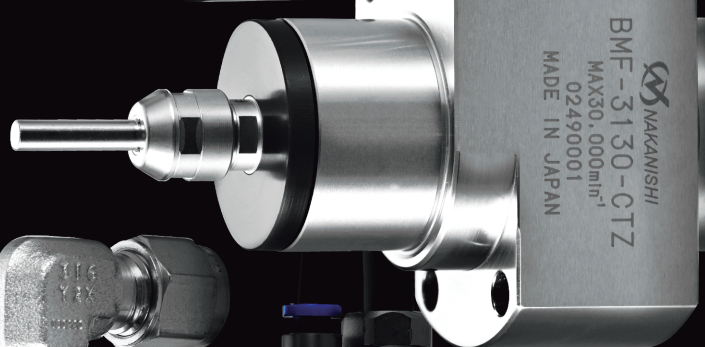
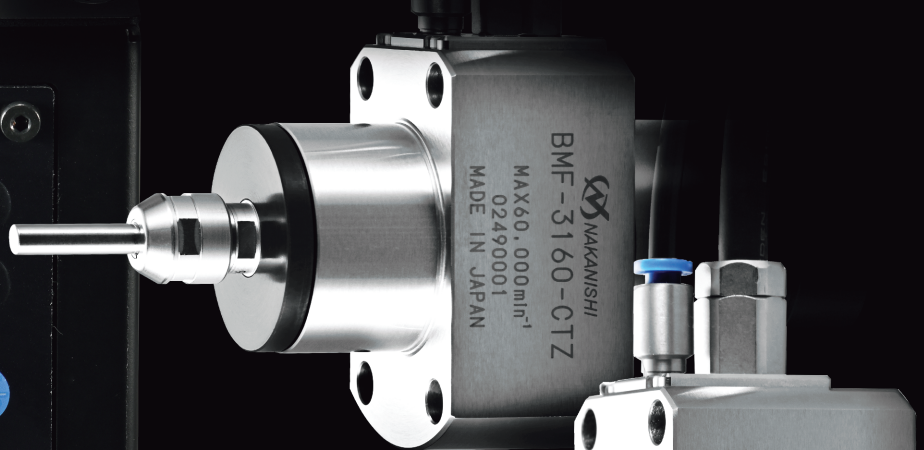


