

iSpeed3

SERIES

HIGH-SPEED ROTATION & HIGH PRECISION

The Finger Tips

Maximum freedom in tool layout by minimum body size

φ19.05, φ20, φ22 mm ultra-compact body spindle

- Max. power: 140 W
- Max. motor speed: 80,000 min⁻¹
- Max. power: 150 W
- Max. motor speed: 60,000 min⁻¹

Spindle accuracy: within 1 μm

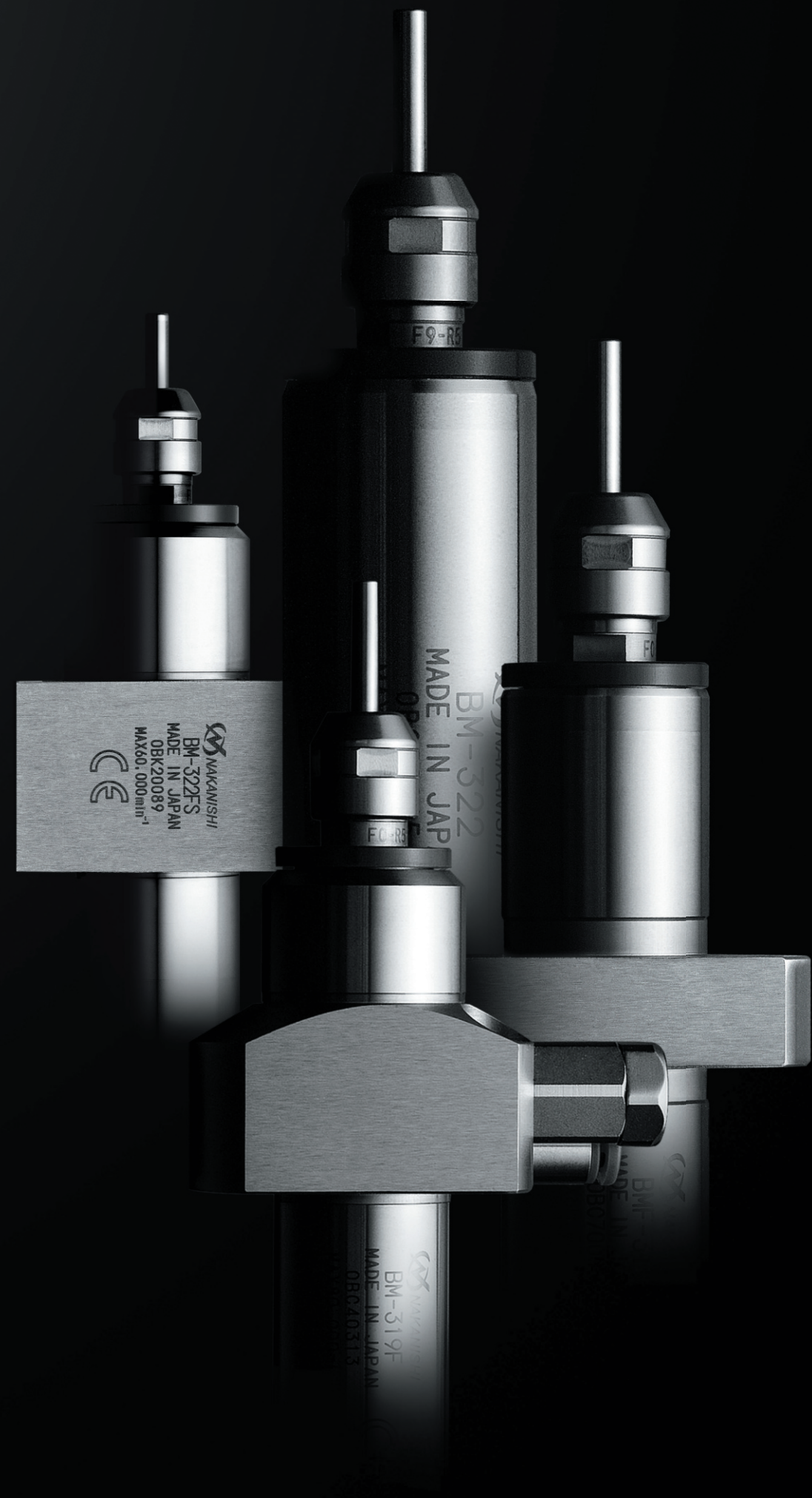
- Optimum for high-precision machining
- Longer tool life

Ceramic bearings

- Almost twice as durable as steel bearings
- Rigidity allows higher machining conditions

Brushless motor

- Eliminates the need of changing carbon brushes
- Higher power, longer product life, low maintenance and quiet operation



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES

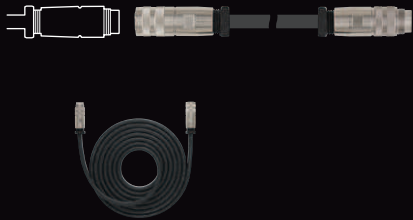
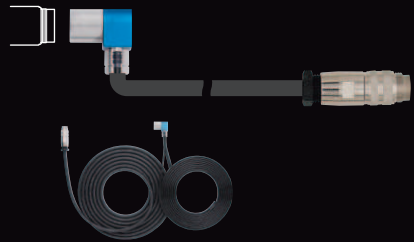
Index

Flange type motor spindle			Straight type motor spindle		
BM-319F With 0.5 m joint cord		p. 4-5	BMJ-319 With 0.5 m joint cord		p. 4-13
BM-320F With 0.5 m joint cord		p. 4-5	BMJ-320 With 0.5 m joint cord		p. 4-13
BM-322FL With 0.5 m joint cord		p. 4-7	BMJ-322 With 0.5 m joint cord		p. 4-13
BM-322FR With 0.5 m joint cord		p. 4-7	BM-319 With 0.5 m joint cord		p. 4-15
BM-322FS With 0.5 m joint cord		p. 4-9	BM-320 With 0.5 m joint cord		p. 4-15
BMF-319 With 0.5 m joint cord		p. 4-11	BM-322 With 0.5 m joint cord		p. 4-15

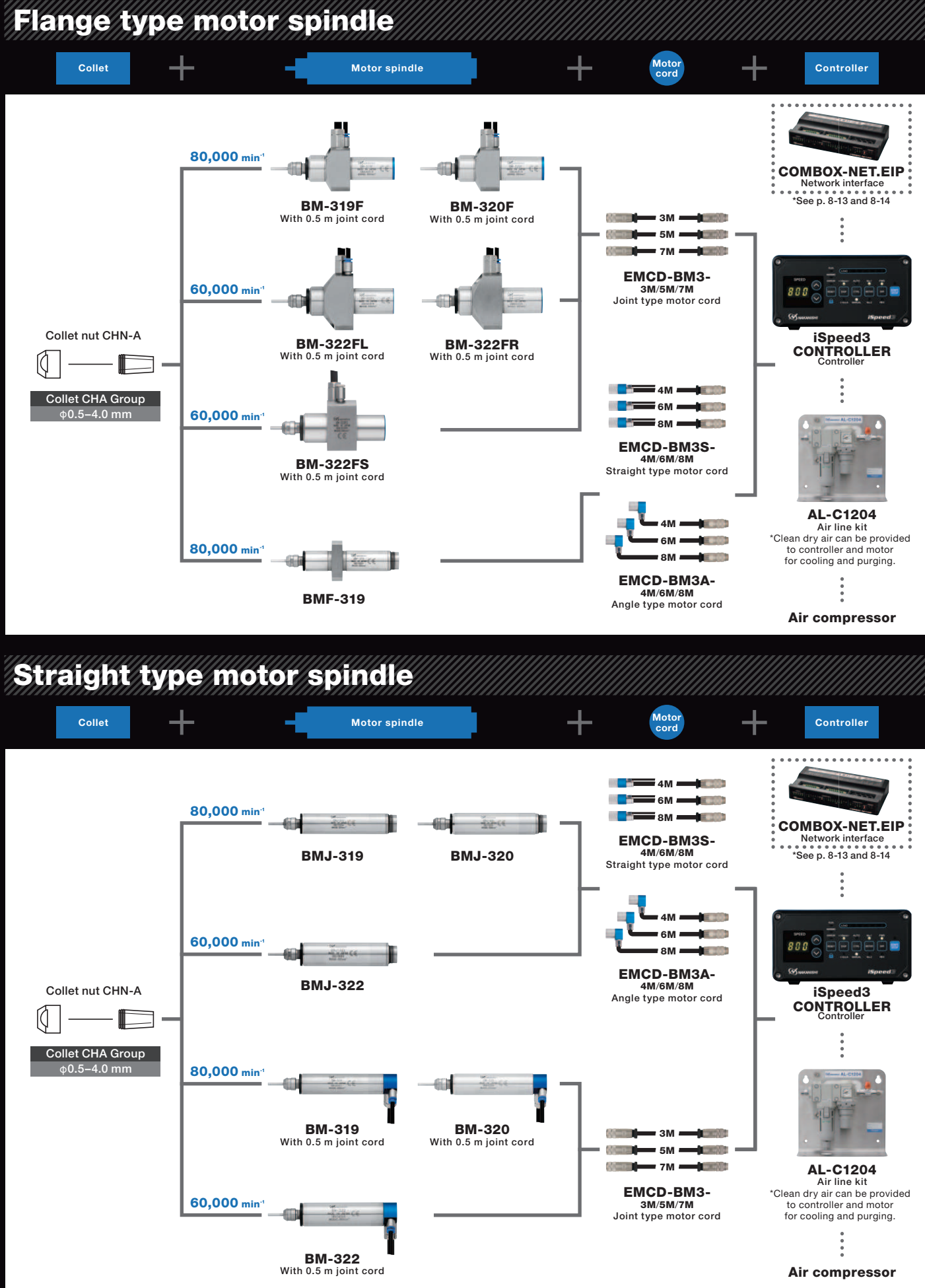
Controller

iSpeed3 CONTROLLER		p. 4-17
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Motor cord

