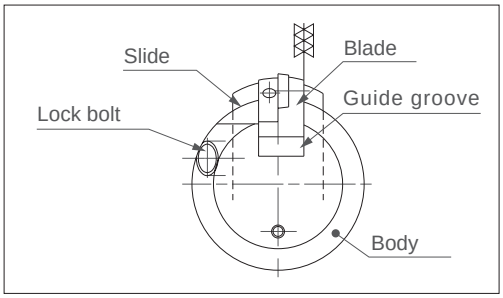
The slight clearance between the slide and the body hole is properly adjusted. In addition, a locking pad is placed between the lock bolt and slide, preventing torsional action on the slide at tightening. Moreover, the lock is set in a slanting direction so as to deal with both the main and feeding force components of the cutting resistance force. These measures thus eliminate staggering of the blade edge when locking the slide.



Reinforced Machining Stability

A guide groove on the body ensures stable machining.

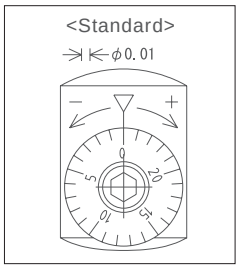
In order for the body to securely absorb the cutting resistance force, it is equipped with a polished guide groove to keep the blade fixed, thus absorbing the component force and improving machining stability.



Backlash-free Dial Calibrated to 0.01 dia.

Direct reading accuracy of 0.01 dia.

The dial is very easy to read because a gear is incorporated to widen the calibration pitch. In addition, its structure eliminates backlash, thereby improving its operability.



High Feeding Precision

Accurate feeding is maintained via the high-precision feed screw.

The feed screw, an essential point of feeding precision, has been polished with high precision after heat treatment.
For this reason, it will maintain a highly accurate feed, allowing the user to reliably correct dimensions on the machine.

Support for through coolant

Coolant is reliably supplied to the blade edge.

Through a steady supply of coolant, chippings are easily expelled and both the blade edge and machined area of workpieces can be prevented from heating up. This has the following benefits:

❶ Improved tip lifetime
❷ Higher cutting speed/cutting feed
❸ Improved surface roughness of workpieces
❹ Improved dimensional accuracy of workpieces

As a result, you can expect accurate machining at high efficiency.

<BORING SYSTEM> FIRSTCUT [Machining diameter Φ70-Φ360]

Adjustable Boring for Ultra-precision Finish

NEW

Adjustable Boring System for Ultra-precision Finish
Achieved by High-precision Feeding

Blade edge/tip

60° Triangular tip
80° Rhomboid tip

Coolant hole/nozzle

Allows reliable feeding
to the blade edge.

Radial adjustment screw

Direct reading 0.01 dia.

Slide

Dovetail structure
High-rigidity clamp holding type

Tool/Blade

90° square shank tool

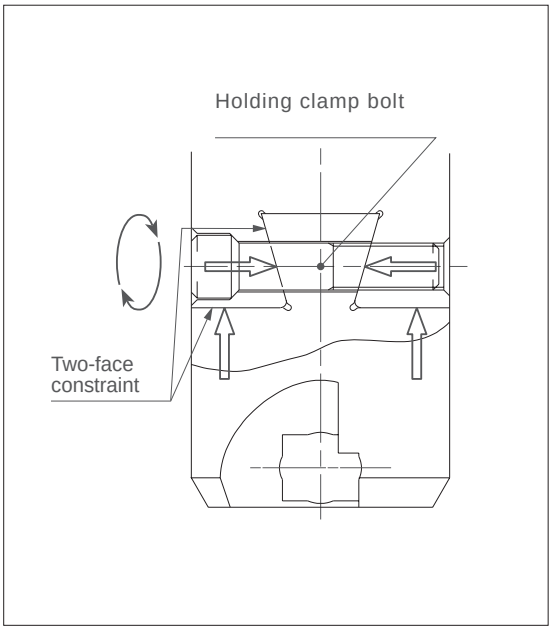
DIMENSIONS BT ▸ P.71 | HSK ▸ P.134 | ST ▸ P.150

DIMENSIONS THROWAWAY SQUARE SHANK TOOLS, INSERTS ▸ P.73, 136

DIMENSIONS EXTENSION, REDUCTION ▸ P.74, 137

High-rigidity clamp holding structure

The body and slide part are integrated with a hand-finished dovetail that is aligned to the actual workpiece and held fixed with clamp bolts. Since it is constrained in two places (the taper area of the dovetail and the bottom surface) a highly rigid assembly is ensured.

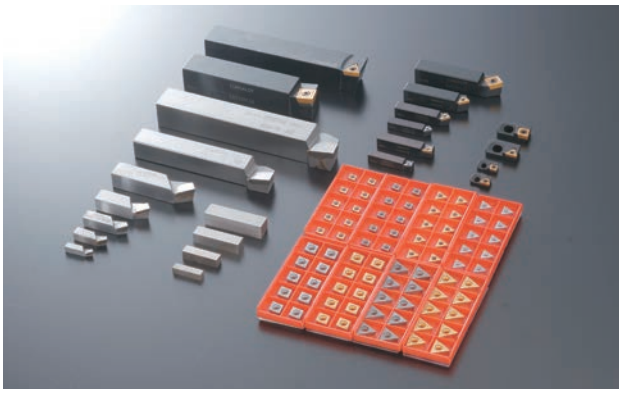


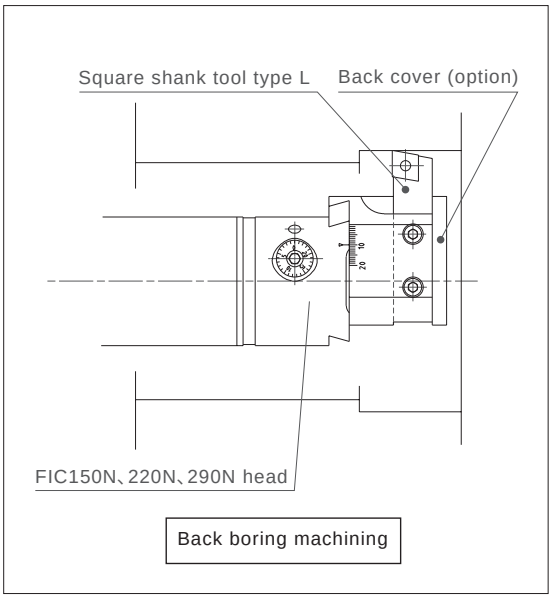
Use of Precision Screws

FIC150N, FIC220N, FIC290N use polished worms/worm wheels, allowing fine-tuning with a precision of 0.01 dia. by direct reading.

Wide Variety of Blade Edges

We adopt 90°square shank tool, and when choose L-type square shank tool, then back boring is available.
We adopt ISO insert chip so according to the work you can select from chips made by any tool manufacture.
※L-type square shank tool for back boring and back cover to be quoted separately.





Wide Machining Range

By using square shank tools, wider machining range that cannot normally be achieved with a normal boring head can be obtained not only by moving slide but by projecting square shank tools. Moreover, well balanced machining can be achieved by mainly adjusting the projection of shank tool and then decreasing the slide opening for the tuning.

SHOWA
SKM TOOL SYSTEM

TOOL HOLDERS
FOR MULTI-TASKING MACHINE

POINT 1

Features

High rigidity

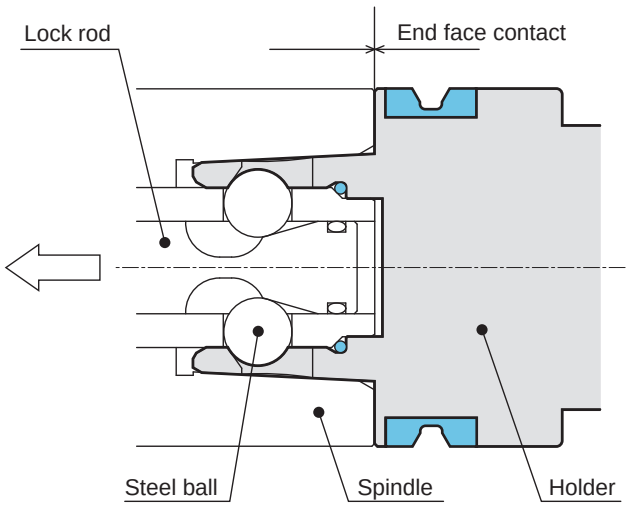
SKM's hollow shank is deliberately thin and flexible, so it expands more than the socket of spindle and tightens when rotating at high speed. As the drawbar retracts, it expands the collet and pulls the shank back into the socket, compressing the shank until the flange seats against the front of the socket. This provides a stiff, repeatable connection more than BT shank.

High-precision Machining

By a combination of axial clamping forces and taper-shank interference,
positiong repeatability improves highr than BT shank, enabling highprecision machining.

High Speed Machining

There is no subduction in the high-speed machining because all from holder to clamp unit are in shymmetrical shape.



POINT 2

SKM Tool line up

MICRON CHUCK

SKM63XMZ-HPC03H-90Y-D
SKM63XMZ-HPC04H-90Y-D
SKM63XMZ-HPC06H-90Y-D
SKM63XMZ-HPC08H-90Y-D
SKM63XMZ-HPC10H-90Y-D
SKM63XMZ-HPC12H-90Y-D
SKM63XMZ-HPC20 -90Y-D
SKM63XMZ-HPC25 -105Y-D
SKM63XMZ-HPC32 -105Y-D

COLLET CHUCK

SKM63XMZ-ER11 -60Y-D
SKM63XMZ-ER11 -90Y-D
SKM63XMZ-ER11 -120Y-D
SKM63XMZ-ER16 -60Y-D
SKM63XMZ-ER16 -90Y-D
SKM63XMZ-ER16 -120Y-D
SKM63XMZ-ER25 -60Y-D
SKM63XMZ-ER25 -90Y-D
SKM63XMZ-ER25 -120Y-D
SKM63XMZ-ER32 -60Y-D
SKM63XMZ-ER32 -90Y-D
SKM63XMZ-ER32 -120Y-D
SKM63XMZ-ER40 -60Y-D
SKM63XMZ-ER40 -90Y-D

END MILL HOLDER

SKM63XMZ-EM16-60Y-D
SKM63XMZ-EM20-60Y-D
SKM63XMZ-EM25-80Y-D
SKM63XMZ-EM32-90Y-D

MORSE TAPER HOLDER

SKM63XMZ-MTA1-120Y-D
SKM63XMZ-MTA2-120Y-D
SKM63XMZ-MTA3-125Y-D

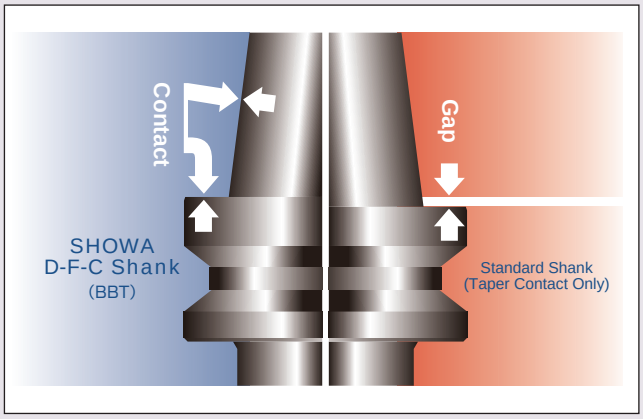
FACE MILL ARBORS

SKM63XMZ-FMA25.4 -45Y-D
SKM63XMZ-FMA31.75 -45Y-D
SKM63XMZ-FMC22 -45Y-D
SKM63XMZ-FMC27 -45Y-D
SKM63XMZ-FMC32 -45Y-D

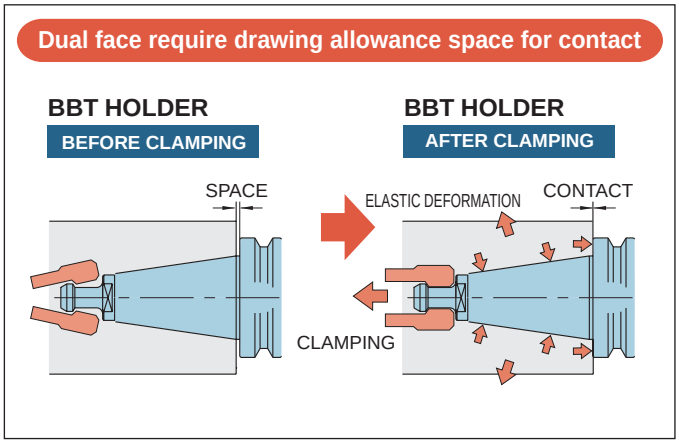
SHOWA
D-F-C SYSTEM (BBT)

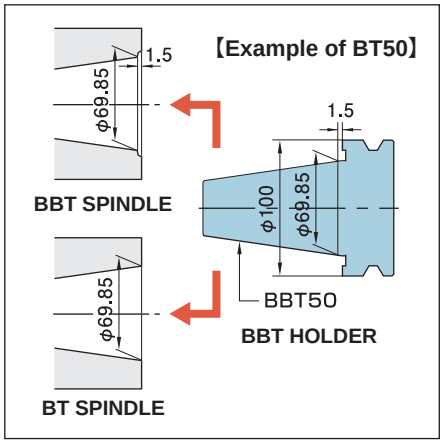
Merit with dual face contact system

- Improve preciousness of processing surface and dimension
- Extend life of cutting tools
- Control color change(fretting) on the taper side under heavy duty processingh
- Improve repetition preciousness of ATC
- Stability for Z direction at the time of high-speed precessing
- Impreove of roundness of the boring processing



SHOWA BBT TOOL SYSTEM





The Showa BBTTool System offers simultaneous dual contact between the machine spindle face and toolholder flange face, as well as the machine spindle taper and long toolholder taper shank.

【Reference value】

Spindle size	Clamping force	AXIAL MOVEMENT AMOUNT
#40	800kg	20μm
#50	2,000kg	20μm

＊The value of the table is for reference only and axial movement amount depends on the clamping mechanism and spindle shape.
(The numerical values in the machining center owned by the Company)

＊BIG-PLUS system is Daishowa Seiki licensed products

DIMENSIONS BT▸P.37-92

OTHER SHANK STYLES

SHOWA Tool holders are available with most of popular shanks.

POINT 1

Full range of line up, small to big

SHOWA Tooling System includes many sizes of shanks, from small ones such as S20T, HSKE32, to big ones such as BT50, HSKA100. Small shank holders with integral pull stud are also manufactured to order.

POINT 2

Shank types and Holder

S20T・S25T

・HPC-H Micron chuck
・RSC Collet chuck

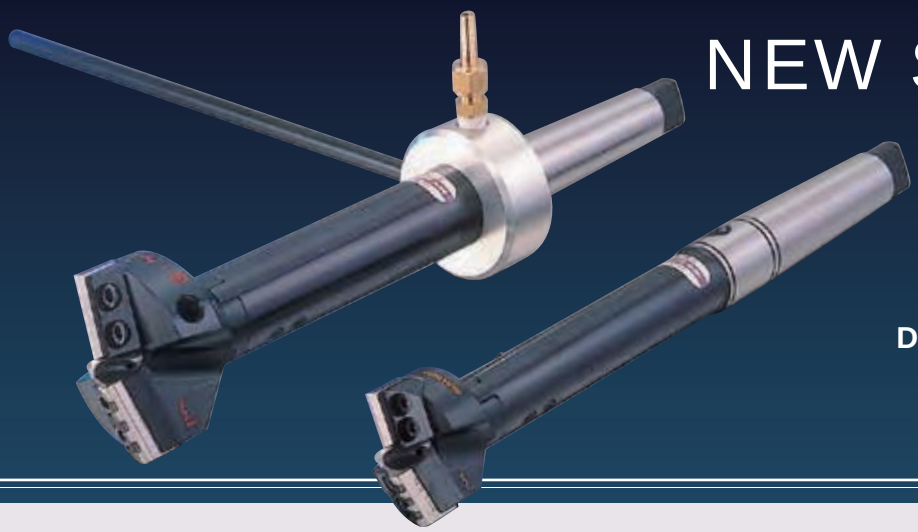
HS63・HS100

・All type of HPC Micron chuck
・RSC Collet chuck

HSKE32・HSKE40

・HPC-H Micron chuck
・RSC Collet chuck

＊Please refer to our distributor, or to us for details.



NEW SUPER DRILL

Deep boring up to 15 times diameter !

High Reliability and Proven Performance

SUPER DRILL was put on the market by SHOWA TOOL CO.
Since that time, it was continuously improved through in-the-field experiences.
In responce to customer's demands, NEW SUPER DRILL has been developed to increase its flexibility, employing a modular system. The basic set consists of a head and a shank. And, extension arbors are added for deeper holes.
SUPER DRILL's ease-of-use is further enhanced by this modular construction.

POINT 1

Single Pass, precision boring of 50mm-270mm diameters

No center drilling or pilot hole required. Super Drill's built-in center drill acts as an axis for precision drilling.
New Super drill is available in 10 standard head sizes, A1S-55, A2-65, B-80, C-100, D-120, E-150, F-180, G-210, H-240 and I-270, for drilling 50mm to 270mm diameters.

POINT 2

Specialty of deep hole drilling

Combination of roughing and finishing blades form small chips, providing efficient chip removal. No pecking or dwelling required, even for deep holes.

POINT 3

Able to drill even in hard metals

New Super Drill cutting blades are manufactured from sintered HSS, providing excellent drilling performance even in hard metals.

POINT 4

Reusable blades and center drill

The cutting edge of New Super Drill consists of a center drill, a roughing (R) blade and a finishing(S) blade. Different diameter of holes can be bored by changing blades within the capacity of each drill holder. The blades and center drill can be resharpened which reduces tool cost.

Re-sharpening fixture

A pair of roughing and finishing blades, can be resharpened utilizing the resharpening fixture on the surface grinder.

Oil ring

Oil ring is used to supply coolant through the drill in rotational applications.

T/C Guides(for through hole)

In case of through hole drilling, the drill may vibrate immediately before breaking through, depending on hole diameter, cutting speed and feed rate, and rigidity of the machine spindle. This can result in damage of the cuttingblades. Using T/C guides when boring through holes will minimize vibration and help prevent tool damage.

Sharpening the blades

①"R" and "S blades are ground to the same height.

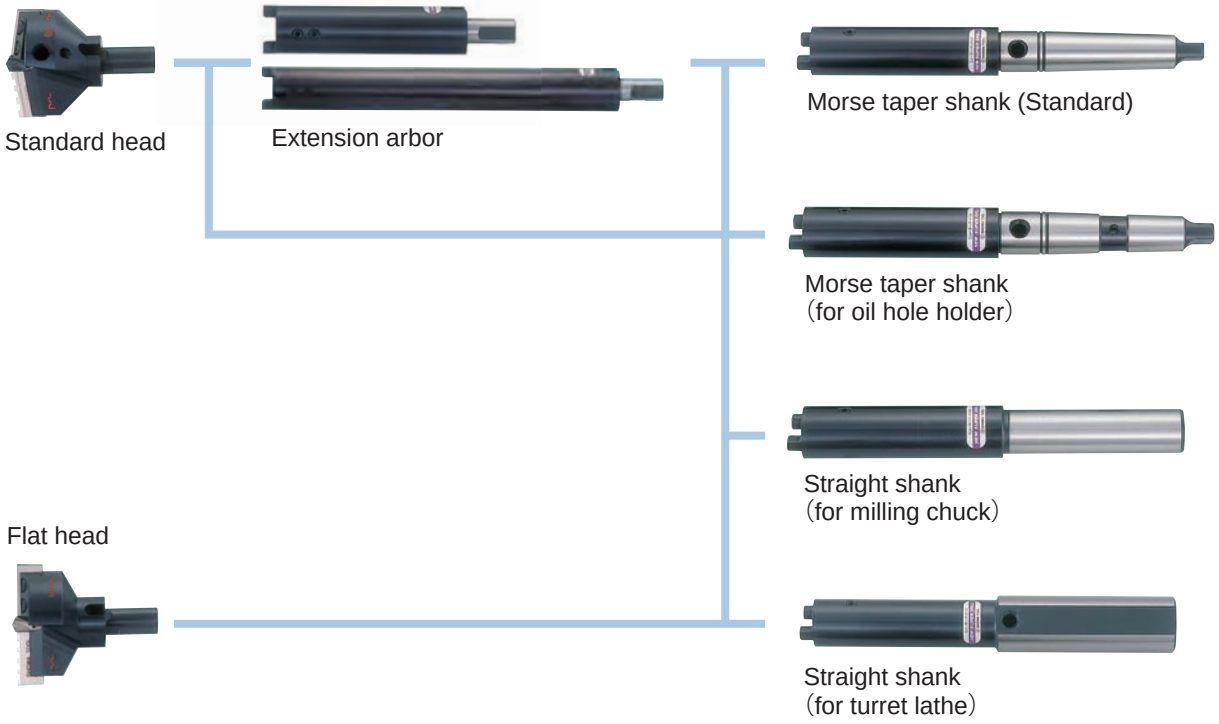
②Both blades are ground in straight line. making first and second clearance.

③Grind the center drill to the point angle of 140° with thinning.

DIMENSIONS Cutting tool ▸P.165-174

POINT 5

Easy Assembly, Flexible for Various Applications



POINT 6

Assembly

New Super Drill's cutting edge consists of three cutters a roughing (R) blade, a finishing(S) blade and a center drill. This combination of cutters gives outstanding drilling efficiency.

■ Procedure

① Insert the center drill in the center of the head.
② Clamp the roughing(R) blade in the seat marked with ⊓⊔. The inside edge of the roughing blade must contact tightly against the side slot of the center drill, to prevent the center drill turning free.
③ Clamp the finishing(S) blade in the seat marked S.
④ Finaly, tighten the center drill setting screw.

Guide Values for New Super Drill

Speed (min^{-1}) Feed (mm/rev.)

Material		42CrMo4		CK35-55				ST								ALUMINUM	
	DIN	42CrMo4		CK35-55				ST								ALUMINUM	
	USA	4140				1025		D		W1-10		D2		40-50			
	JIS	SCM440		S35C-55C		S25C		SS		SK3		SKD11		FC25-40		SUS27	
Dia.		Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed	Speed	Feed
50-60		160-180	0.1 ~ 0.15	160-180	0.1 ~ 0.15	190-210	0.1 ~ 0.15	210-240	0.1 ~ 0.18	80-90		70-80		140-150	0.15 ~ 0.25	75-90	0.06 ~ 0.12	450-500	0.15 ~ 0.25
60-70		140-160		150-160		170-190		190-210		80-85		55-70		120-140		60-75		400-450	
70-80		110-140		120-140		155-170		170-190		70-80		50-55		100-120		55-70		350-400	
80-90		100-120		110-120		140-155		155-170		60-70	0.08 ~ 0.15	45-50	0.06 ~ 0.1	90-100		50-60		300-350	
90-100		90-110	0.1 ~ 0.18	100-110		125-140	0.1 ~ 0.18	140-155		55-60		40-50		80-90	0.15 ~ 0.35	45-50	0.06 ~ 0.13	300-330	0.15 ~ 0.35
100-110		80-100		90-100		110-125		130-140		50-55		35-40		70-80		40-45		280-300	
110-120		70-90		80-90		100-110		120-130		45-50		30-35		65-70		35-40		250-290	
120-130		70-80		70-80		90-100		105-120		40-45		30-35		60-65		30-35		230-250	
130-140		65-70		65-70		80-90		90-100		35-40		25-30		50-60		25-30		200-230	
140-150		50-60		50-60		75-80		80-90		30-35		25-30		40-50		20-30		180-200	
150-160		50-60		50-60		70-75		75-85		25-35		20-25		35-45		20-25		170-180	
160-170		50-60		50-60	0.06 ~ 0.12	65-70		70-80	0.1 ~ 0.15	25-30		20-25		35-45		15-25		160-170	
170-180		45-50		45-50		60-65		65-75		25-30		20-25		35-40		15-25		150-160	
180-190		45-50		45-50		60-65		60-70		20-30		20-25		30-40		15-25		140-150	
190-200		40-45	0.06 ~ 0.15	45-50		55-60	0.06 ~ 0.16	60-65		20-25	0.06 ~ 0.15	15-20	0.05 ~ 0.1	30-40	0.10 ~ 0.25	15-20	0.06 ~ 0.12	135-140	0.15 ~ 0.2
200-210		40-45		40-45		55-60		55-65		20-25		15-20		30-35		10-20		130-135	
210-220		40-45		40-45		50-55		55-60		15-25		15-20		25-35		10-20		120-130	
220-230		35-40		40-45		50-55		50-60		15-20		15-20		25-35		10-20		115-120	
230-240		35-40		35-40		45-50		50-55		15-20		15-20		25-30		10-20		110-115	
240-250		30-35		35-40		45-50		45-55		15-20		15-20		25-30		10-20		105-110	
250-260		30-35		30-35		45-50		45-50		15-20		15-20		20-25		10-20		100-110	
260-270		30-35		30-35		40-45		40-50		15-20		10-15		20-25		10-15		100-110	

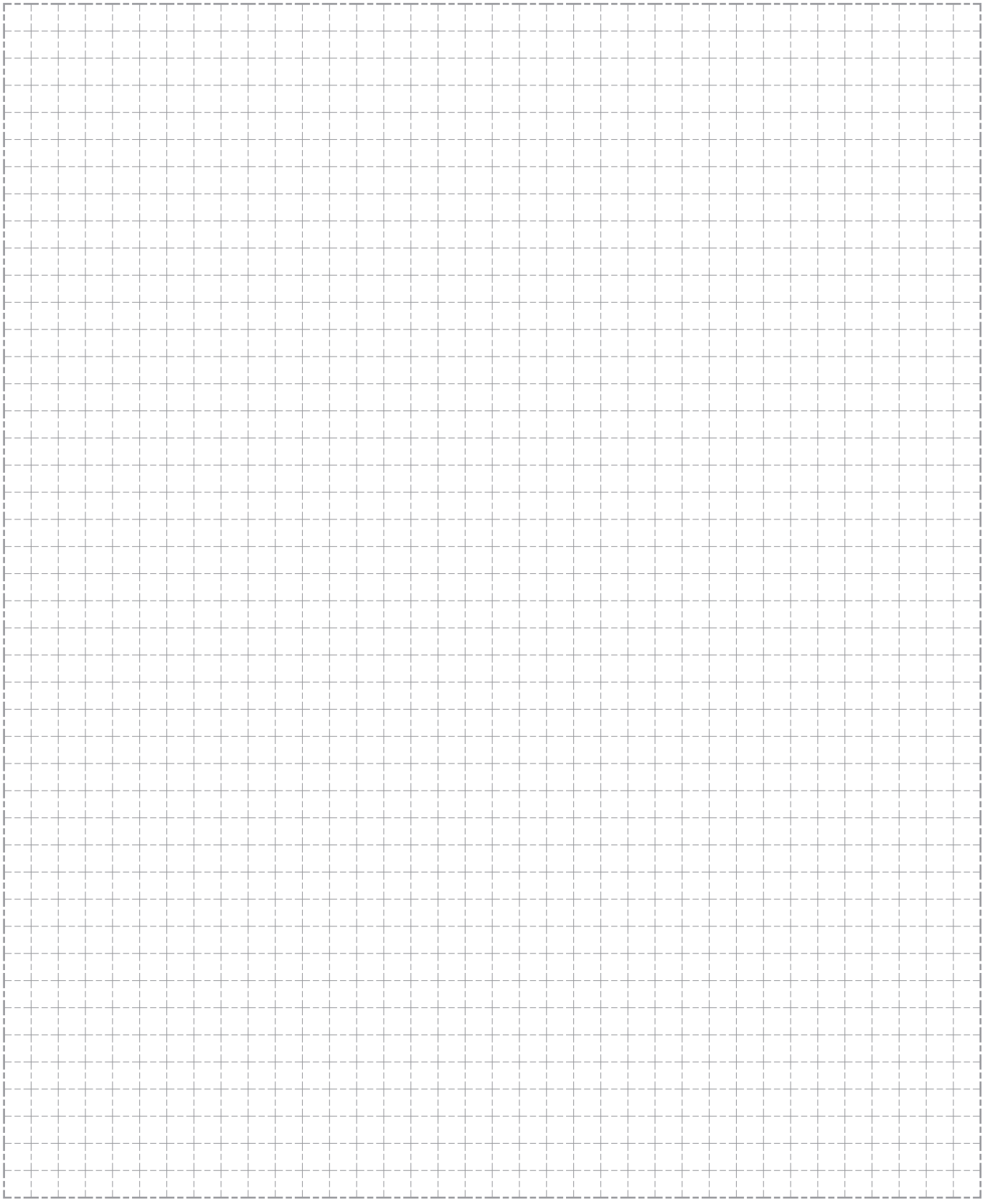
NOTE : Reduce drill speed by 30%~50% in case of quenched and tempered Chromoly, structural steel, etc. depending on their hardness.

New Super Drill Drilling Data

Nominal / Item	Dia. (mm)	Speed (min^{-1})	Material S50C, Cut.speed 20m/min, Feed 0.15		
			Cut.torque (kN·m)	Cut.power (kW)	Thrust force (kN)
A1-50~55	50	127	0.17	2.2	4.8
	55	116	0.20	2.3	5.2
A2-55~65	60	106	0.23	2.5	5.6
	65	98	0.26	2.6	6.0
B-65~80	70	91	0.30	2.8	6.4
	75	85	0.33	2.9	6.8
	80	80	0.37	3.1	7.2
C-80~100	85	75	0.41	3.2	7.5
	90	71	0.46	3.4	7.9
	95	67	0.50	3.5	8.3
	100	64	0.55	3.6	8.6
D-100~120	105	61	0.60	3.8	9.0
	110	58	0.64	3.9	9.3
	115	55	0.70	4.0	9.7
	120	53	0.75	4.2	10.0
E-120~150	125	51	0.80	4.3	10.4
	130	49	0.86	4.4	10.7
	135	47	0.92	4.6	11.1
	140	45	0.97	4.7	11.4
	145	44	1.03	4.8	11.8
	150	42	1.10	4.9	12.1
F-150~180	155	41	1.16	5.0	12.4
	160	40	1.22	5.2	12.8
	165	39	1.29	5.3	13.1
	170	37	1.36	5.4	13.4
	175	36	1.43	5.5	13.7
	180	35	1.50	5.6	14.1

Nominal / Item	Dia. (mm)	Speed (min^{-1})	Material S50C, Cut.speed 20m/min, Feed 0.15		
			Cut.torque (kN·m)	Cut.power (kW)	Thrust force (kN)
G-180~210	185	34	1.57	5.8	14.4
	190	34	1.64	5.9	14.7
	195	33	1.72	6.0	15.1
	200	32	1.79	6.1	15.4
	205	31	1.87	6.2	15.7
	210	30	1.95	6.3	16.0
	215	30	2.03	6.4	16.3
H-210~240	220	29	2.11	6.5	16.6
	225	28	2.19	6.7	17.0
	230	28	2.28	6.8	17.3
	235	27	2.36	6.9	17.6
	240	27	2.45	7.0	17.9
I-240~270	245	26	2.54	7.1	18.2
	250	25	2.63	7.2	18.5
	255	25	2.72	7.3	18.8
	260	24	2.81	7.4	19.1
	265	24	2.90	7.5	19.4
	270	24	3.00	7.6	19.7

NOTE : The above values are not ones measured in actual drilling. It is recommended to use New Super Drill on a machine having 50% or more bigger capacity than these values for efficient drilling.



SHOWA TOOL

BT series

MICRON CHUCK (Milling Chuck)

FEATURES P.1-6

BT№-HPCⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available
▶▶▶ Thru-the-groove Coolant Available
▶▶▶ BBT Available

Standard

FIG.1

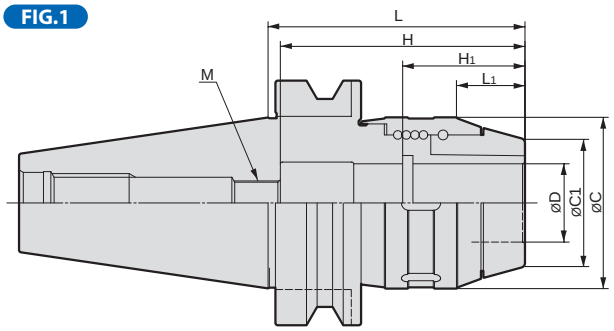


FIG.2

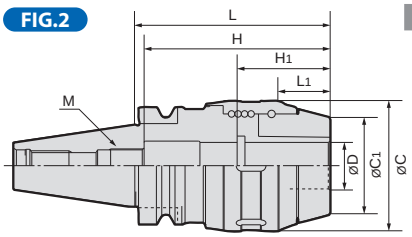
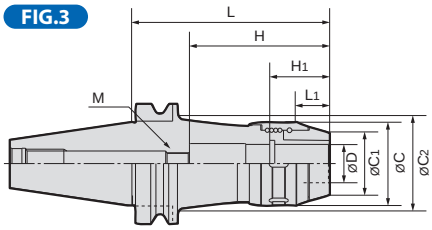


FIG.3



Cutter shank diameter should be h7 or better.

MODEL			A	AA	BBT	Fig	øD	L	L1	øC	øC1	øC2	H	H1	min tool insert length ST	min tool insert length CT	Adjust min/max	M	N/W (kg)
Max. 10,000 min^{-1}																			
BT30 (BBT30)	HPC16-	100	○	○	○	2	16	100	26	56	34	–	85	50	40	51	70~80	M10	1.4
	HPC20-	100	○	○	○		20				38				45				1.3
	HPC25-	100	△	△	△		25		27.5	62	44		80		50		57~70	M18	1.6
	HPC32-	105	△	△	△		32	105		70	52			53	55	55			1.9
Max. 10,000 min^{-1}																			
BT40 (BBT40)	HPC16-	090	○	○	○	1	16	90	26	56	34	–	85	50	40	51	70~80	M10	1.8
		120	△	△	△			120											2.2
	HPC20-	090	○	○	○		20	90			38				45				1.7
		120	△	△	△			120											2.1
	HPC25-	105	○	○	○		25	105		62	44		100		50		77~90	M18	2.0
		135	△	△	△			135	27.5										2.5
	HPC32-	105	○	○	○	2	32	105		70	52		117	53	55	55	94~107		2.2
		135	△	△	△			135											2.5
	HPC42-	135	△	△	△		42	135	30.5	82	62		100	57	60	60	77~90		3.5

MODEL			A	AA	BBT	Fig	øD	L	L1	øC	øC1	øC2	H	H1	min tool insert length ST	min tool insert length CT	Adjust min/max	M	N/W (kg)
Max. 8,000 min^{-1}																			
BT50 (BBT50)	HPC16-	105	○	○	○	1	16	105	26	56	34	–	85	50	40	51	70~80	M10	4.4
		135	△	△	△	3		135				57							4.7
		165	△	△	△			165				62							5.5
	HPC20-	105	○	○	○	1	20	105			38	–			45				4.3
		135	△	△	△	3		135				57							4.7
		165	○	○	△			165				62							5.5
	HPC25-	105	○	○	○	1	25	105	27.5	62	44	–	100		50		77~90	M18	4.4
		135	△	△	△	3		135				62							4.8
		165	○	○	△			165				72							5.7
		200	△	△	△	3		200				–							6.6
		250	△4	—	△			250											7.8
	HPC32-	105	○	○	○	1	32	105		70	52	–	117	53	55	55	94~107	M18	4.4
		135	△	△	△	3		135				70							5.0
		165	○	○	△			165				75							5.6
		200	△	△	△	3		200											7.2
		250	△4	—	△			250											8.6
		300	△4	—	△			300											10.3
	HPC42-	110	○	○	○	1	42	110	30.5	82	62	80	122	57	60	60	99~112	M18	4.6
		135	△	△	△	3		135											5.3
		165	○	○	△			165				82							6.2
		200	△	△	△			200											8.3

△ : Mark tools are manufatured to order.

NOTE : 1. Chuck wrench and adjust screw are sold separately.
2. Insert the O-ring included in the box to the groove of the ID for thru-the-tool use.
3. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.
4. If the L dimension is 200 mm or more, the runout will be 5 μ of chuck nose and 8 μ of 3D point.

ACCESSORIES P.39 STRAIGHT COLLETS

ACCESSORIES P.40 ADJUST SCREW, CHUCK WRENCH

ORDERING EXAMPLE

①	②	③	④	⑤
BT30	- HPC	16	- 100	A

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length
⑤ Grade

MICRON CHUCK N series

FEATURES P.1-6

BT№-HPCⒹN-Ⓛ

FIG.1

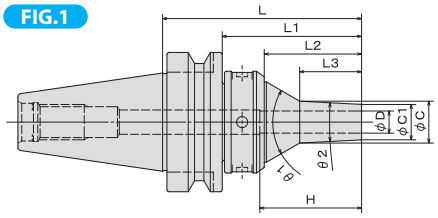
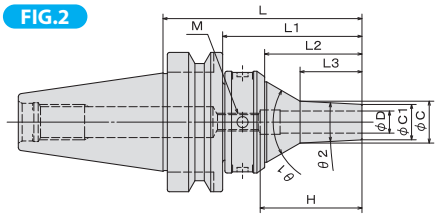


FIG.2



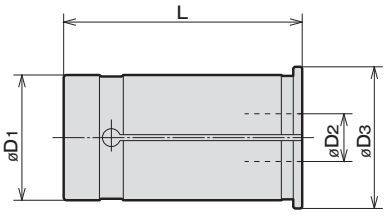
MODEL ø		CODE A	CODE AA	CODE G Type	FIG	øD	øC1	ø1	L	L1	L2	L3	H	Min insert length	Adjust MIN	Adjust MAX	M	θ1	θ2
BBT30	HPC03N-085	200850	200856	200862	1	3	9	10.4	85	63	44	27	–	20	–	–	–	80	3
	HPC04N-085	200851	200857	200863		4	10	11.5				28							
	HPC06N-085	200852	200858	200864		6	12	13.5				29		35					
	HPC08N-085	200853	200859	200865		8	14	15.5										74	
	HPC10N-085	200854	200860	200866	2	10	16	17.5					50		35	50	M8	68	
	HPC12N-085	200855	200861	200867		12	18	21				28	55	40	40	55	M10	60	6
BBT40	HPC03N-090	270740	270746	270752	1	3	9	10.4	90	63	44	27	–	20	–	–	–	80	3
	HPC04N-090	270741	270747	270753		4	10	11.5				28							
	HPC06N-090	270742	270748	270754		6	12	13.5				29		35					
	HPC08N-090	270743	270749	270755		8	14	15.5										74	
	HPC10N-090	270744	270750	270756		10	16	17.5										68	
	HPC12N-090	270745	270751	270757		12	18	21				28		40				60	6

ACCESSORIES
P.44 CHUCK WRENCH

ACCESSORIES

STRAIGHT COLLET

SC ⓓ1 - ⓓ2



CODE SC ⓓ1 - ⓓ2		øD3	L
SC16	-6·8·10·12	20	47
SC20	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16	23.5	50
SC25	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21	30	60
SC32	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25	37.5	70
SC42	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25·32	47.5	80

ORDERING EXAMPLE

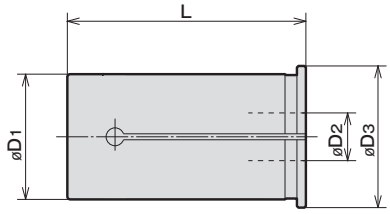
① SC ② 16 - ③ 6

① Name
② D1
③ D2

ACCESSORIES

STRAIGHT COLLET (Oil-Hole Type)

SCOH ⓓ1 - ⓓ2



CODE SCOH ⓓ1-ⓓ2		ϕD3	L	Qty of smallest insersion
SCOH20	-6	23.5	54.5	27
	-8			30
	-10			34
	-12			35
	-16			38
SCOH25	-6	30	60	27
	-8			30
	-10			32
	-12			35
	-16			38
	-20			41
SCOH32	-6	37.5	70	27
	-8			30
	-10			32
	-12			35
	-16			38
	-20			40
	-25			44

CODE SCOH ⓓ1-ⓓ2		ϕD3	L	Qty of smallest insersion
SCOH42	-6	47.5	80	27
	-8			30
	-10			32
	-12			35
	-16			42
	-20			45
	-25			50
	-32			

ORDERING EXAMPLE

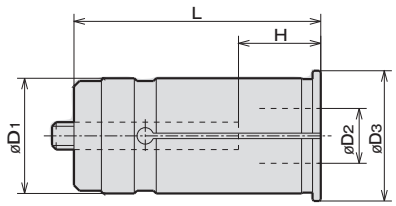
① SCOH ② 32 - ③ 20

① Name
② D1
③ D2

ACCESSORIES

STRAIGHT COLLET WITH ADJUST SCREW

NC ⓓ1 - ⓓ2



CODE NC ⓓ1 - ⓓ2		øD3	L	H MIN.	H MAX.
NC20	-6·8·10·12·16	23.5	60	25	35
NC32	6·8·10	37.5	80	20	45
	-12·16·20·25			25	55
NC42	-6·8·10·12	47.5	90	20	45
	-16·20·25·32			30	65

NOTE : Applicable to Micron chucks and Hard chucks.

ORDERING EXAMPLE

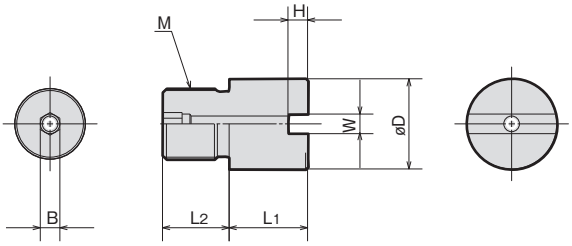
① NC ② 32 - ③ 6

① Name
② D1
③ D2

ACCESSORIES for MICRON CHUCK (Milling Chuck)

ACCESSORIES

ADJUST SCREW (For MICRON CHUCK standard)



MODEL	CODE	øD	M	L1	L2	W	H	B	MICRON CHUCK
HAS1620-05	17602	15	M10×1.0	5	14	5	3.5	5	HPC16 HPC20
HAS1620-15	17604			15					
HAS1620-25	17606			25					
HAS2532-10	17612	23	M18×1.0	10	17	5	5	5	HPC25 HPC32
HAS2532-20	17614			20					
HAS2532-35	17616			35					
HAS4250-10	17622	33	M18×1.0	10	17	5	5	5	HPC42 HPC50
HAS4250-20	17624			20					
HAS4250-35	17626			35					

NOTE : 1. The above Adjust Screws are sold separately.
2. Above Adjust Screws can not be used for "H" and "M" series Micron Chucks.

ACCESSORIES

CHUCK WRENCH (For MICRON CHUCK standard)

HOOK SPANNER		
CHUCK CODE MICRON CHUCK	WRENCH CODE	
HPC16,HPC20	FS52-55G	35852
HPC25,HPC16S,HPC20S	FS58-62G	35853
HPC32,HPC25S	FS68-75G	35854
HPC42,HPC32S	FS80-90G	35855
HPC03H~HPC16H HPC03M~HPC12M HPC03N~HPC12N	FP45-48G	35851

MICRON CHUCK H series

FEATURES P.1-6

BT№-HPCⒹH-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ Thru-the-groove Coolant Available(Option)

▶▶▶ BBT Available

H-series

FIG.1

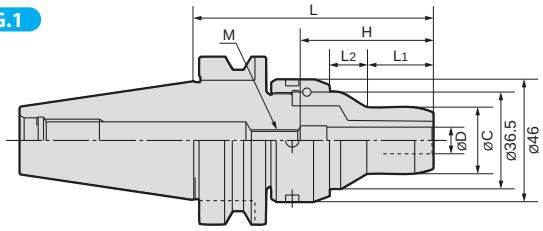
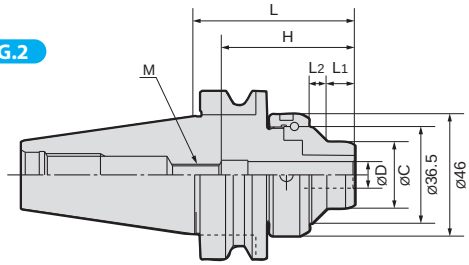


FIG.2



Note : When HPC03H, HPC04H and HPC05H is used through the groove coolant or through the tool coolant usage, please keep the coolant pressure within 1MPa and under. In case those 3 kinds of tools are used in through the tool coolant at over 1MPa pressure, it requires special adjustment according to its pressure, need additional cost, please contact Showa distributor.

Cutter shank diameter should be h7 or better.

MODEL			A	AA	GType	FIG	φD	L	L1	L2	φC	H	Min insert length	Adjust MIN	Adjust MAX	Adjust screw M	ST	CT	N/W (Kg)
Max. 20,000 min^{-1} (G Type:Max. 30,000 min^{-1})																			
BT30 (BBT30)	HPC03H	060	○	○	○	2	3	60	10.3	6.7	25	-	15	-	-	-	○	○ additional work	0.9
		090	○	○	○	1		90	25	14							○	○ additional work	1.0
	HPC04H	060	○	○	○	2	4	60	10.3	6.7							○	○ additional work	0.9
		090	○	○	○	1		90	25	14							○	○ additional work	1.0
	HPC05H	060	△	△	△	2	5	60	10.3	6.7							○	○ additional work	0.9
		090	△	△	△	1		90	25	14							○	○ additional work	1.0
	HPC06H	060	○	○	○	2	6	60	10.3	6.7		37.5	23	28	37	AS17-2-M5-CTW	○at cost	○	0.9
		090	○	○	○	1		90	25	14			30	30			○at cost	○	1.0
	HPC07H	060	△	△	△	2	7	60	10.3	6.7			23	28		AS17-2-M6-CTW	○at cost	○	0.9
		090	△	△	△	1		90	25	14			30	30			○at cost	○	1.0
	HPC08H	060	○	○	○	2	8	60	10.3	6.7		50	23	35	50	AS22-2-M6-CTW	○at cost	○	0.9
		090	○	○	○	1		90	25	14			35				○at cost	○	1.0
	HPC09H	060	△	△	△	2	9	60	10.3	6.7			23			AS22-2-M8-CTW	○at cost	○	0.9
		090	△	△	△	1		90	25	14			35				○at cost	○	1.0
	HPC10H	060	○	○	○	2	10	60	10.3	6.7			23				○at cost	○	0.9
		090	○	○	○	1		90	25	14			35				○at cost	○	1.0
	HPC11H	060	△	△	△	2	11	60	12.2	4.8	32	55	25	32	50	AS25-2-M10-CTW	○at cost	○	0.9
		090	△	△	△	1		90	25	14			40	40	55		○at cost	○	1.0
	HPC12H	060	○	○	○	2	12	60	12.2	4.8		50	25	32	50		○at cost	○	0.9
		090	○	○	○	1		90	25	14		55	40	40	55		○at cost	○	1.0
	HPC13H	090	△	△	△		13					60		42	60		○at cost	○	
	HPC14H	090	△	△	△		14										○at cost	○	
	HPC15H	090	△	△	△		15					65		47	65		○at cost	○	
	HPC16H	090	△	△	△		16										○at cost	○	
Max. 20,000 min^{-1} (G Type:Max. 30,000 min^{-1})																			
BT40 (BBT40)	HPC03H	060	○	○	○	2	3	60	10.3	6.7	25	15	15	-	-	-	○	○ additional work	1.4
		090	○	○	○	1		90	25	14							○	○ additional work	1.5
		120	○	○	○			120									○	○ additional work	1.7
	HPC04H	060	○	○	○	2	4	60	10.3	6.7							○	○ additional work	1.4
		090	○	○	○	1		90	25	14							○	○ additional work	1.5
		120	○	○	○			120									○	○ additional work	1.7
	HPC05H	090	△	△	△	1	5	90	25	14							○	○ additional work	1.5
		120	△	△	△			120									○	○ additional work	1.7
	HPC06H	060	○	○	○	2	6	60	10.3	6.7		37.5	23	28	37	AS17-2-M5-CTW	○at cost	○	1.4
		090	○	○	○	1		90	25	14			30	30			○at cost	○	1.5
		120	○	○	○			120									○at cost	○	1.7
	HPC07H	090	△	△	△	1	7	90	25	14						AS17-2-M6-CTW	○at cost	○	1.5
		120	△	△	△			120									○at cost	○	1.7
	HPC08H	060	○	○	○	2	8	60	10.3	6.7		50	23	35	50	AS22-2-M6-CTW	○at cost	○	1.4
		090	○	○	○	1		90	25	14			35				○at cost	○	1.5
		120	○	○	○			120									○at cost	○	1.7
	HPC09H	090	△	△	△	1	9	90	25	14						AS22-2-M8-CTW	○at cost	○	1.5
		120	△	△	△			120									○at cost	○	1.7

MODEL			A	AA	GType	FIG	φD	L	L1	L2	φC	H	Min insert length	Adjust MIN	Adjust MAX	Adjust screw M	ST	CT	N/W (Kg)
Max. 20,000 min^{-1}(G Type:Max. 30,000 min^{-1})																			
BT40 (BBT40)	HPC10H	060	○	○	○	2	10	60	10.3	6.7	25	50	23	35	50	AS22-2-M8-CTW	○at cost	○	1.4
		090	○	○	○	1		90	25	14			35				○at cost	○	1.5
		120	○	○	○			120									○at cost	○	1.7
	HPC11H	090	△	△	△		11	90			32		40	40		AS25-2-M10-CTW	○at cost	○	1.5
		120	△	△	△			120									○at cost	○	1.7
	HPC12H	060	○	○	○	2	12	60	12.2	4.8			25				○at cost	○	1.4
		090	○	○	○	1		90	25	14		55	40		55		○at cost	○	1.5
		120	○	○	○			120									○at cost	○	1.7
	HPC13H	090	△	△	△		13	90				60		42	60		○at cost	○	1.6
	HPC14H	090	△	△	△		14										○at cost	○	
	HPC15H	090	△	△	△		15					65		47	65		○at cost	○	
	HPC16H	090	△	△	△		16										○at cost	○	
Max. 12,000 min^{-1}																			
BT50 (BBT50)	HPC03H	105	○	○	—	1	3	105	25	14	25	15	15	-	-	-	○	○ additional work	4.0
		150	○	○	—			150									○	○ additional work	4.6
	HPC04H	105	○	○	—		4	105									○	○ additional work	4.0
		150	○	○	—			150									○	○ additional work	4.6
	HPC05H	105	△	△	—		5	105									○	○ additional work	4.0
	HPC06H	105	○	○	—		6	150				37.5	30	30	37	AS17-2-M5-CTW	○at cost	○	4.6
		150	○	○	—												○at cost	○	
	HPC07H	105	△	△	—		7	105								AS17-2-M6-CTW	○at cost	○	4.0
	HPC08H	105	○	○	—		8	150				50	35	35	50	AS22-2-M6-CTW	○at cost	○	
		150	○	○	—												○at cost	○	4.6
	HPC09H	105	△	△	—		9	105								AS22-2-M8-CTW	○at cost	○	4.0
	HPC10H	105	○	○	—		10	150									○at cost	○	
		150	○	○	—												○at cost	○	4.6
	HPC11H	105	△	△	—		11	105			32	55	40	40	55	AS25-2-M10-CTW	○at cost	○	4.0
	HPC12H	105	○	○	—		12										○at cost	○	
		150	○	○	—			150									○at cost	○	4.6
	HPC13H	105	△	△	—		13	105				60		42	60		○at cost	○	4.0
	HPC14H	105	△	△	—		14										○at cost	○	
	HPC15H	105	△	△	—		15					65		47	65		○at cost	○	
	HPC16H	105	△	△	—		16										○at cost	○	

△ : Mark tools are manufatured to order.

NOTE : 1.Chuck wrench and adjust screw are sold separately.
2.When the thru-the-coolant application is needed for HPC03H, HPC04, or HPC05, please instruct when ordering. "CT" will be marked for this application.
3.The the thru-the-groove-coolant application for HPC06 or larger will be charged. Please instruct when ordering. "ST" will be marked for this application.
4.The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.
5.Please feel free to ask us when need BBT shanks.

ACCESSORIES P.42 ADJUST SCREW

ACCESSORIES P.44 CHUCK WRENCH

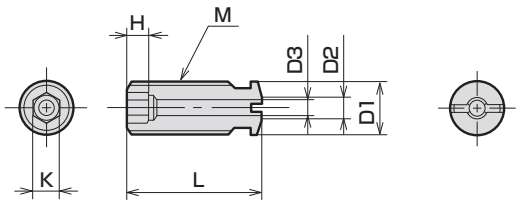
ORDERING EXAMPLE

①	②	③	④	⑤	⑥
BT30	HPC	03	H	060	A

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ H series
⑤ G.L. Length
⑥ Grade

ACCESSORIES for MICRON CHUCK H series M series

ADJUST SCREW for MICRON CHUCK H series, M series



MODEL	CODE	M	L	D1	D2	D3	K	H	MICRON CHUCK
AS17-2-M5-CTW	17672	M5×0.8	17	5	3	2	2.5	3	HPC06H
AS17-2-M6-CTW	17676	M6×1.0	17	6			3		HPC07H
AS22-2-M6-CTW	17678		22						HPC08H,HPC08M
AS22-2-M8-CTW	17680	M8×1.25		8	5	4	4	5	HPC09H,HPC10H HPC09M,HPC10M,HPC11M～12M
AS25-2-M8-CTW	17682		25						
AS25-2-M10-CTW	17684	M10×1.5		10	6	5	5	6	HPC11H～16H

MICRON CHUCK M series

FEATURES P. 1-6

BT№-HPCⒹM-Ⓛ

Thru-the-tool Coolant Available

BBT Available

M-series

FIG.1

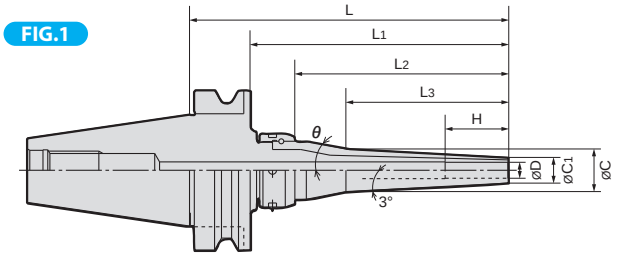


FIG.2

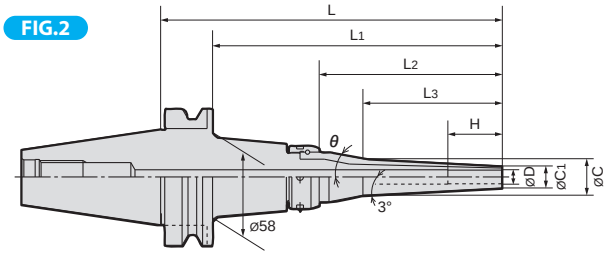
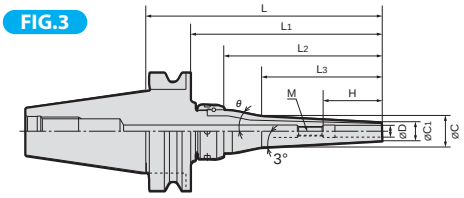


FIG.3



Cutter shank diameter should be h6 or better.

MODEL			STOCK	Fig	øD	øC1	øC	L	L1	L2	L3	H	Min insert length	Adjust length MIN	Adjust length MAX	M	θ	N/W (kg)
Max. 15,000 min^{-1}																		
BT30 (BBT30)	HPC03M-	130	△	1	3	9	16	130	108	84	67	–	20	–	–	–	34	0.8
		180	△				20	180	158	134	102						18	1.0
	HPC04M-	130	△		4	10	17	130	108	84	67						33	0.8
		180	△				21	180	158	134	102						17	1.0
	HPC05M-	130	△		5	11	18	130	108	84	67						32	0.8
		180	△				22	180	158	134	102						16	1.0
	HPC06M-	130	△		6	12	19	130	108	84	67		35				30	0.8
		180	△				23	180	158	134	102						15	1.0
	HPC07M-	130	△		7	13	20	130	108	84	67						28	0.8
		180	△				24	180	158	134	102						14	1.0
	HPC08M-	130	△		8	14	21	130	108	84	67						27	0.8
		180	△				25	180	158	134	102						13	1.0
	HPC09M-	130	△		9	15	22	130	108	84	67						26	0.8
		180	△				26	180	158	134	102						12	1.0
	HPC10M-	130	△	3	10	16	23	130	108	84	67	50		35	50	M8	24	0.8
		180	△				27	180	158	134	102						11	1.0
	HPC11M-	130	△		11	17	24	130	108	84	67	55		40	55	M10	23	0.8
		180	△				28	180	158	134	102						10	1.0
	HPC12M-	130	△		12	18	25	130	108	84	67		40				21	0.8
		180	△				29	180	158	134	102						9	1.0
Max. 15,000 min^{-1}																		
BT40 (BBT40)	HPC03M-	135	○	1	3	9	16	135	108	84	67	–	20	–	–	–	34	1.4
		185	○				20	185	158	134	102						18	1.6
	HPC04M-	135	○		4	10	17	135	108	84	67						33	1.4
		185	○				21	185	158	134	102						17	1.6
	HPC05M-	135	△		5	11	18	135	108	84	67						32	1.4
		185	△				22	185	158	134	102						16	1.6
	HPC06M-	135	○		6	12	19	135	108	84	67		35				30	1.5
		185	○				23	185	158	134	102						15	1.6
	HPC07M-	135	△		7	13	20	135	108	84	67						28	1.5
		185	△				24	185	158	134	102						14	1.6
	HPC08M-	135	○		8	14	21	135	108	84	67						27	1.5
		185	○				25	185	158	134	102						13	1.7
	HPC09M-	135	△		9	15	22	135	108	84	67						26	1.5
		185	△				26	185	158	134	102						12	1.7
	HPC10M-	135	○		10	16	23	135	108	84	67						24	1.5
		185	○				27	185	158	134	102						11	1.7
	HPC11M-	135	△		11	17	24	135	108	84	67						23	1.5
		185	△				28	185	158	134	102						10	1.7
	HPC12M-	135	○		12	18	25	135	108	84	67		40				21	1.5
		185	○				29	185	158	134	102						9	1.7

MODEL			STOCK	Fig	øD	øC1	øC	L	L1	L2	L3	H	Min insert length	Adjust length MIN	Adjust length MAX	M	θ	N/W (kg)
Max. 10,000 min^{-1}																		
BT50 (BBT50)	HPC03M-	150	○	1	3	9	16	150	112	84	67	–	20	–	–	–	34	4.2
		200	○				20	200	162	134	102						18	4.4
		250	○	2				250	212									5.3
	HPC04M-	150	○	1	4	10	17	150	112	84	67						33	4.3
		200	○				21	200	162	134	102						17	4.3
		250	○	2				150	212									4.4
	HPC05M-	150	△	1	5	11	18	150	112	84	67						32	5.3
		200	△				22	200	162	134	102						16	4.4
		250	△	2				250	212									5.3
	HPC06M-	150	○	1	6	12	19	150	112	84	67		35				30	4.3
		200	○				23	200	162	134	102						15	4.5
		250	○	2				250	212									5.3
	HPC07M-	150	△	1	7	13	20	150	112	84	67						28	4.3
		200	△				24	200	162	134	102						14	4.5
		250	△	2				250	212									5.3
	HPC08M-	150	○	1	8	14	21	150	112	84	67						27	4.3
		200	○				25	200	162	134	102						13	4.5
		250	○	2				250	212									5.4
	HPC09M-	150	△	1	9	15	22	150	112	84	67						26	4.3
		200	△				26	200	162	134	102						12	4.5
		250	△	2				250	212									5.4
	HPC10M-	150	○	1	10	16	23	150	112	84	67						24	4.3
		200	○				27	200	162	134	102						11	4.5
		250	○	2				250	212									5.4
	HPC11M-	150	△	1	11	17	24	150	112	84	67						23	4.3
		200	△				28	200	162	134	102						10	4.5
		250	△	2				250	212									5.4
	HPC12M-	150	○	1	12	18	25	150	112	84	67		40				21	4.3
		200	○				29	200	162	134	102						9	4.5
		250	○	2				250	212									5.4

△ : Mark tools are manufatured to order.

NOTE : 1. Chuck wrench and adjust screw are sold separately.
2. Adjust screw is manufactured to order.
Please instruct when ordering.
3. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter.
An adequate cutting condition should be selected for each case.
4. Please feel free to ask us when need BBT shanks.

ACCESSORIES P.42 ADJUST SCREW

ACCESSORIES P.44 CHUCK WRENCH

ORDERING EXAMPLE

① BT50 - ② HPC ③ 06 ④ M - ⑤ 150

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ M series
⑤ G.L. Length

ACCESSORIES for MICRON CHUCK H series M series

ACCESSORIES

CHUCK WRENCH (For MICRON CHUCK H series, M series and N series)

HOOK PIN SPANNER		
CHUCK CODE	WRENCH CODE	
MICRON CHUCK		
HPC03H~HPC16H HPC03M~HPC12M HPC03N~HPC12N	FP45-48G	35851

HARD CHUCK

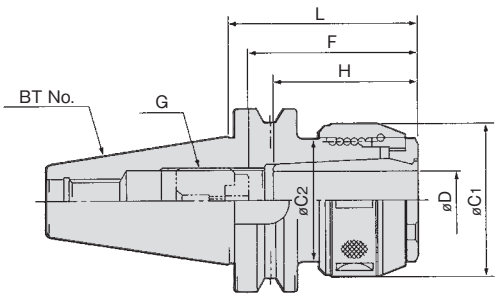
FEATURES P.7-8

BT№-CTHⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

FEATURES

- The ball screw structure provides high clamping power.
- Easy handling.
- High accuracy and rigidity are kept long.



MODEL		CODE BT	CODE SBT	øD	L	øC1	øC2	H	G	F MIN.	F MAX.	SPRING COLLET	ADJUST SCREW	N/W (kg)
BT40 SBT40	-CTH16 -105	11192	2201002	16	105	52	50	50	M18×1.5	50	80	C16-(16)	OR-M18	1.9
	-135	11194	2201004		135									2.3
	-165	11196	2201006		165									2.7
	-CTH20 -090	11198	2201008	20	90	60	54	50	M18×1.5	50	75	C20-(20)	OR-M18	1.9
	-120	11200	2201010		120									2.4
	-CTH25 -105	11202	2201012	25	105	68	62	68	M28×1.5	68	85	C25-(25)	OR-M28	2.2
	-135	11204	2201014		135									2.9
	-165	11206	2201016		165									3.5
	-CTH32 -105	11208	2201018	32	105	80	62	70	M18×1.5	80	95	CS32-(32)	OR-M18	2.6
	-135	11210	2201020		135				M28×1.5				OR-M28	3.3
BT50 SBT50	-CTH16 -105	13402	2202002	16	105	52	50	50	M18×1.5	50	100	C16-(16)	OR-M18	4.2
	-135	13404	2202004		135									4.7
	-165	13406	2202006		165									5.2
	-CTH20 -105	13428	2202008	20	105	60	54	50	M18×1.5	50	100	C20-(20)	OR-M18	4.6
	-135	13430	2202010		135									5.1
	-165	13432	2202012		165									5.6
	-CTH25 -105	13408	2202014	25	105	68	62	68	M28×1.5	68	100	C25-(25)	OR-M28	4.6
	-135	13410	2202016		135									5.2
	-165	13412	2202018		165									6.0
	-CTH32 -105	13414	2202020	32	105	80	67.5	80	M36×1.5	80	100	C32-(32)	OR-M36	4.8
	-135	13416	2202022		135		75							5.9
	-165	13418	2202024		165									6.9
	-CTH42 -105	13420	2202026	42	105	95	79.5	90	M36×1.5	90	110	C42-(42)	OR-M36	5.2
	-135	13422	2202028		135		87							6.5
	-165	13424	2202030		165									7.7
	-CTH50 -120	13434	2202032	50 (50.8)	120	105	99	95	M36×1.5	95	115	C50-(50) -(50.8)	OR-M36	6.4
	-135	13436			135									7.2
	-165	13438			165									8.7

NOTE:1. A spring collet is supplied with Hard chuck.
Unless otherwise required, maximum ID spring collet is supplied.
2. Chuck wrench and adjust screw are sold separately.
3. For thru-the-tool coolant application, OR-adjust screw is used.
OR-adjust screw is sold separately.
4. SBT is shank for BT Dual-Face-Contact spindle.

ORDERING EXAMPLE

① BT40 - ② CTH ③ 20 - ④ 135

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

SLIM HARD CHUCK

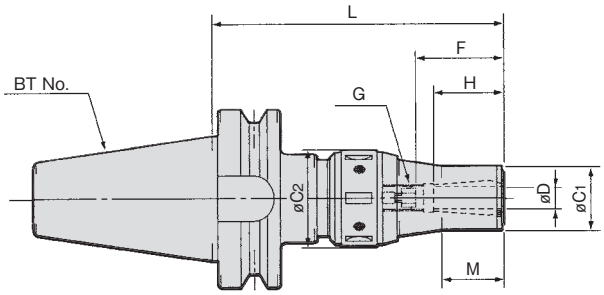
FEATURES P.7-8

BT№-CTH12L-Ⓛ

Thru-the-tool Coolant Available

FEATURES

- The ball screw structure provides high clamping power.
- Easy handling.
- High accuracy and rigidity are kept long.



