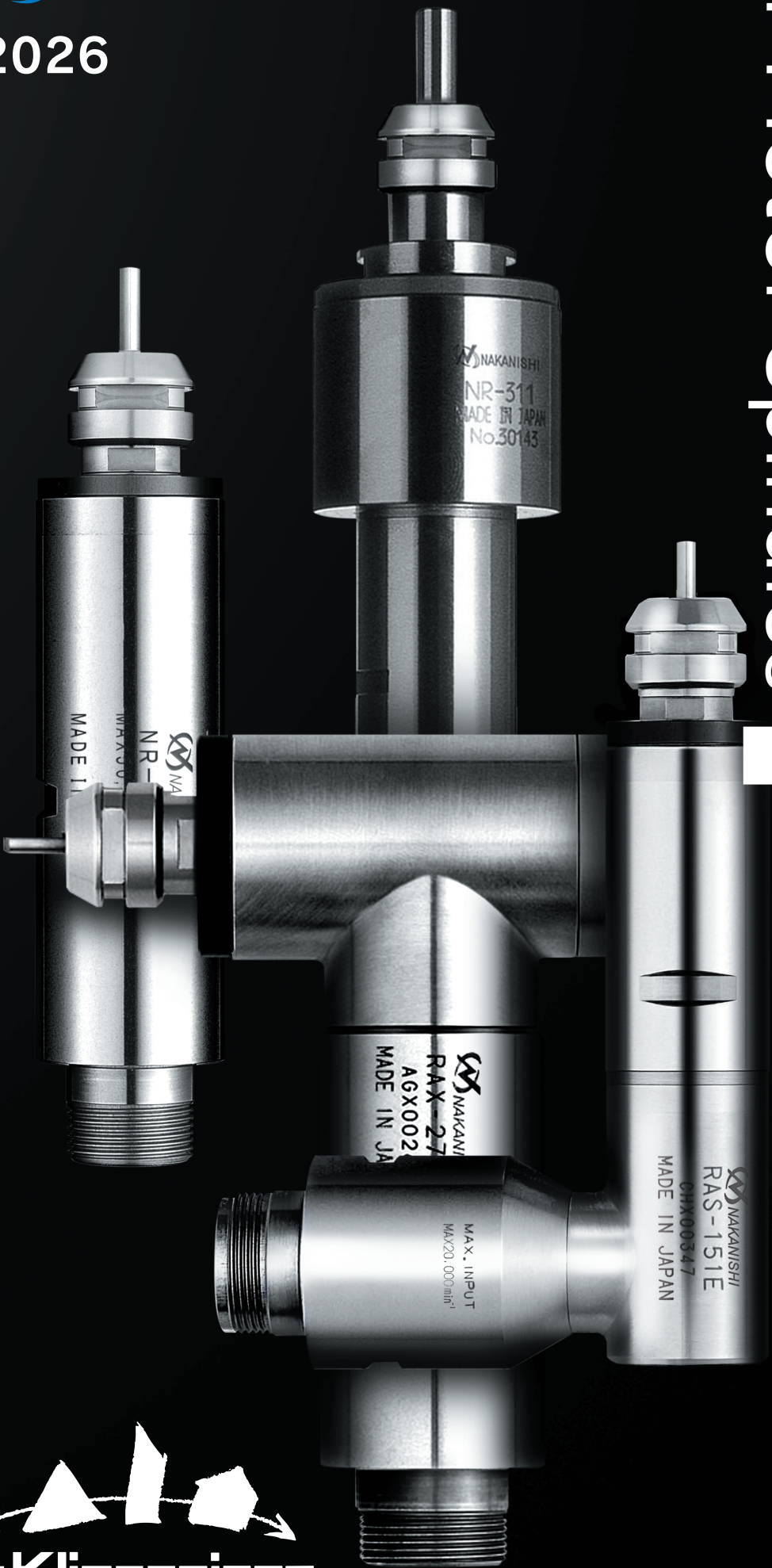




2026

Air Speed Air Motor Spindles



eka Klingseisen
Werkzeuge & Maschinen

Air-Speed

NAKANISHI INC. 2026

Air-Speed SERIES

HIGH-SPEED ROTATION & HIGH PRECISION

φ25, φ23, φ20, φ19.05 mm

One-piece type spindle

- Max. power: **130 W** • Max. motor speed: **30,000 min⁻¹**
- Shorten total spindle length suitable for the compact sized NC or CNC Lathe, and special purpose machines.
- Hardened and precision ground for high rigidity & excellent durability.
- External housing is one-piece with the spindle & the motor for machine attachments.

φ30, φ25, φ22.8 mm

Separate type spindle

- Max. power: **130 W** • Max. motor speed: **30,000 min⁻¹**
- Free to connect the spindle to the motor for applications.
- Easy to exchange for repairs.



E4000

E3000

E2000

iSpeed3

Air-Speed

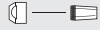
HES



TURBINES

ACCESSORIES

“Air-Speed” System Chart

One-piece type $\phi 25$, $\phi 23$, $\phi 20$, $\phi 19.05$ mm

Collet nut K-265

Collet CHK Group
 $\phi 0.5-6.35$ mm

Metal saw arbor KCH-03

Grindstone arbor AGM-03


Collet nut CHN-A

Collet CHA Group
 $\phi 0.5-4.0$ mm

24,000 / 6,000 / 1,500 min⁻¹



Air motor spindle
 MSS-25 Series Straight type

22,000 / 5,500 / 1,400 min⁻¹



Air motor spindle
 MSS-25 Series 90° angle type

30,000 / 7,700 / 2,000 min⁻¹



Air motor spindle
 MSST-23 Series Straight type

27,000 / 7,200 / 1,900 min⁻¹



Air motor spindle
 MSST-23 Series 90° angle type

30,000 / 8,000 / 2,000 min⁻¹



Air motor spindle
 MSS-20 Series Straight type

30,000 / 8,000 / 2,000 min⁻¹



Air motor spindle
 MSS-20 Series 90° angle type

30,000 / 8,000 / 2,000 min⁻¹



Air motor spindle
 MSS-19 Series Straight type

30,000 / 8,000 / 2,000 min⁻¹



Air motor spindle
 MSS-19 Series 90° angle type

Compressor



AL-M1202 / AL-M1203BS2
 Air line kit

▼ AIR MOTOR SPINDLE (One-piece type)

Straight motor spindle



Outside diameter $\phi 25, \phi 23, \phi 20, \phi 19.05$ mm

Max. speed 30,000 min⁻¹

Max. power 130 W

Model Code Example

- [1] SERIES CODE
- [2] OUTSIDE DIAMETER
- [3] SPEED
- [4] R=FORWARD (Right)
- [5] CODE FOR 90° ANGLE TYPE

•Straight type

| | | | |
|-----|-----|-----|-----|
| MSS | 19 | 08 | R |
| [1] | [2] | [3] | [4] |

•90° angle type

| | | | | |
|-----|-----|-----|-----|-----|
| MSS | 19 | 08 | R | A |
| [1] | [2] | [3] | [4] | [5] |

Spindle accuracy:
Within 2 μ m



• **Outer housing material**

Made from stainless steel (SUS416)

• **Highest output power in the class**

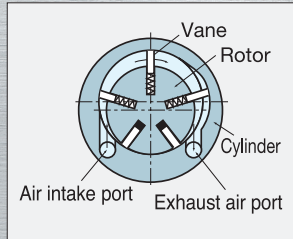
• **Silencer**

By utilizing a silencer on the exhaust air tubing the noise generated by the motor or turbine is greatly reduced.

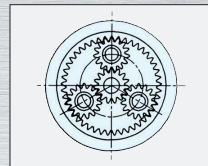
• **Speed reduction system**

A planetary gear speed reduction system is incorporated in some of the MSS Series motor spindles. The speed reduction ratio is either 1/4 or 1/16.

• **Air motor**



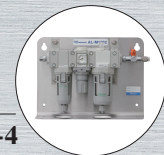
The rotor of the air motor rotates off center in the cylinder. The vanes are pushed by compressed air and this rotates the rotor. This small air motor produces high torque making it suitable for small diameter drilling, milling, slitting and grinding.



1/4 1/16:
Planetary gear system

Air line kit
AL-M1202

OPTION → See p. 8-3 and p. 8-4



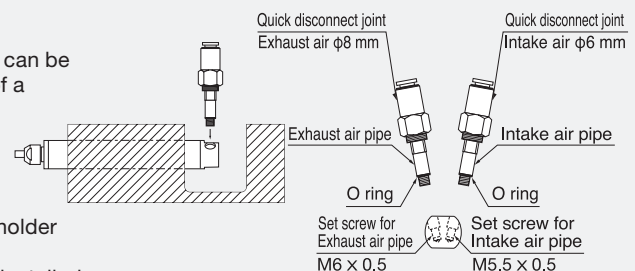
• **Installation of the 90° angle type**

- MSS · MSST series angle (RA) type drive air and exhaust air pipes can be removed enabling the motor spindle installed through the front of a holder with backside restriction as shown in the illustration.

Installation

- [1] Remove Intake and Exhaust air pipes from motor spindle.
- [2] Insert the straight spindle from the front side of holder and fix it.
- [3] Mount the Intake and Exhaust air pipes to the spindle fixed on the holder and attach a hose to the quick disconnect joint.

- Urethane hose of 6 × 4 for Intake air and 8 × 5 for Exhaust air can be installed.



*The motor speed of the 90° angle type is 10% less than that of the Straight type.

E4000
E3000
E2000
iSpeed3
Air-Speed
HES
TURBINES
ACCESSORIES

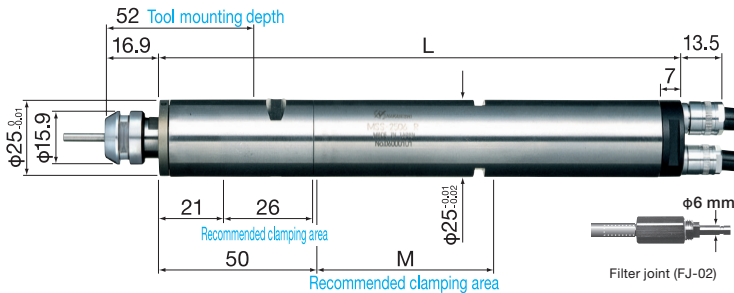
▶ “Air-Speed” Motor spindle

Air motor spindle

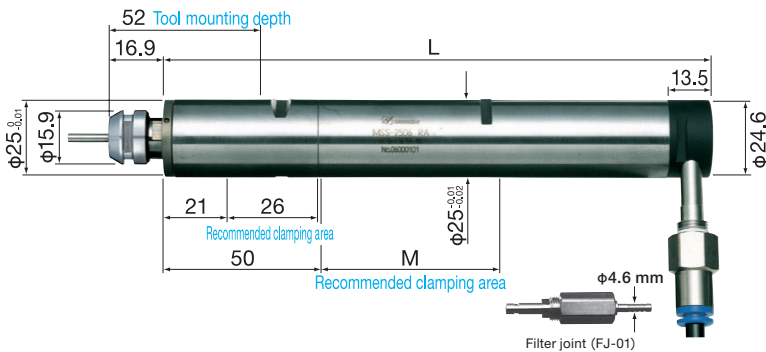
MSS-25 Series

| | O.D. | Collet | Spindle accuracy | Max. power | Air consumption |
|--|--------|------------------------------|------------------|------------|-----------------------------------|
| | φ25 mm | CHK Group (φ0.5–φ6.35 mm) | Within 2 μm | 130 W | 205 NL/min (R) 170 NL/min (RA) |

▼ MSS-25 Series Straight type (R)



▼ MSS-25 Series 90° angle type (RA)



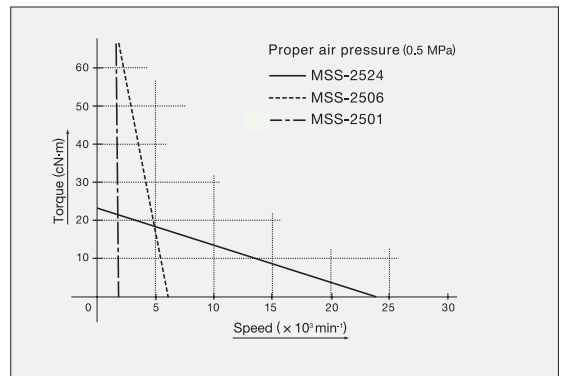
< Specifications >

Proper air pressure : 0.3–0.5 MPa

Motor hose (Diameter / Length)

| R-type | Intake | : φ6.7 mm (O.D.) × φ4.5 mm (I.D.) × 2 m |
|---------|---------|-----------------------------------------|
| | Exhaust | : φ7.5 mm (O.D.) × φ5.5 mm (I.D.) × 1 m |
| RA-type | Intake | : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m |
| | Exhaust | : φ8.0 mm (O.D.) × φ6.0 mm (I.D.) × 1 m |

• MSS-25 Series Torque-Speed Characteristics



Two recommended clamp areas are laser-marked on the spindle. Select one of them for clamping, and do not clamp both areas.

R 24,000 min⁻¹ (0.5 MPa) / RA 22,000 min⁻¹ (0.5 MPa)

| Code No. | 7841 | Model | MSS-2524R | Shape | Straight | Max. torque | 22.5 cN·m | Net weight | 395 g | L | 131.3 mm | M | 25 mm |
|----------|------|-------|------------|-------|-----------|-------------|-----------|------------|-------|---|----------|---|-------|
| Code No. | 7842 | Model | MSS-2524RA | Shape | 90° angle | | | Net weight | 436 g | L | 137.8 mm | | |

R 6,000 min⁻¹ (0.5 MPa) / RA 5,500 min⁻¹ (0.5 MPa) 1/4 Speed reduction

| Code No. | 7843 | Model | MSS-2506R | Shape | Straight | Max. torque | 85 cN·m | Net weight | 485 g | L | 164.1 mm | M | 58 mm |
|----------|------|-------|------------|-------|-----------|-------------|---------|------------|-------|---|----------|---|-------|
| Code No. | 7844 | Model | MSS-2506RA | Shape | 90° angle | | | Net weight | 526 g | L | 170.6 mm | | |

R 1,500 min⁻¹ (0.5 MPa) / RA 1,400 min⁻¹ (0.5 MPa) 1/16 Speed reduction

| Code No. | 7845 | Model | MSS-2501R | Shape | Straight | Max. torque | 332 cN·m | Net weight | 475 g | L | 168.5 mm | M | 62 mm |
|----------|------|-------|------------|-------|-----------|-------------|----------|------------|-------|---|----------|---|-------|
| Code No. | 7846 | Model | MSS-2501RA | Shape | 90° angle | | | Net weight | 516 g | L | 175.0 mm | | |

< Standard equipment and accessories >

- Collet nut (K-265) • Wrench (12 × 14): 2 pcs.
- Intake and exhaust hose (K-204) (R-type): 1 pc.
- Intake hose (K-215) (RA-type): 1 pc.
- Exhaust hose (K-256) (RA-type): 1 pc.
- Filter joint (FJ-02) (R-type)
- Filter joint (FJ-01) (RA-type)
- Silencer (K-208) *Collet is sold separately.

