

# Hi-ART MILLING CHUCK

Needle-roller type chuck

**The Hi-ART milling chuck achieves the accuracy, rigidity and torque required of a milling chuck. Ideal for use as the end-milling base holder!!**



Shrinker

Thanks to the shrinker, the cutter shank is chucked evenly from the bottom to the top of the gripping range, ensuring high rigidity and gripping force.

coolant-through



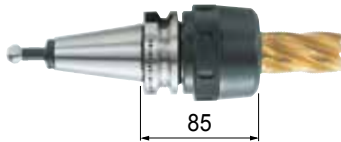
Nozzle-through



Coolant-Through Cutter

## The shortest holder length is 85mm (BT40).

The shorter holder length means increased rigidity. The rigidity of the tool holder is inversely proportional to the cube of the length, meaning the deflection of this holder is about half that of a 105mm holder.



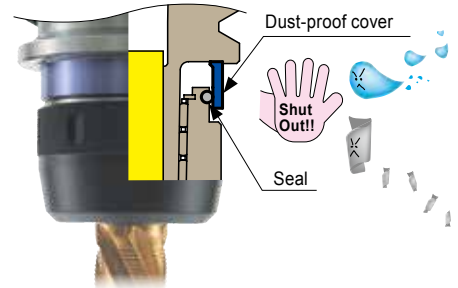
## Memory line clearly confirms tightness of the nut.

You can check the recommended degree of tightening at a glance. Also, it only takes about one and half turns for tightening operation.



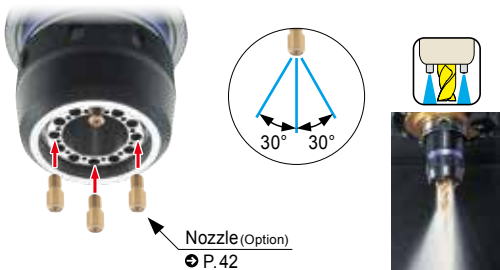
## Keeps chips and coolant out completely

Dust-proof cover keeps chips and coolant out completely.



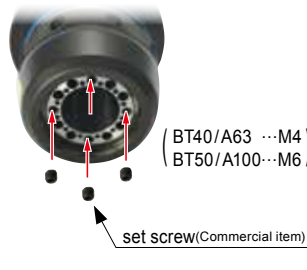
## Applicable for coolant-through version

### Nozzle-through



Nozzle (Option)  
P. 42

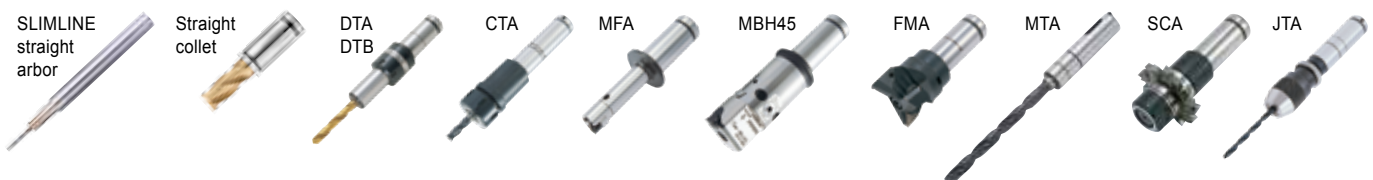
### Coolant-Through Cutter



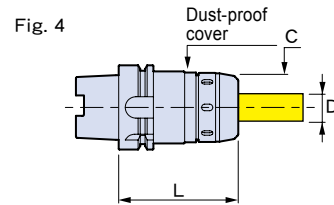
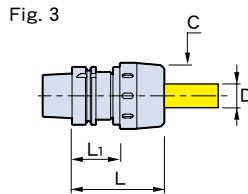
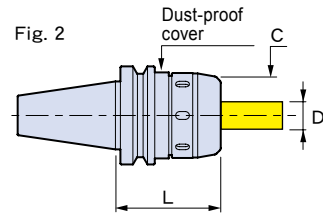
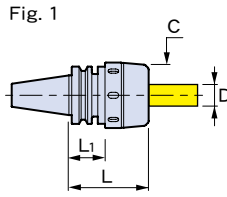
set screw (Commercial item)

Longer cutter life using through-spindle capability → P. 117

## Applicable as a base holder for various applications



# Hi-ART MILLING CHUCK (ART)



CODE	Fig.	$\phi D$	L	$\phi C$	L <sub>1</sub>	Cutter insertion length	Kg	MAX. min <sup>-1</sup>				
<b>BT40-ART32- 85</b>	1	32	85	72	37	66~ 88	1.9	6,000				
<b>- 95</b>			95		47		2.1					
<b>-105</b>			105		57		2.3					
<b>-135</b>			135		87		3.0					
<b>BT50-ART32-105</b>	2	32	105	82	—	66~ 98	5.1	5,000				
<b>-135</b>			135				6.4					
<b>-165</b>			165				7.7					
<b>-180</b>			180				8.4					
<b>-ART42-105</b>			42				105		97	76~108	5.4	3,000
<b>-135</b>							135				7.1	
<b>A50M-ART32-100</b>	3	32	100	72	44	66~ 71	1.7	6,000				
<b>A63 -ART32-100</b>	3	32	100	72	44	71	2.0	6,000				
<b>A100-ART32-135</b>	4	32	135	82	—	66~ 98	5.3	5,000				
<b>-ART42-135</b>							42		97	6.1	3,000	