MODEL		CODE BT	CODE SBT	øD	L	M	øC1	øC2	H	G	F MIN.	F MAX.	SPRING COLLET	ADJUST SCREW	N/W (kg)
BT40 SBT40	-CTH12L -135	11216	2201034	6~12	135	35	35	52	40	M14×1.5	40	70	C12-(D)	OR-M14	1.9
BT50 SBT50	-CTH12L -165	13427	2201036		165										4.7

NOTE : 1. For thru-the-tool coolant application, OR-adjust screw is used.
2. Spling collet and chuck wrench are sold separetely.
3. SBT is shank for BT Dual-Face-Contact spindle.

ACCESSORIES P.47 SPLING COLLET

ACCESSORIES P.48 STRAIGHT COLLETS, ADJUST SCREW

ACCESSORIES P.49 CHUCK WRENCH

ORDERING EXAMPLE

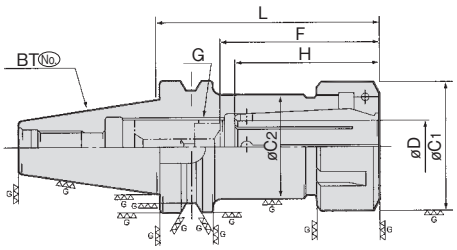
① BT40 - ② CTH ③ 12 ④ L - ⑤ 135

① Shank Size
② Holder's Name
③ Max. øD
④ Long Type
⑤ G.L. Length

NEW MILLING CHUCK G type

BT№-CT Ⓓ-Ⓛ G

Thru-the-tool Coolant Available



MODEL		CODE	øD	L	øC1	øC2	H	G	F MIN.	F MAX.	SPRING COLLET	ADJUST SCREW	N/W (kg)
Max. 25,000 min-1													
BT40	-CT25-075G	11934	25	75	62	50	68	M18×1.5	68	78	C25-(25)	OR-M18	
	- 90G	11935		90				M28×1.5				OR-M28	
	-105G	11930		105					68	85			
	-135G	11931		135									
	-CT32-090G	11936	32	90	74	61	70	M18×1.5	80	90	CS32-(32)	OR-M18	
	-105G	11932		105									
	※ -135G	11933		135									
Max. 25,000 min-1													
BT50	-CT25-075G	14504	25	75	62	-	68	M28×1.5	68	90	C25-(25)	OR-M28	
	-105G	14500		105		55				100			
	-135G	14501		135									
	-CT32-075G	14505	32	75	74	-	80	M36×1.5	80	95	CS32-(32)	OR-M36	
	-105G	14502		105		65				100			
	※ -135G	14503		135									

※**Marks : Max.15,000min-1**

NOTE : 1. A spring collet is supplied with Unless ohterwise required, maximum ID spring collet is
2. Chuck wench and adjust screw are sold separately.
3. OR-Adjust screw is used for thru-the-tool application.
4. The above-mentioned maximum speed will vary depending of cutter.
An adequated cutting condition should be selected for each case.

ORDERING EXAMPLE

① BT40 - ② CT ③ 25 - ④ 075 ⑤ G

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length
⑤ G Type

ACCESSORIES for HARD CHUCK

ACCESSORIES

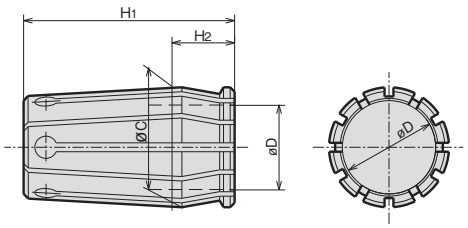
SPRING COLLET (For HARD CHUCK)

C№-Ⓓ

ORDERING EXAMPLE

① C12 - ② 6

① Chack Type
② øD



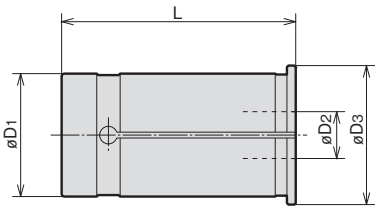
CODE	øD											øC	H1	H2	Applicable holder		
															CTH12L	CTH	CT
C12L-D	6	8	10	12								18.00	40	13	CTH12L	—	—
C16-D	6	8	10	12	16							24.00	50	17	—	CTH16	—
C20-D	6	8	10	12	16	20						28.75	50	15	—	CTH20	—
C25-D			10	12	16	20	25					35.75	68	19	—	CTH25	CT25
C32-D					16	20	25	32				45.25	80	21	—	CTH32	CT32
※CS32-D(SHORT)					16	20	25	32				45.25	70	21	—	CTH32	—
C42-D						20	25	32	42			55.00	90	21	—	CTH42	—
C50-D								32	42	50	50.8	65.00	95	25	—	CTH50	—

NOTE※ CS32-D(SHORT) spring collet is for BT40·NT40 Hard Chuck.

ACCESSORIES for HARD CHUCK

STRAIGHT COLLET

SC Ⓓ1 - Ⓓ2



CODE SC Ⓓ1 - Ⓓ2		øD3	L
SC16	-6·8·10·12	20	47
SC20	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16	23.5	50
SC25	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21	30	60
SC32	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25	37.5	70
SC42	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25·32	47.5	80

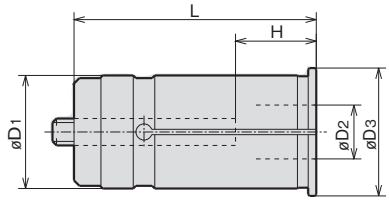
ORDERING EXAMPLE

① SC ② 16 - ③ 6

① Name
② D1
③ D2

STRAIGHT COLLET WITH ADJUST SCREW

NC Ⓓ1 - Ⓓ2



CODE NC Ⓓ1 - Ⓓ2		øD3	L	H MIN.	H MAX.
NC20	-6·8·10·12·16	23.5	60	25	35
NC32	-6·8·10	37.5	80	20	45
	-12·16·20·25			25	55
NC42	-6·8·10·12	47.5	90	20	45
	-16·20·25·32			30	65

Note:
* For all SHOWA chuck

ORDERING EXAMPLE

① NC ② 32 - ③ 6

① Name
② D1
③ D2

ADJUST SCREW (For HARD CHUCK,NEW MILLING CHUCK)

OR-MⒹ - Ⓛ

FIG.1

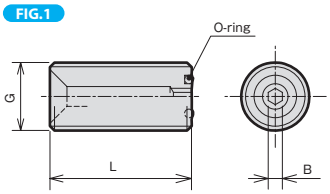
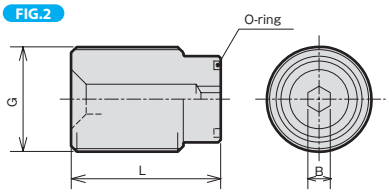


FIG.2



CODE	FIG.	G	L	B	O-ring
OR-M10(-25)	1	M10×1.5	25	2.5	S- 5
OR-M12(-25)		M12×1.5	25	2.5	S- 5
OR-M14(-35)	2	M14×1.5	35	4	P- 6
OR-M18(-25)		M18×1.5	25	5	P- 9
OR-M18(-35)		M18×1.5	35	5	P- 9
OR-M24 -25		M24×1.5	25	6	P- 9
OR-M24(-35)		M24×1.5	35	6	P- 9
OR-M28 -25		M28×1.5	25	6	P-16
OR-M28 -30		M28×1.5	30	6	P-16
OR-M28(-40)		M28×1.5	40	6	P-16
OR-M36 -20		M36×1.5	20	6	P-21
OR-M36(-40)		M36×1.5	40	6	P-21

ORDERING EXAMPLE

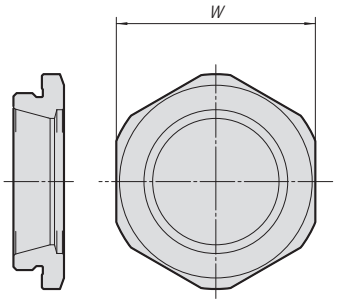
① OR ② M10 - ③ 25

① Name
② G
③ L

ACCESSORIES

NOSE PIECE (For HARD CHUCK)

N№-Ⓓ

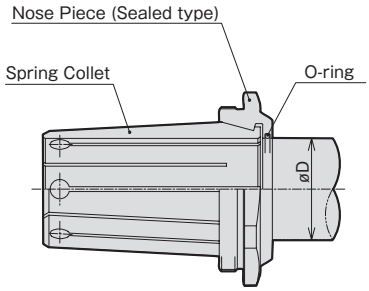


MODEL	CODE	W	holder
N16-16	33702	39	CTH16
N20-20	33703	43	CTH20
N25-25	33704	51	CTH25
N32-32	33706	63	CTH32
N42-42	33708	74	CTH42
N50-50	33710	84	CTH50

ACCESSORIES

NOSE PIECE (For HARD CHUCK)

NG№-Ⓓ



ORDERING EXAMPLE

① NG ② 16 - ③ 6

① Name
② Chack Size
③ øD

CODE	øD											HARD CHUCK CODE
NG16-øD	6	8	10	12	16							CTH16
NG20-øD	6	8	10	12	16	20						CTH20
NG25-øD				12	16	20	25					CTH25
NG32-øD					16	20	25	32				CTH32
NG42-øD						20	25	32	42			CTH42
NG50-øD								32	42	50	50.8	CTH50

ACCESSORIES

CHUCK WRENCH (For HARD CHUCK)

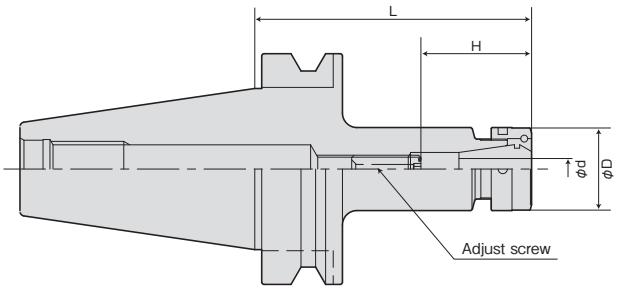
HOOK SPANNER		
CHUCK CODE HARD CHUCK	WRENCH CODE	
CTH12L,CTH16	FS52-55G	35852
CTH20,CT25G	FS58-62G	35853
CTH25,CT32G	FS68-75G	35854
CTH32	FS80-90G	35855
CTH42	FS92-100	
CTH50	FS105-115	35829

COLLET CHUCK

FEATURES P.9-10

BT№-RSCⒹMAX-Ⓛ

▶▶▶ Thru-the-tool Coolant Available
▶▶▶ Thru-the-groove Coolant Available
▶▶▶ BBT Available



MODEL		CODE	ϕd (GRIPPINGRANGE)	ϕD	L	H	COLLET	NUT	ADJUST SCREW
Max. 12,000min^{-1}									
BT30 BBT30	RSC07N-060	200660	0.5~7	24	60	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	-075	200661			75				
	-090	200662			90				
	-120	200664			120				
	RSC10N-060	200666	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	-075	200667			75				
	-090	200668			90				
	-120	200670			120				
	RSC13N-060	200672	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	-075	200673			75				
	-090	200674			90				
	-120	200676			120				
	RSC16N-060	200678	1~16	42	60	38~50	CR16-(D)	RSN16NB	RAS16-25-5
	-075	200679			75				
	-090	200680			90	38~72			
	-120	200682			120				
	RSC20N-075	200684	1.5~20	50	75	44~56.5	CR20-(D)	RSN20NB	
	-090	200686			90				
	-120	200688			120				
BT40 BBT40	RSC07N-060	221100	0.5~7	24	60	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	-075	221101			75				
	-090	221102			90				
	-120	221104			120				
	-150	221106			150				
	RSC10N-060	221108	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	-075	221109			75				
	-090	221110			90				
	-120	221112			120				
	-150	221114			150				
	RSC13N-060	221116	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	-075	221117			75				
	-090	221118			90				
	-120	221120			120				
	-150	221122			150				
	RSC16N-060	221124	1~16	42	60	38~70	CR16-(D)	RSN16NB	RAS16-25-5
	-075	221125			75	38~77			
	-090	221126			90				
	-120	221128			120				
	-150	221130			150				
	RSC20N-060	221132	1.5~20	50	60	44~70	CR20-(D)	RSN20NB	RAS20-25-5
	-075	221133			75				
	-090	221134			90	44~72			
	-120	221136			120	44~82			
	-150	221138			150				

NOTE : 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. The above-mentioned maximum speed will vary depending on rigidity of machine and balance of cutter. An adequated cutting condition should be selected for each case.
4. Only BT shank tools are coated. BBT shank tools are not coated.

ORDERING EXAMPLE

①		②		③		④
BT30	-	RSC		07	-	090

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

COLLET CHUCK

FEATURES P.9-10

BT№-RSCⒹMAX-Ⓛ

▶▶▶ Thru-the-tool Coolant Available
▶▶▶ Thru-the-groove Coolant Available
▶▶▶ BBT Available

FIG.1

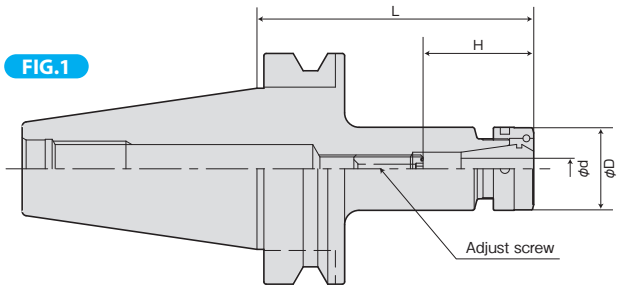
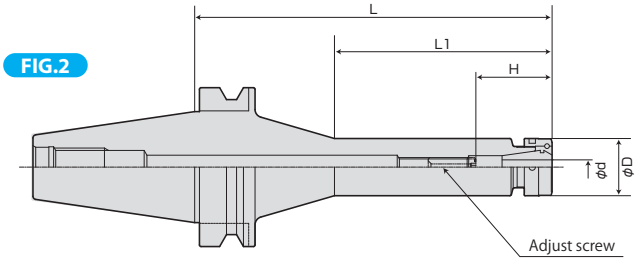


FIG.2



MODEL		CODE	FIG	φd (GRIPPINGRANGE)	φD	L	L1	H	COLLET	NUT	ADJUST SCREW
Max. 8,000 min^{-1}											
BT50 BBT50	RSC07N-090	251230	1	0.5~7	24	90	-	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	-135	251232				135					
	-165	251234				165					
	-195	251235				195					
	RSC10N-075	251238	1	0.5~10	30	75	-	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	-105	251240				105					
	-135	251242				135					
	-165	251244				165					
	-195	251246				195					
	-225	251248	2			225	150				
	-255	251250				255	180				
	-285	251252				285	190				
	RSC13N-075	251254	1	0.5~13	36	75	-	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	-105	251256				105					
	-135	251258				135					
	-165	251260				165					
	-195	251262				195					
	-225	251264	2			225	150				
	-255	251266				255	180				
	-285	251268				285	190				
	RSC16N-075	251270	1	1~16	42	75	-	38~95	CR16-(D)	RSN16NB	RAS16-25-5
	-105	251272				105					
	-135	251274				135					
	-165	251276				165		38~77			
	-195	251278				195					
	-225	251280	2			225	150				
	-255	251282				255	180				
	-285	251284				285	190				
	RSC20N-075	251286	1	1.5~20	50	75	-	44~82	CR20-(D)	RSN20NB	RAS20-25-5
	-105	251288				105					
	-135	251290				135					
	-165	251292				165					
	-195	251294				195					
	-225	251296	2			225	150				
	-255	251298				255	180				
	-285	251300				285	190				

NOTE : 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. The above-mentioned maximum speed will vary depending on rigidity of machine and balance of cutter. An adequated cutting condition should be selected for each case.
4. Only BT shank tools are coated. BBT shank tools are not coated.

ORDERING EXAMPLE

①	②	③	④
BT50	- RSC	10	- 225

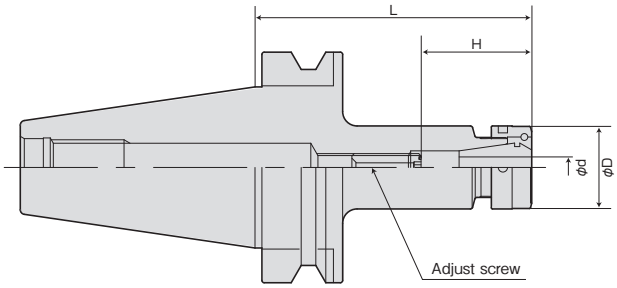
① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

COLLET CHUCK G Type

FEATURES P.9-10

BT№-RSCⒹMAX-ⓁG

▶▶▶ Thru-the-tool Coolant Available
▶▶▶ Thru-the-groove Coolant Available
▶▶▶ BBT Available



MODEL		CODE	ød (GRIPPINGRANGE)	øD	L	H	COLLET	NUT	ADJUST SCREW
Max. 25,000 min^{-1}									
BT30 BBT30	RSC07N-060G	200700	0.5~7	24	60	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	-075G	200701			75				
	-090G	200702			90				
	-120G	200704			120				
	RSC10N-060G	200706	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	-075G	200707			75				
	-090G	200708			90				
	-120G	200710			120				
	RSC13N-060G	200712	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	-075G	200713			75				
	-090G	200714			90				
	-120G	200716			120				
	RSC16N-060G	200718	1~16	42	60	38~50	CR16-(D)	RSN16NB	RAS16-25-5
	-075G	200719			75				
	-090G	200720			90	38~72			
	-120G	200722			120				
	RSC20N-075G	200724	1.5~20	50	75	44~56.5	CR20-(D)	RSN20NB	
	-090G	200726			90				
	-120G	200728			120				
BT40 BBT40	RSC07N-060G	221150	0.5~7	24	60	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	-075G	221151			75				
	-090G	221152			90				
	-120G	221154			120				
	-150G	221156			150				
	RSC10N-060G	221158	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	-075G	221159			75				
	-090G	221160			90				
	-120G	221162			120				
	-150G	221164			150				
	RSC13N-060G	221166	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	-075G	221167			75				
	-090G	221168			90				
	-120G	221170			120				
	-150G	221172			150				
	RSC16N-060G	221174	1~16	42	60	38~70	CR16-(D)	RSN16NB	RAS16-25-5
	-075G	221175			75				
	-090G	221176			90	38~77			
	-120G	221178			120				
	-150G	221180			150				
	RSC20N-060G	221182	1.5~20	50	60	44~70	CR20-(D)	RSN20NB	RAS20-25-5
	-075G	221183			75				
	-090G	221184			90	44~72			
	-120G	221186			120	44~82			
	-150G	221188			150				

NOTE : 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. The above-mentioned maximum speed will vary depending on rigidity of machine and balance of cutter. An adequated cutting condition should be selected for each case.
4. Only BT shank tools are coated. BBT shank tools are not coated.

ORDERING EXAMPLE

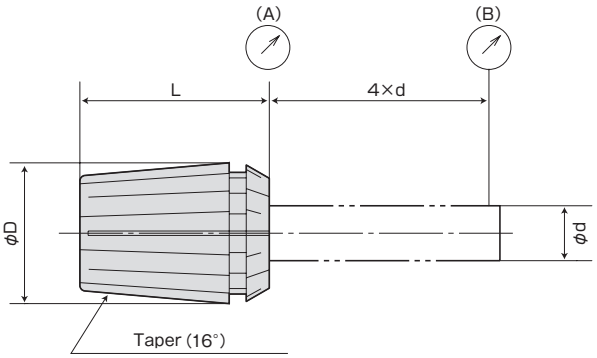
①	②	③	④	⑤
BT30	- RSC	07	- 090	G

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length
⑤ G Type

ACCESSORIES

CR COLLET

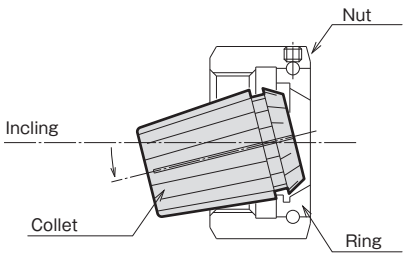
CR№-Ⓓ



GRADE	RUNOUT (MAX, μm)	
	NOSE (A)	POINT (B)
(AA)	1	3
(A)	2	5
(STD)	5	15

Easy collet setting

- A half of ID of the ring is enlarged. Collet can be mounted easily by inclining it.



Grade	application
AA grade · A grade	Reamer · Center drill Carbide small diameter drill, Endmill Whetstone for internal cylindrical grinding, Tool for high frequency motors Carbide drill Rotating tool for lathes (the tool rotation)
Standard	General drill, tap Rotating tool for lathes (Work rotating)

CHUCK	RSC07		RSC10		RSC13		RSC16		RSC20	
COLLET CODE	CR07-d GRADE		CR10-d GRADE		CR13-d GRADE		CR16-d GRADE		CR20-d GRADE	
	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE
	1.0	0.5~1.0	1.0	0.5~1.0	1.0	0.5~1.0	1.5	1.0~1.5	2.0	1.5~2.0
	1.5	1.0~1.5	1.5	1.0~1.5	1.5	1.0~1.5	2.0	1.5~2.0	2.5	2.0~2.5
	2.0	1.5~2.0	2.0	1.5~2.0	2.0	1.5~2.0	2.5	2.0~2.5	3.0	2.5~3.0
	2.5	2.0~2.5	2.5	2.0~2.5	2.5	2.0~2.5	3.0	2.5~3.0	4.0	3.0~4.0
	3.0	2.5~3.0	3.0	2.5~3.0	3.0	2.5~3.0	4.0	3.0~4.0	5.0	4.0~5.0
	3.5	3.0~3.5	4.0	3.0~4.0	4.0	3.0~4.0	5.0	4.0~5.0	6.0	5.0~6.0
	4.0	3.5~4.0	5.0	4.0~5.0	5.0	4.0~5.0	6.0	5.0~6.0	7.0	6.0~7.0
	4.5	4.0~4.5	6.0	5.0~6.0	6.0	5.0~6.0	7.0	6.0~7.0	8.0	7.0~8.0
	5.0	4.5~5.0	7.0	6.0~7.0	7.0	6.0~7.0	8.0	7.0~8.0	9.0	8.0~9.0
ϕd	5.5	5.0~5.5	8.0	7.0~8.0	8.0	7.0~8.0	9.0	8.0~9.0	10.0	9.0~10.0
	6.0	5.5~6.0	9.0	8.0~9.0	9.0	8.0~9.0	10.0	9.0~10.0	11.0	10.0~11.0
	6.5	6.0~6.5	10.0	9.0~10.0	10.0	9.0~10.0	11.0	10.0~11.0	12.0	11.0~12.0
	7.0	6.5~7.0			11.0	10.0~11.0	12.0	11.0~12.0	13.0	12.0~13.0
					12.0	11.0~12.0	13.0	12.0~13.0	14.0	13.0~14.0
					13.0	12.0~13.0	14.0	13.0~14.0	15.0	14.0~15.0
							15.0	14.0~15.0	16.0	15.0~16.0
							16.0	15.0~16.0	17.0	16.0~17.0
									18.0	17.0~18.0
									19.0	18.0~19.0
									20.0	19.0~20.0
ϕD	11		16		20		25		32	
L	18		27		31		35		40	

Collet for through the groove (produce by order) are also available.

ORDERING EXAMPLE

① CR07 - ② 1.5 ③ AA

① Chuck Type
② ød
③ Grade

ACCESSORIES for COLLET CHUCK

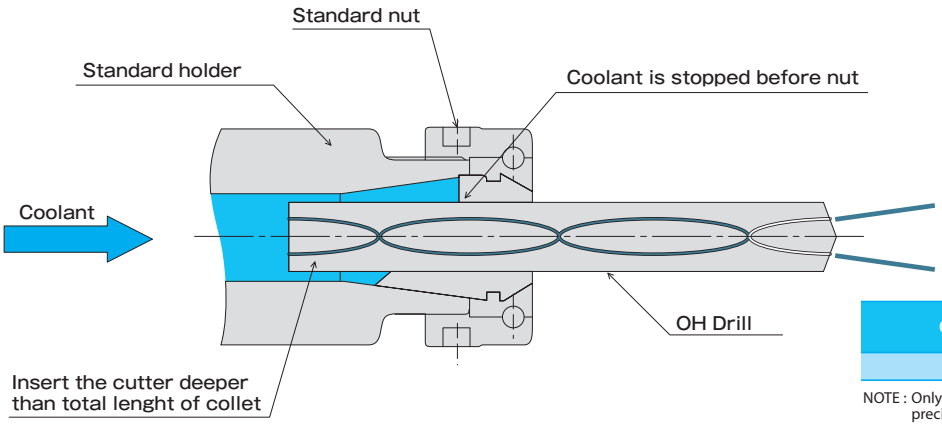
ACCESSORIES

OIL HOLE CR COLLET

CROH№-Ⓓ

FEATURES

- For thru-the tool coolant application.
- High pressure up to 7 Mpa is acceptable.
- Standard holders and nuts can be used.
- Bearing of nut is not affected by coolant.



GRADE	RUNOUT (MAX, μm) 4×d
(AA)	5μm

NOTE : Only super precious grade (AA) is available for sale only ultra precision grade (AA) type.

COLLET CODECHUCK	RSC07 CROH07-d GRADE		RSC10 CROH10-d GRADE		RSC13 CROH13-d GRADE		RSC16 CROH16-d GRADE		RSC20 CROH20-d GRADE	
	φd	RANGE	φd	RANGE	φd	RANGE	φd	RANGE	φd	RANGE
	2.0	1.9~2.0	2.0	1.9~2.0	3.0	2.9~3.0	3.0	2.9~3.0	3.0	2.9~3.0
	2.5	2.4~2.5	2.5	2.4~2.5	3.5	3.4~3.5	3.5	3.4~3.5	3.5	3.4~3.5
	3.0	2.9~3.0	3.0	2.9~3.0	4.0	3.9~4.0	4.0	3.9~4.0	4.0	3.9~4.0
	4.0	3.9~4.0	4.0	3.9~4.0	4.5	4.4~4.5	4.5	4.4~4.5	4.5	4.4~4.5
	4.5	4.4~4.5	4.5	4.4~4.5	5.0	4.9~5.0	5.0	4.9~5.0	5.0	4.9~5.0
	5.0	4.9~5.0	5.0	4.9~5.0	5.5	5.0~5.5	5.5	5.4~5.5	5.5	5.4~5.5
	5.5	5.4~5.5	5.5	5.0~5.5	6.0	5.5~6.0	6.0	5.5~6.0	6.0	5.9~6.0
	6.0	5.9~6.0	6.0	5.5~6.0	6.5	6.0~6.5	6.5	6.0~6.5	6.5	6.4~6.5
	6.5	6.4~6.5	6.5	6.0~6.5	7.0	6.5~7.0	7.0	6.5~7.0	7.0	6.9~7.0
	7.0	6.9~7.0	7.0	6.5~7.0	7.5	7.0~7.5	7.5	7.0~7.5	7.5	7.4~7.5
			7.5	7.0~7.5	8.0	7.5~8.0	8.0	7.5~8.0	8.0	7.5~8.0
			8.0	7.5~8.0	8.5	8.0~8.5	8.5	8.0~8.5	8.5	8.0~8.5
			8.5	8.0~8.5	9.0	8.5~9.0	9.0	8.5~9.0	9.0	8.5~9.0
			9.0	8.5~9.0	9.5	9.0~9.5	9.5	9.0~9.5	9.5	9.0~9.5
			9.5	9.0~9.5	10.0	9.5~10.0	10.0	9.5~10.0	10.0	9.5~10.0
			10.0	9.5~10.0	10.5	10.0~10.5	10.5	10.0~10.5	10.5	10.0~10.5
φd					11.0	10.5~11.0	11.0	10.5~11.0	11.0	10.5~11.0
					11.5	11.0~11.5	11.5	11.0~11.5	11.5	11.0~11.5
					12.0	11.5~12.0	12.0	11.5~12.0	12.0	11.5~12.0
					12.5	12.0~12.5	12.5	12.0~12.5	12.5	12.0~12.5
					13.0	12.5~13.0	13.0	12.5~13.0	13.0	12.5~13.0
							13.5	13.0~13.5	13.5	13.0~13.5
							14.0	13.5~14.0	14.0	13.5~14.0
							14.5	14.0~14.5	14.5	14.0~14.5
							15.0	14.5~15.0	15.0	14.5~15.0
							15.5	15.0~15.5	15.5	15.0~15.5
							16.0	15.5~16.0	16.0	15.5~16.0
									16.5	16.0~16.5
									17.0	16.5~17.0
									17.5	17.0~17.5
									18.0	17.5~18.0
									18.5	18.0~18.5
									19.0	18.5~19.0
									19.5	19.0~19.5
									20.0	19.5~20.0
φD	11		16		20		25		32	
L	18		27		31		35		40	

NOTE : 1. Applicable for drill with oil hole.
2. When in use insert a drill to the end from the rear of the collet.
3. Do not use smaller sized cutting tools than inner diameter of collet, or coolant may leak out of a collet.
4. If flat-face shank cutting tool is used, sealing function of collet does not work.

ORDERING EXAMPLE

① CROH10 - ② 10 ③ AA

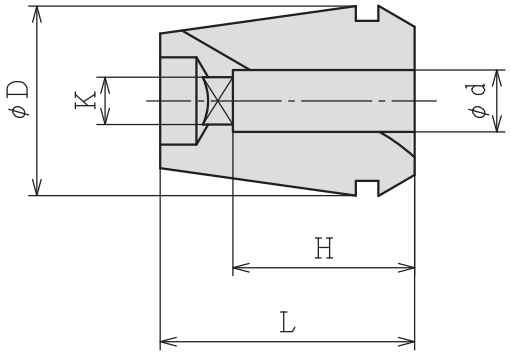
① Chuck Type
② ød
③ Grade

ACCESSORIES

CR TAP COLLET

CR№GB-Ⓓ

CR collet with square hole for shank end of tap (for synchro tap).



MODEL		CODE	TAP SIZE	φd	K	H	φD	L	TAP HOLDER	COLLET CHUCK
CR10GB	-M4	84700	M4	5	4	15	16	27	-	RSC10
	-M5	84702	M5	5.5	4.5	15				
	-M6	84704	M6	6	4.5	15				
	-M8	84706	M8	6.2	5	20				
	-M10	84708	M10	7	5.5	20				
	-P1/8	84710	P1/8	8	6	20				
CR13GB	-M4	84712	M4	5	4	15	20	31	SYFN12	RSC13
	-M5	84714	M5	5.5	4.5	15				
	-M6	84716	M6	6	4.5	15				
	-M8	84718	M8	6.2	5	20				
	-M10	84720	M10	7	5.5	20				
	-P1/8	84722	P1/8	8	6	20				
	-M12	84724	M12	8.5	6.5	20				
CR16GB	-M4	84726	M4	5	4	15	25	35	SYFN16S	RSC16
	-M5	84728	M5	5.5	4.5	15				
	-M6	84730	M6	6	4.5	15				
	-M8	84732	M8	6.2	5	20				
	-M10	84734	M10	7	5.5	20				
	-P1/8	84736	P1/8	8	6	20				
	-M12	84738	M12	8.5	6.5	20				
	-M14	84740	M14	10.5	8	25				
	-P1/4	84742	P1/4	11	9	17				
	-M16	84744	M16	12.5	10	25				
	-P3/8	84746	P3/8	14	11	18				
CR20GB	-M4	84748	M4	5	4	15	32	40	SYFN20	RSC20
	-M5	84750	M5	5.5	4.5	15				
	-M6	84752	M6	6	4.5	15				
	-M8	84754	M8	6.2	5	20				
	-M10	84756	M10	7	5.5	20				
	-P1/8	84758	P1/8	8	6	20				
	-M12	84760	M12	8.5	6.5	20				
	-M14	84762	M14	10.5	8	25				
	-P1/4	84764	P1/4	11	9	17				
	-M16	84766	M16	12.5	10	25				
	-P3/8	84768	P3/8	14	11	18				
	-M18	84770	M18	14	11	30				
	-M20	84772	M20	15	12	30				

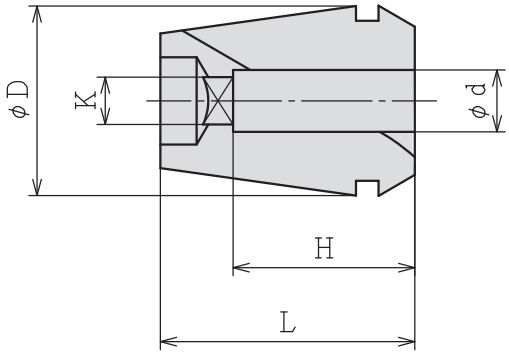
NOTE : 1. Above table is for a tap of JIS standard shank.
2. Run-out accuracy is subject to ordinary (STD) class.

ACCESSORIES for COLLET CHUCK

OIL HOLE CR TAP COLLET

CR№GH-Ⓓ

OH-type collet with square hole is for high-pressure centre-through coolant feeding (for synchro tapping).



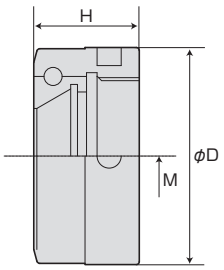
MODEL		CODE	TAP SIZE	φd	K	H	φD	L	TAP HOLDER	COLLET CHUCK
CR10GH	-M6	84800	M6	6	4.5	22	16	27	-	RSC10
	-M8	84802	M8	6.2	5	22				
	-M10	84804	M10	7	5.5	22				
	-P1/8	84806	P1/8	8	6	22				
CR13GH	-M6	84808	M6	6	4.5	25	20	31	SYFN12	RSC13
	-M8	84810	M8	6.2	5	25				
	-M10	84812	M10	7	5.5	25				
	-P1/8	84814	P1/8	8	6	25				
	-M12	84816	M12	8.5	6.5	25				
CR16GH	-M6	84818	M6	6	4.5	25	25	35	SYFN16S	RSC16
	-M8	84820	M8	6.2	5	25				
	-M10	84822	M10	7	5.5	25				
	-P1/8	84824	P1/8	8	6	25				
	-M12	84826	M12	8.5	6.5	30				
	-M14	84828	M14	10.5	8	30				
	-P1/4	84830	P1/4	11	9	30				
	-M16	84832	M16	12.5	10	30				
	-P3/8	84834	P3/8	14	11	30				
CR20GH	-M6	84836	M6	6	4.5	25	32	40	SYFN20	RSC20
	-M8	84838	M8	6.2	5	25				
	-M10	84840	M10	7	5.5	30				
	-P1/8	84842	P1/8	8	6	30				
	-M12	84844	M12	8.5	6.5	30				
	-M14	84846	M14	10.5	8	30				
	-P1/4	84848	P1/4	11	9	35				
	-M16	84850	M16	12.5	10	35				
	-P3/8	84852	P3/8	14	11	35				
	-M18	84854	M18	14	11	35				
	-M20	84856	M20	15	12	35				

NOTE : 1. Above table is for a tap of JIS standard shank.
2. Run-out accuracy is subject to ordinary (STD) class.
3. In the case of OSG Corporation synchro tap, shank diameter, square end dimensions are different from others so that there is the case that you can not use it even if tap size is the same.
4. Gap-through collet is also available. Please order separately.

ACCESSORIES

NUT FOR COLLET CHUCK

RSN № - TYPE



for BT, ST

CODE		M	ϕD	H	CHUCK
RSN07NB(Ni)	30891	M16×1.0	24	11.5	RSC07
RSN10NB(Ni)	30892	M21×1.0	30	15.5	RSC10
RSN13NB(Ni)	30893	M26×1.0	36	17.5	RSC13
RSN16NB(Ni)	30894	M32×1.0	42	17.5	RSC16
RSN20NB(Ni)	30895	M40×1.0	50	17.5	RSC20

Through-Coolant use

CODE		M	ϕD	H	CHUCK
RSN10NB-OH	30870	M21×1.0	30	15.5	RSC10
RSN13NB-OH	30871	M26×1.0	36	17.5	RSC13
RSN16NB-OH	30872	M32×1.0	42		RSC16
RSN20NB-OH	30873	M40×1.0	50		RSC20

Note: Single use of OH nut can not cope with the thru-the-tool coolant.

ACCESSORIES

ADJUST SCREW (For COLLET CHUCK)

FIG.1

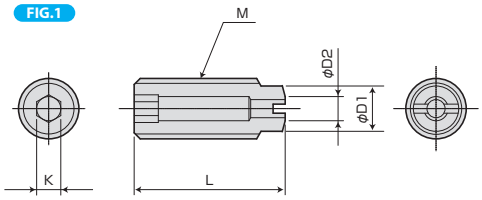
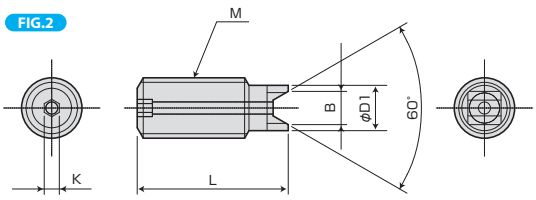


FIG.2



MODEL	FIG	M	L	D1	D2	K	B	HOLDER
M6×20L-CTW 1)	1	M6×1.0	20	4.5	3	3	—	RSC07
RAS10-25-2.5 2)	2	M10×1.5	25	7.5	—	2.5	5.5	RSC10
RAS13-25-2.5 2)		M12×1.5		9.5			7.2	RSC13
RAS16-25-5 2)		M18×1.5		13.5		5	9.5	RSC16
RAS20-25-5 2)		M24×1.5		17.5				RSC20

Note 1: Drill less than φ3 cannnot ne used for adjustment protrusion in order to enter the coolant hole.
CTW is not in the two pieces shape
Note 2: Drill less than φ2 cannnot ne used for adjustment protrusion in order to enter the coolant hole.

ACCESSORIES

CHUCK WRENCH (For COLLET CHUCK)

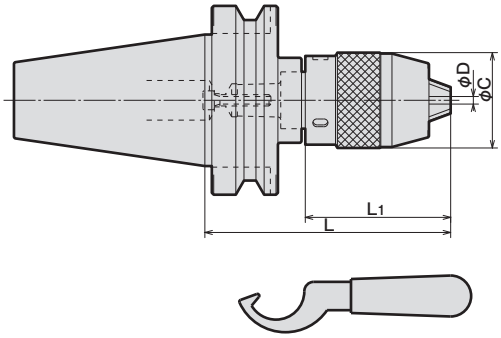
CODE		CHUCK
FP25	35844	RSC07
FP30	35845	RSC10
FP35	35846	RSC13
FP42	35847	RSC16
FP50	35848	RSC20

DRILL CHUCK

BT№-SDCⒹMAX-Ⓛ

FEATURES

- Drill chuck is positively coupled with the holder.
- Short (L length) and compact.
- Clamping force can be increased by the attached wrench.



MODEL		CODE	øD GRIPPING RANGE	L		L1		øC	N/W (kg)
				OPEN	CLOSE	OPEN	CLOSE		
BT30 (BBT30)	-SDC08-080	10036	0.5～ 8	83	90.5	50	57.5	37.5	0.7
	-SDC13-100	10038	1～13	99	111.5	66	78.5	50	1.3
BT40 (BBT40)	-SDC08-080	11148	0.5～ 8	83	90.5	50	57.5	37.5	1.3
	-SDC13-100	11150	1～13	99	111.5	66	78.5	50	1.8
BT50 (BBT50)	-SDC08-100	13291	0.5～ 8	103	110.5	50	57.5	37.5	4.1
	-SDC13-120	13293	1～13	119	131.5	66	78.5	50	4.5
	-SDC13-160	13294		159	171.5				5.1

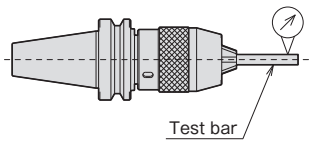
NOTE : 1. Each SDC chuck is supplied with a wrench.

ORDERING EXAMPLE

① BT30 - ② SDC ③ 08 - ④ 080

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

RUNOUT



SDC NO.	DIA. OF TEST BAR	RUNOUT
SDC08	4&8mm	0.05mm以下
SDC13	6.5&13mm	

● Runout was measured at three times the diameter from chuck nose.

CLAMPING POWER

	CLAMPING	TWISTING MOMENT	Comparison %
TRADITIONAL KEYLESS CHUCK	Manual	6.9 N·m	100
SHOWA SDC CHUCK			
SHOWA SDC CHUCK	With wrench	21.6 N·m	314

NOTE : Twisting moment was measured with a ø9mm test bar.

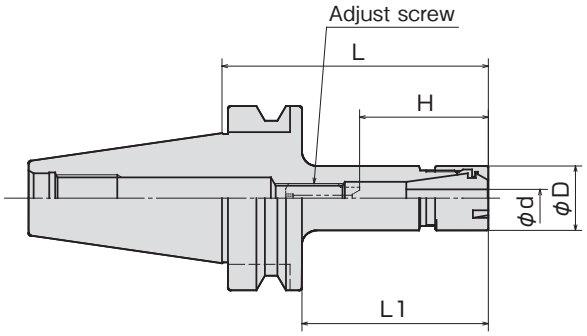
COLLET CHUCK (SLIM TYPE)

FEATURES P.13

BT№-SSCⒹMAX-Ⓛ

Thru-the-tool Coolant Available

Thru-the-groove Coolant Available(Option)



MODEL		CODE	ød	øD	L	L1	H	COLLET	NUT	ADJUST SCREW
BT30	SSC07-090	10101	0.5~7	16	90	68	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	10102			135	113				
	SSC10-090	10103	0.5~10	22	90	68	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	10104			135	113				
	SSC13-090	10105	0.5~13	28	90	68	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-135	10106			135	113				
BT40	SSC07-090	11273	0.5~7	16	90	63	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	11274			135	108				
	SSC10-090	11275	0.5~10	22	90	63	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	11276			135	108				
	SSC13-105	11277	0.5~13	28	105	78	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-150	11278			150	123				
BT50	SSC07-090	13565	0.5~7	16	90	52	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	13566			135	97				
	SSC10-105	13567	0.5~10	22	105	67	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-150	13568			150	112				
	SSC13-120	13569	0.5~13	28	120	82	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-165	13570			165	127				
	SSC13-195	13571			195	157				

NOTE : 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ORDERING EXAMPLE

① BT50 - ② SSC ③ 10 - ④ 105

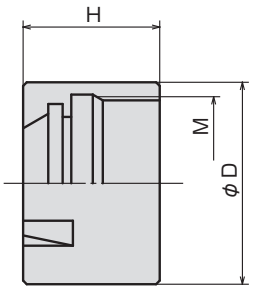
① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

ACCESSORIES P.53,54 COLLETS

ACCESSORIES P.60 NUT,ADJUST SCREW, CHUCK WRENCH

ACCESSORIES for SLIM CHUCK

NUT FOR SLIM CHUCK



CODE		M	øD	H	CHUCK
ER11MN	30924	M13×0.75	16	11.3	SSC07
ER16MN	30926	M19×1.0	22	18	SSC10
ER20MN	30928	M24×1.0	28	19	SSC13
ER25MN	30929	M30×1.0	35	20	SYFN16S

ER25MN is a nut for Synchro Tap Holder SYFN16S type, on page 57 and page 111.

ADJUST SCREW (For SLIM CHUCK)

FIG.1

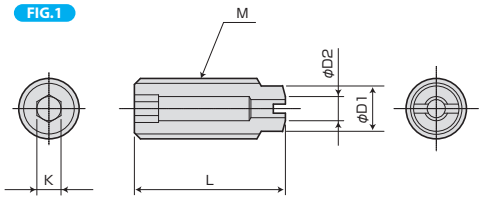
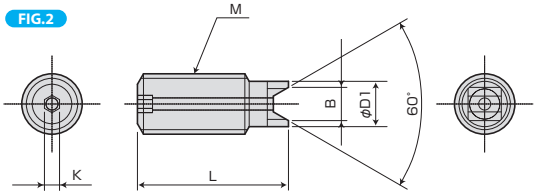


FIG.2



MODEL	FIG	M	L	D1	D2	K	B	HOLDER
M6×20L-CTW 1)	1	M6×1.0	20	4.5	3	3	—	SSC07
RAS10-25-2.5 2)	2	M10×1.5	25	7.5	—	2.5	5.5	SSC10
RAS13-25-2.5 2)		M12×1.5		9.5			7.2	SSC13

Note 1: Drill less than φ3 cannnot ne used for adjustment protrusion in order to enter the coolant hole. CTW is not in the two pieces shape
Note 2: Drill less than φ2 cannnot ne used for adjustment protrusion in order to enter the coolant hole.

CHUCK WRENCH (For SLIM CHUCK)

CODE		CHUCK
ER11MS	35861	SSC07
ER16MS	35863	SSC10
ER20MS	35865	SSC13
ER25MS	35867	SYFN16S

NOTE : ER25MS is a wrench for Synchro Tap Holder SYFN16S, type, on page 57 and page 111.

Hy-Dual CHUCK

FEATURES P.19-20

BBT№-HDUⒹ-Ⓛ

FIG.1

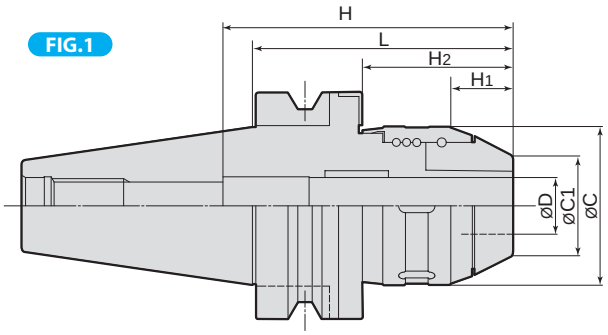
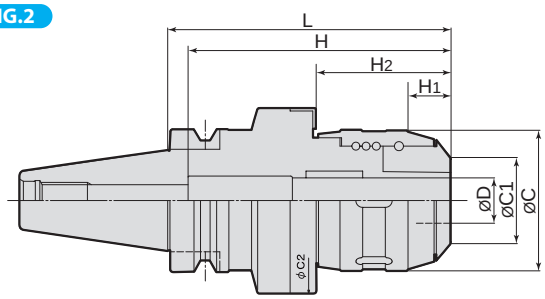


FIG.2



Cutter shank diameter should be h6 or better.

MODEL			A	Fig	øD	L	H	øC	øC1	øC2	H1	H2	Min insert length	N/W (kg)
BBT40	-HDU16-	120	○	2	16	120	112	62	38	82	14	54.5	57	
	-HDU20-	125	○		20	125	117				19	59.5	70	
BBT50	-HDU16-	105	○	1	16	105	112	62	38	–	14	54.5	57	
		135	△			135								
		165	△			165								
	-HDU20-	110	○		20	110	117				19	59.5	70	
		140	△			140								
		170	△			170								
	-HDU25-	115	○		25	115	128	70	44		27.5	66.5	85	
		145	△			145								
		175	△			175								
	-HDU32-	120	○		32	120	133	82	52			68.5	90	
		150	△			150								
		180	△			180								

NOTE : 1. Please don't use with collets because it may destroy the inside of the holder.
2. After 100 clamping cycles, or every 3month interval, please confirm clamping power of hydraulic portion.
3. When you check clamping power of hydraulic portion, please use exclusive test bar (separately sold).

ACCESSORIES
P.62 CHUCK WRENCH

ORDERING EXAMPLE

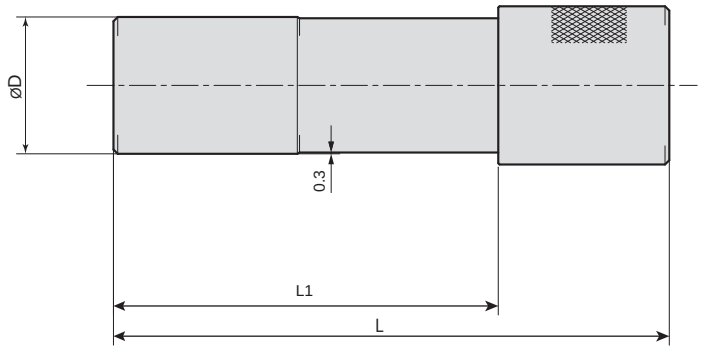
① BBT50 - ② HDU ③ 32 - ④ 120

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

NOTE : Big Plus system (BBT) is a licensed of BIG DAISHOWA

ACCESSORIES

Tester for clamping power



MODEL		øD	L	L1
TB	HDU16	16	110	57
	HDU20	20	110	70
	HDU25	25	125	85
	HDU32	32	130	90

ORDERING EXAMPLE

① TB - ② HDU16

① Holder's Name
② Chack Size

ACCESSORIES

CHUCK WRENCH (For Hy-Dual CHUCK)

HOOK SPANNER		
CHUCK CODE Hy-DUAL CHUCK	WRENCH CODE	
HDU16,HDU20	FS58-62G	35853
HDU25	FS68-75G	35854
HDU32	FS80-90G	35855

SYNCHRO TAP HOLDER
SYFN/SYFS

FEATURES P.11-12

BT№-SYFN/SYFS№-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available(Option)

FIG.1

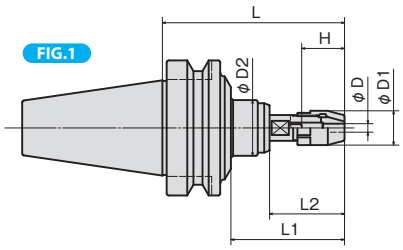


FIG.2

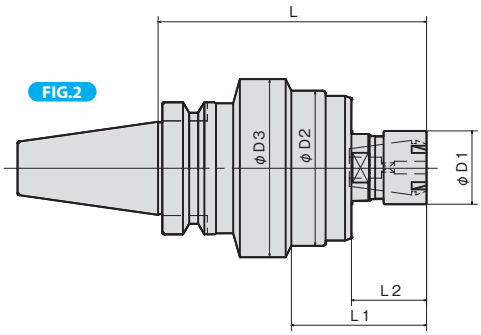


FIG.3

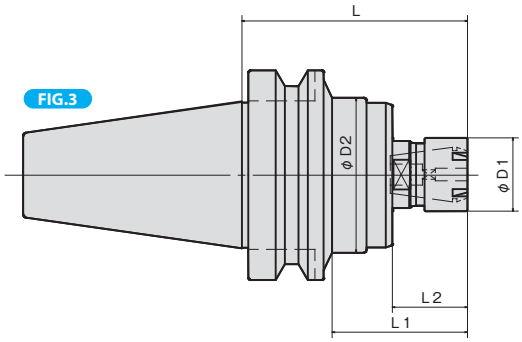


FIG.4

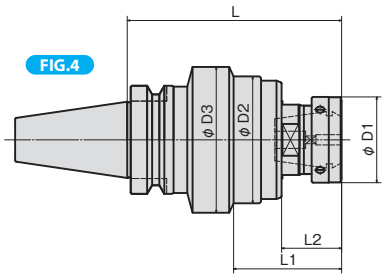
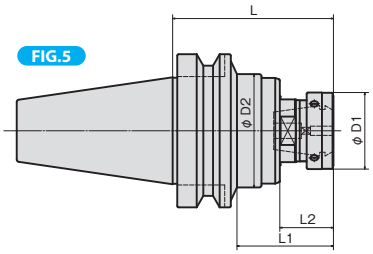


FIG.5



Please use the tool having shank tolerance within h7 for SYFS type.

MODEL			CODE	FIG	øD	øD1	øD2	øD3	L	L1	L2	H	TAP SIZE	COLLET
BT30	-SYFS02	-095	200602	1	3	16	26	–	95	53	35	22	M1,M1.6,M2,No.3,No.4 M3,No.5,No.6	–
	-SYFS03	-095	200604		4									
	-SYFN12	-105	200616	4	–	36	51	62.5	105	54	30	–	M4~M12,No.8~U1/2 P1/8	CR13GBorGH
		-135	200617						135	84	60			
BT40	-SYFS02	-085	221042	1	3	16	26	–	85	53	35	22	M1,M1.6,M2,No.3,No.4 M3,No.5,No.6	–
	-SYFS03	-085	221044		4									
	-SYFN12	-090	221052	5	–	36	51	–	90	54	30	–	M4~M12,No.8~U1/2 P1/8	CR13GBorGH
		-120	221053						120	84	60			
	-SYFN16S	-125	221039	2	–	35	74	85	125	63	35	–	M4~M16,No.8~U5/8, P1/4	CR16GBorGH
		-155	221040						155	93	65			
		-185	221041						185	123	95			
	-SYFN20	-125	221055	4	–	50	74	85	125	63	35	–	M4~M20,U5/16~U5/8, P1/8~P3/8	CR20GBorGH
		-155	221056						155	93	65			
		-185	221057						185	123	95			
BT50	-SYFS02	-095	251091	1	3	16	26	–	95	53	35	22	M1,M1.6,M2,No.3,No.4 M3,No.5,No.6	–
	-SYFS03	-095	251093		4									
	-SYFN16S	-105	251107	3	–	35	74	–	105	63	35	–	M4~M16,No.8~U5/8, P1/4	CR16GBorGH
		-135	251108						135	93	65			
		-165	251109						165	123	95			
		-195	251110						195	153	125			
		-225	251100						225	183	155			
	-SYFN20	-105	251104	5	–	50	74	–	105	63	35	–	M4~M20,U5/16~U5/8, P1/8~P3/8	CR20GBorGH
		-135	251105						135	93	65			
		-165	251106						165	123	95			

NOTE :1. Collet and chuck wrench are sold separately.
2. Applicable to synchronized machines only.
3. Thru-the-groove coolant type is manufacturered to orders.

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 NUT, CHUCK WRENCH

ORDERING EXAMPLE

① BT30 - ② SYFN ③ 12 - ④ 105

① Shank Size
② Name
③ Type No
④ G.L. Length

ACCESSORIES for SYNCHRO TAP HOLDER

ACCESSORIES

COLLET CHUCK (SLIM TYPE)

FEATURES P.14

ST Ⓓ-SSC Ⓓ MAX-Ⓛ

Thru-the-tool Coolant Available

Thru-the-groove Coolant Available

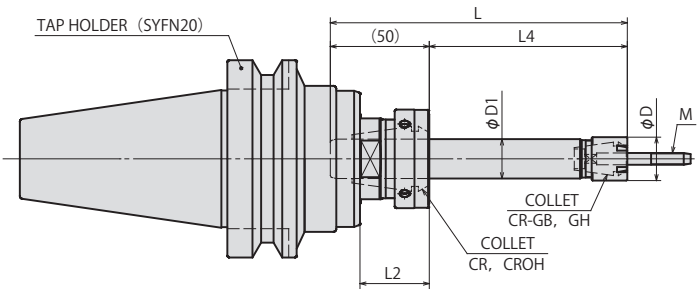


FIG.1

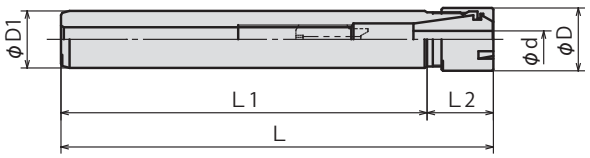
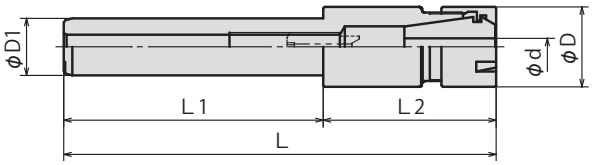


FIG.2



MODEL		CODE	FIG	øD	øD1	L	L1	L2	L3	L4	Suitable holder	Suitable collet	TAP SIZE	Collet for suitable collet	NUT
ST16	SSC07-100	30377	1	16	16	100	83	17	50 (min40)	50	SYFN20	CR20-16 CROH20-16	M2~M6, No.3~ U1/4	CR07-d CROH07-d	ER11MN
	SSC07-150	30378				150	133			100					
	SSC07-200	30379				200	183			150					
ST20	SSC10-100	30831	1	22	20	100	77	23	50 (min45)	50	SYFN20	CR20-20 CROH20-20	M4~M10, No.8~ U7/16	CR10GB CR10GH	ER16MN
	SSC10-150	30832				150	127			100					
	SSC10-200	30833				200	177			150					
	SSC10-250	30834				250	227			200					
	SSC13-150	30835	2	28	20	150	90	60		100			M4~M12, No.8~ U1/2,P1/8	CR13GB CR13GH	ER20MN
	SSC13-200	30836				200	140			150					

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 NUT, CHUCK WRENCH

ORDERING EXAMPLE

① BT30 - ② SYFN ③ 12 - ④ 105

① Shank Size
② Name
③ Type No
④ G.L. Length

TAP HOLDER (Clockwise Rotation)

BT№-TPC D1-L1

FEATURES

- Torque limitter collets are available.
  Tapping torque can be adjusted to prevent tap breakage.
- Accurate threads are made with the tensioncompression mechanism, compensating pitch error of the machining center.

FIG.1

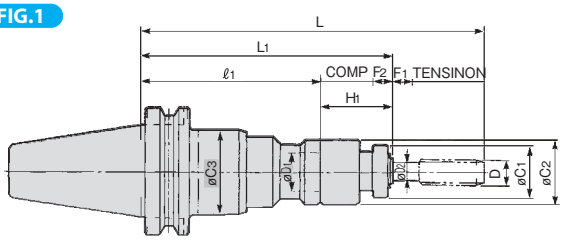
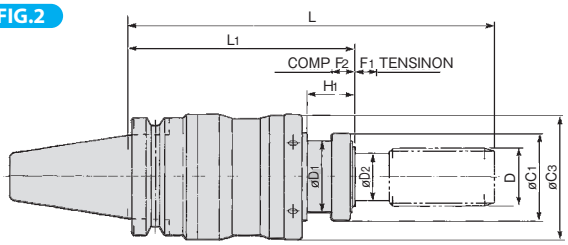


FIG.2



	MODEL	CODE BT	CODE SBT	FIG.	øD1	L1	ℓ 1	øC1	øC2	øC3	H1	F1	F2	øD2	D	TAP COLLET CODE	N/W (kg)
BT40 SBT40	-TPC20-150	11282	2220002	1	20	150	105	32	40	47	45	15	15	5~12.5	M4~M14	TCC20-(D)	1.9
	-TPC29-195	11284	2220004	1	29	195	140	45	55	63	55	15	15	8.5~20	M12~M27	TCC29-(D)	2.6
BT50 SBT50	-TPC20-165	13582	2221002	1	20	165	120	32	40	47	45	15	15	5~12.5	M4~M14	TCC20-(D)	4.3
	-TPC29-195	13584	2221004	1	29	195	140	45	55	63	55	15	15	8.5~20	M12~M27	TCC29-(D)	5.0
	-TPC40-225	13586	2221006	1	40	225	150	60	80	85	75	20	20	14~30	M18~M39	TCC40-(D)	6.2
	-TPC60-195	13588	2221008	2	60	195	—	75	—	106	39	20	20	30~42	M39~M52	TCC60-(D)	8.1

NOTE:1. TPC20, TPC29 & TPC40 of Fig.1→Torque is adjusted by tap collet.
2. TPC60 of Fig.2→Torque is adjusted by holder.
3. SBT is shank for BT Dual-Face-Contact spindle.

ORDERING EXAMPLE

① BT40 - ② TPC ③ 20 - ④ 150

① Shank Size
② Holder's Name
③ øD1
④ L1

TAP COLLETS (Type TCC)

FIG.1 With torque control

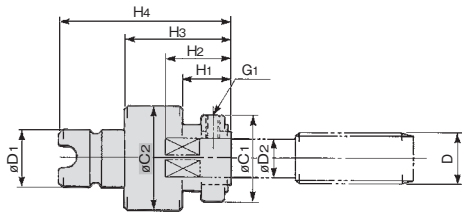
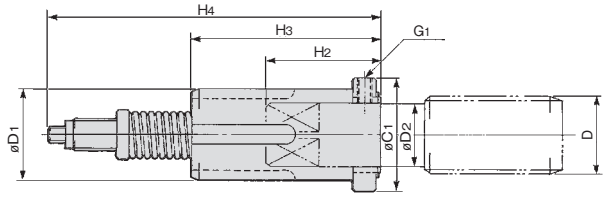


FIG.2 Without torque control



ORDERING EXAMPLE

① TCC ② 20 - ③ M5

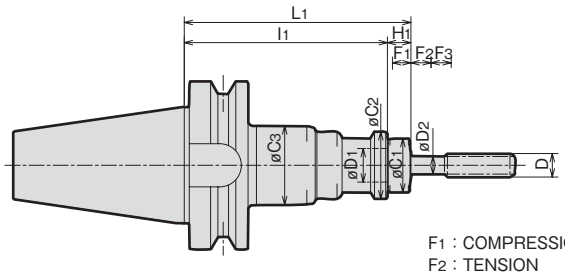
① Holder's Name
② øD1
③ Tap Size

CODE	FIG.	øD1	D	øC1	øD2	H1	H3	H4	G1
TCC20-(D)	1	20	M4 ~M14	32	40	20	45	73	M6
TCC29-(D)	1	29	M12~M27	45	55	25	55	90	M8
TCC40-(D)	1	40	M18~M39	60	80	40	75	123	M10
TCC60-(D)	2	60	M39~M52	75	—	—	124	219	M10

CODE	M(JIS B 4430-1972)								UNC(JIS B 4432-1972)								PF PT(JIS B 4445,4446-1967)							
	D	D2	H2			L			D	D2	H2			L			D	D2	H2			L		
TCC20-(D)	M4	5	22			195			NO.8U	5	22			195			—	—	—			—		
	M4.5	5				198			—	—	—			—			—	—						
	M5	5.5				203			10U NO.12U	5.5	22			203			—	—						
	M6	6				205			1/4U	6				205			—	—						
	—	—	—			—			5/16U	6.1	23			212			—	—	—			—		
	M7	6.2	23			207			—	—	—			—			—	—						
	M8	6.2				212			—	—							—	—						
	M9	7				214			3/8U	7	23			217			—	—						
	M10	7				217			—	—	—			—			—	—						
	M11	8				222			7/16U	8	24			221			PF PT 1/8	8	24			196		
	M12	8.5	24	29		223	248		—	—	—	—		—	—		—	—						
	—	—	—	—		—	—		1/2U	9	25	30		225	250		—	—	—	—		—	—	
	M14	10.5	25	31		228	252		9/16U	10.5		31		230	254		—	—						
	—	—	—	—		—	—		—	—	—	—		—	—		PF PT 1/4	11	25	31		202	226	
	—	—							5/8U	12	25	32		235	258		—	—	—	—		—	—	
	M16	12.5	25	33		235	257		—	—	—	—		—	—		—	—	—					
TCC29-(D)	M18	14			34		261	291	3/4U	14		34	34		266	296	PF PT 3/8	14		34	34		226	256
	M20	15		34	35		266	295	—	—		—	—		—	—	—	—		—	—		—	—
	M22	17			36		276	304	7/8U	17		34	36		276	304	—	—						
	—	—		—	—		—	—	—	—		—	—		—	—	PF PT 1/2	18		34	42		241	263
	M24	19		34	43		281	302	—	—							PF PT 5/8	19			43		243	264
	M27	20					291	312	1U	20		34	43		286	307	—	—		—	—		—	—
	—	—			—			—	1 1/8U	22			45			315	—	—						
	M30	23			45			315	—	—			—			—	PF PT 3/4	23			45			265
	—	—			—			—	1 1/4U	24			47			323	PF 7/8	24			47			268
	M33	25			47			323	—	—			—			—	—	—			—			—
	—	—			—			—	1 3/8U	26			47			333	PF PT 1	26			47			273
	M36	28			49			331	—	—			—			—	PF 1 1/8	28			50			275
TCC60-(D)	M39	30			50	61		340	299	1 1/2U	30			50	61		335	294	—	—		—	—		—
	M42	32				65		305	—	—				—			—	PF PT 1 1/4	32			57		243
	M45	35				70		305	1 3/4U	35				70			300	—	—			—		—
	M48	38				72		308	—	—				—			—	PF PT 1 1/2	38			62		243
	—	—				—		—	2U	40				75			315	—	—			—		—
	M52	42				75		315	—	—				—			—	PF 1 3/4	42			67		243

DEPTH CONTROL TAPPER

BT№-ADC D1 - L1



F1 : COMPRESSION
F2 : TENSION
F3 : BACK TENSION

MODEL		CODE	øD1	L1	ℓ 1	øC1	øC2	øC3	H1	F1	F2	F3	øD2	D	TAP COLLET CODE	N/W (kg)
BT40	-ADC20-150	11292	20	123	109	32	40	47	14	6	10	6	3~12.5	M2.5~M16	TC20-(D)	1.6
	-ADC29-195	11294	29	163	143	45	55	63	20	8	15	10	8.5 ~20	M 12~M27	TC29-(D)	2.6
BT50	-ADC20-165	13602	20	138	124	32	40	47	14	6	10	6	3~12.5	M2.5~M16	TC20-(D)	4.2
	-ADC29-195	13604	29	163	143	45	55	63	20	8	15	10	8.5~20	M12~M27	TC29-(D)	4.9
	-ADC40-225	13606	40	173	153	60	80	80	20	10	15	12	14~30	M18~M39	TC40-(D)	6.0

ORDERING EXAMPLE

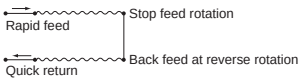
① BT40 - ② ADC ③ 20 - ④ 150

① Shank Size
② Holder's Name
③ øD1
④ L1

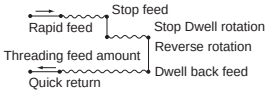
(Depth limit device) How to set

- The ADC tapper, in which the limit device is incorporated to determine thread depth automatically, can decide thread depth accurately. Variations in accuracy of depth tapping is ±0.1.
- Please use TC type tap, which has no torque limiter. In addition, traditional TCC collet having torque limiter can be used.
- It automatically corrects the error in the machine and feed tap pitch by the action of the float mechanism (tension-compression), which can make it tapping with high accuracy.