< Options >

- Collet (CHK Group) : φ0.5–φ6.35 mm [p. 8-5](#)
- Metal saw arbor (KCH-03) : φd (I.D.) × under φ30 mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm

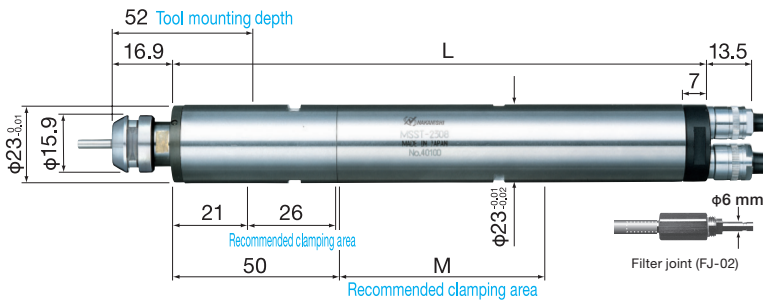
CAD drawings CAD drawings (DXF/STEP) are available on our website

Air motor spindle

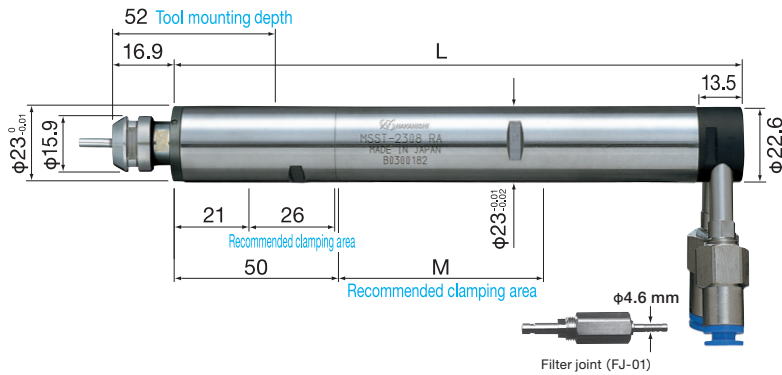
MSST-23 Series

| O.D. | Collet | Spindle accuracy | Max. power | Air consumption |
|--------|------------------------------|------------------|------------|-----------------------------------|
| φ23 mm | CHK Group (φ0.5–φ6.35 mm) | Within 2 μm | 108 W | 190 NL/min (R) 170 NL/min (RA) |

▼ MSST-23 Series Straight type (R)



▼ MSST-23 Series 90° angle type (RA)



< Specifications >

Proper air pressure : 0.3–0.5 MPa

Motor hose (Diameter / Length)

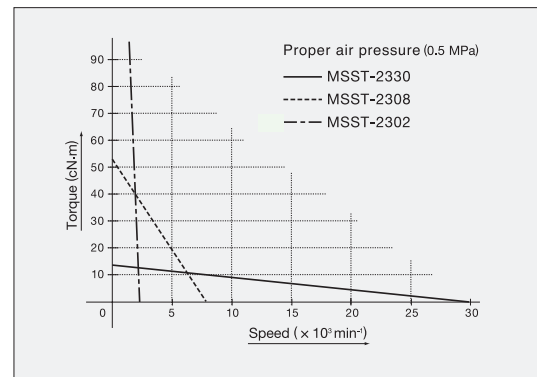
R-type Intake : φ6.7 mm (O.D.) × φ4.5 mm (I.D.) × 2 m

Exhaust : φ7.5 mm (O.D.) × φ5.5 mm (I.D.) × 1 m

RA-type Intake : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m

Exhaust : φ8.0 mm (O.D.) × φ5.0 mm (I.D.) × 1 m

• MSST-23 Series Torque-Speed Characteristics



Two recommended clamp areas are laser-marked on the spindle. Select one of them for clamping, and do not clamp both areas.

R 30,000 min⁻¹ (0.5 MPa) / RA 27,000 min⁻¹ (0.5 MPa)

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------|-----------|-------------|------------|----------|-------|
| 7833 | MSST-2330R | Straight | 13.7 cN·m | 328 g | 127.3 mm | 25 mm |
| 7834 | MSST-2330RA | 90° angle | | 369 g | 133.8 mm | |

R 7,700 min⁻¹ (0.5 MPa) / RA 7,200 min⁻¹ (0.5 MPa) 1/4 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------|-----------|-------------|------------|----------|-------|
| 7835 | MSST-2308R | Straight | 52 cN·m | 415 g | 160.1 mm | 58 mm |
| 7836 | MSST-2308RA | 90° angle | | 456 g | 166.6 mm | |

R 2,000 min⁻¹ (0.5 MPa) / RA 1,900 min⁻¹ (0.5 MPa) 1/16 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------|-----------|-------------|------------|----------|-------|
| 7837 | MSST-2302R | Straight | 202 cN·m | 405 g | 164.4 mm | 62 mm |
| 7838 | MSST-2302RA | 90° angle | | 446 g | 170.9 mm | |

< Standard equipment and accessories >

- Collet nut (K-265) • Wrench (12 × 14): 2 pcs.
- Intake and exhaust hose (K-204) (R-type): 1 pc.
- Intake hose (K-215) (RA-type): 1 pc.
- Exhaust hose (K-216) (RA-type): 1 pc.
- Filter joint (FJ-02) (R-type)
- Filter joint (FJ-01) (RA-type)
- Silencer (K-208) *Collet is sold separately.

< Options >

- Collet (CHK Group) : φ0.5–φ6.35 mm **p. 8-5**
- Metal saw arbor (KCH-03) : φd (I.D.) × under φ30 mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm

▶ “Air-Speed” Motor spindle

Air motor spindle

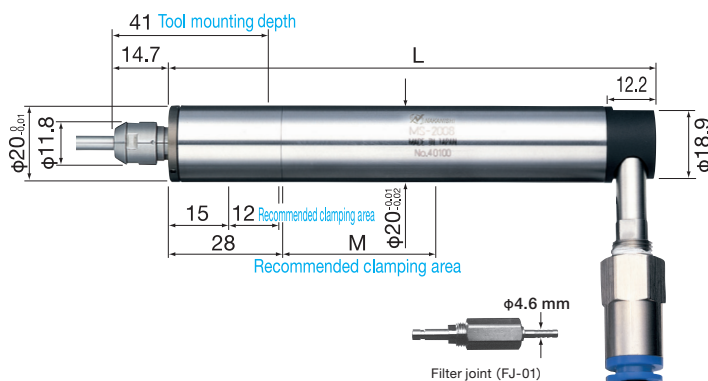
MSS-20 Series

| | O.D. | Collet | Spindle accuracy | Max. power | Air consumption |
|--|--------|--------------------------|------------------|------------|---------------------|
| | φ20 mm | CHA Group (φ0.5–φ4.0 mm) | Within 2 μm | 72 W | 155 NL/min (R · RA) |

▼ MSS-20 Series Straight type (R)



▼ MSS-20 Series 90° angle type (RA)



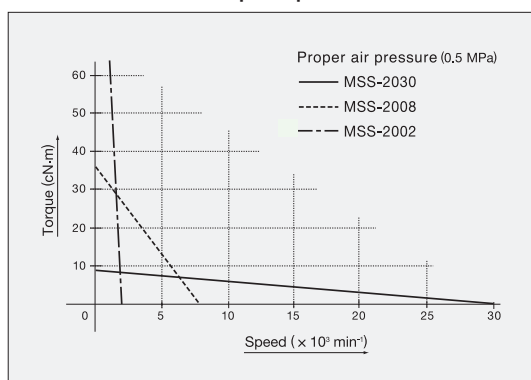
< Specifications >

Proper air pressure : 0.3–0.5 MPa

Motor hose (Diameter / Length)

| R-type | Intake | Exhaust |
|---------|---------------------------------------|---------------------------------------|
| | φ5.7 mm (O.D.) × φ3.7 mm (I.D.) × 2 m | φ6.5 mm (O.D.) × φ5.0 mm (I.D.) × 1 m |
| RA-type | φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m | φ8.0 mm (O.D.) × φ5.0 mm (I.D.) × 1 m |

• MSS-20 Series Torque-Speed Characteristics



Two recommended clamp areas are laser-marked on the spindle. Select one of them for clamping, and do not clamp both areas.

30,000 min⁻¹ (0.5 MPa)

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|----------|------------|-----------|-------------|------------|----------|-------|
| 7851 | MSS-2030R | Straight | 9.2 cN·m | 190 g | 110.9 mm | 23 mm |
| 7852 | MSS-2030RA | 90° angle | | 239 g | 103.1 mm | |

8,000 min⁻¹ (0.5 MPa) 1/4 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|----------|------------|-----------|-------------|------------|----------|-------|
| 7828 | MSS-2008R | Straight | 36 cN·m | 225 g | 126.8 mm | 39 mm |
| 7829 | MSS-2008RA | 90° angle | | 274 g | 119.0 mm | |

2,000 min⁻¹ (0.5 MPa) 1/16 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|----------|------------|-----------|-------------|------------|----------|-------|
| 7830 | MSS-2002R | Straight | 141 cN·m | 241 g | 141.0 mm | 53 mm |
| 7831 | MSS-2002RA | 90° angle | | 290 g | 133.2 mm | |

< Standard equipment and accessories >

- Collet nut (CHN-A) · Wrench (8 × 5) · (9 × 11): 1 pc. each
- Intake and exhaust hose (K-221) (R-type): 1 pc.
- Intake hose (K-215) (RA-type): 1 pc.
- Exhaust hose (K-216) (RA-type): 1 pc.
- Filter joint (FJ-01)
- Silencer (K-209) (R-type) · Silencer (K-208) (RA-type)

*Collet is sold separately.

< Options >

Collet (CHA Group) : φ0.5–φ4.0 mm [p. 8-5](#)

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

Air motor spindle

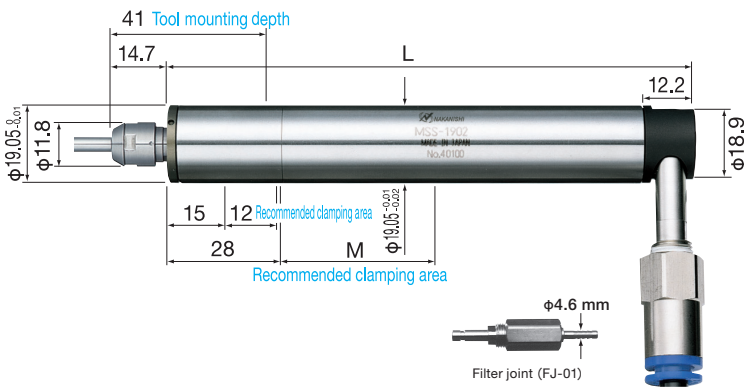
MSS-19 Series

| O.D. | Collet | Spindle accuracy | Max. power | Air consumption |
|-----------|--------------------------|------------------|------------|---------------------|
| φ19.05 mm | CHA Group (φ0.5–φ4.0 mm) | Within 2 μm | 72 W | 155 NL/min (R · RA) |

▼ MSS-19 Series Straight type (R)



▼ MSS-19 Series 90° angle type (RA)



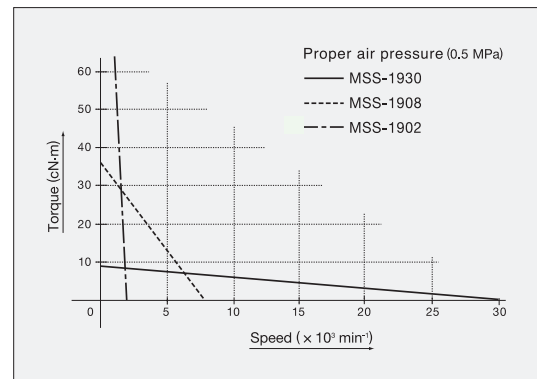
< Specifications >

Proper air pressure : 0.3–0.5 MPa

Motor hose (Diameter / Length)

| R-type | Intake | Exhaust |
|--------|--------------------------------------------------------|-------------------------------------------------|
| R-type | Intake : φ5.7 mm (O.D.) × φ3.7 mm (I.D.) × 2 m | Exhaust : φ6.5 mm (O.D.) × φ5.0 mm (I.D.) × 1 m |
| | RA-type Intake : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m | Exhaust : φ8.0 mm (O.D.) × φ5.0 mm (I.D.) × 1 m |

• MSS-19 Series Torque-Speed Characteristics



Two recommended clamp areas are laser-marked on the spindle. Select one of them for clamping, and do not clamp both areas.

30,000 min⁻¹ (0.5 MPa)

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------------|-----------|-----------------|--------------|-----------------|--------------|
| 7849 | MSS-1930R | Straight | 9.2 cN·m | 171 g | 110.9 mm | 23 mm |
| 7850 | MSS-1930RA | 90° angle | | 219 g | 103.1 mm | |

8,000 min⁻¹ (0.5 MPa) 1/4 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------------|-----------|----------------|--------------|-----------------|--------------|
| 7824 | MSS-1908R | Straight | 36 cN·m | 202 g | 126.8 mm | 39 mm |
| 7825 | MSS-1908RA | 90° angle | | 250 g | 119.0 mm | |

2,000 min⁻¹ (0.5 MPa) 1/16 Speed reduction

| Code No. | Model | Shape | Max. torque | Net weight | L | M |
|-------------|-------------------|-----------|-----------------|--------------|-----------------|--------------|
| 7826 | MSS-1902R | Straight | 141 cN·m | 216 g | 141.0 mm | 53 mm |
| 7827 | MSS-1902RA | 90° angle | | 264 g | 133.2 mm | |

< Standard equipment and accessories >

- Collet nut (GHN-A) • Wrench (8 × 5) • (9 × 11): 1 pc. each
- Intake and exhaust hose (K-221) (R-type): 1 pc.
- Intake hose (K-215) (RA-type): 1 pc.
- Exhaust hose (K-216) (RA-type): 1 pc.
- Filter joint (FJ-01)
- Silencer (K-209) (R-type) • Silencer (K-208) (RA-type)

