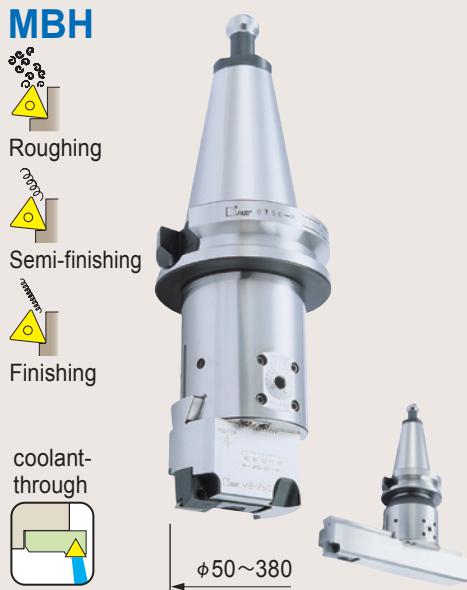


Applicable for all applications, from finishing to roughing.

MFA


Super precision finishing boring holder

MBH


Finishing and heavy duty boring holder

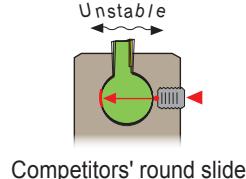
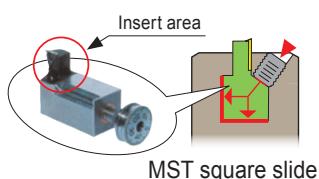
MBJ


Wide range and multi-purpose boring holder

Super precision finishing boring holder **MFA** ↗P. 57

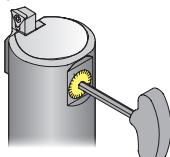
Rigid design thanks to the square sliding head

The square slide system can achieve greater rigidity against cutting force compared to a round slide system since it has 2-face contact.



Guaranteed fine adjustment

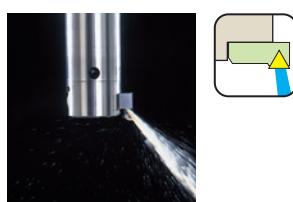
It allows 0.01mm dia. fine adjustment easily and precisely. The setting diameter doesn't change when you clamp the head.



System

MODEL	Boring dia.
MFA20	φ20 ~ 24.5
MFA24	φ24 ~ 30
MFA29	φ29 ~ 38
MFA36	φ36 ~ 52
MFA50	φ50 ~ 77
MFA75	φ75 ~ 102

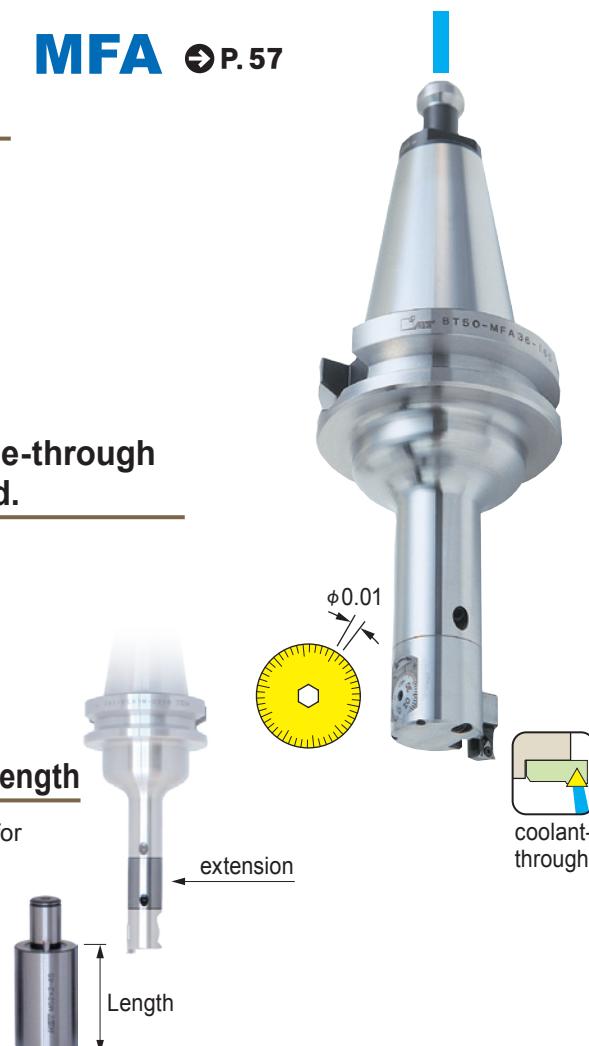
Available for spindle-through coolant as standard.