Example: through-hole program



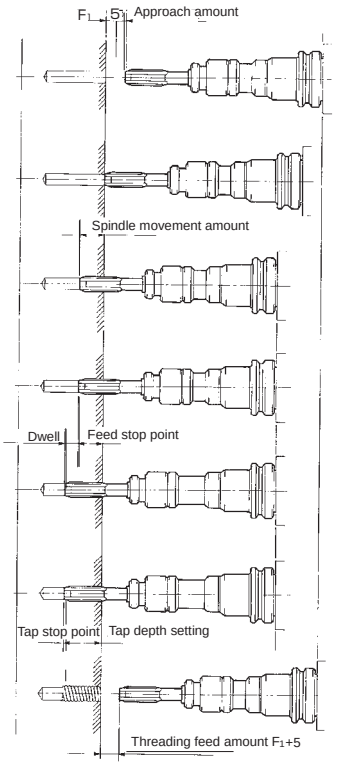
Example: blind hole program



Calculation method of dwell time

[Example] tapper: ADC20 (threading feel amount 6)
Tap: M12×1.75
Rotational speed: 180min^{-1} (3RPS)

$$\text{Dwell time} = \frac{6}{1.75 \times 180/60} \times 2 = 2.3 \text{ seconds}$$



①approach amount setting

Set to F1-5mm. Set slightly slower or equal to the speed of travel of the tap.

② Start tapping

③Spindle movement amount

Amount obtained by subtracting the threading feed amount (F1) by the tap depth setting amount.

④Feed stop point

Stop the feed of the machine, and let only the spindle (Dwell) turn.

⑤Dwell time

$$\text{Dwell time} = \frac{\text{Tapper threading feed amount (mm)}}{\text{Tap Pitch(mm) x Rotation (R,P,S)}} \times 2$$

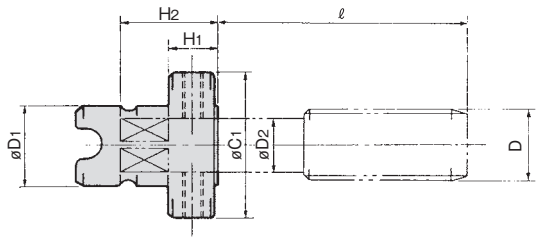
⑥Tap stop point

Stop spindle rotation, reverse spindle rotation (Dwell), and feed back (setting to the same as the rate at which the tap is fed back.).

⑦Tapping complete

TAP COLLET (Type TC)

TCD_1-L



CODE	øD1	D	øC1	H1
TC20-(D)	20	M3~M16	32	14
TC29-(D)	29	M12~M27	45	20
TC40-(D)	40	M18~M39	60	20

TC20 TAP COLLET

		TC20-(D)																	
D	M	—	※M2	M3	M4	M5	M6	—	M8	M10		M12	—	M14	—		M16		
	UNC	—	No.4	—	No.8	No.10	1/4	5/16	—	3/8	—	7/16	—	1/2	—	9/16	—	5/8	—
	PT・PF	—									P1/8		—				P1/4	—	
D2		3	4		5	5.5	6	6.1	6.2	7	8		8.5	9	10.5		11	12	12.5
H2		19.5	20.5		21.5	22		23			24			25	26		27		28
ℓ		24.5	23.5	25.5	30.5	38	40	47		52	31	56	58	60	62	64	35	68	67

TC29 TAP COLLET

		TC29-(D)																	
D	M	M12	—	M14		—		M16	M18	—		M20	—	M22	—	M24	—	M27	—
	UNC	—	1/2	—	9/16	—	5/8			3/4			7/8		—				1
	PT・PF	—				P1/4		—			P3/8		—		P1/2	—	P5/8	—	
D2		8.5	9	10.5		11	12	12.5	14			15	17		18	19		20	
H2		29	30	31		32		33	34			35	36		37	38			
ℓ		53	55	57	59	30	63	62	66	71	31	70	79		43	82	44	92	87

TC40 TAP COLLET

		TC40-(D)																								
D	M	M18			M20	—	M22	—	M24	—	M27	—		M30	—		M33	—		M36	—	M39	—			
	UNC	—	3/4	—		7/8	—					1	1 1/8	—		—		1 3/8	—				1 1/2		
	PT・PF	—		P3/8	—		P1/2	—	P5/8	—				P3/4	—	P7/8	—		P1	—	P1 1/8	—				
D2		14		15	17		18	19		20		22	23		24		25	26		28		30				
H2		34		35	36		42	43				45			47			49				51				
ℓ		66	71	31	70	79	38	77	39	87	82	90	40	98	43	98	106	46	106	51	114	109				

NOTE : 1. For JIS standard taps only.
＊mark tap collet is manufactured to order.

ORDERING EXAMPLE

① TC ② 20 - ③ M5

① Holder's Name
② øD1
③ Tap Size

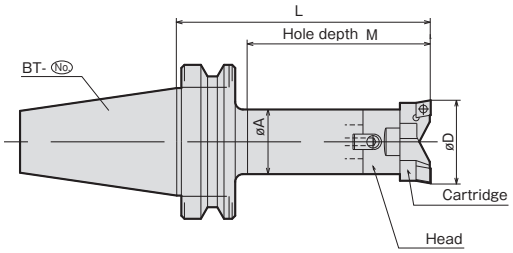
<BORING SYSTEM> TWINCUT

FEATURES P.21-26

BT№-TWCⒹMIN-Ⓛ-S

FEATURES

- Versatile modular type boring system.
- Rigidity is increased by the new coupling method and the serrated head.
- Twin blades allow heavy cutting.
- Extensions are used for deep holes.



RANGE	MODEL	CODE	SHANK	HEAD	CARTRIDGE	INSERT	L	M	φA	N/W (kg)
ø25~33	- TWC 25 - 120 - S	11710	- SBS1 - 120	HE25	CT25	WT25-079	120	85	24	1.3
ø32~45	- TWC 32 - 135 - S	11720	- SBS2 - 130	HE32	CT32	WT32-095	135	100	31	1.6
ø44~63	- TWC 44 - 135 - S	11730	- SBS3 - 135	HE44	CT44			100	42	2.0
ø62~89	- TWC 62 - 135 - S	11740	- SBS4 - 135	HE62	CT62	WT62-127		100	54	2.7
ø88~126	- TWC 88 - 165 - S	11750	- SBS5 - 165	HE88	CT88		165	130	64	4.4
ø25~33	- TWC 25 - 150 - S	14010	- SBS1 - 150	HE25	CT25	WT25-079	150	104	24	4.0
ø32~45	- TWC 32 - 165 - S	14020	- SBS2 - 165	HE32	CT32	WT32-095	165	119	31	4.2
ø44~63	- TWC 44 - 165 - S	14030	- SBS3 - 165	HE44	CT44			119	42	4.7
	- TWC 44 - 225 - S	14031	- SBS3 - 225				225	179		5.2
ø62~89	- TWC 62 - 165 - S	14040	- SBS4 - 165	HE62	CT62	WT62-127	165	119	54	5.5
	- TWC 62 - 240 - S	14041	- SBS4 - 240				240	194		6.7
	- TWC 62 - 285 - S	14042	- SBS4 - 285				285	239		7.4
ø88~126	- TWC 88 - 165 - S	14050	- SBS5 - 165	HE88	CT88		165	119	64	6.7
	- TWC 88 - 240 - S	14051	- SBS5 - 240				240	194		8.4
	- TWC 88 - 330 - S	14052	- SBS5 - 330				330	284		10.4
ø125~175	- TWC125 - 165 - S	14060	- SBS6 - 165	HE125	CT125		165	119	82	7.7
	- TWC125 - 240 - S	14061	- SBS6 - 240				240	194		10.6
	- TWC125 - 330 - S	14062	- SBS6 - 330				330	284		14.2

NOTE : 1. Inserts are sold separately.
2. Inserts are in phase with the drive key.
3. Thru-the-tool coolant type is manufacturered to orders.

ORDERING EXAMPLE

①	②	③	④	⑤
BT40	- TWC	25	- 120	- S

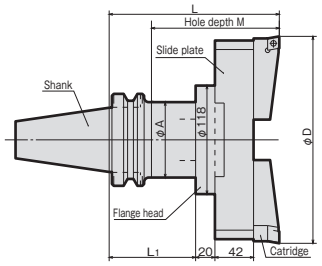
① Shank Size
② Name
③ Min. øD
④ G.L. Length
⑤ Set

ACCESSORIES P.70 INSERTS

ACCESSORIES P.74 EXTENSION · REDUCTION

FEATURES

For high stock removal with balanced blade,
for ø175~ø375mm bores.



RANGE(D)	MODEL		CODE	SHANK		FLANGE HEAD	SLIDE PLATE	CARTRIDGE	INSERT	L	M	øA	N/W (kg)
ø175~225	BT50	- TWC175 - 185 - S	14070	BT50	- SBS6 - 165	TWC - FH - 0 (TWC - FH - 90)	SP175 - 42	CT125	WT62-127	185	139	82	12.8
		- TWC175 - 260 - S	14071		- SBS6 - 240					260	214		15.8
		- TWC175 - 350 - S	14072		- SBS6 - 330					350	304		19.3
ø225~275		- TWC225 - 185 - S	14073		- SBS6 - 165		SP225 - 42			185	139		14.3
		- TWC225 - 260 - S	14074		- SBS6 - 240					260	214		17.2
		- TWC225 - 350 - S	14075		- SBS6 - 330					350	304		20.7
ø275~325		- TWC275 - 185 - S	14076		- SBS6 - 165		SP275 - 42			185	139		16.7
		- TWC275 - 260 - S	14077		- SBS6 - 240					260	214		19.7
		- TWC275 - 350 - S	14078		- SBS6 - 330					350	304		23.2
ø325~375		- TWC325 - 185 - S	14079		- SBS6 - 165		SP325 - 42			185	139		17.9
		- TWC325 - 260 - S	14080		- SBS6 - 240					260	214		20.9
		- TWC325 - 350 - S	14081		- SBS6 - 330					350	304		24.4

NOTE : 1. Inserts are sold separately.
2. Inserts are in phase with the drive key.
3. TWC-FH-90 Flange Head is used to change the phase to 90°

ORDERING EXAMPLE

① BT50 - ② TWC 3 175 - ④ 185 - ⑤ S

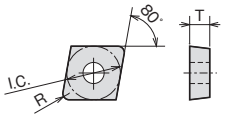
① Shank Size
② Name
③ Min. øD
④ G.L. Length
⑤ Set

ACCESSORIES for <BORING SYSTEM> TWINCUT Double-Face-Contact Shank

ACCESSORIES

INSERT for TWINCUT

TWINCUT



CODE				ISO CODE	I. C.	T	R	CARTRIDGE	SCREW	DRIVER
STEEL		CAST IRON								
WT25 - 079P	32901	WT25 - 079K	32911	CC**080304	7.94	3.18	0.4	CT25	BFTX0307	TRX10
WT32 - 095P	32902	WT32 - 095K	32912	CC**090308	9.525		0.8	CT32~44	BFTX0409N	TX215
WT62 - 127P	32903	WT62 - 127K	32913	CC**120408	12.7	4.76		CT62~125	BFTX0511N	TRX220

NOTE : 1. Inserts are available in 10 pcs boxes.

<BORING SYSTEM> FIRSTCUT

FEATURES P.21-26

NEW

BT№-FICⒹMINN-Ⓛ-S

▶▶▶ BBT Available

▶▶▶ Thru-the-tool Coolant Available

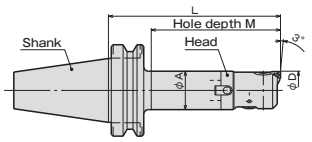


Fig. 1

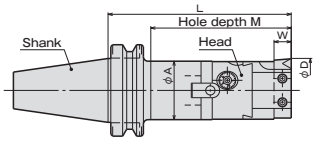


Fig. 2

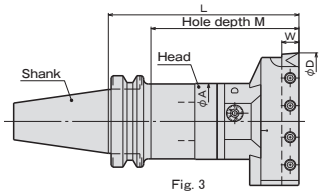


Fig. 3

RANGE D	MODEL	Fig	CODE	SHANK	HEAD	BORING TOOL	INSERT	L	M	φA	W	N/W (kg)
φ25~32	-FIC25N-130-S	1	221400	-SBS1-120	FCH25N	—	TP□□0802□□	130	95	24	—	1.2
φ32~44 6)	-FIC32N-155-S	1	221402	-SBS2-135	FCH32N	—	TP□□0802□□	155	120	31	—	1.5
φ44~57	-FIC44N-155-S	1	221404	-SBS3-135	FCH44N	—	TP□□0802□□	155	120	42	—	2.2
φ55~73	-FIC55N-150-S	1	221406	-SBS4-135	FCH55N	—	TP□□0802□□	150	115	54	—	3.0
φ70~140	-FIC70N-200-S	2	221408	-SBS5-165	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	200	165	64	□19	5.2
φ90~160	-FIC90N-215-S	2	221410	-SBS6-165	FCH90N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	215	180	83	□19	8.2
φ25~32	-FIC25N-160-S	1	251500	-SBS1-150	FCH25N	—	TP□□0802□□	160	114	24	—	4.0
φ32~44 6)	-FIC32N-185-S	1	251502	-SBS2-165	FCH32N	—	TP□□0802□□	185	139	31	—	4.5
φ44~57	-FIC44N-185-S	1	251504	-SBS3-165	FCH44N	—	TP□□0802□□	185	139	42	—	5.2
	-FIC44N-245-S	1	251506	-SBS3-225		—	TP□□0802□□	245	199		—	5.8
φ55~73	-FIC55N-180-S	1	251508	-SBS4-165	FCH55N	—	TP□□0802□□	180	134	54	—	6.1
	-FIC55N-255-S	1	251510	-SBS4-240		—	TP□□0802□□	255	209		—	7.3
	-FIC55N-300-S	1	251512	-SBS4-285		—	TP□□0802□□	300	254		—	8.1
φ70~140	-FIC70N-200-S	2	251514	-SBS5-165	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	200	154	64	□19	7.7
	-FIC70N-275-S	2	251516	-SBS5-240		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	275	229		□19	9.6
	-FIC70N-365-S	2	251518	-SBS5-330		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	365	319		□19	11.8
φ90~160	-FIC90N-215-S	2	251520	-SBS6-165	FCH90N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	215	169	83	□19	10.5
	-FIC90N-290-S	2	251522	-SBS6-240		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	290	244		□19	13.5
	-FIC90N-380-S	2	251524	-SBS6-330		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	380	334		□19	17.2
φ150~220	-FIC150N-205-S	3	251526	-SBS6-165	FCH150N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	205	159		□19	11.3
	-FIC150N-280-S	3	251528	-SBS6-240		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	280	234		□19	14.3
	-FIC150N-370-S	3	251530	-SBS6-330		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	370	324		□19	18.0
φ220~290	-FIC220N-205-S	3	251532	-SBS6-165	FCH220N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	205	159	83	□19	12.6
	-FIC220N-280-S	3	251534	-SBS6-240		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	280	234		□19	15.6
	-FIC220N-370-S	3	251536	-SBS6-330		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	370	324		□19	19.3
φ290~360	-FIC290N-205-S	3	251538	-SBS6-165	FCH290N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	205	159		□19	13.9
	-FIC290N-280-S	3	251540	-SBS6-240		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	280	234		□19	16.9
	-FIC290N-370-S	3	251542	-SBS6-330		TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	370	324		□19	20.6

FIRSTCUT HEAD

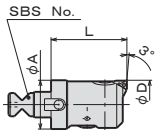


Fig. 1

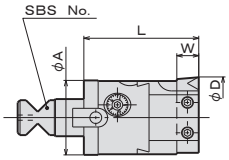


Fig. 2

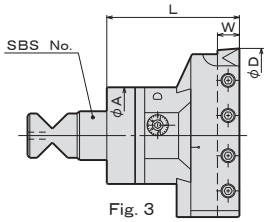


Fig. 3

RANGE D	MODEL	Fig	CODE	SLIDE DISTANCE	BORING TOOL	INSERT	SBS No.	L	φA	W	N/W (kg)
φ25~32	FCH25N	1	700130	3.5	—	TP□□0802□□	SBS1	47	24	—	0.2
φ32~44 6)	FCH32N	1	700131	5.0	—	TP□□0802□□	SBS2	57	31	—	0.4
φ44~57	FCH44N	1	700132	6.5	—	TP□□0802□□	SBS3	64	42	—	0.7
φ55~73	FCH55N	1	700133	9.0	—	TP□□0802□□	SBS4	68	54	—	1.2
φ70~140	FCH70N	2	700134	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS5	100	64	□19	2.6
φ90~160	FCH90N	2	700135	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS6	122	83	□19	4.7
φ150~220	FCH150N	3	700136	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS6	112	83	□19	5.5
φ220~290	FCH220N	3	700137	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS6	112	83	□19	6.8
φ290~360	FCH290N	3	700138	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS6	112	83	□19	8.1

NOTE : 1. Adjustable in φ0.01mm per scale.
2. Insert is in face with drive key.
3. Through the tool coolant is standard.
4. Inserts over than FIC70N are square shank tools.
5. Inserts or bites are sold separately.
6. Max. machining diameter means when installed packed spacer.
Without spacer, the max machining diameter is φ42mm.

ORDERING EXAMPLE

①	②	③	④	⑤	⑥
BT50	- FIC	70	N	- 200	- S

① Shank Size
② Holder's Name
③ Min. øD
④ New Type
⑤ G.L. Length
⑥ Set

ACCESSORIES P.73 THROWAWAY SQUARE SHANK TOOLS

ACCESSORIES P.74 EXTENSION, REDUCTION

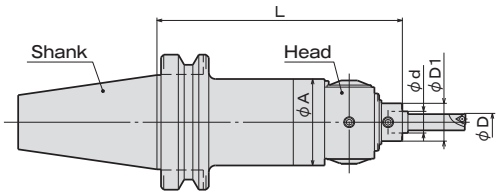
<BORING SYSTEM> FIRSTCUT
[The small diameter hole machining tool]

NEW

BT㊊-FICHEAD㊊NJ-Ⓛ-S

▶▶▶ BBT Available

▶▶▶ Thru-the-tool Coolant Available



RANGE D	MODEL		CODE	SHANK		HEAD	L	φA	φd	φ D1	DIAL CALIBRATION	COLLET	N/W (kg)
φ3~23	BT40	-FIC1NJ-151-S	221420	BT40	-SBS3-135	FCH1NJ	151	46	10	18	φ0.005	SSCP10-□	2.1
φ3~28		-FIC2NJ-180-S	221422		-SBS5-165	FCH2NJ	180	64	16	28	φ0.010	SSCP16-□	4.4
φ3~23	BT50	-FIC1NJ-181-S	251550	BT50	-SBS3-165	FCH1NJ	181	46	10	18	φ0.005	SSCP10-□	5.1
φ3~28		-FIC2NJ-180-S	251552		-SBS5-165	FCH2NJ	180	64	16	28	φ0.010	SSCP16-□	6.9

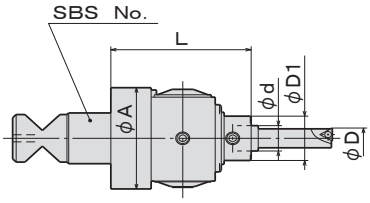
NOTE :1. Insert is in face with drive key.
2. Through the tool coolant is standard.
3. Inserts and bites and collets are sold separetely.

ORDERING EXAMPLE

① BT50 - ② FIC ③ 1 ④ NJ - ⑤ 181 - ⑥ S

① Shank Size
② Holder's Name
③ Head No.
④ New Jig Borer Type
⑤ G.L. Length
⑥ Set

FIRSTCUT HEAD [Small-hole Boring Tool]



RANGE D	MODEL	CODE	SBS No.	L	φA	φd	φD1	DIAL CALIBRATION	SLIDE DISTANCE	COLLET	N/W (kg)
φ3~23	FCH1NJ	700139	SBS3	60	46	10	18	φ0.005	2.5	SSCP10-□	0.6
φ3~28	FCH2NJ	700140	SBS5	80	64	16	28	φ0.010	3.5	SSCP16-□	1.8

NOTE : 1. Through the tool coolant is standard.
2. Inserts and bites and collets are sold separetely.

ACCESSORIES
P.73 JIG BORER TOOLS, COLLET, INSERTS

ACCESSORIES
P.74 EXTENSION, REDUCTION

THROWAWAY SQUARE SHANK TOOLS・THROWAWAY JIG BORER TOOLS

THROWAWAY SQUARE SHANK TOOLS

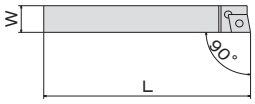


Fig. 1

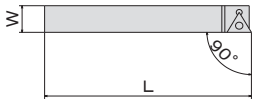
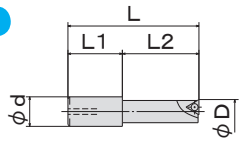


Fig. 2

MIN. RANGE D	MODEL	Fig	CODE	INSERT	W	L
70	TBS919	1	700150	CC□□1204□□	□19	140
72	TBS119C12		700152	CP□□1204□□		95
70	TSBS919	2	700154	TC□□16T3□□		140
	SBS919		700156	TP□□1603□□		

NOTE : Inserts are sold separetely.

THROWAWAY JIG BORER TOOLS

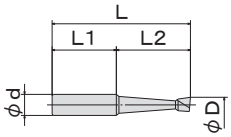


MIN. RANGE D	MODEL	CODE	L	L1	L2	φd	INSERT
8	JBM-1008	700160	50	20	30	10	CC□□03S1□□
10	-1010	700161	60		40		TP□□0802□□
12	-1012	700162	70		50		
15	-1015	700163	79	19	60		
18	-1018	700164					TP□□1102□□
8	JBM-1608	700165	65	30	35	16	CC□□0602□□
10	-1610	700166	75		45		TP□□0802□□
12	-1612	700167	85		55		
15	-1615	700168	95		65		
18	-1618	700169	96	26	70		TP□□1102□□
21	-1621	700170					

NOTE :Inserts are sold separetely.

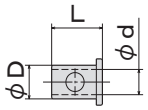
JIG BORER TOOLS・COLLET

JIG BORER TOOLS



TYPE	MIN. RANGE D	φd	L1	For Through hole MODEL	CODE	L	L1	For Blind hole MODEL	CODE	L	L1
Carbide Tool	3	8	25	101A	700341	39	14	101B	700361	39	14
	6			102A	700342	51.5	26.5	102B	700362	51.5	26.5
	10			103A	700343	65.5	40.5	103B	700363	65.5	40.5
	15			104A	700344	69	44	104B	700364	69	44
	3	12	40	151A	700345	60	20	151B	700365	60	20
	6			152A	700346	70	30	152B	700366	70	30
	10			153A	700347	75	35	153B	700367	75	35
	15			154A	700348	85	45	154B	700368	85	45

COLLET



MODEL	CODE	φd	φD	L
SCP10-6	35650	6	10	17.5
SCP10-8	35652	8		
SCP16-8	35654	8	16	25
SCP16-10	35656	10		
SCP16-12	35658	12		

THROWAWAY TIP for FIRSTCUT

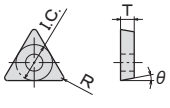


Fig. 1

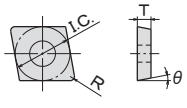


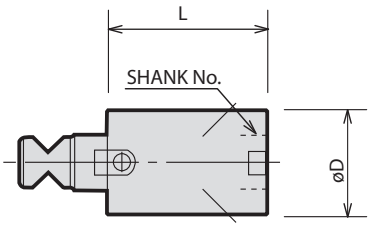
Fig. 2

STEEL MODEL	CODE	CAST IRON MODEL	CODE	SUS MODEL	CODE	ALMINIUM MODEL	CODE	DA MODEL	CODE	CBN MODEL	CODE	Fig.	ISO CODE	I.C.	T	R	θ	BORING HEAD	SCREW	DRIVER
NFT-TC16-ST	34500	NFT-TC16-CS	34508	NFT-TC16-SU	34516							1	TC**16T304	9.525	3.97	0.4		FCH70N~FCN290N	MS4011A	TRX15
NFT-CC03-ST	34501	NFT-CC03-CS	34509	NFT-CC03-SU	34517	NFT-CC03-AL	34524			NFT-CC03-BN	34532		CC**03X102	3.5	1.39	0.2		FCH1NJ	TS16	TRX6
NFT-CC06-ST	34502	NFT-CC06-CS	34510	NFT-CC06-SU	34518	NFT-CC06-AL	34525	NFT-CC06-DA	34528	NFT-CC06-BN	34533	2	CC**060202	6.35	2.38		7°	FCH2NJ		
NFT-CC12-ST	34503	NFT-CC12-CS	34511	NFT-CC12-SU	34519								CC**120404	12.7	4.76			FCH70N~FCN290N	MS5011A	TRX20
NFT-TP08-ST	34504	NFT-TP08-CS	34512	NFT-TP08-SU	34520	NFT-TP08-AL	34526	NFT-TP08-DA	34529	NFT-TP08-BN	34534	1	TP**080204	4.76	2.38	0.4	11°	FCH25N~FCH55N、FCH1NJ、FCH2NJ	CHN-20043-R	TRX6
NFT-TP11-ST	34505	NFT-TP11-CS	34513	NFT-TP11-SU	34521	NFT-TP11-AL	34527	NFT-TP11-DA	34530	NFT-TP11-BN	34535		TP**110204	6.35				FCH1NJ、FCH2NJ	CHN-25056-R	TRX8
NFT-TP16-ST	34506	NFT-TP16-CS	34514	NFT-TP16-SU	34522			NFT-TP16-DA	34531	NFT-TP16-BN	34536		TP**160304	9.525	3.18			FCH70N~FCN290N	MS4011A	TRX15
NFT-CP12-ST	34507	NFT-CP12-CS	34515	NFT-CP12-SU	34523							2	CP**120404	12.7	4.76				M4×15L(全長)	

NOTE : 1. Inserts are available in 10 pcs boxes.

EXTENSION

For deeper holes.



MODEL	CODE	SHANK No.	øD	L
TEX1 - 40	32610	1	24	40
TEX2 - 45	32620	2	31	45
TEX3 - 50	32630	3	42	50
TEX3 - 65	32631			65
TEX4 - 65	32640	4	54	65
TEX4 - 90	32641			90
TEX5 - 75	32650	5	64	75
TEX5 - 105	32651			105
TEX6 - 75	32660	6	82	75
TEX6 - 105	32661			105

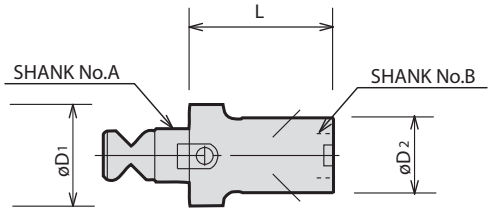
ORDERING EXAMPLE

① TEX ② 1 - ③ 40

① Name
② Shank No.
③ L

REDUCTION

For using smaller heads.



MODEL	CODE	SHANK No.A	SHANK No.B	øD1	øD2	L
RE2X1 - 60	32720	2	1	31	24	60
RE2X1 - 90	32721					90
RE3X1 - 60	32730	3		42		60
RE3X1 - 90	32731					90
RE3X2 - 60	32735		2		31	60
RE3X2 - 90	32736					90
RE4X1 - 60	32740	4	1	54	24	60
RE4X1 - 90	32741					90
RE4X2 - 60	32743		2		31	60
RE4X2 - 90	32744					90
RE4X3 - 60	32746		3		42	60
RE4X3 - 90	32747					90
RE5X2 - 60	32750	5	2	64	31	60
RE5X2 - 105	32751					105
RE5X3 - 60	32753		3		42	60
RE5X3 - 105	32754					105
RE5X4 - 60	32756		4		54	60
RE5X4 - 105	32757					105
RE6X3 - 75	32760	6	3	82	42	75
RE6X3 - 90	32761					90
RE6X4 - 75	32763		4		54	75
RE6X4 - 90	32764					90
RE6X5 - 75	32766		5		64	75

ORDERING EXAMPLE

① RE ② 2×1 - ③ 60

① Name
② Shank No. A×B
③ L

END MILL HOLDER

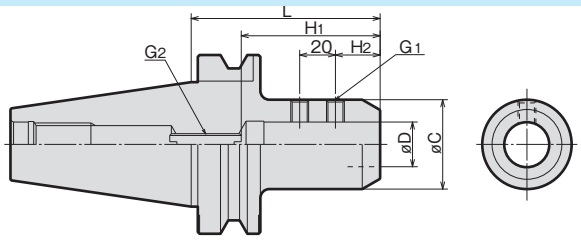
BT№-SLAⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ BBT Available

FEATURES

Run-out of the cutting tool is improved by the eccentric ID.



ORDERING EXAMPLE

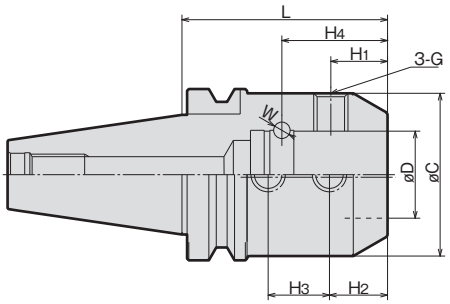
① BT30 - ② SLA ③ 20 - ④ 075

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

MODEL		øD(H6)	L	øC	H1 MIN.	H1 MAX.	H2	G1	G2	N/W (kg)
BT30 (BBT30)	-SLA20- 075	20	75	45	55	70	25	M10	M10	0.80
	-SLA25- 085	25	85							0.85
BT40 (BBT40)	-SLA6- 090	6	90	25	30	45	12	M6	M5	1.1
	-SLA8- 090	8	90	30	35	50	12	M6	M6	1.1
	-SLA10- 090	10	90	30	45	60	12	M8	M8	1.4
	-SLA12- 090	12	90	32	45	60	10	M8	M8	1.4
	-SLA16- 090	16	90	45	45	60	15	M12	M12	1.6
	150		150							2.4
	200		200							3.2
	-SLA20- 090	20	90	50	55	70	25	M12	M12	1.6
	150		150							2.8
	200		200							3.6
	-SLA25- 090	25	90	50	55	70	25	M12	M12	1.6
	150		150							2.7
	200		200							3.5
	-SLA32- 105	32	105	60	65	80	30	M12	M12	1.3
	150		150							3.5
	200		200							4.4
	-SLA40- 120	40	120	62	65	80	20	M12	M12	2.5
	-SLA42- 120	42	120	62	65	80	32	M12	M12	2.5
BT50 (BBT50)	-SLA6- 105	6	105	25	30	45	12	M6	M5	4.1
	-SLA8- 105	8	105	30	35	50	12	M6	M6	4.3
	-SLA10- 105	10	105	30	45	60	12	M8	M8	4.2
	-SLA12- 105	12	105	32	45	60	10	M8	M8	4.2
	-SLA16- 105	16	105	45	45	60	15	M12	M12	4.5
	150		150							5.0
	200		200							5.6
	250		250							6.2
	300		300							6.8
	-SLA20- 105	20	105	50	55	70	25	M12	M12	4.6
	150		150							5.3
	200		200							6.0
	250		250							6.9
	300		300							7.6
	-SLA25- 105	25	105	50	55	70	25	M12	M12	4.6
	150		150							5.3
	200		200							6.0
	250		250							6.8
	300		300							7.6
	350		350							8.1
	-SLA32- 105	32	105	60	65	80	30	M12	M12	4.9
	150		150							5.8
	200		200							6.8
	250		250							7.9
	300		300							9.1
	350		350							10.2
	400		400							11.2
	500		500							13.5
	-SLA40- 105	40	105	70	70	85	20	M16	M12	5.0
	150		150							6.3
	200		200							7.7
	250		250							9.4
	300		300							10.9
	-SLA42- 105	42	105	90	75	90	32	M16	M12	6.0
	150		150							8.2
	200		200							10.7
	250		250							13.1
	300		300							15.8
	350		350							18.3
	400		400							20.7
	500		500							25.4
	-SLA50- 120	50	120	98	75	90	35	M20	M12	7.1
	150		150							8.9
	200		200							11.8
	250		250							14.9
	300		300							17.9

NOTE : 1. For endmill of straight shank with flat.
2. Thru-the-tool application is acceptable. Please inform it when ordering.

END MILL HOLDER (For ANSI type combination shank) BT№-SLDⒹ-Ⓛ



ORDERING EXAMPLE

① BT50 - ② SLD ③ 50.8 - ④ 120

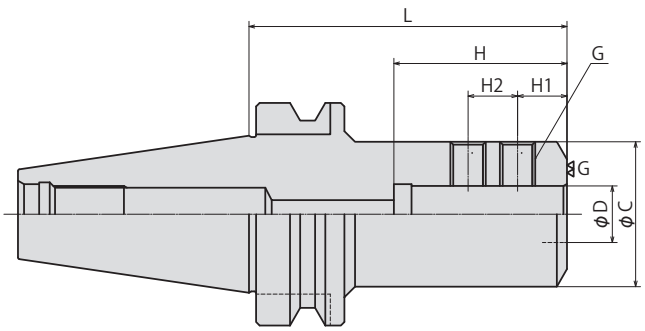
① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

MODEL		CODE	øD(H6)	L	øC	H1	H2	H3	H4	G	øW	N/W (kg)
BT50	-SLD50.8-120	13260	50.8	120	95	33.1	33.9	35.78	61.68	M20×1.5	11.18	6.6

NOTE : For ANSI combination shank endmills.

SIDE LOCK DRILL HOLDER BT№-CSLⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available



ORDERING EXAMPLE

① BT30 - ② CSL ③ 16 - ④ 060

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

MODEL		øD	L	øC	H	H1	H2	G
BT30	CSL16-060	16	60	41	49	14	14	M10
	CSL20-060	20		45	51			
	CSL25-065	25	65	47	57			
BT40	CSL16-060	16	60	41	49	14	14	M10
	CSL16-090		90					
	CSL20-060	20	60	45	51			
	CSL20-090		90					
	CSL25-060	25	60	48	57			
	CSL25-090		90			15	20	M12
	CSL32-075	32	75	61	61			
	CSL32-105		105					
	CSL40-105	40		68	71		25	M14
BT50	CSL16-040	16	40	–	49	18	–	M12
	CSL16-105		105	41		14	14	M10
	CSL16-135		135					
	CSL16-165		165					
	CSL20-040	20	40	–	51	18	–	M12
	CSL20-105		105	45		14	14	M10
	CSL20-135		135					
	CSL20-165		165					
	CSL25-040	25	40	–	57	20	–	M16
	CSL25-105		105	48		15	20	M12
	CSL25-135		135					
	CSL25-165		165					
	CSL32-040	32	40	–	61	20	–	M16
	CSL32-105		105	61		15	20	M12
	CSL32-135		135					
	CSL32-165		165					
	CSL40-050	40	50	68	71	14		M14
	CSL40-105		105			15	25	
	CSL40-135		135					
	CSL40-165		165					
	CSL50-105	50	105	83	81			M16

NOTE:1.For endmill of straight shank with flat.

MORSE TAPER HOLDER (Type A)

BT№-MTA№-L

BBT Available

FIG.1

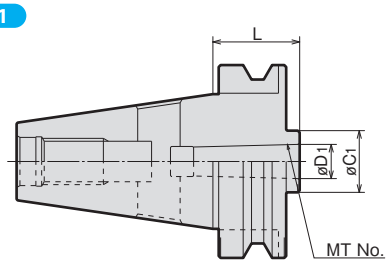
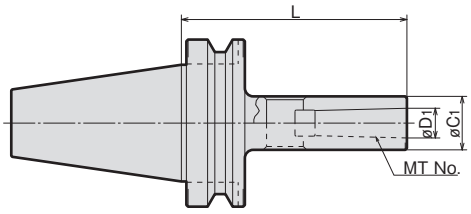


FIG.2



DRILL DIA. AND SHANK

SHANK		MT1	MT2	MT3	MT4	MT5
DRILL DIA.	以上MIN.	2.0	14.1	23.1	32.1	50.1
	以下MAX.	14.0	23.0	32.0	50.0	75.0

MODEL		FIG.	MT No.	L	øD1	øC1	N/W (kg)
BT30 (BBT30)	-MTA1-045	1	1	45	12.065	25	0.43
	-MTA2-060	1	2	60	17.780	32	0.50
	-MTA3-080	1	3	80	23.825	40	0.69
BT40 (BBT40)	-MTA1-045	1	1	45	12.065	25	1.0
	-120	2		120			1.3
	-180			180			1.6
	-MTA2-045	1	2	45	17.780	25	1.0
	-120	2		120			1.6
	-180			180			2.0
	-MTA3-075	1	3	75	23.825	25	1.0
	-135	2		135			1.7
	-180			180			2.2
	-MTA4-090	1	4	90	31.267	25	1.1
	-165	2		165			2.6
	-200			200			3.5
BT50 (BBT50)	-MTA1-045	1	1	45	12.065	25	3.7
	-120	2		120			4.0
	-180	2		180			4.3
	-200			200			4.5
	-250			250			4.7
	-300			300			4.9
	-350			350			5.1
	-MTA2-045	1	2	45	17.780	25	3.7
	-135	2		135			4.3
	-180	2		180			4.6
	-200			200			4.7
	-250			250			5.1
	-300			300			5.5
	-350			350			5.9
	-MTA3-045	1	3	45	23.825	25	3.6
	-150	2		150			4.7
	-180	2		180			4.9
	-200			200			5.2
	-250			250			5.7
	-300			300			6.2
	-350			350			6.7

MODEL		FIG.	MT No.	L	øD1	øC1	N/W (kg)
BT50 (BBT50)	-MTA4-075	1	4	75	31.267	50	3.8
	-180	2		180			5.4
	-200			200			5.7
	-250			250			6.5
	-300			300			7.3
	-350			350			8.0
	-MTA5-105	1	5	105	44.399	65	4.0
	-210	2		210			6.7
	-250			250			7.8
	-300			300			9.1
	-350			350			10.4
	-MTA6-210		6	210	63.348	90	7.0
	-278			278			10.0

NOTE : 1. For tongue type Morse taper shank cutting tools.

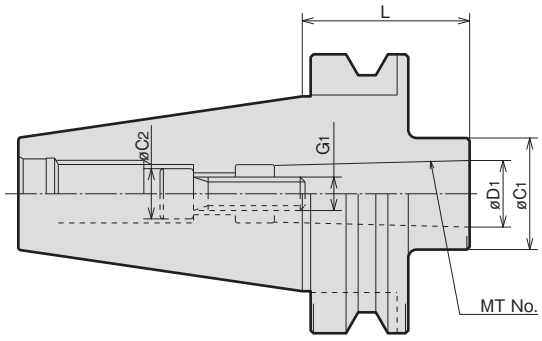
ORDERING EXAMPLE

① BT30 - ② MTA ③ 1 - ④ 045

① Shank Size
② Holder's Name
③ MT No.
④ G.L. Length

MORSE TAPER HOLDER (Type B)

BT㊊-MTB㊊-Ⓛ



MODEL		CODE	MT No.	L	øD1	øC1	øC2	G1	N/W (kg)
BT40	-MTB1-045	11167	1	45	12.065	25	10	M6	1.0
	-MTB2-045	11168	2	45	17.780	32	14	M10	1.0
BT50	-MTB1-045	13332	1	45	12.065	25	10	M6	3.6
	-MTB2-045	13334	2	45	17.780	32	16	M10	3.6
	-MTB3-060	13336	3	60	23.825	40	18	M12	3.7
	-MTB4-075	13338	4	75	31.267	50	20.5	M16	3.7

NOTE : 1. For drawing thread type Morse taper shank cutting tools.

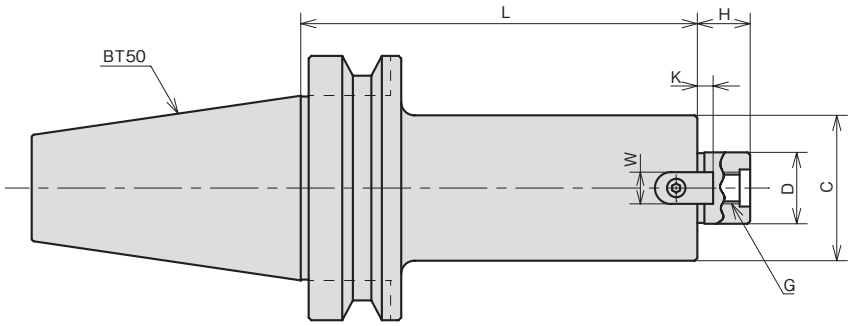
ORDERING EXAMPLE

① BT40 - ② MTB ③ 1 - ④ 045

① Shank Size
② Holder's Name
③ MT No.
④ G.L. Length

SIDE CUTTER ARBOR FOR ISCAR

BT№-FMIⒹ-Ⓛ



MODEL		D	L	C	H	W	K	G	N/W (kg)
BT50	-FMI22-105-45	22	105	45	17	10	5	M10	4.7
	-150-45		150						5.3
	-200-45		200						6.0
	-250-45		250						6.6
	-300-45		300						7.2
	-FMI27-105-55	27	105	55	20	12	6	M12	5.2
	-150-55		150						6.1
	-200-55		200						7.0
	-250-55		250						7.9
	-300-55		300						8.8
	-FMI32-105-65	32	105	65	22	14	7	M16	5.7
	-150-65		150						7.0
	-200-65		200						8.3
	-250-65		250						9.6
	-300-65		300						10.9
	-FMI40-105-80	40	105	80	26	16	8	M20	6.7
	-150-80		150						8.7
	-200-80		200						10.6
	-250-80		250						12.6
	-300-80		300						14.5

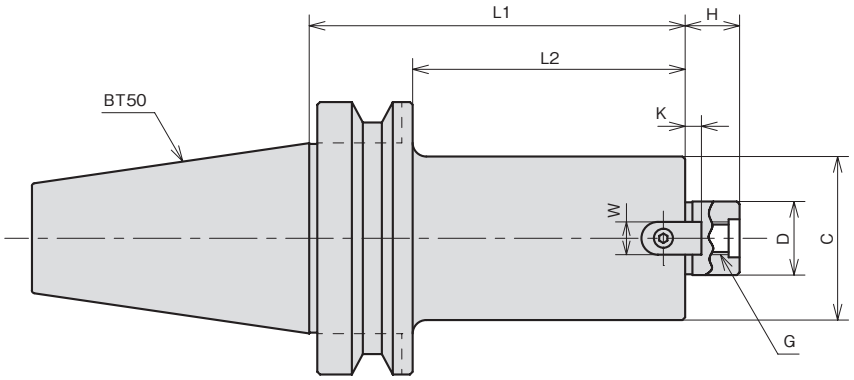
ORDERING EXAMPLE

① BT40 - ② FMI ③ 22 - ④ 105

① Shank Size
② Holder's Name
③ ΦD
④ G.L. Length

CUTTER ARBOR FOR OSG

BT№-FMOⒹ-Ⓛ



MODEL		D	L1	L2	C	H	W	K	G	N/W (kg)
BT50	-FMO25.4-138-63	25.4	138	100	60	20	9.5	5	M12	6.1
	-188-63		188	150						7.2
	-238-63		238	200						8.3
	-288-63		288	250						9.4
	-338-63		338	300						10.5
	-FMO27 -138-63	27	138	100	60	20	12	6	M12	6.1
	-188-63		188	150						7.2
	-238-63		238	200						8.3
	-288-63		288	250						9.4
	-338-63		338	300						10.5
	-FMO32 -105-80	32	105	67	77	22	14	7	M16	6.4
	-150-80		150	112						8.0
	-200-80		200	162						9.8
	-250-80		250	212						11.7
	-300-80		300	262						13.5
	-350-80		350	312						15.3
	-400-80		400	362						17.1
	-500-80		500	462						20.8

ORDERING EXAMPLE

① BT40 - ② FMO ③ 25.4 - ④ 045

① Shank Size
② Holder's Name
③ MT No.
④ G.L. Length

FACE MILL ARBOR (Type A)

BT№-FMAⒹ-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ BBT Available

FIG.1

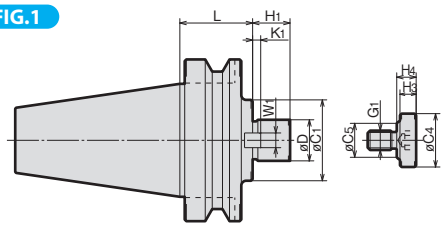


FIG.2

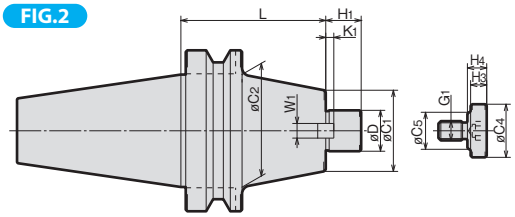


FIG.3

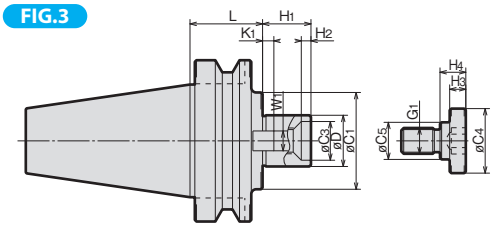


FIG.4

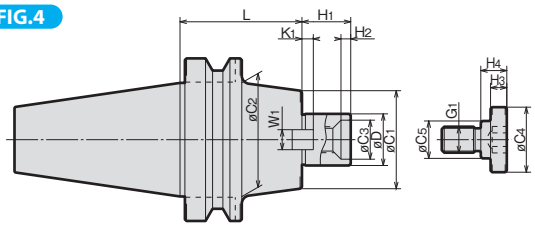


FIG.5

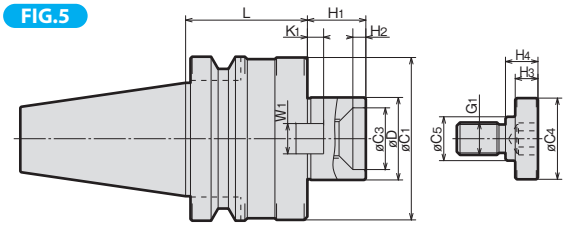
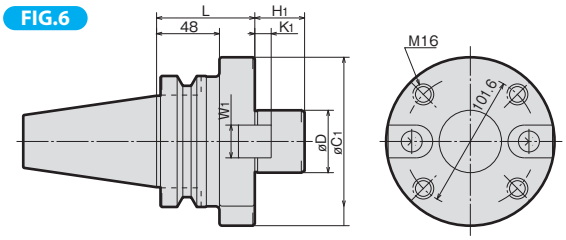


FIG.6



MODEL		FIG.	øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT30 (BBT30)	-FMA22.225-035	1	22.225	35	40	—	—	18	—	8.0	4	M8	20	15	7	9	0.57
	-FMA25.4 -035		25.4	35	50	—	—	22	—	9.5	5	M12	33	23	10	12	0.72
	-045		25.4	45	50	—	—	22	—	9.5	5	M12	33	23	10	12	1.0
	-FMA31.75 -045		31.75	45	60	—	24	22	6	12.7	7	M12	40	23	10	16	1.4
BT40 (BBT40)	-FMA25.4 -045	1	25.4	45	50	—	—	22	—	9.5	5	M12	33	23	10	12	1.5
	-060			60													1.7
	-105			105													2.6
	-150			150													3.1
	-200			200													4.5
	-FMA31.75 -045	1	31.75	45	60	—	24	30	6	12.7	7	M16	40	23	10	16	1.6
	-060			60													2.0
	-090			90													2.7
	-150			150													4.0
	-FMA38.1 -045	1	38.1	45	80	—	28	34	6	15.9	9	M20	50	27	14	20	2.1
	-060			60													2.5
	-090			90													3.3
	-FMA50.8 -045	1	50.8	45	100	—	38	36	10	19.05	10	M24	65	37	14	24	3.0
	-075			75													3.6
BT50 (BBT50)	-FMA25.4 -045	1	25.4	45	50	—	—	22	—	9.5	5	M12	33	23	10	12	4.1
	-090	2		90		70											5.0
	-105			105													5.4
	-150			150													6.4
	-200			200													7.7
	-250			250													8.8
	-300			300													9.9
	-350			350													11.0
	-400			400													12.2
	-500			500													14.6

MODEL		FIG.	øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY		G1	CLAMP BOLT				N/W (kg)
										W1	K1		øC4	øC5	H3	H4	
BT50 (BBT50)	-FMA31.75 -045	1	31.75	45	60	—	24	30	6	12.7	7	M16	40	23	10	16	4.2
	-075	2		75		70											5.1
	-105			105													5.6
	-150			150													6.7
	-200			200													8.3
	-250			250													9.6
	-300			300													10.9
	-350			350													12.2
	-400			400													13.5
	-500			500													16.1
	-FMA38.1 -045	1	38.1	45	80	—	28	34	6	15.9	9	M20	50	27	14	20	4.6
	-075			75													5.4
	-105			105													6.7
	-150			150													8.5
	-200			200													10.4
	-250			250													12.4
	-300			300													14.3
	-350			350													16.3
	-400			400													18.2
	-500			500													22.1
	-FMA50.8 -045	1	50.8	45	98	—	38	36	10	19.05	10	M24	65	37	14	24	5.0
	-075			75													6.7
	-105			105													8.5
	-150			150													11.2
	-200			200													14.1
	-250			250													17.2
	-300			300													16.2
	-350			350													18.8
	-400			400													21.5
	-500			500													24.6
	-FMA47.625-075	1	47.625	75	128.57	—	—	38	—	25.4	12.5	M16	—	—	—	—	8.3
	-105			105													11.2
	-150			150													11.8
	-200			200													14.1
	-250			250													15.9
	-300			300													17.7
	-400			400													19.5
	-500			500													21.4

NOTE : 1. Please instruct when ordering for thru-the-tool application.

ORDERING EXAMPLE

① BT30 - ② FMA ③ 25.4 - ④ 035

① Shank Size
② Name
③ øD
④ G.L. Length

FACE MILL ARBOR (Type B)

BT№-FMB Ⓓ-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ BBT Available

FIG.1

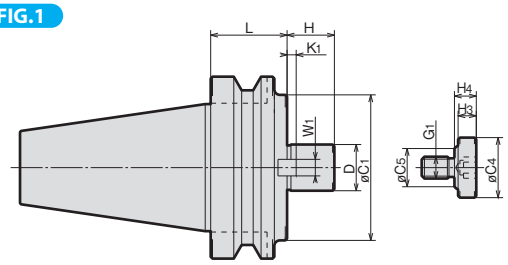


FIG.2

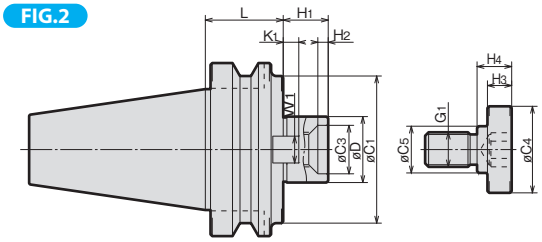


FIG.3

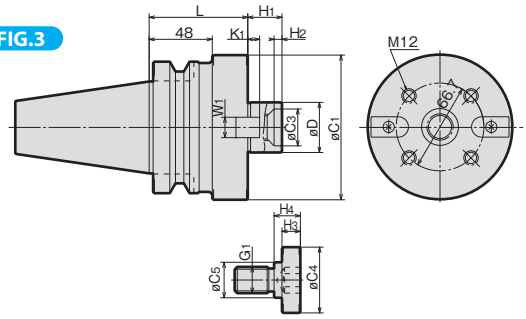
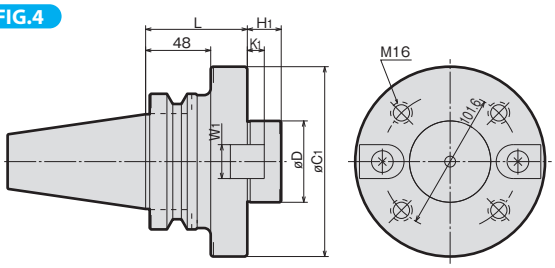


FIG.4



MODEL		FIG.	øD(h6)	L	øC1	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT40 (BBT40)	-FMB25.4 - 060	1	25.4	60	80	—	26	—	9.5	5	M12	33	23	10	12	1.3
	- 105			105												3.3
	-FMB38.1 - 060	2	38.1	60	85	28	26	6	15.9	9	M20	50	27	14	20	2.6
	-FMB27 - 060	1	27	60	80	—	26	—	12	6	M12	33	23	10	12	2.3
	- 105			105												3.3
	-FMB40 - 060	2	40	60	85	28	26	6	16	8.5	M20	50	27	14	20	2.6
BT50 (BBT50)	-FMB25.4 - 045	1	25.4	45	80	—	26	—	9.5	5	M12	33	23	10	12	4.1
	- 090			90												6.1
	- 150			150												8.3
	- 200			200												10.4
	- 250			250												12.6
	- 300			300												14.8
	- 350			350												17.0
	- 400			400												18.5
	- 500			5000												20.6
	-FMB38.1 - 045	2	38.1	45	85	28	26	6	15.9	9	M20	50	27	14	20	4.4
	- 075			75												5.7
	- 105			105												7.3
	150			150												8.9
	200			200												11.2
	250			250												13.5
	300			300												15.9
	350			350												18.2
	400			400												20.3
	500			500												24.8
	-FMB38.1F - 075	3	38.1	75	110	28	26	6	15.9	9	M20	50	27	14	20	6.6
	-FMB27 - 045	1	27	45	80	—	26	—	12	6	M12	33	23	10	12	4.1
	- 090			90												6.1
	- 150			150												8.3
	200			200												10.4
	250			250												12.6
	300			300												14.5
	350			350												16.5
	400			400												18.5
	500			500												22.6

MODEL		FIG.	øD(h6)	L	øC1	øC3	H1	H2	KEY		G1	CLAMP BOLT				N/W (kg)
									W1	K1		øC4	øC5	H3	H4	
BT50 (BBT50)	-FMB40 - 045	1	40	45	85	28	26	6	16	8.5	M20	50	27	14	20	4.5
	- 075			75												5.8
	- 105			105												7.2
	150			150												9.3
	200			200												11.6
	250			250												13.8
	300			300												16.1
	350			350												18.3
	400			400												20.7
	500			500												25.1
	-FMB40F - 075	2	40	75	108	28	26	6	16	8.5	M20	50	27	14	20	6.7
	105			105												8.5
	150			150												11.1
	200			200												14.1
	-FMB60 - 075	3	60	75	140	–	25	–	25.4	12.5	–	–	–	–	–	8.5
	105			105												9.6
	150			150												12.7
	200			200												13.9
	250			250												15.3
	300			300												17.1

NOTE : For Sandvik cutters.

ORDERING EXAMPLE

① BT40 - ② FMB ③ 25.4 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

FACE MILL ARBOR (Type C)

BT№-FMCⒹ-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ BBT Available

FIG.1

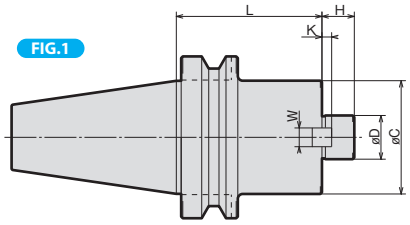
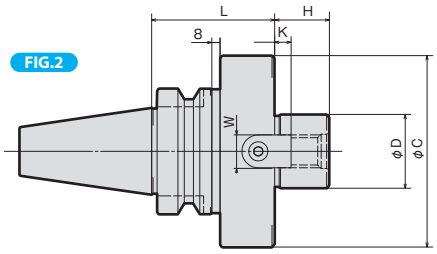


FIG.2



ORDERING EXAMPLE

① BT40 - ② FMC ③ 25.4 - ④ 060

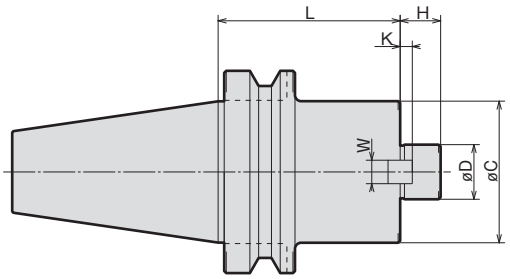
① Shank Size
② Name
③ øD
④ G.L. Length

MODEL		Fig	øD(h6)	L	øC	H	K	W	CLAMP BOLT	N/W (kg)
BT30 (BBT30)	-FMC16 -045	1	16	45	34	17	5	8	M8×25L	0.6
	-FMC22 -045		22		45	18		10	M10×30L	0.7
	-FMC27 -045	2	27		70	20	6	12	M12×35L	1.1
	-FMC32 -045		32		85	22	7	14	M16×40L	1.4
BT40 (BBT40)	-FMC25.4-060	1	25.4	60	70	20	5	9.5	M12×35L	2.0
	-105			105						3.1
	-FMC38.1-060		38.1	60	85	22	7	15.9	M16×40L	2.5
	-FMC16 -045		16	45	34	16	4	8	M8×25L	1.6
	-FMC22 -060		22	60	45	18	5	10	M10×30L	1.5
	-105			105						2.1
	-150			150						3.8
	-200			200						4.8
	-FMC27 -060	2	27	60	70	20	6	12	M12×35L	2.0
	-105			105						3.1
	-135			135						4.9
	-FMC32 -060		32	60	85	22	7	14	M16×40L	2.4
	-105			105						4.2
	-150			150						5.3
BT50 (BBT50)	-FMC25.4-045	1	25.4	45	70	20	5	9.5	M12×35L	4.1
	-090			90						5.6
	-150			150						7.3
	-200			200						9.0
	-250			250						10.3
	-300			300						12.0
	-350			350						13.6
	-FMC38.1-045		38.1	45	85	22	7	15.9	M16×40L	4.3
	-075			75						5.7
	-105			105						7.1
	-150			150						9.1
	-200			200						11.4
	-250			250						13.6
	-300			300						15.8
	-350			350						18.2
	-FMC22 -060		22	60	45	18	5	10	M10×30L	4.1
	-105			105						4.7
	-150			150						5.5
	-200			200						6.1
	-250			250						6.8
	-300			300						7.6
	-350			350						8.2
	-400			400						9.0
	-500			500						10.5
	-FMC27 -045		27	45	70	20	6	12	M12×35L	4.0
	-090			90						5.4
	-150			150						7.4
	-200			200						9.0
	-250			250						10.5
	-300			300						12.1
	-350			350						13.5
	-400			400						15.1
	-500			500						16.8
	-FMC32 -045		32	45	85	22	7	14	M16×40L	4.2
	-075			75						5.8
	-105			105						7.0
	-150			150						9.1
	-200			200						11.4
	-250			250						13.8
	-300			300						16.0
	-350			350						18.1
	-400			400						20.5
	-500			500						24.7

NOTE : For Sandvik and Seco cutters.

