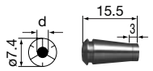
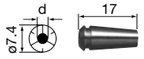
▼ Short Motor Spindle [iSpeed3] Parts

■ Chuck Nut

Product	Description	Model	Code No.
	Chuck Nut for Collet Chuck (CHA)	CHN-A	2102

■ Collet Chuck

*High precision type

Product	Inside Diameter : ød	Model	Code No.	Inside Diameter : ød	Model	Code No.
	ø1.0	CHA-1.0	91410	ø2.35	CHA-2.35	91492
	ø3.0	CHA-3.0	91430	ø3.175	CHA-3.175	91493
	ø4.0	CHA-4.0	91440	ø3.0AA*	CHA-3.0AA	91494
	ø3.175AA*	CHA-3.175AA	91496	ø4.0AA*	CHA-4.0AA	91495
 Collet Chuck CHA Group	ø0.5	CHA-0.5	91405	ø0.6	CHA-0.6	91406
	ø0.7	CHA-0.7	91407	ø0.8	CHA-0.8	91408
	ø0.9	CHA-0.9	91409	ø1.1	CHA-1.1	91411
	ø1.2	CHA-1.2	91412	ø1.3	CHA-1.3	91413
	ø1.4	CHA-1.4	91414	ø1.5	CHA-1.5	91415
	ø1.6	CHA-1.6	91416	ø1.7	CHA-1.7	91417
	ø1.8	CHA-1.8	91418	ø1.9	CHA-1.9	91419
	ø2.0	CHA-2.0	91420	ø2.1	CHA-2.1	91421
	ø2.2	CHA-2.2	91422	ø2.3	CHA-2.3	91423
	ø2.4	CHA-2.4	91424	ø2.5	CHA-2.5	91425
	ø2.6	CHA-2.6	91426	ø2.7	CHA-2.7	91427
	ø2.8	CHA-2.8	91428	ø2.9	CHA-2.9	91429
	ø3.1	CHA-3.1	91431	ø3.2	CHA-3.2	91432
	ø3.3	CHA-3.3	91433	ø3.4	CHA-3.4	91434
	ø3.5	CHA-3.5	91435	ø3.6	CHA-3.6	91436
	ø3.7	CHA-3.7	91437	ø3.8	CHA-3.8	91438
	ø3.9	CHA-3.9	91439			

■ Spacer / Bush

Product	Description	Model	Code No.
	Spacer for BM-322FL / BM-322FR Dimensions : ø22(I.D.) x 10mm	SP-22x10L	1882
	ø25 Bush for BM-322FL / BM-322FR Dimensions : ø22(I.D.) x ø25(O.D.) x 33.5(Length)mm	RB-22x25x34L	1883
	ø25.4 Bush for BM-322FL / BM-322FR Dimensions : ø22(I.D.) x ø25.4(O.D.) x 33.5(Length)mm	RB-22x25.4x34L	1884

■ Extension Motor Cord

Product	Description	Length	Model	Code No.
	• Motor Cord with Air Hose • Connector Cap (Provided)	3m	EMCD-BM3-3M	9261
		5m	EMCD-BM3-5M	9262
		7m	EMCD-BM3-7M	9263

■ Air Line Kit (0.3 μm Filter, ø6mm hose)

Product	Description	Model	Code No.
	Air line kit with Air ON-OFF Valve / Hose for Piping (K-275) : 2m DXF-data	AL-0201	1541

*Please mention "Code Number" upon your order.

● Specifications may be changed without notice.