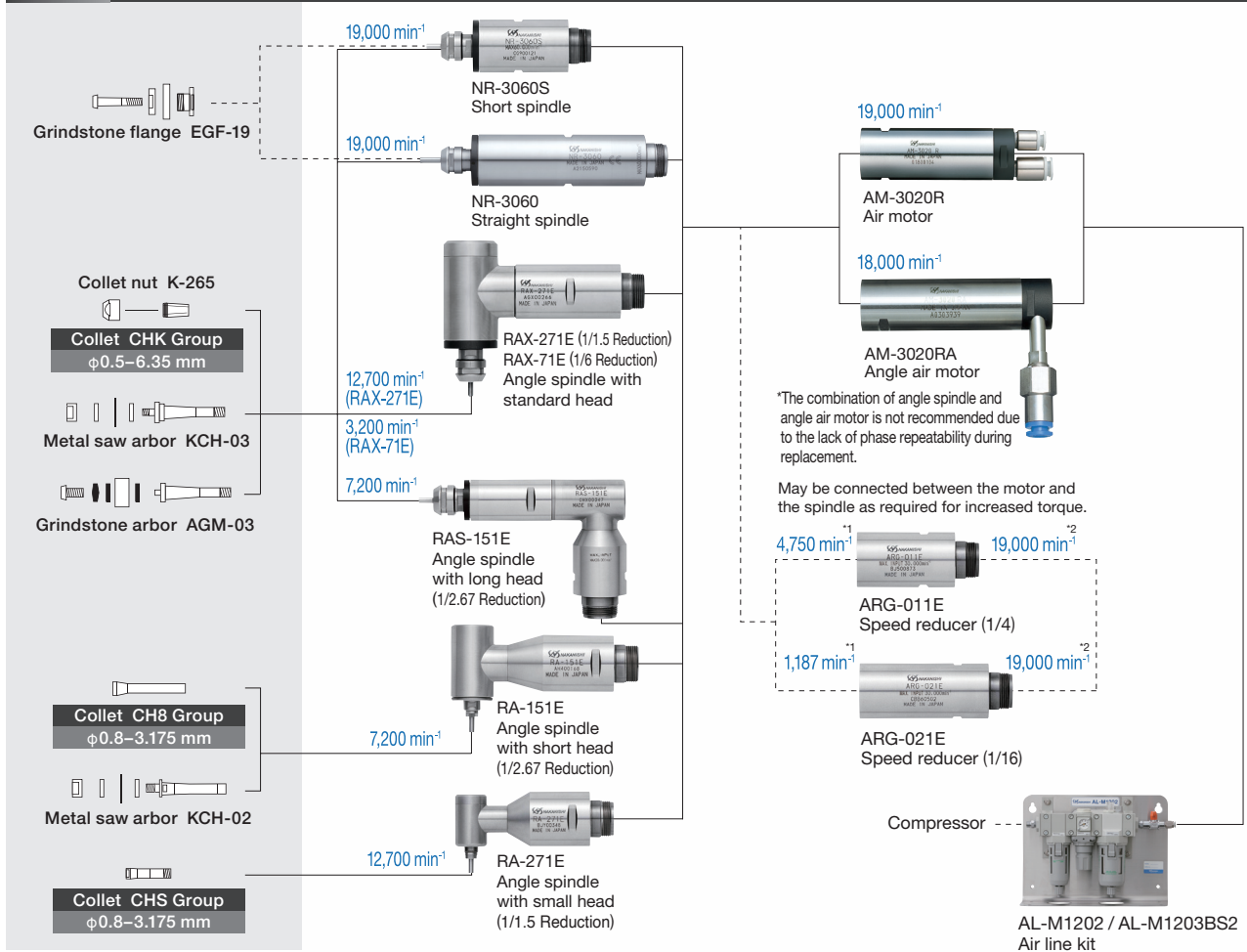
*Collet is sold separately.

< Options >

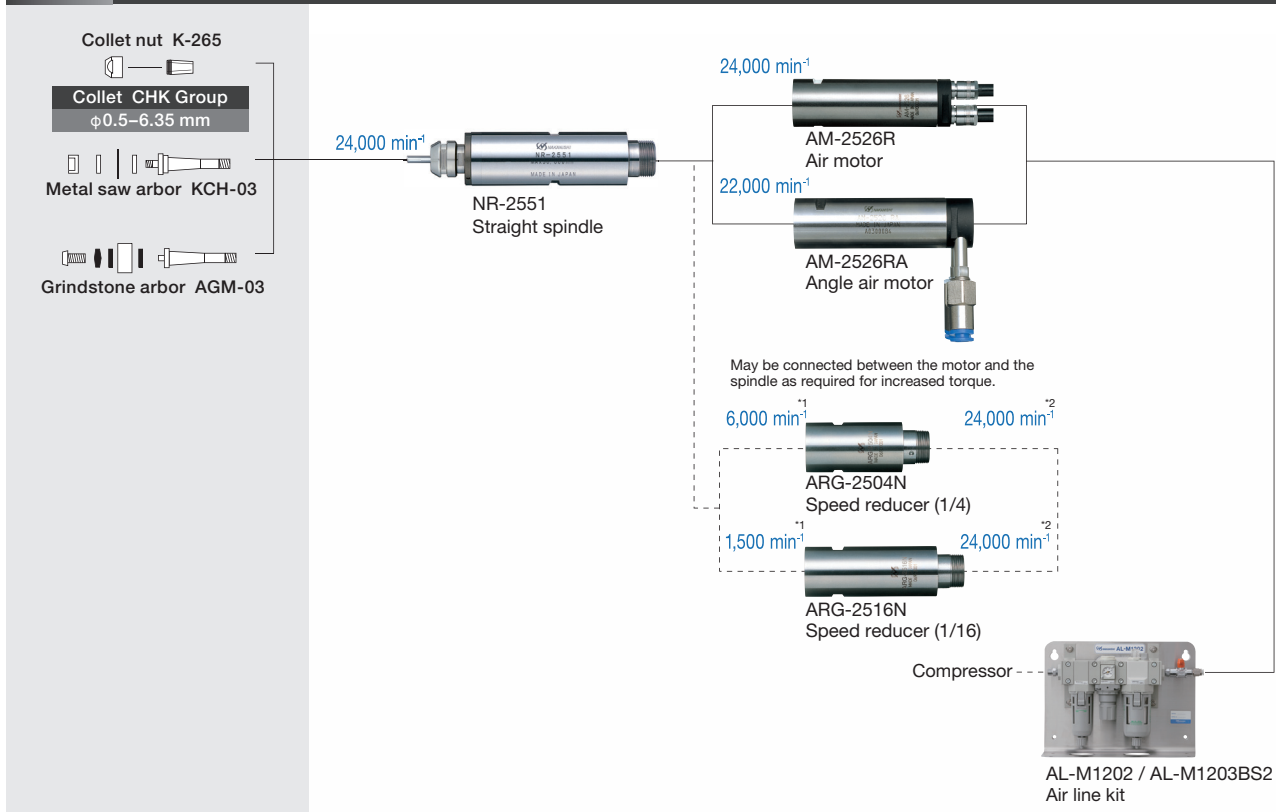
Collet (CHA Group) : φ0.5–φ4.0 mm **p. 8-5**

“Air-Speed” System Chart

Separate type $\phi 30$ mm



Separate type $\phi 25$ mm



*Please maintain not to exceed speed limit. Excess speed will dramatically reduce bearing life.

*1: Max. speed at the cutting tool. *2: Max. allowable motor speed.

Separate type $\phi 22.8$ mm

Collet nut K-265
Collet CHK Group
 $\phi 0.5-6.35$ mm

Metal saw arbor
KCH-03

Grindstone arbor
AGM-03

Collet nut K-265
Collet CHK Group
 $\phi 0.5-6.35$ mm

Metal saw arbor
KCH-03

Grindstone flange
NGF2-19

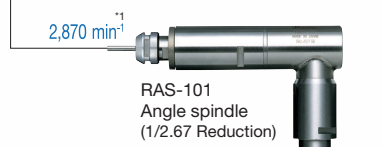
Collet CHM Group
 $\phi 1.0-3.175$ mm

Grindstone arbor
AGM-01

Collet CH8 Group
 $\phi 0.8-3.175$ mm

Metal saw arbor
KCH-02

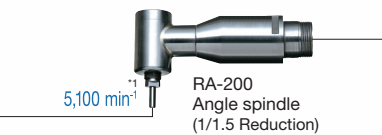
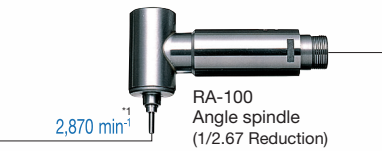
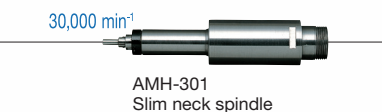
Collet CHS Group
 $\phi 0.8-3.175$ mm



*1: Using ARG-01+AM-310R



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



*The combination of angle spindle and angle air motor is not recommended due to the lack of phase repeatability during replacement.



*The combination of angle spindle and angle air motor is not recommended due to the lack of phase repeatability during replacement.



* Speed reducer must be used with Angle spindle.
(RA-100, RA-200, RAS-101)

* May be connected between the motor and the spindle as required for increased torque.



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES

▼ AIR MOTOR & SPINDLE (Separate type)

Straight motor spindle



Outside diameter $\phi 30$ mm

Max. speed **19,000 min⁻¹** (Using 0.5 MPa: AM-3020R)

Max. power **130 W**

Spindle accuracy:
Within 1 μ m

Collet:
Max. $\phi 6.35$ mm

Collet
CHK-3.0

OPTION → See p. 8-5

*Other collet sizes are available.



Air motor
AM-3020R
→ See p. 5-15

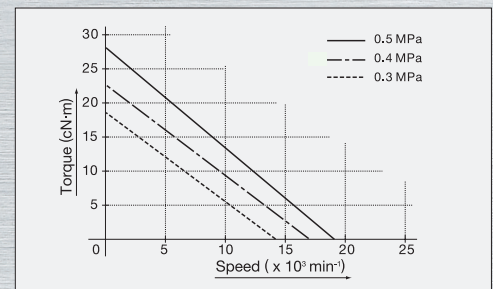
Air line kit
AL-M1202

OPTION → See p. 8-3 and 8-4



Straight spindle
NR-3060S

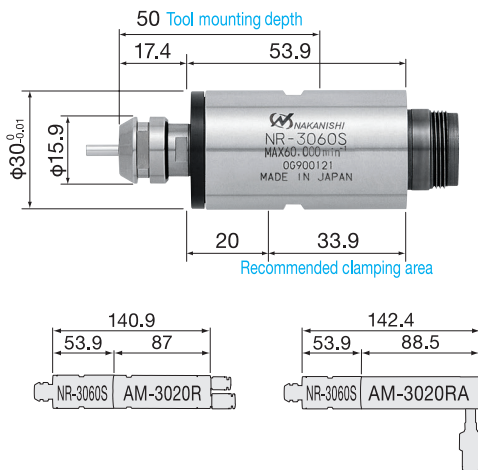
• AM-3020R Torque-Speed Characteristics



Spindle
< Ceramic bearings >

NR-3060S

| O.D. | Allowable motor speed | Spindle accuracy | Collet | Net weight |
|--------------|----------------------------------------------------|-----------------------------------|----------------------------------------------------|--------------|
| $\phi 30$ mm | 19,000 min⁻¹ (Using AM-3020R) | Within 1 μm | CHK Group ($\phi 0.5$ – $\phi 6.35$ mm) | 260 g |



| Code No. | 7859 | Model | NR-3060S |
|----------|------|-------|----------|
|----------|------|-------|----------|

< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 × 14): 2 pcs. • (22 × 27): 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) : ϕd (I.D.) × under $\phi 30$ mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. $\phi 5.0$ mm
- Grindstone flange (EGF-19) : $\phi 19.05$ (I.D.) × $\phi 40$ (O.D.) × 7 (W) mm

Order by Code No.

CAD drawings

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

Spindle
< Ceramic bearings >

NR-3060

| O.D. | Allowable motor speed | Spindle accuracy | Collet | Net weight |
|--------------|-----------------------------------------------------|-------------------------|----------------------------------------------------|--------------|
| $\phi 30$ mm | 19,000 min ⁻¹ (Using AM-3020R) | Within 1 μ m | CHK Group ($\phi 0.5$ – $\phi 6.35$ mm) | 480 g |

Code No.

7875

Model

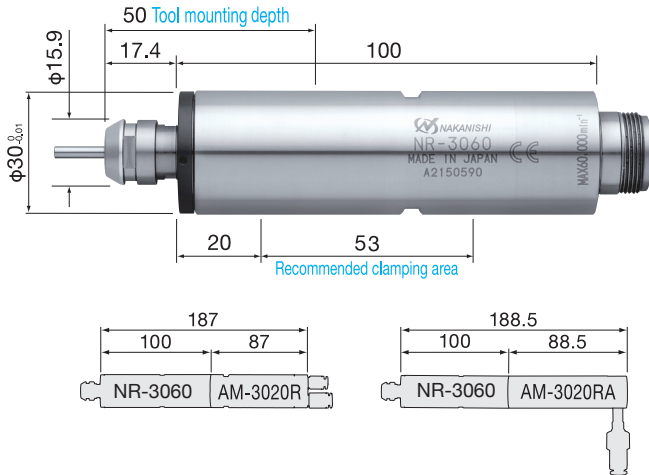
NR-3060

< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 × 14): 2 pcs. · (22 × 27): 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) | : ϕd (I.D.) × under $\phi 30$ mm (O.D.) |
| Grindstone arbor (AGM-03) | : Grindstone I.D. $\phi 5.0$ mm |
| Grindstone flange (EGF-19) | : $\phi 19.05$ (I.D.) × $\phi 40$ (O.D.) × 7 (W) mm |



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES



Please maintain not to exceed speed limit.

▼ AIR MOTOR & SPINDLE (Separate type)

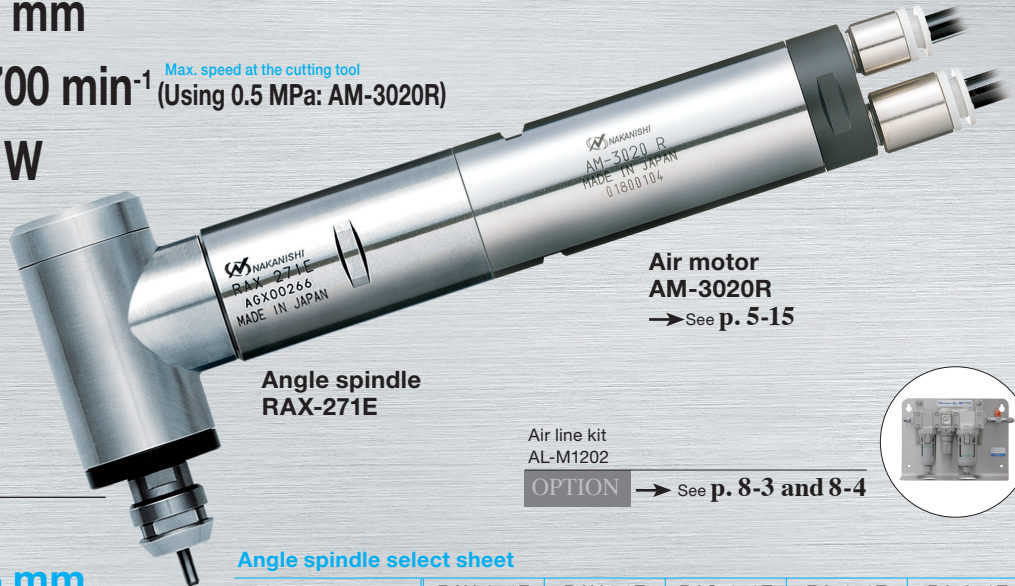
Angle motor spindle



Outside diameter **φ30 mm**

Max. speed **12,700 min⁻¹** (Max. speed at the cutting tool) (Using 0.5 MPa: AM-3020R)

Max. power **130 W**

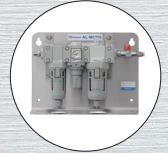


Air motor AM-3020R
→ See p. 5-15

Angle spindle RAX-271E

Air line kit AL-M1202

OPTION → See p. 8-3 and 8-4



Collet:
Max. φ6.35 mm

Collet CHK-3.0

OPTION → See p. 8-5

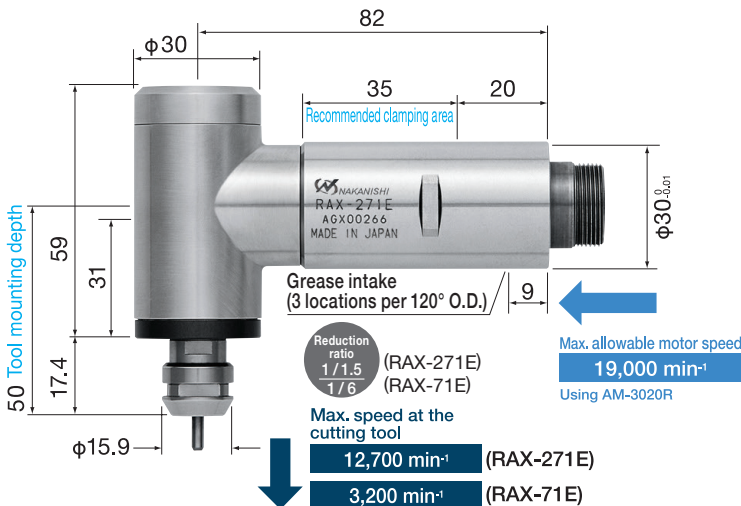
*Other collet sizes are available.