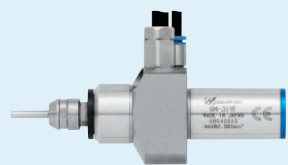
		
EMCD-BM3 Joint type [Feature] Connected to the motor connector so connection can be made away from the rear end of motor [Length] 3 m, 5 m, 7 m	EMCD-BM3S Straight type [Feature] Connected to the rear end of motor [Length] 4 m, 6 m, 8 m	EMCD-BM3A Angle type [Feature] Connected to the rear end of motor at 90 degrees [Length] 4 m, 6 m, 8 m

System Chart

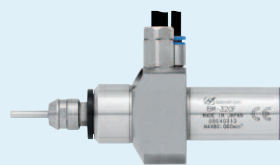


Spindle
Guide

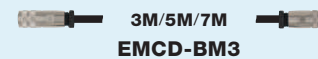
CHA



BM-319F



BM-320F

3M/5M/7M
EMCD-BM3

iSpeed3 CONTROLLER



AL-C1204

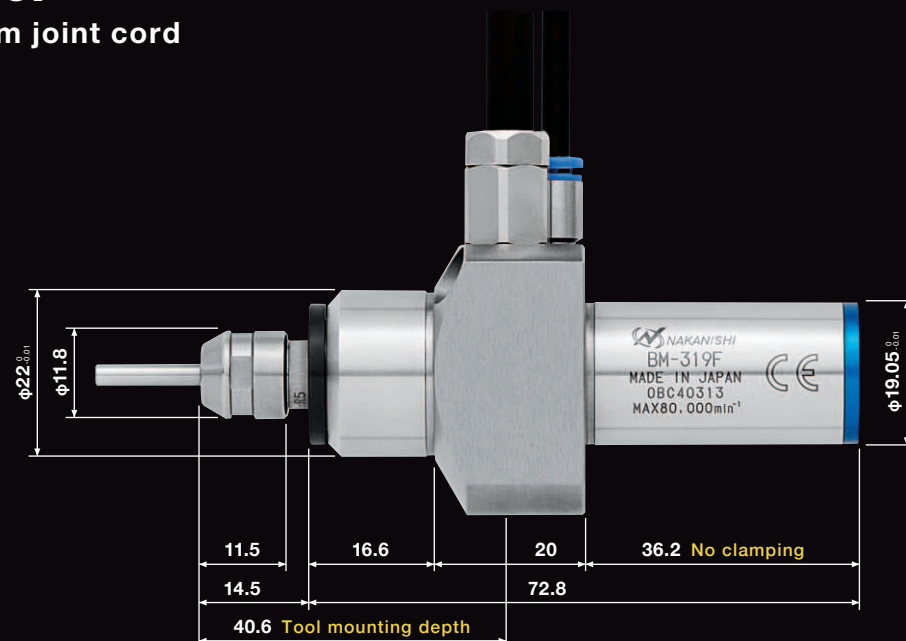
iSpeed3 SERIES

Shown In Actual Size

Flange type motor spindle

BM-319F

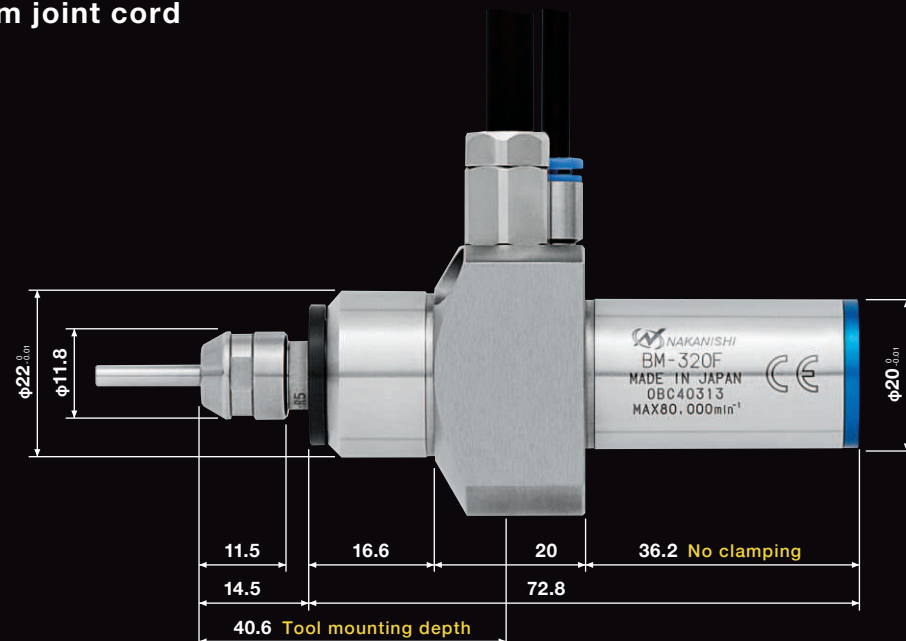
With 0.5 m joint cord

O.D. $\phi 19.05$ mm

Cord length: 0.5 m

BM-320F

With 0.5 m joint cord

O.D. $\phi 20$ mm

Cord length: 0.5 m

Specifications

CAD drawings

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

Order by Code No.

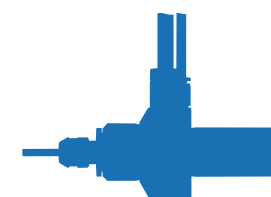
BM-319F

Code No.

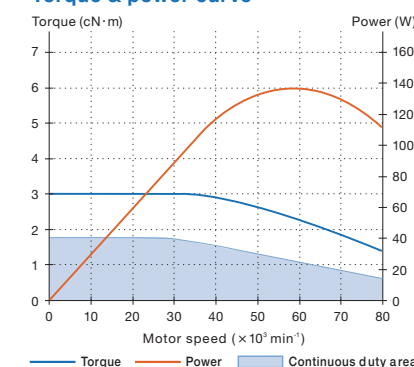
7813

Model

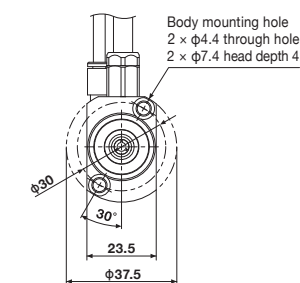
BM-319F



Torque & power curve



Mounting dimensions



O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 19.05$ mm	80,000 min $^{-1}$	140 w	Within 1 μ m	60 mm	260 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 $\times$ 5) · (9 $\times$ 11): 1 pc. each / Bolt: 2 pcs. (M4 $\times$ 25) *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

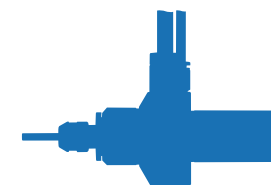
BM-320F

Code No.

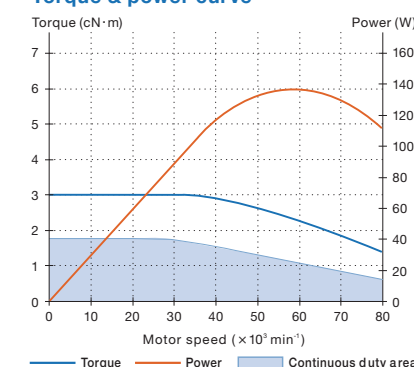
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Model

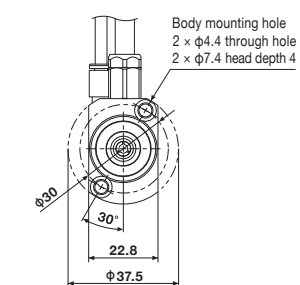
BM-320F



Torque & power curve



Mounting dimensions



O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 20$ mm	80,000 min $^{-1}$	140 w	Within 1 μ m	60 mm	270 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 $\times$ 5) · (9 $\times$ 11): 1 pc. each / Bolt: 2 pcs. (M4 $\times$ 25) *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