Adjustable effective length

Using the extension allows for increased effective length

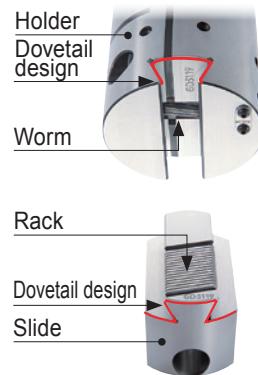
MODEL	Length (mm)
MFA20	30 · 35 · 40 · 45
MFA24	30 · 40 · 50 · 60
MFA29	40 · 50 · 60 · 70
MFA36	45 · 60 · 75 · 90
MFA50	
MFA75	



Finishing and heavy duty boring holder MBH ➔ P. 59

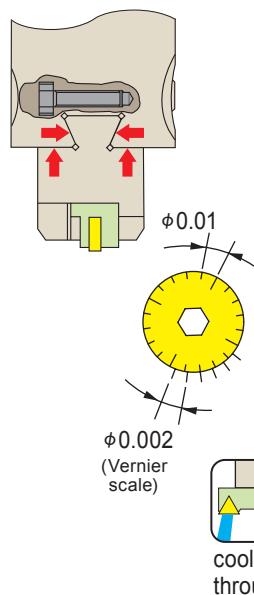
Sliding rack design ... Wide adjusting range

The micro head, MBH provides a wide adjusting range and secure clamping by making use of the sliding rack design for fine adjustment in combination with dovetail clamping capability.



Dovetail clamping ... High rigidity and accuracy

The dovetail clamping capability holds the slide portion firmly without needing to change the setting diameter when clamping the slide. It is ideal for high-rigidity, high-accuracy boring applications.



System

MODEL	Boring dia.
MBH 50	φ 50 ~ 80
MBH 75	φ 75 ~ 120
MBH115	φ 115 ~ 185
MBH180	φ 180 ~ 250
MBH245	φ 245 ~ 315
MBH310	φ 310 ~ 380

Wide range and multi-purpose boring holder MBJ ➔ P. 61

The combination of two kinds of boring bars allows for a wide range of boring applications from 5.5mm to 205mm dia.

MBJ45



MBJ70



Cutting data

➔ P. 63

Micro Head for engraving

If you would like more detailed information, please contact MST and ask for a catalog.



MICRO HEAD MFA type (MFA)



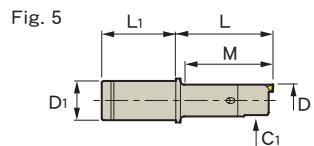
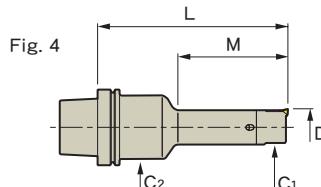
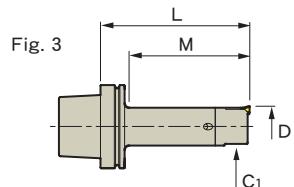
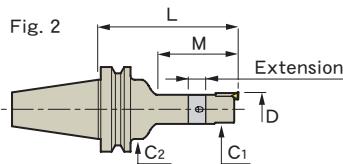
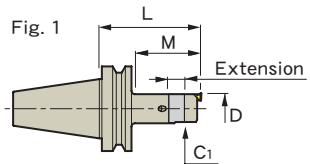
BT50-MFA36-165



A100-MFA29-165

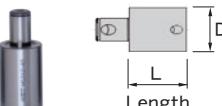


S32-MFA24-90



CODE	Fig.	Boring dia. (ϕD)	L	M	ϕC_1	ϕC_2	Extension	Kg
BT30-MFA20- 90	1	20~ 24.5	90	63	19	—	—	0.6
		24~ 30			22			
		29~ 38	105	78	27.6			0.7
		36~ 52			34.4			0.9
BT40-MFA20-120	2	20~ 24.5	120	65	19	46	—	1.4
			150	81				1.5
		24~ 30		62	22			1.7
			180	92			30	1.8
		29~ 38	150	82	27.6			1.7
			180	112			30	1.8
		36~ 52	150	97	34.4	62	—	1.9
			195	142			45	2.2
		50~ 77	150	102	46		—	2.4
			195	147			45	3.0
		75~102	150	102	51		—	2.5
			195	147			45	3.1
BT50-MFA20-165	2	20~ 24.5	165	54	19	62	—	4.9
			195	84			30	5.0
		240	64				—	6.3
		24~ 30	165	52	22			4.9
			195	82			30	5.0
		240	62				—	6.3
			270	92			30	6.4
		29~ 38	165	82	27.6	70	—	4.7
			195	112			30	4.8
		240	82				—	6.7
			270	112			30	6.9
		36~ 52	165	97	34.4		—	4.6
			210	142			45	4.9
			255	97			—	7.9
			300	142			45	8.2
-MFA50-165	1	50~ 77	165	122	46	—	—	4.9
			210	167			45	5.5
		255	147		86	—	—	7.6
			300	192			45	8.2
-MFA75-165	1	75~102	165	122	51	—	—	5.0
			210	167			45	5.6
		255	147		86	—	—	7.7
			300	192			45	8.3
-MFA24-165	2							