# E3000i

**eka Klingseisen**  
Werkzeuge & Maschinen



LOAD  
x100min<sup>-1</sup>

RUN 888

WARNING

ERROR x10mA AUTO No.1 FWD

RESET DISP CTRL MOTOR DIR START STOP

MPa MANUAL No.2 REV

AIR MOTOR

IN No.1

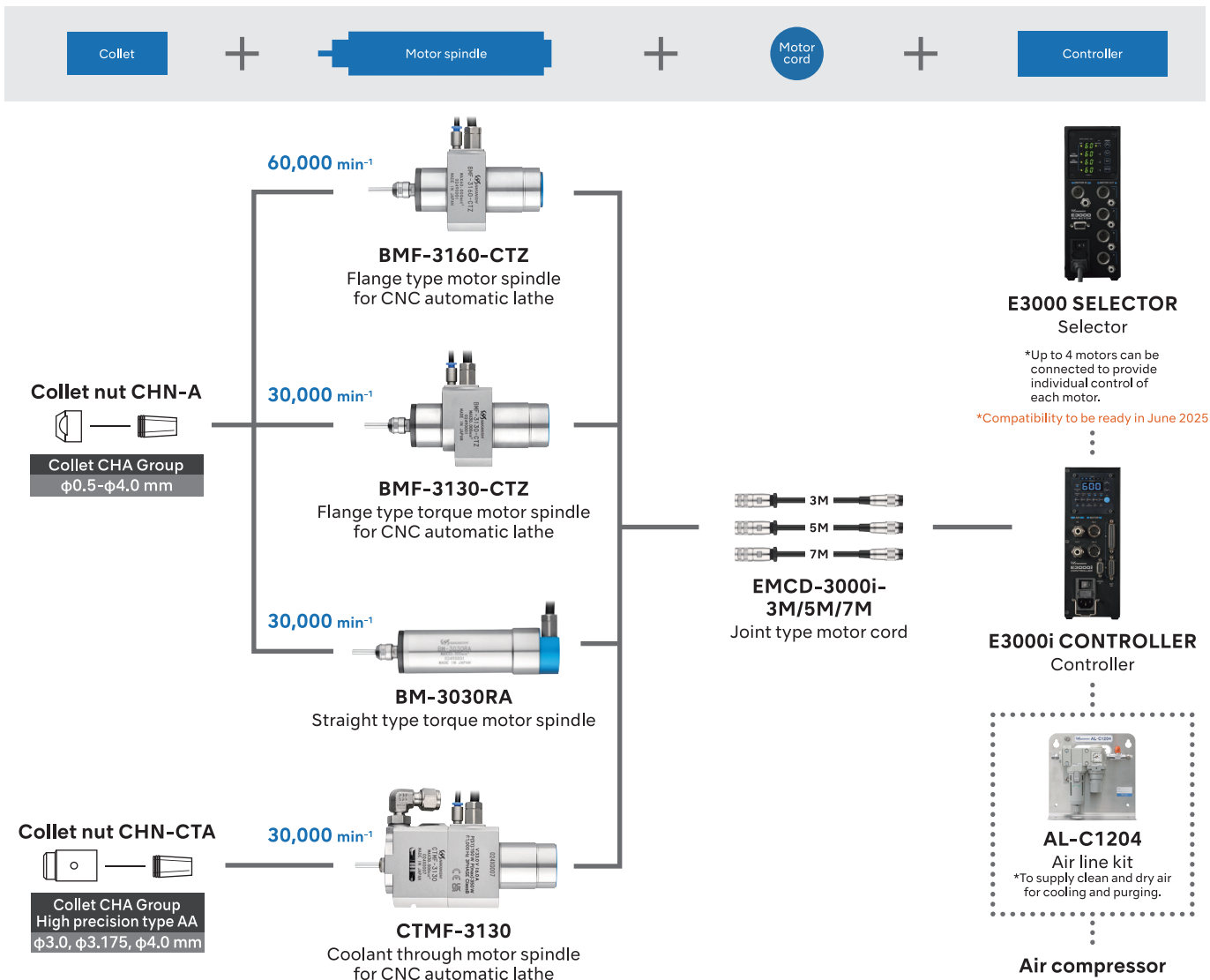
OUT No.2

NAKANISHI  
E3000i  
CONTROLLER

SERIAL I/F

EXT I/O

## E3000i Series system chart



## Features of Motor Spindle

- **Various control functions realized by electric motor technology.**

Control of rotation speed, visualization of load factor, advanced adaptability to automation and stable machining performance.

- **Ultra-short body design with a min. length of 98.4 mm.**

For mounting on a CNC automatic lathes.

- ▶ Can be mounted in a narrow machining chamber
- ▶ Recommended as a new option for rotary tools

For mounting on special purpose machines.

- ▶ Enables downsizing of the dedicated machine itself

- **Realizes higher power than ever before.**

Equivalent body size up to now: maximum output of 150 W.

- ▶ Maximum output of 350 W has been realized

Expansion of applicable processing fields.

\*Compared to iSpeed3 series having the smallest body size to date at Nakanishi.

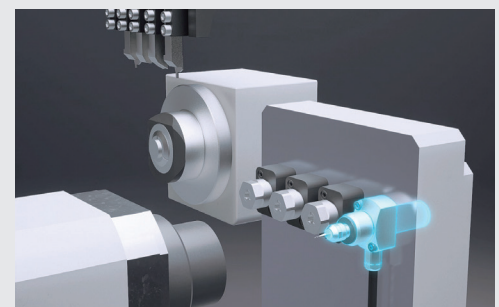
- **Provides higher durability than rotary tools and speed-increasing spindles.**

Solves the challenges encountered at work sites by minimizing vibration and heat generation, and higher durability.

### What the E3000i series can achieve.

Benefits realized from mounting on a CNC automatic lathe:

1. The high speed spindles enable a high feed rate.  
→ **Increased machining efficiency**
2. The high precision motor spindles ensure a precise finish.  
→ **Increased machining accuracy**



# E3000i Controller

● **Wide speed range**

The controllable speed ranges from 1,000 to 80,000 min<sup>-1</sup>, while the 3-digit display allows speed setting in units of 200 min<sup>-1</sup>.

● **Load monitor LED**

Load meter enables setting of optimum cutting conditions.



● **Controls E3000/E2000/iSpeed3/HES series motor spindles.**

● **Two motors can be connected to provide individual control of each motor.**

● **External inputs**

Motor ON/OFF, Rotating direction, Motor speed setting, Safety relay brake, etc.