E4000

E3000

E2000

iSpeed3

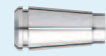
Air-Speed

HES

TURBINES

ACCESSORIES

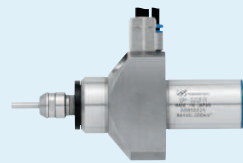
Spindle Guide



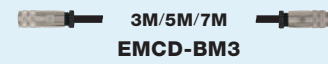
CHA



BM-322FL



BM-322FR



3M/5M/7M
EMCD-BM3



iSpeed3 CONTROLLER



AL-C1204

iSpeed3 SERIES

Shown In Actual Size

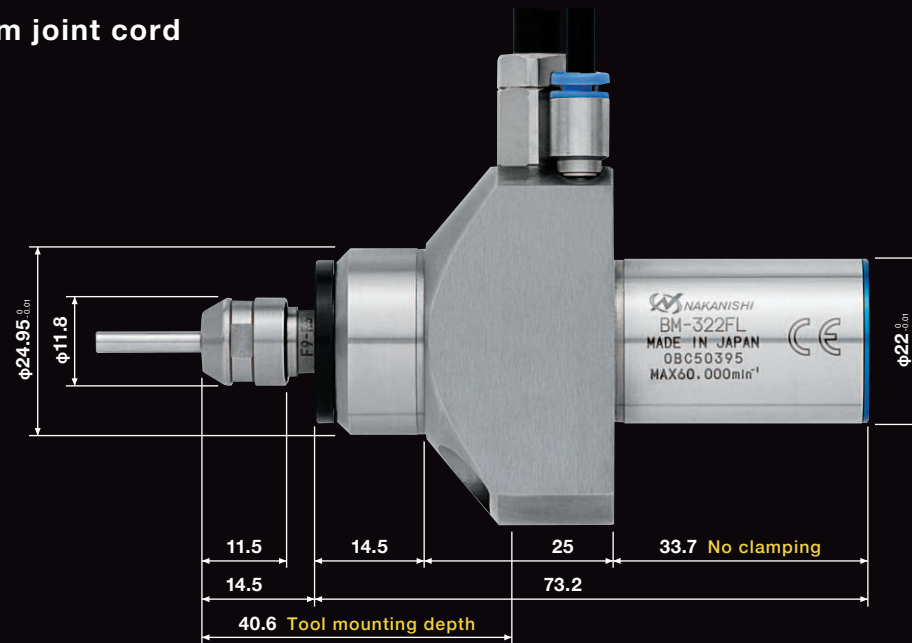
Flange type motor spindle

BM-322FL

With 0.5 m joint cord



O.D. ϕ 22 mm



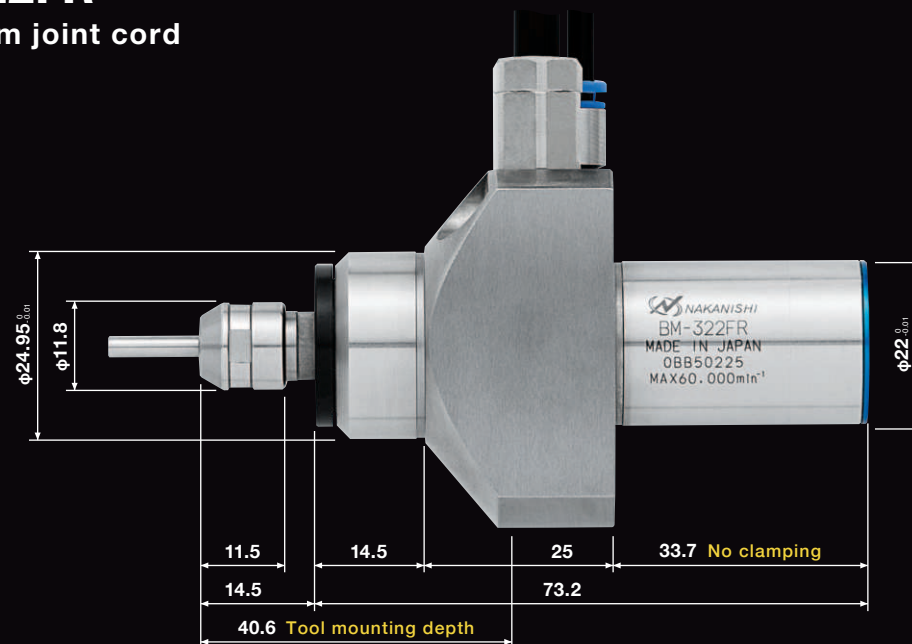
Cord length: 0.5 m

BM-322FR

With 0.5 m joint cord



O.D. ϕ 22 mm



Cord length: 0.5 m

Order by Code No.

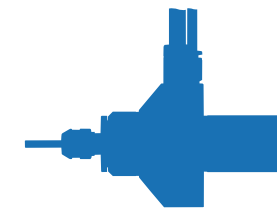
Specifications

CAD drawings

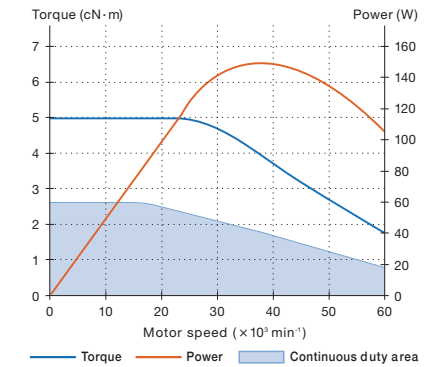
CAD drawings (DXF/STEP) are available on our website

BM-322FL

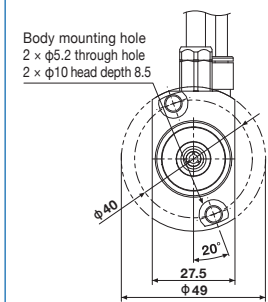
Code No. **7815** Model **BM-322FL**



Torque & power curve



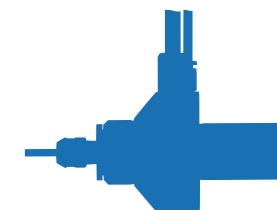
Mounting dimensions



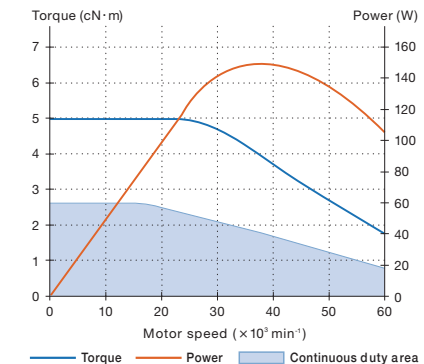
O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
ϕ 22 mm	60,000 min ⁻¹	150 w	Within 1 μ m	60 mm	360 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each / Bolt: 2 pcs. (M5 × 25) *Collet is sold separately.				
Options	Collet (CHA Group): ϕ 0.5– ϕ 4.0 mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

BM-322FR

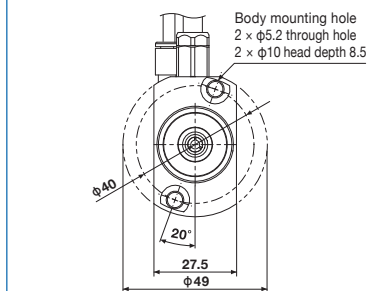
Code No. **7817** Model **BM-322FR**



Torque & power curve



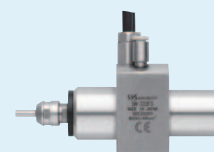
Mounting dimensions



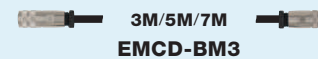
O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
ϕ 22 mm	60,000 min ⁻¹	150 w	Within 1 μ m	60 mm	360 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each / Bolt: 2 pcs. (M5 × 25) *Collet is sold separately.				
Options	Collet (CHA Group): ϕ 0.5– ϕ 4.0 mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

Spindle
Guide

CHA



BM-322FS

3M/5M/7M
EMCD-BM3

iSpeed3 CONTROLLER



AL-C1204

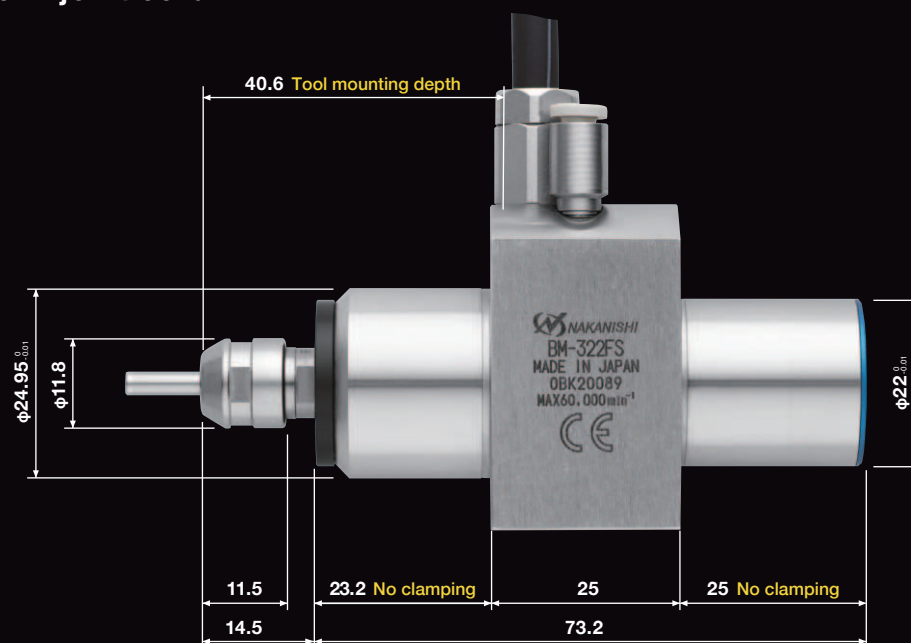
iSpeed3 SERIES

Shown In Actual Size

Flange type motor spindle

BM-322FS

With 0.5 m joint cord

O.D. $\phi 22$ mm

Cord length: 0.5 m

Specifications

CAD drawings

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

Order by Code No.

BM-322FS

Code No.