Extension



CODE	Applicable head	ϕD	L	$\frac{kg}{kg}$
MS0-30	MFA20	19	30	0.1
			35	0.1
			40	0.1
			45	0.1
MS1-30	MFA24	22	30	0.1
			35	0.1
			40	0.1
			45	0.1
MS2-30	MFA29	27.6	30	0.1
			40	0.2
			50	0.2
			60	0.3
MS3-40	MFA36	34.4	40	0.3
			45	0.3
			50	0.3
			60	0.4
MS4-45	MFA50 MFA75	46	45	0.6
			60	0.7
			75	0.9
			90	1.1

Caution

- Longer projection length causes chattering and reduced rigidity

Insert



CODE	R	Insert material	Q'ty	Work material
TPA082-PA	0.2	Cermet	10pcs.	Steel
TPA084-PA	0.4			
TPA082-MA	0.2	Carbide		
TPA084-MA	0.4			
TPA082-KA	0.2			Cast iron
TPA084-KA	0.4			
TPA082-NA	0.2			Aluminum
TPA084-NA	0.4			
TPA082-ND	0.2	Polycrystalline diamond	1pc.	
TPA084-ND	0.4			

CODE	Fig.	Boring dia. (ϕD)	L	M	ϕC_1	ϕC_2	Extension	D ₁	L ₁	Kg				
A40	3	20~ 24.5	90	65	19	—	—	—	—	0.4				
		24~ 30			22					0.6				
		29~ 38		82	27.6					0.8				
		36~ 52			34.4					1.2				
		50~ 77			46									
A50	4	20~ 24.5	120	69	19	41	—	—	—	0.8				
		24~ 30			22					0.9				
		29~ 38			82									
	3	36~ 52		91	34.4	—	—	—	—	1.1				
		50~ 77			46					1.6				
		75~102			51					1.7				
A63	4	20~ 24.5	150	81	19	46	—	—	—	1.3				
		24~ 30			62					1.5				
		180			92					1.6				
		29~ 38	150	82	27.6					1.5				
		180			112					1.6				
		36~ 52	150	97	34.4	52				1.7				
		195			142					2.0				
		50~ 77	150	102	46					2.2				
		195			147					2.7				
		75~102	150	102	51					2.3				
		195			147					2.8				
A100	4	20~ 24.5	165	54	19	62	—	—	—	3.8				
		195			84					3.9				
		240			64					5.3				
		24~ 30	165	52	22					3.8				
		195			82					3.9				
		240			62					5.4				
		270			92					5.5				
		29~ 38	165	82	27.6	70				3.7				
		195			112					3.8				
		240			82					5.8				
		270			112					6.0				
		36~ 52	165	97	34.4	80				3.7				
		210			142					4.0				
		255			97					7.2				
		300			142					7.5				
	3	50~ 77	165	131	46	—	—	—	—	3.6				
		210			176					4.2				
		255	255	147	85					6.7				
		300			192					7.3				
	3	75~102	165	131	51	—	—	—	—	3.7				
		210			176					4.3				
		255	255	147	85					6.8				
		300			192					7.4				
F63	4	20~ 24.5	150	81	19	46	—	—	—	1.3				
		24~ 30			62					1.5				
		180			92					1.6				
		29~ 38	150	82	27.6					1.5				
		180			112					1.6				
		36~ 52	150	97	34.4	52				1.7				
		195			142					2.0				
		50~ 77	150	102	46					2.2				
		195			147					2.7				
ST25T -MFA20- 75	5	20~ 24.5	75	75	19	—	—	25	70	—				
		24~ 30	90	85	22									
		29~ 38	105	105	27.6									
S 32	5	20~ 24.5	90	75	19	—	—	32	70	—				
		24~ 30			80									
		29~ 38	105	95	27.6									
		36~ 52			34.4									
		50~ 77			46									

■Option

- Insert
- Retention knob(BT)→P.64

■Std. Access.

- T wrench
- Insert clamping screw
- Coolant duct(Fixed)(HSK-A)→P.104
- Torx wrench

■Note

- Swing type coolant ducts are available upon request. For details, please contact us.
- Drive key slot and cutting direction are in alignment.
- The extension mentioned in the list is set between shank and head. The number refers to the extension length.



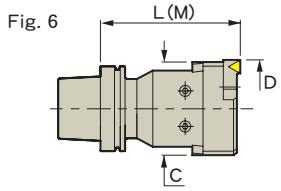
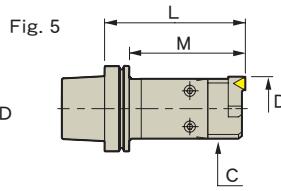
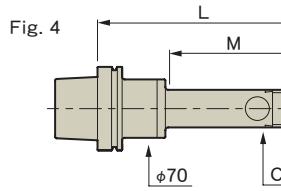
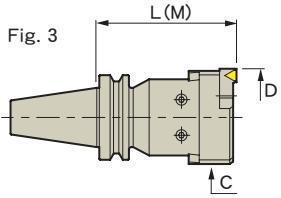
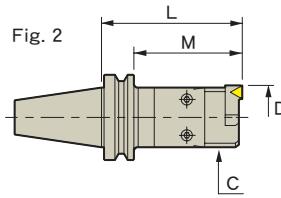
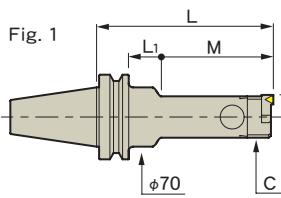
MICRO HEAD MBH type (MBH)



