

# E2000 SERIES

HIGH-SPEED ROTATION & HIGH PRECISION

## The First Step to Automation

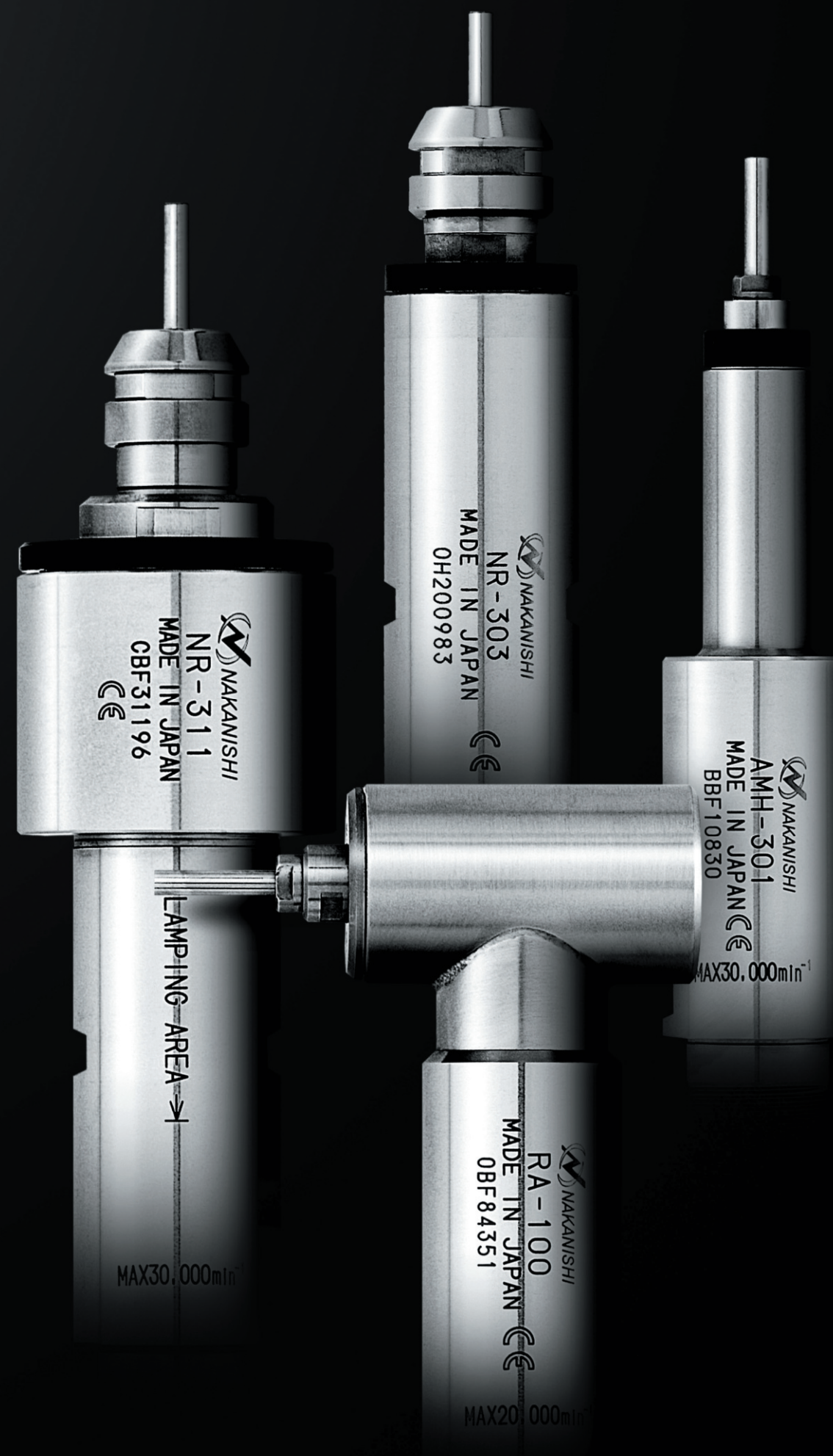
Automates light cutting and fine deburring

### φ22.8 mm Spindle

- Max. power: 200 W
- Max. motor speed: 50,000 min<sup>-1</sup>
- Suitable for light cutting and fine deburring automation

### 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

Straight type spindle

|         |                                                                                     |        |
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Angle type spindle

|         |                                                                                      |         |
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Motor

|          |                                                                                       |         |
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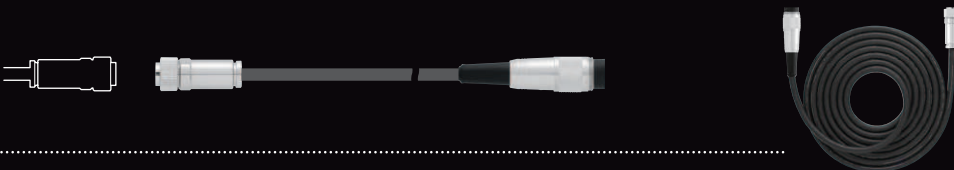
Speed reducer

|        |                                                                                     |        |        |                                                                                       |         |
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Controller

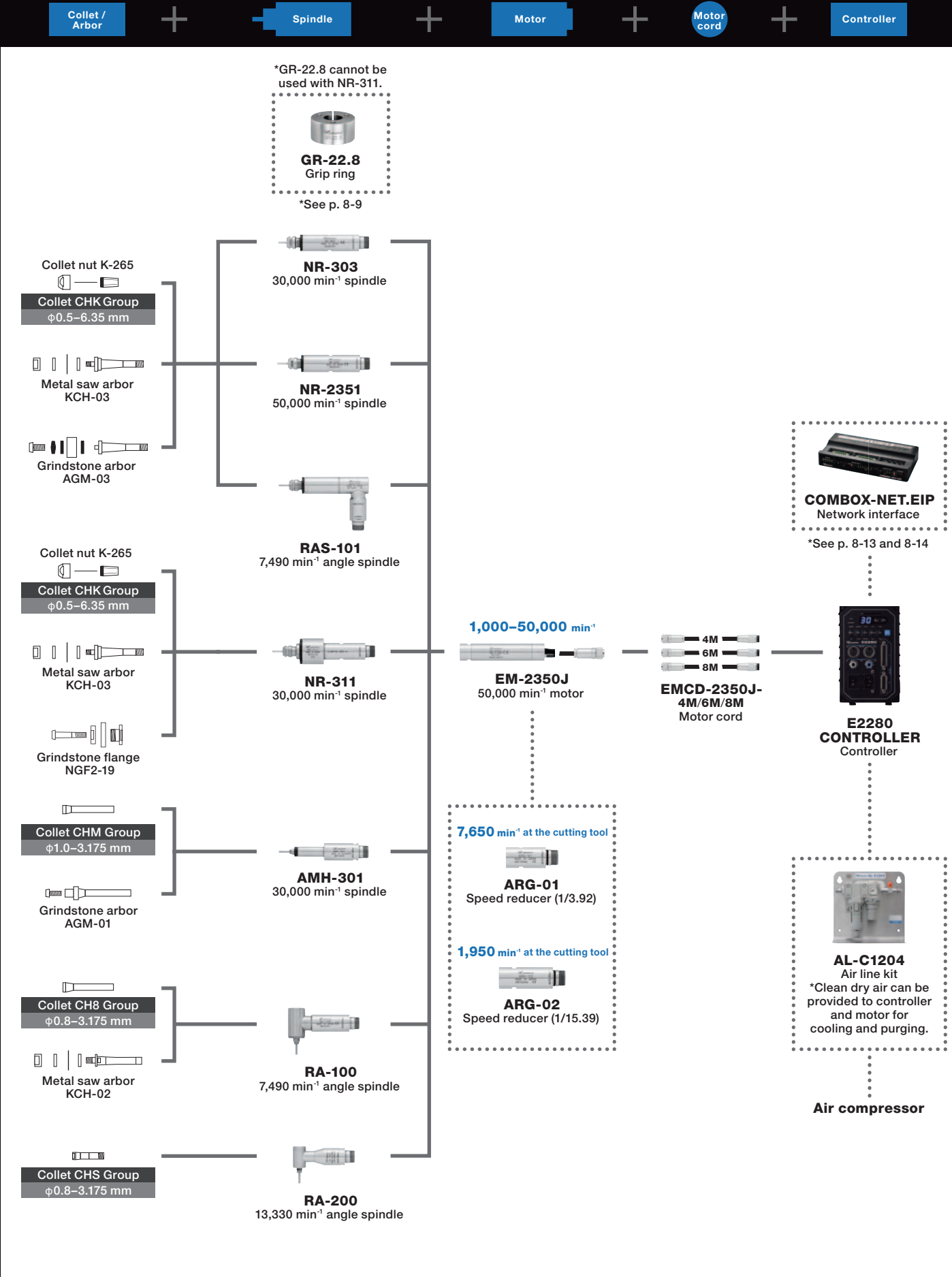
|                  |                                                                                       |         |
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Motor cord

|            |                                                                                      |         |
|------------|--------------------------------------------------------------------------------------|---------|
| EMCD-2350J |  | p. 3-16 |
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System Chart

[E2000]