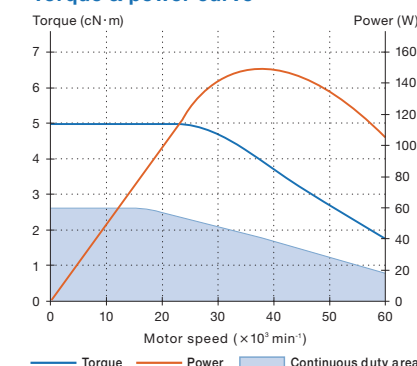
7823

Model

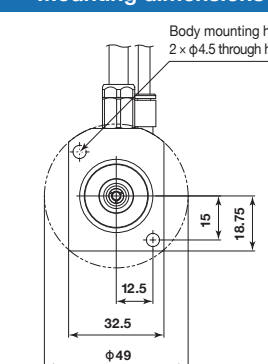
BM-322FS



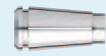
Torque & power curve



Mounting dimensions



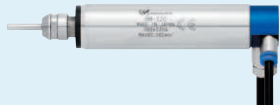
O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 22$ mm	60,000 min $^{-1}$	150 w	Within 1 μ m	60 mm	430 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 $\times$ 5) · (9 $\times$ 11): 1 pc. each / Bolt: 2 pcs. (M4 $\times$ 35) *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5				
	Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

Spindle
Guide

CHA



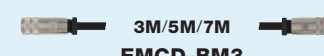
BM-319



BM-320



BM-322

3M/5M/7M
EMCD-BM3

iSpeed3 CONTROLLER



AL-C1204

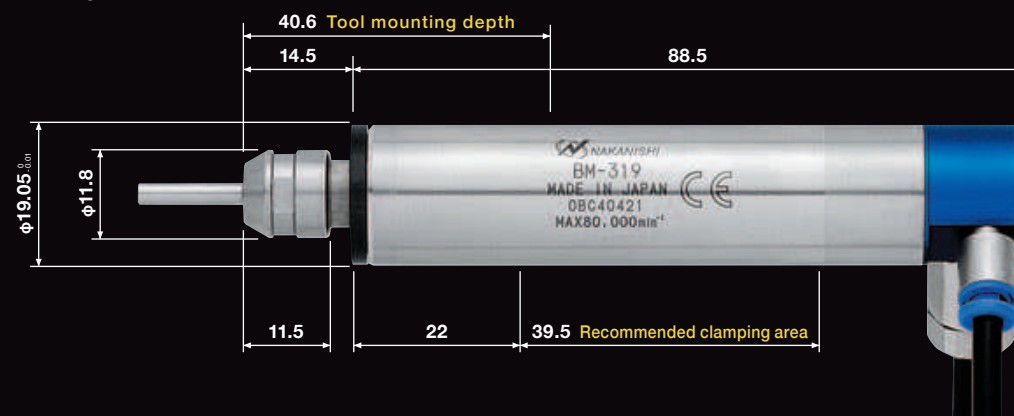
iSpeed3 SERIES

Shown In Actual Size

Straight type motor spindle

BM-319

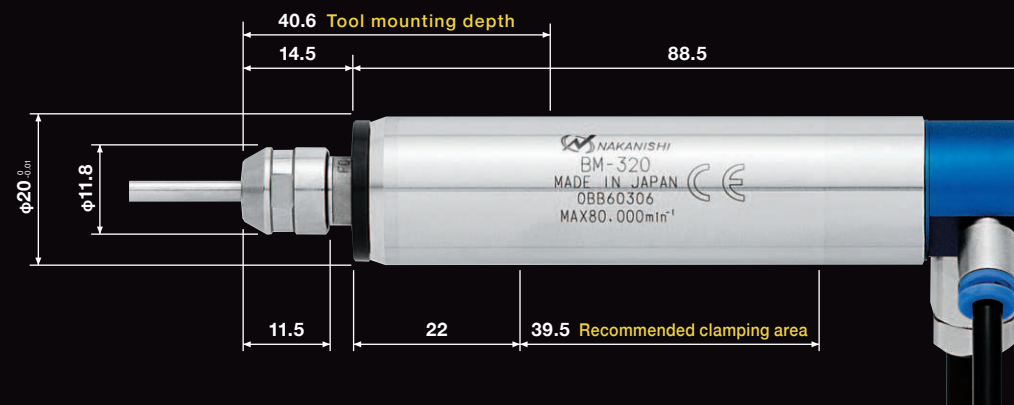
With 0.5 m joint cord

O.D. $\phi 19.05$ mm

Cord length: 0.5 m

BM-320

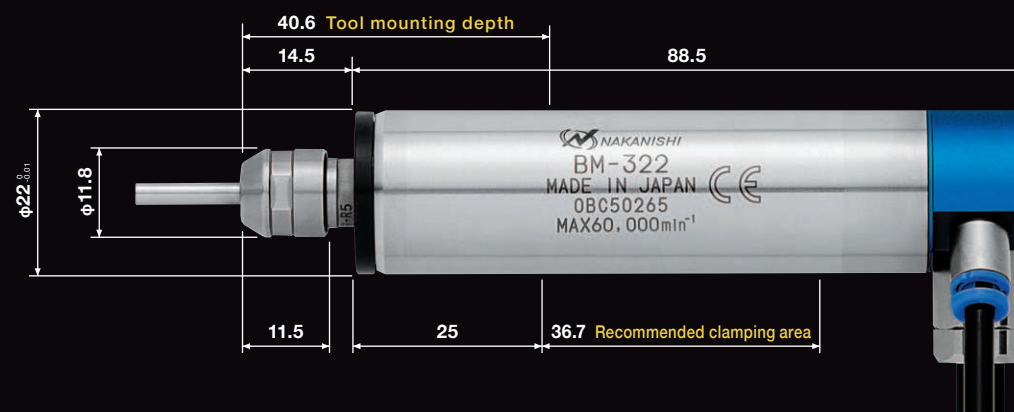
With 0.5 m joint cord

O.D. $\phi 20$ mm

Cord length: 0.5 m

BM-322

With 0.5 m joint cord

O.D. $\phi 22$ mm

Cord length: 0.5 m

Order by Code No.

Specifications

CAD drawings

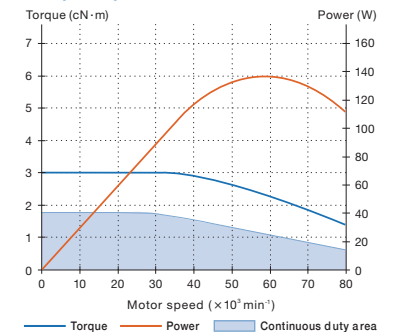
CAD drawings (DXF/STEP) are available on our website

BM-319

Code No. **7810** Model **BM-319**

O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 19.05$ mm	80,000 min ⁻¹	140 w	Within 1 μ m	60 mm	210 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

Torque & power curve

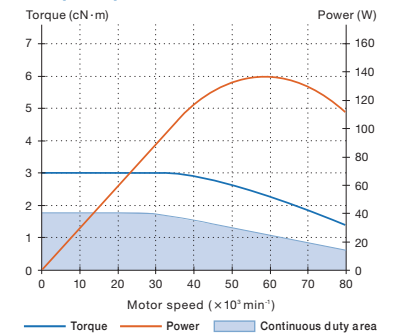


BM-320

Code No. **7811** Model **BM-320**

O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 20$ mm	80,000 min ⁻¹	140 w	Within 1 μ m	60 mm	230 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

Torque & power curve

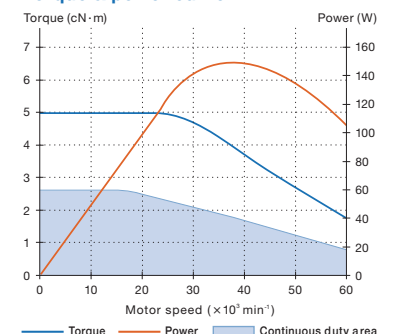


BM-322

Code No. **7814** Model **BM-322**

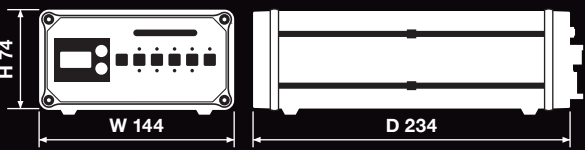
O.D.	Motor speed	Max. power	Spindle accuracy	Min. bending cord radius	Net weight
$\phi 22$ mm	60,000 min ⁻¹	150 w	Within 1 μ m	60 mm	250 g
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.				
Options	Collet (CHA Group): $\phi 0.5$ – $\phi 4.0$ mm p. 8-5 Motor cord: 3 m (9261), 5 m (9262), 7 m (9263) p. 4-18				

Torque & power curve



iSpeed3 Controller

iSpeed3 CONTROLLER
Controller



External control function

- **External input**
Rotating ON/OFF, Forward/reverse rotation, Motor speed control, Safety relay brake, etc.
- **External output**
Motor current, Rotating pulse, Error, Load, Motor speed, etc.
- **Parameter setting**
Setting maximum motor speed, Setting fixed motor speed, Speed point, etc.

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

Voltage (Plug type)		Code No.	
200 V(C Type)		8479	
*8477 (100 V), 8478 (120 V), 8480 (230 V) are available.			
Voltage (Plug type)	Area	Product	
100 v (A Type)	Japan		
120 v (B Type)	USA Canada		
200 v (C Type)	Without plug		
230 v (D Type)	Europe		

* Please select Voltage for purchasing.

Motor cord

Order by Code No.

Motor cord	Code No.	Model	Cord length	Standard equipment and accessories	Compatible model
	9261	EMCD-BM3-3M	3 m	Air hose Connector cap (included)	BM-319F · BM-320F BM-322FL · BM-322FR BM-322FS BM-319 · BM-320 BM-322 · BM-325
	9262	EMCD-BM3-5M	5 m		
	9263	EMCD-BM3-7M	7 m		
Joint type					

Motor cord	Code No.	Model	Cord length	Standard equipment and accessories	Compatible model
	9264	EMCD-BM3S-4M	4 m	Air hose Connector cap (included)	BMF-319 · BMF-320 BMF-322 · BMF-325 BMJ-319 · BMJ-320 BMJ-322 · BMJ-325
	9265	EMCD-BM3S-6M	6 m		
	9266	EMCD-BM3S-8M	8 m		
	9267	EMCD-BM3A-4M	4 m	Air hose Connector cap (included)	BMF-319 · BMF-320 BMF-322 · BMF-325 BMJ-319 · BMJ-320 BMJ-322 · BMJ-325
	9268	EMCD-BM3A-6M	6 m		
	9269	EMCD-BM3A-8M	8 m		
Straight type					
Angle type					

*The minimum cord bending radius for the above three types of motor cords is 60 mm.