RADIUS MILL LONG ARBOR

BT№-FM Ⓓ-Ⓛ



	MODEL	CODE	øD(h6)	L	øC	H	K	W	CLAMP BOLT	N/W (kg)
BT50 (BBT50)	- FM22 - 200 - 050	251111	22	200	48	18	5	10	M10×30L	5.9
	- 063	251112			60					7.2
	- 250 - 050	251113		250	48					6.7
	- 063	251114			60					8.4
	- 300 - 050	251115		300	48					7.4
	- 063	251116			60					9.5
	- 350 - 050	251117		350	48					8.1
	- 063	251118			60					10.6
	- FM22.225 - 150 - 050	251141	22.23	150	47	18	4	7.6	M10×30L	5.2
	- 063	251142			60					6.1
	- 200 - 050	251143		200	47					5.9
	- 063	251144			60					7.2
	- 250 - 050	251145		250	47					6.5
	- 063	251146			60					8.4
	- 300 - 050	251147		300	47					7.2
	- 063	251148			60					9.5
	- 350 - 050	251149		350	47					7.9
	- 063	251150			60					9.5
	- FM25.4 - 200	251121	25.4	200	60	22	5	9.1	M12×35L	7.3
	- 250	251122		250						8.4
	- 300	251123		300						9.5
	- 350	251124		350						10.6
	- FM27 - 200	251161	27	200	73	20	6	12	M12×35L	9
	- 250	251162		250						10.6
	- 300	251163		300						12.3
	- FM31.75 - 150 - 080	251131	31.75	150	76	30	7	12.3	M16×35L	7.7
	- 100	251132			96					10.1
	- 200 - 080	251133		200	76					9.5
	- 100	251134			96					12.9
	- 250 - 080	251135		250	76					11.3
	- 100	251136			96					15.8
	- 300 - 080	251137		300	76					13.1
	- 100	251138			96					18.6

ORDERING EXAMPLE

① BT50 - ② FM ③ 22 - ④ 200

① Shank Size
② Name
③ øD
④ G.L. Length

FACE MILL ARBOR (Type H)

NEW

BT№-FMHⒹ-Ⓒ1-L

BBT Available

FIG.1

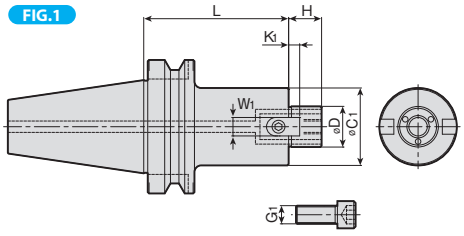
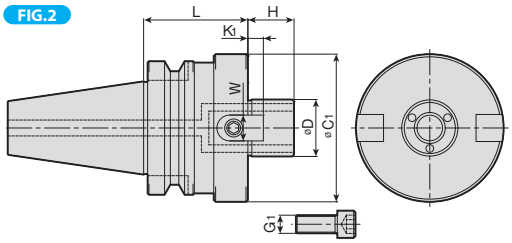


FIG.2



MODEL				CODE	FIG.	ΦD(h6)	L	ΦC1	H	W1	K1	G1	Vertical hole
BT30 (BBT30)	FMH16	-29	-35	10014	1	16	35	29	16	8	5	M8×30	3-φ2 P.C.D.φ12
		-37	-35	10016		16	35	37	16	8	5		
	FMH22	-47	-40	10018	2	22	40	47	18	10	5	M10×30	3-φ3 P.C.D.φ16
BT40 (BBT40)	FMH16	-29	-60	11940	1	16	60	37	16	8	5	M8×30	3-φ2 P.C.D.φ12
			-105	11942			105						
	FMH16	-37	-60	11944		16	60	37	16	8	5	M8×30	
			-105	11946			105						
	FMH22	-47	-60	11948		22	60	47	18	10	5	M10×30	3-φ3 P.C.D.φ16
			-105	11950			105						
	FMH22	-60	-60	11952			60	60	18	10	5	M10×30	
			-105	11954			105						
	FMH27	-60	-60	11956		27	60	60	20	12	6	M12×35	3-φ3.5 P.C.D.φ19.5
			-105	11958			105						
BT50 (BBT50)	FMH16	-29	-60	14540		16	60	29	16	8	5	M8×30	3-φ2 P.C.D.φ12
			-105	14541			105						
			-150	14542			150						
	FMH16	-37	-60	14543			60	37					
			-105	14544			105						
			-150	14545			150						
			-200	14546			200						
	FMH22	-47	-60	14547		22	60	47	18	10	5	M10×30	3-φ3 P.C.D.φ16
			-105	14548			105						
			-150	14549			150						
			-200	14550			200						
			-250	14551			250						
	FMH22	-60	-60	14552			60	60					
			-105	14553			105						
			-150	14554			150						
			-200	14555			200						
			-250	14556			250						
	FMH25.4	-60	-60	14557		25.4	60	60	22	9.5	5	M12×35	3-φ3.5 P.C.D.φ18.5
			-105	14558			105						
			-150	14559			150						
	FMH27	-60	-60	14560		27	60	60	20	12	6		3-φ3.5 P.C.D.φ19.5
			-105	14561			105						
			-150	14562			150						
			-200	14563			200						
			-250	14564			250						
	FMH27	-76	-60	14565			60	76					
			-105	14566			105						
			-150	14567			150						
			-200	14568			200						
			-250	14569			250						
	FMH31.75	-76	-60	14570		31.75	60	76	30	12.7	7	M16×35	3-φ4 P.C.D.φ24
			-105	14571			105						
			-150	14572			150						
			-200	14573			200						
			-250	14574			250						
	FMH31.75	-96	-60	14575			60	96					
			-105	14576			105						
			-150	14577			150						

NOTE :1. Face Mill Arbor for cutters with OH hole.
2. Clamp bolt for fastening cutter is included.
3. When included clamp bolt (M12, M16) does not fit, please choose suitable MBH-M12, M16 bolt from the clamp bolt list on page 84

ORDERING EXAMPLE

① BT50 - ② FMH 27 - ③ 60 - ④ 60 - ⑤

① Shank Size
② Holder's Name
③ øD
④ øC1
⑤ G.L. Length

ACCESSORIES for FACE MILL ARBOR

CLAMP BOLT FOR FACE MILL ARBOR

FIG.1

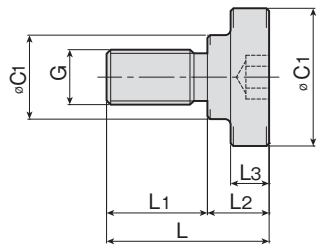
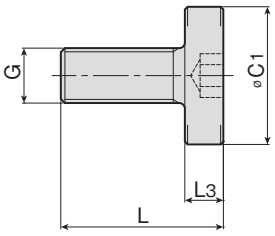


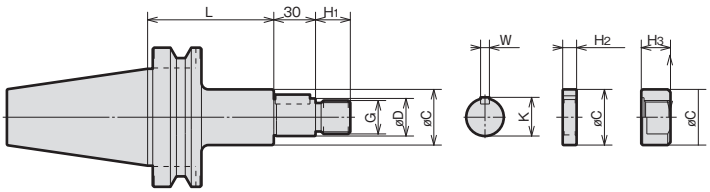
FIG.2



MODEL	CODE	FIG.	øC1	øC2	L	L1	L2	L3	G	ARBOR CODE
MBA - M 8	49771	1	20	15	23	14	9	7	M 8×P1.25	FMA22.225 SMA16
MBA - M10	49772		28	18	27	16	11	9	M10×P1.5	SMA22 SMB22.225
MBA - M12	49773		33	23	30	18	12	10	M12×P1.75	FMA,B25.4 FMB27 SMA27
MBA - M16	49774		40	23	40	24	16	10	M16×P2.0	FMA31.75 SMA32 SMB31.75
MBA - M20	49775		50	27	50	30	20	14	M20×P2.5	FMA,B38.1 FMB40 SMA40 SMB38.1
MBA - M24	49776		65	37	59	35	24	14	M24×P3.0	FMA50.8
MBH - M12	49691	2	33	—	38	—	—	10	M12×P1.75	FMH25.4 FMH27
MBH - M16	49692		40	—	45	—	—	10	M16×P2.0	FMH31.75

SIDE CUTTER ARBOR

BT№-SCAⒹ-Ⓛ



MODEL		CODE	øD(h6)	L	øC	G	H1	H2	H3	K	W	N/W (kg)
BT40	-SCA12.7 -060	11092	12.7	60	20	M12×1.25	15	5 10 20	12	◇	◇	1.2
	-SCA15.875-075	11094	15.875	75	26	M14×1.5	16		13	17.42	3.18	1.4
	-SCA22.225-075	11098	22.225	75	34	M20×1.5	21		18	23.82		1.7
	-SCA25.4 -075	11100	25.4	75	40	M24×2	25		21	27.78	6.35	2.0
	-120	11102		120								2.5
	-SCA31.75 -090	11104	31.75	90	46	M30×2	30		26	34.92	7.92	2.6
BT50	-SCA12.7 -075	13212	12.7	75	20	M12×1.25	15	5 10 20	12	◇	◇	3.9
	-105	13214		105								4.0
	-SCA15.875-090	13216	15.875	90	26	M14×1.5	16		13	17.42	3.18	4.0
	-120	13218		120								4.2
	-SCA22.225-090	13220	22.225	90	34	M20×1.5	21		18	23.82		4.5
	-135	13222		135								4.7
	-SCA25.4 -090	13224	25.4	90	40	M24×2	25		21	27.78	6.35	4.7
	-135	13226		135								5.1
	-SCA31.75 -090	13228	31.75	90	46	M30×2	30		26	34.92	7.92	5.1
	-135	13230		135								5.7
	-SCA38.1 -090	13232	38.1	90	55	M36×3	36		31	42.06	9.52	5.8
	-135	13234		135								6.7

ORDERING EXAMPLE

① BT40 - ② SCA ③ 12.7 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

SHELL MILL ARBOR (Type A)

BT№-SMAⒹ-Ⓛ

FIG.1

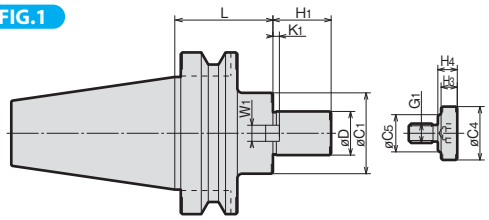


FIG.2

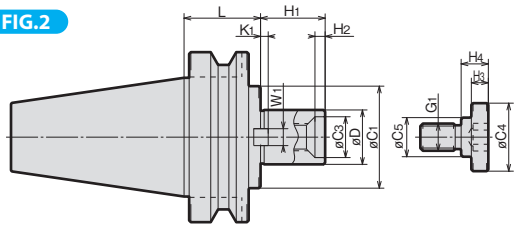


FIG.3

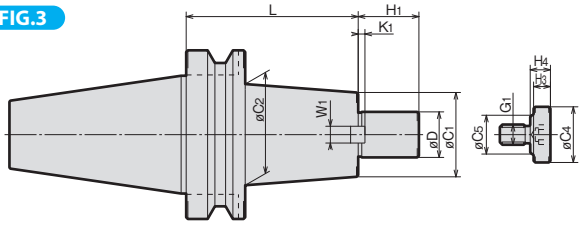
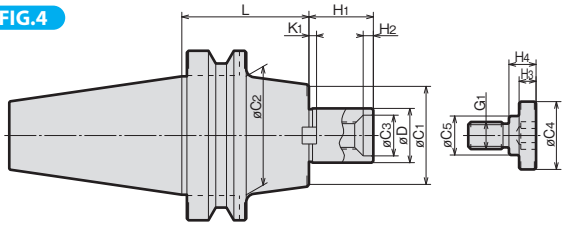


FIG.4



MODEL		FIG.	øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT40	-SMA16-060	1	16 (15.875)	60	34	—	—	17	—	8	3	M8	20	15	7	9	1.3
	-120			120													1.7
	-SMA22-060	1	22 (22.225)	60	42	—	—	27	—	8	3.5	M10	28	18	9	11	1.5
	-120			120													2.1
	-SMA27-045	1	27 (25.4)	45	50	—	—	36	—	10	4	M12	33	23	10	12	1.5
	-105			105													2.4
	-SMA32-045	3	32 (31.75)	45	60	—	24	38	6	10	4.5	M16	40	23	10	16	1.7
	-090			90													2.7
BT50	-SMA16-075	1	16 (15.875)	75	34	—	—	17	—	8	3	M8	20	15	7	9	4.1
	-120			120													4.4
	-150			150													4.8
	-200			200													5.2
	-SMA22-075	1	22 (22.225)	75	42	—	—	27	—	8	3.5	M10	28	18	9	11	4.3
	-120			120													4.8
	-150			150													5.1
	-180			180													5.5
	-200			200													5.7
	-250			250													6.3
	-300			300													6.9
	-350			350													7.3
	-400			400													8.0
	-SMA27-060	1	27 (25.4)	60	50	—	—	36	—	10	4	M12	33	23	10	12	4.3
	-105	2		105		60											5.2
	-150			150													6.0
	-200			200													7.2
	-250			250													8.0
	-300			300													9.1
	-350			350													10.3
	-400			400													11.5

MODEL		FIG.	øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT50	-SMA32 -045	1	32 (31.75)	45	60	—	24	38	6	10	4.5	M16	40	23	10	16	4.2
	-075	2		75		70											5.1
	-105			105													5.9
	-150			150													7.1
	-200			200													8.5
	-250			250													9.8
	-300			300													11.1
	-350			350													12.6
	-400			400													13.9
	-SMA40 -045	1	40 (38.1)	45	80	—	28	38	6	12	5	M20	50	27	14	20	4.3
	-075			75													5.5
	-SMA15.875-075	1	15.875	75	34	—	—	17	—	8	3	M8	20	15	7	9	4.2
	-120			120													5.8
	-165			165													7.4
	-SMA22.225-150	1	22.225	150	42	—	—	27	—	8	3.5	M10	28	18	9	11	5.2
	-200			200													5.8
	-250			250													6.4
	-300			300													7.0
	-350			350													7.6
	-400			400													8.2
	-SMA25.4 -060	1	25.4	60	50	—	—	36	—	10	4	M12	33	23	10	12	4.3
	-105	2		105		60											5.2
	-150			150													6.1
	-200			200													7.1
	-250			250													8.0
	-300			300													8.9
	-350			350													10.0
	-400			400													11.1
	-SMA31.75 -045	1	31.75	45	60	—	24	38	6	10	4.5	M16	40	23	10	16	4.2
	-075	2		75		70											5.2
	-105			105													5.9
	-150			150													7.2
	-200			200													7.8
	-250			250													9.8
	-300			300													11.2
	-350			350													12.5
	-400			400													13.8
	-SMA38.1 -150	1	38.1	150	80	—	28	38	6	12	5	M20	50	27	14	20	9.0
	-200			200													10.9
	-250			250													12.8
	-300			300													14.9
	-350			350													16.8
	-400			400													18.0

NOTE : Arbors in ( ) for cutters in inches are in stock.

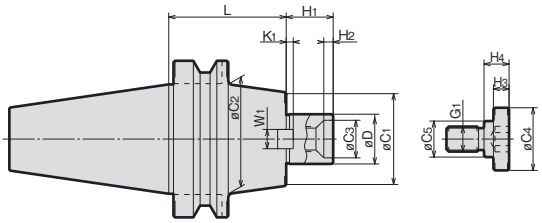
ORDERING EXAMPLE

① BT40 - ② SMA ③ 16 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

SHELL MILL ARBOR (Type B)

BT№-SMBⒹ-Ⓛ



MODEL		øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT40	-SMB22.225-060	22.225	60	45	—	—	17	—	8	3.5	M10	28	18	9	11	1.5
	-SMB31.75 -045	31.75	45	60	—	24	30	6	12.7	4.5	M16	40	23	10	16	1.6
	-SMB38.1 -060	38.1	60	80	—	28	36	6	15.9	5	M20	50	27	14	20	2.6
BT50	-SMB22.225-060	22.225	60	45	—	—	17	—	8	3.5	M10	28	18	9	11	4.1
	-120		120													4.8
	-180		180													5.6
	-200		200													5.6
	-250		250													5.6
	-300		300													5.6
	-350		350													5.6
	-SMB31.75 -045	31.75	45	60	—	24	30	6	12.7	4.5	M16	40	23	10	16	4.1
	-075		75		70											4.8
	-105		105													5.6
	-150		150													5.6
	-200		200													5.6
	-250		250													5.6
	-300		300													5.6
	-350		350													5.6
	-400		400													5.6
	-SMB38.1 -045	38.1	45	80	—	28	36	6	15.9	5	M20	50	27	14	20	4.4
	-075		75													5.6
	-150		150													5.6
	-200		200													5.6
	-250		250													5.6
	-300		300													5.6
	-350		350													5.6
	-400		400													5.6

NOTE : For shell endmill with brazed T/C tips.

ORDERING EXAMPLE

① BT40 - ② SMB ③ 38.1 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

SHELL MILL ARBOR (Type C)

BT№-SMCⒹ-Ⓛ

FIG.1

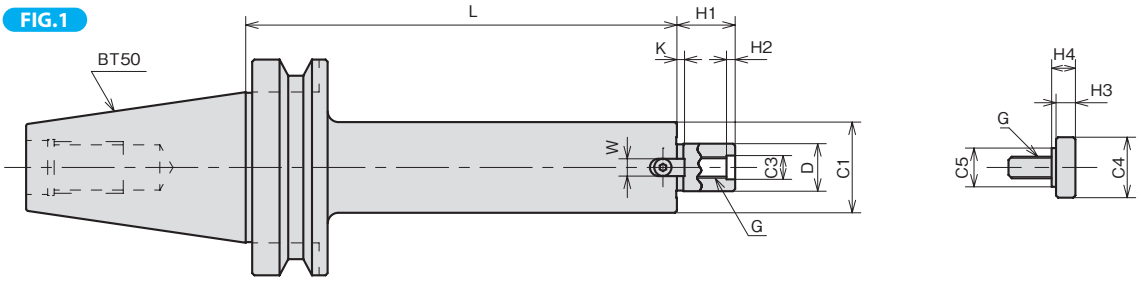
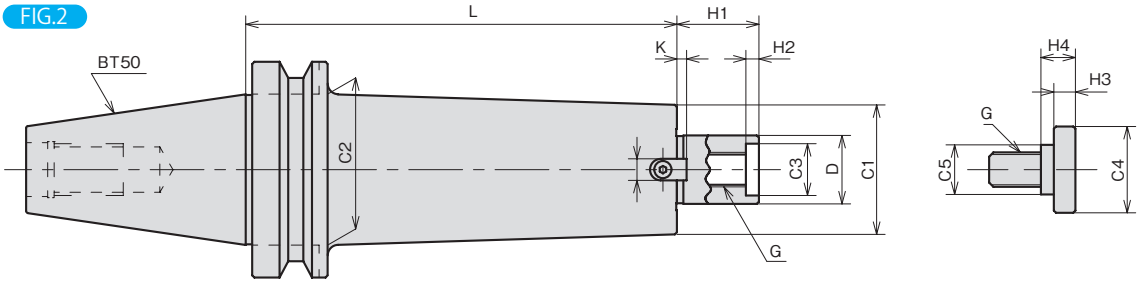


FIG.2



MODEL		øD(h6)	L	øC1	øC2	øC3	H1	H2	KEY W1	KEY K1	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
BT50	-SMC19.05 -060	19.05	60	40	—	—	16	—	8	3.5	M10	28	18	9	11	4.1
	-120		120		45											4.8
	-180		180													5.6
	-SMC31.75 -045	31.75	45	60	—	24	18	6	12.7	4.5	M16	40	23	10	16	4.2
	-075		75		70											5.2
	-105		105													6.2
	-150		150													7.8
	-200		200													9.5
	-250		250													11.2
	-300		300													12.9
	-350		350													14.6
	-SMC38.1 -045	38.1	45	80	—	28	24	6	15.9	5	M20	50	27	14	20	4.3
	-075		75													5.5
	-150		150													8.5
	-200		200													10.5
	-250		250													12.6
	-300		300													14.5
	-350		350													18.6
	-400		400													18.8

NOTE : For shell endmill with brazed T/C tips.

ORDERING EXAMPLE

① BT40 - ② SMC ③ 19.05 - ④ 060

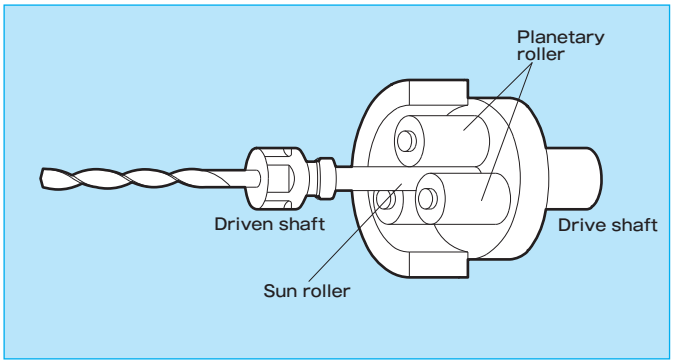
① Shank Size
② Name
③ øD
④ G.L. Length

TRACTION DRIVE SPEED ACCELERATOR

FEATURES P.15-18
BT㊊-TDU㊊

Traction drive (TD) speeder is an A.T.C. type speed accelerator, which employs planetary rollers and is co-developed and introduced to the market by Koyo Seiko and **SHOWA** for the first time in the world.

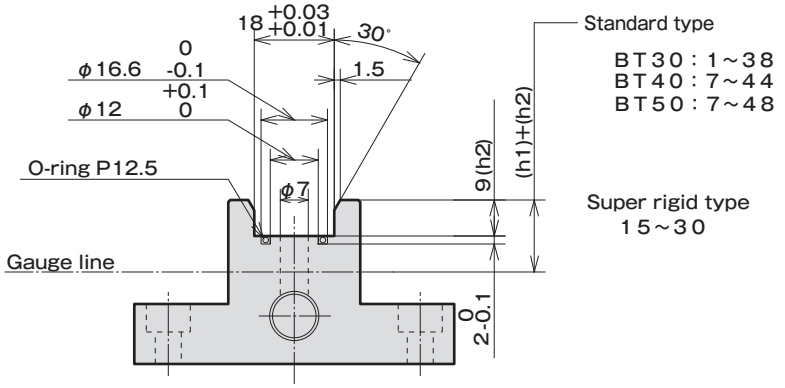
PATENTED

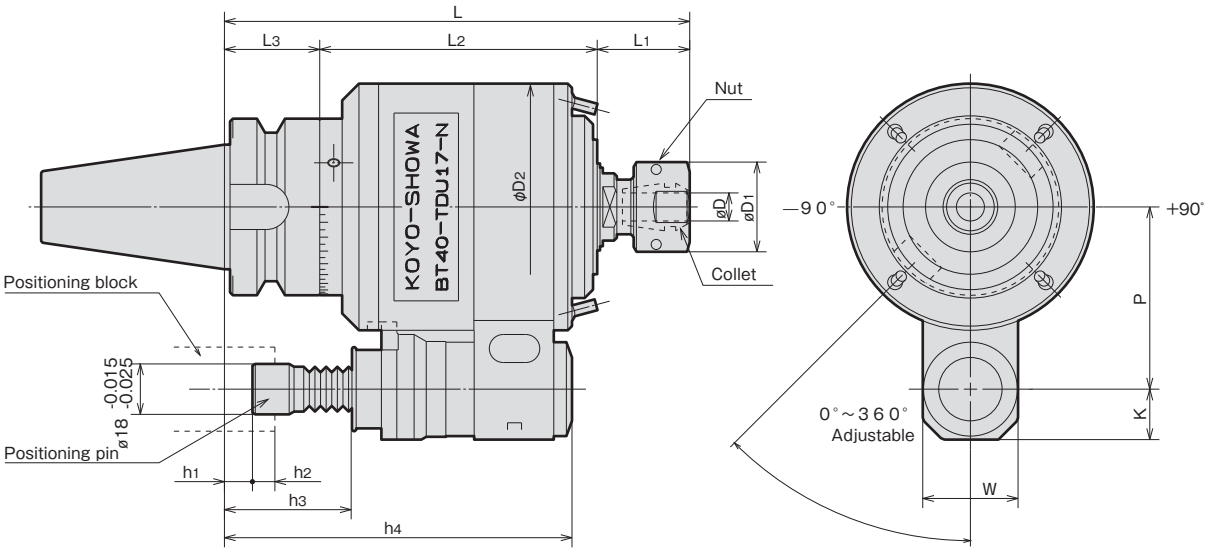


FEATURES

- 30,000min-1 is obtainable on normal M/C.
- High and stable torgue transmission enables small diameter drilling and endmilling, as well as deep grooving.
- Capable even for grinding on M/C, with minimum vibration and noise.
- Compact and light weight A.T.C. type.
- Broadly adjustment Positioning Pin "One-touch" adjustment, and a height range of 40 mm.

POSITIONING BLOCK





ORDERING EXAMPLE

① BT50 - ② TDU ③ 17-N

① Shank Size
② Name
③ Type

STANDARD TYPE

MODEL		CODE	SPEED RATIO	MAX. (min⁻¹)	L	L1	L2	L3	øD	øD1	øD2	h1	h2	h3	h4	P	K	W	N/W (kg)	MAX. POWER (kw)	STATIC RIGIDITY (N/μm)	COLLET (AA GRADE)	NUT CODE
BT30	-TDU17-N	10180	1:6	30,000	159	31	100	28	0.5 ~10	30	88	-6 ~29	7 ~9	39.5 ~ 42.5	118	65	18	34	4.3	3.1	8.8	CR10-(D)	RSN10NB
BT40	-TDU17-N	11496	1:6	30,000	165	31	100	34	0.5 ~10	30	88	-4 ~35	7 ~9	45.5 ~ 48.5	124	65	18	34	5.4	3.1	9.8	CR10-(D)	RSN10NB
BT50	-TDU17-N	13896	1:6	30,000	169	31	100	38	0.5 ~10	30	88	0 ~39	7 ~9	49.5 ~ 52.5	128	80	18	34	7.9	3.1	12.7	CR10-(D)	RSN10NB

SUPER RIGID TYPE

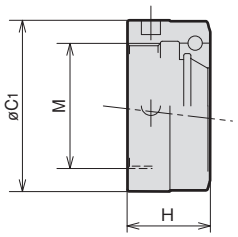
MODEL		CODE	SPEED RATIO	MAX. (min⁻¹)	L	L1	L2	L3	øD	øD1	øD2	h1	h2	h3	h4	P	K	W	N/W (kg)	MAX. POWER (kw)	STATIC RIGIDITY (N/μm)	COLLET (AA GRADE)	NUT CODE
BT50	-TDU40	13894	1:3.4	12,000	200	42	120	38	1.5 ~20	50	120	6 ~21	9	15 ~30	112	80	22	37	11.5	8.8	30.4	CR20-(D)	RSN20NB

ACCESSORIES for TRACTION DRIVE SPEED ACCELERATOR

ACCESSORIES

NUT FOR TAP HOLDER FOR SYNCHRONIZED MACHINE & TRACTION DRIVE SPEED ACCELERATOR

RSN№NB

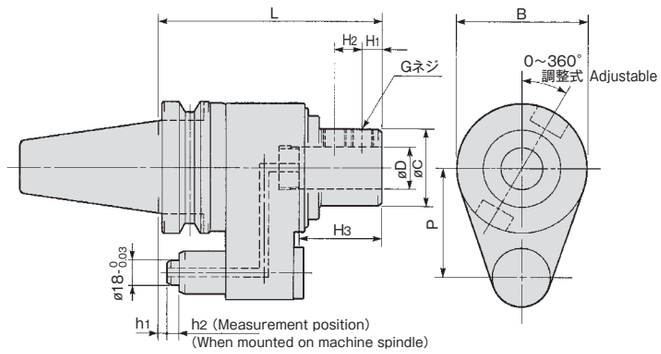


CODE		M	øC1	H	TDU No.
RSN10NB	30898	21×1.0	30	15.5	(TDU17)
RSN20NB	30899	40×1.0	50	17.5	(TDU40)

ACCESSORIES P.53 COLLETS

ACCESSORIES P.57 CHUCK WRENCH

OIL-HOLE ADAPTER (Set Screw Type) BT№-OH-SLⒹ-Ⓛ



CUTTING CONDITIONS		
	Standard (STD)	Ordered (H)
MAX.RPM	1500min^{-1}	3000min^{-1}
MAX.COOLANT PRESSURE	0.5MPa	2.0MPa

MODEL		CODE	øD	L	øC	H1	H2	H3	G	B	P
BT40	-OH-SL16-150	11426	16	150	38	25	–	45	M12×1.5	80	65
	-SL20-150	11428	20				–				
	-SL25-150	11430	25		43	15	20	55			
	-SL32-165	11432	32	165	53	13	18	60		92	
BT50	-OH-SL16-165	13842	16	165	40	25	–	45	M12×1.5	98	80
	-SL20-165	13844	20				–				
	-SL25-165	13846	25		48	15	20	55	M16×1.5		82
	-SL32-165	13848	32		58			60			85
	-SL40-165	13850	40		63					105	

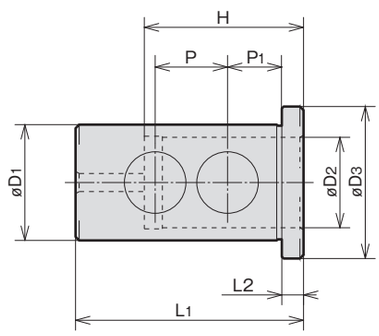
NOTE : 1. When ordering, please inform h1and h2 dimensions, which differ depending on machine maker and model.

ORDERING EXAMPLE

① BT40 - ② OH-SL ③ 16 - ④ 150

① Shank Size
② Name
③ Cutter's Shank Dia.
④ G.L. Length

STRAIGHT SLEEVE OH-SLⒹ1-Ⓓ2



CODE		øD1	øD2	øD3	L1	L2	P	P1	H	N/W (kg)
OH-SL20-16	17712	20	16	30	48	6	–	25	44	0.07
OH-SL25-16	17716	25	16	35	58	6	20	15	44	0.19
-20	17718		20							0.15
OH-SL32-16	17722	32	16	42	63	6	20	15	44	0.35
-20	17724		20							0.32
-25	17726		25						54	0.22
OH-SL40-16	17732	40	16	50	63	6	20	15	40	0.57
-20	17734		20							0.54
-25	17736		25						54	0.45
-32	17738		32							0.30

ORDERING EXAMPLE

① OH-SL ② 20 - ③ 16

① Name
② øD1
③ øD2

OIL-HOLE ADAPTER (Morse taper Type) BT№-OH-MT№-Ⓛ

FIG.1

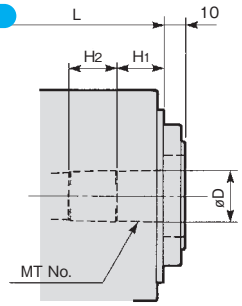
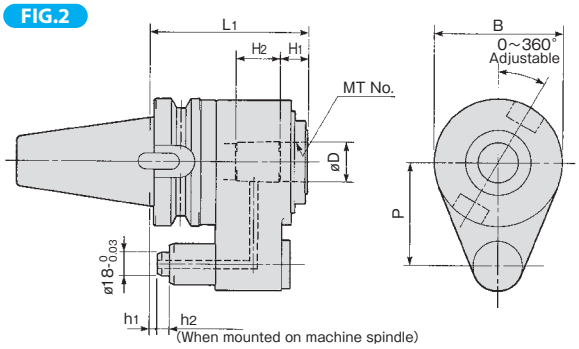


FIG.2



MODEL		CODE	FIG.	MT No.	øD	L	H1	H2	B	P
BT40	-OH-MT3-105	11422	2	MT3	23.825	105	21	22	80	65
	-MT4-120	11424	2	MT4	31.267	120	21	34		
BT50	-OH-MT3-110	13832	1	MT3	23.825	110	21	22	98	80
	-MT4-120	13834	2	MT4	31.267	120	21	34		82
	-MT5-135	13836	2	MT5	44.399	135	40	45		85

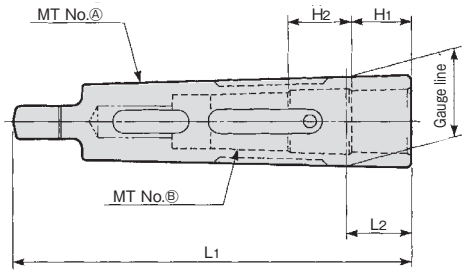
NOTE : When ordering, please inform h1and h2 dimensions, which differ depending on machine maker and model.

ORDERING EXAMPLE

① BT40 - ② OH-MT ③ 3 - ④ 105

① Shank Size
② Name
③ MT No.
④ G.L. Length

MT SLEEVE OH-MT№Ⓐ-Ⓑ



CODE		MT No. Ⓐ	MT No. Ⓑ	L1	L2	H1	H2	N/W (kg)
OH-MT4-3	17706	4	3	140	22.5	21	22	0.37
OH-MT4-2	17704		2	124	6.5	17	20	0.42
OH-MT3-2	17702	3	2	112	18	17	20	0.17

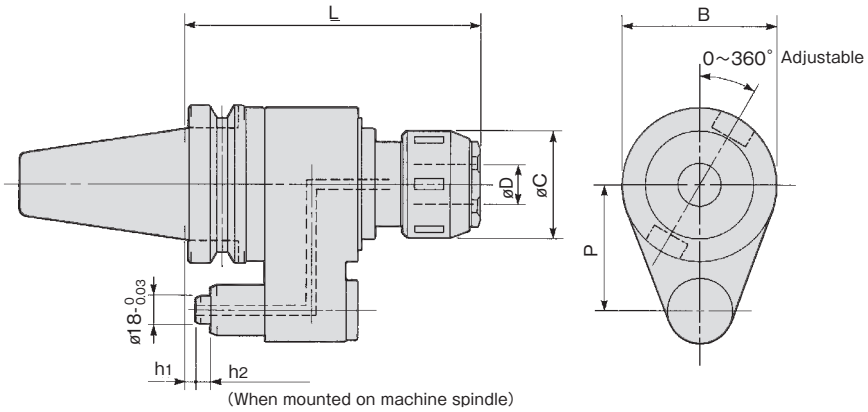
ORDERING EXAMPLE

① OH-MT ② 4 - ③ 3

① Name
② MT No.A
③ MT No.B

OIL-HOLE HARD CHUCK

BT№-OH-CTHⒹ-Ⓛ



CUTTING CONDITIONS	
MAX.RPM	3000min^{-1}
MAX.COOLANT PRESSURE	2.0MPa

MODEL		CODE	øD	øC	L	B	P
BT50	-OH-CTH16-170	13851	16	52	170	98	80
	-CTH25-185	13852	25	68	185	98	
	-CTH32-195	13854	32	83	195	120	

NOTE : When ordering, please inform h1and h2 dimensions, which differ depending on machine maker and model.

ACCESSORIES P.47 COLLETS

ACCESSORIES P.49 CHUCK WRENCH

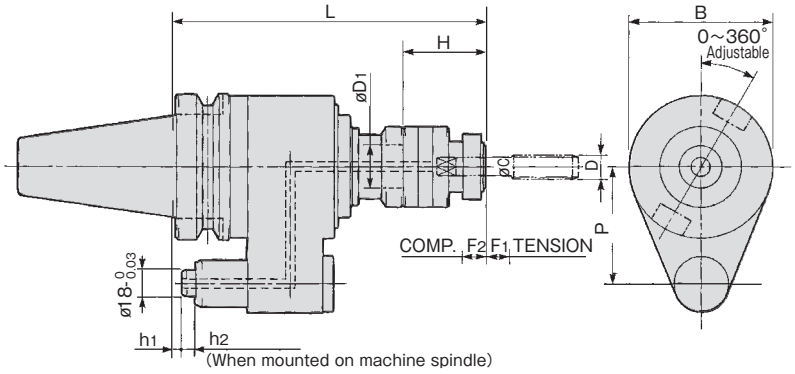
ORDERING EXAMPLE

① BT50 - ② OH-CTH ③ 16 - ④ 170

① Shank Size
② Name
③ Cutter's Shank Dia.
④ G.L. Length

OIL-HOLE TAP HOLDER

BT№-OH-TPCⒹ1-Ⓛ



CUTTING CONDITIONS	
MAX.COOLANT PRESSURE	2.0MPa

MODEL		CODE	øD1	L	H	B	P	F1	F2	D	TAP COLLET CODE
BT40	-OH-TPC20-207	11288	20	207	45	92	65	15	15	M 4~M14	OH-TCC20-Ⓓ
	-TPC29-217	11289	29	217	55					M12~M27	OH-TCC29-Ⓓ
BT50	-OH-TPC20-200	13592	20	200	45	98	80	15	15	M 4~M14	OH-TCC20-Ⓓ
	-TPC29-210	13594	29	210	55		82			M12~M27	OH-TCC29-Ⓓ
	-TPC40-260	13596	40	260	75	120	85	20	20	M18~M39	OH-TCC40-Ⓓ

NOTE : When ordering, please inform h1and h2 dimensions, which differ depending on machine maker and model.

ACCESSORIES P.66 TAP COLLETS

ORDERING EXAMPLE

① BT40 - ② OH-TPC ③ 20 - ④ 207

① Shank Size
② Name
③ øD1
④ G.L. Length

ANGLE JET（Angle Head Holder）

**With the new mechanism "the coolant unit ",
the thru-the-coolant from the spindle can be supplied
directly to the cutting edge.**

FEATURES

Perfectly suitable for spindle through coolant

"Coolant unit"has made it possible to deliver coolant internally starting from the spindle to the point of cutting tool which was impossible before.

Various applications to use

Angle-Jet can make full use of it's performance not only in drilling but in various types of machining such as tapping and milling.

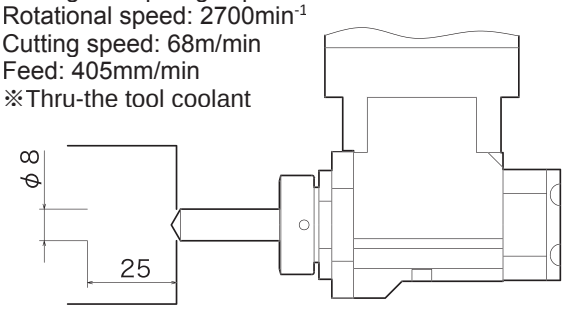
Specifications

Max.revolution：4,000min
Coolant pressure：MAX2.0Mpa
Gear raito：1:1
Allowable transmittal torque：5.8N・m
Collet systems：CR10、CR16、CR20
Run-out：4×D point 0.02mm
Universal position of 360°

Mashining Conditions

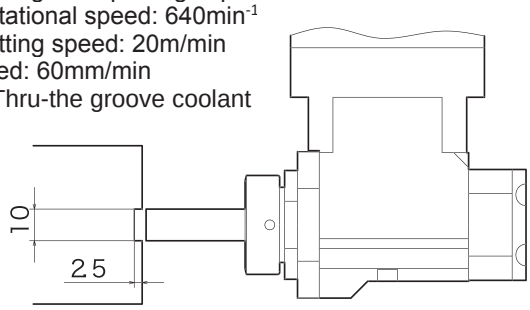
BBT40-AGCT-RSC16-190AJ

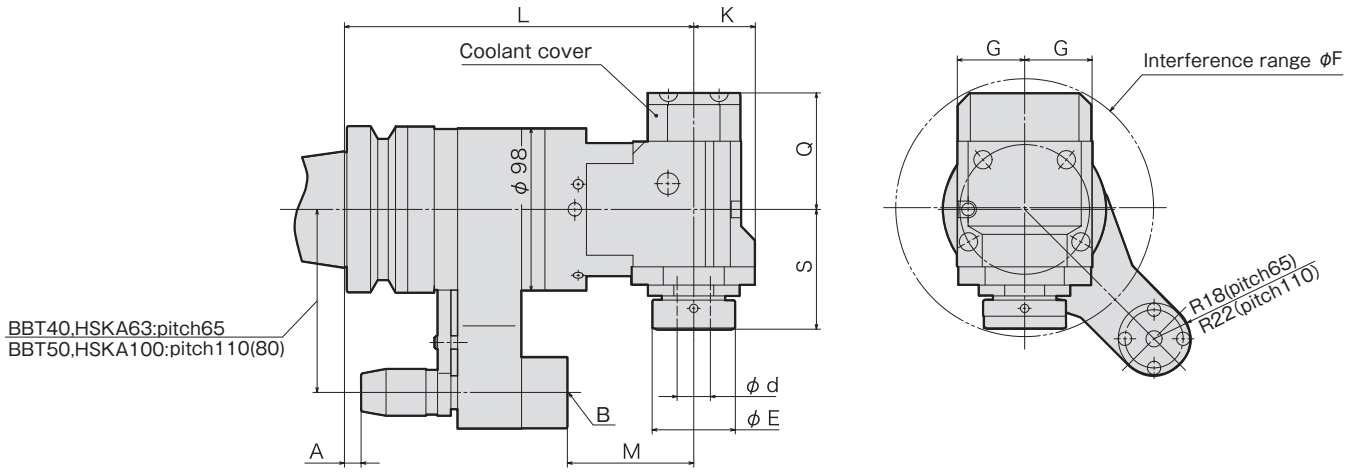
The work material: A5052
Cutting tool: φ8 high speed drill with oil hole
Rotational speed: 2700min^{-1}
Cutting speed: 68m/min
Feed: 405mm/min
※Thru-the tool coolant



BBT40-AGCT-RSC16-190AJ

The work material: S50C
Cutting tool: φ10 high speed two blade end mill
Rotational speed: 640min^{-1}
Cutting speed: 20m/min
Feed: 60mm/min
※Thru-the groove coolant





BBT SHANK

MODEL		CODE	ød	øE	L	K	M	S	G	Q	Q'	F	F'	COLLET	N/W(kg)
BBT40	-AGCT-RSC10-190AJ	240622	2.9~10	30	190	26	80	58	40.5	67	47.5	137	123	CROH10	6.0
	-AGCT-RSC16-190AJ	240624	5.5~16	42		28.5		60		70	50.5	142	128	CROH16	6.2
BBT50	-AGCT-RSC10-210AJ	270662	5.5~10	30	210	26	76	58		67	47.5	137	123	CROH10	10.4
	-AGCT-RSC20-210AJ	270664	7.5~20	50		37		72		70	50.5	155	140	CROH20	11.0

HSK SHANK

MODEL		CODE	ød	øE	L	K	M	S	G	Q	Q'	F	F'	COLLET	N/W(kg)
HSKA63	-AGCT-RSC10-200AJ	321272	2.9~10	30	200	26	80	58	40.5	67	47.5	137	123	CROH10	5.8
	-AGCT-RSC16-200AJ	321274	5.5~16	42		28.5		60		70	50.5	142	128	CROH16	6.0
HSKA100	-AGCT-RSC10-220AJ	351072	5.5~10	30	220	26	76	58		67	47.5	137	123	CROH10	9.4
	-AGCT-RSC20-220AJ	351074	7.5~20	50		37		72		70	50.5	155	140	CROH20	10.0

NOTE : 1.Rotation direction of cutting tool is reversed; speed ratio is 1:1
2.Angle of position pin, drive key groove and addendum direction can be set freely.
3.Angle-Jet can be used by thru-the tool coolant only. No Dry cutting!
4.Non-thru-the tool coolant type (AG model) is also available. Q' and F' shown in above dimension chart correnspond to AG model.
5.Wrench to clamp nut is included, but collet is not include.
6.Set length of A is 8mm(for BBT40 & HSKA63), nad 6mm(for BBT50 & HSKA100) is standard of SHOWA but other length.
7.Installation of Angle-Jet requires a positioning block.
8.Deeping on Machine type, ATC(Aoutmatic Tool Changer) may not be used.
9.Supply of coolant through positioning pin requires connecting coolant hose with B posititon(65mm:PT1/16,110mm:PT1/8)(this only is AG model).

COLLET

Body	Collet type	Grasp range
AGCT-RSC10	CROH10-**	ϕ2.9~ϕ10
AGCT-RSC16	CROH16-**	ϕ5.5~ϕ16
AGCT-RSC20	CROH20-**	ϕ7.5~ϕ20

ACCESSORIES P.54 COLLETS

ACCESSORIES P.57 CHUCK WRENCH

ACCESSORIES P.94 NUT

NUT

Body	Nut type
AGCT-RSC10	RSN10NB
AGCT-RSC16	RSN16NB
AGCT-RSC20	RSN20NB

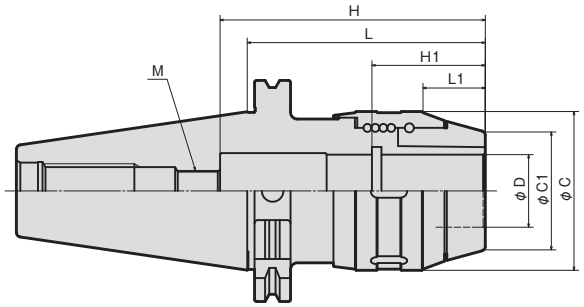
MICRON CHUCK (Milling Chuck)

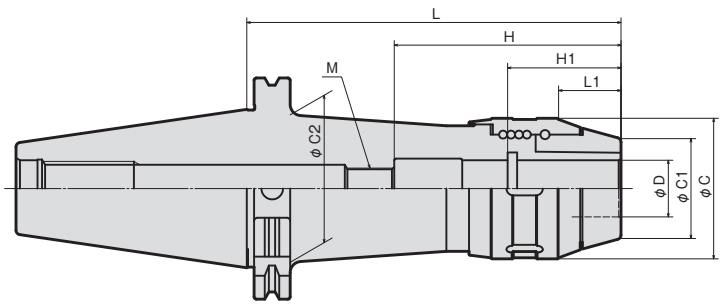
FEATURES P.1-6

SK№-HPCⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available





MODEL		A	AA	FIG	ϕD	L	H	ϕC	ϕC1	ϕC2	L1	H2	M	N/W(kg)
Max 10,000mim^{-1}														
SK30	HPC16-105	○	○	1	16	105	85	56	34	–	26	50	M10	1.4
	HPC20-105	○	○		20				38					1.3
Max 10,000mim^{-1}														
SK40	HPC16-105	○	○	1	16	105	85	56	34	–	26	50	M10	1.8
	HPC20-105	○	○		20				38					1.7
	HPC25-105	○	○		25		100	62	44		27.5		M18	2.0
	HPC25-135	○	○			135								2.5
	HPC32-105	○	○		32	105		70	52			53		2.2
	HPC32-135	○	○			135	117							2.5
Max 8,000mim^{-1}														
SK50	HPC16-105	○	○	1	16	105	85	56	34	–	26	50	M10	4.4
	HPC20-105	○	○		20				38					4.3
	HPC20-135	○	○	2		135				57				4.7
	HPC25-105	○	○	1	25	105	100	62	44	–	27.5		M18	4.4
	HPC25-135	○	○	2		135				62				4.8
	HPC25-165	○	○			165				65				5.7
	HPC32-105	○	○	1	32	105	117	70	52	–		35		4.4
	HPC32-135	○	○			135								5.0
	HPC32-165	○	○	2		165				70				5.6
	HPC42-110	○	○	1	42	110	122	82	62	–	30.5	57		4.6
	HPC42-135	○	○			135								5.3
	HPC42-165	○	○	2		165								6.2

Note1: Chuck wrench and adjust screw are sold separately.
Note2: Insert the O-ring included the box to the groove of the ID for thru-the-tool application.

ACCESSORIES P.39 STRAIGHT COLLETS

ACCESSORIES P.50 ADJUST SCREW, CHUCK WRENCH

ORDERING EXAMPLE

① SK50 - ② HPC ③ 16 - ④ 100 ⑤ A

① Shank Size
② Holder's Name
③ Cutter' s Shank Dia.
④ G.L. Length
⑤ Grade

MICRON CHUCK H series

FEATURES P.1-6

SK№-HPCⒹH-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ Thru-the-groove Coolant Available

H-series

FIG.1

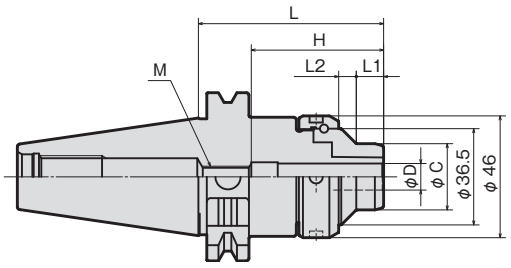
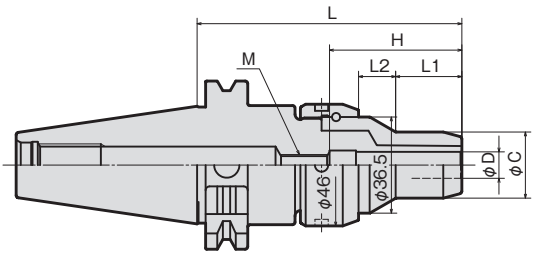


FIG.2



Cutter shank diameter should be h7 or better.

Note : When HPC03H, HPC04H and HPC05H is used through the groove coolant or through the tool coolant usage, please keep the coolant pressure within 1MPa and under.
In case those 3 kinds of tools are used in through the tool coolant at over 1MPa pressure, it requires special adjustment according to its pressure, need additional cost, please contact Showa distributor.

	MODEL	A	AA	G	FIG	ϕD	L	L1	L2	H	ϕC	MINI.INS. LENGHT	ADJUST LENGTH MIN	ADJUST LENGTH MAX	M (Ad.screw)	ST	CT	N/W(kg)
SK30	HPC03H-070	○	○	○	1	3	70	10.3	6.2	15	25	15	–	–	–			
	HPC04H-070	○	○	○		4												
	HPC06H-070	○	○	○		6				37.5		23	23	37	AS17-2-M5-CTW			
	HPC08H-070	○	○	○		8				50				49	AS22-2-M8-CTW			
	HPC10H-070	○	○	○		10												
	HPC12H-070	○	○	○		12		12.2	4.8	55	32	25	25	54	AS25-2-M10-CTW			
SK40	HPC03H-070	○	○	○	1	3	70	10.3	6.7	15	25	15	–	–	–			
	HPC03H-100	○	○	○	2		100	25	14									
	HPC04H-070	○	○	○	1	4	70	10.3	6.7									
	HPC04H-100	○	○	○	2		100	25	14									
	HPC06H-070	○	○	○	1	6	70	10.3	6.7	37.5		23	23	37	AS17-2-M5-CTW			
	HPC06H-100	○	○	○	2		100	25	14			30	30					
	HPC08H-070	○	○	○	1	8	70	10.3	6.7	50		23	28	49	AS22-2-M8-CTW			
	HPC08H-100	○	○	○	2		100	25	14			35	35					
	HPC10H-070	○	○	○	1	10	70	10.3	6.7			23	28					
	HPC10H-100	○	○	○	2		100	25	14			35	35					
	HPC12H-070	○	○	○	1	12	70	10.3	6.7	55	32	25	33	54	AS25-2-M10-CTW			
	HPC12H-100	○	○	○	2		100	25	14			40	40					
SK50	HPC03H-100	○	○	–	2	3	100	25	14	15	25	15	–	–	–			
	HPC04H-100	○	○	–		4												
	HPC06H-100	○	○	–		6				3.5		30	30	37	AS17-2-M5-CTW			
	HPC08H-100	○	○	–		8				50		35	35	49	AS22-2-M8-CTW			
	HPC10H-100	○	○	–		10												
	HPC12H-100	○	○	–		12				55	32	40	40	54	AS25-2-M10-CTW			

Note1: Chuck wrench and adjust screw are sold separately.
Note2: Please indicate when ordering for thru-the tool application.

ACCESSORIES P.42 STRAIGHT COLLETS

ACCESSORIES P.44 ADJUST SCREW, CHUCK WRENCH

ORDERING EXAMPLE

① SK50 - ② HPC ③ 03H - ④ 060 ⑤ A

① Shank Size
② Holder's Name
③ Cutter' s Shank Dia.
④ G.L. Length
⑤ Grade

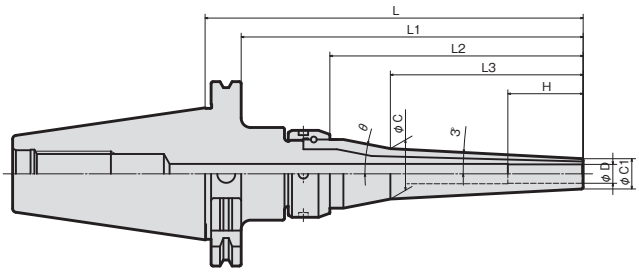
MICRON CHUCK M series

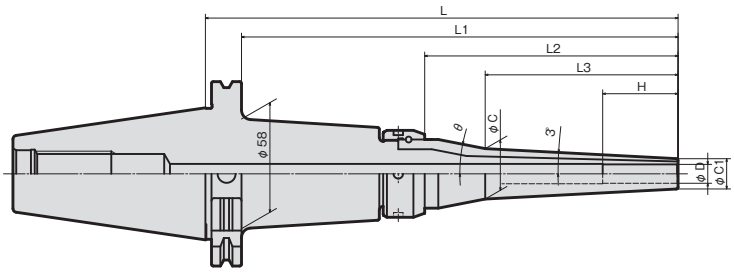
FEATURES P.1-6

SK№-HPCⒹM-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

M-series





Cutter shank diameter should be h6 or better.

	MODEL	STOCK	FIG	φD	φC1	φC2	L	L1	L2	L3	H	MINI.INS. LENGHT	ADJUST LENGTH MIN	ADJUST LENGTH MAX	M	Θ°	N/W(kg)
SK40	HPC03M-145	△	1	3	9	16	145	108	84	67	18	20	–	–	–	34	1.4
	HPC03M-195	△				20	195	158	134	102						18	1.6
	HPC04M-145	△		4	10	17	145	108	84	67	20					33	1.4
	HPC04M-195	△				21	195	158	134	102						17	1.6
	HPC06M-145	△		6	12	19	145	108	84	67	36	35	35	49	M6	30	1.5
	HPC06M-195	△				23	195	158	134	102						15	1.6
	HPC08M-145	△		8	13	21	145	108	84	67	50					27	1.5
	HPC08M-195	△				25	195	158	134	102						13	1.7
	HPC10M-145	△		10	14	23	145	108	84	67					M8	24	1.5
	HPC10M-195	△				27	195	158	134	102						11	1.7
	HPC12M-145	△		12	16	25	145	108	84	67	55	40		54	M10	21	1.5
	HPC12M-195	△				29	195	158	134	102						9	1.7
SK50	HPC03M-150	△	1	3	9	16	150	112	84	67	18	20	–	–	–	34	4.2
	HPC03M-200	△				20	200	162	134	102						18	4.4
	HPC03M-250	△	2				250	212									5.3
	HPC04M-150	△	1	4	10	17	150	122	84	67	20					33	4.3
	HPC04M-200	△				21	200	162	134	102						17	4.4
	HPC04M-250	△	2				250	212									5.3
	HPC06M-150	△	1	6	12	19	150	122	84	67	36	35	35	49	M6	30	4.3
	HPC06M-200	△				23	200	162	134	102						15	4.5
	HPC06M-250	△	2				250	212									5.3
	HPC08M-150	△	1	8	14	21	150	122	84	67	50					27	4.3
	HPC08M-200	△				25	200	162	134	102						13	4.5
	HPC08M-250	△	2				250	212									5.4
	HPC10M-150	△	1	10	16	23	150	122	84	67					M8	24	4.3
	HPC10M-200	△				27	200	162	134	102						11	4.5
	HPC10M-250	△	2				250	212									5.4
	HPC12M-150	△	1	12	18	25	150	122	84	67	55	40		54	M10	21	4.3
	HPC12M-200	△				29	200	162	134	102						9	4.5
	HPC12M-250	△	2				250	212									5.4

ACCESSORIES P.42 STRAIGHT COLLETS

ACCESSORIES P.44 ADJUST SCREW, CHUCK WRENCH

ORDERING EXAMPLE

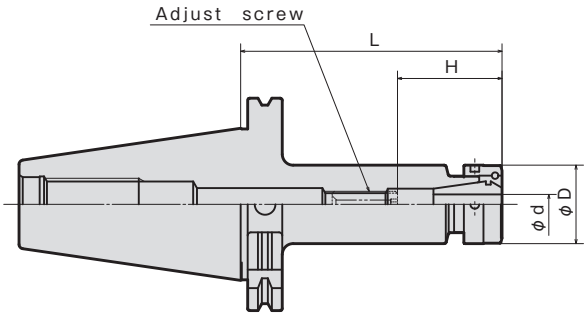
① SK50 - ② HPC ③ 03 ④ M - ⑤ 130

① Shank Size
② Holder's Name
③ Cutter' s Shank Dia.
④ M series
⑤ G.L.Length

COLLET CHUCK

FEATURES P.9-10

SK/BSK№-RSCⒹMAX-Ⓛ



MODEL		CODE	STOCK	φd (CLAMPINGRANGE)	φD	L	H	COLLET	NUT	ADJUSTMENT SCREW
Max 12,000mim^{-1}										
SK30 (BSK30)	RSC07-090	400060	△	0.5~0.7	24	90	25~40	CR07-(D)	RSN07NB	M6×20L-CTW
	RSC10-060	400062	△	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC10-090	400064	△			90				
	RSC10-120		△			120				
	RSC13-065	400066	△	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC13-090	400068	△			90				
	RSC13-120		△			120				
	RSC16-065	400070	△	1~16	42	60	38~50	CR16-(D)	RSN16NB	RAS16-25-5
	RSC16-090	400072	△			90	38~72			
	RSC16-120		△			120				
	RSC20-075	400076	△	1.5~20	50	75	44~56.5	CR20-(D)	RSN20NB	
	RSC20-090	400078	△			90				
	RSC20-120		△			120				
SK40 (BSK40)	RSC07-090	420180	△	0.5~7	24	90	25~40	CR07-(D)	RSN07NB	M6×20L-CTW
	RSC10-060	420182	△	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC10-090	420183	△			90				
	RSC10-120	420184	△			120				
	RSC13-065	420185	△	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC13-090	420186	△			90				
	RSC13-120	420188	△			120				
	RSC16-065	420190	△	1~16	42	60	38~70	CR16-(D)	RSN16NB	RAS16-25-5
	RSC16-090	420192	△			90	38~77			
	RSC16-120	420189	△			120				
	RSC20-070	420193	△	1.5~20	50	60	44~70	CR20-(D)	RSN20NB	RAS20-25-5
	RSC20-090	420194	△			90	44~72			
	RSC20-105	420196	△			90	44~82			
	RSC20-120	420198	△			120				

△:Produce per order

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. Only BT shank and ST shank is coated.

ORDERING EXAMPLE

①	②	③	④
SK30	RSC	07	90
BSK30	RSC	07	90

① Shank Size
② Holder's Name
③ Max. øD
④ Gauge length

ACCESSORIES P.57 NUT

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 ADJUST SCREW, CHUCK WRENCH

COLLET CHUCK

SK/BSK№-RSCⒹMAX-Ⓛ

FIG.1

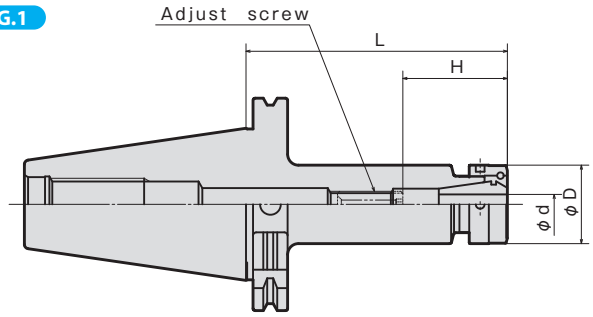
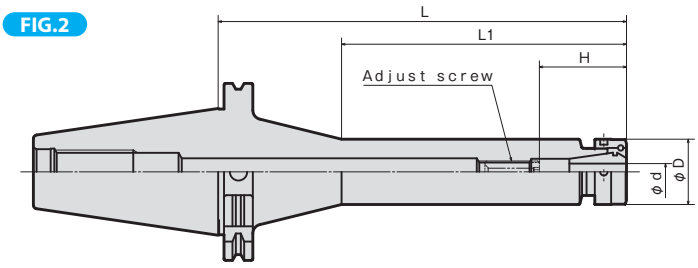


FIG.2



MODEL		CODE	FIG	ϕd (CLAMPINGRANGE)	ϕD	L	H	COLLET	NUT	ADJUSTMENT SCREW
Max 8,000min^{-1}										
SK50 (BSK50)	RSC07-090	450260	1	0.5~7	25	90	25~40	CR07-(D)	RSN07NB	(M6×20L-CTW)
	RSC10-075	450262	1	0.5~10	30	75	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC10-105	450264				105				
	RSC10-135	450330				135				
	RSC10-165	450332				165				
	RSC10-195	450334				195				
	RSC10-225	450336	2			225				
	RSC10-255	450338				255				
	RSC10-285	450340				285				
	RSC13-075	450266	1	0.5~13	36	75	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC13-105	450268				105				
	RSC13-135	450270				135				
	RSC13-165	450272				165				
	RSC13-195	450274				195				
	RSC13-225	240342	2			225				
	RSC13-255	450344				255				
	RSC13-285	450346				285				
	RSC16-075	450276	1	1~16	42	75	38~95	CR16-(D)	RSN16NB	RAS16-25-5
	RSC16-105	450278				105				
	RSC16-135	450280				135				
	RSC16-165	450282				165	38~77			
	RSC16-195	450284				195				
	RSC16-225	450348	2			225				
	RSC16-255	450350				255				
	RSC16-285	450352				285				
	RSC20-075	450286	1	1.5~20	50	75	44~82	CR20-(D)	RSN20NB	RAS20-25-6
	RSC20-105	450287				105				
	RSC20-135	450288				135				
	RSC20-165	450290				165				
	RSC20-195	450292				195				
	RSC20-225	450393	2			225				
	RSC20-255	450394				255				
	RSC20-285	450395				285				

△:Produce per order

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. Only BT shank and ST shank is coated.

ACCESSORIES P.57 NUT

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 ADJUST SCREW, CHUCK WRENCH

ORDERING EXAMPLE

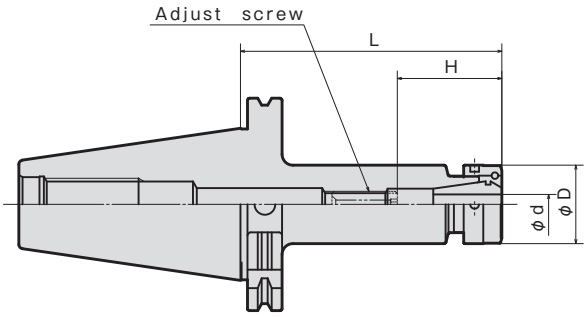
①	②	③	④
SK50	RSC	07	90
BSK50	RSC	07	90

① Shank Size
② Holder's Name
③ Max. øD
④ Gauge length

COLLET CHUCK

FEATURES P.9-10

SK/BSK№-RSCⒹ-Ⓛ



MODEL		CODE	φd (CLAMPINGRANGE)	φD	L	H	COLLET	NUT	ADJUSTMENT SCREW
Max 25,000mim^{-1}									
SK30 (BSK30)	RSC07-090G	400040	0.5~0.7	25	90	25~40	CR07-(D)	RSN07NB	(M6×20L-CTW)
	RSC10-060G	400041	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC10-090G	400042			90				
	RSC10-120G				120				
	RSC13-065G	400043	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC13-090G	400044			90				
	RSC13-120G				120				
	RSC16-065G	400045	1~16	42	60	38~50	CR16-(D)	RSN16NB	RAS16-25-2.5
	RSC16-090G	400046			90	38~72			
	RSC16-120G				120				
	RSC20-075G	400047	1.5~20	50	75	44~56.5	CR20-(D)	RSN20NB	
	RSC20-090G	400048			90				
	RSC20-120G				120				
SK40 (BSK40)	RSC07-090G	420130	0.5~7	25	90	25~40	CR07-(D)	RSN07NB	(M6×20L-CTW)
	RSC10-060G	420131	0.5~10	30	60	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC10-090G	420132			90				
	RSC10-120G				120				
	RSC13-065G	420133	0.5~13	36	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC13-090G	420134			90				
	RSC13-120G				120				
	RSC16-065G	420135	1~16	42	60	38~70	CR16-(D)	RSN16NB	RAS16-25-5
	RSC16-090G	420136			90	38~77			
	RSC16-120G				120				
	RSC20-070G	420138	1.5~20	50	60	44~70	CR20-(D)	RSN20NB	RAS20-25-6
	RSC20-090G	420170			90	44~72			
	RSC20-105G				90	44~82			
	RSC20-120G				120				

△:Produce per order

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.
3. Only BT shank and ST shank is coated.

ORDERING EXAMPLE

①	②	③	④	⑤
SK30	RSC	07	90	G
BSK30	RSC	07	90	G

① Shank Size
② Holder's Name
③ Max. øD
④ Gauge length
⑤ G-Type

ACCESSORIES P.57 NUT

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 ADJUST SCREW, CHUCK WRENCH

COLLET CHUCK (SLIM TYPE)

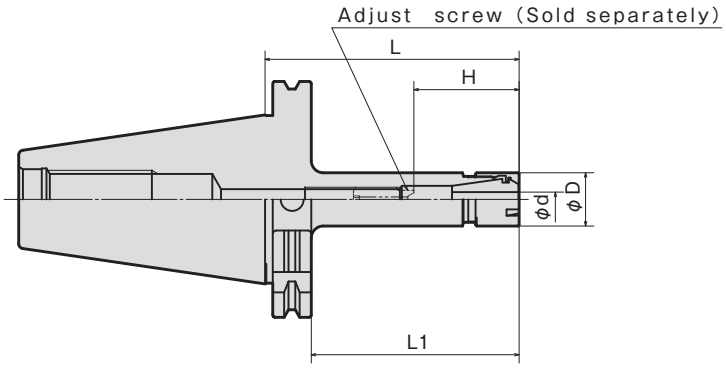
FEATURES P.13

NEW

SK№-SSCⒹMAX-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available(Option)



	MODEL	CODE	ød	øD	L	L1	H	COLLET	NUT	ADJUST SCREW
SK30	SSC07-090	400100	0.5~7	16	90	71	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	400102			135	116				
	SSC10-090	400104	0.5~10	22	90	71	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	400106			135	116				
	SSC13-090	400108	0.5~13	28	90	71	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-135	400110			135	116				
SK40	SSC07-090	420460	0.5~7	16	90	71	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	420462			135	116				
	SSC10-090	420464	0.5~10	22	90	71	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	420466			135	116				
	SSC13-105	420468	0.5~13	28	105	86	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-150	420470			150	131				
SK50	SSC07-090	450620	0.5~7	16	90	71	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	450622			135	116				
	SSC10-105	450624	0.5~10	22	105	86	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-150	450626			150	131				
	SSC13-120	450628	0.5~13	28	120	101	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-165	450630			165	146				
	SSC13-195	450632			195	176				

NOTE : 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ORDERING EXAMPLE

① SK50 - ② SSC ③ 10 - ④ 105

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

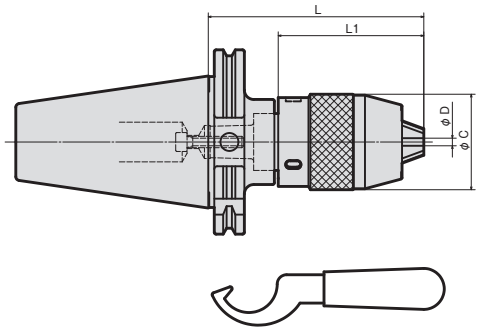
ACCESSORIES P.57 NUT

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 ADJUST SCREW, CHUCK WRENCH

DRILL CHUCK

SK/BT㊊-SDC㊃MAX-Ⓛ



MODEL		CODE	ϕD (CLAMPINGRANGE)	L		L1		ϕC	N/W (kg)
				OPEN	CLOSE	OPEN	CLOSE		
SK40	-SDC08-088	77090	0.5~8	87.5	95	50	57.5	37.5	1.3
	-SDC13-105	77095	1~13	103.5	116	66	78.5	50	1.8
SK50	-SDC08-087	77320	0.5~8	87.5	95	50	57.5	37.5	4.1
	-SDC13-110	77325	1~13	103.5	116	66	78.5	50	4.5
	-SDC13-160	77326		153.5	166				5.1
BT30	-SDC08-080	10036	0.5~8	83	90.5	50	57.5	37.5	0.7
	-SDC13-100	10038	1~13	99	111.5	66	78.5	50	1.3
BT40	-SDC08-080	11148	0.5~8	83	90.5	50	57.5	37.5	1.3
	-SDC13-100	11150	1~13	99	111.5	66	78.5	50	1.8
BT50	-SDC08-100	13291	0.5~8	103	110.5	50	57.5	37.5	4.1
	-SDC13-160	13293	1~13	119	131.5	66	78.5	50	4.5
	-SDC13-120	13294		159	171.5				5.1

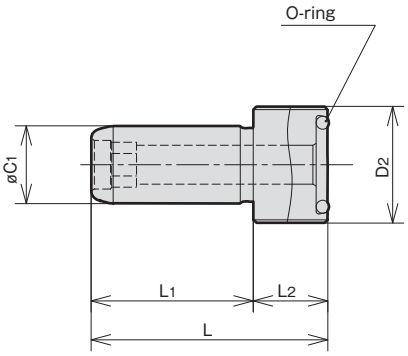
ORDERING EXAMPLE

① BT30 - ② SDC ③ 08 - ④ 080

① Shank Size
② Holder's Name
③ Max. øD
④ Gauge length

ACCESSORIES

<HSK SHANK>COOLANT PIPE



MODEL	CODE	HSK No.	D1	D2	L	L1	L2	O-ring
CLP-032	25180	HSK32	6	M10×1.0	26	20.5	5.5	P4
CLP-040	25181	HSK40	8	M12×1.0	29.5	22	7.5	P6
CLP-050	25182	HSK50	10	M16×1.0	33	23.5	9.5	P9
CLP-063	25183	HSK63	12	M18×1.0	36.5	25	11.5	P11
CLP-080	25184	HSK80	14	M20×1.5	40	26.5	13.5	P12
CLP-100	25185	HSK100	16	M24×1.5	44	28.5	15.5	P15

ORDERING EXAMPLE

① CLP - ② 032

① Name
② HSK No.