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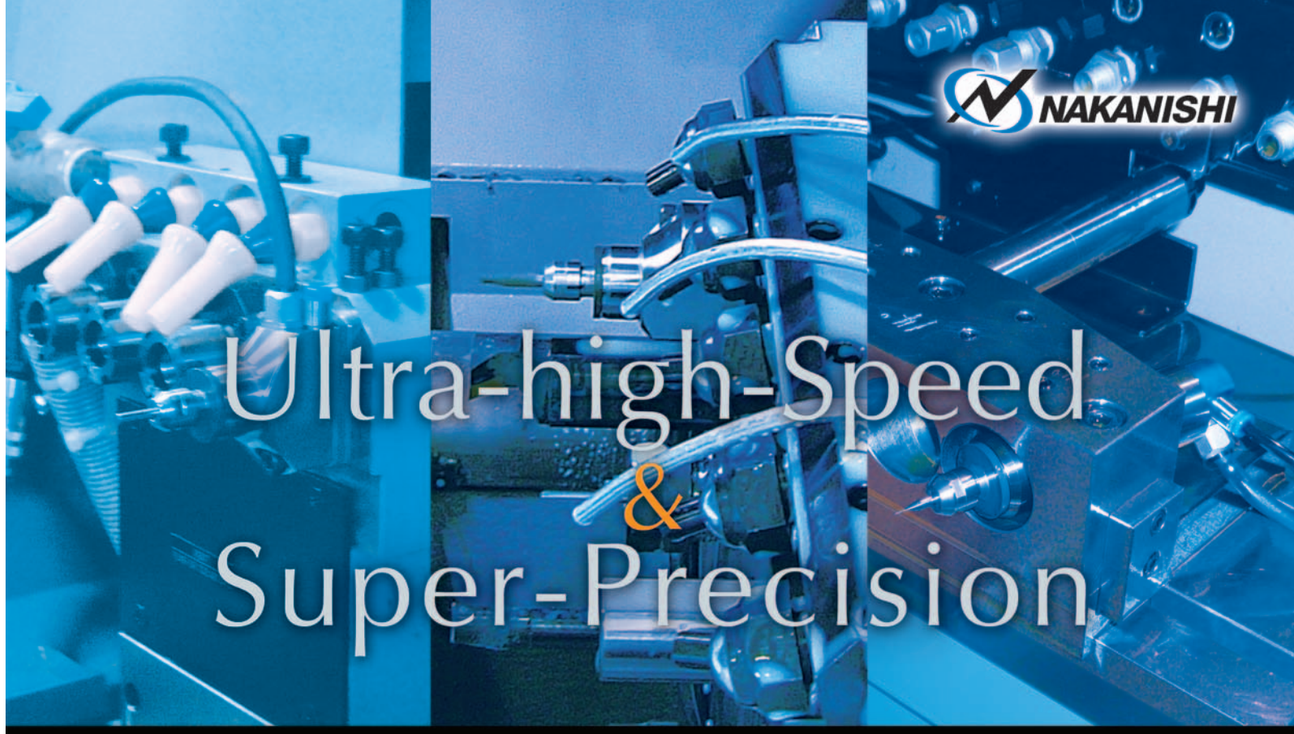
PR-K298E Ver.1 '10.08.05.A



High-speed spindle (80,000 min^{-1}) for automatic lathes
with the minimum length of 87.3mm.

Short Motor Spindle iSpeed3

● *Short Motor Spindle*

iSpeed3

The iSpeed3 is designed for Precision Automatic lathe. Spindle itself achieved 87.3mm as total length, coming with the compact control unit.
Setting speed by 100 min-1 enabling you a precise adjustment for the optimum cutting.

BM-319F Mounting Example

<Features of Motor Spindle>

● High Performance, High Efficiency & High Output

2 types are available, Max.80,000min-1(140W) & Max.60,000min-1(150W)

● High Precision Ceramic Bearing

Used high performance ceramic bearing to minimize thermal displacement during high speed and continuous operation.

● O.D. ø19.05, ø20, ø22 and ø25mm are available.

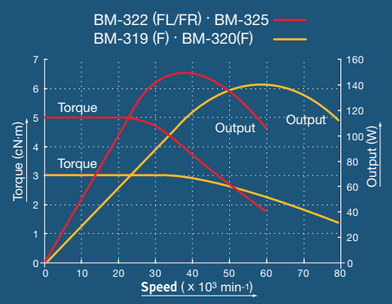
For Holder O.D. ø19.05, ø20, ø22 and ø25mm. Flange Type (simply fixturable type) is also available.

● Spindle Runout is less than 1μm

Spindle Runout is less than 1 μm as measured at the taper on the I.D. of the spindle.

● Collet Chuck Maximum Size ø4.0mm

Collet Chuck is available from ø0.5mm to ø4.0mm every 0.1mm.



COOLANT

iSpeed3 has met EU consumer safety, health or environmental requirements.

Flange Type & Straight Type are available.

On CNC lathes, robo ts, and special purpose mac hines.

● LED Load Meter

LOAD

- ●: Continuous load area
- ●: Intermittent load area
- ●: Overload

● Motor Speed Display

Spindle Speed can be set by 100 min-1.