**Option**

- Straight collet→P.42 • Nozzle→P.42 • Spanner with ejection hook→P.42
- Adjust screw→P.42 • Retention knob(BT)→P.64

**Std. Access.**

- Coolant duct(Fixed)(HSK-A)→P.104

**Note**

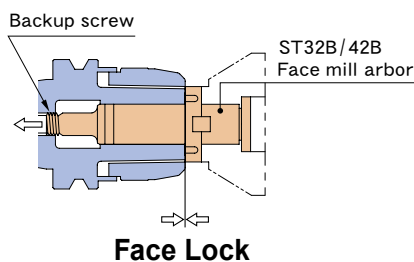
- To utilize the coolant-through nozzle capability, the retention knob with hole and nozzle are required.
- Swing type coolant ducts are available upon request(HSK-A). For details, please contact us.

**Caution**

- For BT40 type, the outer diameter of the nut is larger than that of the V-flange. Therefore, pay close attention to possible interference with the ATC arm.
- When using the straight arbor in BT40, use the S type (ex.S32-CTA10).
- For A50M and A63, the coolant-through system is not available for straight collets.
- Cutter-through coolant is not available for straight collets.
- For precautions and maintenance, refer to page 116.

## Increased rigidity with the Face Lock system

For face milling applications, combining a holder and a face mill arbor, with backup screw (ST32B, ST42B-FMA), will achieve strong gripping (Face Lock) and improve the rigidity during transverse feed milling.

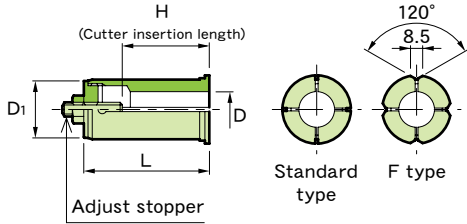


# Straight collet

## Standard type



## F type



CODE		φD	L	φD1	H	Holder type
Standard type	F type					
S32- 6	S32- 6F	6	75	32	30~68	ART32
- 8	- 8F	8			40~68	
-10	-10F	10			50~68	
-12	-12F	12			55~68	
-16	-16F	16				
-20	-20F	20				
-25	-25F	25				
S42- 6	S42- 6F	6	80	42	30~73	ART42
- 8	- 8F	8			45~73	
-10	-10F	10			50~73	
-12	-12F	12				
-16	-16F	16				
-20	-20F	20				
-25	-25F	25				
-32	-32F	32				

**Caution**

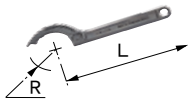
- Remove the adjust stopper when using a straight collet with A50M/ A63.
- When a straight collet with nozzles is used, use the F type.

**Std. Access.**

- Adjust stopper

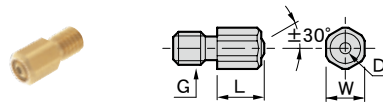
## Spanner with ejection hook

This spanner can be used to both tighten a nut and remove a straight collet.



CODE	R	L	Holder type	Clamping torque(N·m)
FM-72	36	204	ART32 (BT40, A50M, A63)	60
-82	41	234	ART32 (BT50, A100)	70
-97	48.5	239	ART42 (BT50, A100)	

## Nozzle



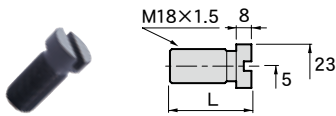
CODE	L	G	W	φD	Holder type	Q'ty
NOZ-M4-12	6.3	M4	4.5	1.2	BT40, A50M, A63	12pcs.
-60					A63	60pcs.
-M6-12	8.5	M6	7	1.8	BT50, A100	12pcs.
-60					A100	60pcs.

**Std. Access.**

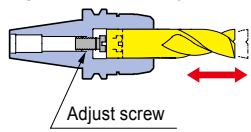
- Wrench for attachment

## Adjust screw

The overhang of the cutting tool can be adjusted.



The overhang of the cutting tool can be adjusted.



CODE	L	Shank type	Q'ty
AJN-M18L	38	BT40	5pcs.
AJN-M18	63	BT50	

## Cutting data

**S55C**  
φ32 roughing end mill 4 flutes

**n** 350 min<sup>-1</sup>  
**Vf** 154 mm/min  
**Vc** 35 m/min  
**fz** 0.11 mm/t

BT40-ART32-85

**S55C**  
φ32 roughing end mill 4 flutes

**n** 350 min<sup>-1</sup>  
**Vf** 181 mm/min  
**Vc** 35 m/min  
**fz** 0.13 mm/t

BT50-ART32-105