SHOWA TOOL

HSK series

MICRON CHUCK (Milling Chuck)

FEATURES P. 1-6

HSKA№-HPCⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available

Standard

FIG.1

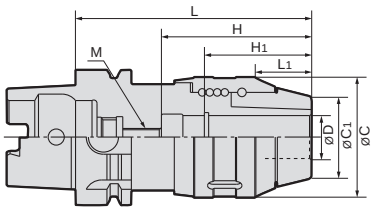


FIG.2

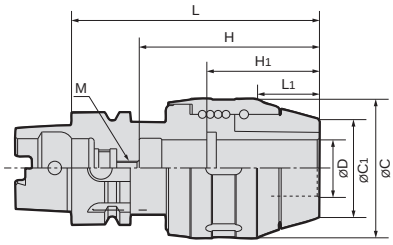
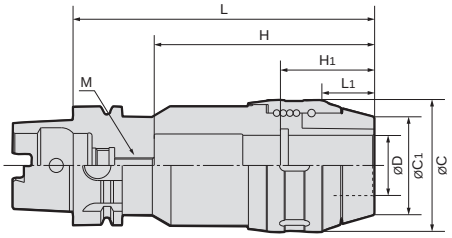


FIG.3



Cutter shank diameter should be h7 or better.

CODE		A	AA	FIG	øD	L	L1	øC	øC1	H	H1	min tool insert length ST	min tool insert length CT	Adjust min/max	M	N/W (Kg)
Max. 10,000 min^{-1}																
HSKA50	HPC16 -110	○	○	2	16	110	26	56	34	75	50	40	51	57~67	M6	1.4
	HPC20 -110	○	○		20				38			45				
	HPC25 -115	○	○		25	115	27.5	62	44	80		50				1.7
	HPC32 -120	△	△		32	120	26	70	52	70	53	55	55			2.1
Max. 10,000 min^{-1}																
HSKA63	HPC16 -110	○	○	1	16	110	26	56	34	75	50	40	51	59~67	M8	1.9
	HPC20 -110	○	○		20				38			45				1.8
	HPC25 -115	○	○		25	115	27.5	62	44	80		50				2.0
	HPC32 -120	○	○	2	32	120		70	52	85	53	55	55	64~72		2.1
	HPC32 -160	○	○	3		160				117				96~104		2.9
	HPC42 -160	△	△		42		30.5	82	62	100	57	60	60	67~87		3.8
Max. 8,000 min^{-1}																
HSKA100	HPC16 -110	○	○	1	16	110	26	56	34	70	50	40	51	59~65	M12	3.0
	HPC20 -110	○	○		20				38			45				2.9
	HPC25 -115	○	○		25	115	27.5	62	44	80		50		63~65		3.2
	HPC25 -135	○	○			135				90				73~80		3.3
	HPC32 -120	○	○		32	120		70	52	80	53	55	55	63~70		3.4
	HPC32 -165	○	○	3		165				117				100~107		4.6
	HPC42 -135	○	○	1	42	135	30.5	82	62	95	57	60	60	78~85		3.8
	HPC42 -165	○	○	3		165				122				105~112		4.8

△ : Mark tools are manufatured to order.

NOTE : 1. Coolant pipe is included.
2. Chuck wrench and adjust screw are sold separately.
3. Insert the O-ring included in the box to the groove of the ID for thru-the-tool use.
4. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.

ORDERING EXAMPLE

①	②	③	④	⑤
HSKA50	- HPC	16	- 110	A

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length
⑤ Grade

ACCESSORIES P.111 STRAIGHT COLLETS

ACCESSORIES P.112 ADJUST SCREW, CHUCK WRENCH

MICRON CHUCK N series

HSKA№-HPCⒹN-Ⓛ

FIG.1

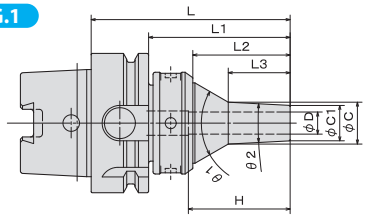
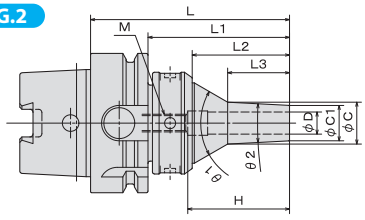


FIG.2



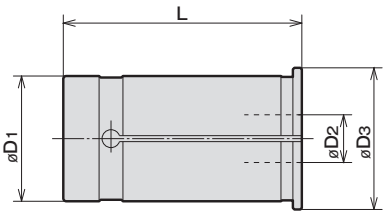
MODEL ø		CODE A	CODE AA	CODE G Type	FIG	øD	øC1	ø1	L	L1	L2	L3	H	Min insert length	Adjust MIN	Adjust MAX	M	θ1	θ2
HSKA50	HPC03N-105	301000	301006	301012	1	3	9	10.4	105	79	44	27	–	20	–	–	–	80	3
	HPC04N-105	301001	301007	301013		4	10	11.5				28							
	HPC06N-105	301002	301008	301014		6	12	13.5				29		35					
	HPC08N-105	301003	301009	301015	2	8	14	15.5					50		35	50	M6	74	
	HPC10N-105	301004	301010	301016		10	16	17.5									M8	68	
	HPC12N-105	301005	301011	301017		12	18	21				28	55	40	40	55		60	6
HSKA63	HPC03N-090	320920	320940	320960	1	3	9	10.4	90	64	44	27	–	20	–	–	–	80	3
	HPC04N-090	320921	320941	320961		4	10	11.5				28							
	HPC06N-090	320922	320942	320962		6	12	13.5				29		35					
	HPC08N-090	320923	320943	320963		8	14	15.5										74	
	HPC10N-090	320924	320944	320964	2	10	16	17.5					50		35	45	M8	68	
	HPC12N-090	320925	320945	320965		12	18	21				28		40	40			60	6

ACCESSORIES for MICRON CHUCK (Milling Chuck)

ACCESSORIES

STRAIGHT COLLET

SC Ⓓ1 - Ⓓ2



CODE SC Ⓓ1 - Ⓓ2		øD3	L
SC16	-6·8·10·12	20	47
SC20	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16	23.5	50
SC25	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21	30	60
SC32	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25	37.5	70
SC42	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25·32	47.5	80

ORDERING EXAMPLE

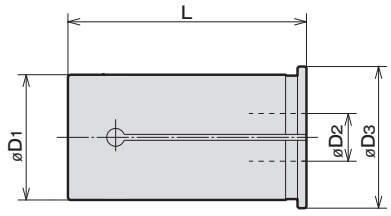
① SC ② 16 - ③ 6

① Name
② D1
③ D2

ACCESSORIES

STRAIGHT COLLET (Oil-Hole Type)

SCOH Ⓓ1 - Ⓓ2



CODE SCOH Ⓓ1-Ⓓ2		ϕD3	L	最小挿入量
SCOH20	-6	23.5	54.5	27
	-8			30
	-10			34
	-12			35
	-16			38
SCOH25	-6	30	60	27
	-8			30
	-10			32
	-12			35
	-16			38
	-20			41
SCOH32	-6	37.5	70	27
	-8			30
	-10			32
	-12			35
	-16			38
	-20			40
	-25			44

CODE SCOH Ⓓ1-Ⓓ2		ϕD3	L	最小挿入量
SCOH42	-6	47.5	80	27
	-8			30
	-10			32
	-12			35
	-16			42
	-20			45
	-25			50
	-32			

ORDERING EXAMPLE

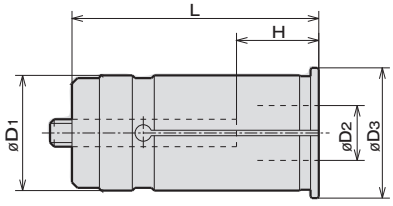
① SCOH ② 32 - ③ 20

① Name
② D1
③ D2

ACCESSORIES

STRAIGHT COLLET WITH ADJUST SCREW

NC Ⓓ1 - Ⓓ2



CODE NC Ⓓ1 - Ⓓ2		øD3	L	H MIN.	H MAX.
NC20	-6·8·10·12·16	23.5	60	25	35
NC32	-6·8·10	37.5	80	20	45
	-12·16·20·25			25	55
NC42	-6·8·10·12	47.5	90	20	45
	-16·20·25·32			30	65

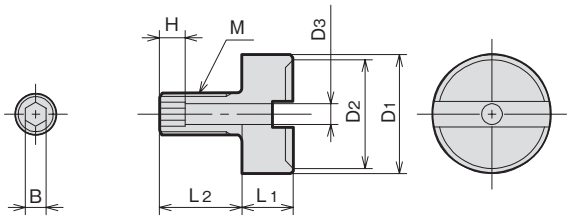
NOTE : Applicable to Micron chucks and Hard chucks.

ORDERING EXAMPLE

① NC ② 32 - ③ 6

① Name
② D1
③ D2

ADJUST SCREW (For MICRON CHUCK standard)



MODEL		CODE	øD1	øD2	øD3	M	L1	L2	H	B	MICRON CHUCK	
HAS1620-05-	M06	17652	15	13	3	M6	5	18	2.5	3	HSKA50	HPC16 HPC20
	M08	17654			4	M8		16	3	4	HSKA63	
	M12	17656			5	M12		11		5	HSKA100	
HAS2532-10-	M06	17658	23	21	3	M6	10	18	4	3	HSKA50	HPC25 HPC32
	M08	17660			4	M8		16		4	HSKA63	
	M12	17662			5	M12		11.5		5	HSKA100	
HAS4250-10-	M08	17664	33	31	4	M8		28		4	HSKA63	HPC42
	M12	17666			5	M12		11.5		5	HSKA100	

NOTE : 1. The above Adjust Screws are sold separately.
2. Above Adjust Screws can not be used for "H" and "M" series Micron Chucks. Adjust Screws for "H" and "M" series Micron Chucks are manufactured to order.

CHUCK WRENCH (For MICRON CHUCK standard)

HOOK SPANNER		
CHUCK CODE MICRON CHUCK	WRENCH CODE	
HPC16,HPC20	FS52-55G	35852
HPC25,HPC16S,HPC20S	FS58-62G	35853
HPC32,HPC25S	FS68-75G	35854
HPC42,HPC32S	FS80-90G	35855

MICRON CHUCK H series

FEATURES P. 1-6

HSKA№-HPCⒹH-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

▶▶▶ Thru-the-groove Coolant Available(Option)

H-series

FIG.1

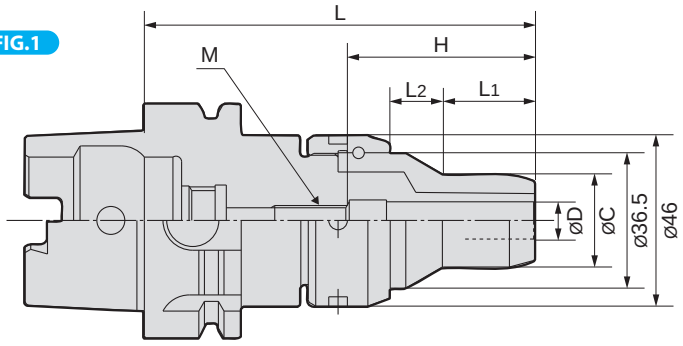
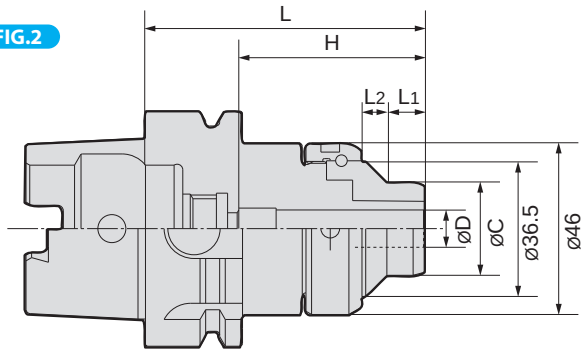


FIG.2



Note : When HPC03H, HPC04H and HPC05H is used through the groove coolant or through the tool coolant usage, please keep the coolant pressure within 1MPa and under.
In case those 3 kinds of tools are used in through the tool coolant at over 1MPa pressure, it requires special adjustment according to its pressure, need additional cost, please contact Showa distributor.

MODEL			A	AA	GType	FIG	φD	L	L1	L2	φC	H	Min insert length	Adjust MIN	Adjust MAX	Adjust screw M	ST	CT	N/W (Kg)
Max. 20,000 min^{-1}(G Type:Max. 30,000 min^{-1})																			
HSKA50	HPC03H	075	○	○	○	2	3	75	10.3	6.7	25	55	15	-	-	-	○	○ additional work	0.9
		105	○	○	○	1		105	25	14		85					○	○ additional work	1.2
	HPC04H	075	○	○	○	2	4	75	10.3	6.7		55					○	○ additional work	0.9
		105	○	○	○	1		105	25	14		85					○	○ additional work	1.2
	HPC05H	075	△	△	△	2	5	75	10.3	6.7		55					○	○ additional work	0.9
		105	△	△	△	1		105	25	14		85					○	○ additional work	1.2
	HPC06H	075	○	○	○	2	6	75	10.3	6.7		37.5	23	28	37	AS17-2-M5-CTW	○at cost	○	0.9
		105	○	○	○	1		105	25	14			30	30			○at cost	○	1.2
	HPC07H	075	△	△	△	2	7	75	10.3	6.7			23	28		AS17-2-M6-CTW	○at cost	○	0.9
		105	△	△	△	1		105	25	14			30	30			○at cost	○	1.2
	HPC08H	075	○	○	○	2	8	75	10.3	6.7		50	23	-	-	-	○at cost	○	0.9
		105	○	○	○	1		105	25	14			35	35	50	AS22-2-M6-CTW	○at cost	○	1.2
	HPC09H	075	△	△	△	2	9	75	10.3	6.7			23	-	-	-	○at cost	○	0.9
		105	△	△	△	1		105	25	14			35	35	50	AS22-2-M6-CTW	○at cost	○	1.2
	HPC10H	075	○	○	○	2	10	75	10.3	6.7			23	-	-	-	○at cost	○	0.9
		105	○	○	○	1		105	25	14			35	35	50	AS22-2-M6-CTW	○at cost	○	1.2
	HPC11H	075	△	△	△	2	11	75	12.2	4.8	32		25	-	-	-	○at cost	○	0.9
		105	△	△	△	1		105	25	14		55	40	40	55	AS22-2-M6-CTW	○at cost	○	1.2
	HPC12H	075	○	○	○	2	12	75	12.2	4.8		50	25	-	-	-	○at cost	○	0.9
		105	○	○	○	1		105	25	14		55	40	40	55	AS22-2-M6-CTW	○at cost	○	1.2
	HPC13H	105	△	△	△		13										○at cost	○	1.0
	HPC14H	105	△	△	△		14										○at cost	○	1.0
	HPC15H	105	△	△	△		15					60		45	60		○at cost	○	1.0
	HPC16H	105	△	△	△		16										○at cost	○	1.0
Max. 20,000 min^{-1}(G Type:Max. 30,000 min^{-1})																			
HSKA63	HPC03H	075	○	○	○	2	3	75	10.3	6.7	25	53	15	-	-	-	○	○ additional work	1.2
		105	○	○	○	1		105	25	14		83					○	○ additional work	1.4
		135	○	○	○			135				113					○	○ additional work	1.9
	HPC04H	075	○	○	○	2	4	75	10.3	6.7		53					○	○ additional work	1.2
		105	○	○	○	1		105	25	14		83					○	○ additional work	1.4
		135	○	○	○			135				113					○	○ additional work	1.9
	HPC05H	075	△	△	△	2	5	75	10.3	6.7		53					○	○ additional work	1.2
		105	△	△	△	1		105	25	14		83					○	○ additional work	1.4
		135	△	△	△			135				113					○	○ additional work	1.9
	HPC06H	075	○	○	○	2	6	75	10.3	6.7		37.5	23	25	35	AS17-2-M5-CTW	○at cost	○	1.2
		105	○	○	○	1		105	25	14			30	30	37		○at cost	○	1.4
		135	○	○	○			135									○at cost	○	1.9
	HPC07H	075	△	△	△	2	7	75	10.3	6.7			23	25	35	AS17-2-M6-CTW	○at cost	○	1.2
		105	△	△	△	1		105	25	14			30	30	37		○at cost	○	1.4
		135	△	△	△			135									○at cost	○	1.9

MODEL			A	AA	GType	FIG	φD	L	L1	L2	φC	H	Min insert length	Adjust MIN	Adjust MAX	Adjust screw M	ST	CT	N/W (Kg)
Max. 20,000 min^{-1}(G Type:Max. 30,000 min^{-1})																			
HSKA63	HPC08H	075	○	○	○	2	8	75	10.3	6.7	25	50	23	–	–	–	○at cost	○	1.2
		105	○	○	○	1		105	25	14			35	35	50	AS22-2-M6-CTW	○at cost	○	1.4
		135	○	○	○			135									○at cost	○	1.9
	HPC09H	075	△	△	△	2	9	75	10.3	6.7			23	–	–	–	○at cost	○	1.2
		105	△	△	△	1		105	25	14			35	35	50	AS22-2-M8-CTW	○at cost	○	1.4
		135	△	△	△			135									○at cost	○	1.9
	HPC10H	075	○	○	○	2	10	75	10.3	6.7			23	–	–	–	○at cost	○	1.2
		105	○	○	○	1		105	25	14			35	35	50	AS22-2-M8-CTW	○at cost	○	1.4
		135	○	○	○			135									○at cost	○	1.9
	HPC11H	075	△	△	△	2	11	75	12.2	4.8	35	50	25	–	–	–	○at cost	○	1.2
		105	△	△	△	1		105	25	14		55	40	40	55	AS22-2-M8-CTW	○at cost	○	1.4
		135	△	△	△			135									○at cost	○	1.9
	HPC12H	075	○	○	○	2	12	75	12.2	4.8		50	25	–	–	–	○at cost	○	1.2
		105	○	○	○	1		105	25	14		55	40	40	55	AS22-2-M8-CTW	○at cost	○	1.4
		135	○	○	○			135									○at cost	○	1.9
	HPC13H	105	△	△	△		13	105									○at cost	○	1.5
		135	△	△	△			135									○at cost	○	1.7
	HPC14H	105	△	△	△		14	105									○at cost	○	1.5
		135	△	△	△			135									○at cost	○	1.7
	HPC15H	105	△	△	△		15	105				60			58	AS25-2-M8-CTW	○at cost	○	1.5
		135	△	△	△			135							60		○at cost	○	1.7
	HPC16H	105	△	△	△		16	105							58		○at cost	○	1.5
Max. 12,000 min^{-1}																			
HSKA100	HPC03H	110	○	○	–	1	3	110	25	14	25	81	15	–	–	–	○	○additional work	2.7
	HPC04H	110	○	○	–		4										○	○additional work	
	HPC05H	110	△	△	–		5										○	○additional work	
	HPC06H	110	○	○	–		6					37.5	30	30	37	AS17-2-M5-CTW	○at cost	○	
	HPC07H	110	△	△	–		7									AS17-2-M6-CTW	○at cost	○	
	HPC08H	110	○	○	–		8					50	35	35	50	AS22-2-M6-CTW	○at cost	○	
	HPC09H	110	△	△	–		9									AS22-2-M8-CTW	○at cost	○	
	HPC10H	110	○	○	–		10										○at cost	○	
	HPC11H	110	△	△	–		11				32	55	40	40	55	AS25-2-M10-CTW	○at cost	○	
	HPC12H	110	△	△	–		12										○at cost	○	
	HPC13H	110	△	△	–		13					60			56		○at cost	○	2.8
	HPC14H	110	△	△	–		14										○at cost	○	
	HPC15H	110	△	△	–		15										○at cost	○	
	HPC16H	110	△	△	–		16										○at cost	○	

△ : Mark tools are manufatured to order.

NOTE : 1. Each holder supplied with built-in coolant pipe. (Stationary type)
2.Chuck wrench and adjust screw are sold separately.
3. When the thru-the-coolant application is needed for HPC03H, HPC04, or HPC05, please instruct when ordering. "CT" will be marked for this application.
4. The the thru-the-groove-coolant application for HPC06 or larger will be charged. Please instruct when ordering. "ST" will be marked for this application.
5. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.

ORDERING EXAMPLE

①	②	③	④	⑤	⑥
HSKA50	- HPC	03	H	- 075	A

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ H series
⑤ G.L. Length
⑥ Grade

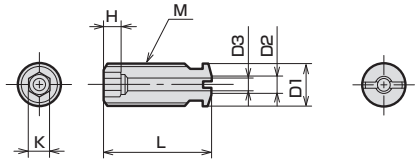
ACCESSORIES P.114 ADJUST SCREW

ACCESSORIES P.116 CHUCK WRENCH

ACCESSORIES for MICRON CHUCK H series M series

ACCESSORIES

ADJUST SCREW (For MICRON CHUCK H series, M series)



MODEL	CODE	M	L	D1	D2	D3	K	H	MICRON CHUCK
AS17-2-M5-CTW	17672	M5×0.8	17	5	3	2	2.5	3	HPC06H
AS17-2-M6-CTW	17676	M6×1.0	17	6			3		HPC07H
AS22-2-M6-CTW	17678		22						HPC08H,HPC08M
AS22-2-M8-CTW	17680	M8×1.25		8	5	4	4	5	HPC09H,HPC10H HPC09M,HPC10M
AS25-2-M8-CTW	17682		25						
AS25-2-M10-CTW	17684	M10×1.5		10	6	5	5	6	HPC11H~16H,HPC11M~12M

MICRON CHUCK M series

FEATURES P. 1-6

HSKA№-HPCⒹM-Ⓛ

Thru-the-tool Coolant Available

FIG.1

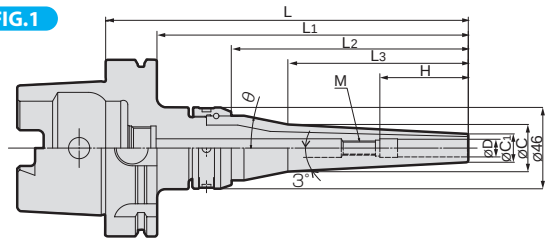


FIG.2

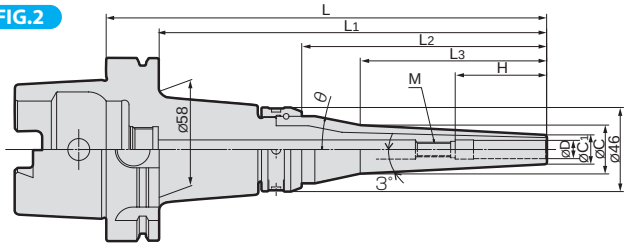


FIG.3

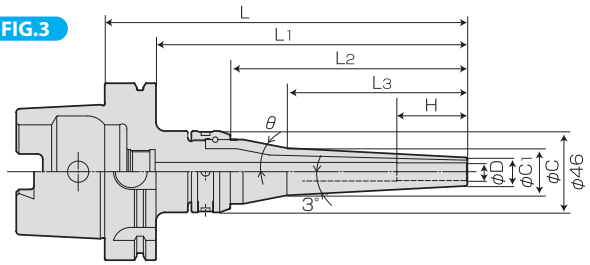
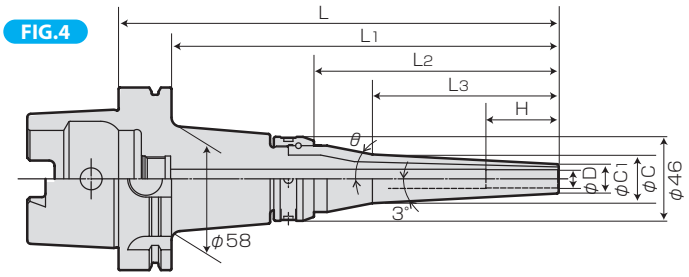


FIG.4



MODEL		STOCK	Fig	øD	øC1	øC	L	L1	L2	L3	H	Min insert length	Adjust length MIN	Adjust length MAX	M	θ	N/W (kg)
Max. 15,000 min^{-1}																	
HSKA50	HPC03M- 150	△	3	3	9	16	150	124	84	67	–	20	–	–	–	34	1.1
	HPC04M- 150	△		4	10	17										33	1.1
	HPC05M- 150	△		5	11	18										32	1.1
	HPC06M- 150	△		6	12	19						35				30	1.1
	HPC07M- 150	△		7	13	20										28	1.1
	HPC08M- 150	△	1	8	14	21					50		35	50	M6	27	1.1
	HPC09M- 150	△		9	15	22									M8	26	1.1
	HPC10M- 150	△		10	16	23										24	1.1
	HPC11M- 150	△		11	17	24					55		37	55	M8	23	1.1
	HPC12M- 150	△		12	18	25						40	40			21	1.1
Max. 15,000 min^{-1}																	
HSKA63	HPC03M- 150	△	3	3	9	16	150	124	84	67		20	–	–	–	34	1.3
	HPC03M- 200	△				20	200	174	134	102						18	1.5
	HPC04M- 150	○		4	10	17	150	124	84	67						33	1.3
	HPC04M- 200	○				21	200	174	134	102						17	1.5
	HPC05M- 150	△		5	11	18	150	124	84	67						32	1.3
	HPC05M- 200	△				22	200	174	134	102						16	1.5
	HPC06M- 150	○		6	12	19	150	124	84	67		35				30	1.3
	HPC06M- 200	○				23	200	174	134	102						15	1.5
	HPC07M- 150	△		7	13	20	150	124	84	67						28	1.3
	HPC07M- 200	△				24	200	174	134	102						14	1.5
	HPC08M- 150	○		8	14	21	150	124	84	67						27	1.4
	HPC08M- 200	○				25	200	174	134	102						13	1.5
	HPC09M- 150	△	1	9	15	22	150	124	84	67	50		35	50	M8	26	1.4
	HPC09M- 200	△				26	200	174	134	102						12	1.5
	HPC10M- 150	○		10	16	23	150	124	84	67						24	1.4
	HPC10M- 200	○				27	200	174	134	102						11	1.5
	HPC11M- 150	△		11	17	24	150	124	84	67	55		37	55		23	1.4
	HPC11M- 200	△				28	200	174	134	102						10	1.6
	HPC12M- 150	○		12	18	25	150	124	84	67		40	40			21	1.4
	HPC12M- 200	○				29	200	174	134	102						9	1.6

MODEL			STOCK	Fig	øD	øC1	øC	L	L1	L2	L3	H	Min insert length	Adjust length MIN	Adjust length MAX	M	θ	N/W (kg)
Max. 10,000 min-1																		
HSKA100	HPC03M-	155	△	3	3	9	16	155	126	84	67	–	20	–	–	–	34	3.1
		205	△				20	205	176	134	102						18	3.2
		255	△	4				255	226									4.1
	HPC04M-	155	○	3	4	10	17	155	126	84	67						33	3.1
		205	○				21	205	176	134	102						17	3.3
		255	△	4				255	226									4.1
	HPC05M-	155	△	3	5	11	18	155	126	84	67						32	3.1
		205	△				22	205	176	134	102						16	3.3
		255	△	4				255	226									4.1
	HPC06M-	155	○	3	6	12	19	155	126	84	67		35				30	3.1
		205	○				23	205	176	134	102						15	3.3
		255	△	4				255	226									4.2
	HPC07M-	155	△	3	7	13	20	155	126	84	67						28	3.1
		205	△				24	205	176	134	102						14	3.3
		255	△	4				255	226									4.2
	HPC08M-	155	○	3	8	14	21	155	126	84	67						27	3.1
		205	○				25	205	176	134	102						13	3.3
		255	△	4				255	226									4.2
	HPC09M-	155	△	3	9	15	22	155	126	84	67						26	3.1
		205	△				26	205	176	134	102						12	3.3
		255	△	4				255	226									4.2
	HPC10M-	155	○	3	10	16	23	155	126	84	67						24	3.2
		205	○				27	205	176	134	102						11	3.3
		255	△	4				255	226									4.2
	HPC11M-	155	△	3	11	17	24	155	126	84	67						23	3.2
		205	△				28	205	176	134	102						10	3.3
		255	△	4				255	226									4.2
	HPC12M-	155	○	1	12	18	25	155	126	84	67	55	40	40	40	M10	21	3.2
		205	○				29	205	176	134	102						9	3.3
		255	△	2				255	226									4.2

△ : Mark tools are manufatured to order.

NOTE : 1.Coolant pipe is included.
2.Chuck wrench and adjust screw are sold separately.
3.Adjust screw is manufactured to order. Please instruct when ordering.
4.The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.

ORDERING EXAMPLE

① HSKA63 - ② HPC ③ 06 ④ M - ⑤ 150

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ M series
⑤ G.L. Length

ACCESSORIES P.114 ADJUST SCREW

ACCESSORIES P.116 CHUCK WRENCH

ACCESSORIES for MICRON CHUCK H series M series

ACCESSORIES

CHUCK WRENCH (For MICRON CHUCK H series, M series and N series)

HOOK PIN SPANNER		
CHUCK CODE MICRON CHUCK	WRENCH CODE	
HPC03H~HPC16H HPC03M~HPC12M HPC03N~HPC12N	FP45-48G	35851

HARD CHUCK

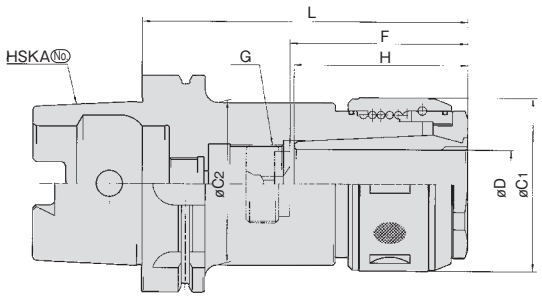
FEATURES P.7-8

HSKA№-CTHⒹ-Ⓛ

Thru-the-tool Coolant Available

FEATURES

- The ball screw structure provides high clamping power.
- Easy handling.
- High accuracy and rigidity are kept lo



MODEL		CODE	øD	L	øC1	øC2	H	G	F MIN.	F MAX.	SPRING COLLET	ADJUST SCREW	N/W (kg)
HSKA63	-CTH16-120	26890	16	120	52	50	50	M18×1.5	50	70	C16-(16)	OR-M18-25	
	-CTH20-120	26892	20		60	54					C20-(20)		
	-CTH25-120	26894	25		68	62	68	M28×1.5	60		C25-(25)	OR-M28-25	
	-CTH32-135	26896	32	135	80		70			80	CS32-(32)	OR-M28-30	
HSKA100	-CTH16-135	27250	16	135	52	50		M18×1.5	50	69	C16-(16)	OR-M18	
	-CTH20-135	27252	20		60	54	50				C20-(20)		
	-CTH25-135	27254	25		68	62	68	M28×1.5	68	79	C25-(25)	OR-M28-25	
	-CTH32-150	27256	32	150	80	75	80	M36×1.5	80	100	C32-(32)	OR-M36-20	
	-CTH42-165	27258	42	165	95	85	90		90	114	C42-(42)		

NOTE:1. A Coolant pipe is supplied with chuck.
2. A spring collet is supplied with Hard chuck.
Unless otherwise required, maximum ID spring collet is supplied.
3. Chuck wrench and adjust screw are sold separately.
4. For thru-the-tool coolant application, OR-adjust screw is used.
OR-adjust screw is sold separately.

ORDERING EXAMPLE

① HSKA63 - ② CTH ③ 16 - ④ 120

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

ACCESSORIES P.48 ADJUST SCREW

ACCESSORIES P.118 SPLING COLLET, STRAIGHT COLLETS

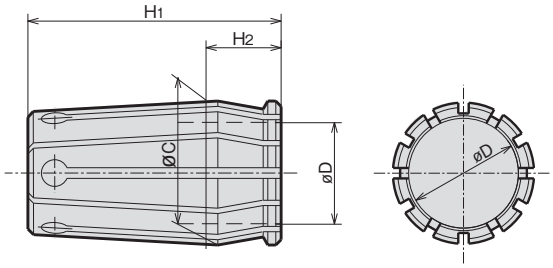
ACCESSORIES P.119 CHUCK WRENCH

ACCESSORIES for HARD CHUCK

ACCESSORIES

SPRING COLLET (For HARD CHUCK)

C№-D



CODE	øD											øC	H1	H2	holder		
															CTH12L	CTH	CT
C12L-D	6	8	10	12								18.00	40	13	CTH12L	—	—
C16-D	6	8	10	12	16							24.00	50	17	—	CTH16	—
C20-D	6	8	10	12	16	20						28.75	50	15	—	CTH20	—
C25-D			10	12	16	20	25					35.75	68	19	—	CTH25	CT25
C32-D					16	20	25	32				45.25	80	21	—	CTH32	CT32
※CS32-D(SHORT)					16	20	25	32				45.25	70	21	—	CTH32	—
C42-D						20	25	32	42			55.00	90	21	—	CTH42	—
C50-D								32	42	50	50.8	65.00	95	25	—	CTH50	—

NOTE※ CS32-D(SHORT) spring collet is for BT40·NT40 Hard Chuck.

ORDERING EXAMPLE

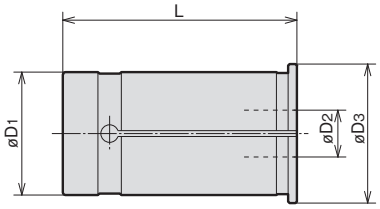
① C12 - ② 6

① Chack Type
② øD

ACCESSORIES

STRAIGHT COLLET

SC D1-D2



CODE SC D1-D2		øD3	L
SC16	-6·8·10·12	20	47
SC20	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16	23.5	50
SC25	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21	30	60
SC32	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25	37.5	70
SC42	-6·6.8·7·8·8.5·9·10·11·12·13·14·15·16·17·18·19·20·21·22·23·24·25·32	47.5	80

ORDERING EXAMPLE

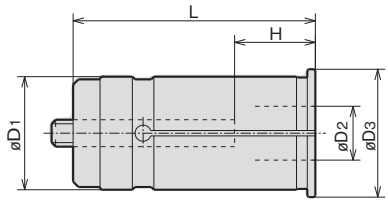
① SC ② 16 - ③ 6

① Name
② D1
③ D2

ACCESSORIES

STRAIGHT COLLET WITH ADJUST SCREW

NC Ⓓ1 - Ⓓ2



CODE NC Ⓓ1 - Ⓓ2		øD3	L	H MIN.	H MAX.
NC20	-6·8·10·12·16	23.5	60	25	35
NC32	-6·8·10	37.5	80	20	45
	-12·16·20·25			25	55
NC42	-6·8·10·12	47.5	90	20	45
	-16·20·25·32			30	65

Note:
* For all SHOWA chuck

ORDERING EXAMPLE

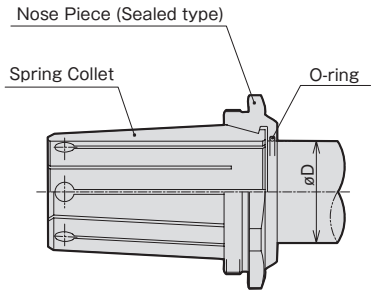
① NC ② 32 - ③ 6

① Name
② D1
③ D2

ACCESSORIES

NOSE PIECE (For HARD CHUCK)

NG Ⓝo - Ⓓ



ORDERING EXAMPLE

① NG ② 16 - ③ 6

① Name
② Chack Size
③ øD

CODE	øD											HARD CHUCK CODE
NG16-øD	6	8	10	12	16							CTH16
NG20-øD	6	8	10	12	16	20						CTH20
NG25-øD				12	16	20	25					CTH25
NG32-øD					16	20	25	32				CTH32
NG42-øD						20	25	32	42			CTH42
NG50-øD								32	42	50	50.8	CTH50

ACCESSORIES

CHUCK WRENCH (For HARD CHUCK)

HOOK SPANNER		
CHUCK CODE HARD CHUCK	WRENCH CODE	
CTH12L,CTH16	FS52-55G	35852
CTH20,CT25G	FS58-62G	35853
CTH25,CT32G	FS68-75G	35854
CTH32	FS80-90G	35855
CTH42	FS92-100	
CTH50	FS105-115	35829

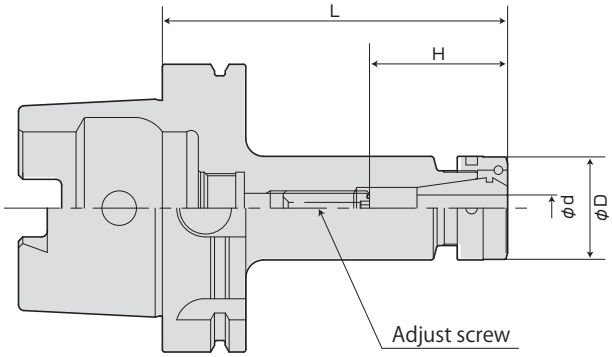
COLLET CHUCK

FEATURES P.9-10

HSKA№-RSCⒹMAX-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available



MODEL		CODE	STOCK	ød	øD	L	H (Adjust)	COLLET	NUT	ADJUST SCREW
Max. 20,000min^{-1}										
HSKA50	RSC07-090	300074	○	0.5～7	24	90	24～40	CR07-(D)	RSN07NB	M6×20L-CTW
	RSC10-090	300065	○	0.5～10	30	90	31～43	CR10-(D)	RSN10NB	RAS10-25-2.5
	-120	300066	○			120	31～48			
	RSC13-090	300067	○	0.5～13	36	90	35～43	CR13-(D)	RSN13NB	RAS13-25-2.5
	-120	300068	○			120	35～52			
	RSC16-090	300070	○	1～16	42	90	38～43	CR16-(D)	RSN16NB	RAS16-25-5
	-120	300071	○			120	38～66			
	RSC20-090	300072	○	1.5～20	50	90	68	CR20-(D)	RSN20NB	(M24×25L-CTW)
	-120	300073	○			120	44～67			RAS20-25-5
HSKA63	RSC07-090	320170	○	0.5～7	24	90	24～40	CR07-d	RSC07NB	M6×20L-CTW
	RSC10-090	320172	○	0.5～10	30	90	31～40	CR10-d	RSC10NB	RAS10-25-2.5
	RSC10-120	320174	○			120	31～48			
	RSC10-150	320175	△			150				
	RSC13-090	320176	○	0.5～13	36	90	35～40	CR13-d	RSC13NB	RAS13-25-2.5
	RSC13-120	320178	○			120	35～52			
	RSC13-150	320179	△			150				
	RSC16-090	320180	○	1～16	42	90	38～40	CR16-d	RSC16NB	RAS16-25-5
	RSC16-120	320181	○			120	38～66			
	RSC16-150	320161	△			150				
	RSC20-090	320182	○	1.5～20	50	90	66	CR20-d	RSC20NB	(M24×25L-CTW)
	RSC20-120	320184	○			120	44～61			RAS20-25-5
	RSC20-150	320185	△			150				
Max. 8,000min^{-1}										
HSKA100	RSC07-105		○	0.5～7	24	105	24～40	CR07-d	RSC07NB	M6×20L-CTW
	RSC10-105	350330	○	0.5～10	30	105	31～43	CR10-d	RSC10NB	RAS10-25-2.5
	RSC10-135	350332	○			135	31～48			
	RSC10-165	350333	△			165				
	RSC10-195	350311	△			195				
	RSC10-225	350312	△			225				
	RSC10-255	350313	△			255				
	RSC10-285	350314	△			285				
	RSC13-105	350334	○	0.5～13	36	105	35～48	CR13-d	RSC13NB	RAS13-25-2.5
	RSC13-135	350336	○			135	35～52			
	RSC13-165	350337	△			165				
	RSC13-195	350315	△			195				
	RSC13-225	350316	△			225				
	RSC13-255	350317	△			255				
	RSC13-285	350318	△			285				
	RSC16-105	350338	○	1～16	42	105	38～48	CR16-d	RSC16NB	RAS16-25-5
	RSC16-135	350340	○			135	38～76			
	RSC16-165	350341	△			165				
	RSC16-195	350319	△			195				
	RSC16-225	350320	△			225				
	RSC16-255	350321	△			255				
	RSC16-285	350322	△			285				
	RSC20-105	350342	○	1.5～20	50	105	44～48	CR20-d	RSC20NB	RAS20-25-5
	RSC20-135	350344	○			135	44～78			
	RSC20-165	350345	△			165				
	RSC20-195	350346	△			195				
	RSC20-225	350347	△			225				
	RSC20-255	350348	△			255				
	RSC20-285	350349	△			285				

NOTE : 1. Coolant pipe is included.
2. Collet and chuck wrench are sold separately.
3. CROH collet is used for thru-the-tool coolant application.
4. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.

ORDERING EXAMPLE

① HSKA50 - ② RSC - ③ 07 - ④ 090

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

ACCESSORIES
P.122-125 COLLETS

ACCESSORIES
P.126 NUT, ADJUST SCREW, CHUCK WRENCH

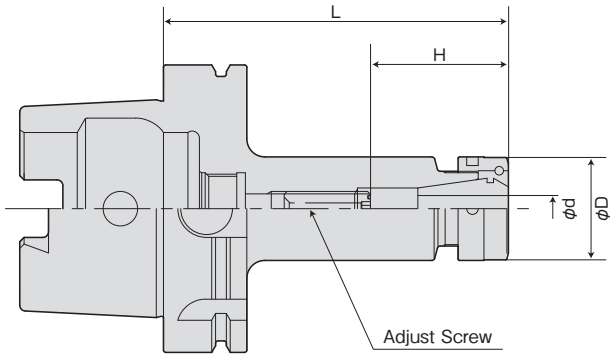
COLLET CHUCK G Type

FEATURES P.9-10

HSKA№-RSCⒹMAX-ⓁG

Thru-the-tool Coolant Available

Thru-the-groove Coolant Available



Max 27,000min^{-1}

MODEL		CODE	ϕd (GRIPPINGRANGE)	ϕD	L	H	COLLET	NUT	ADJUST SCREW
HSKA50	RSC07-090G	300040	0.5~7	24	90	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	RSC10-090G	300042	0.5~10	30	90	31~43	CR10-(D)	RSN10NB	RAS10-25-2.5
	-120G	300043			120	31~48			
	RSC13-090G	300044	0.5~13	36	90	35~43	CR13-(D)	RSN13NB	RAS13-25-2.5
	-120G	300045			120	35~52			
	RSC16-090G	300046	1~16	42	90	38~43	CR16-(D)	RSN16NB	RAS16-25-5
	-120G	300047			120	38~66			
	RSC20-090G	300048	1.5~20	50	90	68	CR20-(D)	RSN20NB	(M24×25L-CTW)
	-120G	300049			120	44~67			RAS20-25-5
HSKA63	RSC07-090G	320150	0.5~7	24	90	24~40	CR07-(D)	RSN07NB	M6×20L-CTW
	RSC10-090G	320152	0.5~10	30	90	31~40	CR10-(D)	RSN10NB	RAS10-25-2.5
	-120G	320153			120	31~48			
	RSC13-090G	320154	0.5~13	36	90	35~40	CR13-(D)	RSN13NB	RAS13-25-2.5
	-120G	320155			120	35~52			
	RSC16-090G	320156	1~16	42	90	38~40	CR16-(D)	RSN16NB	RAS16-25-5
	-120G	320157			120	38~66			
	RSC20-090G	320158	1.5~20	50	90	66	CR20-(D)	RSN20NB	(M24×25L-CTW)
	-120G	320159			120	44~61			RAS20-25-5

NOTE：1. Coolant pipe is included.
2. Collet and chuck wrench are sold separately.
3. CROH collet is used for thru-the-tool coolant application.
4. The above-mentioned maximum speed will vary depending rigidity of the machine and balance of cutter. An adequate cutting condition should be selected for each case.

ORDERING EXAMPLE

① HSKA50 - ② RSC ③ 07 - ④ 090 ⑤ G

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length
⑤ G Type

ACCESSORIES P.110-113 COLLETS

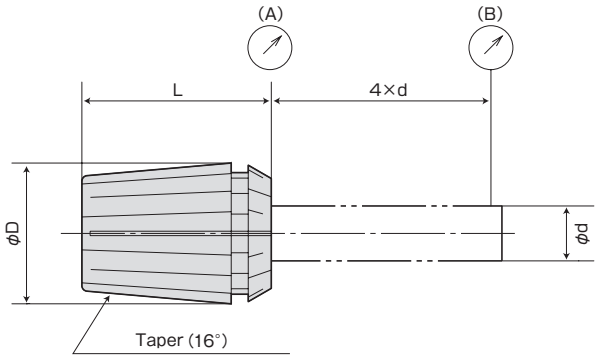
ACCESSORIES P.114 NUT, ADJUST SCREW, CHUCK WRENCH

ACCESSORIES for COLLET CHUCK

ACCESSORIES

CR COLLET

CR№-Ⓓ

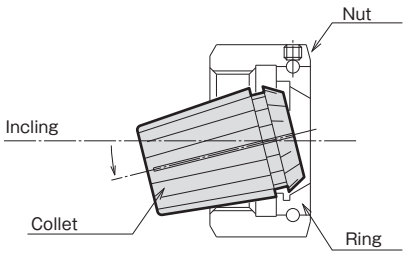


GRADE	RUNOUT (MAX,μm) NOSE(A)	POINT(B)
(AA)	1	3
(A)	2	5
(STD)	5	15

Grade	application
AA grade · A grade	Reamer · Center drill Carbide small diameter drill, Endmill Whetstone for internal cylindrical grinding, Tool for high frequency motors Carbide drill Rotating tool for lathes (the tool rotation)
Standard	General drill, tap Rotating tool for lathes (Work rotating)

Easy collet setting

- A half of ID of the ring is enlarged. Collet can be mounted easily by inclining it.



CHUCK / COLLET CODE	RSC07 CR07-d GRADE		RSC10 CR10-d GRADE		RSC13 CR13-d GRADE		RSC16 CR16-d GRADE		RSC20 CR20-d GRADE	
	φd	RANGE	φd	RANGE	φd	RANGE	φd	RANGE	φd	RANGE
φd	1.0	0.5~1.0	1.0	0.5~1.0	1.0	0.5~1.0	1.5	1.0~1.5	2.0	1.5~2.0
	1.5	1.0~1.5	1.5	1.0~1.5	1.5	1.0~1.5	2.0	1.5~2.0	2.5	2.0~2.5
	2.0	1.5~2.0	2.0	1.5~2.0	2.0	1.5~2.0	2.5	2.0~2.5	3.0	2.5~3.0
	2.5	2.0~2.5	2.5	2.0~2.5	2.5	2.0~2.5	3.0	2.5~3.0	4.0	3.0~4.0
	3.0	2.5~3.0	3.0	2.5~3.0	3.0	2.5~3.0	4.0	3.0~4.0	5.0	4.0~5.0
	3.5	3.0~3.5	4.0	3.0~4.0	4.0	3.0~4.0	5.0	4.0~5.0	6.0	5.0~6.0
	4.0	3.5~4.0	5.0	4.0~5.0	5.0	4.0~5.0	6.0	5.0~6.0	7.0	6.0~7.0
	4.5	4.0~4.5	6.0	5.0~6.0	6.0	5.0~6.0	7.0	6.0~7.0	8.0	7.0~8.0
	5.0	4.5~5.0	7.0	6.0~7.0	7.0	6.0~7.0	8.0	7.0~8.0	9.0	8.0~9.0
	5.5	5.0~5.5	8.0	7.0~8.0	8.0	7.0~8.0	9.0	8.0~9.0	10.0	9.0~10.0
	6.0	5.5~6.0	9.0	8.0~9.0	9.0	8.0~9.0	10.0	9.0~10.0	11.0	10.0~11.0
	6.5	6.0~6.5	10.0	9.0~10.0	10.0	9.0~10.0	11.0	10.0~11.0	12.0	11.0~12.0
	7.0	6.5~7.0			11.0	10.0~11.0	12.0	11.0~12.0	13.0	12.0~13.0
					12.0	11.0~12.0	13.0	12.0~13.0	14.0	13.0~14.0
					13.0	12.0~13.0	14.0	13.0~14.0	15.0	14.0~15.0
							15.0	14.0~15.0	16.0	15.0~16.0
							16.0	15.0~16.0	17.0	16.0~17.0
									18.0	17.0~18.0
									19.0	18.0~19.0
									20.0	19.0~20.0
φD	11		16		20		25		32	
L	18		27		31		35		40	

Collet for through the groove (produce by order) are also available.

ORDERING EXAMPLE

① CR07 - ② 1.5 ③ AA

① Chuck Type
② ød
③ Grade

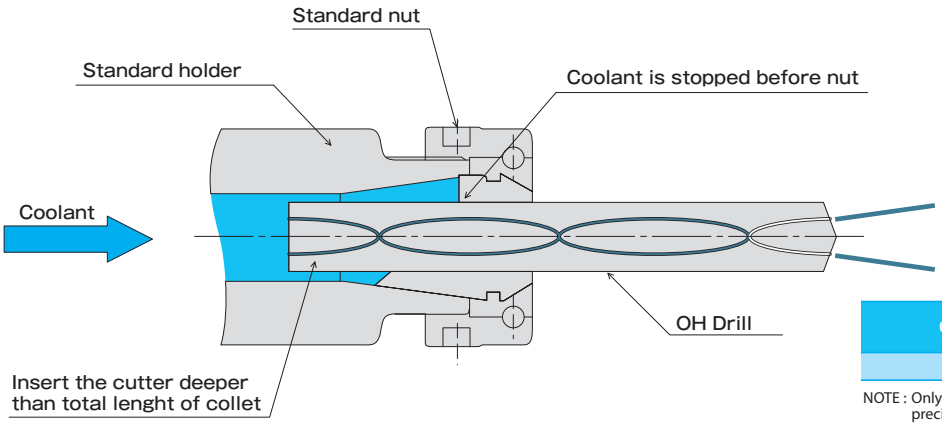
ACCESSORIES

OIL HOLE CR COLLET

CROH№-Ⓓ

FEATURES

- For thru-the tool coolant application.
- High pressure up to 7 Mpa is acceptable.
- Standard holders and nuts can be used.
- Bearing of nut is not affected by coolant.



GRADE	RUNOUT (MAX, μm) 4×d
(AA)	5μm

NOTE : Only super precious grade (AA) is available for sale only ultra precision grade (AA) type.

COLLET CODECHUCK	RSC07 CROH07-d GRADE		RSC10 CROH10-d GRADE		RSC13 CROH13-d GRADE		RSC16 CROH16-d GRADE		RSC20 CROH20-d GRADE	
	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE	ϕd	RANGE
	2.0	1.9~2.0	2.0	1.9~2.0	3.0	2.9~3.0	3.0	2.9~3.0	3.0	2.9~3.0
	2.5	2.4~2.5	2.5	2.4~2.5	3.5	3.4~3.5	3.5	3.4~3.5	3.5	3.4~3.5
	3.0	2.9~3.0	3.0	2.9~3.0	4.0	3.9~4.0	4.0	3.9~4.0	4.0	3.9~4.0
	4.0	3.9~4.0	4.0	3.9~4.0	4.5	4.4~4.5	4.5	4.4~4.5	4.5	4.4~4.5
	4.5	4.4~4.5	4.5	4.4~4.5	5.0	4.9~5.0	5.0	4.9~5.0	5.0	4.9~5.0
	5.0	4.9~5.0	5.0	4.9~5.0	5.5	5.0~5.5	5.5	5.4~5.5	5.5	5.4~5.5
	5.5	5.4~5.5	5.5	5.0~5.5	6.0	5.5~6.0	6.0	5.5~6.0	6.0	5.9~6.0
	6.0	5.9~6.0	6.0	5.5~6.0	6.5	6.0~6.5	6.5	6.0~6.5	6.5	6.4~6.5
	6.5	6.4~6.5	6.5	6.0~6.5	7.0	6.5~7.0	7.0	6.5~7.0	7.0	6.9~7.0
	7.0	6.9~7.0	7.0	6.5~7.0	7.5	7.0~7.5	7.5	7.0~7.5	7.5	7.4~7.5
			7.5	7.0~7.5	8.0	7.5~8.0	8.0	7.5~8.0	8.0	7.5~8.0
			8.0	7.5~8.0	8.5	8.0~8.5	8.5	8.0~8.5	8.5	8.0~8.5
			8.5	8.0~8.5	9.0	8.5~9.0	9.0	8.5~9.0	9.0	8.5~9.0
			9.0	8.5~9.0	9.5	9.0~9.5	9.5	9.0~9.5	9.5	9.0~9.5
			9.5	9.0~9.5	10.0	9.5~10.0	10.0	9.5~10.0	10.0	9.5~10.0
			10.0	9.5~10.0	10.5	10.0~10.5	10.5	10.0~10.5	10.5	10.0~10.5
ϕd					11.0	10.5~11.0	11.0	10.5~11.0	11.0	10.5~11.0
					11.5	11.0~11.5	11.5	11.0~11.5	11.5	11.0~11.5
					12.0	11.5~12.0	12.0	11.5~12.0	12.0	11.5~12.0
					12.5	12.0~12.5	12.5	12.0~12.5	12.5	12.0~12.5
					13.0	12.5~13.0	13.0	12.5~13.0	13.0	12.5~13.0
							13.5	13.0~13.5	13.5	13.0~13.5
							14.0	13.5~14.0	14.0	13.5~14.0
							14.5	14.0~14.5	14.5	14.0~14.5
							15.0	14.5~15.0	15.0	14.5~15.0
							15.5	15.0~15.5	15.5	15.0~15.5
							16.0	15.5~16.0	16.0	15.5~16.0
									16.5	16.0~16.5
									17.0	16.5~17.0
									17.5	17.0~17.5
									18.0	17.5~18.0
									18.5	18.0~18.5
									19.0	18.5~19.0
									19.5	19.0~19.5
									20.0	19.5~20.0
ϕD	11		16		20		25		32	
L	18		27		31		35		40	

NOTE : 1. Applicable for drill with oil hole.
2. When in use insert a drill to the end from the rear of the collet.
3. Do not use smaller sized cutting tools than inner diameter of collet, or coolant may leak out of a collet.
4. If flat-face shank cutting tool is used, sealing function of collet does not work.

ORDERING EXAMPLE

① CROH10 - ② 10 ③ AA

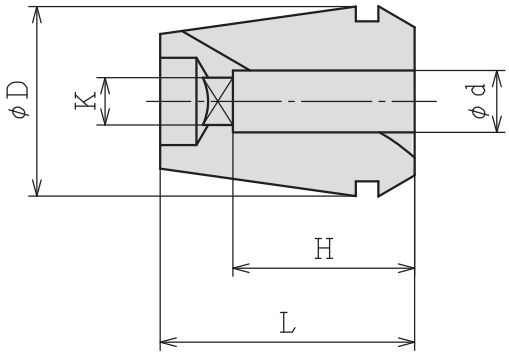
① Chuck Type
② ød
③ Grade

ACCESSORIES for COLLET CHUCK

CR TAP COLLET

CR№GB-Ⓓ

CR collet with square hole for shank end of tap (for synchro tap).



MODEL		CODE	TAP SIZE	φd	K	H	φD	L	TAP HOLDER	COLLET CHUCK
CR10GB	-M4	84700	M4	5	4	15	16	27	-	RSC10
	-M5	84702	M5	5.5	4.5	15				
	-M6	84704	M6	6	4.5	15				
	-M8	84706	M8	6.2	5	20				
	-M10	84708	M10	7	5.5	20				
	-P1/8	84710	P1/8	8	6	20				
CR13GB	-M4	84712	M4	5	4	15	20	31	SYFN12	RSC13
	-M5	84714	M5	5.5	4.5	15				
	-M6	84716	M6	6	4.5	15				
	-M8	84718	M8	6.2	5	20				
	-M10	84720	M10	7	5.5	20				
	-P1/8	84722	P1/8	8	6	20				
	-M12	84724	M12	8.5	6.5	20				
CR16GB	-M4	84726	M4	5	4	15	25	35	SYFN16S	RSC16
	-M5	84728	M5	5.5	4.5	15				
	-M6	84730	M6	6	4.5	15				
	-M8	84732	M8	6.2	5	20				
	-M10	84734	M10	7	5.5	20				
	-P1/8	84736	P1/8	8	6	20				
	-M12	84738	M12	8.5	6.5	20				
	-M14	84740	M14	10.5	8	25				
	-P1/4	84742	P1/4	11	9	17				
	-M16	84744	M16	12.5	10	25				
	-P3/8	84746	P3/8	14	11	18				
CR20GB	-M4	84748	M4	5	4	15	32	40	SYFN20	RSC20
	-M5	84750	M5	5.5	4.5	15				
	-M6	84752	M6	6	4.5	15				
	-M8	84754	M8	6.2	5	20				
	-M10	84756	M10	7	5.5	20				
	-P1/8	84758	P1/8	8	6	20				
	-M12	84760	M12	8.5	6.5	20				
	-M14	84762	M14	10.5	8	25				
	-P1/4	84764	P1/4	11	9	17				
	-M16	84766	M16	12.5	10	25				
	-P3/8	84768	P3/8	14	11	18				
	-M18	84770	M18	14	11	30				
	-M20	84772	M20	15	12	30				

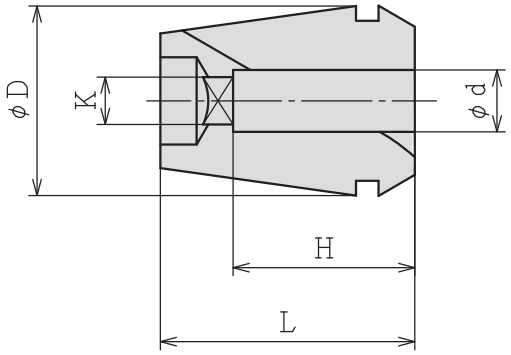
NOTE : 1. Above table is for a tap of JIS standard shank.
2. Run-out accuracy is subject to ordinary (STD) class.

ACCESSORIES

OIL HOLE CR TAP COLLET

CR№GH-Ⓓ

OH-type collet with square hole is for high-pressure centre-through coolant feeding (for synchro tapping).



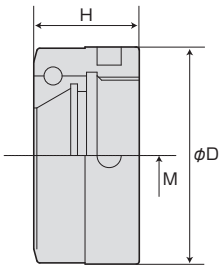
MODEL		CODE	TAP SIZE	φd	K	H	φD	L	TAP HOLDER	COLLET CHUCK
CR10GH	-M6	84800	M6	6	4.5	22	16	27	-	RSC10
	-M8	84802	M8	6.2	5	22				
	-M10	84804	M10	7	5.5	22				
	-P1/8	84806	P1/8	8	6	22				
CR13GH	-M6	84808	M6	6	4.5	25	20	31	SYFN12	RSC13
	-M8	84810	M8	6.2	5	25				
	-M10	84812	M10	7	5.5	25				
	-P1/8	84814	P1/8	8	6	25				
	-M12	84816	M12	8.5	6.5	25				
CR16GH	-M6	84818	M6	6	4.5	25	25	35	SYFN16S	RSC16
	-M8	84820	M8	6.2	5	25				
	-M10	84822	M10	7	5.5	25				
	-P1/8	84824	P1/8	8	6	25				
	-M12	84826	M12	8.5	6.5	30				
	-M14	84828	M14	10.5	8	30				
	-P1/4	84830	P1/4	11	9	30				
	-M16	84832	M16	12.5	10	30				
	-P3/8	84834	P3/8	14	11	30				
CR20GH	-M6	84836	M6	6	4.5	25	32	40	SYFN20	RSC20
	-M8	84838	M8	6.2	5	25				
	-M10	84840	M10	7	5.5	30				
	-P1/8	84842	P1/8	8	6	30				
	-M12	84844	M12	8.5	6.5	30				
	-M14	84846	M14	10.5	8	30				
	-P1/4	84848	P1/4	11	9	35				
	-M16	84850	M16	12.5	10	35				
	-P3/8	84852	P3/8	14	11	35				
	-M18	84854	M18	14	11	35				
	-M20	84856	M20	15	12	35				

NOTE : 1. Above table is for a tap of JIS standard shank.
2. Run-out accuracy is subject to ordinary (STD) class.
3. In the case of OSG Corporation synchro tap, shank diameter, square end dimensions are different from others so that there is the case that you can not use it even if tap size is the same.
4. Gap-through collet is also available. Please order separately.

ACCESSORIES for COLLET CHUCK

NUT FOR COLLET CHUCK

RSN No.-TYPE



for BT, ST

CODE		M	ϕD	H	CHUCK
RSN07NB(Ni)	30891	M16×1.0	24	11.5	RSC07
RSN10NB(Ni)	30892	M21×1.0	30	15.5	RSC10
RSN13NB(Ni)	30893	M26×1.0	36	17.5	RSC13
RSN16NB(Ni)	30894	M32×1.0	42	17.5	RSC16
RSN20NB(Ni)	30895	M40×1.0	50	17.5	RSC20

Through-Coolant use

CODE		M	ϕD	H	CHUCK
RSN10NB-OH	30870	M21×1.0	30	15.5	RSC10
RSN13NB-OH	30871	M26×1.0	36	17.5	RSC13
RSN16NB-OH	30872	M32×1.0	42		RSC16
RSN20NB-OH	30873	M40×1.0	50		RSC20

Note: Single use of OH nut can not cope with the thru-the-tool coolant.

ADJUST SCREW (For COLLET CHUCK)

FIG.1

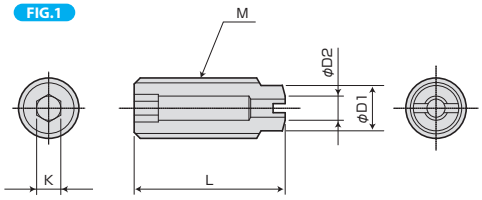
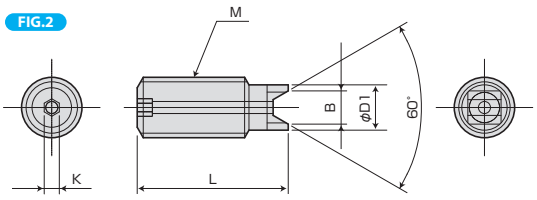


FIG.2



MODEL	FIG	M	L	D1	D2	K	B	HOLDER
M6×20L-CTW 1)	1	M6×1.0	20	4.5	3	3	—	RSC07
RAS10-25-2.5 2)	2	M10×1.5	25	7.5	—	2.5	5.5	RSC10
RAS13-25-2.5 2)		M12×1.5		9.5			7.2	RSC13
RAS16-25-5 2)		M18×1.5		13.5		5	9.5	RSC16
RAS20-25-5 2)		M24×1.5		17.5				RSC20

Note 1: Drill less than φ3 cannnot ne used for adjustment protrusion in order to enter the coolant hole.
CTW is not in the two pieces shape
Note 2: Drill less than φ2 cannnot ne used for adjustment protrusion in order to enter the coolant hole.

CHUCK WRENCH (For COLLET CHUCK)

CODE		CHUCK
FP25	35844	RSC07
FP30	35845	RSC10
FP35	35846	RSC13
FP42	35847	RSC16
FP50	35848	RSC20

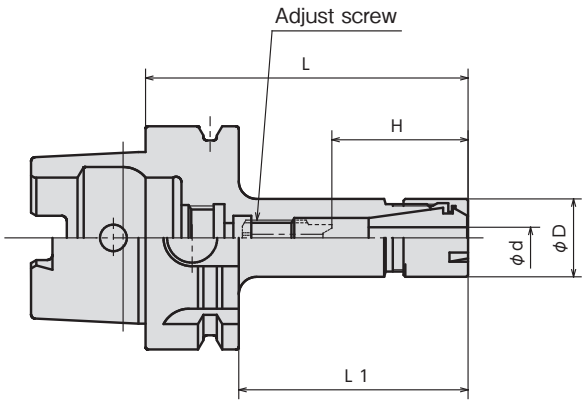
COLLET CHUCK (SLIM TYPE)

FEATURES P.13

HSKA№-SSCⒹMAX-Ⓛ

Thru-the-tool Coolant Available

Thru-the-groove Coolant Available



MODEL		CODE	ød	øD	L	L1	H	COLLET	NUT	ADJUST SCREW
HSKA50	SSC07-090	310011	0.5~7	16	90	64	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	310012			135	109				
	SSC10-090	310013	0.5~10	22	90	64	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	310014			135	109				
	SSC13-090	310015	0.5~13	28	90	64	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-135	310016			135	109				
HSKA63	SSC07-090	321351	0.5~7	16	90	64	25~40	CR07-d	ER11MN	M6×20L-CTW
	SSC07-135	321352			135	109				
	SSC10-090	321353	0.5~10	22	90	64	31~48	CR10-d	ER16MN	RAS10-25-2.5
	SSC10-135	321354			135	109				
	SSC13-105	321355	0.5~13	28	105	79	35~52	CR13-d	ER20MN	RAS13-25-2.5
	SSC13-150	321356			150	124				

NOTE: 1. A Coolant pipe is supplied with chuck.
2. Collet and chuck wrench are sold separately.
3. CROH collet is used for thru-the-tool coolant application.