Angle spindle select sheet

| Model | RAX-271E | RAX-71E | RAS-151E | RA-151E | RA-271E |
|---------------------------------------------|--------------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| Angle head size O.D. | φ30 mm | φ30 mm | φ23 mm | φ22.8 mm | φ17.4 mm |
| Max. speed at the cutting tool ¹ | 12,700 min ⁻¹ | 3,200 min ⁻¹ | 7,200 min ⁻¹ | 7,200 min ⁻¹ | 12,700 min ⁻¹ |
| Using tools | φ0.5–φ6.35 mm | | φ0.8–φ3.175 mm | | |

¹ Using AM-3020R

| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Spindle accuracy | Collet | Net weight |
|-----------------|--------|--------------------------------|-----------------|----------------------------------------------------|------------------|-------------------------------------|--------------|
| RAX-271E | φ30 mm | 12,700 min⁻¹ | 1/1.5 | 19,000 min⁻¹ (Using AM-3020R) | Within 2 μm | CHK Group (φ0.5–φ6.35 mm) | 580 g |
| RAX-71E | φ30 mm | 3,200 min⁻¹ | 1/6 | 19,000 min⁻¹ (Using AM-3020R) | Within 2 μm | CHK Group (φ0.5–φ6.35 mm) | 580 g |



| | | | |
|----------|-------------|-------|-----------------|
| Code No. | 7856 | Model | RAX-271E |
| Code No. | 7857 | Model | RAX-71E |

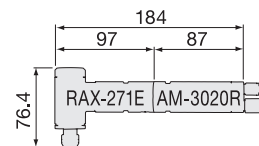
< Standard equipment and accessories >

- Collet nut (K-265) • Wrench (12 × 14): 2 pcs. • (22 × 27): 1 pc.
- Grease for Speed reducer (10 mL) • Grease nipple: 1 pc.

*Collet is sold separately.

< Options >

- Collet (CHK Group) : φ0.5–φ6.35 mm **p. 8-5**
- Metal saw arbor (KCH-03) : φd (I.D.) × under φ30 mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm

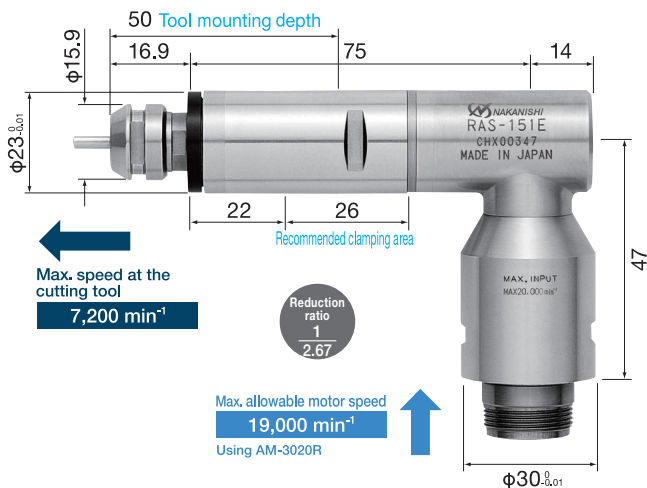


To extend the life expectancy of the Speed reducer, inject grease every 70 to 100 hours. Grease injection prevents friction of the internal gears as well as heat generation. Adding grease also prevents the degradation of the existing grease in the reducer. Please maintain a reducer grease maintenance program.

CAD drawings

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

| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Spindle accuracy | Collet | Net weight |
|-----------------|--------|--------------------------------|------------------|----------------------------------------------|------------------|------------------------------|------------|
| RAS-151E | φ23 mm | 7,200 min ⁻¹ | $\frac{1}{2.67}$ | 19,000 min ⁻¹ (Using AM-3020R) | Within 2 μm | CHK Group (φ0.5–φ6.35 mm) | 413 g |



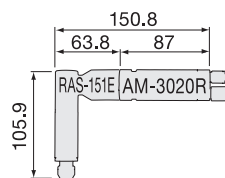
| | | | |
|----------|-------------|-------|-----------------|
| Code No. | 7840 | Model | RAS-151E |
|----------|-------------|-------|-----------------|

< Standard equipment and accessories >

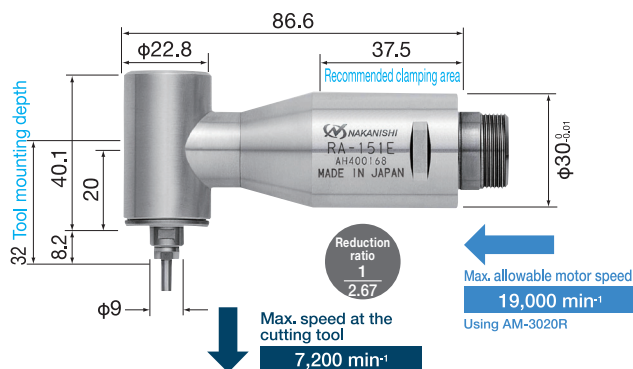
- Collet nut (K-265)
- Wrench (12 × 14): 2 pcs. • (22 × 27): 1 pc. *Collet is sold separately.

< Options >

- Collet (CHK Group) : φ0.5–φ6.35 mm p. 8-5
- Metal saw arbor (KCH-03) : φd (I.D.) × under φ30 mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm



| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Collet | Net weight |
|----------------|--------|--------------------------------|------------------|----------------------------------------------|-------------------------------|------------|
| RA-151E | φ30 mm | 7,200 min ⁻¹ | $\frac{1}{2.67}$ | 19,000 min ⁻¹ (Using AM-3020R) | CH8 Group (φ0.8–φ3.175 mm) | 385 g |



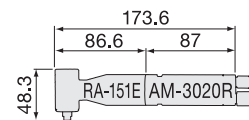
| | | | |
|----------|-------------|-------|----------------|
| Code No. | 1505 | Model | RA-151E |
|----------|-------------|-------|----------------|

< Standard equipment and accessories >

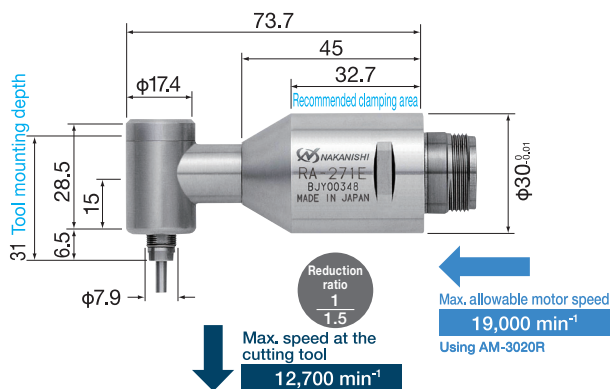
- Collet: φ3.0 mm (CH8-3.0)
- Wrench (7 × 5.5) • (8 × 5) • (22 × 27): 1 pc. each

< Options >

- Collet (CH8 Group) : φ0.8–φ3.175 mm p. 8-7
- Metal saw arbor (KCH-02) : φd (I.D.) × under φ30 mm (O.D.)



| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Collet | Net weight |
|----------------|--------|--------------------------------|-----------------|----------------------------------------------|-------------------------------|------------|
| RA-271E | φ30 mm | 12,700 min ⁻¹ | $\frac{1}{1.5}$ | 19,000 min ⁻¹ (Using AM-3020R) | CHS Group (φ0.8–φ3.175 mm) | 240 g |



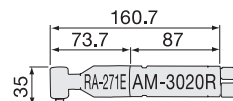
| | | | |
|----------|-------------|-------|----------------|
| Code No. | 1506 | Model | RA-271E |
|----------|-------------|-------|----------------|

< Standard equipment and accessories >

- Collet: φ3.0 mm (CHS-3.0)
- Wrench (7 × 5.1) • (8 × 5) • (22 × 27): 1 pc. each

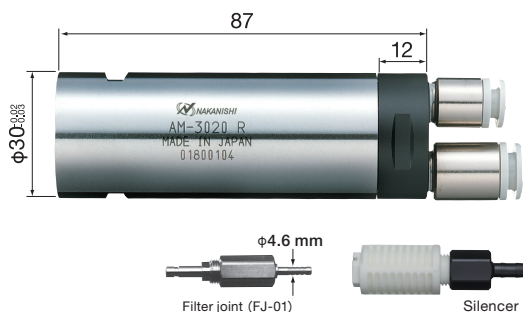
< Options >

- Collet (CHS Group) : φ0.8–φ3.175 mm p. 8-6



▶ “Air-Speed” Motor/Speed reducer

| Air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------|--------|---------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-3020R | φ30 mm | 19,000 min⁻¹ (0.5 MPa) | 130 W | 0.3–0.5 MPa | 180 NL/min | 298 g (w/o hose) |



Code No. **1797** Model **AM-3020R**

< Specifications >

Motor hose (Diameter / Length)

Intake : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m

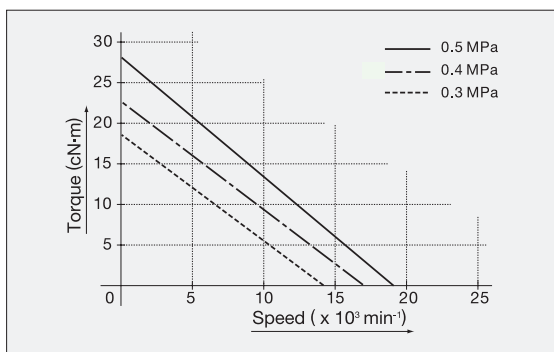
Exhaust : φ8.0 mm (O.D.) × φ6.0 mm (I.D.) × 1 m

< Standard equipment and accessories >

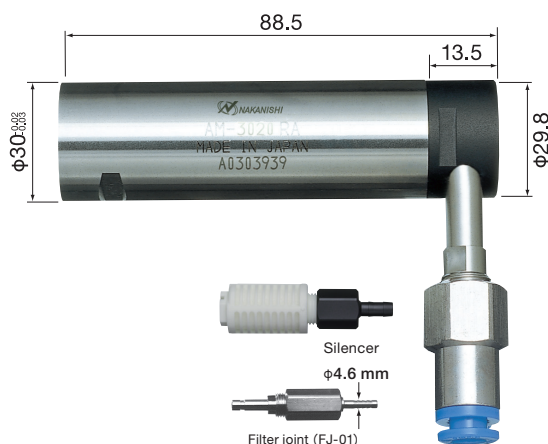
• Intake hose (K-215) • Exhaust hose (K-256)

• Filter joint (FJ-01) • Silencer (K-208) • Wrench (22 × 27): 1 pc.

• AM-3020R Torque-Speed Characteristics



| Angle air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------------|--------|---------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-3020RA | φ30 mm | 18,000 min⁻¹ (0.5 MPa) | 125 W | 0.3–0.5 MPa | 175 NL/min | 339 g (w/o hose) |



Code No. **1799** Model **AM-3020RA**

< Specifications >

Motor hose (Diameter / Length)

Intake : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m

Exhaust : φ8.0 mm (O.D.) × φ6.0 mm (I.D.) × 1 m

< Standard equipment and accessories >

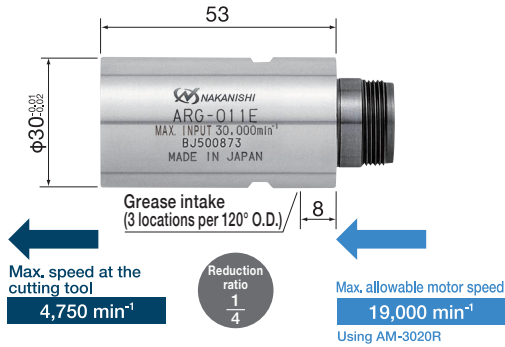
• Intake hose (K-215) • Exhaust hose (K-256)

• Filter joint (FJ-01) • Silencer (K-208) • Wrench (22 × 27): 1 pc.

*Not recommended for use with angle spindles due to the lack of phase repeatability during replacement.

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

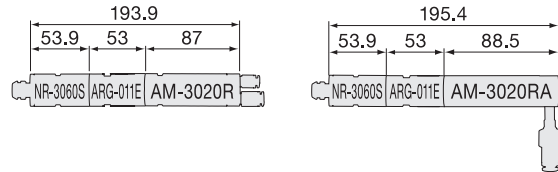
| Speed reducer (1/4) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|---------------------|--------|--------------------------------|-----------------|----------------------------------------------------|--------------|
| ARG-011E | φ30 mm | 4,750 min⁻¹ | $\frac{1}{4}$ | 19,000 min⁻¹ (Using AM-3020R) | 242 g |



Code No. **1507** Model **ARG-011E**

< Standard equipment and accessories >

- Grease for Speed reducer (10 mL) • Grease nipple: 1 pc.

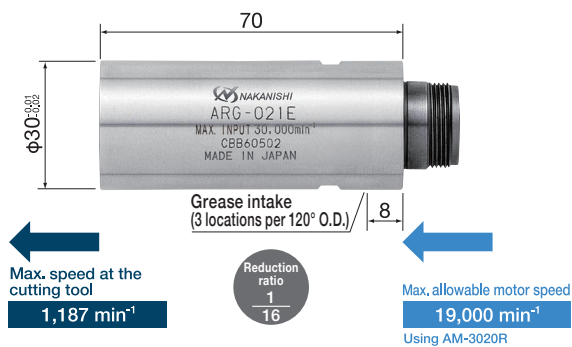


Please maintain not to exceed speed limit.



To extend the life expectancy of the Speed reducer, inject grease every 70 to 100 hours. Grease injection prevents friction of the internal gears as well as heat generation. Adding grease also prevents the degradation of the existing grease in the reducer. Please maintain a reducer grease maintenance program.

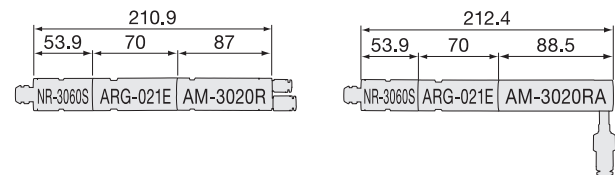
| Speed reducer (1/16) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|----------------------|--------|--------------------------------|-----------------|----------------------------------------------------|--------------|
| ARG-021E | φ30 mm | 1,187 min⁻¹ | $\frac{1}{16}$ | 19,000 min⁻¹ (Using AM-3020R) | 325 g |



Code No. **1508** Model **ARG-021E**

< Standard equipment and accessories >

- Grease for Speed reducer (10 mL) • Grease nipple: 1 pc.