Motor output	Motor speed	Max. power	Power consumption	Air consumption	Net weight
2 Motor spindles (not simultaneously)	1,000–80,000 min ⁻¹	150 w	AC0.65 A (200 V)	1 spindle: 30 NL/min (0.25 MPa) 2 spindles: 60 NL/min (0.25 MPa)	3.5 kg
Standard equipment and accessories	Power cord: 3 m / Air hose with filter (K-251: 2058): 2 m / Motor connector cap: 2 pcs. (included) Bracket: 2 pcs. / Plate nut: 4 pcs. / M3 bolt: 4 pcs. / Fuse: 2 pcs.				

ACCESSORIES

Air line kit	p. 8-3-4
Collet	p. 8-5-7
Collet nut	p. 8-8
Grip ring / Spacer / Bush	p. 8-9-10
Collet holder / Preset adapter	p. 8-11
COMBOX-NET.EIP, etc.	p. 8-12-14

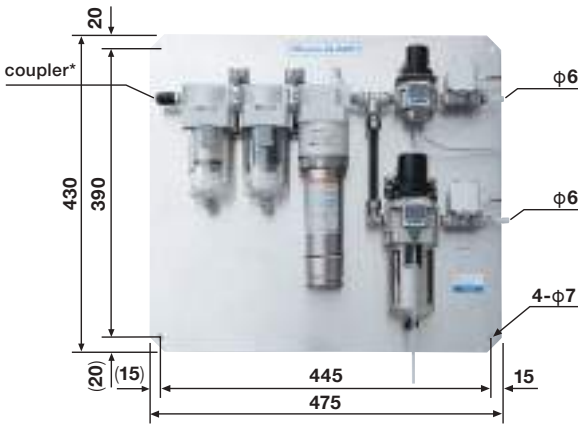


Air line kit

Order by Code No.

AL-A0611

Filtration: 0.01 μm



Code No.	1548	Model	AL-A0611
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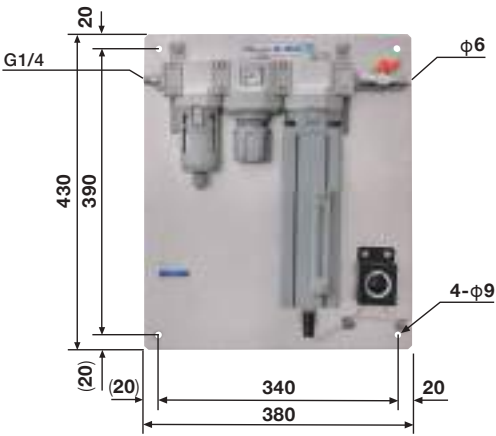
- Air piping
Inlet: Coupler (Model: KK13P-02M made by SMC Corporation)
Outlet: φ6.0 mm × 2 parts
- Net weight: 8.2 kg

Standard accessories	Spacer: 4 pcs.
Standard equipment	Mist separator / Micro-mist separator Membrane air dryer / Air regulator Regulator with Micro-mist separator Digital pressure switch: 2 pcs. / Solenoid valve: 2 pcs.
Compatible model	E3000 (NRAF-5080) · ABT series Xspeed series

*If you do not use our air line kit, please prepare a micro mist separator with 0.01 μm filtration.

AL-M1201BL

Filtration: 0.3 μm



Code No.	4501	Model	AL-M1201BL
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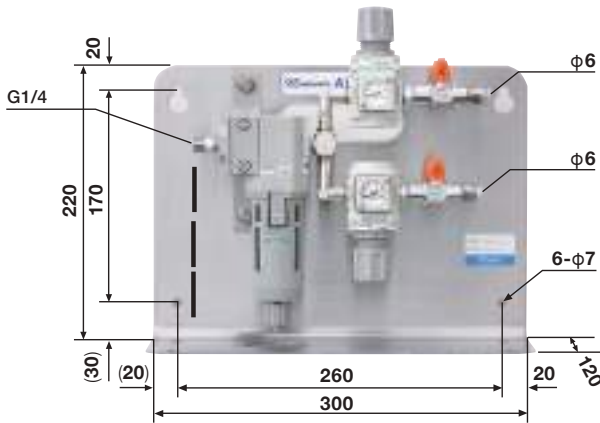
- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 5.2 kg

Standard accessories	Hose pipe (K-275): 2 m / Connection joint: 1 pc. φ6 mm Air hose: 1 pc. / Spacer: 4 pcs. Lubricating oil (K-202) 1 L: 1 pc. Bolt (M8 × 20 L): 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator ON-OFF valve / Alarm buzzer
Compatible model	E3000 (RG-3004M) · HTS series PLANET series

*Recommendation of nominal filtration rating: 0.3 μm,
Pressure range: 0.1-1.0 MPa Recommendation of air filter: M2000-WS (CKD)

AL-A1205

Filtration: 0.3 μm



Code No.	4505	Model	AL-A1205
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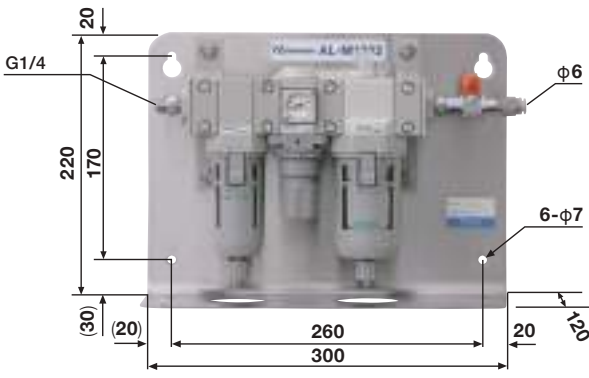
- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm × 2 parts
- Net weight: 2.4 kg

Standard accessories	Hose pipe (K-275): 2 m Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Rubber pad: 4 pcs.
Standard equipment	Oil mist filter / Air regulator: 2 pcs. ON-OFF valve: 2 pcs.
Compatible model	E3000 (NRAF-5080) · ABT series

*Recommendation of nominal filtration rating: 0.3 μm,
Pressure range: 0.1-1.0 MPa Recommendation of air filter: M2000-WS (CKD)

AL-M1202

Filtration: 0.3 μm



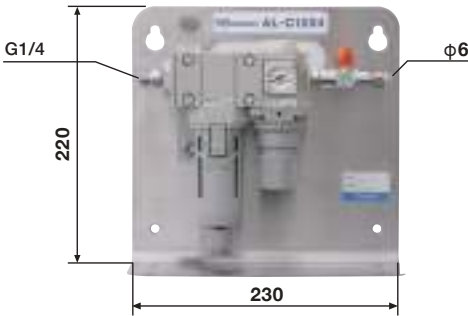
Code No.	4502	Model	AL-M1202
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- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 2.8 kg

Standard accessories	Hose pipe (K-275): 2 m / Hose band: 1 pc. Lubricating oil (K-211) 70 cc: 1 pc. Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Rubber pad: 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator ON-OFF valve
Compatible model	Air-Speed series · HTS series · PLANET series

AL-C1204

Filtration: 0.3 μm



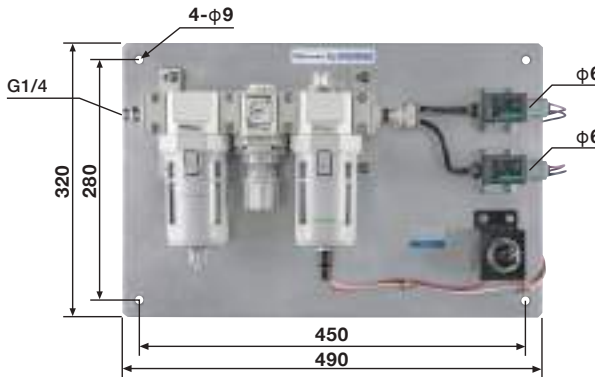
Code No.	4504	Model	AL-C1204
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- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 1.9 kg

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
Compatible model	E4000 series · E3000 series · E2000 series iSpeed3 series · HES series

AL-M1203BS2

Filtration: 0.3 μm



Code No.	4503	Model	AL-M1203BS2
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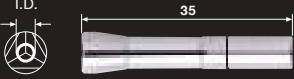
- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm × 2 parts
- Net weight: 3.9 kg

Standard accessories	Hose pipe (K-275): 2 m Lubricating oil (K-202) 1 L: 1 pc. Bolt (M8 × 20 L): 4 pcs. / Spacer: 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator Solenoid valve: 2 pcs. / Alarm buzzer
Compatible model	Air-Speed series

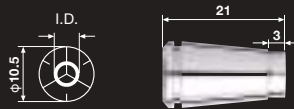
Collet

Order by Code No.