E2000 SERIES

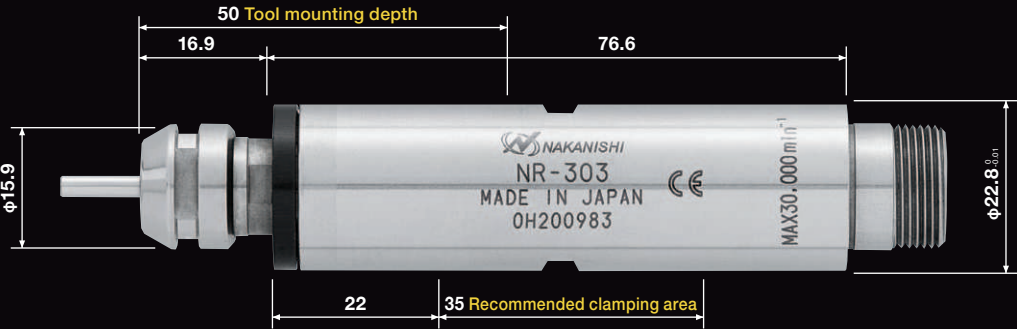
Straight type spindle

Shown In Actual Size

NR-303



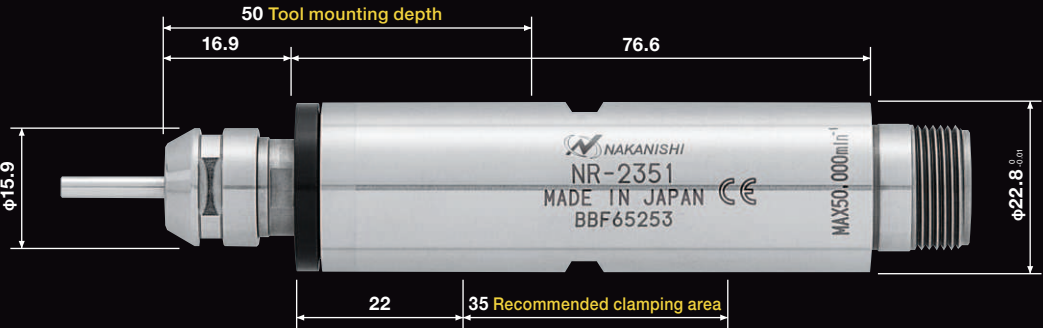
O.D.  $\phi$ 22.8 mm



NR-2351



O.D.  $\phi$ 22.8 mm



Specifications

CAD drawings

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

Order by Code No.

NR-303



Code No. 7861 Model NR-303

| O.D.                               | Allowable motor speed                                                                        | Spindle accuracy | Collet                                     | Net weight |
|------------------------------------|----------------------------------------------------------------------------------------------|------------------|--------------------------------------------|------------|
| $\phi$ 22.8 mm                     | 30,000 min <sup>-1</sup>                                                                     | Within 2 $\mu$ m | CHK Group<br>( $\phi$ 0.5– $\phi$ 6.35 mm) | 215 g      |
| Standard equipment and accessories | Collet nut (K-265) / Wrench (12 × 14): 2 pcs. · (20 × 24): 1 pc. *Collet is sold separately. |                  |                                            |            |
| Options                            | Collet (CHK Group): $\phi$ 0.5– $\phi$ 6.35 mm p. 8-5                                        |                  |                                            |            |
|                                    | Metal saw arbor (KCH-03): 3 sizes / Grindstone arbor (AGM-03) p. 8-12                        |                  |                                            |            |

NR-2351



Code No. 7855 Model NR-2351

| O.D.                               | Allowable motor speed                                                                        | Spindle accuracy | Collet                                     | Net weight |
|------------------------------------|----------------------------------------------------------------------------------------------|------------------|--------------------------------------------|------------|
| $\phi$ 22.8 mm                     | 50,000 min <sup>-1</sup>                                                                     | Within 1 $\mu$ m | CHK Group<br>( $\phi$ 0.5– $\phi$ 6.35 mm) | 215 g      |
| Standard equipment and accessories | Collet nut (K-265) / Wrench (12 × 14): 2 pcs. · (20 × 24): 1 pc. *Collet is sold separately. |                  |                                            |            |
| Options                            | Collet (CHK Group): $\phi$ 0.5– $\phi$ 6.35 mm p. 8-5                                        |                  |                                            |            |
|                                    | Metal saw arbor (KCH-03): 3 sizes / Grindstone arbor (AGM-03) p. 8-12                        |                  |                                            |            |



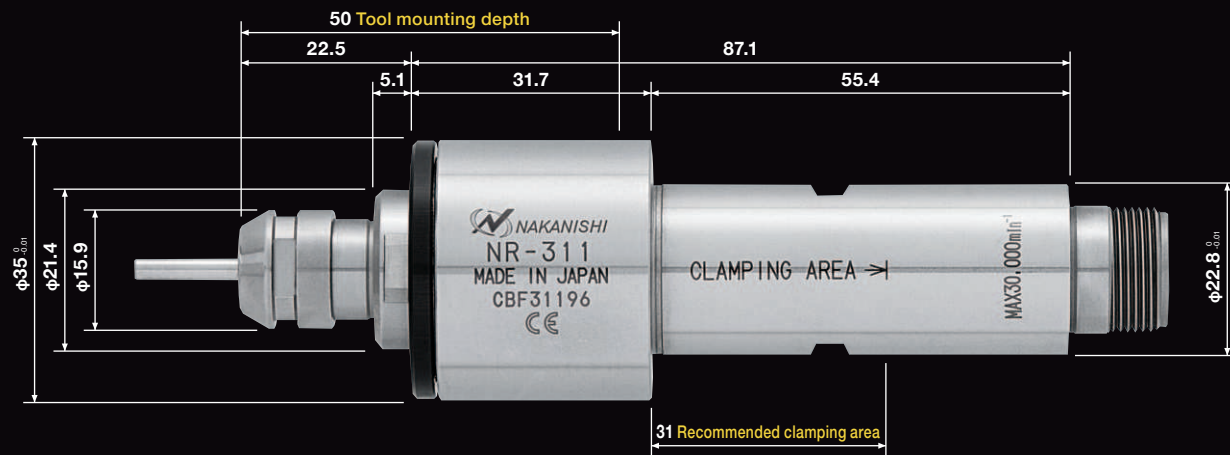
## E2000 SERIES

Shown In Actual Size

## Straight type spindle

**NR-311**

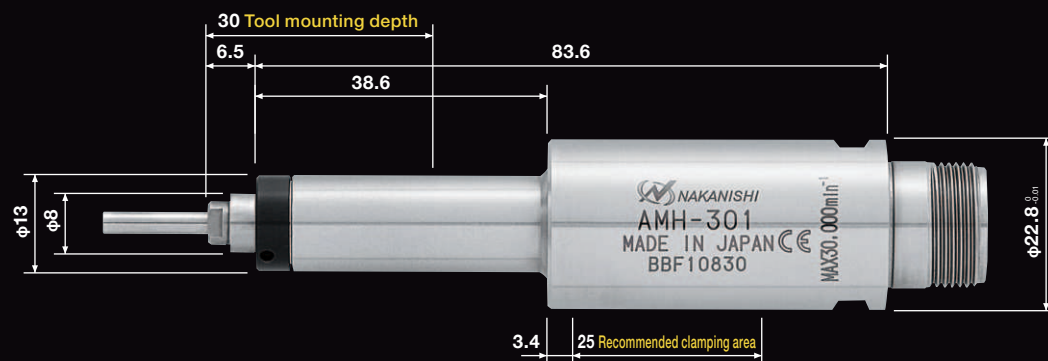
O.D.  $\phi 22.8$  mm



# AMH-301



O.D.  $\phi 22.8$  mm



## Specifications

## CAD drawings

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

Order by Code No.

**NR-311**

Code No.

7832

Model

NR-311

| O.D.                               | Allowable motor speed                                                                        | Spindle accuracy | Collet                       | Net weight |
|------------------------------------|----------------------------------------------------------------------------------------------|------------------|------------------------------|------------|
| φ22.8 mm                           | 30,000 min <sup>-1</sup>                                                                     | Within 2 μm      | CHK Group<br>(φ0.5–φ6.35 mm) | 370 g      |
| Standard equipment and accessories | Collet nut (K-265) / Wrench (12 × 14) · (20 × 24): 1 pc. each    *Collet is sold separately. |                  |                              |            |
| Options                            | Collet (CHK Group): φ0.5–φ6.35 mm    p. 8-5                                                  |                  |                              |            |
|                                    | Metal saw arbor (KCH-03): 3 sizes / Grindstone flange (NGF2-19)    p. 8-12                   |                  |                              |            |

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

**AMH-301**



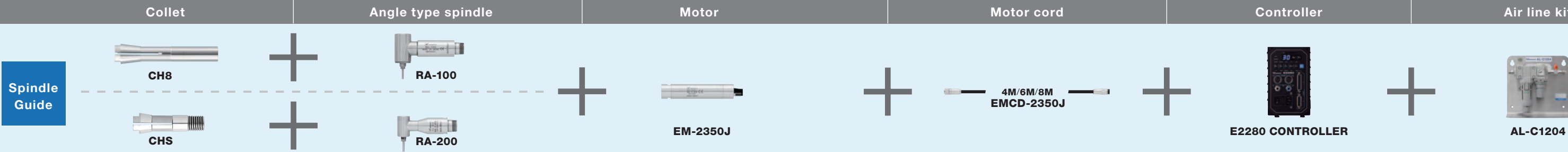
Code No.