ORDERING EXAMPLE

① HSKA63 - ② SSC ③ 10 - ④ 135

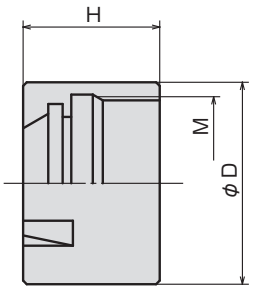
① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

ACCESSORIES P.122,123 COLLETS

ACCESSORIES P.128 NUT, ADJUST SCREW, CHUCK WRENCH

ACCESSORIES for SLIM CHUCK

NUT FOR SLIM CHUCK



CODE		M	øD	H	CHUCK
ER11MN	30924	M13×0.75	16	11.3	SSC07
ER16MN	30926	M19×1.0	22	18	SSC10
ER20MN	30928	M24×1.0	28	19	SSC13
ER25MN	30929	M30×1.0	35	20	SYFN16S

ER25MN is a nut for Synchro Tap Holder SYFN16S type, on page 57 and page 111.

ADJUST SCREW (For SLIM CHUCK)

FIG.1

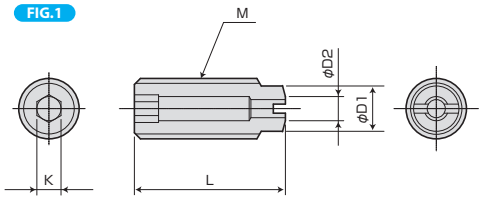
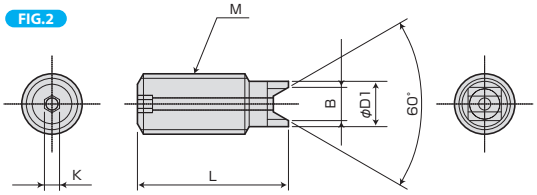


FIG.2



MODEL	FIG	M	L	D1	D2	K	B	HOLDER
M6×20L-CTW 1)	1	M6×1.0	20	4.5	3	3	—	SSC07
RAS10-25-2.5 2)	2	M10×1.5	25	7.5	—	2.5	5.5	SSC10
RAS13-25-2.5 2)		M12×1.5		9.5			7.2	SSC13

Note 1: Drill less than φ3 cannnot ne used for adjustment protrusion in order to enter the coolant hole. CTW is not in the two pieces shape
Note 2: Drill less than φ2 cannnot ne used for adjustment protrusion in order to enter the coolant hole.

CHUCK WRENCH (For SLIM CHUCK)

CODE		CHUCK
ER11MS	35861	SSC07
ER16MS	35863	SSC10
ER20MS	35865	SSC13
ER25MS	35867	SYFN16S

NOTE : ER25MS is a wrench for Synchro Tap Holder SYFN16S, type, on page 57 and page 111.

Hy-Dual CHUCK

FEATURES P.19-20

HSKA㊊-HDU㊃-㊍

FIG.1

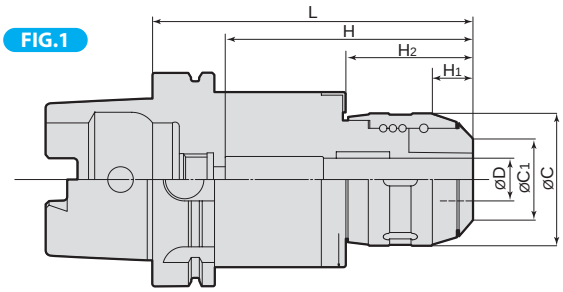
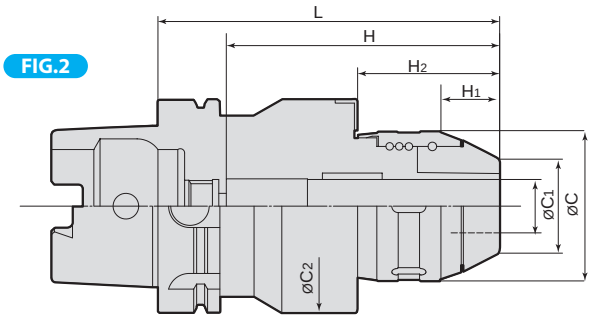


FIG.2



Cutter shank diameter should be h6 or better.

HSK series

MODEL		STOCK	Fig	øD	L	H	øC	øC1	øC2	H1	H2	Min insert length	N/W (kg)
HSKA63	-HDU16- 140	△	1	16	140	112	62	38	82	14	54.5	57	
	-HDU20- 145	△		20	145	117				19	59.5	70	
HSKA100	-HDU16- 145	△	2	16	145	112	62	38	82	14	54.5	57	
	-HDU20- 150	△		20	150	117				19	59.5	70	
	-HDU25- 160	△	1	25	160	128	70	44	100	27.5	66.5	85	
	-HDU32- 165	△		32	165	133	82	52			68.5	90	

NOTE : 1. Coolant pipe is included.
2. Please don't use with collets because it may destroy the inside of the holder.
3. After 100 clamping cycles, or every 3month interval, please confirm clamping power of hydraulic portion.
4. When you check clamping power of hydraulic portion, please use exclusive test bar (separately sold).

ACCESSORIES
P.118 CHUCK WRENCH

ORDERING EXAMPLE

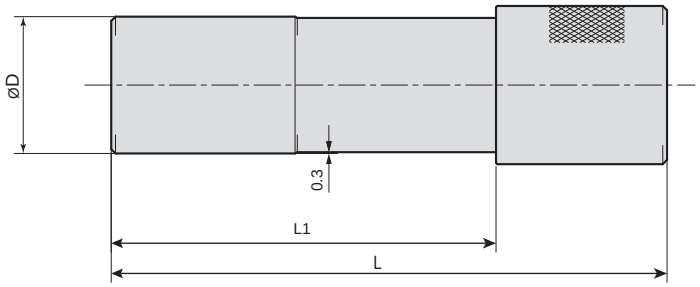
① HSKA63 - ② HDU ③ 32 - ④ 120

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

ACCESSORIES for Hy-Dual CHUCK

ACCESSORIES

Tester for clamping power



MODEL		øD	L	L1
TB	HDU16	16	110	57
	HDU20	20	110	70
	HDU25	25	125	85
	HDU32	32	130	90

ORDERING EXAMPLE

① TB - ② HDU16

① Holder's Name
② Chack Size

ACCESSORIES

CHUCK WRENCH (For Hy-Dual CHUCK)

HOOK SPANNER		
CHUCK CODE Hy-DUAL CHUCK	WRENCH CODE	
HDU16,HDU20	FS58-62G	35853
HDU25	FS68-75G	35854
HDU32	FS80-90G	35855

SYNCHRO TAP HOLDER
SYFN/SYFS

FEATURES P.11-12

HSKA㊀-SYFN/SYFS㊀-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available(Option)

FIG.1

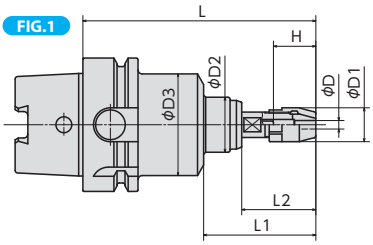


FIG.2

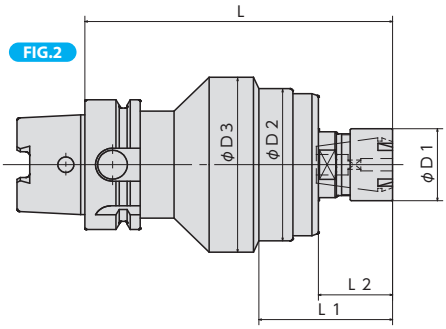


FIG.3

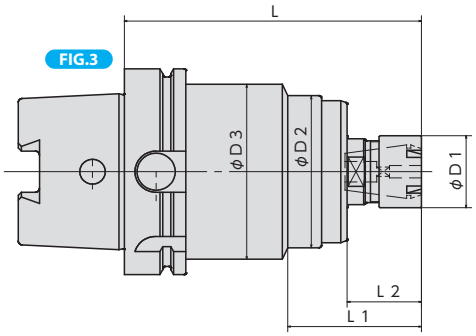


FIG.4

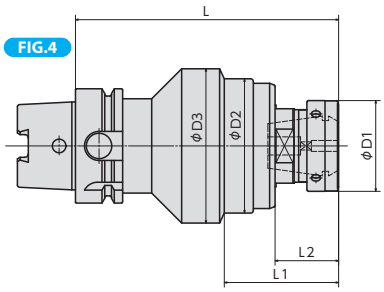
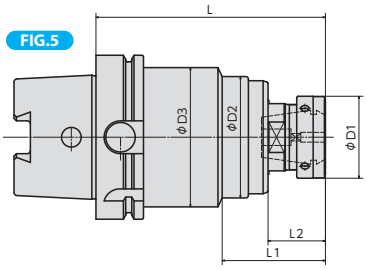


FIG.5



Please use the tool having shank tolerance within h7 for SYFS type.

MODEL			CODE	FIG	øD	øD1	øD2	øD3	L	L1	L2	H	TAP SIZE	COLLET
HSKA50	-SYFN12	-125	310001	4	–	36	51	62.5	125	54	30	–	M4~M12,No.8~U1/2	CR13GBorGH
		-155	310002						155	84	60		P1/8	
HSKA63	-SYFS02	-110	321282	1	3	16	26	48	110	53	35	22	M1,M1.6,M2,No.3,No.4	–
	-SYFS03	-110	321284		4								M3,No.5,No.6	
	-SYFN12	-115	321291	5	–	36	51	62.5	115	54	30	–	M4~M12,No.8~U1/2	CR13GBorGH
		-145	321292						145	84	60		P1/8	
	-SYFN16S	-145	321297	2	–	35	74	85	145	63	35	–	M4~M16,No.8~U5/8, P1/4	CR16GBorGH
		-175	321298						175	93	65			
		-205	321299						205	123	95			
	-SYFN20	-145	321294	4	–	50	74	85	145	63	35	–	M4~M20,U5/16~U5/8, P1/8~P3/8	CR20GBorGH
		-175	321295						175	93	65			
		-205	321296						205	123	95			
HSKA100	-SYFS02	-115	351081	1	3	16	26	48	115	53	35	22	M1,M1.6,M2,No.3,No.4	–
	-SYFS03	-115	351082		4								M3,No.5,No.6	
	-SYFN16S	-140	351107	3	–	35	74	85	140	63	35	–	M4~M16,No.8~U5/8, P1/4	CR16GBorGH
		-170	351108						170	93	65			
		-200	351109						200	123	95			
		-230	351110						230	153	125			
		-260	351111						260	183	155			
	-SYFN20	-140	351104	5	–	50	74	85	140	63	35	–	M4~M20,U5/16~U5/8, P1/8~P3/8	CR20GBorGH
		-170	351105						170	93	65			
		-200	351106						200	123	95			

NOTE: 1. Each holder supplied with built-in coolant pipe. (Stationary type)
2. Collet and chuck wrench are sold separately.
3. Applicable to synchronized machines only.
4. Thru-the-groove coolant type is manufacturered to orders.

ORDERING EXAMPLE

① HSKA63 - ② SYFN ③ 20 - ④ 145

① Shank Size
② Name
③ Type No
④ G.L. Length

ACCESSORIES P.124,125 COLLETS

ACCESSORIES P.126,128 NUT, CHUCK WRENCH

ACCESSORIES

COLLET CHUCK (SLIM TYPE)

FEATURES P.14

ST Ⓓ -SSC Ⓓ MAX- Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available

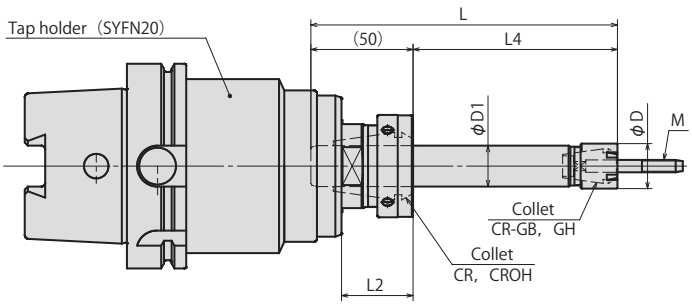


FIG.1

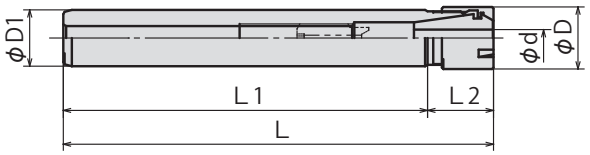
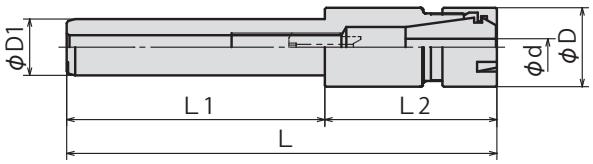


FIG.2



MODEL		CODE	FIG	øD	øD1	L	L1	L2	L3	L4	Suitable holder	Suitable collet	TAP SIZE	Collet for suitable collet	NUT
ST16	SSC07-100	30377	1	16	16	100	83	17	50 (min40)	50	SYFN20	CR20-16 CROH20-16	M2~M6, No.3~ U1/4	CR07-d CROH07-d	ER11MN
	SSC07-150	30378				150	133			100					
	SSC07-200	30379				200	183			150					
ST20	SSC10-100	30831	1	22	20	100	77	23	50 (min45)	50	SYFN20	CR20-20 CROH20-20	M4~M10, No.8~ U7/16	CR10GB CR10GH	ER16MN
	SSC10-150	30832				150	127			100					
	SSC10-200	30833				200	177			150					
	SSC10-250	30834				250	227			200					
	SSC13-150	30835	2	28	20	150	90	60		100			M4~M12, No.8~ U1/2,P1/8	CR13GB CR13GH	ER20MN
	SSC13-200	30836				200	140			150					

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ORDERING EXAMPLE

① HSKA63 - ② SYFN ③ 20 - ④ 145

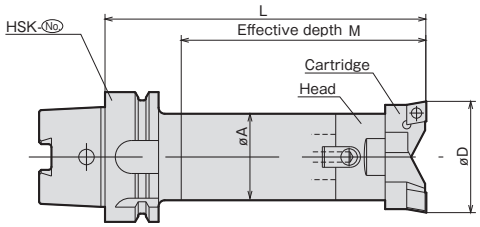
① Shank Size
② Name
③ Type No
④ G.L. Length

ACCESSORIES P.122-125 COLLETS

ACCESSORIES P.128 NUT, ADJUST SCREW, CHUCK WRENCH

FEATURES

- Versatile modular type boring system.
- Rigidity is increased by the new coupling method and the serrated head.
- Twin blades allow heavy cutting.
- Extensions are used for deep holes.



RANGE (D)	MODEL		CODE	SHANK		HEAD	CARTRIDGE	L	M	L1	øA	N/W (kg)
ø25~33	HSKA63	- TWC 25 - 120 - S	320100	HSKA63	- SBS1 - 120	HE25	CT25	120	85	83	24	1.2
ø32~45		- TWC 32 - 135 - S	320101		- SBS2 - 135	HE32	CT32	135	100	98	31	1.5
ø44~63		- TWC 44 - 135 - S	320102		- SBS3 - 135	HE44	CT44	135	100	91	42	2.0
ø62~89		- TWC 62 - 135 - S	320103		- SBS4 - 135	HE62	CT62	135	100	82	54	3.0
ø88~126		- TWC 88 - 165 - S	320104		- SBS5 - 165	HE88	CT88	165	130	100	64	5.7
ø25~33	HSKA100	- TWC 25 - 150 - S	350150	HSKA100	- SBS1 - 150	HE25	CT25	150	104	113	24	2.6
ø32~45		- TWC 32 - 165 - S	350151		- SBS2 - 165	HE32	CT32	165	119	128	31	3.0
ø44~63		- TWC 44 - 165 - S	350152		- SBS3 - 165	HE44	CT44	165	119	121	42	3.6
		- TWC 44 - 225 - S	350153		- SBS3 - 225			225	179	181		4.2
ø62~89		- TWC 62 - 165 - S	350154		- SBS4 - 165	HE62	CT62	165	119	112	54	4.7
		- TWC 62 - 240 - S	350155		- SBS4 - 240			240	194	187		5.9
		- TWC 62 - 285 - S	350156		- SBS4 - 285			285	239	232		6.7
ø88~126		- TWC 88 - 165 - S	350157		- SBS5 - 165	HE88	CT88	165	119	100	64	6.0
		- TWC 88 - 240 - S	350158		- SBS5 - 240			240	194	175		7.8
		- TWC 88 - 330 - S	350159		- SBS5 - 330			330	284	265		10.0
ø125~175		- TWC125 - 185 - S	350160		- SBS6 - 185	HE125	CT125	185	139	113	82	8.8
		- TWC125 - 240 - S	350161		- SBS6 - 240			240	194	168		9.6
		- TWC125 - 330 - S	350162		- SBS6 - 330			330	284	258		14.8

NOTE : 1. Coolant pipe is included.
2. Inserts are sold separately.
3. Inserts are in phase with the drive key.
4. Thru-the tool coolant type if manufactured by order.

ORDERING EXAMPLE

①	②	③	④	⑤
HSKA63	- TWC	25	- 120	- S

① Shank Size
② Name
③ Min. øD
④ G.L. Length
⑤ Set

ACCESSORIES P.133 INSERTS

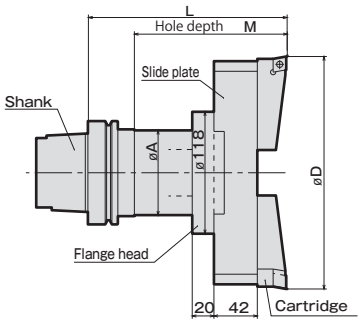
ACCESSORIES P.137 EXTENSION · REDUCTION

<BORING SYSTEM> TWINCUT for LARGE BORE

HSKA100Ⓝ₀-TWCⒹMIN-Ⓛ-S

FEATURES

For high stock removal with balanced blade, for ø175～ø375mm bores.



RANGE(D)	MODEL	CODE	SHANK	FLANGE HEAD	SLIDE PLATE	CARTRIDGE	INSERT	L	M	øA	N/W (kg)
ø175～225	HSKA100 - TWC175 - 205 - S	350185	HSKA100 - SBS6 - 185	TWC - FH - 0 (TWC - FH - 90)	SP175 - 42	CT125	WT62-127	205	159	82	12.2
	HSKA100 - TWC175 - 260 - S	350186	HSKA100 - SBS6 - 240					260	214		14.5
	HSKA100 - TWC175 - 350 - S	350187	HSKA100 - SBS6 - 330					350	304		17.9
ø225～275	HSKA100 - TWC225 - 205 - S	350188	HSKA100 - SBS6 - 185		SP225 - 42			205	159		13.6
	HSKA100 - TWC225 - 260 - S	350189	HSKA100 - SBS6 - 240					260	214		15.9
	HSKA100 - TWC225 - 350 - S	350190	HSKA100 - SBS6 - 330					350	304		19.4
ø275～325	HSKA100 - TWC275 - 205 - S	350191	HSKA100 - SBS6 - 185		SP275 - 42			205	159		16.1
	HSKA100 - TWC275 - 260 - S	350192	HSKA100 - SBS6 - 240					260	214		18.3
	HSKA100 - TWC275 - 350 - S	350193	HSKA100 - SBS6 - 330					350	304		21.8
ø325～375	HSKA100 - TWC325 - 205 - S	350194	HSKA100 - SBS6 - 185		SP325 - 42			205	159		17.3
	HSKA100 - TWC325 - 260 - S	350195	HSKA100 - SBS6 - 240					260	214		19.6
	HSKA100 - TWC325 - 350 - S	350196	HSKA100 - SBS6 - 330					350	304		23.1

NOTE : 1. Coolant pipe is included.
2. Inserts are sold separately.
3. Inserts are in phase with the drive key.
4. TWC-FH-90 Flange Head is used to change the phase to 90˚.

ORDERING EXAMPLE

①	②	③	④	⑤
HSKA100	- TWC	175	- 185	- S

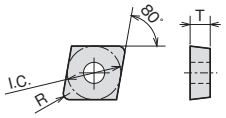
① Shank Size
② Name
③ Min. øD
④ G.L. Length
⑤ Set

ACCESSORIES for <BORING SYSTEM> TWINCUT Double-Face-Contact Shank

ACCESSORIES

INSERT for TWINCUT

TWINCUT



CODE STEEL		CODE CAST IRON		ISO CODE	I. C.	T	R	CARTRIDGE	SCREW	DRIVER
WT25 - 079P	32901	WT25 - 079K	32911	CC**080304	7.94	3.18	0.4	CT25	BFTX0307	TRX10
WT32 - 095P	32902	WT32 - 095K	32912	CC**090308	9.525		0.8	CT32～44	BFTX0409N	TX215
WT62 - 127P	32903	WT62 - 127K	32913	CC**120408	12.7	4.76		CT62～125	BFTX0511N	TRX220

NOTE : 1. Inserts are available in 10 pcs boxes.

<BORING SYSTEM> FIRSTCUT

NEW

HSKA№-FIC(D)MINN-(L)-S

▶▶▶ Thru-the-tool Coolant Available

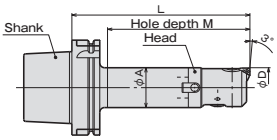


Fig. 1

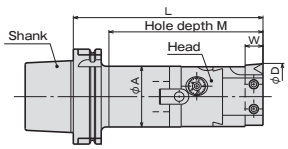


Fig. 2

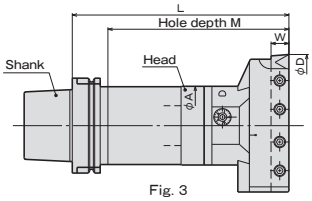


Fig. 3

RANGE(D)	MODEL		Fig	CODE	SHANK		HEAD	BORING TOOL	INSERT	L	M	φA	W	N/W (kg)
φ25~32	HSKA63	-FIC25N-130-S	1	321500	HSKA63	-SBS1-120	FCH25N	—	TP□□0802□□	130	95	24	—	1.3
φ32~44 注7)		-FIC32N-155-S		321502		-SBS2-135	FCH32N			155	120	31		1.6
φ44~57		-FIC44N-155-S		321504		-SBS3-135	FCH44N					42		2.3
φ55~73		-FIC55N-150-S		321506		-SBS4-135	FCH55N			150	115	54		3.1
φ70~140		-FIC70N-200-S	2	321508		-SBS5-165	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	200	165	64	□19	5.3
φ90~160		-FIC90N-250-S		321510		-SBS6-200	FCH90N			250	215	83		9.7
φ25~32	HSKA100	-FIC25N-160-S	1	351300	HSKA100	-SBS1-150	FCH25N	—	TP□□0802□□	160	114	24	—	3.0
φ32~44 注7)		-FIC32N-185-S		351302		-SBS2-165	FCH32N			185	139	31		3.5
φ44~57		-FIC44N-185-S		351304		-SBS3-165	FCH44N					42		4.2
		-FIC44N-245-S		351306		-SBS3-225				245	199			4.8
φ55~73		-FIC55N-180-S		351308		-SBS4-165	FCH55N			180	134	54		5.1
		-FIC55N-255-S		351310		-SBS4-240				255	209			6.3
		-FIC55N-300-S		351312		-SBS4-285				300	254			7.1
φ70~140		-FIC70N-200-S	2	351314		-SBS5-165	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	200	154	64	□19	6.7
		-FIC70N-275-S		351316		-SBS5-240				275	229			8.6
		-FIC70N-365-S		351318		-SBS5-330				365	319			10.8
φ90~160		-FIC90N-235-S		351320		-SBS6-185	FCH90N			235	189	83		9.5
		-FIC90N-290-S		351322		-SBS6-240				290	244			12.5
		-FIC90N-380-S		351324		-SBS6-330				380	334			16.2
φ150~220		-FIC150N-225-S	3	351326		-SBS6-185	FCH150N			225	179			10.3
		-FIC150N-280-S		351328		-SBS6-240				280	234			13.3
		-FIC150N-370-S		351330		-SBS6-330				370	324			17.0
φ220~290		-FIC220N-225-S		351332		-SBS6-185	FCH220N			225	179			11.6
		-FIC220N-280-S		351334		-SBS6-240				280	234			14.6
		-FIC220N-370-S		351336		-SBS6-330				370	324			18.3
φ290~360		-FIC290N-225-S		351338		-SBS6-185	FCH290N			225	179			12.9
		-FIC290N-280-S		351340		-SBS6-240				280	234			15.9
		-FIC290N-370-S		351342		-SBS6-330				370	324			19.6

FIRSTCUT HEAD

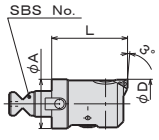


Fig. 1

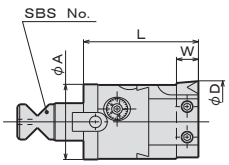


Fig. 2

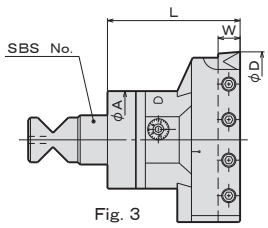


Fig. 3

RANGE(D)	MODEL	Fig	CODE	SLIDE DISTANCE	BORING TOOL	INSERT	SBS No.	L	φA	W	N/W (kg)
φ25~32	FCH25N	1	700130	3.5	—	TP□□0802□□	SBS1	47	24	—	0.2
φ32~44 注7)	FCH32N		700131	5.0			SBS2	57	31		0.4
φ44~57	FCH44N		700132	6.5			SBS3	64	42		0.7
φ55~73	FCH55N		700133	9.0			SBS4	68	54		1.2
φ70~140	FCH70N	2	700134	20	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□	SBS5	100	64	□19	2.6
φ90~160	FCH90N		700135				SBS6	122	83		4.7
φ150~220	FCH150N	3	700136					112			5.5
φ220~290	FCH220N		700137								6.8
φ290~360	FCH290N		700138								8.1

NOTE: 1. A coolant pipe is installed(fixed type).
2. Adjustable in φ0.01mm per scale
3. Insert is in face with drive key.
4. Through the tool coolant is standard.
5. Inserts over than FIC70 are square shank tool.
6. Inserts and bites are sold separetely.
7. The max. machining range means when installed spacer(inluded), Without spaser, max range is φ42mm.

ORDERING EXAMPLE

① HSKA100 - ② FIC ③ 70 ④ N - ⑤ 200 - ⑥ S

① Shank Size
② Holder's Name
③ Min. øD
④ New Type
⑤ G.L. Length
⑥ Set

ACCESSORIES P.136 THROWAWAY SQUARE SHANK TOOLS

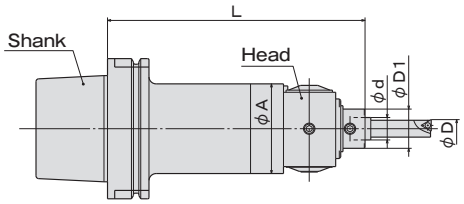
ACCESSORIES P.137 EXTENSION, REDUCTION

<BORING SYSTEM> FIRSTCUT [Small-hole Boring Tool]

NEW

HSKA100Ⓝ₀-FICHEADⓃ₀NJ-Ⓛ-S

▶▶▶ Thru-the-tool Coolant Available



RANGE(D)	MODEL		CODE	SHANK		HEAD	L	φA	φd	φD1	DIAL CALIBRATION	COLLET	N/W (kg)
φ3~23	HSKA63	-FIC1NJ-151-S	321520	HSKA63	-SBS3-135	FCH1NJ	151	46	10	18	φ0.005	SSCP10-□	2.2
φ3~28		-FIC2NJ-180-S	321522		-SBS5-165	FCH2NJ	180	64	16	28	φ0.010	SSCP16-□	4.5
φ3~23	HSKA100	-FIC1NJ-181-S	351350	HSKA100	-SBS3-165	FCH1NJ	181	46	10	18	φ0.005	SSCP10-□	4.1
φ3~28		-FIC2NJ-180-S	351352		-SBS5-165	FCH2NJ	180	64	16	28	φ0.010	SSCP16-□	5.9

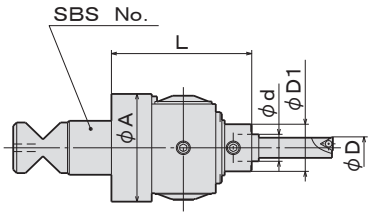
NOTE :1. A coolant pipe is installed(fixed type).
2. Insert is in face with drive key.
3. Through the tool coolant is standard.
4. Inserts and bites and collets are sold separately.

ORDERING EXAMPLE

① HSKA100 - ② FIC ③ 70 ④ N - ⑤ 200 - ⑥ S

① Shank Size
② Holder's Name
③ Min. øD
④ New Type
⑤ G.L. Length
⑥ Set

FIRSTCUT HEAD [Small-hole Boring Tool]



RANGE(D)	MODEL	CODE	SBS No.	L	φA	φd	φD1	DIAL CALIBRATION	SLIDE DISTANCE	COLLET	N/W (kg)
φ3~23	FCH1NJ	700139	SBS3	60	46	10	18	φ0.005	2.5	SSCP10-□	0.6
φ3~28	FCH2NJ	700140	SBS5	80	64	16	28	φ0.010	3.5	SSCP16-□	1.8

NOTE :1. Through the tool coolant is standard.
2. Inserts and bites and collets are sold separately.

ACCESSORIES
P.136 JIG BORER TOOLS, COLLET, INSERTS

ACCESSORIES
P.137 EXTENSION, REDUCTION

ACCESSORIES for <BORING SYSTEM>FIRSTCUT

THROWAWAY SQUARE SHANK TOOLS・THROWAWAY JIG BORER TOOLS

THROWAWAY SQUARE SHANK TOOLS

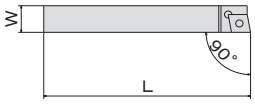


Fig. 1

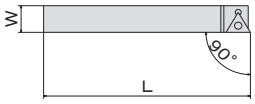
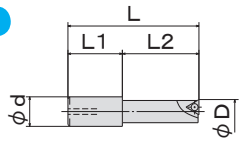


Fig. 2

MIN. RANGE D	MODEL	Fig	CODE	INSERT	W	L
70	TBS919	1	700150	CC□□1204□□	□19	140
72	TBS119C12		700152	CP□□1204□□		95
70	TSBS919	2	700154	TC□□16T3□□		140
	SBS919		700156	TP□□1603□□		

NOTE : Inserts are sold separetely.

THROWAWAY JIG BORER TOOLS

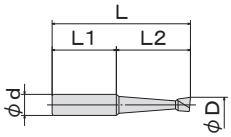


MIN. RANGE D	MODEL	CODE	L	L1	L2	φd	INSERT
8	JBM-1008	700160	50	20	30	10	CC□□03S1□□
10	-1010	700161	60		40		TP□□0802□□
12	-1012	700162	70		50		
15	-1015	700163	79	19	60		
18	-1018	700164					TP□□1102□□
8	JBM-1608	700165	65	30	35	16	CC□□0602□□
10	-1610	700166	75		45		TP□□0802□□
12	-1612	700167	85		55		
15	-1615	700168	95		65		
18	-1618	700169	96	26	70		TP□□1102□□
21	-1621	700170					

NOTE : Inserts are sold separetely.

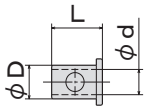
JIG BORER TOOLS・COLLET

JIG BORER TOOLS



TYPE	MIN. RANGE D	φd	L1	For Through hole				For Blind hole			
				MODEL	CODE	L	L1	MODEL	CODE	L	L1
Carbide Tool	3	8	25	101A	700341	39	14	101B	700361	39	14
	6			102A	700342	51.5	26.5	102B	700362	51.5	26.5
	10			103A	700343	65.5	40.5	103B	700363	65.5	40.5
	15			104A	700344	69	44	104B	700364	69	44
	3	12	40	151A	700345	60	20	151B	700365	60	20
	6			152A	700346	70	30	152B	700366	70	30
	10			153A	700347	75	35	153B	700367	75	35
	15			154A	700348	85	45	154B	700368	85	45

COLLET



MODEL	CODE	φd	φD	L
SCP10-6	35650	6	10	17.5
SCP10-8	35652	8		
SCP16-8	35654	8	16	25
SCP16-10	35656	10		
SCP16-12	35658	12		

THROWAWAY TIP for FIRSTCUT

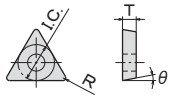


Fig. 1

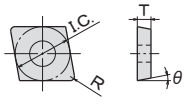


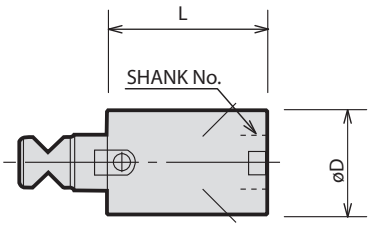
Fig. 2

STEEL		CAST IRON		SUS		ALMINIUM		DA		CBN		Fig.	ISO CODE	I.C.	T	R	θ	BORING HEAD	SCREW	DRIVER
MODEL	CODE	MODEL	CODE	MODEL	CODE	MODEL	CODE	MODEL	CODE	MODEL	CODE									
NFT-TC16-ST	34500	NFT-TC16-CS	34508	NFT-TC16-SU	34516							1	TC**16T304	9.525	3.97	0.4	7°	FCH70N~FCN290N	MS4011A	TRX15
NFT-CC03-ST	34501	NFT-CC03-CS	34509	NFT-CC03-SU	34517	NFT-CC03-AL	34524			NFT-CC03-BN	34532	2	CC**03X102	3.5	1.39	0.2		FCH1NJ	TS16	TRX6
NFT-CC06-ST	34502	NFT-CC06-CS	34510	NFT-CC06-SU	34518	NFT-CC06-AL	34525	NFT-CC06-DA	34528	NFT-CC06-BN	34533		CC**060202	6.35	2.38			FCH2NJ		
NFT-CC12-ST	34503	NFT-CC12-CS	34511	NFT-CC12-SU	34519								CC**120404	12.7	4.76	0.4	11°	FCH70N~FCN290N	MS5011A	TRX20
NFT-TP08-ST	34504	NFT-TP08-CS	34512	NFT-TP08-SU	34520	NFT-TP08-AL	34526	NFT-TP08-DA	34529	NFT-TP08-BN	34534	1	TP**080204	4.76	2.38			FCH25N~FCH55N、FCH1NJ、FCH2NJ	CHN-20043-R	TRX6
NFT-TP11-ST	34505	NFT-TP11-CS	34513	NFT-TP11-SU	34521	NFT-TP11-AL	34527	NFT-TP11-DA	34530	NFT-TP11-BN	34535		TP**110204	6.35				FCH1NJ、FCH2NJ	CHN-25056-R	TRX8
NFT-TP16-ST	34506	NFT-TP16-CS	34514	NFT-TP16-SU	34522			NFT-TP16-DA	34531	NFT-TP16-BN	34536		TP**160304	9.525	3.18			FCH70N~FCN290N	MS4011A	TRX15
NFT-CP12-ST	34507	NFT-CP12-CS	34515	NFT-CP12-SU	34523							2	CP**120404	12.7	4.76				M4×15L(全長)	

NOTE : 1. Inserts are available in 10 pcs boxes.

EXTENSION

For deeper holes.



MODEL	CODE	SHANK No.	øD	L
TEX1 - 40	32610	1	24	40
TEX2 - 45	32620	2	31	45
TEX3 - 50	32630	3	42	50
TEX3 - 65	32631			65
TEX4 - 65	32640	4	54	65
TEX4 - 90	32641			90
TEX5 - 75	32650	5	64	75
TEX5 - 105	32651			105
TEX6 - 75	32660	6	82	75
TEX6 - 105	32661			105

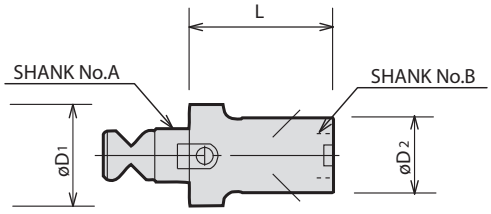
ORDERING EXAMPLE

① TEX ② 1 - ③ 40

① Name
② Shank No.
③ L

REDUCTION

For using smaller heads.



MODEL	CODE	SHANK No.A	SHANK No.B	øD1	øD2	L
RE2X1 - 60	32720	2	1	31	24	60
RE2X1 - 90	32721					90
RE3X1 - 60	32730	3		42		60
RE3X1 - 90	32731					90
RE3X2 - 60	32735		2		31	60
RE3X2 - 90	32736					90
RE4X1 - 60	32740	4	1	54	24	60
RE4X1 - 90	32741					90
RE4X2 - 60	32743		2		31	60
RE4X2 - 90	32744					90
RE4X3 - 60	32746		3		42	60
RE4X3 - 90	32747					90
RE5X2 - 60	32750	5	2	64	31	60
RE5X2 - 105	32751					105
RE5X3 - 60	32753		3		42	60
RE5X3 - 105	32754					105
RE5X4 - 60	32756		4		54	60
RE5X4 - 105	32757					105
RE6X3 - 75	32760	6	3	82	42	75
RE6X3 - 90	32761					90
RE6X4 - 75	32763		4		54	75
RE6X4 - 90	32764					90
RE6X5 - 75	32766		5		64	75

ORDERING EXAMPLE

① RE ② 2×1 - ③ 60

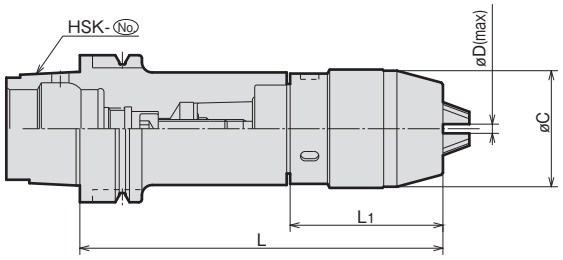
① Name
② Shank No. A×B
③ L

DRILL CHUCK

HSKA㊊-SDC㊃MAX-Ⓛ

FEATURES

- Drill chuck is positively coupled with the holder.
- Short (L length) and compact.
- Clamping force can be increased by the attached wrench.



MODEL		CODE	øD	L		L1		øC	N/W (kg)
				OPEN	CLOSE	OPEN	CLOSE		
HSKA50	-SDC08-125	25380	0.5～ 8	128	135.5	50	57.5	37.5	1.1
	-SDC13-155	25390	1～13	154	166.5	66	78.5	50	1.7
HSKA63	-SDC08-125	26380	0.5～ 8	128	135.5	50	57.5	37.5	1.3
	-SDC13-155	26390	1～13	154	166.5	66	78.5	50	1.9
HSKA100	-SDC08-130	27380	0.5～ 8	133	140.5	50	57.5	37.5	2.5
	-SDC13-155	27390	1～13	154	166.5	66	78.5	50	3.1
	-SDC13-205	27391		204	216.5				3.9

NOTE:1. Coolant pipe is included. Each SDC chuck is supplied with a wrench.
2. Each SDC chuck is supplied with a wrench.

ORDERING EXAMPLE

① HSKA50 - ② SDC ③ 08 - ④ 125

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

RUNOUT

SDC NO.	DIA. OF TEST BAR	RUNOUT
SDC08	4&8mm	0.05mm以下
SDC13	6.5&13mm	

● Runout was measured at three times the diameter from chuck nose.

CLAMPING POWER

	CLAMPING	TWISTING MOMENT	Comparison %
TRADITIONAL KEYLESS CHUCK	Manual	6.9 N·m	100
SHOWA SDC CHUCK			
SHOWA SDC CHUCK	With wrench	21.6 N·m	314

NOTE : Twisting moment was measured with a ø9mm test bar.

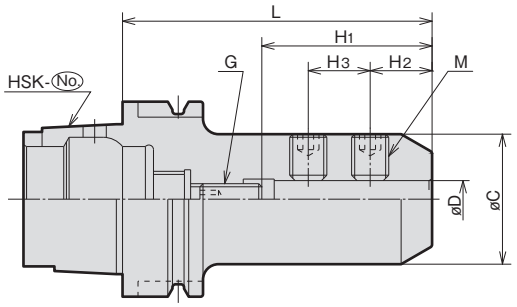
END MILL HOLDER

HSKA№-SLAⒹ-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

FEATURES

- Run-out of the cutting tool is improved by the eccentric ID.



MODEL		CODE	øD(H6)	L	øC	H1 MIN.	H1 MAX.	H2	H3	M	G	N/W (kg)
HSKA50	-SLA06-075	25710	6	75	30	18	28	13	–	M 6	M 5	0.7
	-SLA08-080	25720	8	80	35	23	33	15		M 8	M 6	0.8
	-SLA10-090	25730	10	90		25	38	18		M10	M 8	0.9
	-SLA12-100	25740	12	100	42	30	43	20		M12	M10	1.1
	-SLA16-120	25750	16	120	48	35	50	24		M14	M12	1.7
	-SLA20-140	25760	20	140	50	55	70	25		M16		2.0
HSKA63	-SLA06-075	26710	6	75	30	18	28	13	–	M 6	M 5	0.9
	-SLA08-080	26720	8	80	35	23	33	15		M 8	M 6	1.0
	-SLA10-090	26730	10	90		25	38	18		M10	M 8	1.1
	-SLA12-100	26740	12	100	42	30	43	20		M12	M10	1.3
	-SLA16-100	26750	16		48	35	46	24		M14	M12	1.6
	-SLA20-120	26760	20	120	50	55	65	25		M16		2.5
	-SLA25-130	26770	25	130	61			24	25	M18		3.0
	-SLA32-140	26780	32	140	72	65	75		28	M20		4.2
HSKA100	-SLA06-085	27710	6	85	30	18	28	13	–	M 6	M 5	2.2
	-SLA08-090	27720	8	90	35	23	33	15		M 8	M 6	2.3
	-SLA10-100	27730	10	100		25	38	18		M10	M 8	2.4
	-SLA12-110	27740	12	110	42	30	43	20		M12	M10	2.6
	-SLA16-110	27750	16		48	35	50	24		M14	M12	2.9
	-SLA20-130	27760	20	130	50	55	70	25		M16		3.8
	-SLA25-140	27770	25	140	61			24	25	M18		4.5
	-SLA32-150	27780	32	150	72	65	80		28	M20		5.5

NOTE : 1. Coolant pipe is included.
2. For endmill of straight shank with flat.

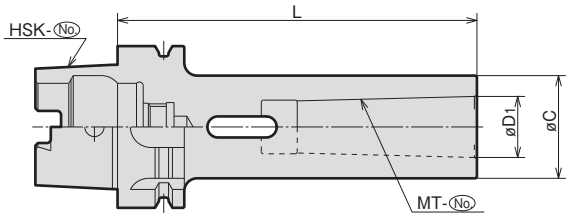
ORDERING EXAMPLE

① HSKA50 - ② SLA ③ 06 - ④ 075

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ G.L. Length

MORSE TAPER HOLDER (Type A)

HSKA㊊-MTA㊊-Ⓛ



MODEL		CODE	MT No.	L	øD1	øC	N/W (kg)
HSKA50	-MTA1-100	25410	1	100	12.065	25	1.2
	-MTA2-120	25420	2	120	17.780	32	1.4
	-MTA3-140	25430	3	140	23.825	40	1.5
HSKA63	-MTA1-100	26410	1	100	12.065	25	1.6
	-MTA2-120	26420	2	120	17.780	32	1.8
	-MTA3-140	26430	3	140	23.825	40	2.2
	-MTA4-160	26440	4	160	31.267	50	2.5
HSKA100	-MTA2-120	27420	2	120	17.780	32	3.0
	-MTA3-140	27430	3	140	23.825	40	3.4
	-MTA4-160	27440	4	160	31.267	50	3.7
	-MTA5-200	27450	5	200	44.399	65	4.9

NOTE : 1. Coolant pipe is included.
2. For tongue type Morse taper shank cutting tools.

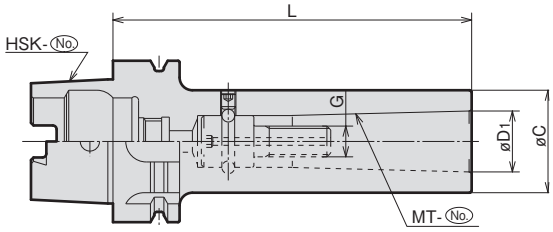
ORDERING EXAMPLE

① HSKA50 - ② MTA ③ 1 - ④ 10

① Shank Size
② Holder's Name
③ MT No.
④ G.L. Length

MORSE TAPER HOLDER (Type B)

HSKA㊊-MTB㊊-Ⓛ



MODEL		CODE	MT No.	L	øD1	øC	G	N/W (kg)
HSKA50	-MTB1-100	25510	1	100	12.065	25	M 6	1.2
	-MTB2-120	25520	2	120	17.780	32	M10	1.4
	-MTB3-140	25530	3	140	23.825	40	M12	1.8
HSKA63	-MTB1-100	26510	1	100	12.065	25	M 6	1.6
	-MTB2-120	26520	2	120	17.780	32	M10	1.8
	-MTB3-140	26530	3	140	23.825	40	M12	2.2
	-MTB4-160	26540	4	160	31.267	50	M16	2.5
HSKA100	-MTB2-120	27520	2	120	17.780	32	M10	3.0
	-MTB3-140	27530	3	140	23.825	40	M12	3.4
	-MTB4-160	27540	4	160	31.267	50	M16	3.7
	-MTB5-200	27550	5	200	44.399	65	M20	4.9

NOTE : 1. Coolant pipe is included.
2. For drawing thread type Morse taper shank cutting tools.

ORDERING EXAMPLE

① HSKA50 - ② MTB ③ 1 - ④ 100

① Shank Size
② Holder's Name
③ MT No.
④ G.L. Length

FACE MILL ARBOR (Type A)

HSKA№-FMAⒹ-Ⓛ

Thru -the-tool Coolant Available (Option)

FIG.1

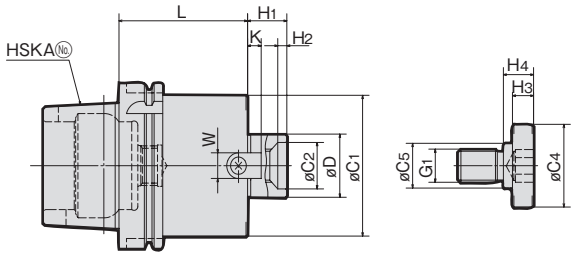


FIG.2

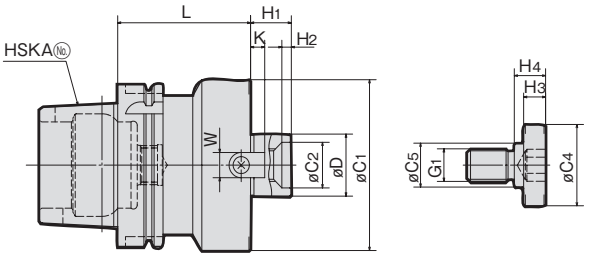
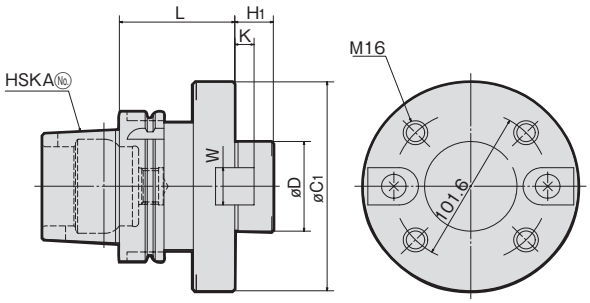


FIG.3



MODEL		CODE	FIG.	øD(h6)	L	øC1	øC2	H1	H2	KEY W	KEY K	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
HSKA50	-FMA22.225-045		1	22.225	45	40	—	18	—	8.0	4	M8	20	15	7	9	0.6
	-FMA25.4 -060	300572	2	25.4	60	50		22		9.5	5	M12	33	23	10	12	0.8
HSKA63	-FMA25.4 -060	320660	1	25.4	60	50	—	22	—	9.5	5	M12	33	23	10	12	1.2
	-FMA31.75 -060	320662	2	31.75		60	24	30	6	12.7	7	M16	40	23		16	1.4
	-FMA38.1 -060	320664		38.1		80	28	34		15.9	9	M20	50	27	14	20	1.8
HSKA100	-FMA25.4 -060	350660	1	25.4	60	50	—	22	—	9.5	5	M12	33	23	10	12	2.5
	-FMA31.75 -060	350662		31.75		60	24	30	6	12.7	7	M16	40	23		16	2.8
	-FMA38.1 -060	350664		38.1		80	28	34		15.9	9	M20	50	27	14	20	3.4
	-FMA50.8 -075	350666	2	50.8	75	100	38	36	10	19.05	10	M24	65	37		24	4.9
	-FMA47.625-075	350668	3	47.625		128.6	—	38	—	25.4	12.5	—	—	—	—	—	6.2

NOTE : 1. Coolant pipe is included.

ORDERING EXAMPLE

① HSKA63 - ② FMA ③ 25.4 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

FACE MILL ARBOR (Type B)

HSKA№-FMBⒹ-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

FIG.1

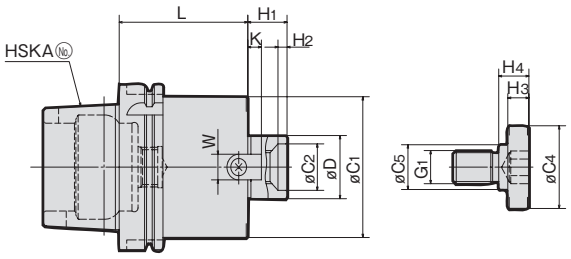


FIG.2

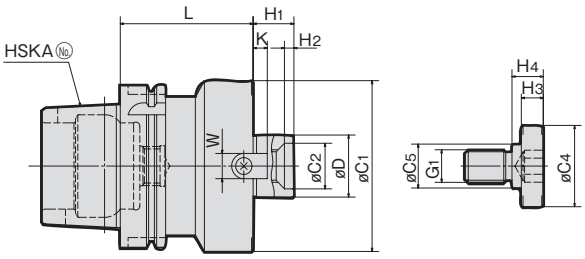


FIG.3

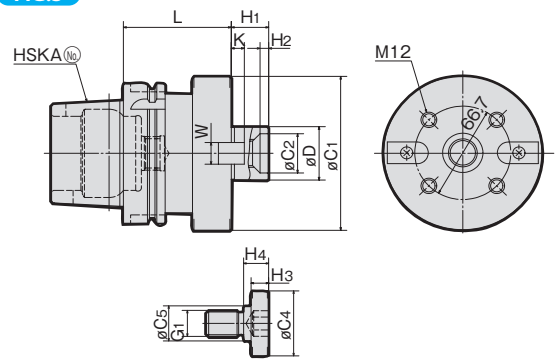
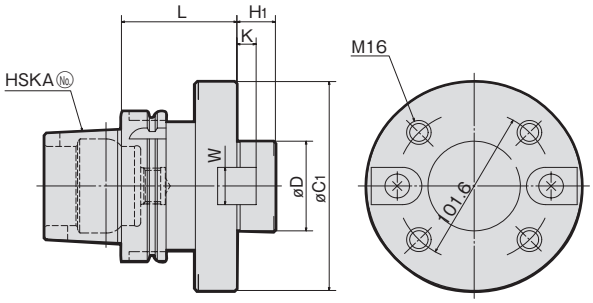


FIG.4



MODEL		CODE	FIG.	øD(h6)	L	øC1	øC2	H1	H2	KEY W	KEY K	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
HSKA63	-FMB25.4 -060		2	25.4	60	80	—	26	—	9.5	5	M12	33	23	10	12	1.7
	-FMB38.1 -060	320672		38.1		85	28		6	15.9	9	M20	50	27	14	20	1.8
	-FMB27 -060			27		80	—		—	12	6	M12	33	23	10	12	1.7
	-FMB40 -060	320676		40		85	28		6	16	8.5	M20	50	27	14	20	1.8
HSKA100	-FMB25.4 -060		1	25.4	60	80	—	26	—	9.5	5	M12	33	23	10	12	2.9
	-FMB38.1 -060			38.1		85	28		6	15.9	9	M20	50	27	14	20	3.5
	-FMB38.1F-075	350684	2		75	110											4.8
	-FMB27 -060	350686	1	27	60	80	—		—	12	6	M12	33	23	10	12	2.9
	-FMB40 -060	350262		40		85	28		6	16	8.5	M20	50	27	14	20	3.5
	-FMB40F -075	350265	3		75	110											4.8
	-FMB60 -075	350692	4	60		140	—	25	—	25.4	12.5	—	—	—	—	—	6.8

NOTE : 1. Coolant pipe is included.
2. For Sandvik and Seco cutters.

ORDERING EXAMPLE

① ② ③ ④
HSKA63 - FMB 38.1 - 060

① Shank Size
② Name
③ øD
④ G.L. Length

FACE MILL ARBOR (Type C)

HSKA№-FMCⒹ-Ⓛ

▶▶▶ Thru -the-tool Coolant Available (Option)

FIG.1

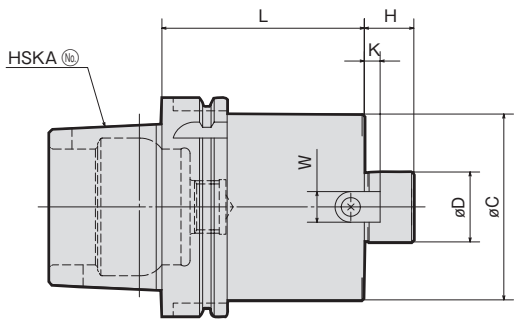
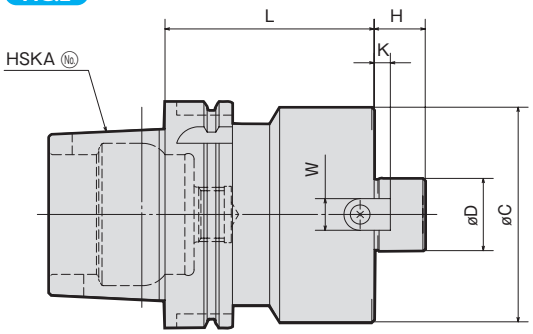


FIG.2



MODEL		CODE	FIG.	øD(h6)	L	øC	H	KEY		CLAMP BOLT	N/W (kg)
								W	K		
HSKA63	-FMC25.4-060	320680	2	25.4	60	70	20	9.5	5	M12 × 35L	1.5
	-FMC38.1-060	320682		38.1		85	22	15.9	7	M16 × 40L	0.8
	-FMC22 -060	320684	1	22		45	18	10	5	M10 × 30L	1.1
	-FMC27 -060	320686	2	27		70	20	12	6	M12 × 35L	1.5
	-FMC32 -060			32		85	22	14	7	M16 × 40L	1.8
HSKA100	-FMC25.4-060		1	25.4	60	70	20	9.5	5	M12 × 35L	2.9
	-FMC38.1-060			38.1		85	22	15.9	7	M16 × 40L	3.5
	-FMC22 -060	350704		22		45	18	10	5	M10 × 30L	2.4
	-FMC27 -060			27		70	20	12	6	M12 × 35L	3.0
	-FMC32 -060			32		85	22	14	7	M16 × 40L	3.4

NOTE : 1. Coolant pipe is included.
2. For Sandvik and Seco cutters.

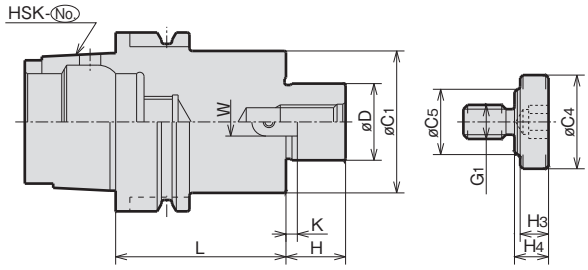
ORDERING EXAMPLE

① HSKA63 - ② FMC ③ 22 - ④ 060

① Shank Size
② Name
③ øD
④ G.L. Length

SHELL MILL ARBOR (Type A)

HSKA№-SMAⒹ-Ⓛ



MODEL		CODE	øD(h6)	L	øC1	H	KEY W	KEY K	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	N/W (kg)
HSKA50	-SMA16-060	25610	16	60	34	17	7.95	3	M 8	20	15	7	9	0.6
	-120	25611		120										1.0
	-SMA22-060	25620	22	60	42	27		3.5	M10	28	18	9	11	1.0
	-120	25621		120										1.7
	-SMA27-060	25630	27	60	50	36	9.95	4	M12	33	23	10	12	1.3
	-120	25631		120										2.2
	-SMA32-060	25640	32	60	60	38		4.5	M16	40			16	1.7
	-120	25641		120										2.9
HSKA63	-SMA16-060	26610	16	60	34	17	7.95	3	M 8	20	15	7	9	0.8
	-120	26611		120										1.2
	-SMA22-060	26620	22	60	42	27		3.5	M10	28	18	9	11	1.1
	-120	26621		120										1.8
	-SMA27-060	26630	27	60	50	36	9.95	4	M12	33	23	10	12	1.4
	-120	26631		120										2.3
	-SMA32-060	26640	32	60	60	38		4.5	M16	40			16	1.8
	-120	26641		120										3.1
HSKA100	-SMA22-060	27620	22	60	42	27	7.95	3.5	M10	28	18	9	11	2.3
	-120	27621		120										2.7
	-SMA27-060	27630	27	60	50	36	9.95	4	M12	33	23	10	12	2.8
	-120	27631		120										3.7
	-SMA32-060	27640	32	60	60	38		4.5	M16	40			16	3.0
	-120	27641		120										4.3
	-SMA40-060	27650	40	60	80		11.95		M20	50	27	14	20	3.0
	-120	27651		120										5.4

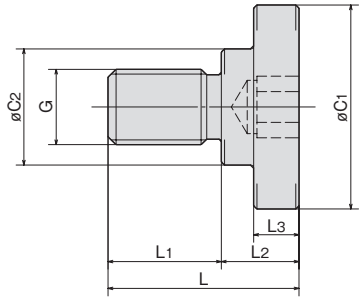
NOTE : 1. Coolant pipe is included.

ORDERING EXAMPLE

①		②	③		④
HSKA50	-	SMA	16	-	060

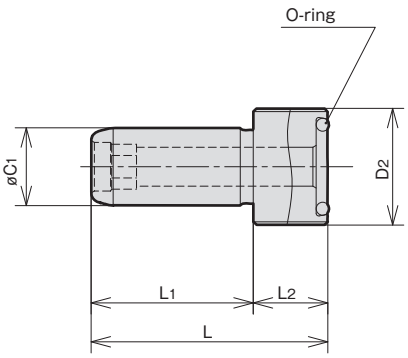
① Shank Size
② Name
③ øD
④ G.L. Length

CLAMP BOLT FOR FACE MILL ARBOR



MODEL	CODE	øC1	øC2	L	L1	L2	L3	G	ARBOR CODE
MBA - M 8	49771	20	15	23	14	9	7	M 8×P1.25	FMA22.225 SMA16
MBA - M10	49772	28	18	27	16	11	9	M10×P1.5	SMA22 SMB22.225
MBA - M12	49773	33	23	30	18	12	10	M12×P1.75	FMA,B25.4 FMB27 SMA27
MBA - M16	49774	40	23	40	24	16	10	M16×P2.0	FMA31.75 SMA32 SMB31.75
MBA - M20	49775	50	27	50	30	20	14	M20×P2.5	FMA,B38.1 FMB40 SMA40 SMB38.1
MBA - M24	49776	65	37	59	35	24	14	M24×P3.0	FMA50.8

<HSK SHANK>COOLANT PIPE



MODEL	CODE	HSK No.	D1	D2	L	L1	L2	O-ring
CLP-032	25180	HSK32	6	M10×1.0	26	20.5	5.5	P4
CLP-040	25181	HSK40	8	M12×1.0	29.5	22	7.5	P6
CLP-050	25182	HSK50	10	M16×1.0	33	23.5	9.5	P9
CLP-063	25183	HSK63	12	M18×1.0	36.5	25	11.5	P11
CLP-080	25184	HSK80	14	M20×1.5	40	26.5	13.5	P12
CLP-100	25185	HSK100	16	M24×1.5	44	28.5	15.5	P15

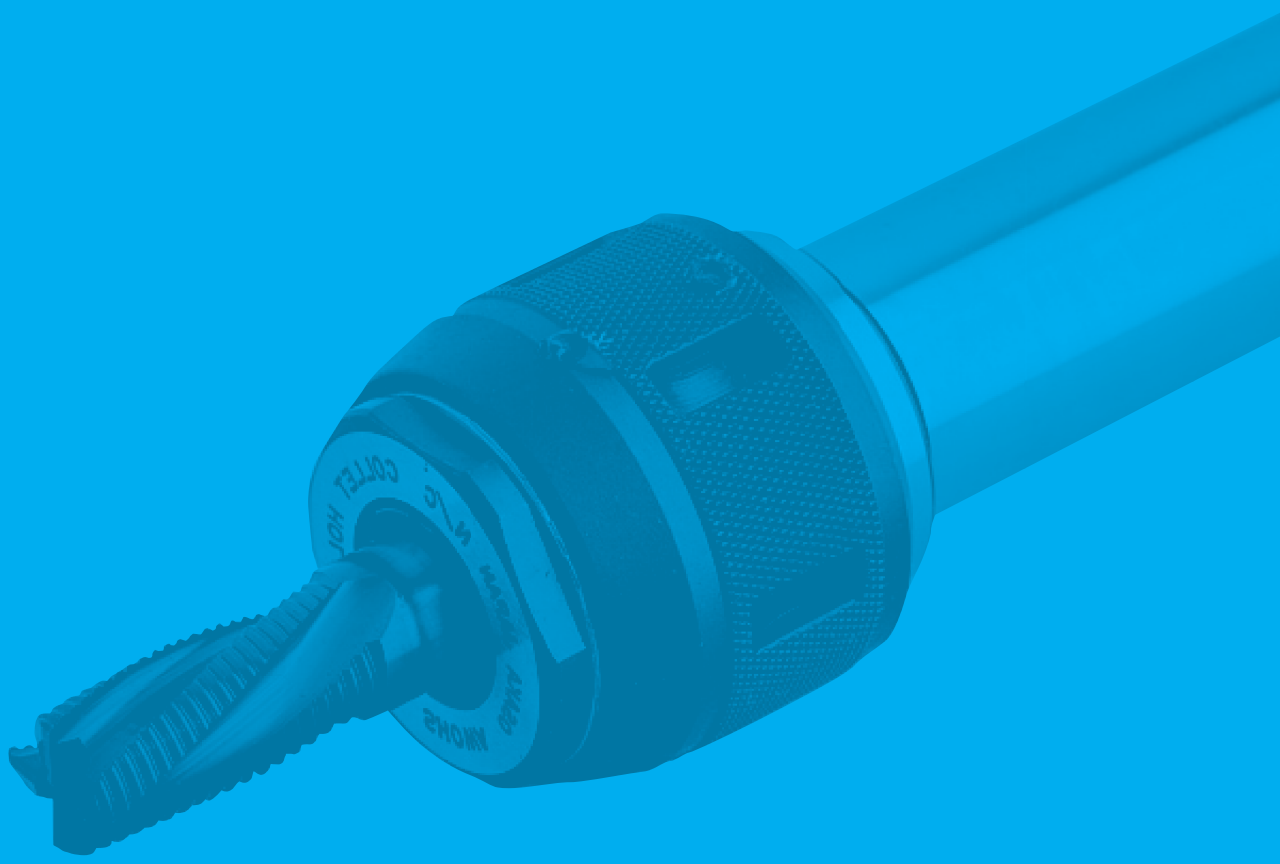
ORDERING EXAMPLE

① CLP - ② 032

① Name
② HSK No.