CHA Group		Fit nuts: CHN-A, CHN-AA, CHN-CTA, CHN-3A			
		Code No.	Model	I.D. (mm)	Compatible model
	φ1.0 and over	91494	CHA-3.0AA	φ3.0AA*	CTS-2630 / 2620A (Type AA only) CTS-3030 EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A QC3-A (NRR3060-QC / NR3060-AQC) ABT-1000 / 1600 Xpeed1600 (Type AA only) HES810 series HTS series iSpeed3 series
		91496	CHA-3.175AA	φ3.175AA*	
		91495	CHA-4.0AA	φ4.0AA*	
		91492	CHA-2.35	φ2.35	
		91430	CHA-3.0	φ3.0	
		91493	CHA-3.175	φ3.175	
	φ0.5-φ0.9	91440	CHA-4.0	φ4.0	
		914□□	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	

CHB Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		92820	CHB-2.0	φ2.0	NR33-6000ATC-ESD NR40-5100 ATC · NRR-3060				
		92830	CHB-3.0	φ3.0					
		92893	CHB-3.175	φ3.175					
		92835	CHB-3.5	φ3.5					
		92840	CHB-4.0	φ4.0					

CHK Group



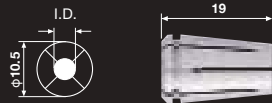
φ1.0 and over



φ0.5-φ0.9

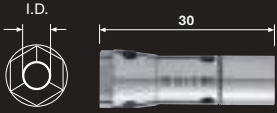
Code No.	Model	I.D. (mm)	Compatible model
91597	CHK-3.0AA	φ3.0AA*	EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-2551 · NR-3060 NR-3060S · NR-403E · NR-453E NRAF-5080 · NRF-3060S · RAS-151E RAX-71E · RAX-271E MSS-25 · MSST-23 · PMA-3013K PMR-3005K · PMS-3020K NR-303 · NR-311 · NR-2351 · RAS-101 QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) Xpeed1200 (Type AA only) HES510 series PLANET series
91598	CHK-3.175AA	φ3.175AA*	
91599	CHK-4.0AA	φ4.0AA*	
91600	CHK-6.0AA	φ6.0AA*	
91601	CHK-6.35AA	φ6.35AA*	
91592	CHK-2.35	φ2.35	
91530	CHK-3.0	φ3.0	
91593	CHK-3.175	φ3.175	
91540	CHK-4.0	φ4.0	
91594	CHK-4.76	φ4.76	
91560	CHK-6.0	φ6.0	
91596	CHK-6.35	φ6.35	
915□□	CHK-□□	φ0.5, φ0.6, φ0.7, φ0.8, φ0.9 φ1.0, φ1.5, φ2.0, φ2.5, φ3.5, φ4.5, φ5.0, φ5.5 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 φ4.1, φ4.2, φ4.3, φ4.4, φ4.6, φ4.7, φ4.8, φ4.9 φ5.1, φ5.2, φ5.3, φ5.4, φ5.6, φ5.7, φ5.8, φ5.9	

Fit nuts: K-265, K-265A

CHK-OH Group					Fit nut: K-265				
		Code No.	Model	I.D. (mm)	Compatible model				
		93630	CHK-OH-3.0	φ3.0	CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M				
		93631	CHK-OH-3.175	φ3.175					
		93640	CHK-OH-4.0	φ4.0					
		93650	CHK-OH-5.0	φ5.0					
		93660	CHK-OH-6.0	φ6.0					
		93663	CHK-OH-6.35	φ6.35					

CHM Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		90910	CHM-1.0	φ1.0	AMH-301 · NR-601				
		90916	CHM-1.6	φ1.6					
		90920	CHM-2.0	φ2.0					
		90992	CHM-2.35	φ2.35					
		90930	CHM-3.0	φ3.0					
		90993	CHM-3.175	φ3.175					

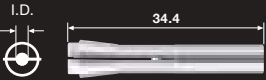
CHR Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		91920	CHR-2.0	φ2.0	NR50-5100 ATC				
		91930	CHR-3.0	φ3.0					
		91993	CHR-3.175	φ3.175					
		91940	CHR-4.0	φ4.0					
		91960	CHR-6.0	φ6.0					
		91996	CHR-6.35	φ6.35					

CHR RS Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		93201	CHR-3.0RS	φ3.0	NR50-5100 ATC NR50-5100 ATC RS · NR50-6000ATC-RS				
		93202	CHR-3.175RS	φ3.175					
		93203	CHR-4.0RS	φ4.0					
		93204	CHR-6.0RS	φ6.0					
		93205	CHR-6.35RS	φ6.35					
		93205	CHR-6.35RS	φ6.35					

CHS Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		90516	CHS-1.6	φ1.6	RA-200 · RA-271E				
		90592	CHS-2.35	φ2.35					
		90530	CHS-3.0	φ3.0					
		90593	CHS-3.175	φ3.175					
		905□□	CHS-□□	φ0.8, φ0.9					
				φ1.0, φ2.0, φ2.5					
				φ1.1, φ1.2, φ1.3, φ1.4, φ1.5, φ1.7, φ1.8, φ1.9					
				φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9					

CHSS Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		93010	CHSS-1.0	φ1.0	EMA-3020S · PMA-3013S QC3-SS (NRR3060-QC / NR3060-AQC)				
		93015	CHSS-1.5	φ1.5					
		93020	CHSS-2.0	φ2.0					
		93025	CHSS-2.5	φ2.5					
		93092	CHSS-2.35	φ2.35					
		93030	CHSS-3.0	φ3.0					
		93093	CHSS-3.175	φ3.175					

Collet

CH8 Group				
	Code No.	Model	I.D. (mm)	Compatible model
	91092	CH8-2.35	φ2.35	RA-100 · RA-151E
	91030	CH8-3.0	φ3.0	
	91093	CH8-3.175	φ3.175	
	910 □□	CH8-□□	φ0.8, φ0.9	
			φ1.0, φ1.5, φ2.0, φ2.5	
			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	

CH16 Group					Fit nut: CHN-16
 *CH16-10.0 Length 24.5	Code No.	Model	I.D. (mm)	Compatible model	
	93130	CH16-3.0	φ3.0	BMS-4020 / 2M · BMS-4020RA BMS-4040 / 2M BMS-4040-RGD-03M / 2M BMS-4040RA-RGD-03M / 2M BMS-4040RA · NR-4040 QC5-16 (NRR4040-QC / NR4040-AQC)	
	93193	CH16-3.175	φ3.175		
	93140	CH16-4.0	φ4.0		
	93160	CH16-6.0	φ6.0		
	93196	CH16-6.35	φ6.35		
	93180	CH16-8.0	φ8.0		
	93100	CH16-10.0	φ10.0		

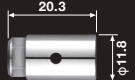
CH16OH Group					Fit nut: CHN-16
 *CH16OH-9.0, 10.0 Length 24.5	Code No.	Model	I.D. (mm)	Compatible model	
	93330	CH16OH-3.0	φ3.0	BMS-4020-MQL / 2M BMS-4040-MQL / 2M	
	93331	CH16OH-3.175	φ3.175		
	93340	CH16OH-4.0	φ4.0		
	93350	CH16OH-5.0	φ5.0		
	93360	CH16OH-6.0	φ6.0		
	93363	CH16OH-6.35	φ6.35		
	93370	CH16OH-7.0	φ7.0		
	93380	CH16OH-8.0	φ8.0		
	93390	CH16OH-9.0	φ9.0		
	93400	CH16OH-10.0	φ10.0		

Collet nut

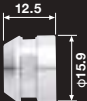
Order by Code No.

CHN-A					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2102	CHN-A	Collet nut for CHA collet	QC3-A (NRR3060-QC / NR3060-AQC) EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A HES810 series iSpeed3 series	

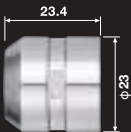
CHN-AA					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2159	CHN-AA	Collet nut for CHA collet	HTS series	

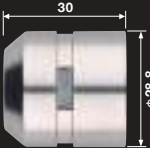
CHN-CTA					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	7798	CHN-CTA-3.0	Collet nut for CHA collet	CTS-2630 / 2620A / 3030	
	7799	CHN-CTA-3.175			
	7800	CHN-CTA-4.0			

CHN-3A					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2160	CHN-3A	Collet nut for CHA collet	ABT series · Xpeed1600	

K-265					Fit collets: CHK Group, CHK-OH Group
	Code No.	Model	Description	Compatible model	
	2129	K-265	Collet nut for CHK collet	CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-403E · NR-453E NR-2551 · NR-3060 · NR-3060S NRF-3060S · RAS-151E · RAX-71E RAX-271E MSS-25 · MSST-23 NR-303 · NR-311 · NR-2351 · RAS-101 PMA-3013K · PMR-3005K · PMS-3020K HES510 series PLANET series	

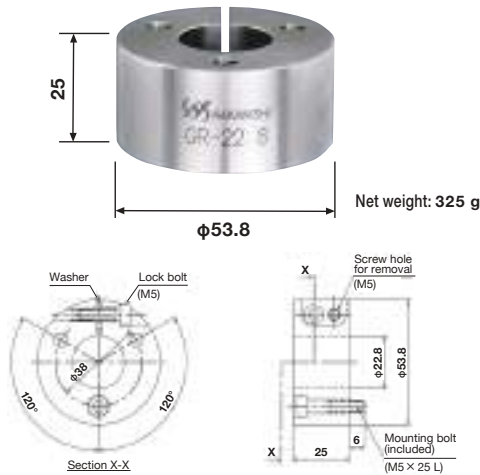
K-265A					Fit collet: CHK Group
	Code No.	Model	Description	Compatible model	
	2158	K-265A	Collet nut for CHK collet	NRAF-5080 Xpeed1200	

CHN-16					Fit collets: CH16 Group, CH16OH Group
	Code No.	Model	Description	Compatible model	
	2161	CHN-16	Collet nut for CH16 collet	BMS-4020 / 2M · BMS-4020-MQL / 2M BMS-4020RA · BMS-4040 / 2M BMS-4040-MQL / 2M · BMS-4040RA BMS-4040RA-RGD-03M / 2M BMS-4040-RGD-03M / 2M · NR-4040 QC5-16 (NRR4040-QC / NR4040-AQC)	

CHN-20					Recommended : REGO-FIX ER20/ER20UP
	Code No.	Model	Description	Compatible model	
	7914	CHN-20	Collet nut for BMS-5010 collet	BMS-5010 / RA	

Grip ring

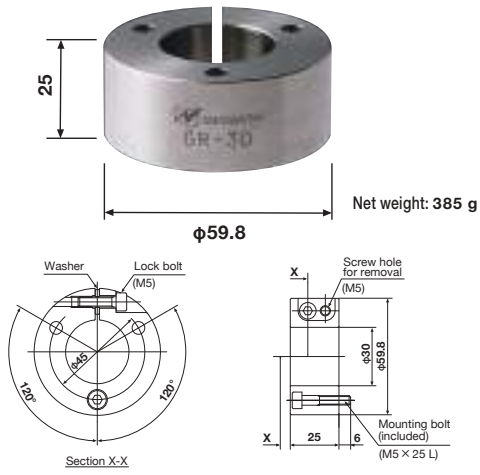
GR-22.8



Code No.	1888	Model	GR-22.8
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	$\phi 22.8$ mm Spindle		

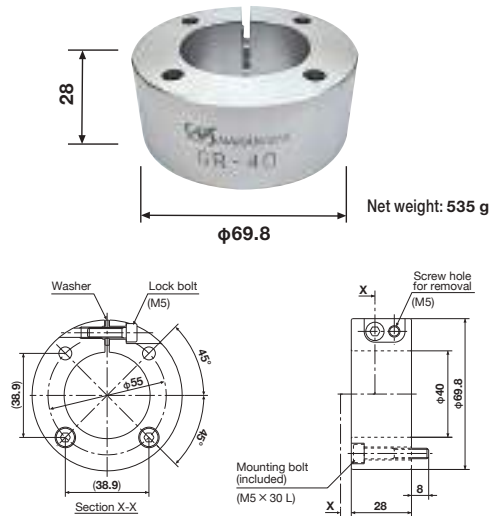
*GR-22.8 cannot be used with NR-311.