● CNC Interface with Emergency Stop Function

● Compact Design

Dimensions : W142 x D234 x H72mm
Weight : 3.5kg

Short Motor Spindle iSpeed3

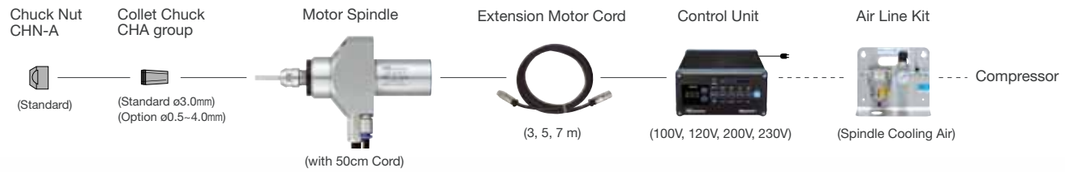
iSpeed3

Compact design for easy mounting on your automatic lathes.

Diameter ø19.05mm (BM-319/BM-319F) Total Length 87.3mm (BM-319F/BM-320F)

For Wide Tool Layout

System



Line up for Installations

Flange Type

Flange type for easy mounting.

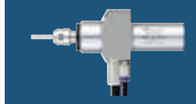
3 Spindle diameters are available (ø19.05, ø20 and ø22mm) + 2 bushes (ø25, ø25.4mm)

<Mounting Example>

ø19.05

BM-319F

- Max. 80,000min^{-1}
- Max. 140W

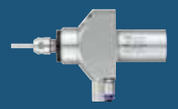


CITIZEN Cincom BL20 mounting example

ø22

BM-322FR

- Max. 60,000min^{-1}
- Max. 150W



+ ø25.4 Bush

- O.D. : ø25.4mm
- Length : 33.5mm

CITIZEN Cincom C16 mounting example

Straight Type

Straight type for flexible mounting.

4 Spindles diameters are available (ø19.05, ø20, ø22, ø25mm)

<Mounting Example>

ø22

BM-322

- Max. 60,000min^{-1}
- Max. 150W

STAR SB-16 mounting example

ø25

BM-325

- Max. 60,000min^{-1}
- Max. 150W

TSUGAMI C300-III mounting example

iSpeed3 is chosen for high precision machining such as watch industry, medical industry or automotive industry.

Work

iSpeed3 Control Unit

ELECTRIC SYSTEM	Motor Speed	Motor Output	Power Source	Max. Power	Rated Power Consumption	Air Consumption
iSpeed3 Control Unit	1,000~80,000min⁻¹	2 Motor Spindles ＊Can't be operated simultaneously.	AC230V(50Hz) AC200V(50/60Hz)	150W	0.55A(230V) 0.65A(200V)	30L/min (0.25MPa)

Max. 80,000 min⁻¹ Specification

Max. Power 150W

Features

CNC Interface for Controlling & Monitoring

- **External Control**
  Start/Stop, Error release, FWD/REV, Motor Speed
- **External Monitor**
  Running / Stop, Rotating Speed, Error, Warning, Rotation Pulse
- **User Parameter**
  Setting Maximum Motor Speed etc.

LED Load Meter

●: Continuous load area
●: Intermittent load area
●: Overload

Motor Speed Display

Motor Speed is displayed precisely and digitally, set the speed by 100 min⁻¹.

Motor Speed Feedback

High grade feedback loop to maintain constant spindle speed if load is varied.

Emergency Stop Function

The Emergency Stop function is activated with a parameter. Motor rotation is stopped by an emergency stop signal.

Product		Voltage		Code No.	
Product	iSpeed3 Control Unit	Voltage	230V	Code No.	8480
		Voltage	200V	Code No.	8479
		Voltage	120V	Code No.	8478
		Voltage	100V	Code No.	8477

< Standard Equipment · Accessories >

- Power Cord : 2m • Air Hose with filter : 2m
- Motor Connector Cap : 2 pcs. • Mounting Bracket : 2 pcs.
- Plate Nut : 4 pcs. • M3 bolt : 2 pcs.

＊Dimensions : W142 x D234 x H72mm
Weight : 3.5kg

DXF-data_side DXF-data_back

Motor Spindles

Flange Type ● Flange Type Motor Spindle

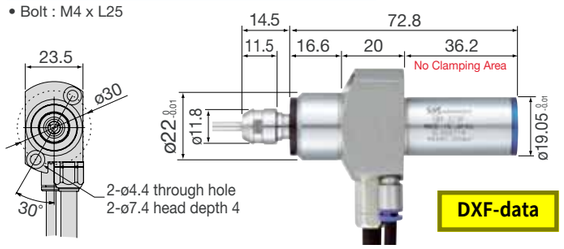
＊Max. Tool Mounting Depth is 40.6mm for all iSpeed3 motor spindles