● **External outputs**

Motor current, Rotating pulse, Error, Load, etc.

● **Parameter setting**

Maximum motor speed setting, Fix motor speed, etc.

● **Improved installation flexibility with interchangeable operation panel.**

The panel can be changed vertically, horizontally, or on the back, taking into consideration the installation space and the direction of the cord wiring.

[Other functions]

- Display function of motor current value: Motor load status, prevents excessive tightening when mounting the spindles to machines.
- Air pressure display function: Allows confirmation of air pressure supplied to the controller.
- Key hold function: Disables button operation on the operation panel.

\*For more information, please refer to the operation manual on our website.

<b>Code No.</b>	<b>Motor speed</b>	
<b>7927</b>	<b>1,000-80,000 min<sup>-1</sup></b>	
<b>Input voltage</b>		
AC100-240 V Without plug Multiple output power		
<b>Max. power</b>	<b>Power consumption</b>	<b>Net weight</b>
<b>350 w</b>	<b>AC1.8 A</b>	<b>3.0 kg</b>
<b>Air consumption</b>		
1 Motor spindle: 30 NL/min (0.2-0.3 MPa)* 2 Motor spindles: 60 NL/min (0.3-0.4 MPa) *in case of E3000i series		
<b>Standard equipment and accessories</b>		
Power cord: 3 m / φ6 mm Air hose with filter (K-251: 2058): 2 m		
Branch adapter / Connector cap: 2 pcs. / Reducer		
Connector cover A · B · Serial I/F / Power cord hook		
Bracket (bottom · rear): 2 pcs. each / Rubber pad: 4 pcs.		
Fuse: 2 pcs. / Mounting screw: 8 pcs.		