GR-30



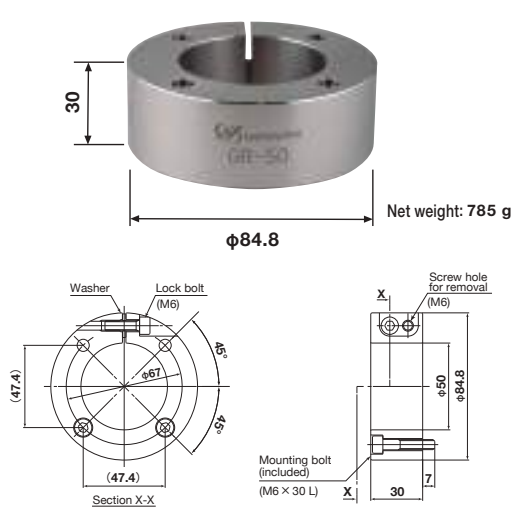
Code No.	1885	Model	GR-30
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	$\phi 30$ mm Spindle		

GR-40



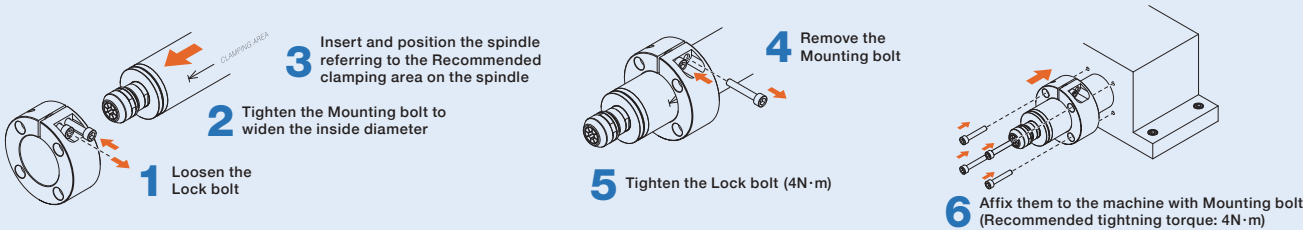
Code No.	1886	Model	GR-40
Standard accessories	Mounting bolt (M5 × 30 L): 4 pcs.		
Compatible model	$\phi 40$ mm Spindle		

GR-50



Code No.	1889	Model	GR-50
Standard accessories	Mounting bolt (M6 × 30 L): 4 pcs.		
Compatible model	$\phi 50$ mm Spindle		

How to mount to a machine tool



*The above figure shows GR-40 and GR-50, while GR-22.8 and GR-30 require three mounting bolts.

Spacer

Spacer	Code No.	Model	Description / Description (I.D. × T)	Compatible model
	1882	SP-22 × 10 L	Spacer ($\phi 22 \times 10$ mm)	BM-322FL · BM-322FR

Bush

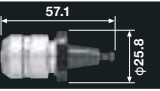
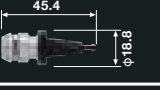
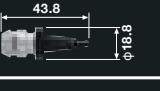
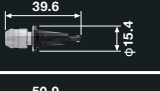
Bushings to allow smaller diameter spindles to be mounted in larger diameter holders

Bush	Code No.	Model	Description / Dimensions (I.D. × O.D. × L)	Compatible model
	1887	RB-19.05 × 25.4 × 36 L	$\phi 25.4$ Bush ($\phi 19.05 \times \phi 25.4 \times 36$ mm)	BM-319 · BM-319F · BMF-319 · BMJ-319 MSS-1902R / RA · MSS-1908R / RA MSS-1930R / RA
	1877	RB-20 × 22	$\phi 22$ Bush ($\phi 20 \times \phi 22 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1876	RB-20 × 22.8	$\phi 22.8$ Bush ($\phi 20 \times \phi 22.8 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1875	RB-20 × 23	$\phi 23$ Bush ($\phi 20 \times \phi 23 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1878	RB-20 × 25	$\phi 25$ Bush ($\phi 20 \times \phi 25 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1879	RB-20 × 25.4	$\phi 25.4$ Bush ($\phi 20 \times \phi 25.4 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1883	RB-22 × 25 × 34 L	$\phi 25$ Bush ($\phi 22 \times \phi 25 \times 33.5$ mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1884	RB-22 × 25.4 × 34 L	$\phi 25.4$ Bush ($\phi 22 \times \phi 25.4 \times 33.5$ mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1872	RBS-22.8 × 25	$\phi 25$ Bush ($\phi 22.8 \times \phi 25 \times 25$ mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1871	RB-22.8 × 25	$\phi 25$ Bush ($\phi 22.8 \times \phi 25 \times 44$ mm)	RA-100
	1874	RBS-22.8 × 25.4	$\phi 25.4$ Bush ($\phi 22.8 \times \phi 25.4 \times 25$ mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1873	RB-22.8 × 25.4	$\phi 25.4$ Bush ($\phi 22.8 \times \phi 25.4 \times 44$ mm)	RA-100
	1880	RB-30 × 32	$\phi 32$ Bush ($\phi 30 \times \phi 32 \times 45$ mm)	NR-3060 · NR-3060S · NR-403E
	1881	RB-30 × 36	$\phi 36$ Bush ($\phi 30 \times \phi 36 \times 45$ mm)	NR-3060 · NR-3060S · NR-403E

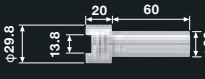
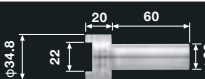
Adjuster bolt

Adjuster bolt	Code No.	Model	Description	Compatible model
	7739	ADJUSTER BOLT	Adjuster bolt	BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M

Collet holder

Collet holder	Code No.	Model	Description	Compatible model
	9216	QC5-16	Collet holder for CH16 *with CHN-16	NR4040-AQC · NRR4040-QC
	9225	QC5-16-R		
	9215	QC5-K	Collet holder for CHK *with K-265	
	9224	QC5-K-R		
	9210	QC3-K	Collet holder for CHK *with K-265	NR3060-AQC · NRR3060-QC
	9223	QC3-K-R		
	9209	QC3-A	Collet holder for CHA *with CHN-A	
	9222	QC3-A-R		
	7794	QC3-SS	Collet holder for CHSS	

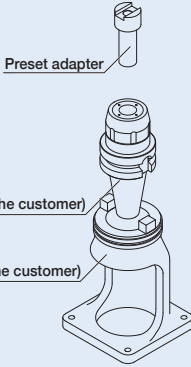
Preset adapter

Preset adapter	Code No.	Model	Description	Compatible collet holder
	9211	QC3-ADP	Preset adapter for QC3	QC3-A · QC3-K · QC3-SS
	9218	QC5-16 ADP	Preset adapter for QC5-16	QC5-16
	9217	QC5-K ADP	Preset adapter for QC5-K	QC5-K

Set-up outside machines

1

In case using a milling holder

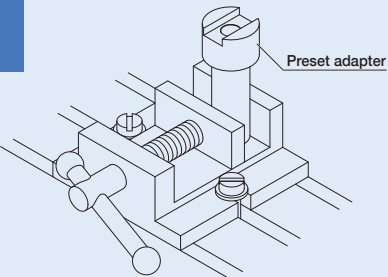


Preset adapter

Milling holder
(arrangement by the customer)

Setup stand
(arrangement by the customer)

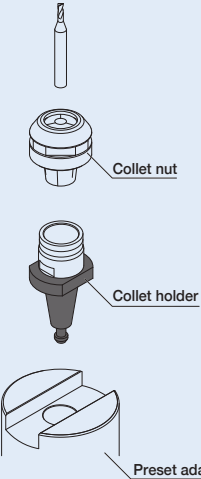
In case using a vice



Preset adapter

2

For QC3-K/A
QC5-16/K

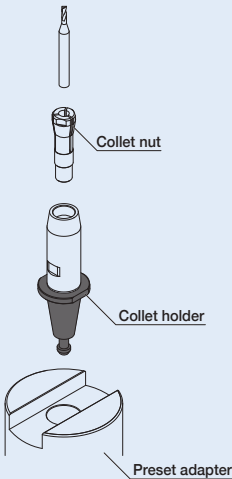


Collet nut

Collet holder

Preset adapter

For QC3-SS

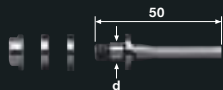
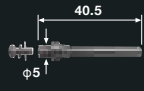
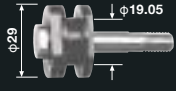