Please maintain not to exceed speed limit.



To extend the life expectancy of the Speed reducer, inject grease every 70 to 100 hours. Grease injection prevents friction of the internal gears as well as heat generation. Adding grease also prevents the degradation of the existing grease in the reducer. Please maintain a reducer grease maintenance program.

▼ AIR MOTOR & SPINDLE (Separate type)

Straight motor spindle

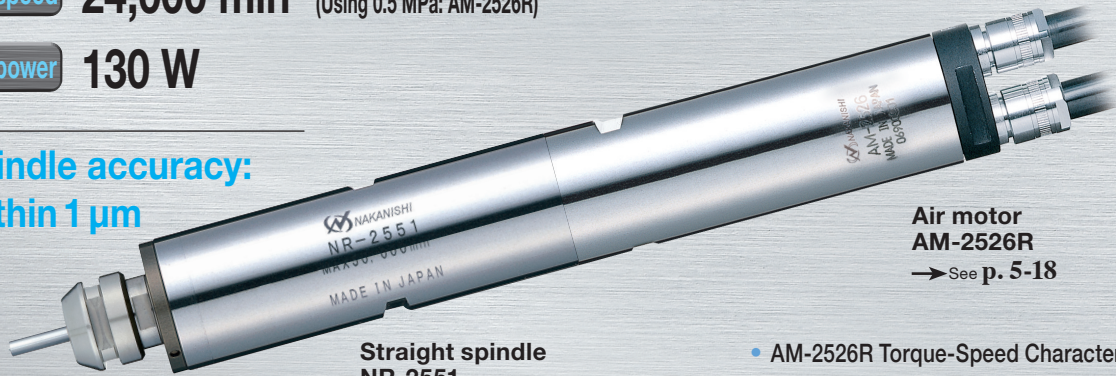


Outside diameter **φ25 mm**

Max. speed **24,000 min⁻¹** (Using 0.5 MPa: AM-2526R)

Max. power **130 W**

Spindle accuracy:
Within 1 μm



**Air motor
AM-2526R**
→ See p. 5-18

**Straight spindle
NR-2551**

Collet:
Max. **φ6.35 mm**

Collet
CHK-3.0

OPTION → See p. 8-5

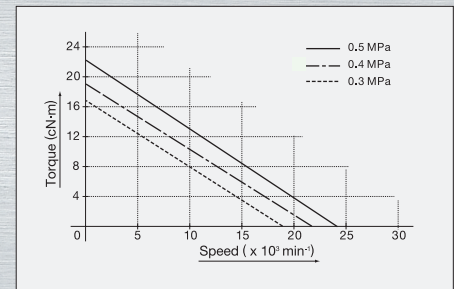
*Other collet sizes are available.

Air line kit
AL-M1202

OPTION → See p. 8-3 and 8-4



• AM-2526R Torque-Speed Characteristics

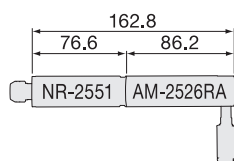
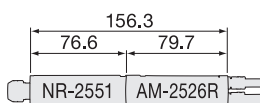


Spindle
< Ceramic bearings >

NR-2551

| | O.D. | Motor speed | Spindle accuracy | Collet | Net weight |
|--|--------|----------------------------------------------------|--------------------|-------------------------------------|--------------|
| | φ25 mm | 24,000 min⁻¹ (Using AM-2526R) | Within 1 μm | CHK Group (φ0.5–φ6.35 mm) | 253 g |

| Code No. | 7853 | Model | NR-2551 |
|----------|------|-------|---------|
|----------|------|-------|---------|



< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 × 14): 2 pcs. • (22 × 27): 1 pc. ***Collet is sold separately.**

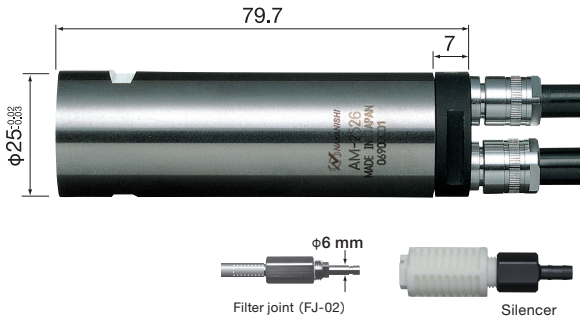
< Options >

- Collet (CHK Group) : φ0.5–φ6.35 mm **p. 8-5**
- Metal saw arbor (KCH-03) : φd (I.D.) × under φ30 mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm

*Outside diameter φ25.4 mm is also available.
The code number is 7854 and the model is NR-H2551.

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

| Air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------|--------|----------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-2526R | φ25 mm | 24,000 min ⁻¹ (0.5 MPa) | 130 W | 0.3–0.5 MPa | 205 NL/min | 200 g (w/o hose) |



| Code No. | Model |
|-------------|-----------------|
| 1801 | AM-2526R |

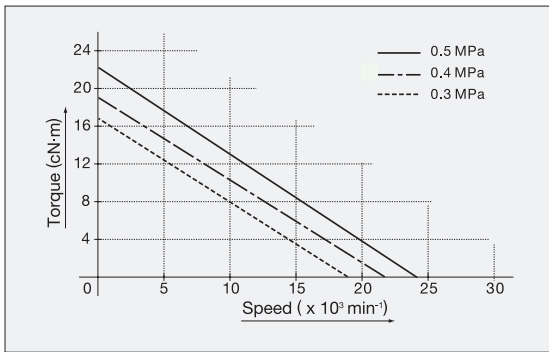
< Specifications >

| Motor hose (Diameter / Length) | |
|--------------------------------|-----------------------------------------|
| Intake | : φ6.7 mm (O.D.) × φ4.5 mm (I.D.) × 2 m |
| Exhaust | : φ7.5 mm (O.D.) × φ5.5 mm (I.D.) × 1 m |

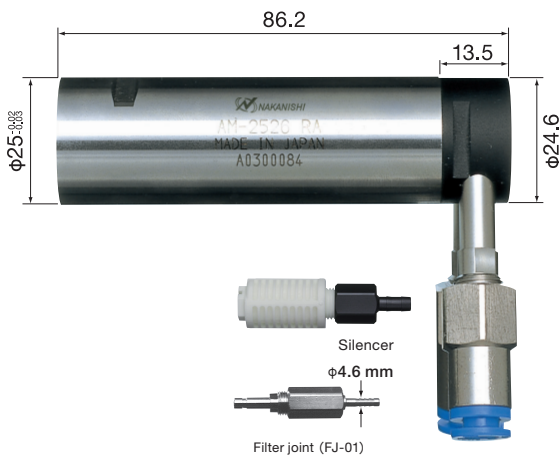
< Standard equipment and accessories >

- Intake and exhaust hose (K-204) • Filter joint (FJ-02) • Silencer (K-208)
- Wrench (22 × 27): 1 pc.

• AM-2526R Torque-Speed Characteristics



| Angle air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------------|--------|----------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-2526RA | φ25 mm | 22,000 min ⁻¹ (0.5 MPa) | 120 W | 0.3–0.5 MPa | 170 NL/min | 241 g (w/o hose) |



| Code No. | Model |
|-------------|------------------|
| 1803 | AM-2526RA |

< Specifications >

| Motor hose (Diameter / Length) | |
|--------------------------------|-----------------------------------------|
| Intake | : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m |
| Exhaust | : φ8.0 mm (O.D.) × φ6.0 mm (I.D.) × 1 m |

< Standard equipment and accessories >

- Intake hose (K-215) • Exhaust hose (K-256)
- Filter joint (FJ-01) • Silencer (K-208) • Wrench (22 × 27): 1 pc.

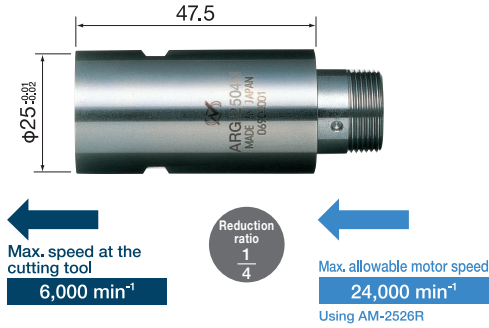
E4000
E3000
E2000
iSpeed3
Air-Speed
HES
TURBINES
ACCESSORIES

▶ “Air-Speed” Speed reducer

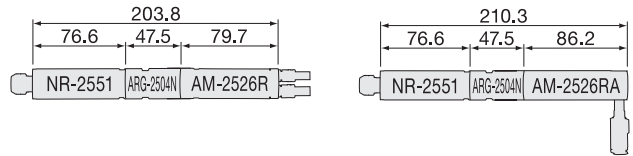
Order by Code No.

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

| Speed reducer (1/4) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|---------------------|--------|--------------------------------|-----------------|-----------------------------------------------------|--------------|
| ARG-2504N | φ25 mm | 6,000 min ⁻¹ | $\frac{1}{4}$ | 24,000 min ⁻¹ (Using AM-2526R) | 150 g |

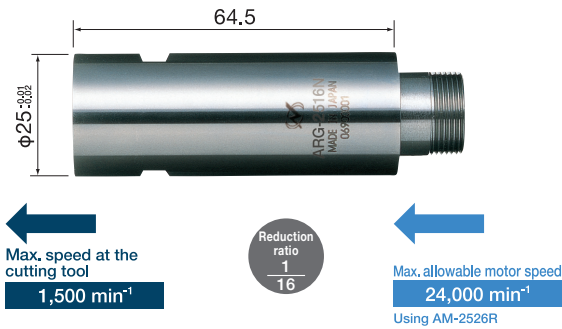


| | | | |
|----------|-------------|-------|------------------|
| Code No. | 1822 | Model | ARG-2504N |
|----------|-------------|-------|------------------|

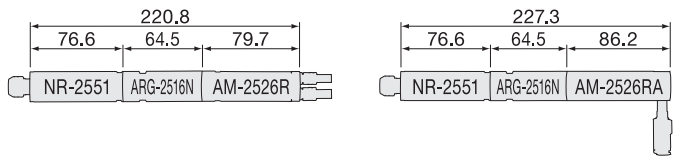


! Please maintain not to exceed speed limit.

| Speed reducer (1/16) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|----------------------|--------|--------------------------------|-----------------|-----------------------------------------------------|--------------|
| ARG-2516N | φ25 mm | 1,500 min ⁻¹ | $\frac{1}{16}$ | 24,000 min ⁻¹ (Using AM-2526R) | 205 g |



| | | | |
|----------|-------------|-------|------------------|
| Code No. | 1824 | Model | ARG-2516N |
|----------|-------------|-------|------------------|



! Please maintain not to exceed speed limit.

E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

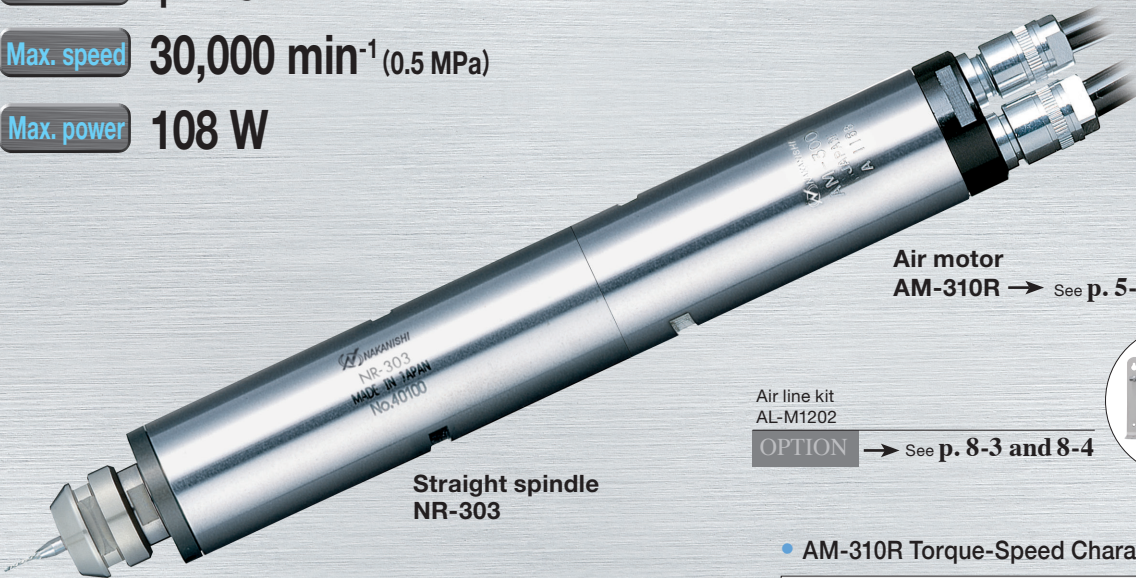
ACCESSORIES

▼ AIR MOTOR & SPINDLE (Separate type)

Straight motor spindle



- Outside diameter** $\phi 22.8$ mm
- Max. speed** 30,000 min⁻¹ (0.5 MPa)
- Max. power** 108 W



Air motor
AM-310R → See p. 5-25

Air line kit
AL-M1202
OPTION → See p. 8-3 and 8-4



Straight spindle
NR-303

Collet:
Max. $\phi 6.35$ mm

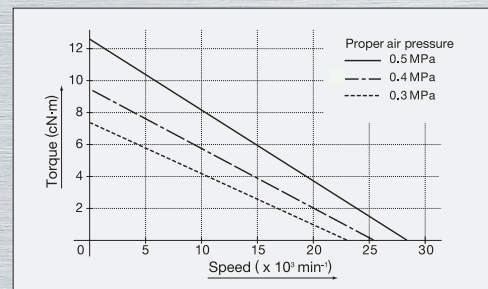
Collet
CHK-3.0

OPTION → See p. 8-5

*Other collet sizes are available.

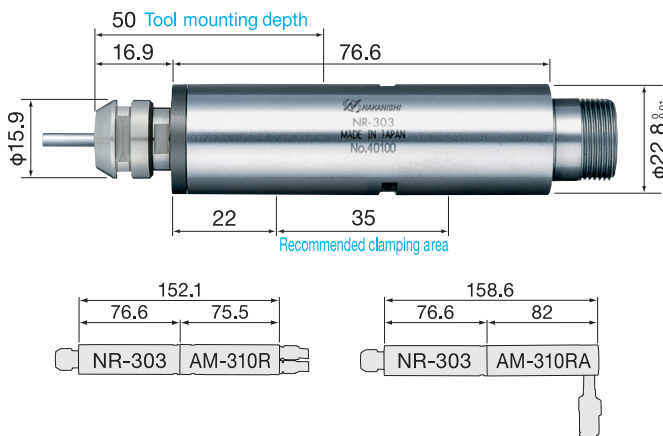
*Please maintain not to exceed speed limit.

