

Outstanding 80,000 min⁻¹ with Nakanishi's smallest-ever diameter of $\phi 16$ mm!

Straight type motor spindle for CNC Automatic Lathe

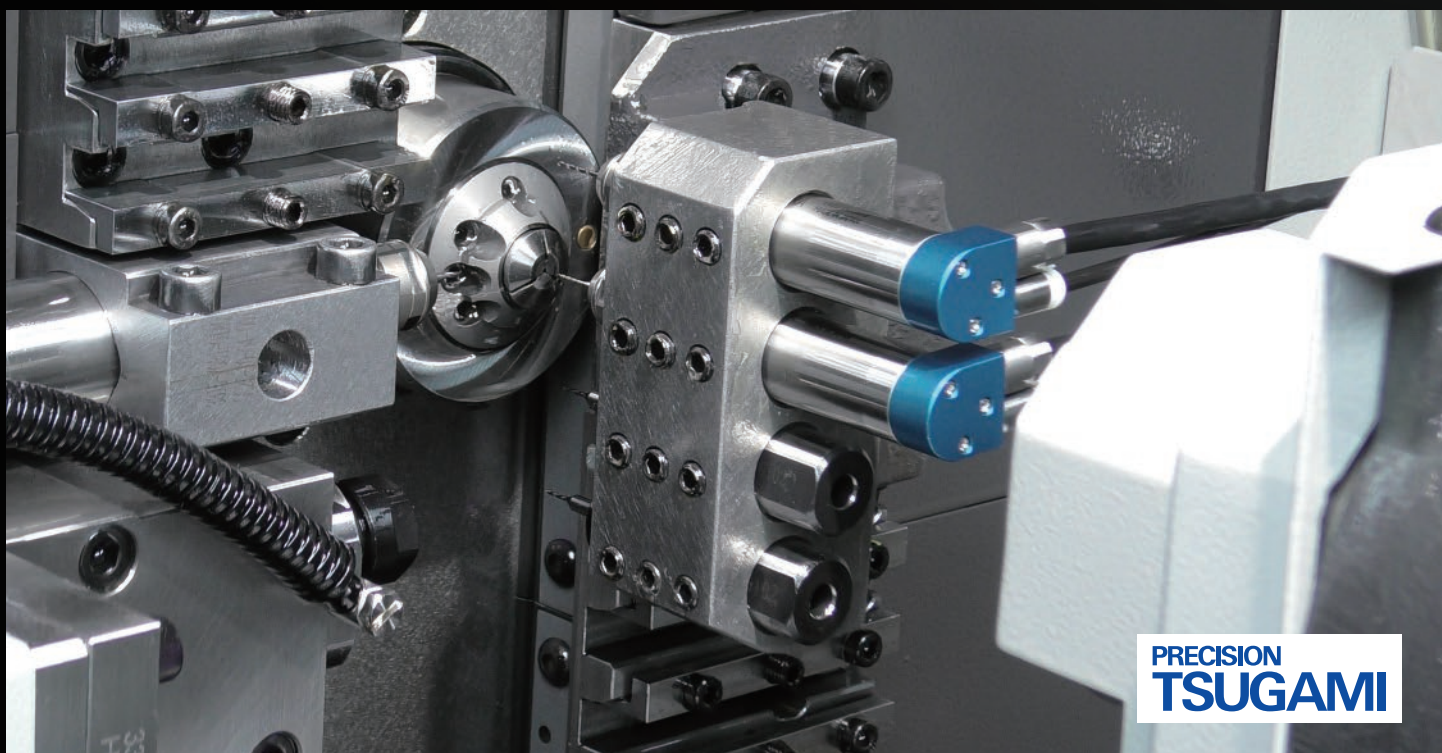
BM-1680RA

For use with $\phi 0.5$ - $\phi 4.0$ mm diameter tools

This product is a motor spindle that achieves the smallest diameter in Nakanishi history at $\phi 16$ mm. Compatible with CNC Precision Automatic Lathes, it excels in fine precision machining at speeds of up to 80,000 min⁻¹.