ø19.05

• Motor Speed : 80,000min⁻¹ • Max. Power : 140W
• Spindle Runout : Within 1 μm • Weight : 260g

Code No.	8511	Model	BM-319F

• Bolt : M4 x L25



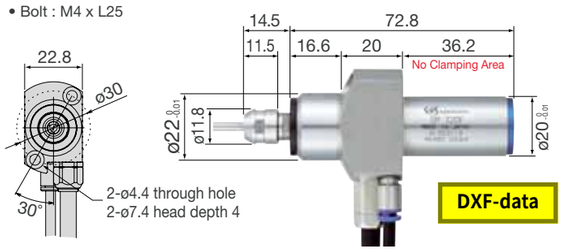
DXF-data

ø20

• Motor Speed : 80,000min⁻¹ • Max. Power : 140W
• Spindle Runout : Within 1 μm • Weight : 270g

Code No.	8513	Model	BM-320F

• Bolt : M4 x L25



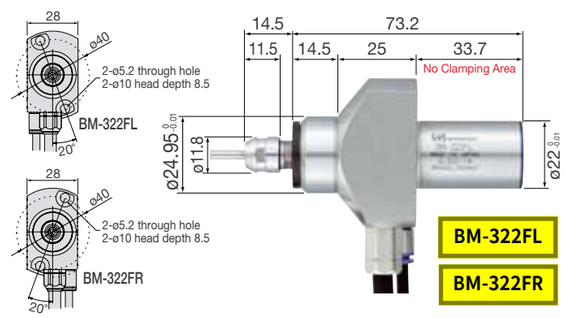
DXF-data

ø22

• Motor Speed : 60,000min⁻¹ • Max. Power : 150W
• Spindle Runout : Within 1 μm • Weight : 360g

Code No.	8519	Model	BM-322FL
Code No.	8521	Model	BM-322FR

• Bolt : M5 x L25



BM-322FL
BM-322FR

< Standard Equipment · Accessories >

- Collet Chuck ø3.0mm (CHA-3.0) • Chuck Nut (CHN-A)
- Spanner (8 x 5), (9 x 11) : 1pc. each • Bolt : 2 pcs. (only for flange type)

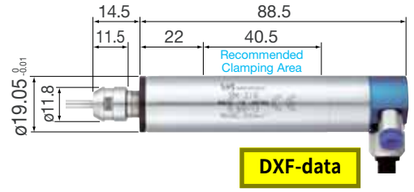
Straight Type ● Straight Type Motor Spindle

＊Max. Tool Mounting Depth is 40.6mm for all iSpeed3 motor spindles

ø19.05

• Motor Speed : 80,000min⁻¹ • Max. Power : 140W
• Spindle Runout : Within 1 μm • Weight : 210g

Code No.	8507	Model	BM-319

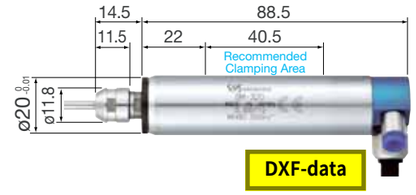


DXF-data

ø20

• Motor Speed : 80,000min⁻¹ • Max. Power : 140W
• Spindle Runout : Within 1 μm • Weight : 230g

Code No.	8509	Model	BM-320

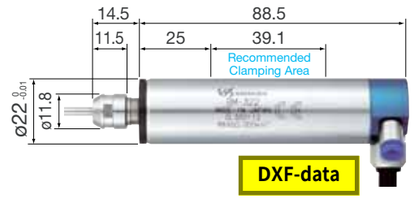


DXF-data

ø22

• Motor Speed : 60,000min⁻¹ • Max. Power : 150W
• Spindle Runout : Within 1 μm • Weight : 250g

Code No.	8515	Model	BM-322

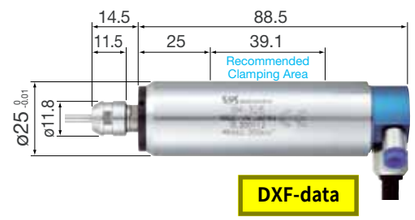


DXF-data

ø25

• Motor Speed : 60,000min⁻¹ • Max. Power : 150W
• Spindle Runout : Within 1 μm • Weight : 320g

Code No.	8517	Model	BM-325



DXF-data

< Optional >

Collet Chuck (CHA Group) : ø0.5~ø4.0mm Please refer to the last page about the details
Extension Motor Cord : Length 3m (9261), 5m (9262), 7m (9263)

COOLANT

Extension Motor Cord is sold separately.

＊Please mention "Code Number" upon your order.