• AM-310R Torque-Speed Characteristics



Spindle
NR-303

| | O.D. | Motor speed | Spindle accuracy | Collet | Net weight |
|--|----------------|---------------------------------------------|------------------|---------------------------------------------|------------|
| | $\phi 22.8$ mm | 30,000 min ⁻¹ (Using AM-310R) | Within 2 μ m | CHK Group ($\phi 0.5$ – $\phi 6.35$ mm) | 215 g |



Code No. **7861** Model **NR-303**

< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 x 14): 2 pcs. (20 x 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) : ϕd (I.D.) x under $\phi 30$ mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. $\phi 5.0$ mm

CAD drawings

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

Spindle
< Ceramic bearings >

NR-2351

| O.D. | Motor speed | Spindle accuracy | Collet | Net weight |
|----------------|----------------------------------------------------|-------------------------|----------------------------------------------------|--------------|
| $\phi 22.8$ mm | 30,000 min ⁻¹ (Using AM-310R) | Within 1 μ m | CHK Group ($\phi 0.5$ – $\phi 6.35$ mm) | 215 g |

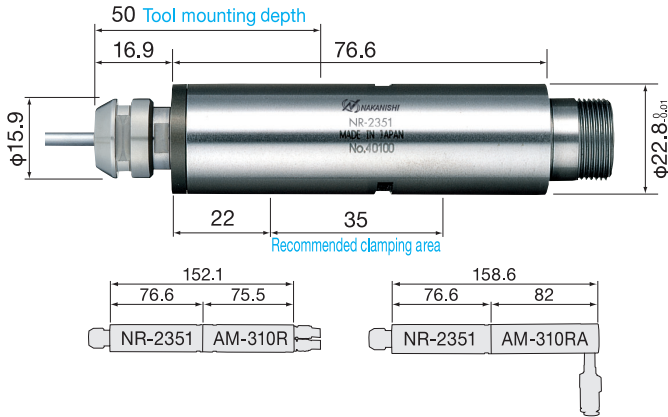
Code No. **7855** Model **NR-2351**

< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 x 14) : 2 pcs. • (20 x 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) : ϕd (I.D.) x under $\phi 30$ mm (O.D.)
- Grindstone arbor (AGM-03) : Grindstone I.D. $\phi 5.0$ mm



Spindle
NR-311

| O.D. | Motor speed | Spindle accuracy | Collet | Net weight |
|----------------|----------------------------------------------------|-------------------------|----------------------------------------------------|--------------|
| $\phi 22.8$ mm | 30,000 min ⁻¹ (Using AM-310R) | Within 2 μ m | CHK Group ($\phi 0.5$ – $\phi 6.35$ mm) | 370 g |

Code No. **7832** Model **NR-311**

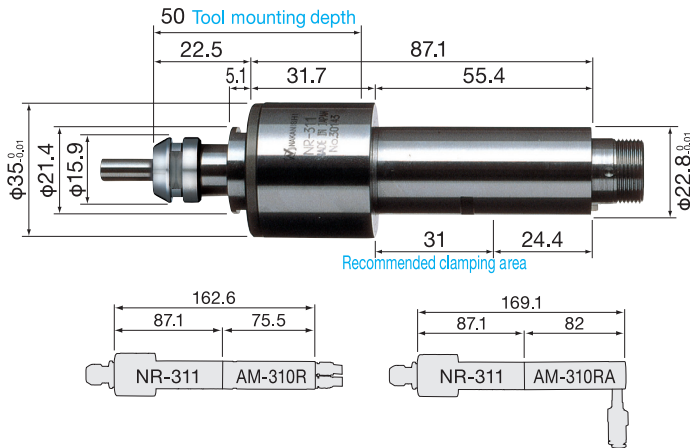
< Standard equipment and accessories >

- Collet nut (K-265)
- Wrench (12 x 14) • (20 x 24) : 1 pc. each **Collet is sold separately.*

< Options >

- Collet (CHK Group) : $\phi 0.5$ – $\phi 6.35$ mm **p. 8-5**
- Metal saw arbor (KCH-03) : ϕd (I.D.) x under $\phi 30$ mm (O.D.)
- Grindstone flange (NGF2-19) : $\phi 19.05$ (I.D.) x $\phi 40$ (O.D.) x 7 (W) mm

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



Spindle
AMH-301

| O.D. | Motor speed | Collet | Net weight |
|----------------|----------------------------------------------------|-----------------------------------------------------|--------------|
| $\phi 22.8$ mm | 30,000 min ⁻¹ (Using AM-310R) | CHM Group ($\phi 1.0$ – $\phi 3.175$ mm) | 171 g |

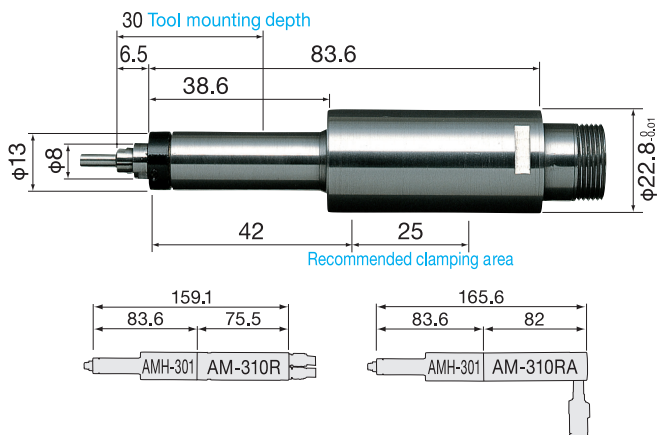
Code No. **1074** Model **AMH-301**

< Standard equipment and accessories >

- Collet: $\phi 3.0$ mm (CHM-3.0)
- Wrench (7 x 5.1) • (6 x 4.5) • (20 x 24) : 1 pc. each

< Options >

- Collet (CHM Group) : $\phi 1.0$ – $\phi 3.175$ mm **p. 8-6**
- Grindstone arbor (AGM-01) : Grindstone I.D. $\phi 5.0$ mm



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES



Please maintain not to exceed speed limit.

▼ AIR MOTOR & SPINDLE (Separate type)

Angle motor spindle



Outside diameter **φ22.8 mm**

Max. speed **2,870 min⁻¹** (Using 0.5 MPa: ARG-01+AM-300R)
Max. speed at the cutting tool

Max. power **57 W** (Using AM-300R)



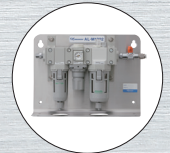
Air motor AM-300R
 → See p. 5-26

Speed reducer ARG-01
OPTION → See p. 5-27

Angle spindle RA-100

*Reducer must be used with Angle spindle.

Air line kit AL-M1202
OPTION → See p. 8-3 and 8-4



Collet:
Max. φ3.175 mm

Collet CH8-3.0

OPTION → See p. 8-7

*Other collet sizes are available.

Angle spindle select sheet

| Model | RA-100 | RA-200 | RAS-101 |
|---------------------------------------------|-------------------------|---------------------------|----------------------------|
| Angle head size O.D. | φ22.8 mm | φ17.4 mm | φ22.8 mm |
| Max. speed at the cutting tool ¹ | 2,870 min ⁻¹ | 5,100 min ⁻¹ * | 2,870 min ⁻¹ *2 |
| Using tools | φ0.8-φ3.175 mm | | φ0.5-φ6.35 mm |

*1 Using ARG-01+AM-300R *2 Using ARG-01+AM-310R

*Please maintain not to exceed speed limit.

Angle spindle

RA-100

| O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Collet | Net weight |
|----------|--------------------------------|-----------------|---------------------------------------------------------|--------------------------------------|--------------|
| φ22.8 mm | 2,870 min⁻¹ | 1/2.67 | 7,650 min⁻¹ (Using ARG-01+AM-300R) | CH8 Group (φ0.8-φ3.175 mm) | 271 g |

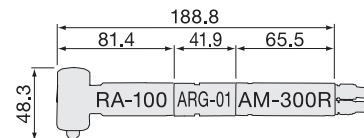
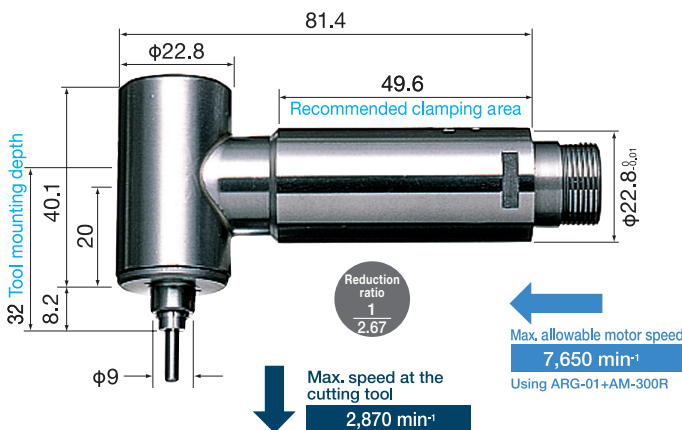
Code No. **1024** Model **RA-100**

< Standard equipment and accessories >

- Collet: φ3.0 mm (CH8-3.0)
- Wrench (7 × 5.5) · (8 × 5) · (20 × 24): 1 pc. each

< Options >

- Collet (CH8 Group) : φ0.8-φ3.175 mm **p. 8-7**
- Metal saw arbor (KCH-02) : φd (I.D.) × under φ30 mm (O.D.)

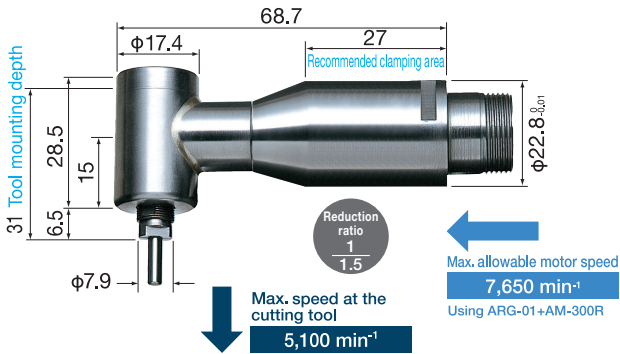


*Reducers are required when used with air motors.

CAD drawings

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

| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Collet | Net weight |
|---------------|----------|--------------------------------|-----------------|----------------------------------------------------------|--------------------------------------|--------------|
| RA-200 | φ22.8 mm | 5,100 min ⁻¹ | 1/1.5 | 7,650 min ⁻¹ (Using ARG-01+AM-300R) | CHS Group (φ0.8-φ3.175 mm) | 165 g |



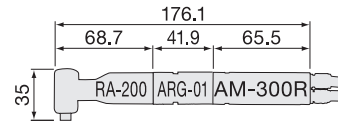
Code No. **1075** Model **RA-200**

< Standard equipment and accessories >

- Collet: φ3.0 mm (CHS-3.0)
- Wrench (7 × 5.1) · (8 × 5) · (20 × 24): 1 pc. each

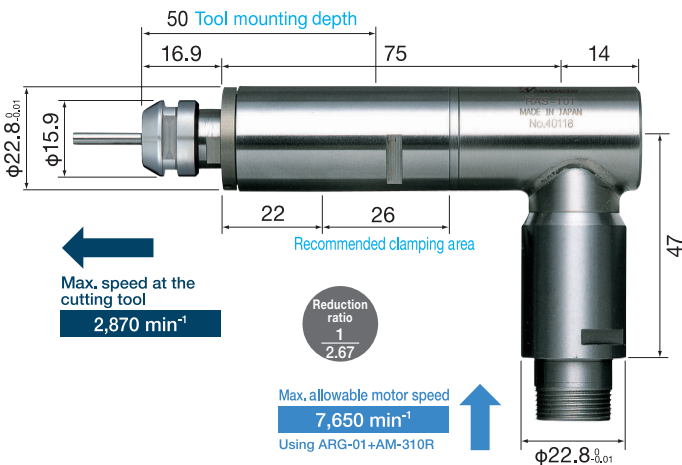
< Options >

Collet (CHS Group) : φ0.8-φ3.175 mm **p. 8-6**



*Reducers are required when used with air motors.

| Angle spindle | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Spindle accuracy | Collet | Net weight |
|----------------|----------|--------------------------------|-----------------|----------------------------------------------------------|--------------------|-------------------------------------|--------------|
| RAS-101 | φ22.8 mm | 2,870 min ⁻¹ | 1/2.67 | 7,650 min ⁻¹ (Using ARG-01+AM-310R) | Within 2 μm | CHK Group (φ0.5-φ6.35 mm) | 325 g |



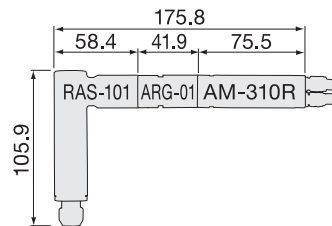
Code No. **7839** Model **RAS-101**

< 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) : φd (I.D.) × under φ30 mm (O.D.)
 Grindstone arbor (AGM-03) : Grindstone I.D. φ5.0 mm



*Reducers are required when used with air motors.

E4000

E3000

E2000

iSpeed3

Air-Speed

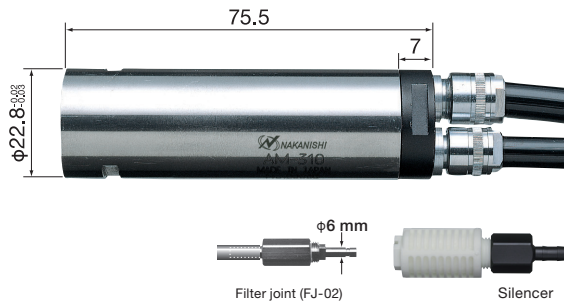
HES

TURBINES

ACCESSORIES

“Air-Speed” Motor

| Air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------|----------|----------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-310R | φ22.8 mm | 30,000 min ⁻¹ (0.5 MPa) | 108 W | 0.3–0.5 MPa | 190 NL/min | 203 g (w/o hose) |



| Code No. | Model |
|-------------|----------------|
| 1079 | AM-310R |

< Specifications >

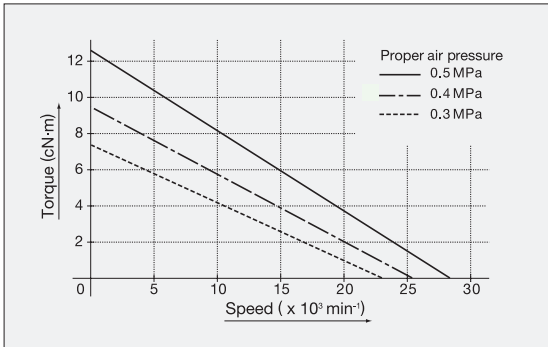
Motor hose (Diameter / Length)

| | |
|---------|-----------------------------------------|
| Intake | : φ6.7 mm (O.D.) × φ4.5 mm (I.D.) × 2 m |
| Exhaust | : φ7.5 mm (O.D.) × φ5.5 mm (I.D.) × 1 m |

< Standard equipment and accessories >

- Intake and exhaust hose (K-204) • Filter joint (FJ-02) • Silencer (K-208)
- Wrench (20 × 24): 1 pc.