## Example of replaced control panel



Front side horizontal placement



Rear side vertical replacement



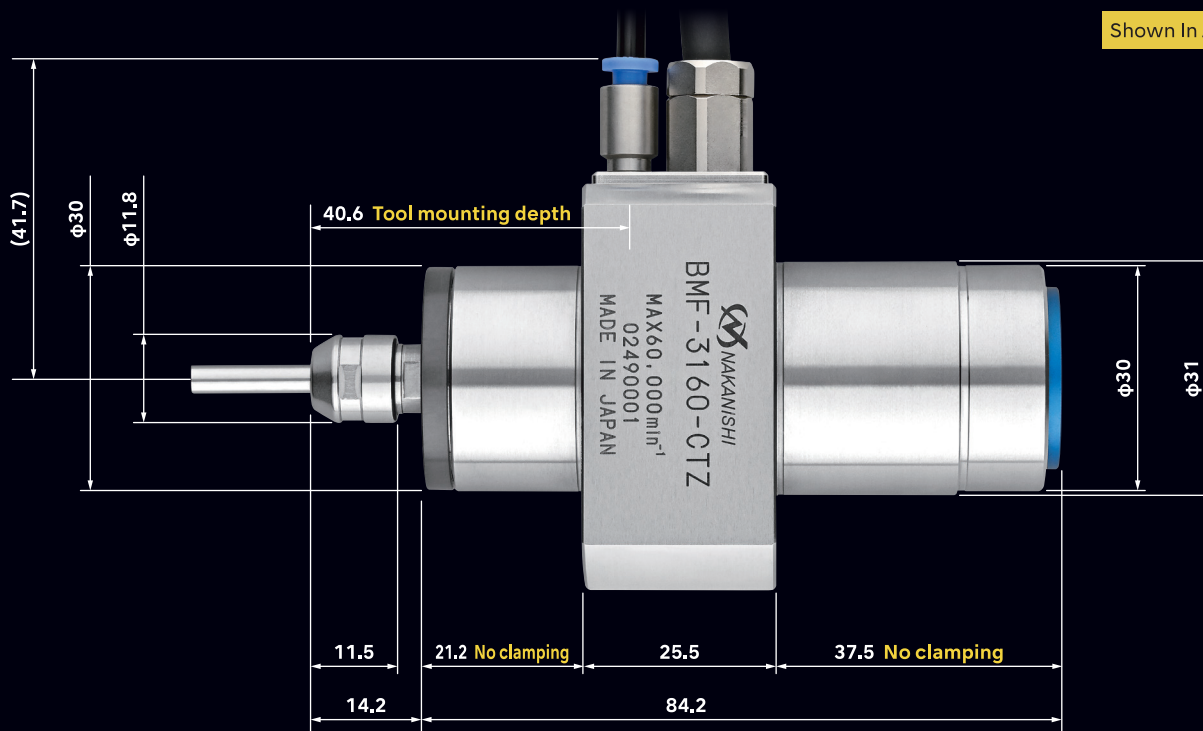
# BMF-3160-CTZ

Flange type motor spindle for CNC automatic lathe



O.D.  $\phi 31$  mm

Shown In Actual Size



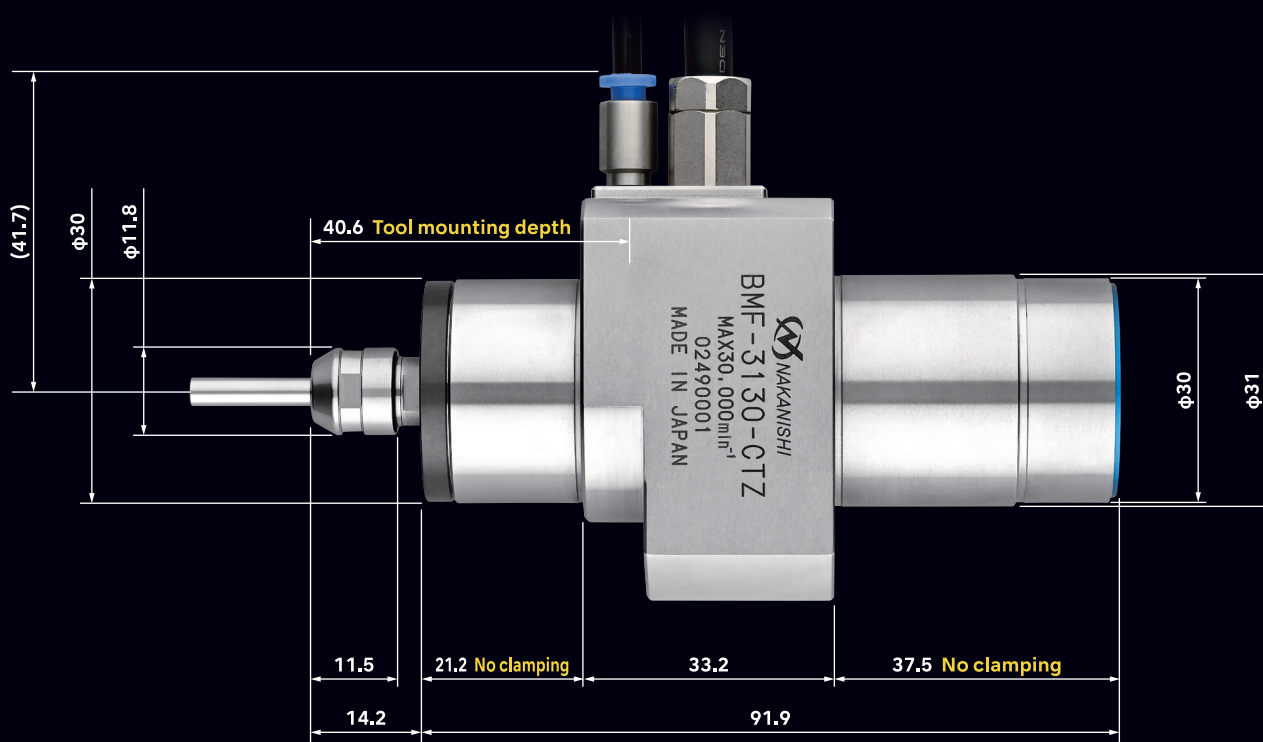
# BMF-3130-CTZ

Flange type torque motor spindle for CNC automatic lathe

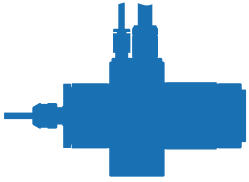


O.D.  $\phi 31$  mm

Shown In Actual Size

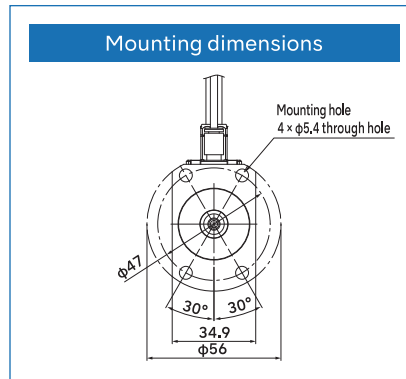


## BMF-3160-CTZ

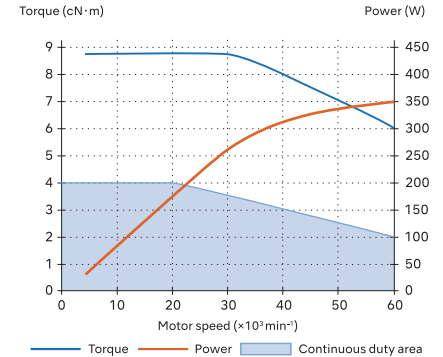
Code No. **7923**Model **BMF-3160-CTZ**

CAD drawings

CAD drawings (DXF/STEP) are available on our website



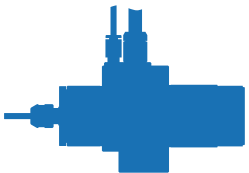
## Torque &amp; power curve



O.D.	Motor speed	Max. power	Spindle accuracy	Collet	Min. bending cord radius	Net weight
<b>φ31 mm</b>	<b>60,000 min<sup>-1</sup></b>	<b>350 w</b>	<b>Within 1 μm</b>	<b>CHA Group</b> (φ0.5-φ4.0 mm)	<b>60 mm</b>	<b>604 g</b>