BT50-MBH180-225



A100-MBH75-165



CODE	Fig.	Boring dia. (ϕD)	L	M	ϕC	L_1	Cartridge	Kg
BT40-MBH 50-150	2	50~ 80	150	118	45	—	PTC 10 STGP10	2.1
-210	1		210	155		28		3.0
-MBH 75-165	3	75~120	165	165	70	—	PTC 12 STGP12	4.0
-MBH115-165		115~185			110			5.9
-MBH180-165		180~250			153			6.6
BT50-MBH 50-150	2	50~ 80	150	107	45	—	PTC 10 STGP10	4.5
-180			180	137				5.6
-240	1		240	155		47		6.3
-300			300			107		7.0
-MBH 75-165	3	75~120	165	127	70	—	PTC 12 STGP12	6.7
-225			225	187				8.5
-285			285	247				10.3
-315			315	277				11.2
-MBH115-165		115~185	165	165	110			8.6
-225			225	225				10.4
-285			285	285				12.2
-315			315	315				13.1
-MBH180-165		180~250	165	165	153			9.3
-225			225	225				11.1
-285			285	285				12.9
-MBH245-165		245~315	165	165	200			10.0
-225			225	225				11.8
-285			285	285				13.6
-MBH310-165		310~380	165	165	255			11.0
-225			225	225				12.8
A50M-MBH 50-135	5	50~ 80	135	109	45	—	PTC10/STGP10	1.6
-MBH 75-175		75~120	175	149	70		PTC12/STGP12	3.4
A63 -MBH 50-150	5	50~ 80	150	119	45	—	PTC 10 STGP10	1.9
-210			210	179				2.6
-MBH 75-195	6	75~120	195	195	70	—	PTC 12 STGP12	4.5
-MBH115-195		115~185			110			6.5
-MBH180-195		180~250			153			7.2
A100-MBH 50-150	5	50~ 80	150	116	45	—	PTC 10 STGP10	3.3
-180			180	146				3.6
-240	4		240	155		56		5.2
-300			300			116		6.8
-MBH 75-165	6	75~120	165	131	70	—	PTC 12 STGP12	5.3
-225			225	191				6.9
-285			285	251				8.6
-315			315	281				9.4

CODE	Fig.	Boring dia. (ϕD)	L	M	ϕC	L_1	Cartridge	Kg	
A100-MBH115-165	4	115~185	165	165	110	—	PTC 12	7.2	
-225			225	225			STGP12	8.9	
-285			285	285				10.5	
-315			315	315				11.4	
-MBH180-165		180~250	165	165	153			7.9	
-225			225	225				9.6	
-285			285	285				11.2	
-MBH245-165		245~315	165	165	200			8.7	
-225			225	225				10.3	
-285			285	285				12.0	
-MBH310-165		310~380	165	165	255			9.6	
-225			225	225				11.2	



Cutting data

P.63

■ Option

- Insert
- Cartridge
- Coolant-through
- Retention knob(BT)→P.64

■ Std. Access.

- T wrench
- Coolant duct(Fixed) (HSK-A)→P.104

■ Note

- Swing type coolant ducts are available upon request. For details, please contact us.
- Drive key slot and cutting direction are in alignment.
- Add "C" after the MBH model no. for through-spindle coolant when you order.
(Example: BT50-MBH75C-165)

■ Caution

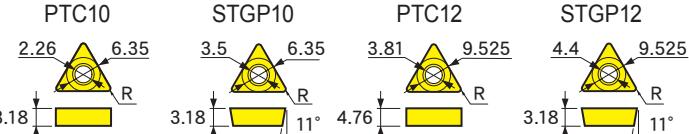
- Each slide part is produced to match precisely with its corresponding slide, so such parts are not interchangeable with each other.
- The undercut area of the A50M is different from the standards. Please be careful to check for interference with the ATC arm.

**Cartridge**

CODE	Work-piece material	Holder type
PTC10	Steel·Cast Iron·Stainless	MBH50
STGP10	Steel·Cast Iron Stainless·Aluminum	
PTC12	Steel·Cast Iron	MBH75 ~310
STGP12	Steel·Cast Iron Stainless·Aluminum	

■ Note

- PTC : Pin lock type
- STGP: Clamp-on type

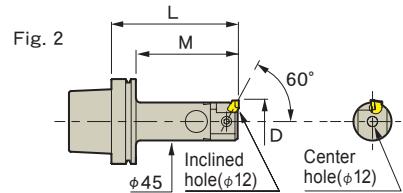
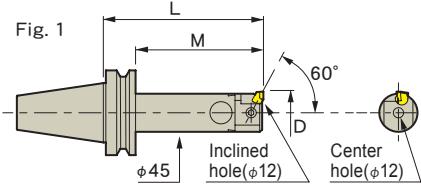
Insert