1074

Model

AMH-301

| O.D.                               | Allowable motor speed                                                            | Collet                        | Net weight |
|------------------------------------|----------------------------------------------------------------------------------|-------------------------------|------------|
| φ22.8 mm                           | 30,000 min <sup>-1</sup>                                                         | CHM Group<br>(φ1.0–φ3.175 mm) | 171 g      |
| Standard equipment and accessories | Collet: φ3.0 mm (CHM-3.0) / Wrench (7 × 5.1) · (6 × 4.5) · (20 × 24): 1 pc. each |                               |            |
| Options                            | Collet (CHM Group): φ1.0–φ3.175 mm <b>p. 8-6</b>                                 |                               |            |
|                                    | Grindstone arbor (AGM-01) <b>p. 8-12</b>                                         |                               |            |

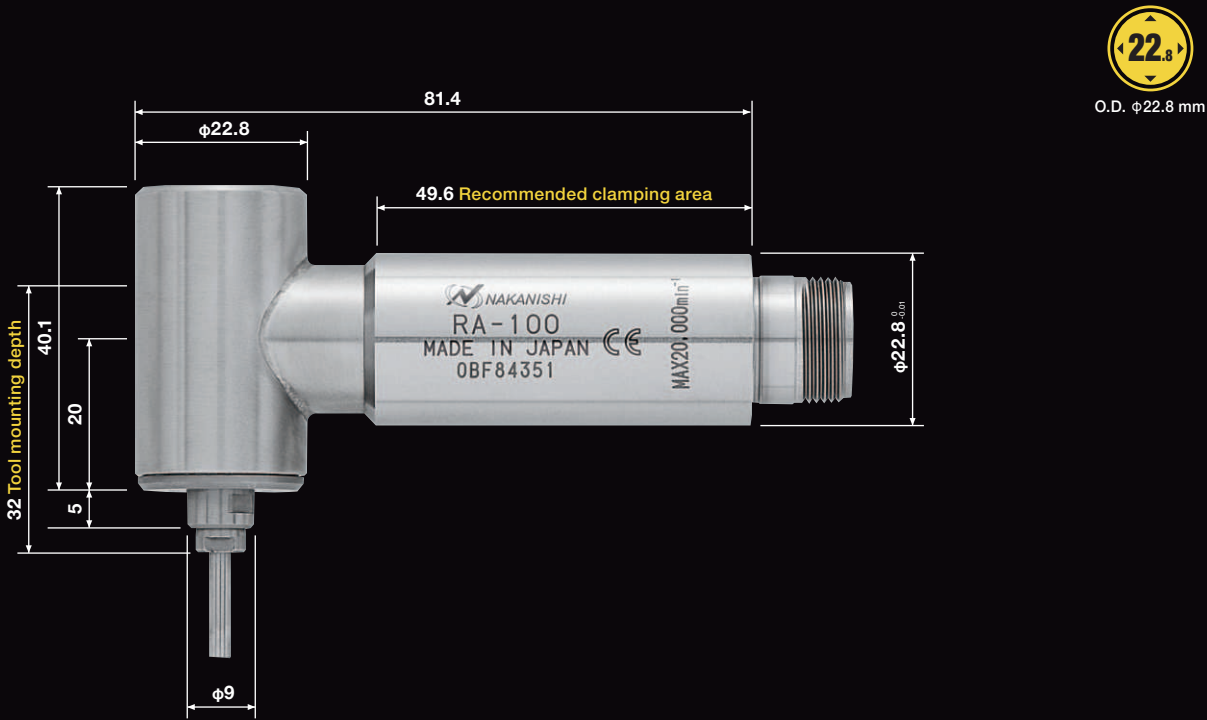


E2000 SERIES

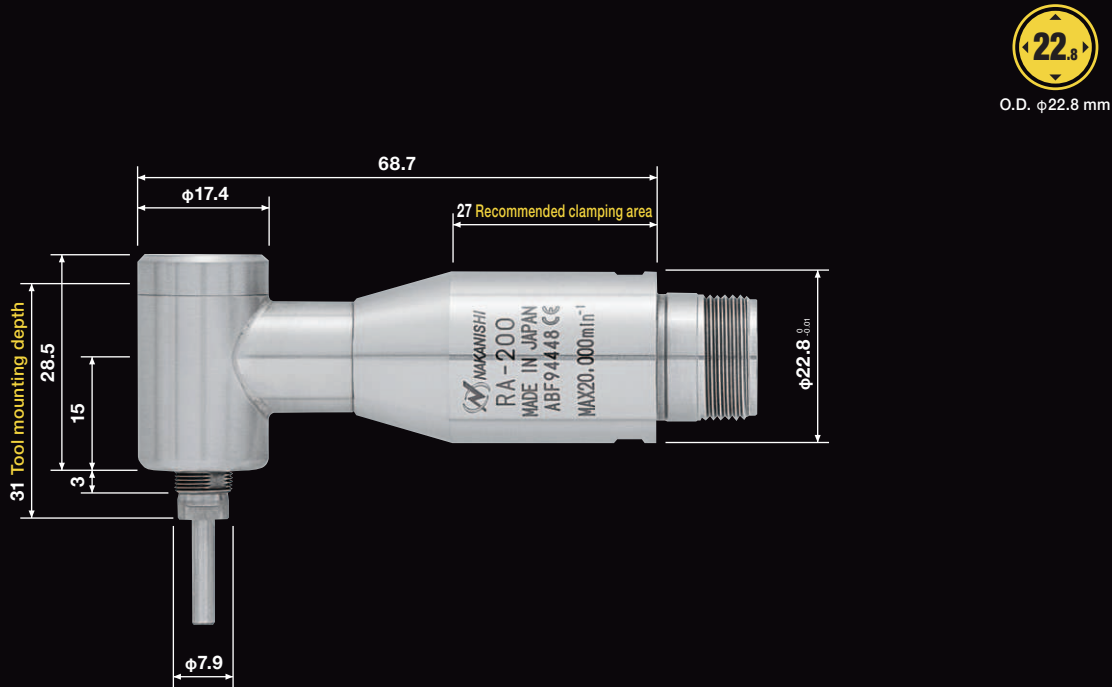
Angle type spindle

Shown In Actual Size

RA-100



RA-200



Specifications

CAD drawings

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

Order by Code No.

RA-100



Code No. 1024 Model RA-100

| O.D.                               | Max. speed at the cutting tool                                                       | Reduction ratio  | Max. allowable motor speed                               | Collet                                       | Net weight |
|------------------------------------|--------------------------------------------------------------------------------------|------------------|----------------------------------------------------------|----------------------------------------------|------------|
| $\phi 22.8$ mm                     | 7,490 min <sup>-1</sup>                                                              | $\frac{1}{2.67}$ | 20,000 min <sup>-1</sup><br>(Allowable rotational speed) | CH8 Group<br>( $\phi 0.8$ – $\phi 3.175$ mm) | 271 g      |
| Standard equipment and accessories | Collet: $\phi 3.0$ mm (CH8-3.0) / Wrench (7 × 5.5) · (8 × 5) · (20 × 24): 1 pc. each |                  |                                                          |                                              |            |
| Options                            | Collet (CH8 Group): $\phi 0.8$ – $\phi 3.175$ mm p. 8-7                              |                  |                                                          |                                              |            |
|                                    | Metal saw arbor (KCH-02): 3 sizes p. 8-12                                            |                  |                                                          |                                              |            |

RA-200



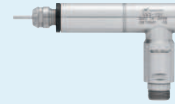
Code No. 1075 Model RA-200

| O.D.                               | Max. speed at the cutting tool                                                       | Reduction ratio | Max. allowable motor speed                               | Collet                                       | Net weight |
|------------------------------------|--------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------|----------------------------------------------|------------|
| $\phi 22.8$ mm                     | 13,330 min <sup>-1</sup>                                                             | $\frac{1}{1.5}$ | 20,000 min <sup>-1</sup><br>(Allowable rotational speed) | CHS Group<br>( $\phi 0.8$ – $\phi 3.175$ mm) | 165 g      |
| Standard equipment and accessories | Collet: $\phi 3.0$ mm (CHS-3.0) / Wrench (7 × 5.1) · (8 × 5) · (20 × 24): 1 pc. each |                 |                                                          |                                              |            |
| Options                            | Collet (CHS Group): $\phi 0.8$ – $\phi 3.175$ mm p. 8-6                              |                 |                                                          |                                              |            |