SHOWA TOOL

ST series

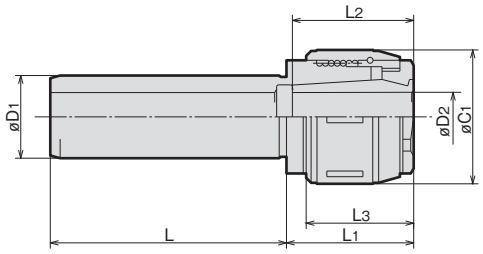


HARD CHUCK

FEATURES P.7-8

ST①-CTH②

Thru-the-tool Coolant Available



MODEL		CODE	øD1	L	L1	L2	L3	øD2	øC1	N/W (kg)
ST32	-CTH16	30002	32	95	48	50	42	16	52	1.0
ST42	-CTH16	30004	42							1.5

ORDERING EXAMPLE

① ST32 ② CTH - ③ 16

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.

ACCESSORIES P.47 SPRING COLLET

ACCESSORIES P.49 CHUCK WRENCH

ACCESSORIES P.48 STRAIGHT COLLETS, ADJUST SCREW

COLLET CHUCK (PLATE COATING)

FEATURES P.9-10

RSC-ⓓMAX-Ⓛ

Thru-the-tool Coolant Available

Thru-the-groove Coolant Available

FIG.1

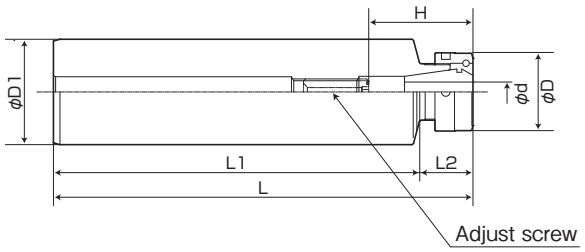
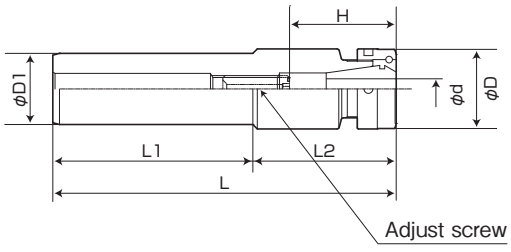


FIG.2



MODEL		CODE	FIG	ød (GRIPPINGRANGE)	øD	øD1	L	L1	L2	H	COLLET	NUT	ADJUST SCREW
ST20	RSC07N-150	620260	1	0.5~7	24	20	150	133	17	25~40	CR07-(D)	RSN07NB	(M6×20L-CTW)
	RSC10N-150	620262	2	0.5~10	30			125	25	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
ST25	RSC10N-170	620264	1	0.5~10	30	25	170	147.5	22.5	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC13N-170	620266	2	0.5~13	36			125	45	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
ST32	RSC10N-170	620268	1	0.5~10	30	32	170	147.5	22.5	31~48	CR10-(D)	RSN10NB	RAS10-25-2.5
	RSC13N-185	620270	2	0.5~13	36		185	125	60	35~52	CR13-(D)	RSN13NB	RAS13-25-2.5
	RSC16N-185	620272		1~16	42					38~77	CR16-(D)	RSN16NB	RAS16-25-5
	RSC20N-185	620274		1.5~20	50					44~54	CR20-(D)	RSN20NB	

NOTE：1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ORDERING EXAMPLE

① ST20 - ② RSC ③ 07 - ④ 120

① Shank Size
② Name
③ Max. øD
④ L1

ACCESSORIES P.53-56 COLLETS

ACCESSORIES P.57 NUT, ADJUST SCREW, CHUCK WRENCH

COLLET CHUCK (SLIM TYPE)

FEATURES P.14

ST Ⓓ-SSC Ⓓ MAX-Ⓛ

▶▶▶ Thru-the-tool Coolant Available

▶▶▶ Thru-the-groove Coolant Available

FIG.1

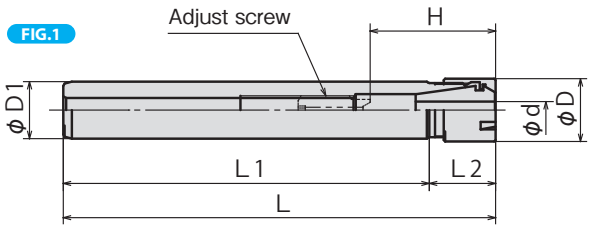
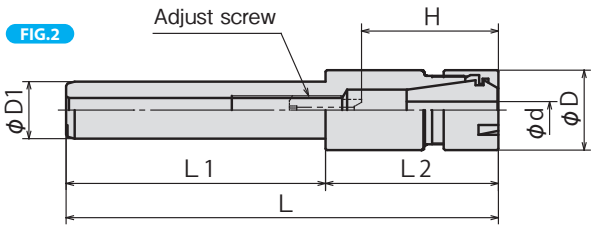


FIG.2



MODEL		CODE	FIG	øD	øD1	L	L1	L2	H	COLLET	NUT	ADJUST SCREW
ST16	SSC07-100	30377	1	16	16	100	83	17	25~40	CR07-d CROH07-d	ER11MN	M6×20L-CTW
	SSC07-150	30378				150	133					
	SSC07-200	30379				200	183					
ST20	SSC10-100	30831	1	22	20	100	77	23	31~48	CR10-d CROH10-d	ER16MN	RAS10-25-2.5
	SSC10-150	30832				150	127					
	SSC10-200	30833				200	177					
	SSC10-250	30834				250	227					
	SSC13-150	30835	2	28	20	150	90	60	35~52	CR13-d CROH13-d	ER20MN	RAS10-25-2.5
	SSC13-200	30836				200	140					

NOTE: 1. Collet and chuck wrench are sold separately.
2. CROH collet is used for thru-the-tool coolant application.

ACCESSORIES P.122-125 COLLETS

ACCESSORIES P.126 NUT, ADJUST SCREW, CHUCK WRENCH

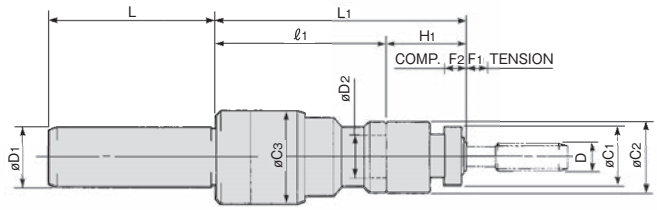
ORDERING EXAMPLE

① ST20 - ② SSC - ③ 10 - ④ 100

① Shank Size
② Holder's Name
③ Max. øD
④ G.L. Length

TAP HOLDER (Clockwise Rotation)

ST № -TPC D1 -L1



MODEL		CODE	øD1	øD2	L	L1	ℓ 1	øC1	øC2	øC3	H1	F1	F2	D	TAP COLLET CODE	N/W (kg)
ST32	-TPC20-150	30026	32	20	112	150	105	32	40	47	45	15	15	M 4-M14	TCC20-Ⓓ	1.5
	-TPC29-175	30028		29		175	120	45	55	63	55			M12-M27	TCC29-Ⓓ	2.5
ST42	-TPC20-150	30030	42	20	117	150	105	32	40	47	45			M 4-M14	TCC20-Ⓓ	2.1
	-TPC29-175	30032		29		175	120	45	55	63	55			M12-M27	TCC29-Ⓓ	3.0

ACCESSORIES P.66 TAP COLLETS

ORDERING EXAMPLE

① ST32 - ② TPC - ③ 20 - ④ 150

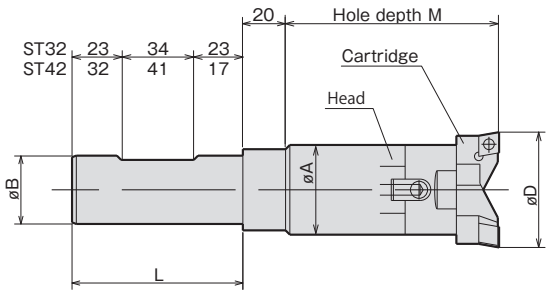
① シャンクサイズ øD1 Shank Size øD1
② 呼称 Name
③ Max. øD2 Max. øD2
④ L1 L1

<BORING SYSTEM> TWINCUT

ST Ⓑ-TWC Ⓓ MIN-Ⓜ-S

FEATURES

- Versatile modular type boring system.
- Rigidity is increased by the new coupling method and the serrated head.
- Twin blades allow heavy cutting.
- Extensions are used for deep holes.



RANGE	MODEL	CODE	SHANK	HEAD	CARTRIDGE	INSERT	M	L	øA	øB	N/W (kg)
ø25~33	- TWC25 - 100 - S	32010	- SBS1 - 100	HE25	CT25	WT25-079	100	80	24	32	1.1
ø32~45	- TWC32 - 100 - S	32020	- SBS2 - 100	HE32	CT32	WT32-095	100		31		1.3
ø44~63	ST32 - TWC44 - 100 - S	32030	ST32 - SBS3 - 100	HE44	CT44		100		42		1.9
ø62~89	- TWC62 - 140 - S	32040	- SBS4 - 140	HE62	CT62	WT62-127	140		54		3.0
ø88~126	- TWC88 - 140 - S	32050	- SBS5 - 140	HE88	CT88		140		64		4.1
ø25~33	- TWC25 - 100 - S	32110	- SBS1 - 100	HE25	CT25	WT25-079	100	90	24	42	1.7
ø32~45	- TWC32 - 100 - S	32120	- SBS2 - 100	HE32	CT32	WT32-095	100		31		1.9
ø44~63	ST42 - TWC44 - 100 - S	32130	ST42 - SBS3 - 100	HE44	CT44		100		42		2.3
ø62~89	- TWC62 - 125 - S	32140	- SBS4 - 125	HE62	CT62	WT62-127	125		54		3.3
ø88~126	- TWC88 - 125 - S	32150	- SBS5 - 125	HE88	CT88		125		64		4.1

NOTE : 1. Inserts are sold separately. Please refer to P.62.
2. Thru-the-tool coolant type is manufacturered to orders.

ACCESSORIES P.70 INSERTS

ORDERING EXAMPLE

① ST32 - ② TWC ③ 25 - ④ 100 - ⑤ S

① Shank Size øB
② Name
③ Min. øD
④ M
⑤ Set

<BORING SYSTEM> FIRSTCUT

ST Ⓓ-FIC Ⓓ MIN N-Ⓛ-S

▶▶▶ Thru-the-tool Coolant Available

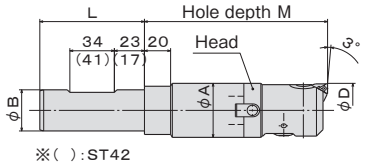


Fig. 1

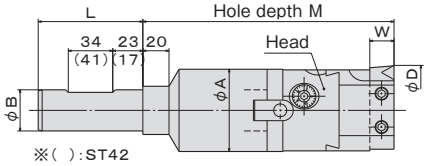


Fig. 2

RANGE	MODEL		Fig	CODE	SHANK		HEAD	BORING TOOL	INSERT	L	M	φA	φB	W	N/W (kg)
φ25~32	ST32	-FIC25N-130-S	1	620450	ST32	-SBS1-100	FCH25N	—	TP□□0802□□	80	100	24	32	—	1.1
φ32~44 注4)		-FIC32N-140-S		620452		-SBS2-100	FCH32N				110	31			1.4
φ44~57		-FIC44N-140-S		620454		-SBS3-100	FCH44N				140	42			2.0
φ55~73		-FIC55N-175-S		620456		-SBS4-140	FCH55N				175	54			3.4
φ70~140		-FIC70N-195-S	2	620458		-SBS5-140	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□		195	64		□19	5.2
φ25~32	ST42	-FIC25N-130-S	1	620470	ST42	-SBS1-100	FCH25N	—	TP□□0802□□	90	100	24	42	—	1.7
φ32~44 注4)		-FIC32N-140-S		620472		-SBS2-100	FCH32N				110	31			2.0
φ44~57		-FIC44N-140-S		620474		-SBS3-100	FCH44N					42			2.6
φ55~73		-FIC55N-160-S		620476		-SBS4-125	FCH55N				160	54			3.8
φ70~140		-FIC70N-180-S	2	620478		-SBS5-125	FCH70N	TBS119C12 SBS919 TBS919 TSBS919	CP□□1204□□ TP□□1603□□ CC□□1204□□ TC□□16T3□□		180	64		□19	5.4

NOTE :1. Adjustable in φ0.01mm per scale.
2. Insert on FIC70N is square shank tool.
3. Insersts and bites are sold separately.
4. The max machining range means when installed included spacer.
Without spacer, the max machining range is φ42mm.

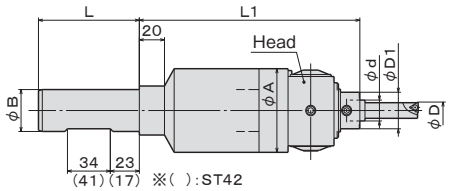
ORDERING EXAMPLE

①	②	③	④	⑤	⑥
ST32	- FIC	25	N	- 130	- S

① Shank Size
② Holder's Name
③ Min. øD
④ New Type
⑤ G.L. Length
⑥ Set

FIRSTCUT [Small-hole Boring Tool]

ST Ⓑ-FIC HEAD № NJ-Ⓛ-S



RANGE	MODEL		CODE	SHANK		HEAD	L	L1	φA	φB	φd	φD1	DIAL CALIBRATION	COLLET	N/W (kg)
φ3~23	ST32	-FIC1NJ-136-S	620460	ST32	-SBS3-100	FCH1NJ	80	136	46	32	10	18	φ0.005	SSCP10-□	1.9
φ3~28		-FIC2NJ-175-S	620462		-SBS5-140	FCH2NJ		175	64		16	28	φ0.010	SSCP16-□	4.4
φ3~23	ST42	-FIC1NJ-136-S	620480	ST42	-SBS3-100	FCH1NJ	90	136	46	42	10	18	φ0.005	SSCP10-□	2.5
φ3~28		-FIC2NJ-160-S	620482		-SBS5-125	FCH2NJ		160	64		16	28	φ0.010	SSCP16-□	4.6

NOTE : Insersts and bites and collets are sold separately.

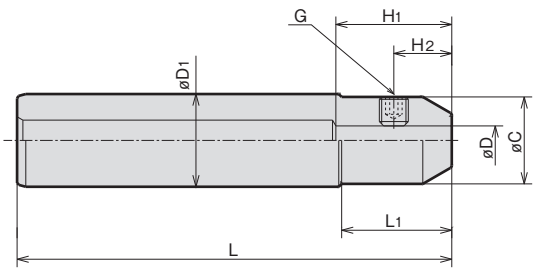
ORDERING EXAMPLE

①	②	③	④	⑤	⑥
ST32	- FIC	1	NJ	- 136	- S

① Shank Size
② Holder's Name
③ Head No.
④ New Jig Borer Type
⑤ G.L. Length
⑥ Set

SLIM SIDE LOCK HOLDER

ST Ⓓ1-S Ⓓ-Ⓛ1



MODEL		CODE	øD1	øD(H6)	øC	L	L1	H1	H2	G	N/W (kg)
ST25	-S06	30502	25	6	20	120	30	30	13	M6	0.38
	-S08	30504		8					15		0.37
	-S10	30506		10	30			40	20	M10	0.42
ST32	-S06	30509	32	6	20	150	38	30	13	M6	0.72
	-S08	30510		8					15		0.72
	-S10	30512		10	30			40	20	M10	0.75
	-S12	30514		12	32		◇				0.77

ORDERING EXAMPLE

① ST32 - ② S ③ 06 - ④ 030

① Shank Size
② Holder's Name
③ Cutter's Shank Dia.
④ L1

MORSE TAPER COLLET

Ⓓ-MT №

FIG.1

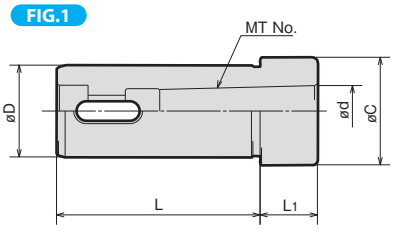
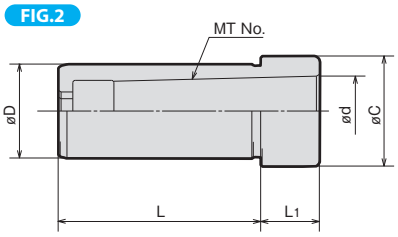


FIG.2



MODEL	CODE	FIG.	øD	øC	L	L1	MT		N/W (kg)
							MT No.	ød	
20-MT1	35522	1	20	23.5	56	20	1	12.065	0.16
-MT2	35524				58	35	2	17.780	0.13
25-MT1	35532		25	31	66	15	1	12.065	0.27
-MT2	35534				73	20	2	17.780	0.24
32-MT1	35552		32	37.5	66	15	1	12.065	0.47
-MT2	35554				71	20	2	17.780	0.46
-MT3	35556	2					3	23.825	0.35
42-MT1	35582	1	42	47.5	76	20	1	12.065	1.02
-MT2	35584						2	17.780	0.93
-MT3	35586	2			77	15	3	23.825	0.76
-MT4	35588				85	30	4	31.267	0.75

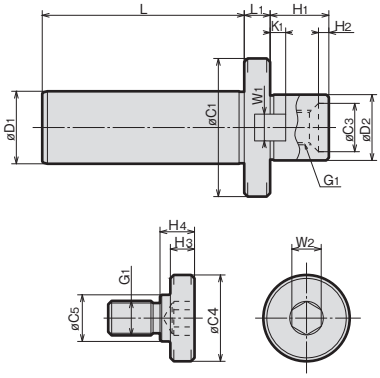
ORDERING EXAMPLE

① 20 - ② MT ③ 1

① Shank Size øD
② Name
③ MT No.

FACE MILL ARBOR (Type A)

ST№-FMAD2



MODEL		CODE	øD1	øD2(h6)	L	L1	øC1	øC3	H1	H2	KEY		G1	CLAMP BOLT					CLAMP BOLT	N/W (kg)
											W1	K1		øC4	øC5	H3	H4	W2		
ST32	-FMA25.4	30462	32	25.4	112	15	50	◇	22	◇	9.5	5	M12	33	23	10	12	10	MBA-M12	1.1
	-FMA31.75	30464		31.75		15	60	24	30	6	12.7	7	M16	40	23	10	16	14	-M16	1.3
	-FMA38.1	30466		38.1		18	80	28	34	6	15.9	9	M20	50	27	14	20	17	-M20	1.9
ST42	-FMA25.4	30468	42	25.4	117	15	50	◇	22	◇	9.5	5	M12	33	23	10	12	10	MBA-M12	1.7
	-FMA31.75	30470		31.75		15	60	24	30	6	12.7	7	M16	40	23	10	16	14	-M16	1.9
	-FMA38.1	30472		38.1		18	80	28	34	6	15.9	9	M20	50	27	14	20	17	-M20	2.5
	-FMA50.8	30474		50.8		20	100	38	36	10	19.0	10	M24	65	37	14	24	17	-M24	3.4

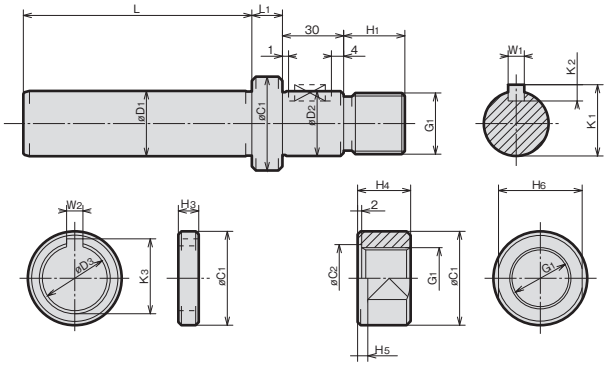
ORDERING EXAMPLE

① ST32 ② FMA - ③ 25.4

① Shank Size øD1
② Name
③ øD2

SIDE CUTTER ARBOR

ST①-SCA②-③



MODEL		CODE	øD1	øD2(h6)	L1			øC1	G1×P	H1	L	W1	K1	K2	øC3	H3	W2	K3	øC2	H4	H5	H6	N/W (kg)
					STAN-DARD	OPTION																	
ST32	-SCA15.875-015	30422	32	15.875	15	30	60	26	M14×1.5	16	112	3.18	17.42	3.18	15.875	5	3.18	17.7	17	13	3	22	1.0
	-SCA22.225-015	30426		22.225				34	M20×1.5	21		3.18	23.82	3.18	22.225		3.18	24.1	23	18	4	30	1.2
	-SCA25.4 -015	30430		25.4				40	M24×2	25		6.35	27.78	6.35	25.4		6.35	28.1	28	21	4	32	1.4
	-SCA31.75 -015	30434		31.75				46	M30×2	30		7.92	34.92	7.92	31.75	10	7.92	35.2	33	26	5	41	1.7
ST42	-SCA25.4 -015	30438	42	25.4	15	30	60	40	M24×2	25	117	6.35	27.78	6.35	25.4	20	6.35	28.1	28	21	4	32	2.0
	-SCA31.75 -015	30442		31.75				46	M30×2	30		7.93	34.92	7.92	31.75		7.92	35.2	33	26	5	41	2.3
	-SCA38.1 -015	30446		38.1				55	M36×3	36		9.52	42.06	9.52	38.1		9.52	42.3	41	31	5	46	2.7

ORDERING EXAMPLE

① ST32 - ② SCA ③ 25.4 - ④ 015

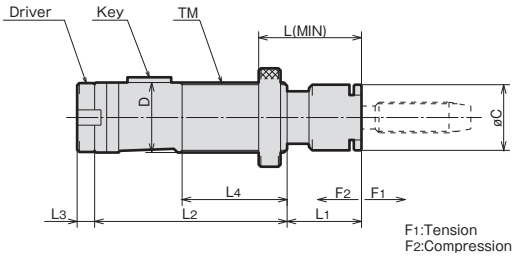
① Shank Size øD1
② Name
③ øD2
④ L1

ADJUSTABLE TAPPER (Key Drive) AFT01-Ⓓ

For automotive shanks and SLB holders.

FEATURES

- Compact tension-compression tapper.
- Very short since the parts are housed in the shank.
- Tap, collet and driver can be changed quickly.



MODEL		CODE	øD	L MIN.	L1	L2	L3 DR	L3 CL	L4	øC	KEY WIDTH	TM	F1	F2	TAP SIZE	COLLET	DRIVER	N/W (kg)
AFT01	-19	40002	19	40	30	74	6	18*	38	20	4	19×2	14	10	M3-M12 PT1/8	TC19	CL19 or DR19	0.15
	-20	40004	20								5	20×2						0.20
	-22	40006	22									22×2						0.20
	-26	40010	26	42	32	81		23	40	23	5	26×2	16		M4-M14 PT1/8-PT1/4	TC25	CL25 or DR25	0.35
	-32	40012	32	44	34	88	8	33	48	30	6	32×2	18		M5-M20 PT1/8-PT3/8	TC32	CL32 or DR32	0.44
	-35	40014	35									35×2						0.78
	-48	40016	48	58	45	105		43	60	45	8	48×2	20	15	M16-M33 PT1/4-PT1	TC48	CL48 or DR48	1.6

NOTE : 1. ＊M10、M12：18→26
2. Both clutch driver and positive driver are available.

ACCESSORIES
P.154 BOTH CLUTCH DRIVER AND POSITIVE DRIVER

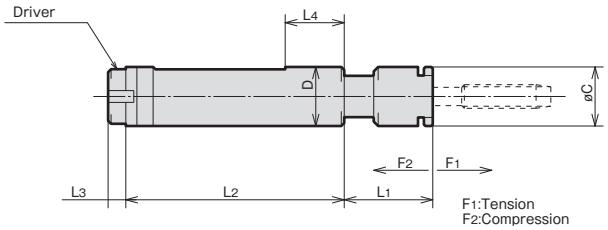
ORDERING EXAMPLE

① AFT01 - ② 19

① Holder's Name
② øD

SIDE LOCK TAPPER (Set Screw Drive) AFT02-Ⓓ

For endmill holders.



MODEL		CODE	øD	L1	L2	L3 DR	L3 CL	L4	øC	F1	F2	TAP SIZE	COLLET	DRIVER	N/W (kg)
AFT02	-20	30342	20	30	74	6	18*	20	20	14	10	M3-M12, PT 1/8	TC19	CL19, DR19	0.18
	-25	30344	25	32	81		23		23	16		M4-M14, PT 1/8-1/4	TC25	CL25, DR25	0.32
	-32	30346	32	34	88	8	33	25	30	18		M5-M20, PT 1/8-3/8	TC32	CL32, DR32	0.41

NOTE : 1. ＊M10、M12：18→26
2. Both clutch driver and positive driver are available.

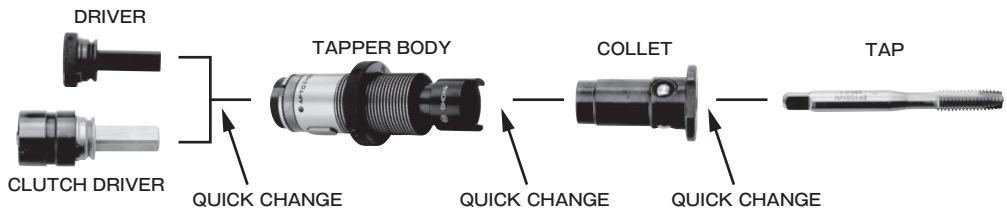
ACCESSORIES
P.154 BOTH CLUTCH DRIVER AND POSITIVE DRIVER

ORDERING EXAMPLE

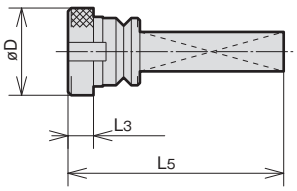
① AFT02 - ② 20

① Holder's Name
② øD

COMPONENTS OF TAPPER



DRIVER (Positive) DRⒹ



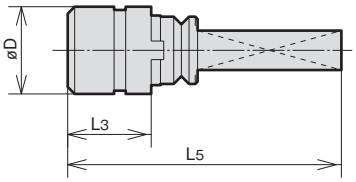
MODEL	CODE	øD	L3	L5	TAPPER
DR	19	19	6	47	19, 20, 22
	25	25	6	47	25, 26, 28
	32	32	8	55	32, 35, 36
	48	48	8	65	48

ORDERING EXAMPLE

① DR - ② 19

① Name
② Tapper Size

DRIVER (With Torque Clutch) CLⒹ- (TAP SIZE)



MODEL	CODE	øD	L3	L5	TAPPER
CL	19	19	18*	59**	19, 20, 22
	25	25	23	64	25, 26, 28
	32	32	33	80	32, 35, 36
	48	48	43	100	48

NOTE : 1. ＊M10、M12：18→26
2. ＊＊M10、M12：59→67

ORDERING EXAMPLE

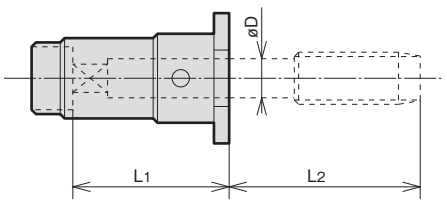
① CL ② 19 - ③ M4

① Name
② Tapper Size
③ Tap Size

TAP COLLET TCⓃ- (TAP SIZE)

FEATURES

Quick change tap collet.
Push in the tap collet to unload the tap.
Then, tapcollet can be removed by hand.



ORDERING EXAMPLE

① TC ② 19 - ③ M4

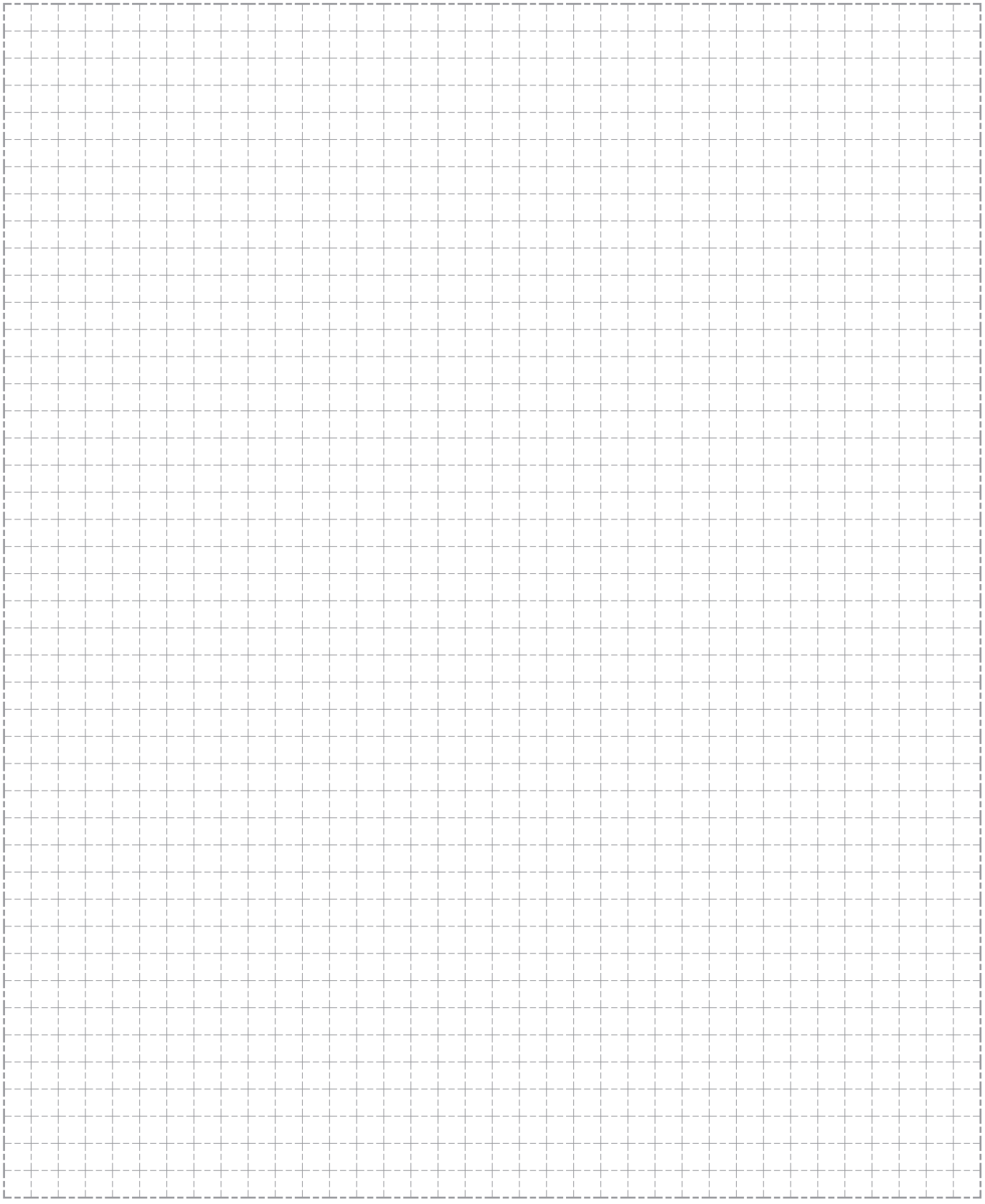
① Name
② Tapper Size
③ Tap Size

HAND TAP (JIS)

CODE	TAP	øD	TC19 L1	TC19 L2	TC25 L1	TC25 L2	TC32 L1	TC32 L2	TC48 L1	TC48 L2
TC19	M3	4	25	21						
	M3.5			23						
TC25	M4	5		27	25	27				
	M4.5			30	25	30				
TC32	M5	5.5	30	30	35	25	35	25		
	M6	6		32		27		27		
	M8	6.2		40		35		35		
	M9	7		42		37	38	34		
	M10			45		40		37		
	M12	8.5		52		47		44		
	M14	10.5				53		50		
TC48	M16	12.5						57	45	50
	M18	14						62		55
	M20	15						67		60
	M22	17							55	60
	M24	19								65
	M27	20								75
	M30	23								80
	M33	25								90

PIPE TAP (JIS)

TC19	PT1/8	8	30	25	32	23	32	23		
TC25	PT1/4	11				30		30	32	30
TC32	PT3/8	14						33		33
TC48	PT1/2	18							40	40
	PT3/4	23							45	40
	PT1	26								50



SHOWA TOOL

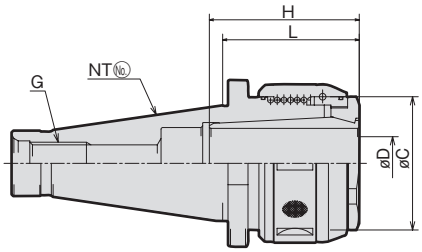
Versatile Tool

<NT Shank> HARD CHUCK

FEATURES P.7-8

NT№ G-CTH D

▶▶▶ A-set, B-set ▶ P.149



MODEL	CODE	øD	L	øC	H	G
NT30W -CTH20	33004	20	62	60	50	w1/2-12
NT40 U(M) -CTH25	33006 (33026)	25	65	68	68	5/8-11UNC (M16×2)
-CTH32	33008 (33028)	32	82.6	80	70(Short)	
NT50 U(M) -CTH32	33010 (33030)	32	76.2	80	80	1-8UNC (M24×3)
-CTH42	33012 (33032)	42	82	95	90	
-CTH50(50.8)	33014 (33034)	50(50.8)	120	105	95	

NOTE : 1. Chuck wrench is included.

ACCESSORIES P.48 ADJUST SCREW

ACCESSORIES P.47-49 SPRING COLLET, CHUCK WRENCH

ORDERING EXAMPLE

①	②	③	④
NT30	W	- CTH	20

① Shank Size
② G type
③ Name
④ Cutter's Dia. øD

<NT Shank> FACE MILL ARBOR (Type A)

NT№ G2-FMA D-L

FIG.1

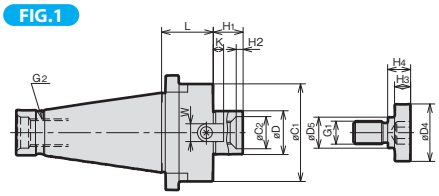


FIG.2

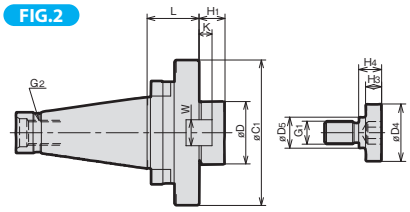
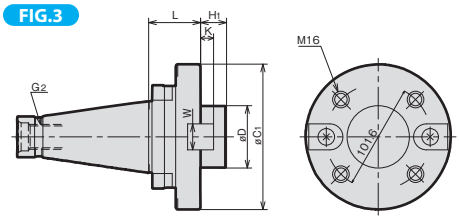


FIG.3



MODEL		CODE	FIG.	øD(h6)	L	øC1	øC2	H1	H2	KEY W	KEY K	G1	CLAMP BOLT øC4	CLAMP BOLT øC5	CLAMP BOLT H3	CLAMP BOLT H4	G2	N/W (kg)
NT40 U(M)	-FMA25.4 -030	35702 (35704)	1	25.4	30	50	—	22	—	9.5	5	M12	33	23	10	12	5/8-11UNC (M16×2.0)	
	-FMA31.75 -030	35706 (35708)		31.75		60	24	30	6	12.7	7	M16	40	23		16		
	-FMA38.1 -030	35710 (35712)	2	38.1		80	28	34		15.9	9	M20	50	27	14	20		
	-FMA50.8 -030	35714 (35716)		50.8		98	38	36	10	19.05	10	M24	65	37		24		
NT50 U(M)	-FMA25.4 -030	35720 (35722)	1	25.4	30	50	—	22	—	9.5	5	M12	33	23	10	12	1-8UNC (M24×3.0)	
	-FMA31.75 -030	35724 (35726)		31.75		60	24	30	6	12.7	7	M16	40	23		16		3.5
	-FMA38.1 -030	35728 (35730)		38.1		80	28	34		15.9	9	M20	50	27	14	20		4.0
	-FMA50.8 -030	35732 (35734)		50.8		98	38	36	10	19.05	10	M24	65	37		24		4.0
	-FMA47.625-045	35736 (35738)	3	47.625	45	128.57	—	38	—	25.4	12.5	—	—	—	—	—		6.0

ORDERING EXAMPLE

①	②	③	④	⑤
NT50	U(M) - FMA	31.75 -	030	

① Shank Size
② G2 type
③ Name
④ D
⑤ L

<NT Shank> HARD CHUCK (A-set)

FEATURES P.7-8

NT№ⒼⒹ-CTH

ORDERING EXAMPLE

①	②	③	④	⑤
NT30	W	- CTH	20	A

① Shank Size
② Thread type
③ Name
④ Cutter's Dia. øD
⑤ Set type

MODEL	CODE	HARD CHUCK	STRAIGHT COLLET	HOOK SPANNER
NT30W -CTH20 A	33302	NT30W -CTH20	SC20-06,08,10,12,16	FS58-62G
NT40U(M)-CTH25 A	33304 (33404)	NT40U(M)-CTH25	SC25-06,08,10,12,16,20	FS68-75G
NT40U(M)-CTH32 A	33306 (33406)	NT40U(M)-CTH32	SC32-06,08,10,12,16,20,25	FS80-90G
NT50U(M)-CTH32 A	33308 (33408)	NT50U(M)-CTH32	SC32-06,08,10,12,16,20,25	FS80-90G
NT50U(M)-CTH42 A	33310 (33410)	NT50U(M)-CTH42	SC42-06,08,10,12,16,20,25,32	FS92-100

NOTE : Please refer to P.139 for dimensions of HARD CHUCK.

<NT Shank> HARD CHUCK (B-set)

FEATURES P.7-8

NT№ⒼⒹ-CTH

ORDERING EXAMPLE

①	②	③	④	⑤
NT30	W	- CTH	20	B

① Shank Size
② Thread type
③ Name
④ Cutter's Dia. øD
⑤ Set type

MODEL	CODE	HARD CHUCK	STRAIGHT COLLET	TAPER COLLET	DRILL CHUCK ARBOR	HOOK SPANNER
NT30W -CTH20 B	33322	NT30W -CTH20	SC20-06,08,10,12,16	20-MT1,MT2	20-J6	FS58-62G
NT40U(M)-CTH25 B	33324 (33424)	NT40U(M) -CTH25	SC25-06,08,10,12,16,20	25-MT1,MT2	25-J6	FS68-75G
NT40U(M)-CTH32 B	33326 (33426)	NT40U(M) -CTH32	SC32-06,08,10,12,16,20 ,25	32-MT1,MT2, MT3	32-J6	FS80-90G
NT50U(M)-CTH32 B	33328 (33428)	NT50U(M) -CTH32	SC32-06,08,10,12,16,20 ,25	32-MT1,MT2, MT3	32-J6	FS80-90G
NT50U(M)-CTH42 B	33330 (33430)	NT50U(M) -CTH42	SC42-06,08,10,12,16,20 ,25,32	42-MT1,MT2, MT3,MT4	42-J6	FS92-100

NOTE : Please refer to P.139 for dimensions of HARD CHUCK.

<NT Shank> HARD CHUCK

FEATURES P.7-8

MT№-CTHⒹ

FEATURES

- The ball screw structure provides high clamping power.
- Easy handling.
- High accuracy and rigidity are kept long.

FIG.1

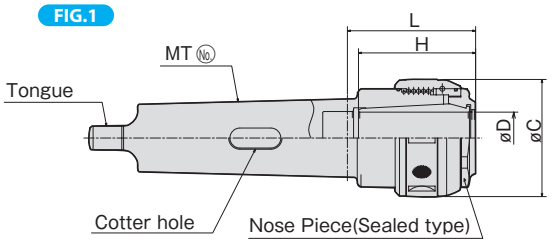
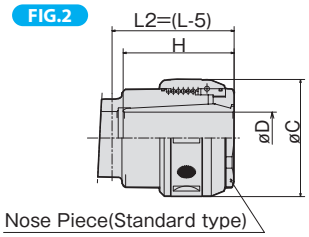


FIG.2



MODEL	FIG	øD	L	øC	H
MT4-CTH25	2	25	86.5	68	60
-CTH32		32	98.5	83	80
MT5-CTH32	1	32	103.5	83	85
-CTH42		42	117.5	95	95
MT6-CTH32	1	32	84	83	85
-CTH42		42	104	95	95
-CTH50(50.8)		50(50.8)	120	105	100
MT7-CTH42	1	42	80	95	95
-CTH50(50.8)		50(50.8)	115	105	100

NOTE : 1. Please inform machine maker and model, when ordering with cotter hold which differs depending on them.

ORDERING EXAMPLE

① MT5 - ② CTH ③ 25 ④

① Shank Size
② Name
③ Cutter's Dia. øD
④ Machine maker

ACCESSORIES P.47 SPRING COLLET

ACCESSORIES P.48 STRAIGHT COLLETS, ADJUST SCREW

ACCESSORIES P.49 CHUCK WRENCH

S-HOLDER

An ace of quick change holders

Tool change can be done in ***3 seconds.***

High rigidity makes the holder possible to use a 200mm(8") face mill.

FEATURES

SHOWA s-Holder is the most safe, strong and speedy (3S) quick change holder, with variety of sub-holders.

Safe

The outstanding chucking ability of S-Holder assures safety operations.

Strong

Up to a 200mm(8") face mill can be used due to the highest rigidity of the holder.

Speedy

Sub-holders can be changed quick by the forced load and unload mechanism (PAT.831025) eliminating the use of a hammer.

<S-HOLDER> SET

S NT No. - HARD CHUCK SIZE

ORDERING EXAMPLE

① ② ③
S 40U - 25

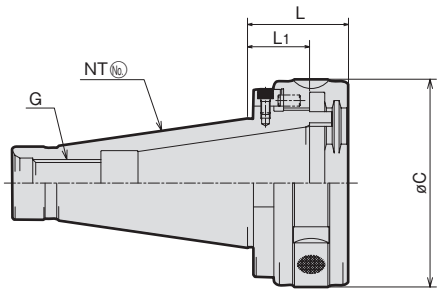
① Name
② Spindle NT No.
③ HARD CHUCK Size

SET CODE	S40U-25	S40U-32	S50U-32	S50M-32	S50U-42	S50M-42
	36002	36004	36006	36007	36008	36009
SPINDLE NT No.	NT40-U	NT40-U	NT50-U	NT50-M	NT50-U	NT50-M
S-Holder Body	S40U	S40U	S50U	S50M	S50U	S50M
TAPER SLEEVE	40S1-MT3		50S1-MT4			
HARD CHUCK	40S2-25	40S2-32	50S2-32		50S2-42	
FACE MILL ARBOR	40S3-F4		50S3-F6			
STRAIGHT COLLET	SC25-06,08 10,12,16,20	SC32-06,08,10 12,16,20,25	SC32-06,08,10 12,16,20,25		SC42-06,08,10 12,16,20,25,32	
TAPER COLLET	25-MT1,MT2	32-MT2,MT3	32-MT2,MT3		42-MT2,MT3	
DRILL CHUCK ARBOR	25-J6	32-J6	32-J6		42-J6	
HOOK SPANNER	FS68-75 FS80-90	FS80-90	FS80-90 FS110-115		FS92-100 FS110-115	
HEXAGON WRENCH	B14		B17			

<NT Shank> S-HOLDER (Q.C. Holder)

S-HOLDER BODY (Q.C. Holder)

S NT No. Ⓖ-HOLDER



MODEL	CODE	NT No.	L1	L	øC	G
S40U-HOLDER	36012	NT40	30.85	44.85	87	5/8-11UNC
S50U-HOLDER	36102	NT50	33.45	54.45	112	1-8UNC
S50M-HOLDER	36103	NT50	33.45	54.45	112	M24×3

ORDERING EXAMPLE

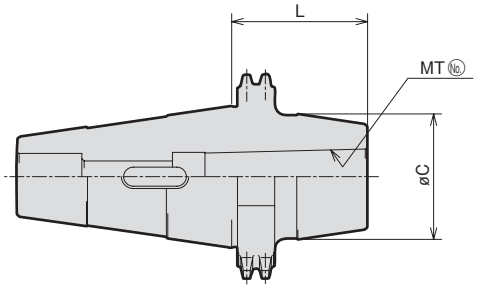
① S ② 40 ③ U - ④ HOLDER

① Name
② NT No.
③ G type

Versatile Tool

<S-HOLDER> TAPER SLEEVE (S1 Collet)

NT No. S1-MT №



MODEL	CODE	MT No.	L	øC
40S1-MT1	36014	MT1	52	40
-MT2	36016	MT2	52	40
-MT3	36018	MT3	62	41
-MT4	36020	MT4	100	41
50S1-MT1	36104	MT1	93.5	44
-MT2	36106	MT2	58.5	54
-MT3	36108	MT3	58.5	54
-MT4	36110	MT4	58.5	54
-MT5	36112	MT5	110	61

ORDERING EXAMPLE

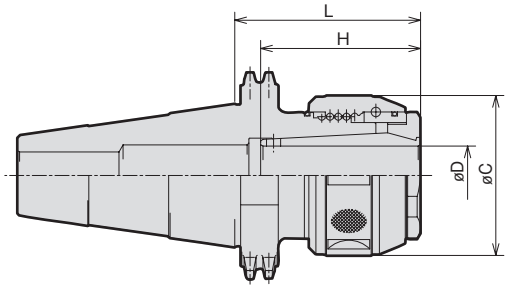
① 40 ② S1 - ③ MT1

① NT No.
② Name
③ MT No.

<S-HOLDER> HARD CHUCK (S2 Collet)

FEATURES P.7-8

NT No. S2-Ⓓ



MODEL	CODE	øD	L	øC	H
40S2-25	36022	25	70	68	68
-32	36024	32	95	83	70
50S2-32	36122	32	80	83	80
-42	36124	42	99	95	90

NOTE : 1. Please refer to P.41 for chuck wrench.
2. Please refer to P.40 for spring collet and P.40 for straight collet.

ACCESSORIES P.47 SPLING COLLET

ACCESSORIES P.48 STRAIGHT COLLETS

ACCESSORIES P.49 CHUCK WRENCH

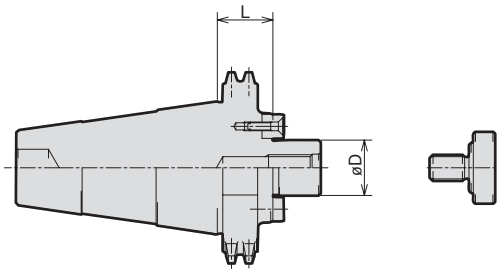
ORDERING EXAMPLE

① 40 ② S2 - ③ 25

① NT No.
② Name
③ Cutter's Dia. øD

<S-HOLDER> FACE MILL ARBOR (S3 Collet)

NT No. S3-F Dia.(in)



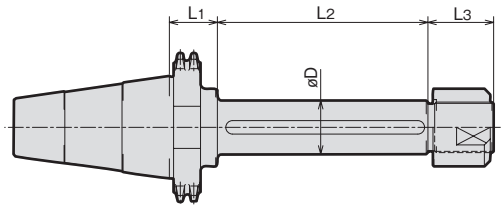
MODEL	CODE	øD	L	Face Mill Dia.
40S3-F3	36032	25.4	19	80 (3")
-F4	36034	31.75	19.5	105 (4")
-F5	36036	38.1	28	125 (5")
-F6	36038	50.8	31	160 (6")
50S3-F3	36132	25.4	25.5	80 (3")
-F4	36134	31.75	26	105 (4")
-F5	36136	38.1	27.5	125 (5")
-F6	36138	50.8	37.5	160 (6")
-F8	36140	47.625	47.5	200 (8")

ORDERING EXAMPLE

① 40 ② S3 - ③ F ④ 3

① NT No.
② Name
③ Name
④ Cutter's Dia.

<S-HOLDER> SIDE CUTTER ARBOR (S_4 Collet) NT No. S_4-Ⓓ-Ⓛ2



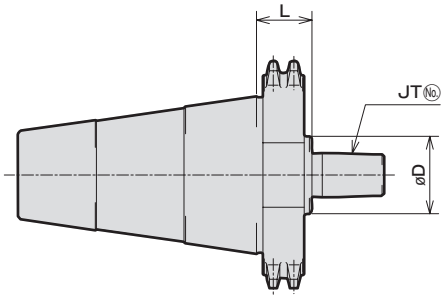
MODEL	CODE	øD	L1	L2	L3
40S4-25.4 -075	36042	25.4	22	75	33
50S4-25.4 -100	36152	25.4	28.5	100	33
50S4-31.75-125	36154	31.75	28.5	125	39

ORDERING EXAMPLE

① 40 ② S4 - ③ 25.4 ④ 075

① NT No.
② Name
③ øD
④ L2

<S-HOLDER> DRILL CHUCK HOLDER (S_6 Collet) NT No. S_6-JⓃ



MODEL	CODE	JT No.	L	øC
40S6-J6	36044	6	17	30
50S6-J6	36162	6	21.5	30

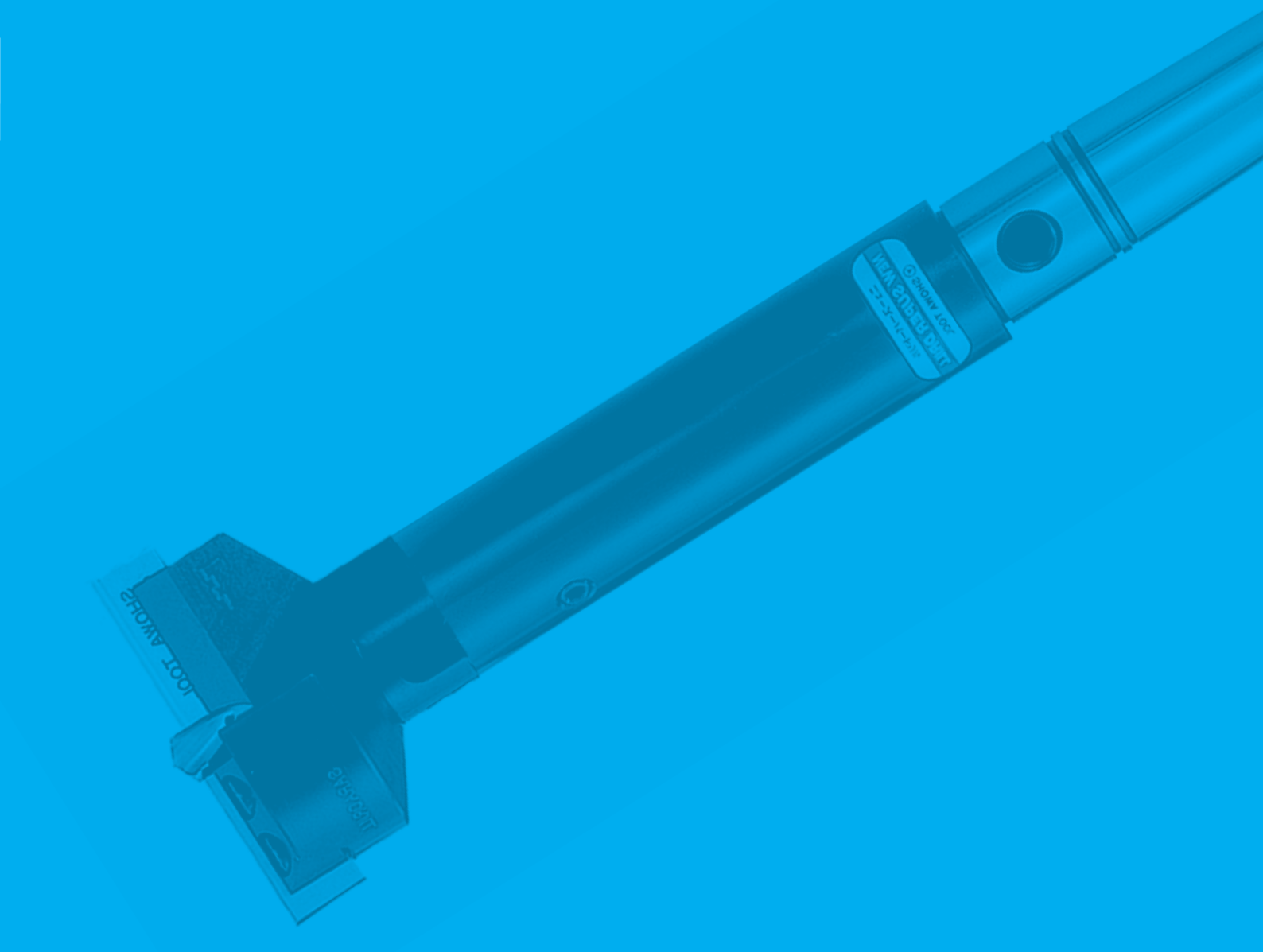
ORDERING EXAMPLE

① 40 ② S6 - ③ J6

① NT No.
② Name
③ JT No.

SHOWA TOOL

Cutting Tool



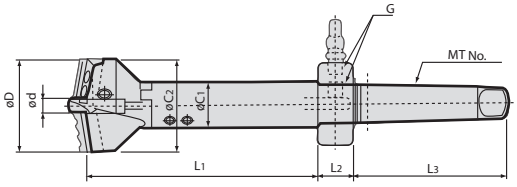
MORSE TAPER SHANK SET (Standard)

FEATURES P.31-34

MT№-ⒹMAX-L1

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set

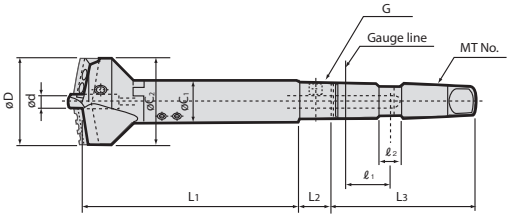
(※the set contents more than E are not included in center drills and blades)
E.F.G.H.I set doed not included center drills and drill blades.



	MODEL	CODE	Hole dia.	Set blade		ød	L1	L2	L3	øC1	øC2	MT No.	G	N/W (kg)
MT4	-A1S 55-200S	54000	50~55	BK50	BK53	12	200	30	130	29	48	MT4	PT1/4	2.1
	-A2 65-200S	54001	55~65	BK55	BK60						53			2.2
	-B 80-200S	54002	65~80	BK65	BK73					35	63			2.7
	-C 100-200S	54003	80~100	BK80	BK90					38	78			3.2
	-D 120-200S	54004	100~120	BK100	BK110					45	98			4.3
MT5	-E 150-200S	54005	120~150	Blade sold separately		20	200	30	163	55	118	MT5	PT1/4	7.0
	-F 180-200S	54006	150~180							65	148			9.4
	-G 210-200S	54007	180~210							75	178			12.5
MT6	-H 240-300S	54008	210~240			20	300	40	228	85	207	MT6	PT3/8	23.9
	-I 270-300S	54009	240~270							95	237			28.6

MORSE TAPER SHANK SET (For Oil-Hole Adapter) MT№-ⒹMAX-L1-OH

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set

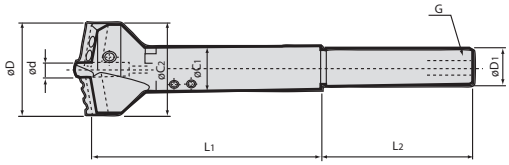


	MODEL	CODE	Hole dia.	Set blade		ød	L1	L2	L3	ℓ1	ℓ2	C1	C2	MT No.	G	N/W (kg)
MT4	-A1S 55-200-OHS	54530	50~55	BK50	BK53	12	200	30	130	41	20	29	48	MT4	PT1/4	2.1
	-A2 65-200-OHS	54531	55~65	BK55	BK60								53			2.2
	-B 80-200-OHS	54532	65~80	BK65	BK73							35	63			2.7
	-C 100-200-OHS	54533	80~100	BK80	BK90							38	78			3.2
	-D 120-200-OHS	54534	100~120	BK100	BK110							45	98			4.3

STRAIGHT SHANK SET (Standard)

ST①-ⒹMAX-200

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set

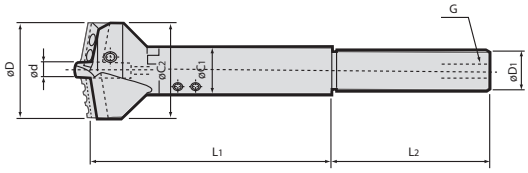


MODEL		CODE	Hole dia.	Set blade		ød	L1	L2	øC1	øC2	øD1	G	N/W (kg)
ST32	-A1S55-200S	54500	50~55	BK50	BK53	12	200	130	29	48	32	PT1/4	
	-A2 65-200S	54501	55~65	BK55	BK60					53			
	-B 80-200S	54502	65~80	BK65	BK73				35	63			
	-C 100-200S	54503	80~100	BK80	BK90				38	78			
	-D 120-200S	54504	100~120	BK100	BK110				45	98			
ST42	-A1S 55-200S	54510	50~55	BK50	BK53	12	200	130	29	48	42	PT1/4	
	-A2 65-200S	54511	55~65	BK55	BK60					53			
	-B 80-200S	54512	65~80	BK65	BK73				35	63			
	-C 100-200S	54513	80~100	BK80	BK90				38	78			
	-D 120-200S	54514	100~120	BK100	BK110				45	98			

STRAIGHT SHANK SET (For Turret Lathe)

ST①-ⒹMAX-200

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set



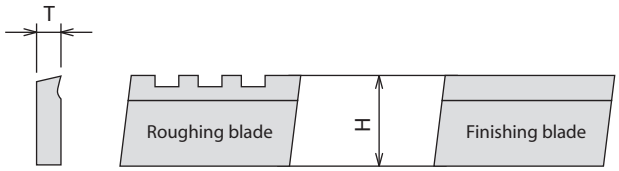
MODEL		CODE	Hole dia.	Set blade		ød	L1	L2	C1	C2	ød1	H	G	N/W (kg)
ST45	-A1S55-200S	54550	50~55	BK50	BK53	12	200	140	29	48	45	42	PT1/4	
	-A2 65-200S	54551	55~65	BK55	BK60					53				
	-B 80-200S	54552	65~80	BK65	BK73				35	63				
	-C 100-200S	54553	80~100	BK80	BK90				38	78				
	-D 120-200S	54554	100~120	BK100	BK110				45	98				

ORDERING EXAMPLE

① ST45 ② A1S55 - ③ 200

① Shank Size
② Max. øD
③ L1

BLADE (For Standard Head)



Each set consists of a roughing blade (R) and a finishing blade (S).

MODEL	CODE	Hole dia 加工径Dmm	T	H	Blade	Head 適用ヘッドNo.
BK50	52002	50 (50~53)	5	19	A19 R&S	A1-55
BK51	52032	51			A19.5 R&S	
BK52	52034	52			A20 R&S	
BK53	52004	53 (53~55)			A20.5 R&S	
BK54	52036	54			A21 R&S	
BK55	52006	55			A21.5 R&S	
BK55	52006	55 (55~60)			A21.5 R&S	A2-65
BK56	52038	56			A22 R&S	
BK57	52040	57			A22.5 R&S	
BK58	52042	58			A23 R&S	
BK59	52044	59			A23.5 R&S	
BK60	52008	60 (60~65)			A24 R&S	
BK61	52046	61			A24.5 R&S	
BK62	52048	62			A25 R&S	
BK63	52050	63			A25.5 R&S	
BK64	52052	64			A26 R&S	
BK65	52010	65			B26.5 R&S	
BK65	52010	65 (65~73)			B26.5 R&S	B-80
BK66	52054	66			B27 R&S	
BK67	52056	67			B27.5 R&S	
BK68	52058	68			B28 R&S	
BK69	52060	69			B28.5 R&S	
BK70	52062	70			B29 R&S	
BK71	52064	71			B29.5 R&S	
BK72	52066	72			B30 R&S	
BK73	52012	73 (73~80)			B30.5 R&S	
BK74	52068	74			B31 R&S	
BK75	52070	75			B31.5 R&S	
BK76	52072	76			B32 R&S	
BK77	52074	77			B32.5 R&S	
BK78	52076	78			B33 R&S	
BK79	52078	79			B33.5 R&S	
BK80	52014	80			C34 R&S	
BK80	52014	80 (80~90)			C34 R&S	C-100
BK81	52080	81			C34.5 R&S	
BK82	52082	82			C35 R&S	
BK83	52084	83			C35.5 R&S	
BK84	52086	84			C36 R&S	
BK85	52088	85			C36.5 R&S	
BK86	52090	86			C37 R&S	
BK87	52092	87			C37.5 R&S	
BK88	52094	88			C38 R&S	
BK89	52096	89			C38.5 R&S	
BK90	52016	90 (90~100)			C39 R&S	
BK91	52098	91			C39.5 R&S	
BK92	52100	92			C40 R&S	
BK93	52102	93			C40.5 R&S	
BK94	52104	94			C41 R&S	
BK95	52106	95			C41.5 R&S	
BK96	52108	96			C42 R&S	
BK97	52110	97			C42.5 R&S	
BK98	52112	98			C43 R&S	
BK99	52114	99			C43.5 R&S	
BK100	52018	100			D44 R&S	

MODEL	CODE	Hole dia 加工径Dmm	T	H	Blade	Head 適用ヘッドNo.
BK100	52018	100 (100~110)	5	19	D44 R&S	D-120
BK101	52116	101			D44.5 R&S	
BK102	52118	102			D45 R&S	
BK103	52120	103			D45.5 R&S	
BK104	52122	104			D46 R&S	
BK105	52124	105			D46.5 R&S	
BK106	52126	106			D47 R&S	
BK107	52128	107			D47.5 R&S	
BK108	52130	108			D48 R&S	
BK109	52132	109			D48.5 R&S	
BK110	52020	110 (110~120)			D49 R&S	
BK111	52134	111			D49.5 R&S	
BK112	52136	112			D50 R&S	
BK113	52138	113			D50.5 R&S	
BK114	52140	114			D51 R&S	
BK115	52142	115			D51.5 R&S	
BK116	52144	116			D52 R&S	
BK117	52146	117			D52.5 R&S	
BK118	52148	118			D53 R&S	
BK119	52150	119			D53.5 R&S	
BK120D	52152	120			D54 R&S	
BK120E	52154	120	8	25		E-150
BK125	52156	125				
BK130	52158	130				
BK135	52160	135				
BK140	52162	140				
BK145	52164	145				
BK150E	52166	150				
BK150F	52168	150	12	25		F-180
BK155	52170	155				
BK160	52172	160				
BK165	52174	165				
BK170	52176	170				
BK175	52178	175				
BK180	52180	180				
BK180	52180	180				G-210
BK190	52182	190				
BK200	52184	200				
BK210	52186	210				
BK210	52186	210				H-240
BK220	52188	220				
BK230	52190	230				
BK240	52192	240				
BK240	52192	240				I -270
BK250	52194	250				
BK260	52196	260				
BK270	52198	270				

CENTER DRILL

CODE		径 DIA.	Head 適用ヘッドNo.
CD-12	51062	12mm	A1-55, A2-65, B80, C100, D120
CD-12C	51061	12mm	A1-55, A2-65, B80, C100, D120
CD-20	51066	20mm	E150, F180, G210, H240, I270

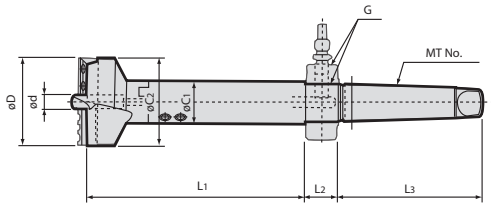
For counter sink and metal plate

MORSE TAPER SHANK SET (Flat Head Type)

FEATURES P.31-34

MT№-ⒹMAX-Ⓛ1-FT

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set

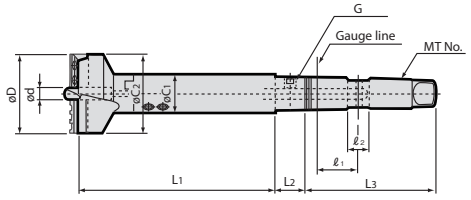


	MODEL	CODE	Hole dia.	Set blade		ød	L1	L2	L3	C1	C2	MT No.	G	N/W (kg)
MT4	-A1S 55-200-FT-S	54540	50~55	BK50F	BK53F	12	200	30	130	29	48	MT4	PT1/4	
	-A2 65-200-FT-S	54541	55~65	BK55F	BK60F						53			
	-B 80-200-FT-S	54542	65~80	BK65F	BK73F					35	63			
	-C 100-200-FT-S	54543	80~100	BK80F	BK90F					38	78			
	-D 120-200-FT-S	54544	100~120	BK100F	BK110F					45	98			

MORSE TAPER SHANK SET
(Flat Head Type For Oil-Hole Adapter)

MT№-ⒹMAX-200-FOH

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set



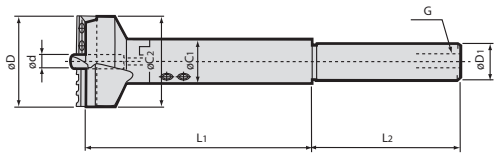
	MODEL	CODE	Hole dia.	Set blade		ød	L1	L2	L3	ℓ1	ℓ2	C1	C2	MT No.	G	N/W (kg)
MT4	-A1S 55-200-FOH-S		50~55	BK50F	BK53F	12	200	30	130	41	20	29	48	MT4	PT1/4	
	-A2 65-200-FOH-S		55~65	BK55F	BK60F								53			
	-B 80-200-FOH-S		65~80	BK65F	BK73F							35	63			
	-C 100-200-FOH-S		80~100	BK80F	BK90F							38	78			
	-D 120-200-FOH-S		100~120	BK100F	BK110F							45	98			

NEW SUPER DRILL (Flat Head Type)

For counter sink and metal plate

STRAIGHT SHANK SET (Flat Head Type) ST①-ⒹMAX-200-FT

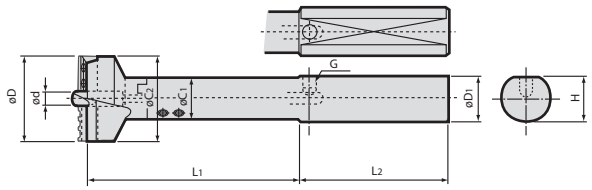
A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set



MODEL		CODE	Hole dia.	Set blade		ød	L1	L2	C1	C2	ød1	G	N/W (kg)
ST32	-A1S 55-200-FT-S		50~55	BK50F	BK53F	12	200	130	29	48	32	PT1/4	
	-A2 65-200-FT-S		55~65	BK55F	BK60F					53			
	-B 80-200-FT-S		65~80	BK65F	BK73F				35	63			
	-C 100-200-FT-S		80~100	BK80F	BK90F				38	78			
	-D 120-200-FT-S		100~120	BK100F	BK110F				45	98			
ST42	-A1S 55-200-FT-S		50~55	BK50F	BK53F	12	200	130	29	48	42	PT1/4	
	-A2 65-200-FT-S		55~65	BK55F	BK60F					53			
	-B 80-200-FT-S		65~80	BK65F	BK73F				35	63			
	-C 100-200-FT-S		80~100	BK80F	BK90F				38	78			
	-D 120-200-FT-S		100~120	BK100F	BK110F				45	98			

STRAIGHT SHANK SET (Flat Head Type for Turret Lathe) ST①-ⒹMAX-200

A to D set consist of
1. Standard head 1pc
2. MT drill arbor 1pc
3. Center drill 2pcs
4. Drill blade 2pcs
5. Oil plug 1pc
6. Wrench 1set



MODEL		CODE	Hole dia.	Set blade		ød	L1	L2	C1	C2	ød1	H	G	N/W (kg)
ST45	-A1S 55-200-FT-S		50~55	BK50F	BK53F	12	200	140	29	48	45	42	PT1/4	
	-A2 65-200-FT-S		55~65	BK55F	BK60F					53				
	-B 80-200-FT-S		65~80	BK65F	BK73F				35	63				
	-C 100-200-FT-S		80~100	BK80F	BK90F				38	78				
	-D 120-200-FT-S		100~120	BK100F	BK110F				45	98				

ORDERING EXAMPLE

①	②		③	④
ST45	A1S55	-	200	FT

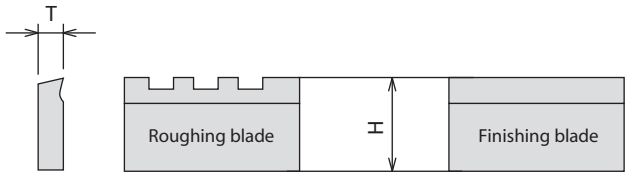
① Shank Size
② Max. øD
③ L1
④ Flat head type

For counter sink and metal plate

BLADE (For Flat Head)

ST Ⓓ1-Ⓓ MAX-200-FT

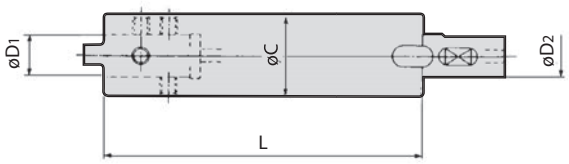
Each set consists of a roughing blade (R) and a finishing blade (S).