CODE	R	Insert material	Work-piece material	Application	Q'ty	Cartridge	
TNB114-PB	0.4	Carbide coating	Steel	Semi-finishing	10pcs.	PTC 10	
-MB		Carbide	Stainless				
-KB		Cermet	Steel·stainless				
-PMA		Carbide	Cast iron				
-KA		Cermet	Steel	Finishing			
TPC112-PA	0.2	Cermet	Steel	Finishing	10pcs.	STGP10	
TPC114-PA	0.4		Stainless				
TPC112-MA	0.2	Carbide	Cast iron				
TPC114-MA	0.4	Aluminum	Cast iron				
TPC112-KA	0.2		Steel				
TPC114-KA	0.4		Stainless				
TPC112-NA	0.2	Polycrystalline diamond	Cast iron		1pc.	PTC 12	
TPC114-NA	0.4		Stainless				
TPC112-ND	0.2	Carbide coating	Steel	Semi-finishing	10pcs.	STGP12	
TPC114-ND	0.4	Carbide	Stainless				
TNB168-PB	0.8	Carbide coating	Cast iron				
-MB	0.4	Cermet	Steel·stainless				
-KB		Carbide	Cast iron				
TNB164-PMA		Cermet	Steel	Finishing			
-KA	0.4	Carbide	Stainless				
TPC164-PA		Cermet	Cast iron	10pcs.	STGP12		
-MA		Carbide coating	Steel				
-KA	0.4	Carbide	Stainless				
-NA		Carbide	Cast iron				
-ND	0.4	Polycrystalline diamond	Aluminum	1pc.	PTC 12		

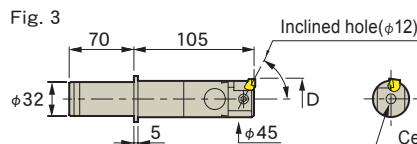
MICRO HEAD MBJ45 type (MBJ45)



A100-MBJ45-150



S32-MBJ45-105



CODE	Fig.	Boring dia. (ϕD)	L	M	Kg
BT30-MBJ45-120	1	5.5~80	120	98	1.3
BT40-MBJ45-150	1	5.5~80	150	123	2.2
BT50-MBJ45-150 -180	1	5.5~80	150	112	4.6
			180	142	5.6
A63 -MBJ45-150	2	5.5~80	150	124	2.0
A100-MBJ45-150 -180	2	5.5~80	150	121	3.3
			180	151	3.7
S32 -MBJ45-105	3	5.5~80	—	—	—

■ Option

- Insert holder
- Insert and insert holder set
- Retention knob (BT) → P.64

■ Std. Access.

- Wrench set
- Coolant duct(Fixed) (HSK-A) → P.104

■ Note

- Swing type coolant ducts are available upon request. For details, please contact us.
- Drive key slot and cutting direction are in alignment.

Insert holder, Insert

For center hole



Boring diameter $\phi 5.5 \sim 8$

Insert holder Insert

CODE	CODE	R	Insert material	Q'ty	Work material
STV-C12055	TPE042-PA	0.2	Cermet	10pcs.	Steel
Carbide shank	-MKA		Carbide coating		Stainless
	-NA		Carbide		Cast iron
					Aluminum



Boring diameter $\phi 8 \sim 10$

Insert holder Insert

CODE	R	Insert material	Q'ty	Work material
STV-C1208	0.2	Cermet	10pcs.	Steel
Carbide shank	0.4	Carbide coating		Stainless
	0.2	Carbide		Cast iron
	0.4			Aluminum



Boring diameter $\phi 10 \sim 12$

Insert holder Insert

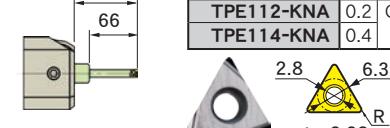
CODE	CODE	R	Insert material	Q'ty	Work material
STV-C1210	TPE082-PA	0.2	Cermet	10pcs.	Steel
Carbide shank	TPE084-PA	0.4			Stainless
	TPE082-MA	0.2	Carbide		Cast iron
	TPE084-MA	0.4			Aluminum
	TPE082-KNA	0.2			
	TPE084-KNA	0.4			



Boring diameter $\phi 12 \sim 14$

Insert holder Insert

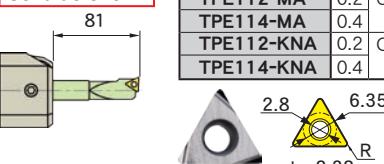
CODE	R	Insert material	Q'ty	Work material
STV-C1212	0.2	Cermet	10pcs.	Steel
Carbide shank	0.4	Carbide coating		Stainless
	0.2	Carbide		Cast iron
	0.4			Aluminum



Boring diameter $\phi 14 \sim 46$

Insert holder Insert

CODE	CODE	R	Insert material	Q'ty	Work material
STV-C1214	TPE112-PA	0.2	Cermet	10pcs.	Steel
Carbide shank	TPE114-PA	0.4			Stainless
	TPE112-MA	0.2	Carbide coating		Cast iron
	TPE114-MA	0.4			Aluminum
	TPE112-KNA	0.2	Carbide		
	TPE114-KNA	0.4			