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11) / Hex. socket bolt (M5 × 35): 4 pcs. <b>*Collet is sold separately.</b>					
Options	Collet (CHA Group): φ0.5-φ4.0 mm Motor cord: 3 m (7931), 5 m (7932), 7 m (7933)					

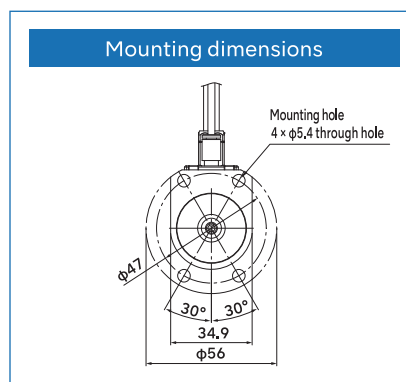
\*Quick disconnect cord length: 0.5 m

## BMF-3130-CTZ

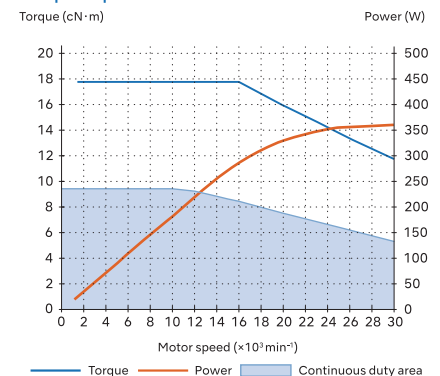
Code No. **7924**Model **BMF-3130-CTZ**

CAD drawings

CAD drawings (DXF/STEP) are available on our website



## Torque &amp; power curve



O.D.	Motor speed	Max. power	Spindle accuracy	Collet	Min. bending cord radius	Net weight
<b>φ31 mm</b>	<b>30,000 min<sup>-1</sup></b>	<b>350 w</b>	<b>Within 1 μm</b>	<b>CHA Group</b> (φ0.5-φ4.0 mm)	<b>60 mm</b>	<b>659 g</b>
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11) / Hex. socket bolt (M5 × 35) · (M5 × 40): 2 pcs. each <b>*Collet is sold separately.</b>					
Options	Collet (CHA Group): φ0.5-φ4.0 mm Motor cord: 3 m (7931), 5 m (7932), 7 m (7933)					