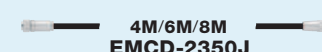
## Spindle Guide



CHK

**RAS-101**

**EM-2350J**



## E2280 CONTROLLER



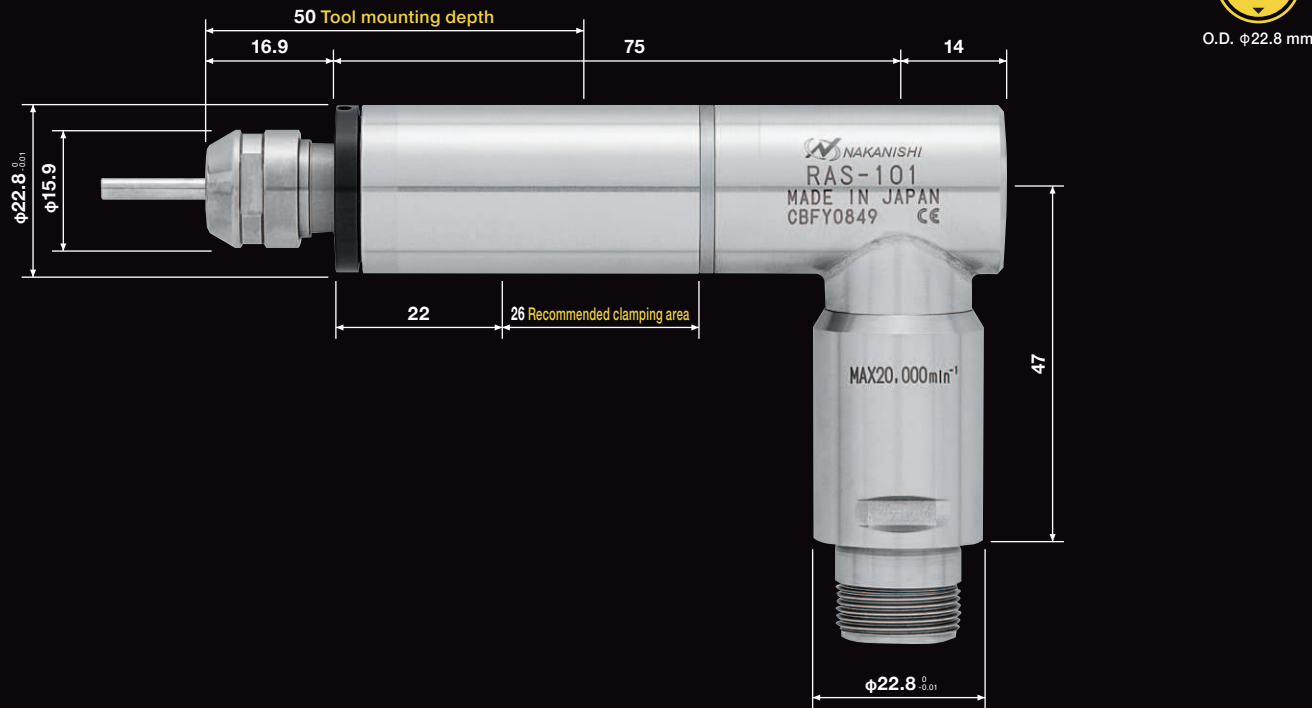
AL-C1204

## E2000 SERIES

Shown In Actual Size

## Angle type spindle

# RAS-101



Order by Code No.

## Specifications

## CAD drawings

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

Code No.

7839

Model

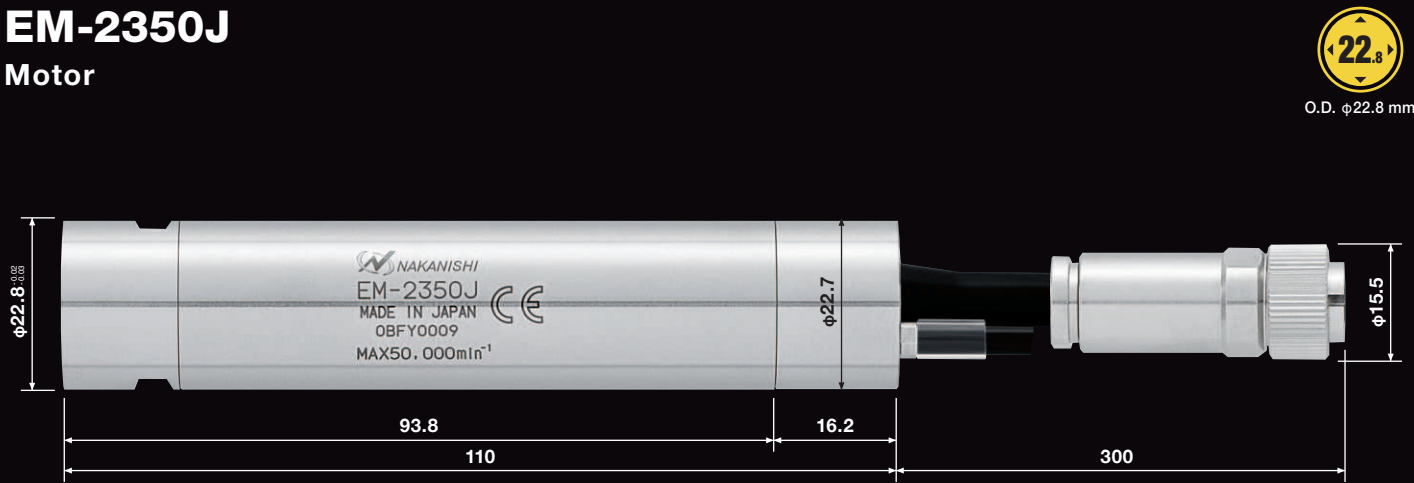
RAS-101

| O.D.                               | Max. speed at the cutting tool                                                                  | Reduction ratio  | Max. allowable motor speed                               | Spindle accuracy | Collet                       | Net weight |
|------------------------------------|-------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------|------------------|------------------------------|------------|
| φ22.8 mm                           | 7,490 min <sup>-1</sup>                                                                         | $\frac{1}{2.67}$ | 20,000 min <sup>-1</sup><br>(Allowable rotational speed) | Within 2 μm      | CHK Group<br>(φ0.5-φ6.35 mm) | 325 g      |
| Standard equipment and accessories | Collet nut (K-265) / Wrench (12 × 14): 2 pcs. · (20 × 24): 1 pc.    *Collet is sold separately. |                  |                                                          |                  |                              |            |
| Options                            | Collet (CHK Group): φ0.5-φ6.35 mm    p. 8-5                                                     |                  |                                                          |                  |                              |            |
|                                    | Metal saw arbor (KCH-03): 3 sizes / Grindstone arbor (AGM-03)    p. 8-12                        |                  |                                                          |                  |                              |            |

Motor / Speed reducer

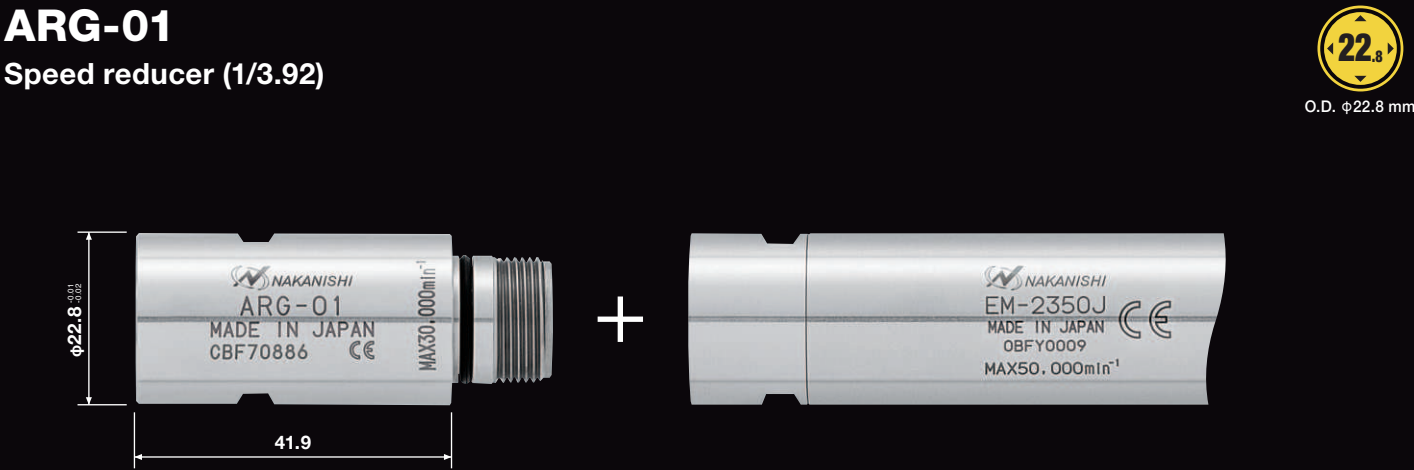
EM-2350J

Motor



ARG-01

Speed reducer (1/3.92)



ARG-02

Speed reducer (1/15.39)



Specifications

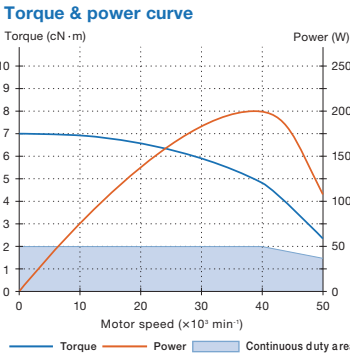
CAD drawings

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

EM-2350J



| O.D.                               | Motor speed                                                            | Max. power | Min. bending cord radius | Net weight                        |
|------------------------------------|------------------------------------------------------------------------|------------|--------------------------|-----------------------------------|
| φ22.8 mm                           | 1,000–50,000 min <sup>-1</sup>                                         | 200 w      | 45 mm                    | 260 g<br>(Motor cord is included) |
| Standard equipment and accessories | Wrench (20 × 24): 1 pc.                                                |            |                          |                                   |
| Options                            | Motor cord: 4 m (7722), 6 m (7723), 8 m (7724) <a href="#">p. 3-16</a> |            |                          |                                   |