Boring diameter $\phi 16 \sim 48$

Insert holder Insert

CODE	R	Insert material	Q'ty	Work material
STV1216	0.2	Cermet	10pcs.	Steel
Steel shank	0.4	Carbide		Stainless
	0.2	Carbide		Cast iron
	0.4			Aluminum

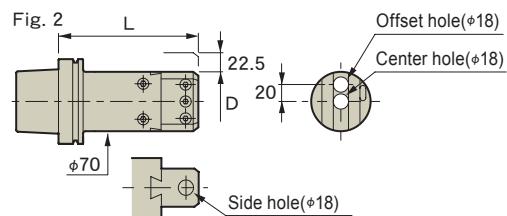
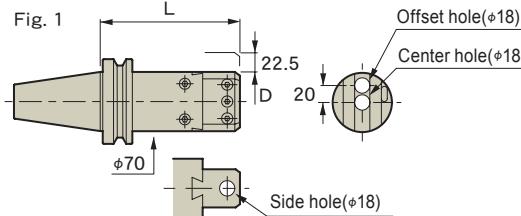


For inclined hole

Boring diameter $\phi 48 \sim 80$		Insert				
Insert holder	Insert	CODE	R	Insert material	Q'ty	Work material
S-STA12		TPC112-PA	0.2	Cermet	10pcs.	Steel
Steel shank		TPC114-PA	0.4			
		TPC112-MA	0.2	Carbide		Stainless
		TPC114-MA	0.4			
		TPC112-KA	0.2			Cast iron
		TPC114-KA	0.4			
		TPC112-NA	0.2			Aluminum
		TPC114-NA	0.4			
		TPC112-ND	0.2	Polycrystalline diamond	1pc.	
		TPC114-ND	0.4			

**Insert and insert holder set**

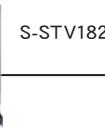
CODE	Insert holder	Q'ty	Insert	Q'ty	Work material
PJ-45	STV1216	1pc.	TPC094-PA	10pcs.	Steel
	S-STA12		TPC114-PA		
KJ-45	STV1216	1pc.	TPC094-KNA	10pcs.	Cast iron
	S-STA12		TPC114-KA		Aluminum

**MICRO HEAD MBJ70 type (MBJ70)**

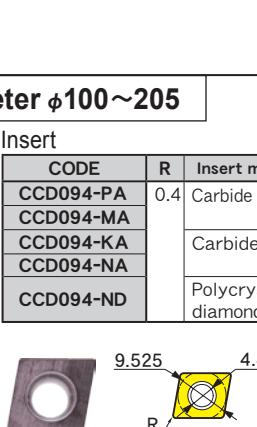
CODE	Fig.	Chucking range(ϕD)	L	Kg
BT40-MBJ70-165	1	22~205	165	4.2
BT50-MBJ70-165	1	22~205	165	6.5
A63 -MBJ70-195	2	22~205	195	4.6
A100-MBJ70-165	2	22~205	165	5.4

Insert holder, Insert**For center hole · inclined hole**

Boring diameter $\phi 22 \sim 107$		Insert				
Insert holder	Insert	CODE	R	Insert material	Q'ty	Work material
S-STV1822		TPC112-PA	0.2	Cermet	10pcs.	Steel
Steel shank		TPC114-PA	0.4			
Center hole		TPC112-MA	0.2	Carbide		Stainless
		TPC114-MA	0.4			
		TPC112-KA	0.2			Cast iron
		TPC114-KA	0.4			
		TPC112-NA	0.2			Aluminum
		TPC114-NA	0.4			
		TPC112-ND	0.2	Polycrystalline diamond	1pc.	
		TPC114-ND	0.4			

**For side hole**

Boring diameter $\phi 100 \sim 205$		Insert		STH18		
Insert holder	Insert	CODE	R	Insert material	Q'ty	Work material
STH18		CCD094-PA	0.4	Carbide coating	10pcs.	Steel
Steel shank		CCD094-MA				Stainless
		CCD094-KA				Cast iron
		CCD094-NA				Aluminum
		CCD094-ND		Polycrystalline diamond	1pc.	

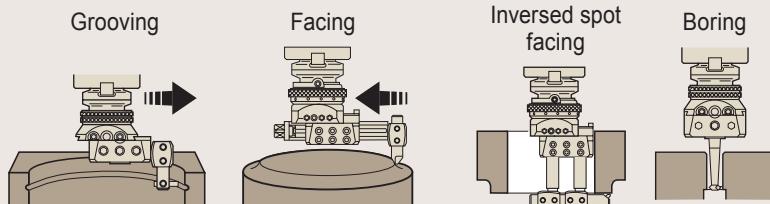
**Insert and insert holder set**

CODE	Insert holder	Q'ty	Insert	Q'ty	Work material
PJ-70	S-STV1822	1pc.	TPC114-PA	10pcs.	Steel
	STH18		CCD094-PA		
KJ-70	S-STV1822	1pc.	TPC114-KA	10pcs.	Cast iron
	STH18		CCD094-KA		



Universal Facing Boring Head

Universal Boring Head allows any applications just using this holder.