• AM-310R Torque-Speed Characteristics



| Angle air motor (Forward rotation) | O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|------------------------------------|----------|----------------------------------------------|--------------|---------------------|-------------------|----------------------------|
| AM-310RA | φ22.8 mm | 30,000 min ⁻¹ (0.5 MPa) | 108 W | 0.3–0.5 MPa | 170 NL/min | 244 g (w/o hose) |



| Code No. | Model |
|-------------|-----------------|
| 1081 | AM-310RA |

< Specifications >

Motor hose (Diameter / Length)

| | |
|---------|-----------------------------------------|
| Intake | : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m |
| Exhaust | : φ8.0 mm (O.D.) × φ5.0 mm (I.D.) × 1 m |

< Standard equipment and accessories >

- Intake hose (K-215) • Exhaust hose (K-216)
- Filter joint (FJ-01) • Silencer (K-208) • Wrench (20 × 24): 1 pc.

*Not recommended for use with angle spindles due to the lack of phase repeatability during replacement.

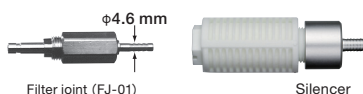
CAD drawings

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

Air motor (Forward rotation)

AM-300R

| O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|----------|---------------------------------------|------------|---------------------|-----------------|---------------------|
| φ22.8 mm | 30,000 min ⁻¹ (0.4 MPa) | 57 W | 0.3–0.5 MPa | 90 NL/min | 135 g (w/o hose) |



Code No. **1021** Model **AM-300R**

< Specifications >

Motor hose (Diameter / Length)

Intake : φ5.7 mm (O.D.) × φ3.7 mm (I.D.) × 2 m

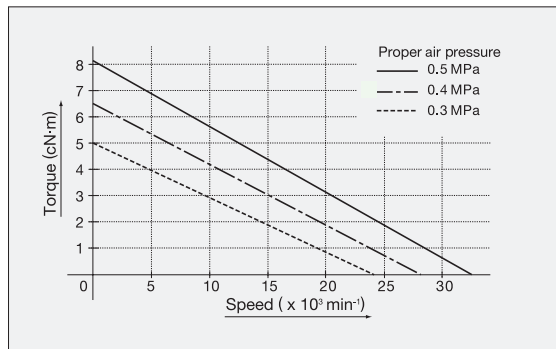
Exhaust : φ6.5 mm (O.D.) × φ5.0 mm (I.D.) × 1 m

< Standard equipment and accessories >

• Intake and exhaust hose (K-221) • Filter joint (FJ-01) • Silencer (K-209)

• Wrench (20 × 24): 1 pc.

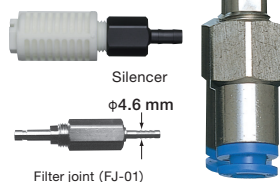
• AM-300R Torque-Speed Characteristics



Angle air motor (Forward rotation)

AM-300RA

| O.D. | Motor speed | Max. power | Proper air pressure | Air consumption | Net weight |
|----------|---------------------------------------|------------|---------------------|-----------------|---------------------|
| φ22.8 mm | 30,000 min ⁻¹ (0.4 MPa) | 57 W | 0.3–0.5 MPa | 90 NL/min | 176 g (w/o hose) |



Code No. **1018** Model **AM-300RA**

< Specifications >

Motor hose (Diameter / Length)

Intake : φ6.0 mm (O.D.) × φ4.0 mm (I.D.) × 2 m

Exhaust : φ8.0 mm (O.D.) × φ5.0 mm (I.D.) × 1 m

< Standard equipment and accessories >

• Intake hose (K-215) • Exhaust hose (K-216)

• Filter joint (FJ-01) • Silencer (K-208) • Wrench (20 × 24): 1 pc.

*Not recommended for use with angle spindles due to the lack of phase repeatability during replacement.

E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

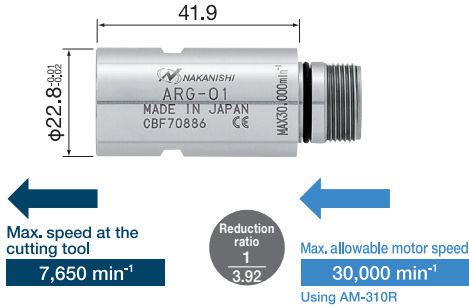
ACCESSORIES

▶ “Air-Speed” Speed reducer

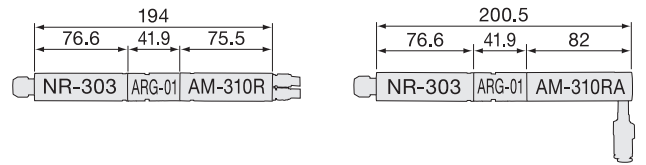
Order by Code No.

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

| Speed reducer (1/3.92) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|------------------------|----------|--------------------------------------------|-----------------|---------------------------------------------------|--------------|
| ARG-01 | φ22.8 mm | 7,650 min⁻¹ (0.5 MPa) | 1/3.92 | 30,000 min⁻¹ (Using AM-310R) | 108 g |

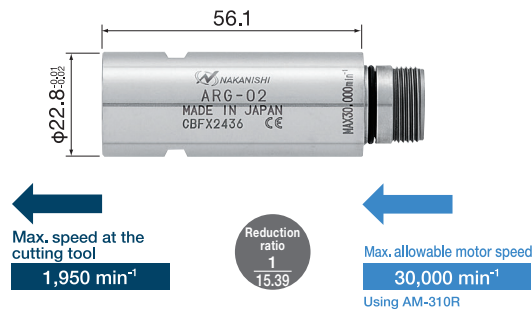


| Code No. | 1022 | Model | ARG-01 |
|----------|------|-------|--------|
|----------|------|-------|--------|

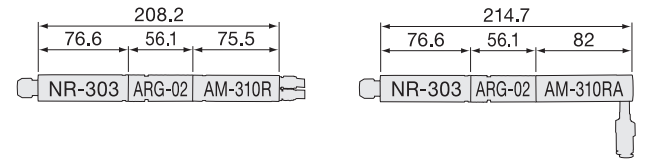


Please maintain not to exceed speed limit.

| Speed reducer (1/15.39) | O.D. | Max. speed at the cutting tool | Reduction ratio | Max. allowable motor speed | Net weight |
|-------------------------|----------|--------------------------------------------|-----------------|---------------------------------------------------|--------------|
| ARG-02 | φ22.8 mm | 1,950 min⁻¹ (0.5 MPa) | 1/15.39 | 30,000 min⁻¹ (Using AM-310R) | 148 g |



| Code No. | 1023 | Model | ARG-02 |
|----------|------|-------|--------|
|----------|------|-------|--------|



Please maintain not to exceed speed limit.

E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES

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 |



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

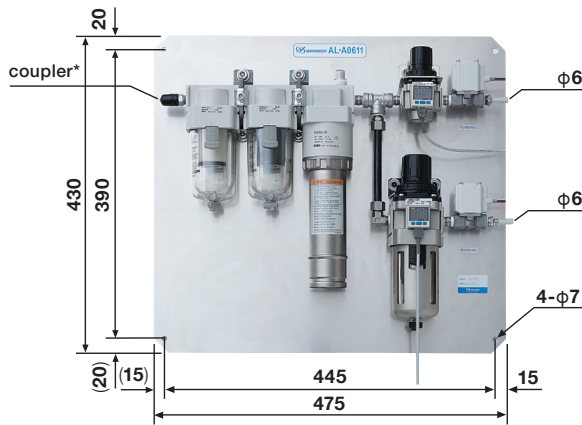
TURBINES

ACCESSORIES

Air line kit

AL-A0611

Filtration: 0.01 µm



| | | | |
|----------|-------------|-------|-----------------|
| Code No. | 1548 | Model | AL-A0611 |
|----------|-------------|-------|-----------------|

■ Air piping

Inlet: Coupler (Model: KK13P-02M made by SMC Corporation)

Outlet: φ6.0 mm × 2 parts

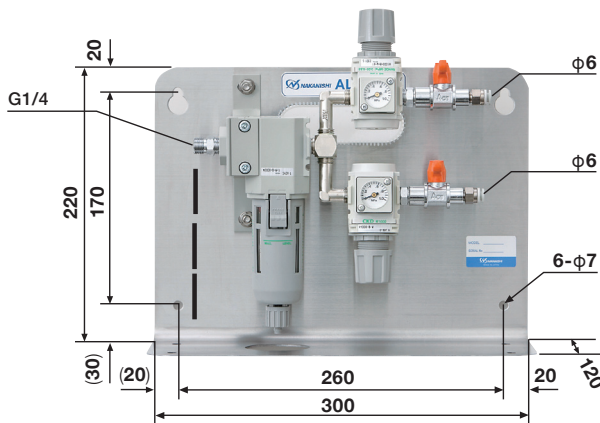
■ Net weight: 8.2 kg

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

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

AL-A1205

Filtration: 0.3 µm



| | | | |
|----------|-------------|-------|-----------------|
| Code No. | 4505 | Model | AL-A1205 |
|----------|-------------|-------|-----------------|

■ Air piping

Inlet: G1/4 male thread for connection hose

Outlet: φ6.0 mm × 2 parts

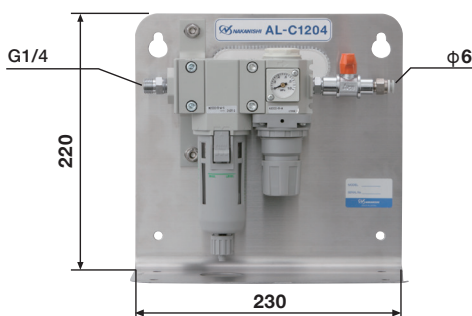
■ Net weight: 2.4 kg

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

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

AL-C1204

Filtration: 0.3 µm



| | | | |
|----------|-------------|-------|-----------------|
| Code No. | 4504 | Model | AL-C1204 |
|----------|-------------|-------|-----------------|

■ Air piping

Inlet: G1/4 male thread for connection hose

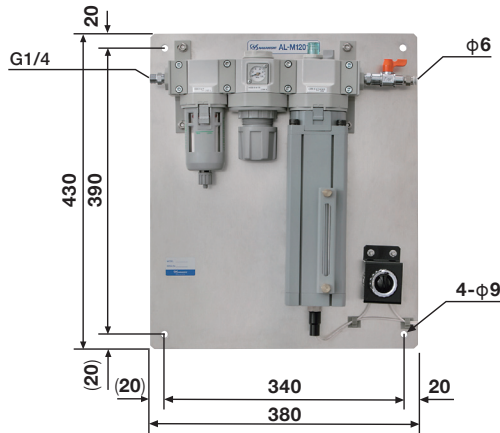
Outlet: φ6.0 mm

■ Net weight: 1.9 kg

| | |
|----------------------|----------------------------------------------------------------------------------------------------------------------|
| Standard accessories | Hose pipe (K-275): 2 m / Rubber pad: 4 pcs. Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Hose band: 1 pc. |
| Standard equipment | Air filter / Air regulator / Air pressure gauge ON-OFF valve |
| Compatible model | E4000 series · E3000 series · E2000 series iSpeed3 series · HES series |

AL-M1201BL

Filtration: 0.3 µm



Code No.

4501

Model

AL-M1201BL

■ Air piping

Inlet: G1/4 male thread for connection hose

Outlet: φ6.0 mm

■ Net weight: 5.2 kg

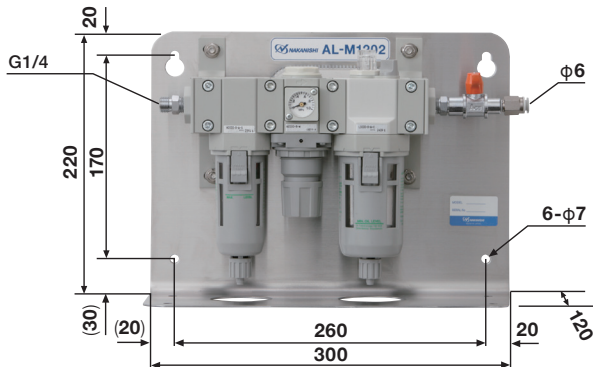
| | |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard accessories | Hose pipe (K-275): 2 m / Connection joint: 1 pc. φ6 mm Air hose: 1 pc. / Spacer: 4 pcs.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

*Recommendation of nominal filtration rating: 0.3 µm,

Pressure range: 0.1-1.0 MPa Recommendation of air filter: M2000-WS (CKD)

AL-M1202

Filtration: 0.3 µm



Code No.

4502

Model

AL-M1202

■ Air piping

Inlet: G1/4 male thread for connection hose

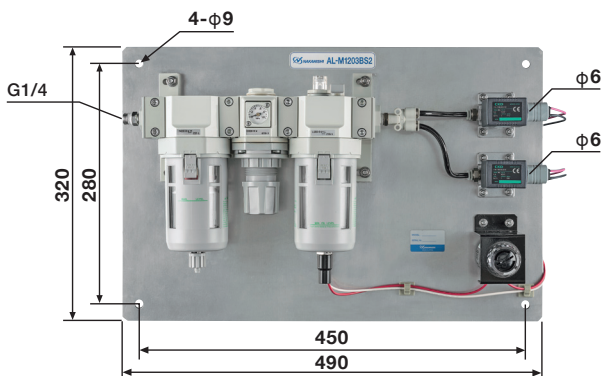
Outlet: φ6.0 mm

■ Net weight: 2.8 kg

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

AL-M1203BS2

Filtration: 0.3 µm



Code No.