ARG-01



| O.D.     | Max. speed at the cutting tool | Reduction ratio  | Max. allowable motor speed                               | Net weight |
|----------|--------------------------------|------------------|----------------------------------------------------------|------------|
| φ22.8 mm | 7,650 min <sup>-1</sup>        | $\frac{1}{3.92}$ | 30,000 min <sup>-1</sup><br>(Allowable rotational speed) | 108 g      |

ARG-02



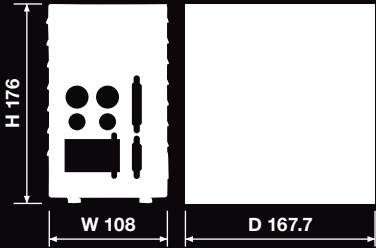
| O.D.     | Max. speed at the cutting tool | Reduction ratio   | Max. allowable motor speed                               | Net weight |
|----------|--------------------------------|-------------------|----------------------------------------------------------|------------|
| φ22.8 mm | 1,950 min <sup>-1</sup>        | $\frac{1}{15.39}$ | 30,000 min <sup>-1</sup><br>(Allowable rotational speed) | 148 g      |

E2280 Controller



E2280 CONTROLLER  
Controller

Code No.  
**7720**



Equipped with selector

- Up to 2 motors to control  
\*not simultaneously
- Providing individual speed control of each motor

External control function

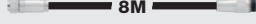
- External input  
Rotating ON/OFF, Forward/reverse rotation, Motor speed control, Safety relay brake, etc.
- External output  
Motor current, Rotating pulse, Error, Load, Motor speed, etc.
- Parameter setting  
Setting maximum motor speed, Setting fixed motor speed, Speed point, etc.

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

| Motor speed                        |                                                                | Input voltage                                                               | Max. power |
|------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------|------------|
| 1,000–50,000 min <sup>-1</sup>     |                                                                | Ac100–240 v Without plug<br>Multiple output power                           | 200 w      |
| Power consumption                  | Air consumption                                                |                                                                             | Net weight |
| Ac1.4 A                            | 1 motor: 30 NL/min (0.25 MPa) / 2 motors: 63 NL/min (0.30 MPa) |                                                                             | 2.2 kg     |
| Standard equipment and accessories |                                                                | Power cord: 3 m / Air hose with filter (K-251: 2058): 2 m / Power cord hook |            |
|                                    |                                                                | Connector cap (included) / Connector cover (included)                       |            |
|                                    |                                                                | Bracket / Air branching joint / Fuse / Mounting screw / Reducer             |            |

Motor cord

Order by Code No.

| Motor cord                                                                                                                                                                                                                                                                               | Code No.    | Model         | Cord length | Standard equipment and accessories   | Compatible model |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------|-------------|--------------------------------------|------------------|
|  4M<br> 6M<br> 8M<br>Joint type | <b>7722</b> | EMCD-2350J-4M | 3.7 m       | Air hose<br>Connector cap (included) | EM-2350J         |
|                                                                                                                                                                                                                                                                                          | <b>7723</b> | EMCD-2350J-6M | 5.7 m       |                                      |                  |
|                                                                                                                                                                                                                                                                                          | <b>7724</b> | EMCD-2350J-8M | 7.7 m       |                                      |                  |

\*The minimum cord bending radius for the above motor cords is 45 mm.

# 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

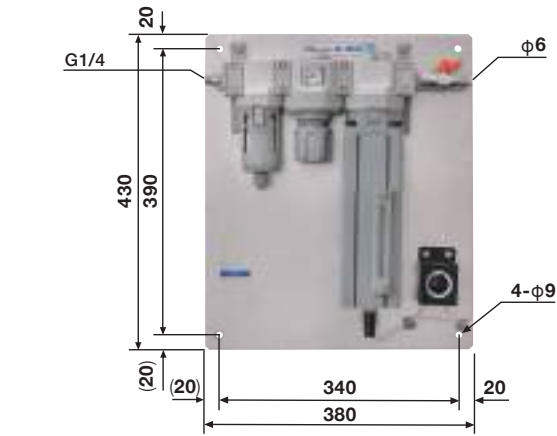


|                                                                                                                                     |                                                                                                                                                                                |       |          |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|
| Code No.                                                                                                                            | 1548                                                                                                                                                                           | Model | AL-A0611 |
| <b>■ Air piping</b><br>Inlet: Coupler (Model: KK13P-02M made by SMC Corporation)<br>Outlet: φ6.0 mm × 2 parts<br>Net weight: 8.2 kg |                                                                                                                                                                                |       |          |
| Standard accessories                                                                                                                | Spacer: 4 pcs.                                                                                                                                                                 |       |          |
| Standard equipment                                                                                                                  | Mist separator / Micro-mist separator<br>Membrane air dryer / Air regulator<br>Regulator with Micro-mist separator<br>Digital pressure switch: 2 pcs. / Solenoid valve: 2 pcs. |       |          |
| Compatible model                                                                                                                    | E3000 (NRAF-5080) · ABT series<br>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

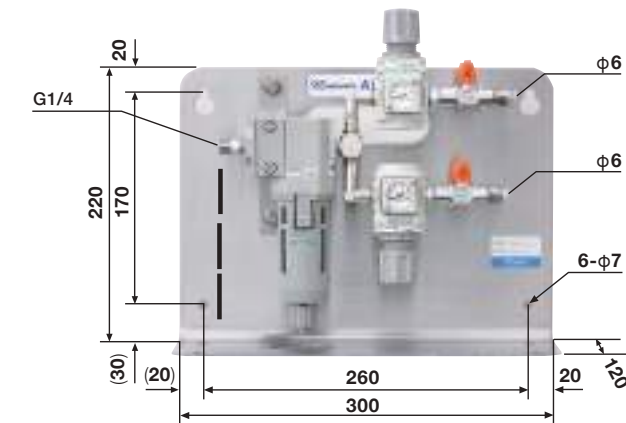


|                                                                                                             |                                                                                                                                                              |       |            |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------|
| Code No.                                                                                                    | 4501                                                                                                                                                         | Model | AL-M1201BL |
| <b>■ Air piping</b><br>Inlet: G1/4 male thread for connection hose<br>Outlet: φ6.0 mm<br>Net weight: 5.2 kg |                                                                                                                                                              |       |            |
| Standard accessories                                                                                        | Hose pipe (K-275): 2 m / Connection joint: 1 pc.<br>φ6 mm Air hose: 1 pc. / Spacer: 4 pcs.<br>Lubricating oil (K-202) 1 L: 1 pc.<br>Bolt (M8 × 20 L): 4 pcs. |       |            |
| Standard equipment                                                                                          | Air filter / Air regulator / Lubricator<br>ON-OFF valve / Alarm buzzer                                                                                       |       |            |
| Compatible model                                                                                            | E3000 (RG-3004M) · HTS series<br>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

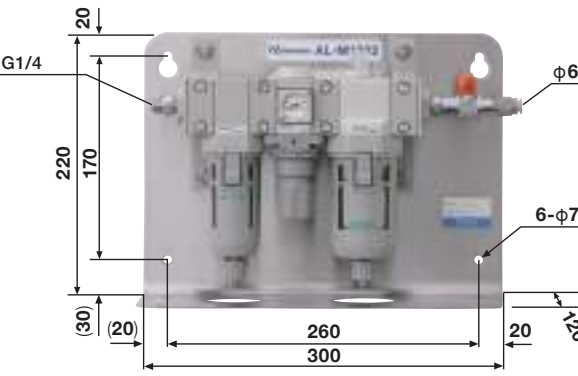


|                                                                                                                       |                                                                                                   |       |          |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------|----------|
| Code No.                                                                                                              | 4505                                                                                              | Model | AL-A1205 |
| <b>■ Air piping</b><br>Inlet: G1/4 male thread for connection hose<br>Outlet: φ6.0 mm × 2 parts<br>Net weight: 2.4 kg |                                                                                                   |       |          |
| Standard accessories                                                                                                  | Hose pipe (K-275): 2 m<br>Mounting screw (M6 × 20): 4 pcs.<br>Washer: 4 pcs. / Rubber pad: 4 pcs. |       |          |
| Standard equipment                                                                                                    | Oil mist filter / Air regulator: 2 pcs.<br>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

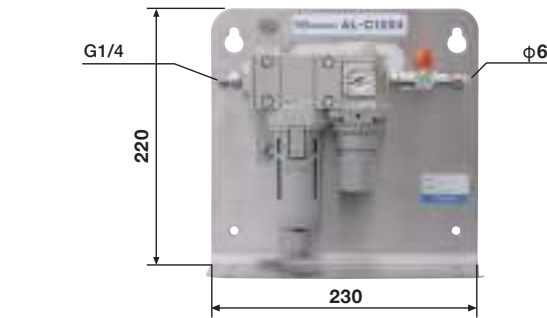
Filtration: 0.3 μm



|                                                                                                             |                                                                                                                                                              |       |          |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|
| Code No.                                                                                                    | 4502                                                                                                                                                         | Model | AL-M1202 |
| <b>■ Air piping</b><br>Inlet: G1/4 male thread for connection hose<br>Outlet: φ6.0 mm<br>Net weight: 2.8 kg |                                                                                                                                                              |       |          |
| Standard accessories                                                                                        | Hose pipe (K-275): 2 m / Hose band: 1 pc.<br>Lubricating oil (K-211) 70 cc: 1 pc.<br>Mounting screw (M6 × 20): 4 pcs.<br>Washer: 4 pcs. / Rubber pad: 4 pcs. |       |          |
| Standard equipment                                                                                          | Air filter / Air regulator / Lubricator<br>ON-OFF valve                                                                                                      |       |          |
| Compatible model                                                                                            | Air-Speed series · HTS series · PLANET series                                                                                                                |       |          |