Automatic feeding using the machine spindle rotation.



Max. Boring diameter : $\phi 920$

High accuracy and Long life

Hand scraping surface leads to higher accuracy and longer life.

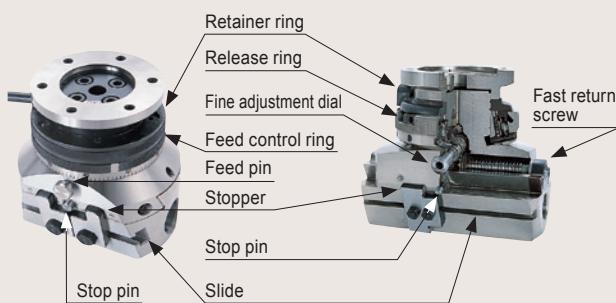


Specification

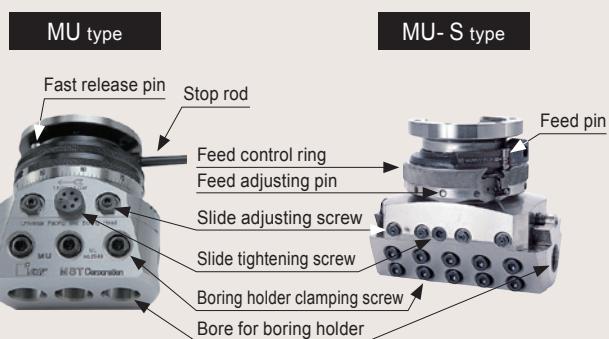
We guarantee a slide traverse accuracy of $5\mu\text{m}$ squareness at 50L, and we provide thorough overhaul and repair after-service.

TYPE	Max. Boring diameter	Max. slide movement	Automatic feed speed	Fine adjustment (one graduation)	Fast return screw	Max. rotation min ⁻¹	Kg
MU	$\phi 260$	48	0.05/Rotation	0.005 Vernier scale 0.001	—	600	2.1
MU-S4	$\phi 400$	52	0.02 0.24/Rotation 12 speeds	0.005	3.0/Rotation	400	7
MU-S5	$\phi 620$	112					8.7
MU-S6H	$\phi 800$	140				250	21
MU-S6	$\phi 920$	210					23.3