Collet nut

Collet holder

Preset adapter

Metal saw arbor · Grindstone arbor · Grindstone flange

Metal saw arbor	Code No.	Model	Description / Specifications		Compatible model
	2146	KCH-02 (5.0)	φ5.0 (I.D.)	Metal saw arbor : for φd (I.D.) × φ30 mm or less (O.D.) Run-out accuracy: within 0.02 mm	RA-100 · RA-151E
	1077	KCH-02 (6.0)	φ6.0 (I.D.)		
	2147	KCH-02 (8.0)	φ8.0 (I.D.)		
	2148	KCH-03 (5.0)	φ5.0 (I.D.)	Metal saw arbor : for φd (I.D.) × φ30 mm or less (O.D.) Run-out accuracy: within 0.02 mm	EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · MSS-25 · MSST-23 · NR-303 · NR-311 NR-403E · NR-453E · NR-2351 · NR-2551 · NR-3060 NR-3060S · NRF-3060S · PMA-3013K · PMR-3005K PMS-3020K · RAS-101 · RAS-151E RAX-71E · RAX-271E
	2130	KCH-03 (6.0)	φ6.0 (I.D.)		
	2149	KCH-03 (8.0)	φ8.0 (I.D.)		
Grindstone arbor	Code No.	Model	Description / Specifications		Compatible model
	1029	AGM-01	Grindstone arbor Run-out accuracy: within 0.02 mm Grindstone I.D. φ5.0 mm		AMH-301 · NR-601
	2131	AGM-03	Grindstone arbor Run-out accuracy: within 0.02 mm Grindstone I.D. φ5.0 mm		EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · MSS-25 · MSST-23 · NR-303 · NR-403E NR-453E · NR-2351 · NR-2551 · NR-3060 · NR-3060S NRF-3060S · PMA-3013K · PMS-3020K · RAS-101 RAS-151E · RAX-71E · RAX-271E
Grindstone flange	Code No.	Model	Description / Specifications		Compatible model
	2138	EGF-19	Grindstone flange Available grindstone dimension φ19.05 (I.D.) × φ40 (O.D.) mm × 7 (width) mm		EM30-S6000 · EMR-3008K · EMS-3060K NR-403E · NR-453E · NR-2551 · NR-3060 · NR-3060S NRF-3060S · PMS-3020K
	2143	NGF2-19	Grindstone flange Available grindstone dimension φ19.05 (I.D.) × φ40 (O.D.) mm × 7 (width) mm		NR-311

Grease · Oil

Grease	Code No.	Model	Description	Compatible model
	1547	—	Grease for Speed reducer (2.5 mL)	ARG-011E · ARG-021E EMR-3008K · EMA-3020K RAX-271E · RAX-71E PMR-3005K
	1550	—	Grease for Speed reducer (10 mL)	
	1549	—	Grease for Speed reducer (100 mL)	
				
Oil	Code No.	Model	Description	Compatible model
	1057	K-211	Lubricating oil (70 cc)	Air line kit (AL-M1201BL · AL-M1202 · AL-M1203BS2)
	1058	K-202	Lubricating oil (1 L)	

COMBOX



Code No.	8495	Model	COMBOX
• By connecting the COMBOX to a CITIZEN “Cincom” CNC automatic lathe, iSpeed3 and E3000 motors can be easily operated by using the external M code signal.			
Specifications	Input voltage: DC24 V (DC23-25 V) Dimensions: W142 × D240 × H31 mm / Net weight: 1.2 kg		
Standard equipment and accessories	I/F Cable (High density D-SUB 15 connector): 1 pc. Cable D · E · F: 1 pc. each / Relay: 1 pc. Screw · Nut: 2 pcs. each / Connector cap: 4 pcs.		
Compatible controllers	E3000 controller · iSpeed3 controller		
External connecting device	CNC automatic lathe For details, please contact us or your local distributor.		

Network Interface COMBOX-NET.EIP

Easy IoT remote control and management of Nakanishi Spindle via EtherNet/IP.
Easy connection to a robot or special-purpose machine tool's PLC with a single LAN cable.

Code No.	7796	Model	COMBOX-NET.EIP
Code No.	7906	Model	COMBOX-NET D-sub Cable Set



EtherNet/IP™ is a trademark of ODVA, Inc.

Feature 1 Remote management through IoT

- **Easy remote error/warning display**
Error or warning output from the controller can be easily displayed remotely. *Display contents vary depending on S/N
- **Up to 4 sensors (digital × 2, analog × 2) can be connected**
Various commercially available sensors can be added and used for condition monitoring.



PLC display example

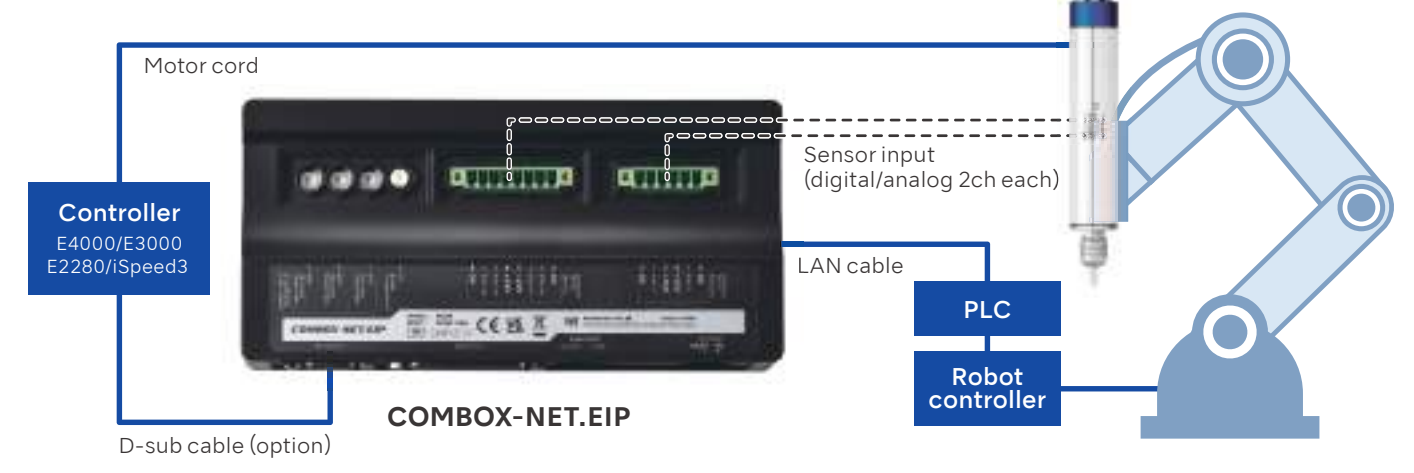
Feature 2 Reduce design and production work hours

- **Connectable to Ethernet/IP compatible devices via LAN cable** *Support for other protocols is pending
- **Reduction of the number of lines in the ladder program in PLCs is possible**
- **I/O-related devices are no longer needed, reducing the amount of wiring required**

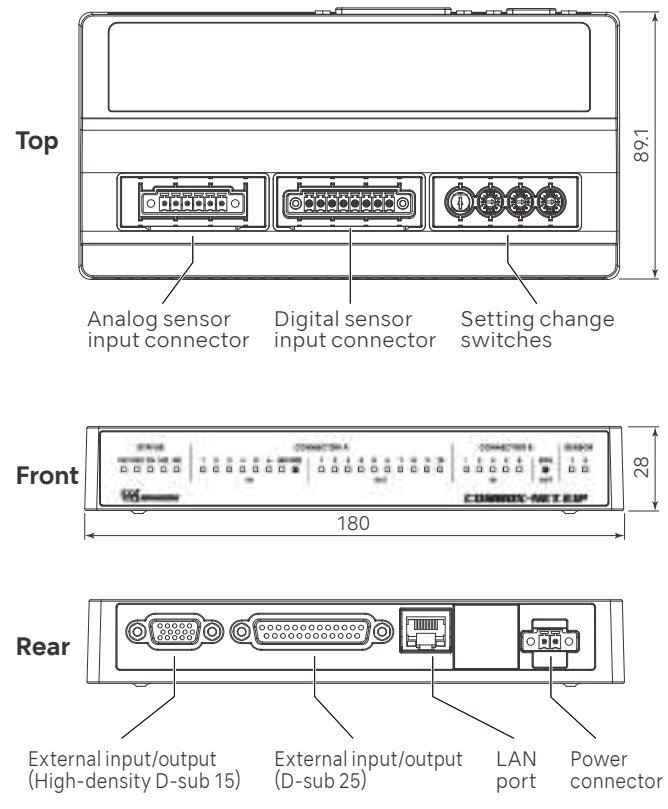
33% reduction in work hours
(compared to in-house measurements)



Connection example Simple configuration to connect to robots



Outside view



Specifications

Communication standard	EtherNet/IP
Baud rate	10 Mbps / 100 Mbps
Communication cycle (RPI)	4 ms or more
LAN cable specifications	Straight, category 5 or higher (STP cable recommended)
Rated input voltage	DC 24 V±10%
Dimensions	W180 × D89.1 × H28 mm
Net weight	282 g

Basic package

COMBOX-NET.EIP Main Body	1 pc.
Bracket	1 pc.
Mounting screw	4 pcs.
Power connector	1 pc.
Protect covers	Attached on the main body

Code No.	7796	Model	COMBOX-NET.EIP
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*D-sub cables are sold separately.

Option

Code No.	7906	Model	COMBOX-NET D-sub Cable Set
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D-sub 15 cable (500 mm) and D-sub 25 cable (500 mm)
*Since D-sub cable has special size, we recommend the above product.

Compatible controllers Connectable to all 4 models All inputs and outputs are handled via network communication.



*Controllers with the above S/Ns or later will display an error or warning code.
Controllers with the S/Ns prior to the above will only indicate the presence or absence of an error or warning.