AL-C1204

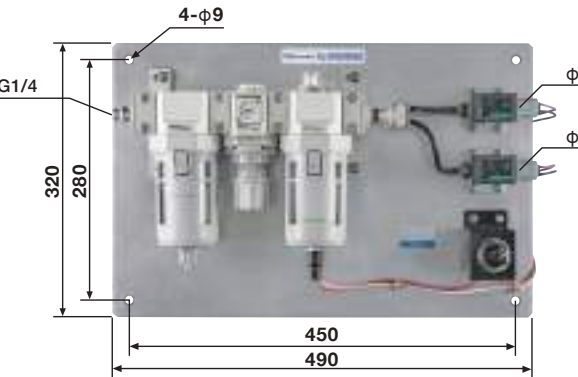
Filtration: 0.3 μm



|                                                                                                             |                                                                                                                      |       |          |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------|----------|
| Code No.                                                                                                    | 4504                                                                                                                 | Model | AL-C1204 |
| <b>■ Air piping</b><br>Inlet: G1/4 male thread for connection hose<br>Outlet: φ6.0 mm<br>Net weight: 1.9 kg |                                                                                                                      |       |          |
| Standard accessories                                                                                        | Hose pipe (K-275): 2 m / Rubber pad: 4 pcs.<br>Mounting screw (M6 × 20): 4 pcs.<br>Washer: 4 pcs. / Hose band: 1 pc. |       |          |
| Standard equipment                                                                                          | Air filter / Air regulator / Air pressure gauge<br>ON-OFF valve                                                      |       |          |
| Compatible model                                                                                            | E4000 series · E3000 series · E2000 series<br>iSpeed3 series · HES series                                            |       |          |

AL-M1203BS2

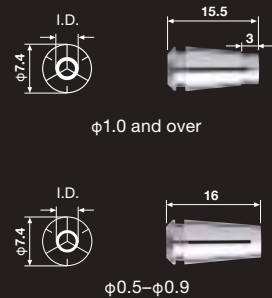
Filtration: 0.3 μm

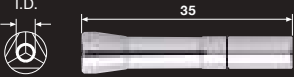


|                                                                                                                       |                                                                                                           |       |             |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------|-------------|
| Code No.                                                                                                              | 4503                                                                                                      | Model | AL-M1203BS2 |
| <b>■ Air piping</b><br>Inlet: G1/4 male thread for connection hose<br>Outlet: φ6.0 mm × 2 parts<br>Net weight: 3.9 kg |                                                                                                           |       |             |
| Standard accessories                                                                                                  | Hose pipe (K-275): 2 m<br>Lubricating oil (K-202) 1 L: 1 pc.<br>Bolt (M8 × 20 L): 4 pcs. / Spacer: 4 pcs. |       |             |
| Standard equipment                                                                                                    | Air filter / Air regulator / Lubricator<br>Solenoid valve: 2 pcs. / Alarm buzzer                          |       |             |
| Compatible model                                                                                                      | Air-Speed series                                                                                          |       |             |

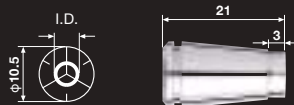
Collet

Order by Code No.

| CHA Group                                                                                                                                 |  | Fit nuts: CHN-A, CHN-AA, CHN-CTA, CHN-3A |             |                                                                                                                                                    |                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div></div> <div>φ1.0 and over</div> <div>φ0.5—φ0.9</div> |  | Code No.                                 | Model       | I.D. (mm)                                                                                                                                          | Compatible model                                                                                                                                                                                                                                                           |
|                                                                                                                                           |  | 91494                                    | CHA-3.0AA   | φ3.0AA*                                                                                                                                            | CTS-2630 / 2620A (Type AA only)<br>CTS-3030<br>EM20-S6000 · EM25-S6000<br>EMS-3060A · NR-3080S<br>MSS-19 · MSS-20 · MSS-22<br>PMS-3020A<br>QC3-A (NRR3060-QC / NR3060-AQC)<br>ABT-1000 / 1600<br>Xpeed1600 (Type AA only)<br>HES810 series<br>HTS series<br>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                                                                                                                                             |                                                                                                                                                                                                                                                                            |
|                                                                                                                                           |  | 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<br>φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9<br>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<br>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



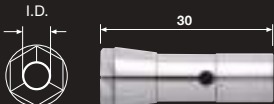
φ0.5-φ0.9

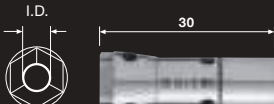
| Code No. | Model       | I.D. (mm)                                                                                                                                                                                                                                              | Compatible model                                                                                                                                                                                                                                                                                                                                                                                  |
|----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 91597    | CHK-3.0AA   | φ3.0AA*                                                                                                                                                                                                                                                | EM30-S6000 · EMA-3020K · EMR-3008K<br>EMS-3060K · NR-2551 · NR-3060<br>NR-3060S · NR-403E · NR-453E<br>NRAF-5080 · NRF-3060S · RAS-151E<br>RAX-71E · RAX-271E<br>MSS-25 · MSST-23 · PMA-3013K<br>PMR-3005K · PMS-3020K<br>NR-303 · NR-311 · NR-2351 · RAS-101<br>QC5-K (NRR4040-QC / NR4040-AQC)<br>QC3-K (NRR3060-QC / NR3060-AQC)<br>Xpeed1200 (Type AA only)<br>HES510 series<br>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<br>φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9<br>φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9<br>φ4.1, φ4.2, φ4.3, φ4.4, φ4.6, φ4.7, φ4.8, φ4.9<br>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<br>BMS-4020-MQL-CHK / 2M<br>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    |                  |  |  |  |  |

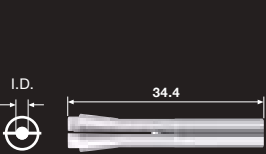
| CHR Group                                                                           |  |          |           |           |                  |  |  |  |  |
|-------------------------------------------------------------------------------------|--|----------|-----------|-----------|------------------|--|--|--|--|
|  |  | 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<br>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     |                                                     |  |  |  |  |

| 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<br>φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 |                  |  |  |  |  |

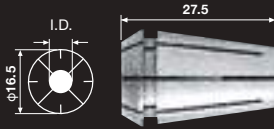
| CHSS Group                                                                            |  |          |            |           |                                                           |  |  |  |  |
|---------------------------------------------------------------------------------------|--|----------|------------|-----------|-----------------------------------------------------------|--|--|--|--|
|  |  | Code No. | Model      | I.D. (mm) | Compatible model                                          |  |  |  |  |
|                                                                                       |  | 93010    | CHSS-1.0   | φ1.0      | EMA-3020S · PMA-3013S<br>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 |
|                                                                                   | <b>91092</b>  | CH8-2.35  | φ2.35                                          | RA-100 · RA-151E |
|                                                                                   | <b>91030</b>  | CH8-3.0   | φ3.0                                           |                  |
|                                                                                   | <b>91093</b>  | CH8-3.175 | φ3.175                                         |                  |
|                                                                                   | <b>910</b> □□ | 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

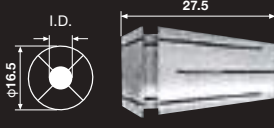


\*CH16-10.0 Length 24.5

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

CH16OH Group

Fit nut: CHN-16



\*CH16OH-9.0, 10.0 Length 24.5

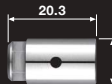
| Code No.     | Model        | I.D. (mm) | Compatible model                       |
|--------------|--------------|-----------|----------------------------------------|
| <b>93330</b> | CH16OH-3.0   | φ3.0      | BMS-4020-MQL / 2M<br>BMS-4040-MQL / 2M |
| <b>93331</b> | CH16OH-3.175 | φ3.175    |                                        |
| <b>93340</b> | CH16OH-4.0   | φ4.0      |                                        |
| <b>93350</b> | CH16OH-5.0   | φ5.0      |                                        |
| <b>93360</b> | CH16OH-6.0   | φ6.0      |                                        |
| <b>93363</b> | CH16OH-6.35  | φ6.35     |                                        |
| <b>93370</b> | CH16OH-7.0   | φ7.0      |                                        |
| <b>93380</b> | CH16OH-8.0   | φ8.0      |                                        |
| <b>93390</b> | CH16OH-9.0   | φ9.0      |                                        |
| <b>93400</b> | 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)<br>EM20-S6000・EM25-S6000<br>EMS-3060A・NR-3080S<br>MSS-19・MSS-20・MSS-22<br>PMS-3020A<br>HES810 series<br>iSpeed3 series |