\*Quick disconnect cord length: 0.5 m

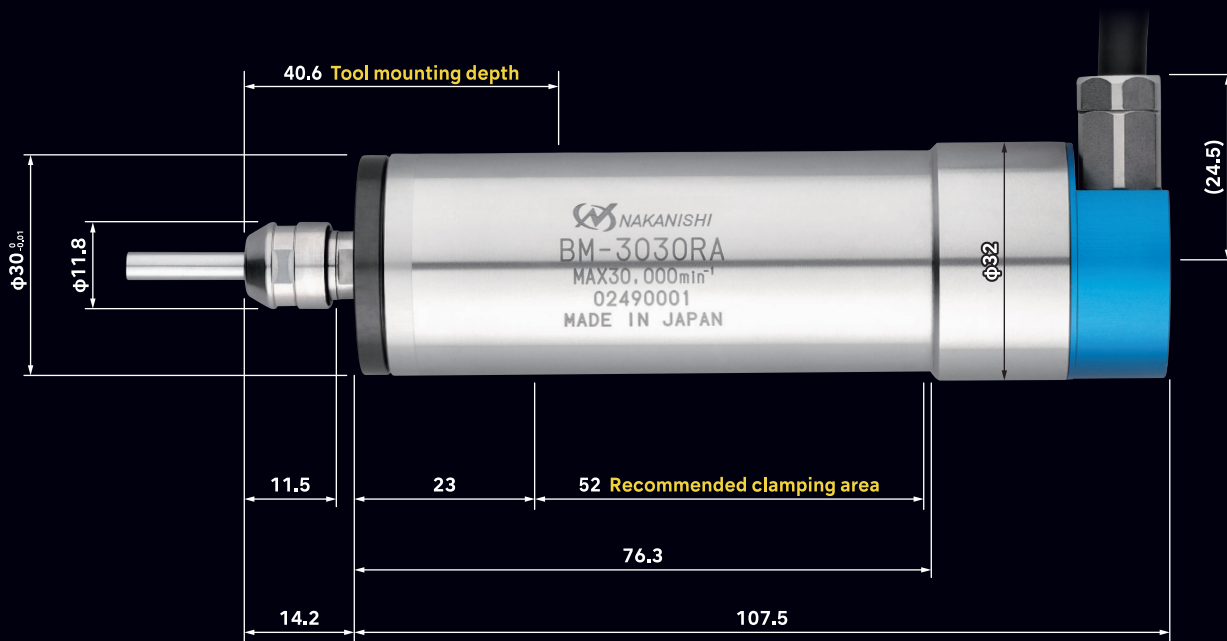
# BM-3030RA

Straight type torque motor spindle



O.D.  $\phi$ 30 mm

Shown In Actual Size



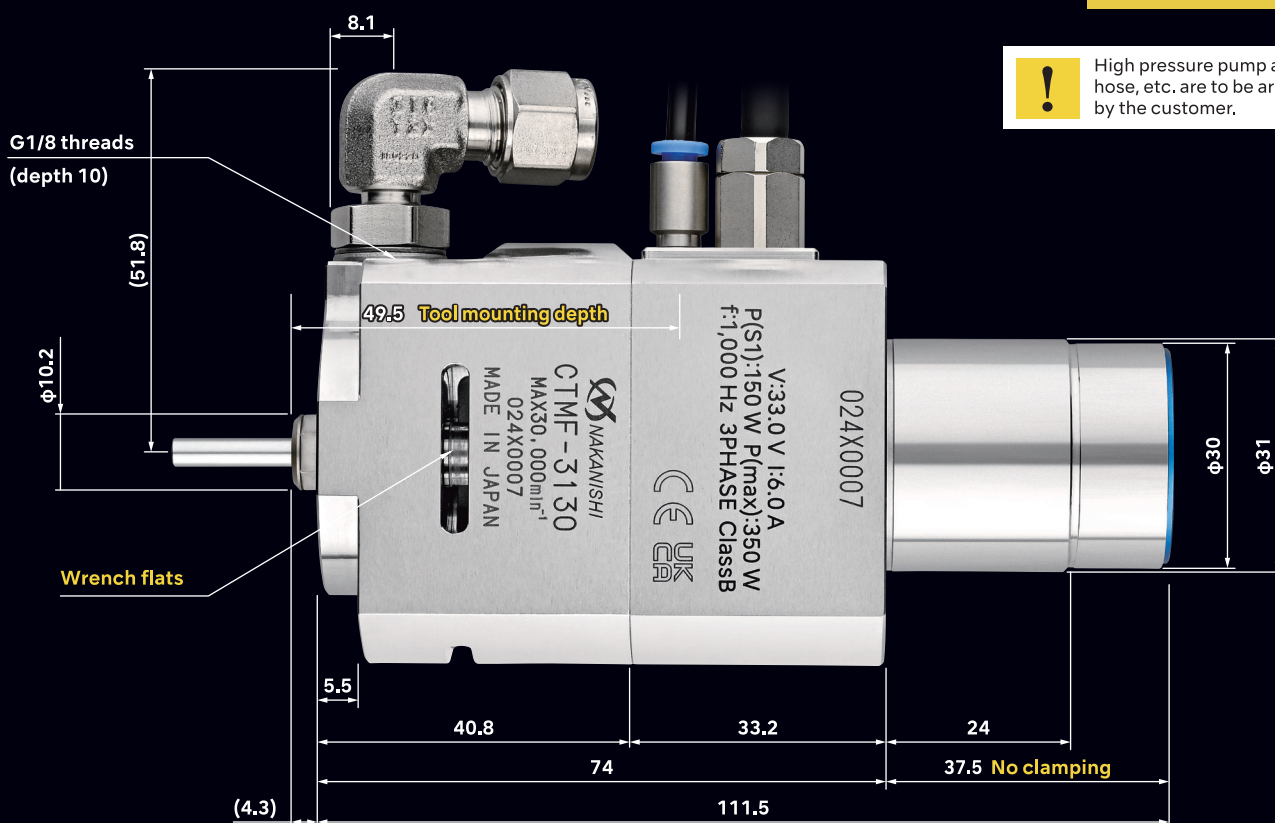
# CTMF-3130

Coolant through motor spindle for CNC automatic lathe



O.D.  $\phi$ 31 mm

Shown In Actual Size



! High pressure pump and coolant hose, etc. are to be arranged by the customer.

## BM-3030RA



Code No.

7925

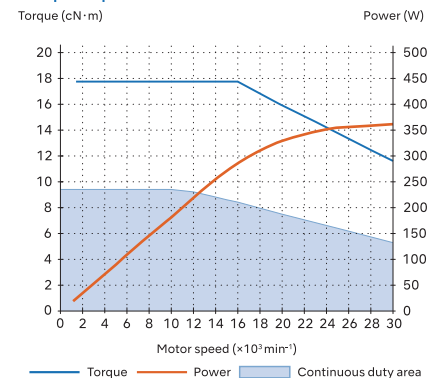
Model

BM-3030RA

CAD drawings

CAD drawings (DXF/STEP) are available on our website

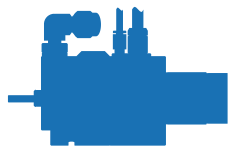