MODEL		CODE	Hole dia.	T	H	R & S	Head
BK	50F	52201	50 (50~53)	5	20	A19 RF & SF	A1S-55FT
	53F	52202	53 (53~55)			A20.5RF & F	
	55F	52203	55 (55~60)			A21.5RF & SF	A2 -65FT
	60F	52204	60 (60~65)			A24 RF & SF	
	65F	52205	65 (65~73)			B26.5RF & SF	B- 80FT
	73F	52206	73 (73~80)			B30.5RF & SF	
	80F	52207	80 (80~90)			C34 RF & SF	C-100FT
	90F	52208	90 (90~100)			C39 RF & SF	
	100F	52210	100 (100~110)			D44 RF & SF	D-120FT
	110F	52212	110 (110~120)			D49 RF & SF	

EXTENTION ARBOR (Flat Standard Head)

EXT-Ⓝo.-Ⓛ



MODEL		CODE	L	øD1, D2	øC	HEAD	N/W (kg)
EXT	-A-150	54151	150	16	29	A1s55 · A265	0.8
	-300	54301	300				1.6
	-B-150	54152	150	18	35	B 80	1.2
	-300	54302	300				2.3
	-C-150	54153	150	20	38	C100	1.4
	-300	54303	300				2.7
	-D-150	54154	150	22	45	D120	1.9
	-300	54304	300				3.8
	-E-150	54155	150	30	55	E150	2.8
	-300	54305	300				5.5
	-F-150	54156	150	35	65	F180	3.9
	-300	54306	300				7.8
	-G-150	54157	150	40	75	G210	5.1
	-300	54307	300				10.2
	-H-150	54158	150	45	85	H240	6.4
	-300	54308	300				12.8
	-I -150	54159	150	50	95	I 270	7.9
	-300	54309	300				16.0

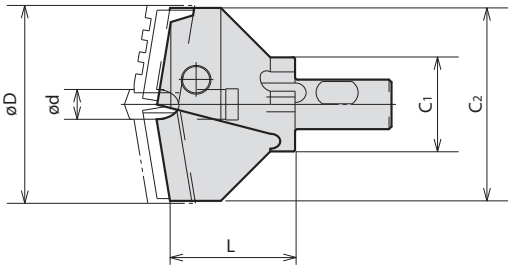
ORDERING EXAMPLE

① EXT - ② A - ③ 150

① Name
② Head type
③ L

STANDARD HEAD ASS'Y

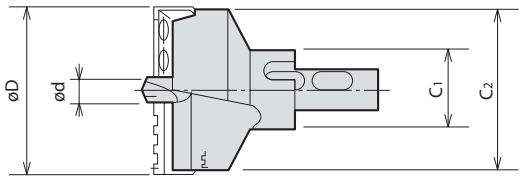
WITH BLADE CLAMPS
(Blade and center drill are sold separately.)



MODEL		CODE	Hole dia. MIN.	Hole dia. MAX.	ød	øC1	øC2	L	N/W (kg)
HD	-A1S55	54020	50	55	12	29	48	40	0.4
	-A2 65	54021	55	65			53	41.5	0.5
	-B 80	54022	65	80		35	63	47	0.7
	-C 100	54023	80	100		38	78	50.5	1.0
	-D 120	54024	100	120		45	98	62	1.7
	-E 150	54025	120	150	20	55	118	55	2.6
	-F 180	54026	150	180		65	148	63.5	4.3
	-G210	54027	180	210		75	178	75	6.7
	-H240	54028	210	240		85	207	75.5	10.0
	-I 270	54029	240	270		95	237	76	11.8

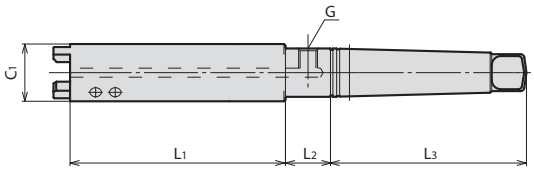
FLAT HEAD ASS'Y

WITH BLADE CLAMPS
(Blade and center drill are sold separately.)



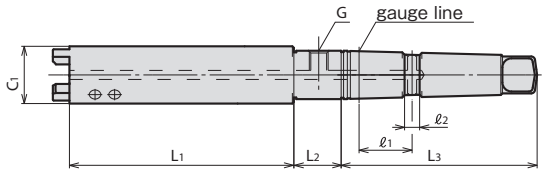
MODEL		CODE	Hole dia. MIN.	Hole dia. MAX.	ød	øC1	øC2	L	N/W (kg)
HD	-A1S55FT	54030	50	55	12	29	48	43	0.4
	-A2 65FT	54031	55	65			53	45	0.5
	-B 80FT	54032	65	80		35	63	51	0.7
	-C 100FT	54033	80	100		38	78	56	1.0
	-D 120FT	54034	100	120		45	98	69	1.7

MT DRILL ARBOR



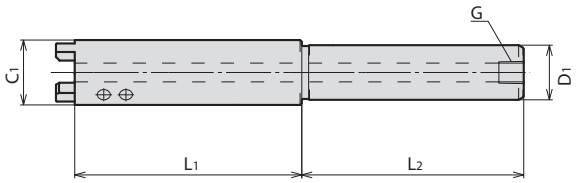
MODEL	CODE	MT No.	C1	L1	L2	L3	G	DRILL HEAD	N/W (kg)
MT4-A-200	54041	MT4	29	157	30	130	PT1/4	A1-55 A2-65	1.4
MT4-B-200	54042		35	150				B80	1.8
MT4-C-200	54043		38	144				C100	2.0
MT4-D-200	54044		45	131				D120	2.5
MT5-E-200	54055	MT5	55	137		163		E150	3.8
MT5-F-200	54056		65	126				F180	4.5
MT5-G-200	54057		75	112				G210	5.2
MT6-H-300	54068	MT6	85	300	40	228	PT3/8	H240	7.8
MT6- I -300	54069		95					I270	11.0

OH MT DRILL ARBOR



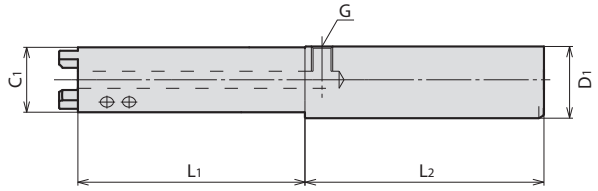
MODEL	CODE	MT No.	C1	L1	L2	L3	ℓ1	ℓ2	G	DRILL HEAD	N/W (kg)
MT4-A-200-OH	54141	MT4	29	157	30	130	41	20	PT1/4	A1-55 A2-65	1.4
MT4-B-200-OH	54142		35	150						B80	1.8
MT4-C-200-OH	54143		38	144						C100	2.0
MT4-D-200-OH	54144		45	131						D120	2.5

ST DRILL ARBOR



MODEL		CODE	D1	C1	L1	L2	G	DRILL HEAD	N/W (kg)
ST32	-A-200	54321	32	29	157	130	PT1/4	A1-55 A2-65	1.6
	-B-200	54322		35	150			B80	2.0
	-C-200	54323		38	144			C100	2.1
	-D-200	54324		45	131			D120	2.7
ST42	-A-200	54421	42	29	157	130	PT3/8	A1-55 A2-65	1.8
	-B-200	54422		35	150			B80	2.2
	-C-200	54423		38	144			C100	2.3
	-D-200	54424		45	131			D120	2.9

ST DRILL ARBOR (FOR LATHE)



MODEL		CODE	D1	C1	L1	L2	G	DRILL HEAD	N/W (kg)
ST45	-A-200	54451	45	29	157	140	PT1/4	A1-55 A2-65	1.9
	-B-200	54452		35	150			B80	2.3
	-C-200	54453		38	144			C100	2.4
	-D-200	54454		45	131			D120	3.0

OIL RING

MODEL		CODE	ID(mm)	Oil Plug
CR	-MT4	51022	32	PT1/4
	-MT5	51024	45	
	-MT6	51026	65	PT3/8

OIL PLUG only

MODEL		CODE	Coolant Ring
PT	1/4	51054	CR-MT4,CR-MT5
	3/8	51056	CR-MT6

Oil ring is used supply coolant through the drill in rotational applications.

Coolant ring set :
Coolant ring 1pc
Stopper 1pc

* Oil plug is sold separately.

T/C GUIDE (For Through Hole with Standard Head)

MODEL		CODE	HEAD	WRENCH
DG	-B80-S	51031	B-80 (ø65-ø73)	No wrench
	-B80-L	51034	B-80 (ø73-ø80)	
	-C/D	51036	C-100/D-120	
	-E/F	51038	E-150/F-180	w/wrench
	-G/H/I	51040	G-210/H-240/I-270	

T/C guides will minimize vibration when drill goes rhrough the other end.

SPARE BLADE CLAMP

FOR STANDARD HEAD

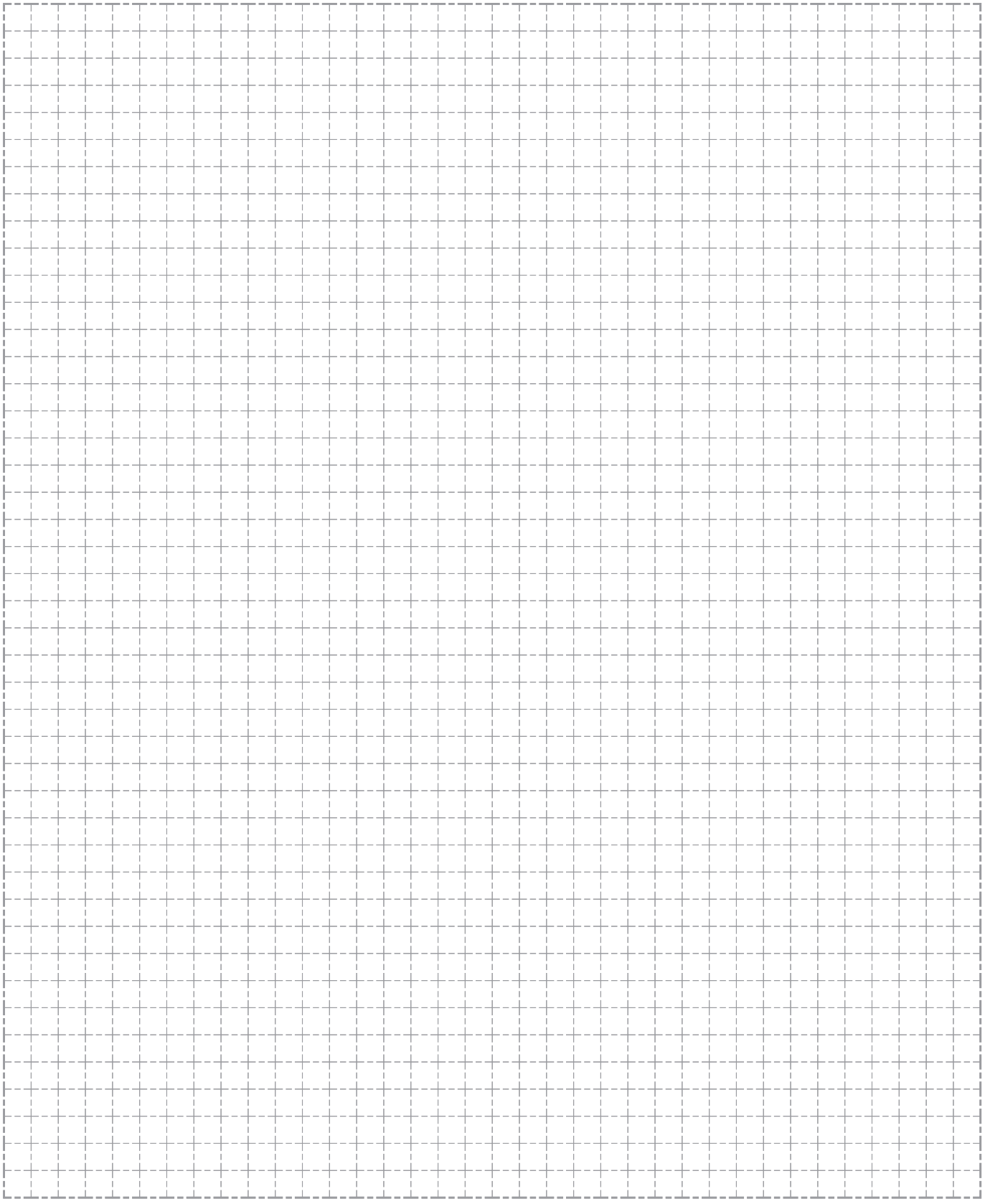
MODEL		CODE
BC	-A_{1S}55	51003
	-A_2 65	51004
	-B 80	51006
	-C 100	51008
	-D 120	51010
	-E 150	51012
	-F 180	51014
	-G210	51016
	-H240	51018
	-I 270	51020

FOR FLAT HEAD

MODEL		CODE
BC	-A_{1S}55FT	51045
	-A_2 65FT	51046
	-B 80FT	51047
	-C 100FT	51048
	-D 120FT	51049

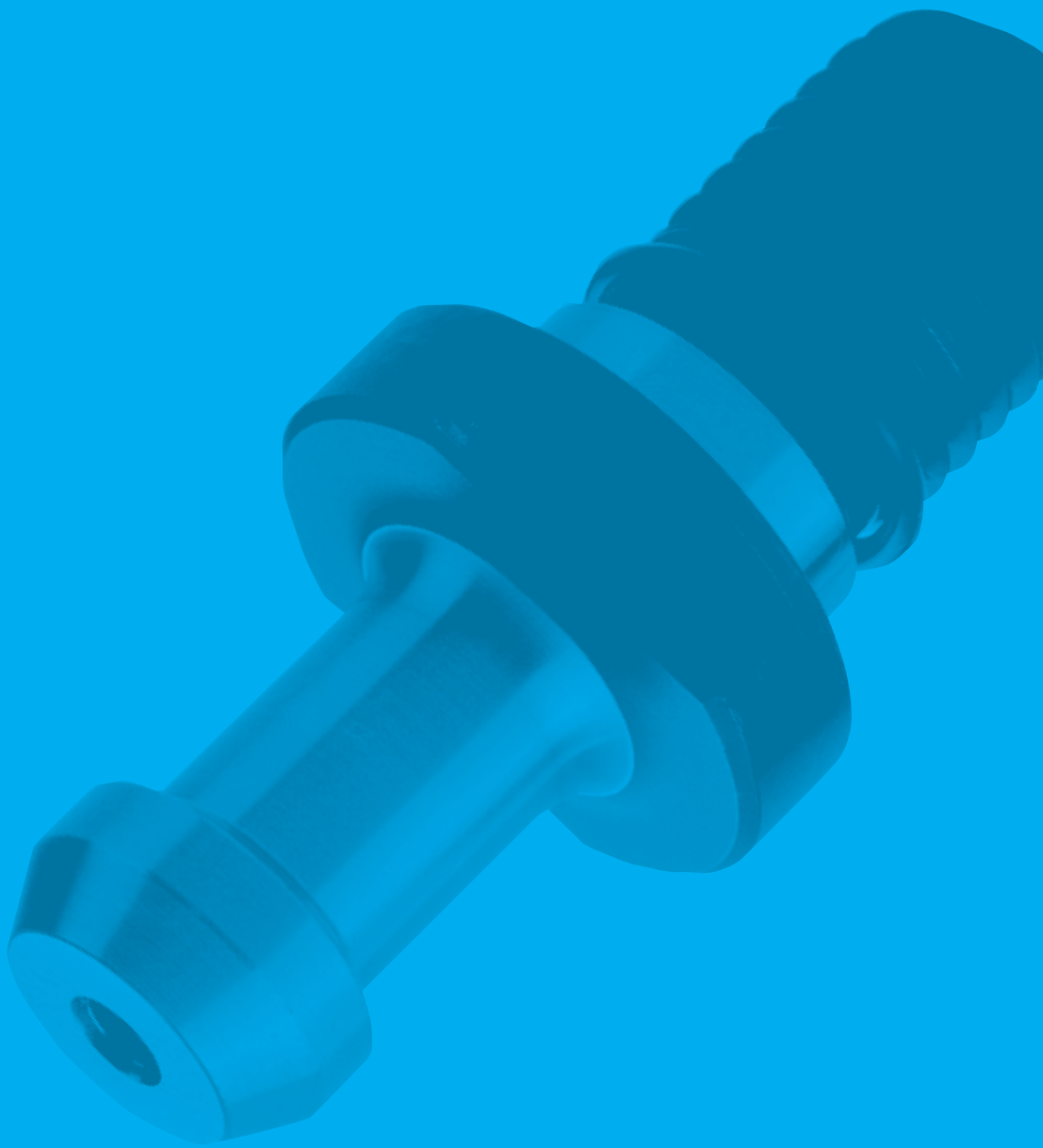
RE-GRINDING FIXTURE

MODEL		CODE	HOLE DIA
SBG	-100	51043	50~120
	-200	51044	120~270

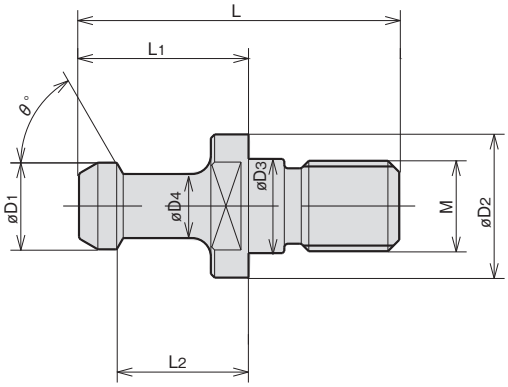


SHOWA TOOL

Accessories



PULL STUD BOLT



Taper	CODE		ΦD1	ΦD2	ΦD3	ΦD4	L	L1	L2	M	θ°	Φd	FIG.	Standard Machine Builder
BT30 (BBT30)	P30T-MAS1 (SKD)	17000	11	16.5	12.5	7	43	23	18	M12	45	—	—	MAS- I
	P30T-MAS2 (SKD)	17001	11	16.5	12.5	7	43	23	18	M12	60	—	—	MAS-Ⅱ
	P30T-JIS SKD	17308	12	16.5	12.5	8	43	23.4	18.4	M12	75	—	—	JIS
BT35	P35T-1 (MAS1)	17013	13	20	12.5	8.5	48	28	22.5	M12	45	—	—	MAS- I
BT40 (BBT40)	P40T-MAS1	17032	15	23	17	10	60	35	28	M16	45	—	—	MAS- I
	P40T-MAS2	17034	15	23	17	10	60	35	28	M16	60	—	—	MAS-Ⅱ
	P40T-F2	17036	15	23	17	10	60	35	28	M16	90	—	—	BT40-90°
	P40T-1 SKD	17320	15	23	17	10	60	35	28	M16	45	—	—	MAS- I
	P40T-2 SKD	17322	15	23	17	10	60	35	28	M16	60	—	—	MAS-Ⅱ
	P40T-F2 SKD	17324	15	23	17	10	60	35	28	M16	90	—	—	BT40-90°
	P40T-JIS	17430	19	23	17	14	54	29	23	M16	75	—	—	JIS
	P40T-JIS SKD	17338	19	23	17	14	54	29	23	M16	75	—	—	JIS
	P40T-V7.5N YAMAZAKI MAZAK	17422	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	—	—	YAMAZAKI MAZAK
	P40T-V7.5N YAMAZAKI MAZAK SKD	17334	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	—	—	YAMAZAKI MAZAK
	P40T-YAMAZAKI MAZAK (Old mold 90 °)	17428	15	23	17	10	54.6	29.6	22.6	M16	90	—	—	YAMAZAKI MAZAK
	P40T-M1 MITSUI	17418	15	23	17	10	50	25	18	M16	90	—	—	MITSUI SEIKI
BT50 (BBT50)	P50T-MAS1	17062	23	38	25	17	85	45	35	M24	45	—	—	MAS- I
	P50T-MAS2	17064	23	38	25	17	85	45	35	M24	60	—	—	MAS-Ⅱ
	P50T-Y3	17070	23	38	25	17	85	45	35	M24	90	—	—	BT50-90°
	P50T-JIS	17495	28	38	25	21	74	34	25	M24	75	—	—	JIS
	P50T-V15N/V20 YAMAZAKI MAZAK	17492	28.96	37	25	20.83	65.2	25.2	17.58	M24	45	—	—	YAMAZAKI MAZAK
	P50T-1G	17446	23	38	25	17	85	45	35	M24	45	—	—	MAS- I
	P50T-2G	17448	23	38	25	17	85	45	35	M24	60	—	—	MAS-Ⅱ
	P50T-M MITSUI	17488	24	36	25	18	71	31	23	M24	90	—	—	MITSUI SEIKI
	P50T-4R Long type of MITSUBISHI	17498	23	38	25	17	110	70	60	M24	45	—	—	MITSUBISHI

Note : 1. Please check oparation manual of machines to select appropriate type of the pull stud.
2. SKD in Code means dies steel, metal of high-tensile strength.

PULL STUD BOLT WITH COOLANT HOLE

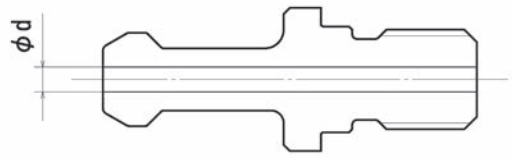


FIG.1

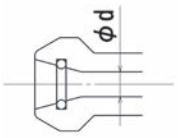


FIG.2

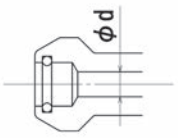


FIG.3

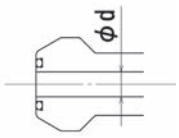


FIG.4

Taper	CODE		ΦD1	ΦD2	ΦD3	ΦD4	L	L1	L2	M	θ°	Φd	FIG.	Standard Machine Builder
BT30 (BBT30)	P30T-1 (ϕ2.5) SKD	17300	11	16.5	12.5	7	43	23	18	M12	45	2.5	1	MAS- I
	P30T-2 (ϕ2.5) SKD	17302	11	16.5	12.5	7	43	23	18	M12	60	2.5	1	MAS-II
	P30T-1F (ϕ4&S10) D8/SKD	17312	11	16.5	12.5	8	43	23	18	M12	45	4	1	FANUC
	P30T-2B (ϕ2.5) D7.5/SKD	17314	11	16.5	12.5	8	43	23	18	M12	60	2.5	1	BROTHER
	P30T-JIS (ϕ4) /SKD	17310	12	16.5	12.5	8	43	23.4	18.4	M12	75	4	1	JIS
BT40 (BBT40)	P40T-1 (MAS1) ϕ4	17406	15	23	17	10	60	35	28	M16	45	4	1	MAS- I
	P40T-2 (MAS2) ϕ4	17408	15	23	17	10	60	35	28	M16	60	4	1	MAS-II
	P40T-1 (ϕ4&O15) SKD	17326	15	23	17	10	60	35	28	M16	45	4	1	MAS- I
	P40T-JIS (ϕ6&ϕ7)	17432	19	23	17	14	54	29	23	M16	75	7	1	JIS
	P40T-JIS (ϕ7) SKD	17340	19	23	17	14	54	29	23	M16	75	7	1	JIS
	P40T-JIS (ϕ7&O15)	17434	19	23	17	14	54	29	23	M16	75	7	1	MAKINO
	P40T-JIS (ϕ7&O15) SKD	17342	19	23	17	14	54	29	23	M16	75	7	1	MAKINO
	P40T-JIS (ϕ4&S15) OKUMA	17436	19	23	17	14	54	29	23	M16	75	4	1	OKUMA
	P40T-JIS (ϕ4&S15) OKUMA SKD	17344	19	23	17	14	54	29	23	M16	75	4	1	OKUMA
	P40T-JIS (ϕ7&With Side hole) YASUDA	17438	19	23	17	14	54	29	23	M16	75	7	1	YASUDA
	P40T-V7.5N YAMAZAKI MAZAK (ϕ7)	17424	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	7	1	YAMAZAKI MAZAK
	P40T-YAMAZAKI MAZAK (ϕ7&O15) SKD	17336	18.8	22	17	12.45	44.1	19.11	14.03	M16	45	7	1	YAMAZAKI MAZAK
	P40T-MORI (ϕ7&P9 O15)	17411	19	23	17	14	54	29	23	M16	75	7	2	DMG MORI
	P40T-MORI (ϕ7&P9/O15) SKD	17332	19	23	17	14	54	29	23	M16	75	7	2	DMG MORI
	P40T-1 (ϕ3&P5/O15) OKUMA	17416	15	23	17	10	60	35	28	M16	45	3	2	OKUMA
	P40T-1 (ϕ3&P6) JTEKT	17414	15	23	17	10	60	35	28	M16	45	3	3	JTEKT
BT50 (BBT50)	P50T-1 (MAS1) ϕ6	17450	23	38	25	17	85	45	35	M24	45	6	1	MAS- I
	P50T-2 (MAS2) ϕ6	17452	23	38	25	17	85	45	35	M24	60	6	1	MAS-II
	P50T-Y3 (ϕ6)	17454	23	38	25	17	85	45	35	M24	90	6	1	BT50-90°
	P50T-1 (MAS1) ϕ6&P21	17456	23	38	25	17	85	45	35	M24	45	6	1	MAKINO
	P50T-2 (MAS2) ϕ6&P21	17458	23	38	25	17	85	45	35	M24	60	6	1	MAKINO
	P50T-JIS (ϕ10)	17496	28	38	25	21	74	34	25	M24	75	10	1	JIS
	P50T-JIS (ϕ6&P21)	17497	28	38	25	21	74	34	25	M24	75	6	1	MAKINO
	P50T-V15N/V20 YAMAZAKI MAZAK (ϕ10)	17494	28.96	37	25	20.83	65.2	25.2	17.58	M24	45	10	1	YAMAZAKI MAZAK
	P50T-1 (ϕ6&P21) OKUMA	17466	23	38	25	17	85	45	35	M24	45	6	1	OKUMA
	P50T-2 (ϕ6&P21) OKUMA	17468	23	38	25	17	85	45	35	M24	60	6	1	OKUMA
	P50T-1 (ϕ8&P9/P21) High pressure for DMG MORI	17478	23	38	25	17	85	45	35	M24	45	8	2	DMG MORI
	P50T-2 (ϕ8&P9/P21) High pressure for DMG MORI	17480	23	38	25	17	85	45	35	M24	60	8	2	DMG MORI
	P50T-1 (ϕ5.5&P9/P21) YASUDA	17470	23	38	25	17	85	45	35	M24	45	5.5	2	YASUDA · KOMATSU NTC
	P50T-2 (ϕ5.5&P9/P21) YASUDA	17472	23	38	25	17	85	45	35	M24	60	5.5	2	YASUDA
	P50T-1 (ϕ6&P9) JTEKT	17462	23	38	25	17	85	45	35	M24	45	6	3	JTEKT
	P50T-2 (ϕ6&P9) JTEKT	17464	23	38	25	17	85	45	35	M24	60	6	3	JTEKT
	P50T-1 (ϕ6&S9/P21) OKK	17482	23	38	25	17	85	45	35	M24	45	6	4	OKK
	P50T-2 (ϕ6&S9/P21) OKK	17484	23	38	25	17	85	45	35	M24	60	6	4	OKK
	P50T-1 (ϕ6&S9/P21) OKUMA	17474	23	38	25	17	85	45	35	M24	45	6	2	OKUMA
	P50T-2 (ϕ6&S9/P21) OKUMA	17476	23	38	25	17	85	45	35	M24	60	6	2	OKUMA
	P50T-Y3 (ϕ6&S9/P21) OKK	17486	23	38	25	17	85	45	35	M24	90	6	4	OKK
	P50T-Y3 (ϕ8&P9 P21) High pressure for DMG MORI	17481	23	38	25	17	85	45	35	M24	90	8	2	DMG MORI
	P50T-M MITSUI (ϕ8)	17490	24	36	25	18	71	31	23	M24	90	8	1	MITSUI SEIKI

Note : 1. Please check oparation manual of machines to select appropriate type of the pull stud.
2. SKD in Code means dies steel, metal of high-tensile strength.

MACHINE MAKER ／ TYPE OF SPINDLE TAPER & PULL STUD BOLT CODE

Machine Builder	Machine Model	Shank	Standard	Code
IKEGAI	TV4（HITOTSUBO KUN）, 4F, 4L	BT40	MAS-Ⅰ	17032, (17320)
	TV-U4, 4LⅡ H4 TH500 THU500	40	JIS	17430, (17338)
	TV5（ANIKI）, U5 MX Series BX110P Series BX130P Series TH600 THU600 AH6, 8	50	MAS-Ⅰ	17062
IWASHITA	IAM Series	BT40	MAS-Ⅱ	17034, (17322)
	IAM Series	50	MAS-Ⅱ	17064
ENSHU	S300 SS300 DT Center Series JE30S ES400	BT30	MAS-Ⅰ	(17000)
	E-130 JE130 JE30S JE30G ES400 EV360, EV360T	30	MAS-Ⅱ	(17001)
	Super400, 450FV VMC Series HMC Series	40	MAS-Ⅰ	17032, (17320)
	JE Series ES450, 450T EV450, 530S GE460H, 480H	40	MAS-Ⅱ	17034, (17322)
	EV650, 600MV VMC Series HMC Series VE65E	50	MAS-Ⅰ	17062
	JE80, 80G EV530 EG580, 590H	50	MAS-Ⅱ	17064
OKUMA	MA, MB, MC, MD, MF, MU, MX-A Series VH-40 VR-40 MP-46V GENOS Series	BT40	MAS-Ⅱ	17034, (17322)
	Thru the coolant（JIS）	40	JIS	17434, (17344)
	MA, MB, MC, MD, MX-B MCV-A, B MCR, MU, MF Series MCM-B	50	MAS-Ⅱ	17064
	Thru the coolant	50	MAS-Ⅱ	17468
OKUMA	MILLAC V Series, H Series MAC TURN Series MM-300 ML-300	BT40	MAS-Ⅰ	17032, (17320)
	Thru the coolant	40	MAS-Ⅰ	17416
	MILLAC V Series, H Series VTM Series VMP-10, 16	50	MAS-Ⅱ	17064
	Thru the coolant	50	MAS-Ⅱ	17476
OKK	PM300, 350	BT30	JIS	(17308)
	PCV, TRC, VM, AMC, DGM, VP, GC, HM, HP, VC Series PG8 PM400Ⅲ DV5, V1 VB53 GR400	40	MAS-Ⅰ	17032, (17320)
	MCV-350, 410/40 PCH-400, 500 HPV400 MPH-400	40	90°	17036, (17324)
	MCV, MCH, MHA, KCV, ACM, DCM, VM, HM Series PCV-510, 620 VG5000 GC600 DV5	50	90°	17070
	PCV50, 55, 60	50	MAS-Ⅰ	17062
OHTORI	OSH-54 OSV Series OSU-545 BMVⅡ-85	BT40	MAS-Ⅰ	17032, (17320)
	FTV-500, 500HV	40	JIS	17430, (17338)
	BMV-40NC（OP）, 400NC（OP）, 500LNC, 500ANC OSV-139 FTV-1200	50	MAS-Ⅰ	17062
OM	OMC-40HS	BT40	MAS-Ⅰ	17032, (17320)
	OMC-50V, 50HS	50	MAS-Ⅰ	17062
	TDC Omega-M, VTLex-M, Neo α Series	50	MAS-Ⅱ	17064
	Thru the coolant	BT50	MAS-Ⅱ	17472
KITAMURA	HX-250G	BT30	JIS	(17308)
	Thru the coolant	30	JIS	(17310)
	Mycenter-3XG, 4XiF, 7X, HX400G, Supercell-400 Mytrunnion-5 JIGcenter-5	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17432
	Mycenter-4XiF, 7X, HX500i, 630i, 800iL, 1000i, 1250i, BridgeCenter-8F, 10	50	JIS	17495
	Thru the coolant	50	JIS	17496
KIRA	VMC, HMC, Arik, KN, VTC Series PC-30E 30F 30H 30W KPC30a, 30b HPC-30Vb PCV-30, 150	BT30	MAS-Ⅰ	(17000)
	Thru the coolant	30	JIS	(17310)
	KV, Arik, VTC, KN Series PC40G	40	MAS-Ⅰ	17032, (17320)
	Thru the coolant	40	JIS	17432
KURASHIKI	KV-500, 500H, 700	BT40	MAS-Ⅰ	17032, (17320)
	KV Series KMV Series KBT Series KH Series CMN Series KHM-125 KBM11X	50	MAS-Ⅰ	17062
KOMATSU NTC	N, Z Series	BT30	MAS-Ⅰ	(17000)
	TMC, NH, NV, H, N, Z, ZV, ZH Series	40	MAS-Ⅰ	17032, (17320)
	ZV5400 ZH4000, 5000（Thru the coolant）	40	MAS-Ⅰ	17416
	TMC, CNC, N, ZV Series	50	MAS-Ⅰ	17062
	ZV5500（Thru the coolant）	50	MAS-Ⅰ	17470
SHIZUOKA	CM-210G, 350B CM300-A, 300-5A	BT30	MAS-Ⅰ	(17000)
	B Series CM-350 SSR-550 HSR-7, 10	40	90°	17036, (17324)
	B Series SMV Series SG-600	50	90°	17070
SHINNIHON	CMV-50, 70T	BT40	MAS-Ⅱ	17034, (17322)
	CMV, DC, ESP, FSP, HF, HPS, PS, RB, BFR Series PC-55V EXI-70K	50	MAS-Ⅱ	17064
JTEKT	PV640J	BT30	MAS-Ⅰ	(17000)
	FA, FV, FVN, FXN, JV, PV Series e500H4, UX570	40	MAS-Ⅰ	17032, (17320)
	FV, FVN, FHN, FXN, PV, BN, FH, FA, RB, SB Series SV-65 e500H5	50	MAS-Ⅰ	17062
	DN-1V, 2V, 1H（Thru the coolant）	50	MAS-Ⅰ	17462
SUGINO	Self center V15, NSV15, VC15, H15, H15B	BT30	MAS-Ⅱ	(17001)
TAKIZAWA	MAC-V1E, 430VP VP10	BT40	MAS-Ⅰ	17032, (17320)
	MAC-V40, 40B Y520	40	JIS	17430, (17338)
	MAC-V40, 40B Y520（Thru the coolant）	40	JIS	17432
TAKEDA	MV, TK-VS Series	BT40	MAS-Ⅰ	17032, (17320)
	VS Series	50	MAS-Ⅱ	17064
SUGAMI	VMA3-Ⅲ VMC3-Ⅲ VML3-Ⅲ VA31H, 32H VA3	BT30	MAS-Ⅰ	(17000)
	FMA3-Ⅲ FMA5-Ⅲ	40	MAS-Ⅱ	17034, (17322)
	VMA4-Ⅲ	40	MAS-Ⅰ	17032, (17320)
	VMT4-Ⅲ	40	JIS	17430, (17338)
TOSHIBA	JRV400, 450 NX76B	BT40	MAS-Ⅰ	17032, (17320)
	BMC, BTD, BP, MPC, MPE, MPF, MPH, VMC, BF, BTU, NX, BTH, BSF, BTFx Series	50	MAS-Ⅰ	17062

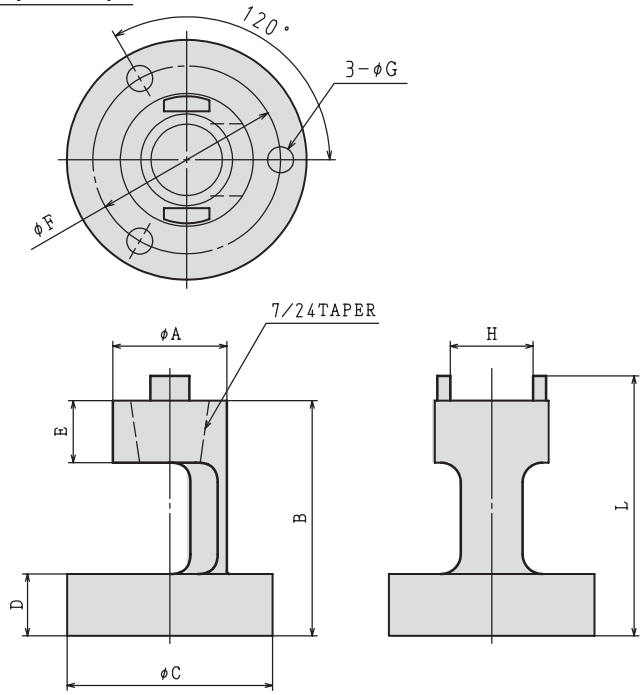
Note : 1. Please check oparation manual of machines to select appropriate type of the pull stud.
2. Code in brance like (17320) means that its material is dies steel, metal of high-tensile strength.

Machine Builder	Machine Model	Shank	Standard	Code
NIIGATA	PN40, 40A SPN40 EF40H ENSeries VNSeries PNSeries	BT40	MAS-Ⅱ	17034, (17322)
	HNSeries BHNSeries SPN50, 63 ULTY501, 701, 901 MPN-80	50	MAS-Ⅱ	17064
HAMAI	FZ-16, 16L, 16E, 26, 26L DZ-16, 16L, 16LA	BT30	MAS-Ⅰ	(17000)
	MC-3VA, 3VS, 4VS EN-3, 4, 6 EN-40 HN-40	40	MAS-Ⅰ	17032, (17320)
	MC-50V, 70V, 80V, 6V, 5VA, 6VA, 8VA T-80MH, 180MH	50	MAS-Ⅰ	17062
FANUC	ROBO DRILL/DRILL/DRILL MATESeries α－T14iA α－T21iD α－T21iE α－T21iF α－D14iA α－D21iA	BT30	MAS-Ⅰ	(17000)
	Thru the coolant	30	maker	(17312)
BROTHER	TC-221, 225, 227, 229, 229N, 22A, 311, 312N, 31A, 321, 323, 324, 324N, 325, 32A, 32B, S2A, S2B, S2C, R2A, 22B, S2D, 32BN, 31B, R2B, S500X1, S700X1	BT30	MAS-Ⅱ	(17001)
	Thru the coolant	30	maker	(17314)
	TC-731, 731S	40	MAS-Ⅰ	17032, (17320)
HORKOS	HFN, HTNC, ESSeries NJ50 RS50H PM70H RM70 ES50H ES50V-I	BT30	MAS-Ⅰ	(17000)
	HFN, HTNC, RM, DM, HFNSeries NS70 MOH630 THMC410 TM70H TG70H MBE	40	MAS-Ⅰ	17032, (17320)
	Thru the coolant	40	MAS-Ⅰ	17406
	HFN, HTNCSeries G50H C50H DM100H RM100H NM100 DM100H NM100	50	MAS-Ⅰ	17062
	Thru the coolant	50	MAS-Ⅰ	17450
HOWA	MMN, MDT, MBN, MSN, MEN, MJN, MZN, MKNSeries	BT30	MAS-Ⅰ	(17000)
	Thru the coolant	30	maker	(17312)
	MBN, MCN, MHNSeries MCV-800	40	MAS-Ⅰ	17032, (17320)
	Thru the coolant	40	MAS-Ⅰ	17406
	MBN-800 HS-500	50	MAS-Ⅰ	17062
	Thru the coolant	50	MAS-Ⅰ	17450
MAKINO	a1, A, VSeries J55, 88 D300, 500, 800Z BH50	BT40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17434
	BNC, FNC, MCSeries SF64 A55, 66, 88 FB127Series	40	MAS-Ⅰ	17032, (17320)
	a1, A, V, GFSeries	50	JIS	17495
	Thru the coolant	50	JIS	17497
	FDNC, FNC, GF, MC, MCC, MCD, MCFSeries GN1712-A a71, 81 A77, 88, 99, 100 V77	50	MAS-Ⅰ	17062
MAKINO	MSA30, 40, 50 MS5A, 5B MSX30 PS1-W MSJ25 MSJX25 MSB58, 512, 516	BT30	MAS-Ⅰ	(17000)
	MSA30, 40, 50 MS5A, 5B MSX30 MSB58, 512, 516, S5B	40	MAS-Ⅰ	17032, (17320)
	Thru the coolant	40	MAS-Ⅰ	17406
MATSUURA	μMASTER, 400V-24, FX-1	BT30	MAS-Ⅱ	(17001)
	VX-0, -1 FX-0, 1G, 2 LX-0, 160 LF-160 LV-500	30	JIS	(17308)
	MC, RA, MAM, FXM, FX, H.Max, V.Max, H.Plus, R.Plus, V.PlusSeries Mold Plus800 MX-520 VX-1000	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17432
	MC-1000V, 1250V, 1500V, 2000V MC900H, 900HG H.PlusSeries	50	MAS-Ⅱ	17064
	RA-4G (#50) MC-1500VG (#50) MC-900HG LX-1500	50	JIS	17495
MITSUI	VS, HR, HT, HUSeries VT3A VU50A	BT40	maker	17418
	VertexSeries	40	JIS	17430, (17338)
	Thru the coolant	40	—	—
	VU, VJ, VS, H, HU, HS, HR, HPTSeries	50	maker	17488
	Thru the coolant	50	maker	17490
MITUBISHI	V-360 M-V4C, V5C M-H4B, H5B MPASeries M-VSeries M-HSeries	BT40	MAS-Ⅰ	17032, (17320)
	V, M-V, M-H, M-VS, MPA, MAF, MVR, MHT, MKH, DHSeries	50	MAS-Ⅱ	17064
	Thru the coolant	50	MAS-Ⅱ	17452
DMGMORISEIKI	TV-300, 400 ACCUMILL4000 ULTIMILLH3000, V3000 MILLTAP700 MAX3000	BT30	MAS-Ⅰ	(17000)
	Thru the coolant	30	—	—
	SV, SH, SLV, MV, MH, NV, NMV, NVD, NH, AFM, Dura Vertical, NVX, NHX, VS, NTSeries SuperTILT500 SLV5000, 5250	40	90°	17036, (17324)
	Thru the coolant	40	JIS	17411, (17332)
	SV, SH, MV, MH, MB, NV, NH, NVX, NHX, VS, NMH, NMV, NTSeries	50	90°	17070
(formerlyHITACHI)	VKSeries VM-40, 50 VS-40, 50, 60 VKCSeries VASeries HG-400 HSSeries HK-630 HASeries	BT40	MAS-Ⅰ	17032, (17320)
	VK-45, 55, 65, 85 VASeries VGSeries VFSeries VS-50, 60 HSSeries HK-630 HGSeries HCSeries	50	90°	17070
MAZAK	IMPULSE30 Type A, B, C UN-600V, 600H	BT30	MAS-Ⅱ	(17001)
	VTC, V, VQC, AJV, FJV, FH, FF, VARIAXIS, NEXUS, INTEGREX, VCN, HCN, PFH, μSeries ANGULAX900	40	maker	17422, (17334)
	VTC, V, VQC, AJV, FJV, SV, H, FH, MTV, HV, INTEGREX, VORIEX, VCN, HCN, VERSATECH, μSeries	50	maker	17492
	H-12, 12N, 15, 20, 25 V12, 15, 20 VQC-10/15, 20/50	50	—	—
YASUDA	YBM, YPC, VPCSeries H30i H40	BT40	MAS-Ⅰ	17032, (17320)
	VBMVi40	40	JIS	17430, (17338)
	Thru the coolant	40	JIS	17438
	YBM, YMCSeries	50	MAS-Ⅰ	17062
	Thru the coolant	50	MAS-Ⅰ	17470
ROKUROKU	LIBERO RXSeries	BT30	MAS-Ⅰ	(17000)
	KX, MX, LX, GR-655N VERTIMACSeries RMSeries GIGA	40	MAS-Ⅰ	17032, (17320)

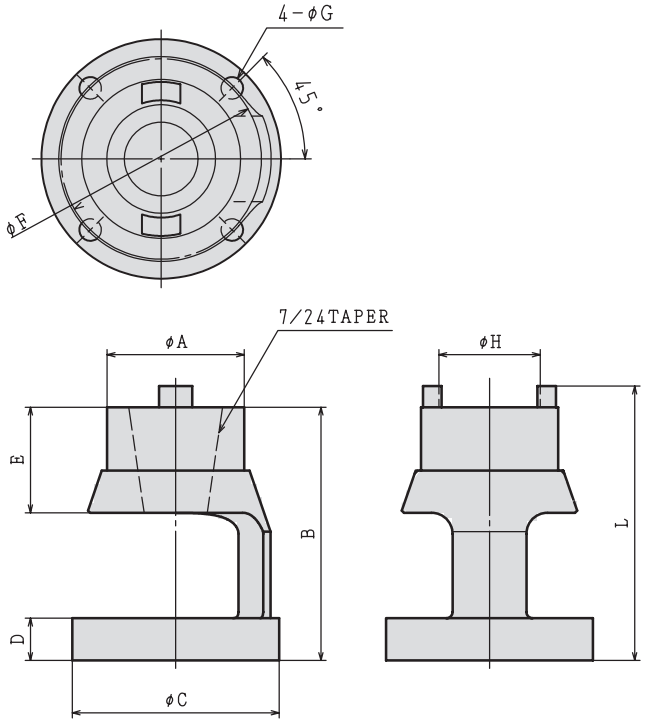
Note : 1. Please check oparation manual of machines to select appropriate type of the pull stud.
2. Code in brance like (17320) means that its material is dies steel, metal of high-tensile strength.

LOCKING FIXTURE

3 Holes(LF30)



4 Holes(LF40,LF50)



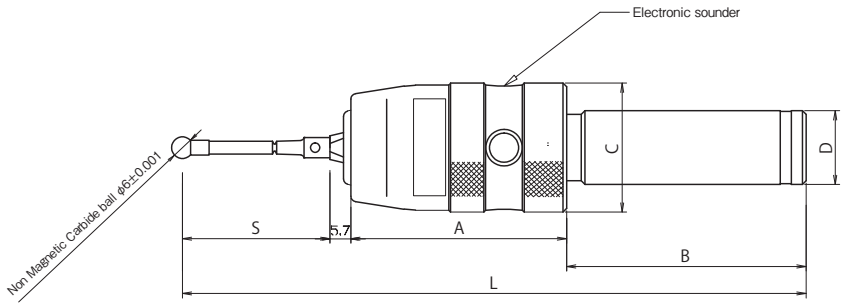
MODEL	CODE	TAPER	A	B	C	D	E	F	G	H	L	N/W (kg)
LF30	35905	NT30	46	95	83	25	25	65	9	33.5	105	1.2
LF40	35907	NT40	65	120	98	20	50	82	9	48	130	4.4
LF50	35909	NT50	95	175	128	25	70	115	9	77.6	187	9.0

ORDERING EXAMPLE

① LF - ② 30

① Name
② NT No.

Point Finder with Buzzer



MODEL	CODE	D	S	A	B	L	C	Mass (g)	Battery (included)
PTC-20	83662	ϕ20	40	58.6	65	169.3	35	350	Manganese battery R1 (UM-5) ×2
PTC-32	83664	ϕ32	40	58.6	65	169.3	35	600	

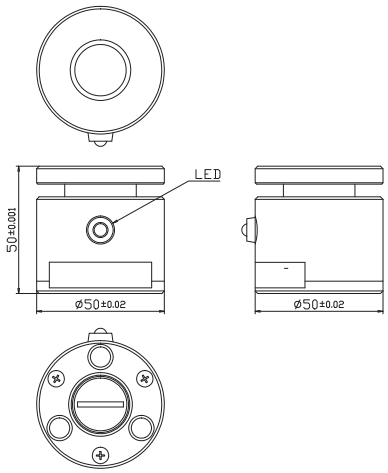
Contact pressure of the stylus and workpiece is small, the LED lights at 0.1 gf. Measure accurately even on thin workpieces. If "with buzzer", we will inform the position detection simultaneously with the electronic sound and the LED.
Also, the safety that the stylus swings in X, Y, Z direction design.With the development of the new mechanism (patent pending), the measurement accuracy of metal and nonferrous metals has dramatically improved.

Stylus stroke / XY axis	±13mm
Stylus stroke / Z axis	±5mm
Buzzer frequency	2,700Hz
Measuring pressure	0.1gf
Repeatability	±0.5μm
Standard stylus (with ϕ 6 x 40 mm)	

NS Tool Setter

External Contact Type

NS Tool Setter makes it possible to measure the tool length (the position of a drill tip) on the machine tools. It saves your machining time! Sub-zero treatment and ultraprecise polish prevent the variation across the ages. It is usable to measure iron and nonferrous metal workpieces



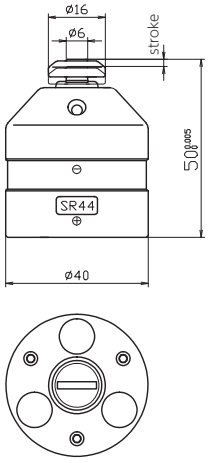
Model number	CODE
M-50	83666

Height	50mm±0.001mm
Parallelism	2/1000mm
Reaction force	150gf
Measuring Pressure	0.001N(0.1gf)
Stroke	5mm
Mass	500g
LED	High Brightness Red

Tool Setter-i

Internal Contact Type

Tool Setter-i has been developed for ultra-highspeed spindle with the machine tools (10000rpm). It is available to measure plastic, wood and some other materials which block electricity. Magnets are attached at the bottom, so it can be used with both vertical and holizontal machining tools.

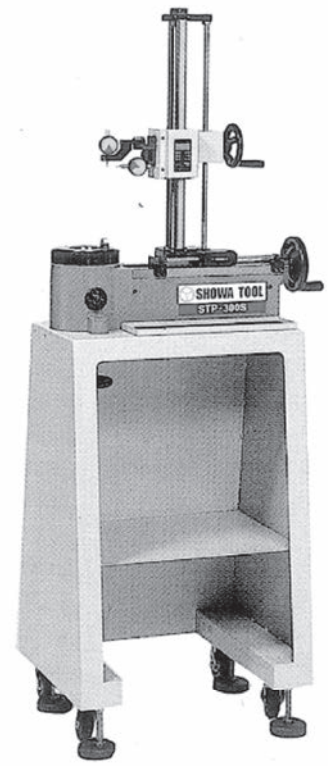


Model number	CODE
i-50	83668

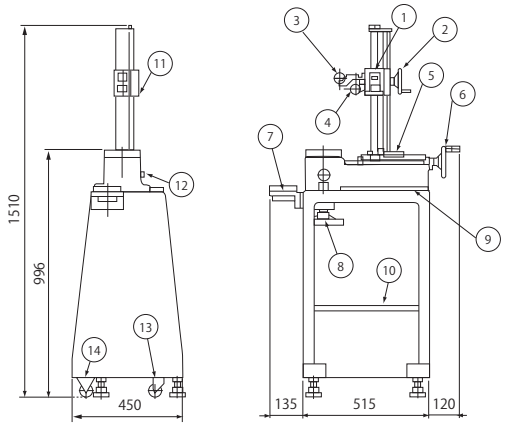
Minimum measurement tool diameter	ϕ0.05mm～ϕ6mm supported
Sensor plate	Alumina oxide ceramic
Diamention	ϕ40×50mm+0～5/1000mm
Measuring Pressure	0.2N(20gf)
Stroke	1.5mm
Magnetism	6N
Mass	200g
LED	High Brightness Blue
Repeatability	±0.001mm

TOOL PRESETTER

STP-300S (SIMPLE TYPE)



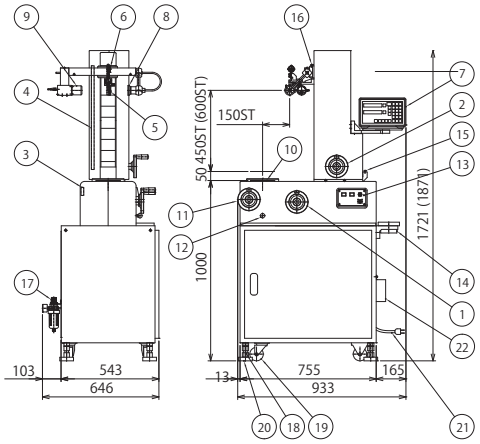
External Dimensions



① Z-axis Measurement Unit
② Z-axis Handle
③ Z-axis Dial Gauge
④ X-axis Dial Gauge
⑤ X-axis Measurement Unit
⑥ X-axis Handle
⑦ Tool Setting Pot(Option)
⑧ Tool Setting Handle
⑨ Plate
⑩ Shelf
⑪ Z-axis Moving Handle
⑫ Fixing for Spindle
⑬ Caster(Rotary type)
⑭ Caster

STP-300N (STANDARD TYPE)

External Dimensions

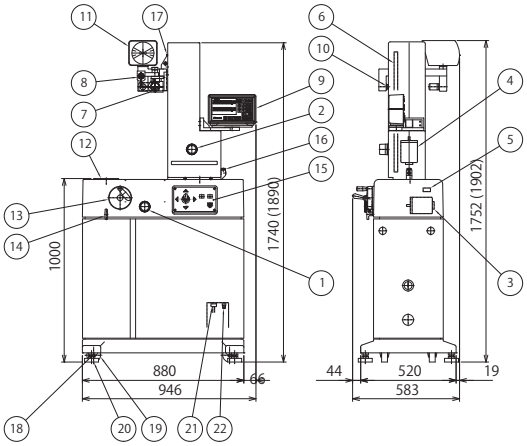


① X-axis movement handle
② Z-axis movement handle
③ X-axis Scale
④ Z-axis Scale
⑤ X-axis dial gauge
⑥ Z-axis dial gauge
⑦ Digital display counter
⑧ Back light
⑨ CCD camera
⑩ Spindle
⑪ Spindle rotation handle
⑫ Spindle lock pin
⑬ Operation panel
⑭ Tool tightening mount
⑮ X-axis refueling entrance
⑯ Z-axis refueling entrance
⑰ Filter regulator
⑱ Level bolt
⑲ Caster
⑳ Pedestal
㉑ Power cable
㉒ Oil receptacle

TOOL PRESETTER

STP-400 (QUALITY TYPE)

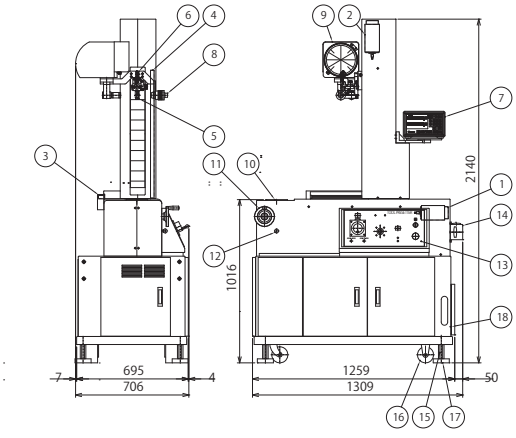
External Dimensions



① X-axis handle
② Z-axis handle
③ X-axis motor
④ Z-axis motor
⑤ Z-axis Scale
⑥ X-axis dial gauge
⑦ X-axis dial gauge
⑧ Z-axis dial gauge
⑨ Digital display counter
⑩ Projector(Light source)
⑪ Projector(Projection part)
⑫ Spindle
⑬ Spindle rotation handle
⑭ Spindle lock pin
⑮ Operation panel
⑯ X-axis refueling entrance
⑰ Z-axis refueling entrance
⑱ Level bolt
⑲ Caster
⑳ Pedestal
㉑ Connecting unit
㉒ Air connection entrance

STP-500 (HI-QUALITY TYPE)

External Dimensions



① X-axis AC servomotor
② Z-axis AC servomotor
③ X-axis Scale
④ Z-axis Scale
⑤ X-axis dial gauge
⑥ Z-axis dial gauge
⑦ Digital display counter
⑧ Projector(Light source)
⑨ Projector(Projection part)
⑩ Spindle
⑪ Spindle rotation handle
⑫ Spindle lock pin
⑬ Operation panel
⑭ Hand pump
⑮ Level bolt
⑯ Caster
⑰ Pedestal
⑱ Connecting unit

TOOL PRESETTER

■ Specifications

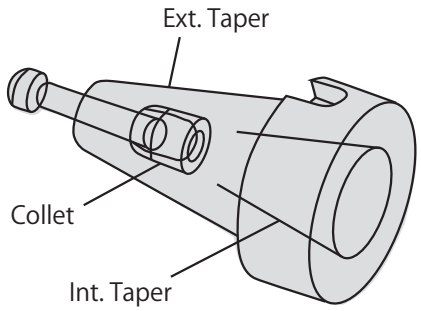
CODE		STP-300S (Simple Type)	STP-300N (Standrd type)	STP-400 (Quality Type)	STP-500 (HI-Quality Type)
		80070	80074	80076	80078
Measurement Range	X-axis	0～ø300	0～ø300	0～ø400	0～ø500 0～ø800
	Z-axis	30～430 (op. 630)	50～500 (op. 650)	50～500 (op. 650)	50～650
Digital Display Unit	X-axis	0.02 (dia)	0.002 (dia)	0.002 (dia)	0.002 (dia)
	Z-axis	0.01	0.005 (0.001)	0.005 (0.001)	0.005 (0.001)
Dial Gauge Reading	X-axis	0.01	0.001	0.001	0.001
	Z-axis	0.01	0.01 (op. 0.001)	0.01 (op. 0.001)	0.01 (op. 0.001)
Feed Mechanism	X-axis	Special screw	Ball screw	Ball screw	Ball screw
	Z-axis	Special screw	Ball screw	Ball screw	Ball screw
Operation Method (X-axis & Z-axis)		Manual (Using handle)	Manual (Using handle)	Electric (2 levels) Manual (Fine Adjustment)	Electric (2 levels) Plus handle (Fine Adjustment)
Motor Type (X-axis & Z-axis)		———	———	Induction motor	AC servo motor
Optical Projector	Screen Dia.	———	ø80 (op. ø180)	ø120 (op. ø180)	ø180
	Magnification		×10 (op. ×20)	×10 (op. ×20)	×20
Spindle Shank (To be selected)		BT30,40,50 HSK32,40,50,63,80,100 KM32,40,50,63,80	BT30,35,40,45,50 (op. Ceramic Spindle) HSK32,40,50,63,80,100 KM32,40,50,63,80 (op. Tool height adjustment machanism type) (op. Double spindle type TP-300N only)		
Auto Tool Locking		Manual (Using handle)	Air pressure 0.4～0.7MPa (4～7kgf/cm²) (op. Hydraulic type)		
Tool Clamping Force (kgf)		———	450 (Air pressure 0.5MPa)		1200 (Hydraulic type)
Power Supply		———	AC100V 10% 50/60Hz Please advise when ordering if another voltage is required. (Optional)		AC200V 10% 50/60Hz
External Dimensions (mm) W×D×H		768×450×1520	933×646×1721	946×583×1740	1309×706×2140
Weight (kg)		70	350	400	700
Standard accessories		Battery for Digimatic scale unit		Light source lanmp	
		Master gauge L150, Taper cleaner, Wrench set, Cover set, Spanner, Pedestal, Manual, Accuracy Table			

TOOL PRESETTER ACCESSORIES

● When ordering, please inform code no.and pull-stud no.

ACCESSORIES

TAPER REDUCTION POT



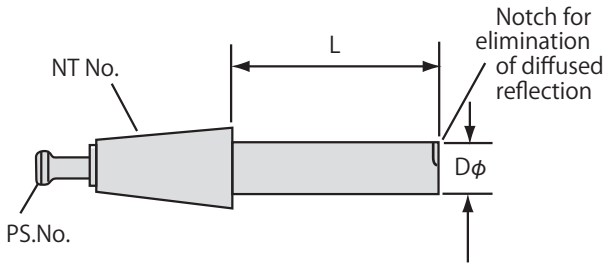
MODEL	CODE	Ext.Taper		Int.Taper
T4030	80081	NT40	—	NT30
T4035	80082	NT40	—	NT35
T5030	80083	NT50	—	NT30
T5035	80084	NT50	—	NT35
T5040	80085	NT50	—	NT40
T5045	80086	NT50	—	NT45

By using Taper Reduction Pots, a single presetter can serve all of your setting needs. The pull-stud is built in,so measurement can be done with tension on the pull-stud.

※A-pull-adapter is available which allows both regular and ANSI types to be used.
※Taper reduction pots for NT50-HSK(32～100) and NT50-KM(32～100) and NT50-KM(32～80) are also available.

ACCESSORIES

TEST BAR



MODEL	CODE	Taper		øD		L
G30	80091	NT30	—	ø30	—	150mm
G35		NT35	—	ø40	—	150mm
G40	80092	NT40	—	ø40	—	150mm
G45		NT45	—	ø40	—	150mm
G50	80094	NT50	—	ø40	—	150mm
G425	80093	NT40	—	ø40	—	250mm
G525	80095	NT50	—	ø50	—	250mm
G530	80096	NT50	—	ø50	—	300mm

A 150mm length test bar is included as standard, and 250 and 300mm test bars also available.

※250mm length test bars for HSK and KM are also available.