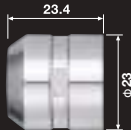
| CHN-AA                                                                              |             |        |                           | Fit collet: CHA Group |
|-------------------------------------------------------------------------------------|-------------|--------|---------------------------|-----------------------|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

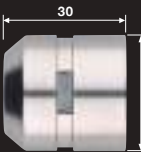
| CHN-CTA                                                                             |             |               |                           | Fit collet: CHA Group   |
|-------------------------------------------------------------------------------------|-------------|---------------|---------------------------|-------------------------|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

| CHN-3A                                                                              |             |        |                           | Fit collet: CHA Group  |
|-------------------------------------------------------------------------------------|-------------|--------|---------------------------|------------------------|
|  | Code No.    | Model  | Description               | Compatible model       |
|                                                                                     | <b>2160</b> | 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<br>BMS-4020-MQL-CHK / 2M<br>BMS-4040-MQL-CHK / 2M<br>QC5-K (NRR4040-QC / NR4040-AQC)<br>QC3-K (NRR3060-QC / NR3060-AQC)<br>EM30-S6000 · EMA-3020K · EMR-3008K<br>EMS-3060K · NR-403E · NR-453E<br>NR-2551 · NR-3060 · NR-3060S<br>NRF-3060S · RAS-151E · RAX-71E<br>RAX-271E<br>MSS-25 · MSST-23<br>NR-303 · NR-311 · NR-2351 · RAS-101<br>PMA-3013K · PMR-3005K · PMS-3020K<br>HES510 series<br>PLANET series |

| K-265A                                                                                |             |        |                           | Fit collet: CHK Group  |
|---------------------------------------------------------------------------------------|-------------|--------|---------------------------|------------------------|
|  | Code No.    | Model  | Description               | Compatible model       |
|                                                                                       | <b>2158</b> | K-265A | Collet nut for CHK collet | NRAF-5080<br>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<br>BMS-4020RA · BMS-4040 / 2M<br>BMS-4040-MQL / 2M · BMS-4040RA<br>BMS-4040RA-RGD-03M / 2M<br>BMS-4040-RGD-03M / 2M · NR-4040<br>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

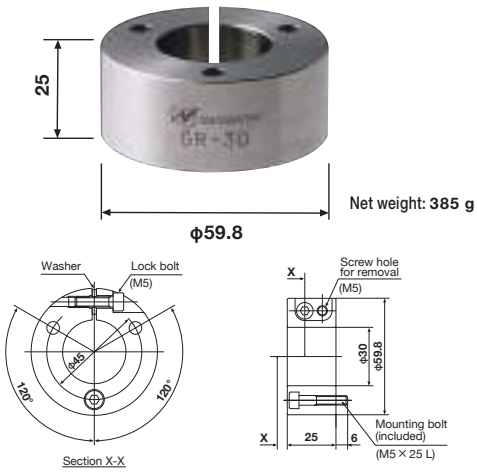
GR-22.8



|                      |                                   |       |         |
|----------------------|-----------------------------------|-------|---------|
| Code No.             | 1888                              | Model | GR-22.8 |
| Standard accessories | Mounting bolt (M5 × 25 L): 3 pcs. |       |         |
| Compatible model     | φ22.8 mm Spindle                  |       |         |

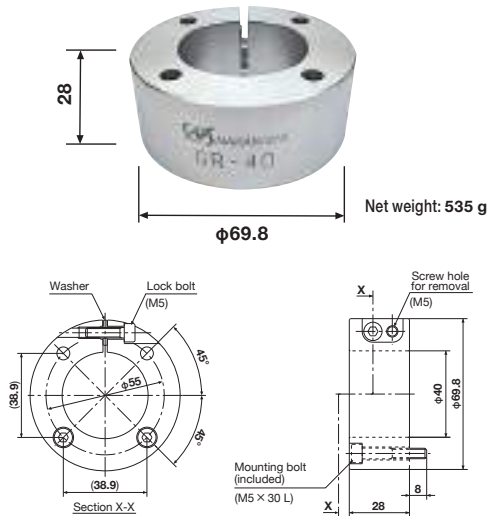
\*GR-22.8 cannot be used with NR-311.

GR-30



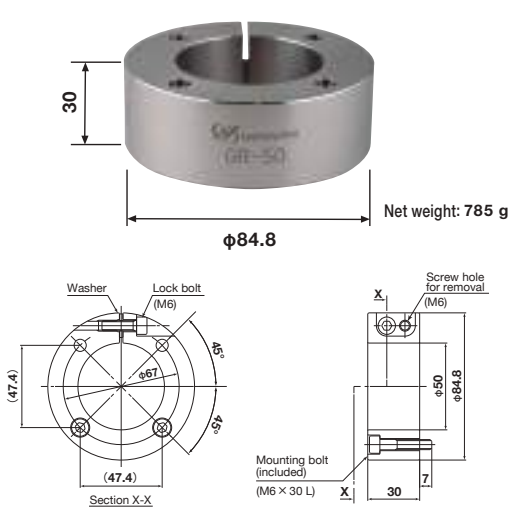
|                      |                                   |       |       |
|----------------------|-----------------------------------|-------|-------|
| Code No.             | 1885                              | Model | GR-30 |
| Standard accessories | Mounting bolt (M5 × 25 L): 3 pcs. |       |       |
| Compatible model     | φ30 mm Spindle                    |       |       |

GR-40



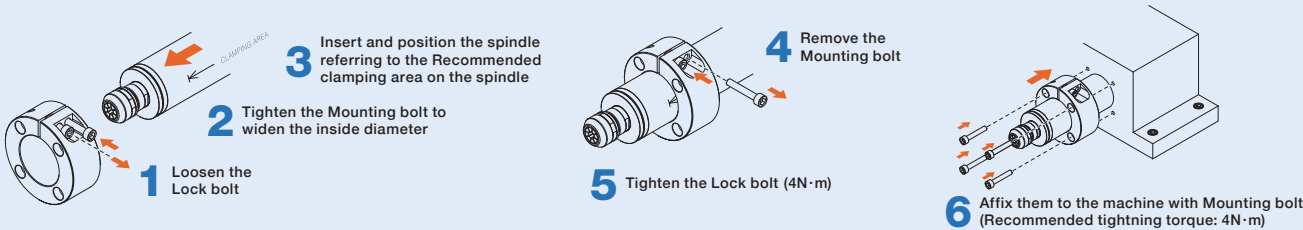
|                      |                                   |       |       |
|----------------------|-----------------------------------|-------|-------|
| Code No.             | 1886                              | Model | GR-40 |
| Standard accessories | Mounting bolt (M5 × 30 L): 4 pcs. |       |       |
| Compatible model     | φ40 mm Spindle                    |       |       |

GR-50



|                      |                                   |       |       |
|----------------------|-----------------------------------|-------|-------|
| Code No.             | 1889                              | Model | GR-50 |
| Standard accessories | Mounting bolt (M6 × 30 L): 4 pcs. |       |       |
| Compatible model     | φ50 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<br>(φ22 × 10 mm)              | BM-322FL · BM-322FR |

Bush

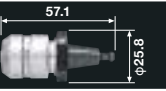
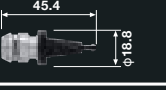
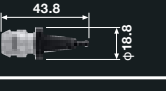
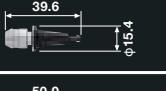
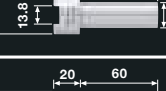
Bushings to allow smaller diameter spindles to be mounted in larger diameter holders

| Bush | Code No. | Model                  | Description / Dimensions (I.D. × O.D. × L) | Compatible model                                                                             |
|------|----------|------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------|
|      | 1887     | RB-19.05 × 25.4 × 36 L | φ25.4 Bush<br>(φ19.05 × φ25.4 × 36 mm)     | BM-319 · BM-319F · BMF-319 · BMJ-319<br>MSS-1902R / RA · MSS-1908R / RA<br>MSS-1930R / RA    |
|      | 1877     | RB-20 × 22             | φ22 Bush<br>(φ20 × φ22 × 40 mm)            | BM-320 · BMF-320 · BMJ-320 · EM20-S6000<br>MSS-2002R / RA · MSS-2008R / RA<br>MSS-2030R / RA |
|      | 1876     | RB-20 × 22.8           | φ22.8 Bush<br>(φ20 × φ22.8 × 40 mm)        | BM-320 · BMF-320 · BMJ-320 · EM20-S6000<br>MSS-2002R / RA · MSS-2008R / RA<br>MSS-2030R / RA |
|      | 1875     | RB-20 × 23             | φ23 Bush<br>(φ20 × φ23 × 40 mm)            | BM-320 · BMF-320 · BMJ-320 · EM20-S6000<br>MSS-2002R / RA · MSS-2008R / RA<br>MSS-2030R / RA |
|      | 1878     | RB-20 × 25             | φ25 Bush<br>(φ20 × φ25 × 40 mm)            | BM-320 · BMF-320 · BMJ-320 · EM20-S6000<br>MSS-2002R / RA · MSS-2008R / RA<br>MSS-2030R / RA |
|      | 1879     | RB-20 × 25.4           | φ25.4 Bush<br>(φ20 × φ25.4 × 40 mm)        | BM-320 · BMF-320 · BMJ-320 · EM20-S6000<br>MSS-2002R / RA · MSS-2008R / RA<br>MSS-2030R / RA |
|      | 1883     | RB-22 × 25 × 34 L      | φ25 Bush<br>(φ22 × φ25 × 33.5 mm)          | BM-322 · BM-322FL · BM-322FR<br>BM-322FS · BMF-322 · BMJ-322                                 |
|      | 1884     | RB-22 × 25.4 × 34 L    | φ25.4 Bush<br>(φ22 × φ25.4 × 33.5 mm)      | BM-322 · BM-322FL · BM-322FR<br>BM-322FS · BMF-322 · BMJ-322                                 |
|      | 1872     | RBS-22.8 × 25          | φ25 Bush<br>(φ22.8 × φ25 × 25 mm)          | AMH-301 · NR-303 · NR-311 · NR-2351<br>RA-200 · RAS-101                                      |
|      | 1871     | RB-22.8 × 25           | φ25 Bush<br>(φ22.8 × φ25 × 44 mm)          | RA-100                                                                                       |
|      | 1874     | RBS-22.8 × 25.4        | φ25.4 Bush<br>(φ22.8 × φ25.4 × 25 mm)      | AMH-301 · NR-303 · NR-311 · NR-2351<br>RA-200 · RAS-101                                      |
|      | 1873     | RB-22.8 × 25.4         | φ25.4 Bush<br>(φ22.8 × φ25.4 × 44 mm)      | RA-100                                                                                       |
|      | 1880     | RB-30 × 32             | φ32 Bush<br>(φ30 × φ32 × 45 mm)            | NR-3060 · NR-3060S · NR-403E                                                                 |
|      | 1881     | RB-30 × 36             | φ36 Bush<br>(φ30 × φ36 × 45 mm)            | NR-3060 · NR-3060S · NR-403E                                                                 |