Torque &amp; power curve



O.D.	Motor speed	Max. power	Spindle accuracy	Collet	Min. bending cord radius	Net weight
$\phi 30$ mm	30,000 min <sup>-1</sup>	350 w	Within 1 $\mu$ m	CHA Group ( $\phi 0.5$ - $\phi 4.0$ mm)	60 mm	474 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11) *Collet is sold separately.					
Options	Collet (CHA Group): $\phi 0.5$ - $\phi 4.0$ mm Motor cord: 3 m (7931), 5 m (7932), 7 m (7933)					

\*Quick disconnect cord length: 0.5 m

## CTMF-3130



Code No.

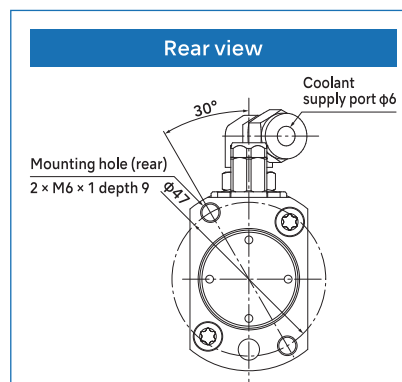
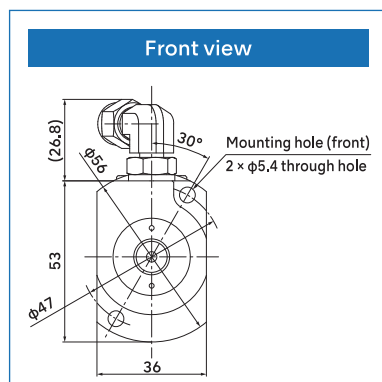
7926