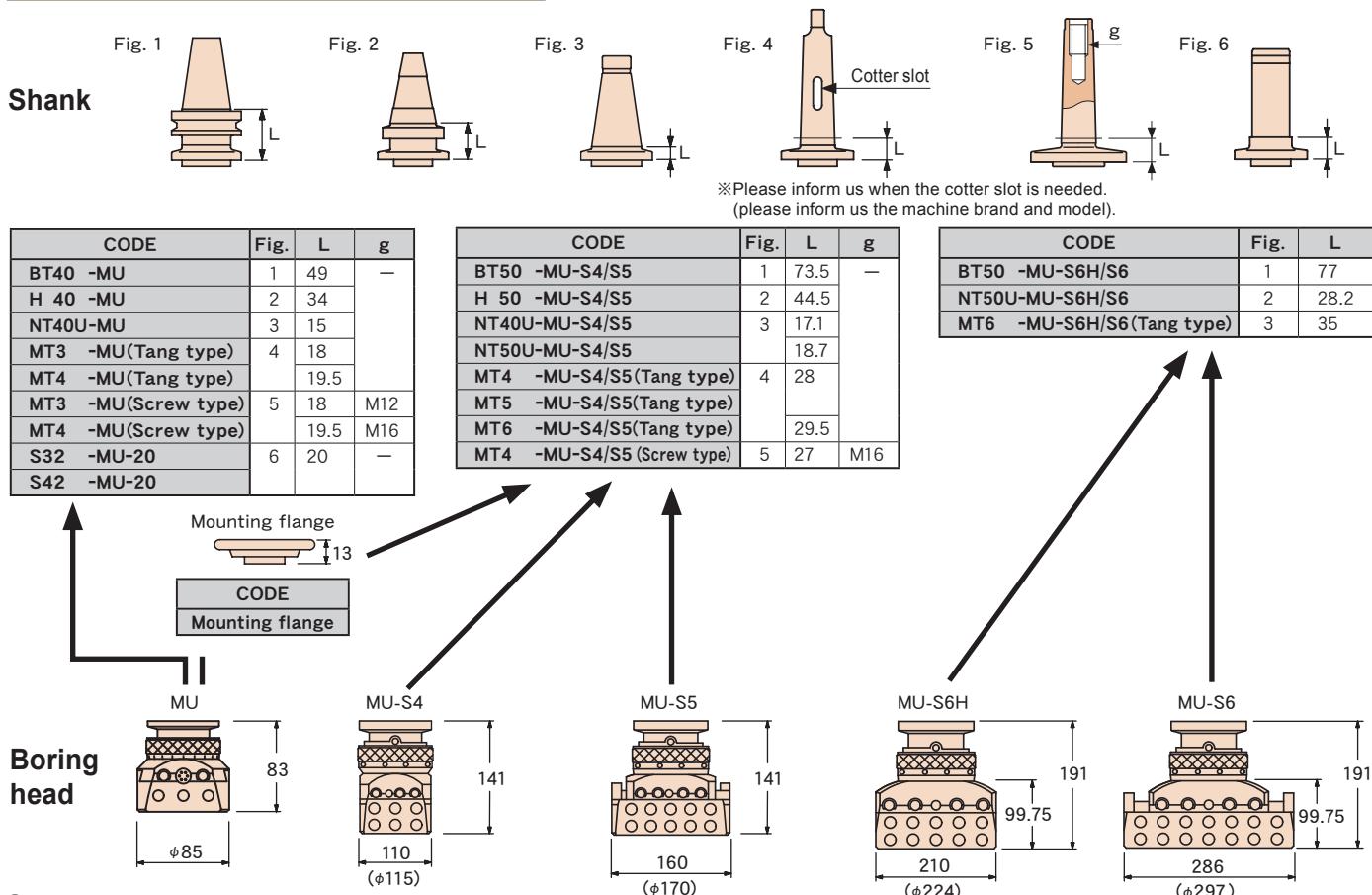
Parts name



MU type



Combination of shank and head



Set content

Boring head (set)	MU	MU-S4	MU-S5	MU-S6H	MU-S6										
Boring head	MU	MU-S4	MU-S5	MU-S6H	MU-S6										
Boring bar	Diameter×length 18× 60 18× 90 18×120	Effective length 30 1 60 1 90 1	Q'ty 1 1 1	Diameter×length 22× 85 22×125 22×165	Effective length 45 1 85 1 125 1	Q'ty 1 1 1	Diameter×length 22× 85 22×125 22×165	Effective length 45 1 85 1 125 1	Q'ty 1 1 1	Diameter×length 30×120 30×200 30×260	Effective length 70 1 150 1 210 1	Q'ty 1 1 1	Diameter×length 30×120 30×200 30×260	Effective length 70 1 150 1 210 1	Q'ty 1 1 1
Boring bar holder	Diameter×Shank length 18× 82 18×120	Q'ty 1 1	Diameter×Shank length 22× 98 22×180	Q'ty 3 1	Diameter×Shank length 22× 98 22×130	Q'ty 2 1	Diameter×Shank length 30×120 30×220 30×360	Q'ty 2 1 1	Diameter×Shank length 30×120 30×220 30×360	Q'ty 2 1 1					
Adjustment collar for boring bar holder	Inner diameter×Thickness 22×10 22×20 22×60 —	Q'ty 1 1 1 —	Inner diameter×Thickness 22×10 22×20 22×45 22×60	Q'ty 1 1 1 1	Inner diameter×Thickness 30×10 30×20 30×40 30×70	Q'ty 1 1 1 1	Inner diameter×Thickness 30×10 30×20 30×40 30×70	Q'ty 1 1 1 1	Inner diameter×Thickness 30×10 30×20 30×40 30×80	Q'ty 1 1 1 1					
Draw bolt for boring bar holder	—	Diameter×length M12×40	Q'ty 1	Diameter×length M12×89	Q'ty 1	Diameter×length M16×80	Q'ty 1	Diameter×length M16×120	Q'ty 1						
Clamping sleeve	Outer dia.× Inner dia. 18× 8 18×10 18×12 18×14 —	Q'ty 1 1 1 1 —	Outer dia.× Inner dia. 22× 8 22×10 22×12 22×14 22×18	Q'ty 1 1 1 1 1	Outer dia.× Inner dia. 22×12 22×14 22×18 30×22-A 30×22-B	Q'ty 1 1 1 1 1	Outer dia.× Inner dia. 22×12 22×14 22×18 30×22-A 30×22-B	Q'ty 1 1 1 1 1							
Insert	Material HSS Carbide	□ × length 6×30L-H 6×30L-C	Q'ty 3 1	□ × length 6×40L-H 6×30L-C	Q'ty 3 1	□ × length 10×60L-H 10×60L-C	Q'ty 3 1	□ × length 10×60L-H 10×60L-C	Q'ty 3 1						
Other accessories	•Stop rod •Spanner •Knocking rod •L wrench	•Stop rod •T handle wrench •Connection for wrench •L wrench •Spanner	•Stop rod •T handle wrench •Connection for wrench •L wrench •Spanner	•Stop rod •T handle wrench •Connection for wrench •Auxiliary bar •L wrench •Spanner	•Stop rod •T handle wrench •Connection for wrench •Auxiliary bar •L wrench •Spanner	•Stop rod •T handle wrench •Connection for wrench •Auxiliary bar •L wrench •Spanner									

■ Note

•We can provide only the head without accessories.