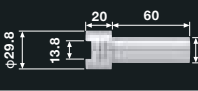
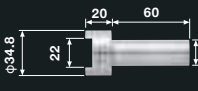
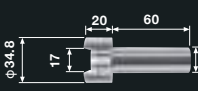
Adjuster bolt

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

Collet holder

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

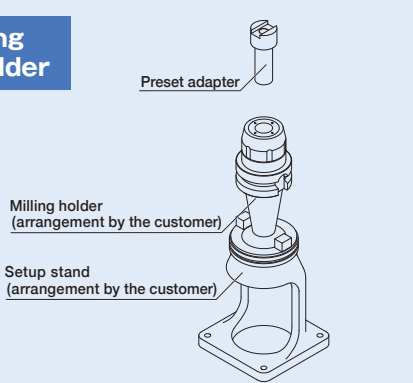
Preset adapter

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

Set-up outside machines

1

In case using a milling holder

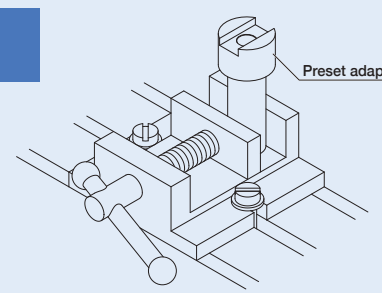


Preset adapter

Milling holder (arrangement by the customer)

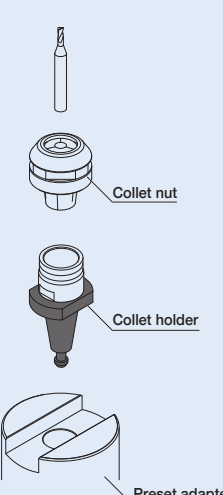
Setup stand (arrangement by the customer)

In case using a vice



2

For QC3-K/A  
QC5-16/K

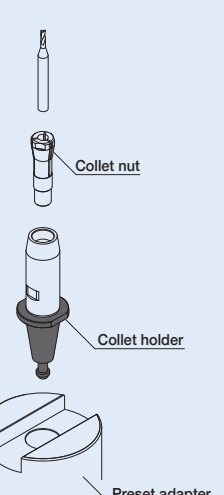


Collet nut

Collet holder

Preset adapter

For QC3-SS

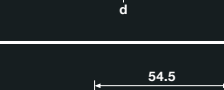
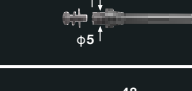
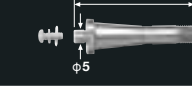
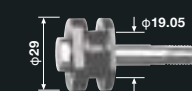


Collet nut

Collet holder

Preset adapter

Metal saw arbor · Grindstone arbor · Grindstone flange

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

Grease · Oil

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

COMBOX



| Code No.                           | <b>8495</b>                                                                                                                                          | Model | <b>COMBOX</b> |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|
| Specifications                     | Input voltage: DC24 V (DC23-25 V)<br>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.<br>Cable D · E · F: 1 pc. each / Relay: 1 pc.<br>Screw · Nut: 2 pcs. each / Connector cap: 4 pcs. |       |               |
| Compatible controllers             | E3000 controller · iSpeed3 controller                                                                                                                |       |               |
| External connecting device         | CNC automatic lathe<br>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)

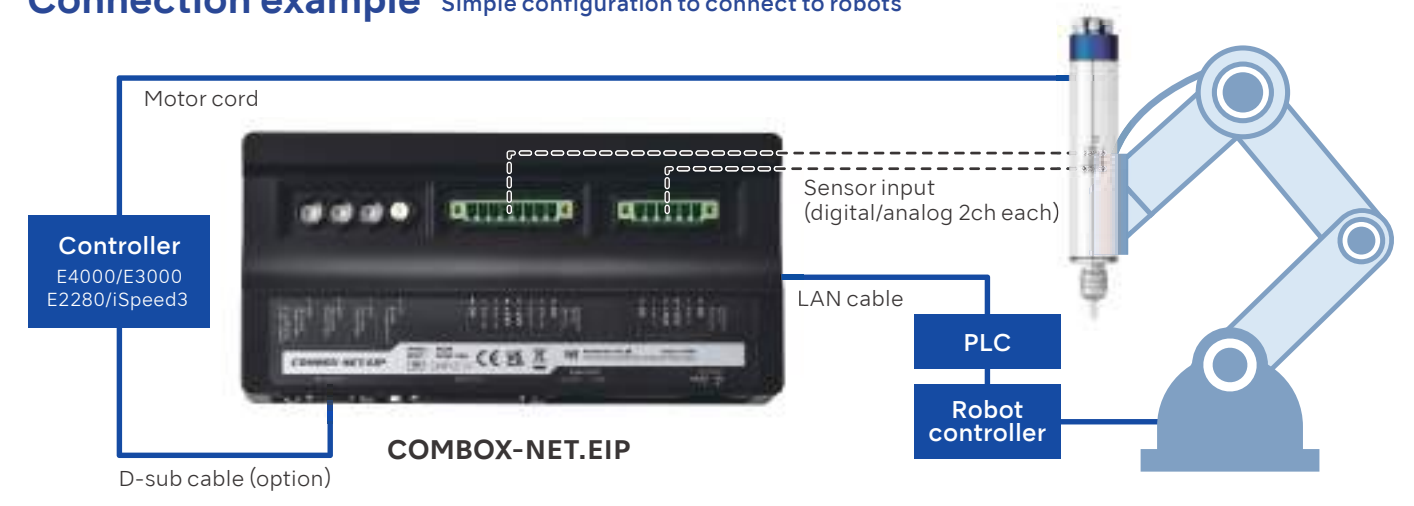


Previous  
[I/O related device is required]

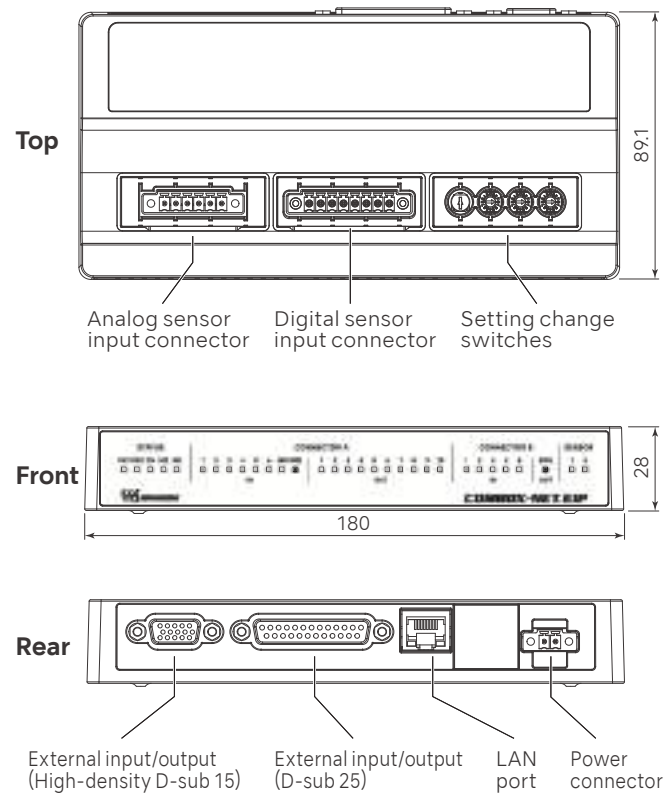


Using COMBOX-NET.EIP  
[No I/O related device is required]

## 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 |
|----------|------|-------|----------------|

\*D-sub cables are sold separately.

## Option

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

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.