Model

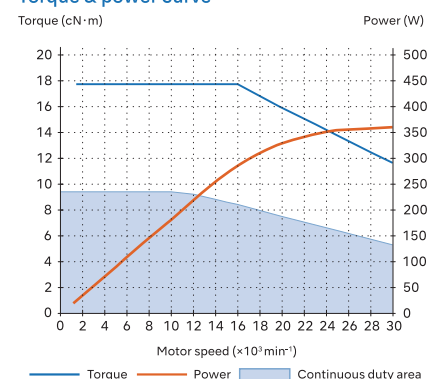
CTMF-3130

CAD drawings

CAD drawings (DXF/STEP) are available on our website



Torque &amp; power curve



O.D.	Motor speed	Max. power	Spindle accuracy	Collet	Min. bending cord radius	Net weight
$\phi 31$ mm	30,000 min <sup>-1</sup>	350 w	Within 1 $\mu$ m	CHA Group AA ( $\phi 3.0$ , $\phi 3.175$ , $\phi 4.0$ mm)	60 mm	1,100 g
Standard equipment and accessories	Wrench (8 × 5) · (9 × 11) / Hex. socket bolt (M5 × 80): 2 pcs. *Collet and Collet nut are sold separately.					
Specifications	Coolant pressure: 3.0-20.0 MPa / Coolant filtration: 5 $\mu$ m or less					
Options	Collet (CHA group high precision type AA): $\phi 3.0$ , $\phi 3.175$ , $\phi 4.0$ mm Collet nut (CHN-CTA): 3.0, 3.175, 4.0 mm *Please match the Collet and Collet nut size. Motor cord: 3 m (7931), 5 m (7932), 7 m (7933)					

\*Quick disconnect cord length: 0.5 m

# Accessories

Order by Code No.

Motor cord	Code No.	Model	Cord length	Standard accessories	Compatible model
<p>Joint type</p>	<b>7931</b>	EMCD-3000i-3M	3 m	Air hose Connector cap (included)	BMF-3160-CTZ BMF-3130-CTZ BM-3030RA CTMF-3130
	<b>7932</b>	EMCD-3000i-5M	5 m		
	<b>7933</b>	EMCD-3000i-7M	7 m		

\*The minimum cord bending radius is 60 mm.

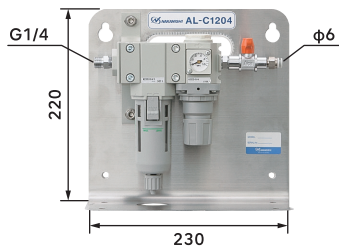
Collet	Code No.	Model	I.D.	Compatible model
<p>φ1.0 and over</p>	<b>91430</b>	CHA-3.0	φ3.0	BMF-3160-CTZ BMF-3130-CTZ BM-3030RA CTMF-3130 <i>*High precision type AA (Run-out accuracy within 2 μm)</i>
	<b>91440</b>	CHA-4.0	φ4.0	
	<b>91492</b>	CHA-2.35	φ2.35	
	<b>91493</b>	CHA-3.175	φ3.175	
	<b>91494</b>	CHA-3.0AA	φ3.0AA*	
	<b>91495</b>	CHA-4.0AA	φ4.0AA*	
	<b>91496</b>	CHA-3.175AA	φ3.175AA*	
<p>φ0.5-φ0.9</p>	<b>914</b> □□	CHA-□□	φ0.5, φ0.6, φ0.7, φ0.8, φ0.9	
			φ1.0, φ1.5, φ2.0, φ2.5, φ3.5	
			φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9 φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9	

Collet nut	Code No.	Model	Compatible model
	<b>2102</b>	CHN-A	BMF-3160-CTZ BMF-3130-CTZ BM-3030RA
			CTMF-3130
	<b>7798</b>	CHN-CTA-3.0	CTMF-3130
	<b>7799</b>	CHN-CTA-3.175	
	<b>7800</b>	CHN-CTA-4.0	

Bracket	Code No.	Model	Compatible model
—	<b>7943</b>	DL-Type brackets for securing the E3000i controller horizontally: 2 pcs.	E3000i Controller <i>*Remove the rubber pad before fitting the brackets.</i>

## Air line kit

Filtration: 0.3 μm

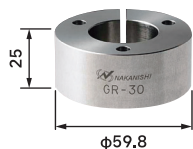


■Air piping  
Inlet: G1/4 male thread for connection hose  
Outlet: φ6.0 mm

■Net weight: 1.9 kg

Code No.	4504	Model	AL-C1204
Standard accessories	Hose pipe (K-275): 2 m / Rubber pad: 4 pcs. Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Hose band: 1 pc.		
Standard equipment	Air filter / Air regulator / Air pressure gauge ON-OFF valve		

## Grip ring



■Net weight: 385 g

Code No.	1885	Model	GR-30
Standard accessories	Mounting bolt (M5 × 25L): 3 pcs.		
Compatible model	BM-3030RA		

## Control panel extension cord (4 m)



Code No.	7940	Model	E3000i-PEX4
Standard accessories	Assembled product (cord length: 4 m) Mounting screw (M3): 4 pcs. / Flange nut: 4 pcs.		

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PR-K407E Ver.1 2025-05-26 010.YP 290



\*Specifications and design are subject to change without notice.