Shown in actual size



Mounted on CNC Precision Automatic Lathe: TSUGAMI CORPORATION P036W

Machining data

■ Drill

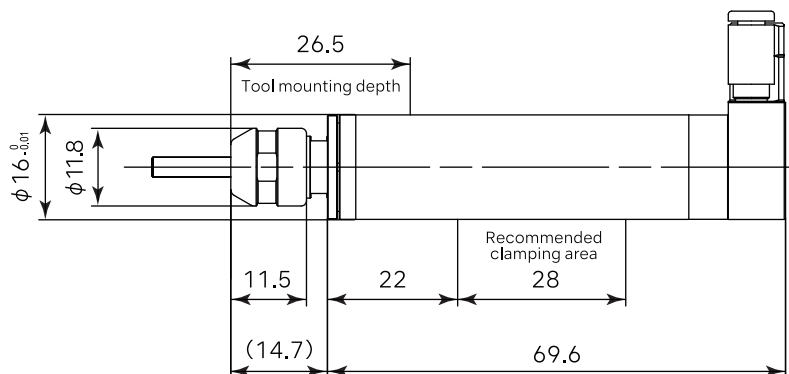
Workpiece	Tool	Hole depth [mm]	Cutting speed [m/min]	Motor speed [min ⁻¹]	Feed per rev. [mm/rev]	Feed rate [mm/min]	Load meter
SUS304	ATOMADR $\phi 0.5$	2 0.1 mm/step	57	30,000	0.005	150	Green 3

Specifications

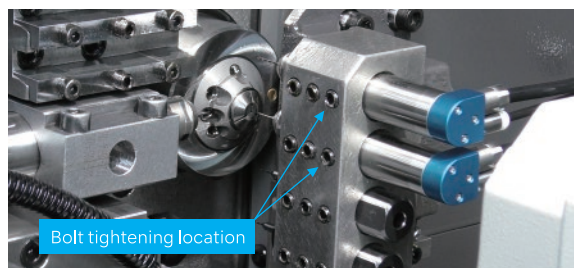
Code No. : 7944

Model : BM-1680RA

For installation on TSUGAMI P0 series



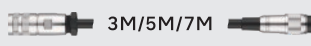
Tighten the clamping bolt only at the location shown in the figure below on the φ16 sleeve holder (within the CLAMPING AREA).
[Recommended tightening torque (M6): 1.0 N · m]



O.D. φ16 mm	Motor speed 80,000 min ⁻¹	Max. power 115 W	Spindle accuracy Within 1 μm	Net weight 140 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11) : 1 pc. each *Collet is sold separately.			
Applicable CNC Precision Automatic Lathe	TSUGAMI CORPORATION P013 / P033 / P053 / P014 / P034 / P054 / P036W / P056W			

*Cord length: 0.5 m

Combination example

Collet	Motor spindle	Motor cord	Controller	Air line kit
				
CHA φ 0.5 - φ 4.0 mm	BM-1680RA	EMCD-3000i-3M/5M/7M	E3000i CONTROLLER	AL-C1204

*Compatible controllers:
S/Ns starting with A-Z

*Supply cooling air

Machining data

■ Drill

Workpiece	Tool	Hole depth [mm]	Cutting speed [m/min]	Motor speed [min ⁻¹]	Feed/rev. [mm/rev]	Feed rate [mm/min]	Load meter
A5052 (Aluminum alloy)	ATOM ADR φ1.5	6 3 mm/step	188	40,000	0.020	800	Yellow 2
SUS304 (Stainless steel)	ATOM ADR φ0.8	4 0.2 mm/step	75	30,000	0.005	150	Green 3

■ End mill

Workpiece	Tool	Cutting speed [m/min]	Motor speed [min ⁻¹]	Feed per blade [mm/tooth]	Feed rate [mm/min]	Depth of cut Ap × Ae [mm]	Load meter
A5052 (Aluminum alloy)	NSTOOL CO., LTD. MX230 φ2	377	60,000	0.025	3,000	0.05 × 1.5	Green 1
SUS304 (Stainless steel)	NSTOOL CO., LTD. MX230 φ1	126	40,000	0.005	400	0.05 × 0.8	Green 1



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*Specifications and design are subject to change without notice.

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