4503

Model

AL-M1203BS2

■ Air piping

Inlet: G1/4 male thread for connection hose

Outlet: φ6.0 mm × 2 parts

■ Net weight: 3.9 kg

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

E4000

E3000

E2000

iSpeed3

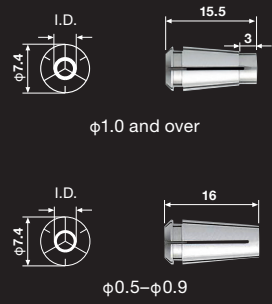
Air-Speed

HES

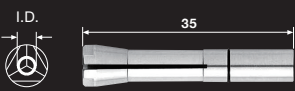
TURBINES

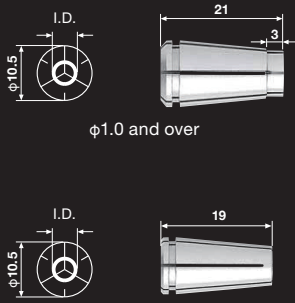
ACCESSORIES

Collet

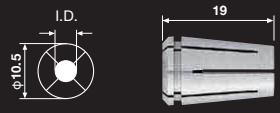
| CHA Group | | Fit nuts: CHN-A, CHN-AA, CHN-CTA, CHN-3A | | | |
|-------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| | | Code No. | Model | I.D. (mm) | Compatible model |
|  <p>φ1.0 and over</p> <p>φ0.5-φ0.9</p> | 91494 | CHA-3.0AA | φ3.0AA* | CTS-2630 / 2620A (Type AA only) CTS-3030 EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A QC3-A (NRR3060-QC / NR3060-AQC) ABT-1000 / 1600 Xpeed1600 (Type AA only) HES810 series HTS series iSpeed3 series | |
| | 91496 | CHA-3.175AA | φ3.175AA* | | |
| 91495 | CHA-4.0AA | φ4.0AA* | | | |
| 91492 | CHA-2.35 | φ2.35 | | | |
| 91430 | CHA-3.0 | φ3.0 | | | |
| 91493 | CHA-3.175 | φ3.175 | | | |
| 91440 | CHA-4.0 | φ4.0 | | | |
| 914 □□ | CHA-□□ | φ0.5, φ0.6, φ0.7, φ0.8, φ0.9 φ1.0, φ1.5, φ2.0, φ2.5, φ3.5 φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9 φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9 | | | |

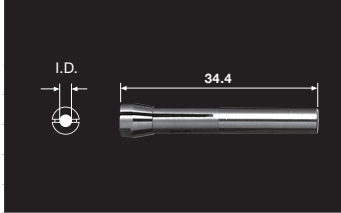
*High precision type AA (Run-out accuracy within 2 μm)

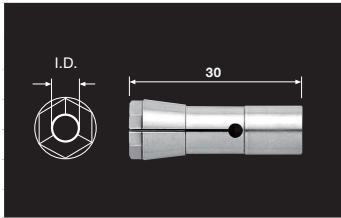
| CHB Group | | Fit nuts: K-265, K-265A | | | |
|-----------------------------------------------------------------------------------|--------------|-------------------------|--------|----------------------------------------------|------------------|
| | | Code No. | Model | I.D. (mm) | Compatible model |
|  | 92820 | CHB-2.0 | φ2.0 | NR33-6000ATC-ESD NR40-5100 ATC · NRR-3060 | |
| | 92830 | CHB-3.0 | φ3.0 | | |
| | 92893 | CHB-3.175 | φ3.175 | | |
| | 92835 | CHB-3.5 | φ3.5 | | |
| | 92840 | CHB-4.0 | φ4.0 | | |

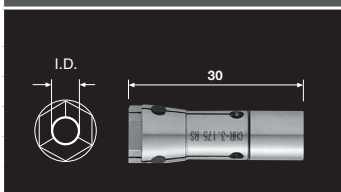
| CHK Group | | Fit nuts: K-265, K-265A | | | |
|---------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| | | Code No. | Model | I.D. (mm) | Compatible model |
|  <p>φ1.0 and over</p> <p>φ0.5-φ0.9</p> | 91597 | CHK-3.0AA | φ3.0AA* | EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-2551 · NR-3060 NR-3060S · NR-403E · NR-453E NRAF-5080 · NRF-3060S · RAS-151E RAX-71E · RAX-271E MSS-25 · MSST-23 · PMA-3013K PMR-3005K · PMS-3020K NR-303 · NR-311 · NR-2351 · RAS-101 QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) Xpeed1200 (Type AA only) HES510 series PLANET series | |
| | 91598 | CHK-3.175AA | φ3.175AA* | | |
| | 91599 | CHK-4.0AA | φ4.0AA* | | |
| | 91600 | CHK-6.0AA | φ6.0AA* | | |
| | 91601 | CHK-6.35AA | φ6.35AA* | | |
| | 91592 | CHK-2.35 | φ2.35 | | |
| | 91530 | CHK-3.0 | φ3.0 | | |
| | 91593 | CHK-3.175 | φ3.175 | | |
| | 91540 | CHK-4.0 | φ4.0 | | |
| | 91594 | CHK-4.76 | φ4.76 | | |
| | 91560 | CHK-6.0 | φ6.0 | | |
| | 91596 | CHK-6.35 | φ6.35 | | |
| | 915 □□ | CHK-□□ | φ0.5, φ0.6, φ0.7, φ0.8, φ0.9 φ1.0, φ1.5, φ2.0, φ2.5, φ3.5, φ4.5, φ5.0, φ5.5 φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9 φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9 φ4.1, φ4.2, φ4.3, φ4.4, φ4.6, φ4.7, φ4.8, φ4.9 φ5.1, φ5.2, φ5.3, φ5.4, φ5.6, φ5.7, φ5.8, φ5.9 | | |

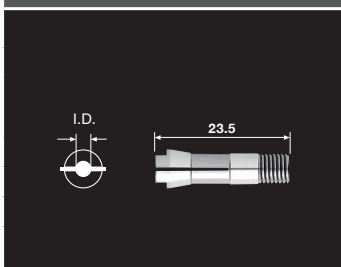
*High precision type AA (Run-out accuracy within 2 μm)

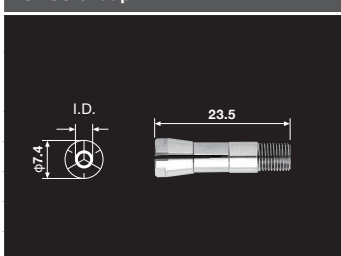
| CHK-OH Group | | Fit nut: K-265 | | | |
|-------------------------------------------------------------------------------------|--------------|----------------|--------|------------------------------------------------------------|------------------|
| | | Code No. | Model | I.D. (mm) | Compatible model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

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

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

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

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

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

E4000

E3000

E2000

iSpeed3

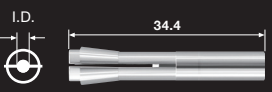
Air-Speed

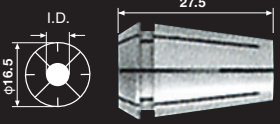
HES

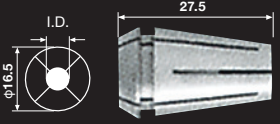
TURBINES

ACCESSORIES

Collet



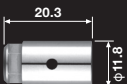



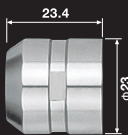
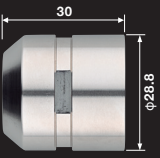
| CH8 Group | | | | |
|-----------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------|------------|------------------|
|  | Code No. | Model | I.D. (mm) | Compatible model |
| | 91092 | CH8-2.35 | φ2.35 | RA-100 · RA-151E |
| | 91030 | CH8-3.0 | φ3.0 | |
| | 91093 | CH8-3.175 | φ3.175 | |
| | 910 □□ | CH8-□□ | φ0.8, φ0.9 | |
| φ1.0, φ1.5, φ2.0, φ2.5 | | | | |
| | | φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9 φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 | | |

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

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

Collet nut

Order by Code No.

| CHN-A | | | | Fit collet: CHA Group |
|-------------------------------------------------------------------------------------|-------------|---------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Code No. | Model | Description | Compatible model |
|  | 2102 | CHN-A | Collet nut for CHA collet | QC3-A (NRR3060-QC / NR3060-AQC) EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A HES810 series iSpeed3 series |
| CHN-AA | | | | Fit collet: CHA Group |
| | Code No. | Model | Description | Compatible model |
|  | 2159 | CHN-AA | Collet nut for CHA collet | HTS series |
| CHN-CTA | | | | Fit collet: CHA Group |
| | Code No. | Model | Description | Compatible model |
|  | 7798 | CHN-CTA-3.0 | Collet nut for CHA collet | CTS-2630 / 2620A / 3030 |
| | 7799 | CHN-CTA-3.175 | | |
| | 7800 | CHN-CTA-4.0 | | |
| CHN-3A | | | | Fit collet: CHA Group |
| | Code No. | Model | Description | Compatible model |
|  | 2160 | CHN-3A | Collet nut for CHA collet | ABT series · Xpeed1600 |
| K-265 | | | | Fit collets: CHK Group, CHK-OH Group |
| | Code No. | Model | Description | Compatible model |
|  | 2129 | K-265 | Collet nut for CHK collet | CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-403E · NR-453E NR-2551 · NR-3060 · NR-3060S NRF-3060S · RAS-151E · RAX-71E RAX-271E MSS-25 · MSST-23 NR-303 · NR-311 · NR-2351 · RAS-101 PMA-3013K · PMR-3005K · PMS-3020K HES510 series PLANET series |
| K-265A | | | | Fit collet: CHK Group |
| | Code No. | Model | Description | Compatible model |
|  | 2158 | K-265A | Collet nut for CHK collet | NRAF-5080 Xpeed1200 |
| CHN-16 | | | | Fit collets: CH16 Group, CH16OH Group |
| | Code No. | Model | Description | Compatible model |
|  | 2161 | CHN-16 | Collet nut for CH16 collet | BMS-4020 / 2M · BMS-4020-MQL / 2M BMS-4020RA · BMS-4040 / 2M BMS-4040-MQL / 2M · BMS-4040RA BMS-4040RA-RGD-03M / 2M BMS-4040-RGD-03M / 2M · NR-4040 QC5-16 (NRR4040-QC / NR4040-AQC) |
| CHN-20 | | | | Recommended : REGO-FIX ER20/ER20UP |
| | Code No. | Model | Description | Compatible model |
|  | 7914 | CHN-20 | Collet nut for BMS-5010 collet | BMS-5010 / RA |

E4000

E3000

E2000

iSpeed3

Air-Speed

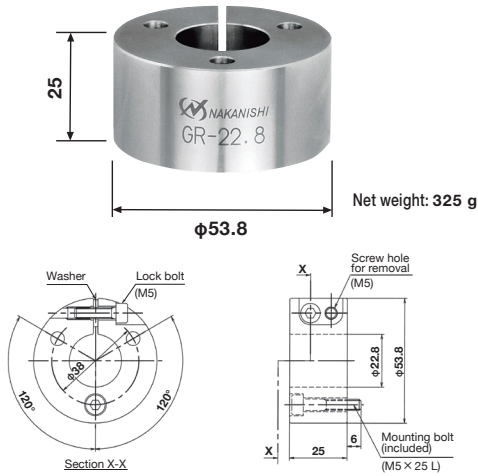
HES

TURBINES

ACCESSORIES

Grip ring

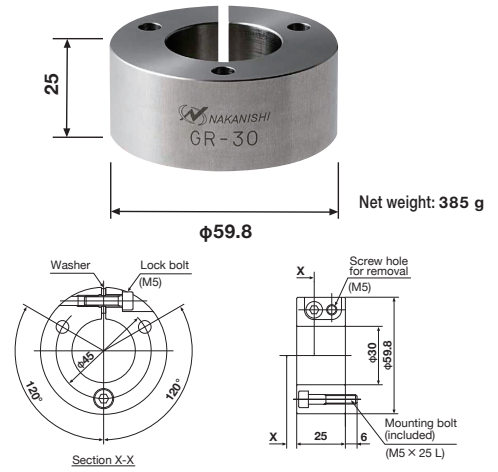
GR-22.8



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

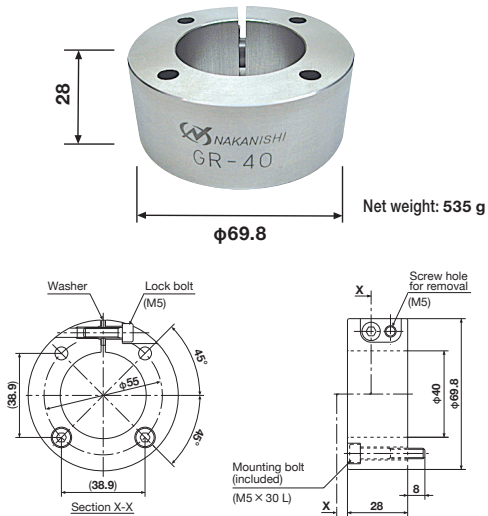
*GR-22.8 cannot be used with NR-311.

GR-30



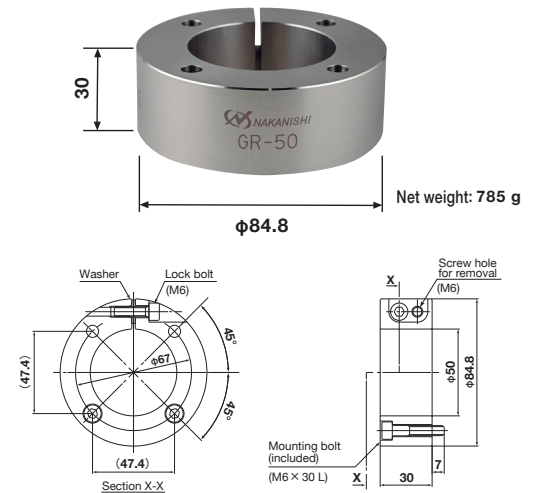
| | | | |
|----------------------|-----------------------------------|-------|--------------|
| Code No. | 1885 | Model | GR-30 |
| Standard accessories | Mounting bolt (M5 × 25 L): 3 pcs. | | |
| Compatible model | φ30 mm Spindle | | |

GR-40



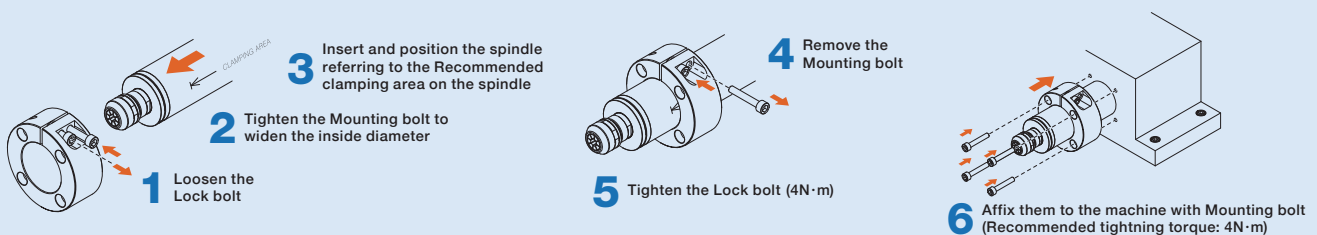
| | | | |
|----------------------|-----------------------------------|-------|--------------|
| Code No. | 1886 | Model | GR-40 |
| Standard accessories | Mounting bolt (M5 × 30 L): 4 pcs. | | |
| Compatible model | φ40 mm Spindle | | |

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.

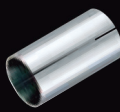
Spacer

Order by Code No.

| Spacer | Code No. | Model | Description / Description (I.D. × T) | Compatible model |
|-----------------------------------------------------------------------------------|-------------|--------------|--------------------------------------|---------------------|
|  | 1882 | SP-22 × 10 L | Spacer (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 (φ19.05 × φ25.4 × 36 mm) | BM-319 · BM-319F · BMF-319 · BMJ-319 MSS-1902R / RA · MSS-1908R / RA MSS-1930R / RA |
| | 1877 | RB-20 × 22 | φ22 Bush (φ20 × φ22 × 40 mm) | BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA |
| | 1876 | RB-20 × 22.8 | φ22.8 Bush (φ20 × φ22.8 × 40 mm) | BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA |
| | 1875 | RB-20 × 23 | φ23 Bush (φ20 × φ23 × 40 mm) | BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA |
| | 1878 | RB-20 × 25 | φ25 Bush (φ20 × φ25 × 40 mm) | BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA |
| | 1879 | RB-20 × 25.4 | φ25.4 Bush (φ20 × φ25.4 × 40 mm) | BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA |
| | 1883 | RB-22 × 25 × 34 L | φ25 Bush (φ22 × φ25 × 33.5 mm) | BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322 |
| | 1884 | RB-22 × 25.4 × 34 L | φ25.4 Bush (φ22 × φ25.4 × 33.5 mm) | BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322 |
| | 1872 | RBS-22.8 × 25 | φ25 Bush (φ22.8 × φ25 × 25 mm) | AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101 |
| | 1871 | RB-22.8 × 25 | φ25 Bush (φ22.8 × φ25 × 44 mm) | RA-100 |
| | 1874 | RBS-22.8 × 25.4 | φ25.4 Bush (φ22.8 × φ25.4 × 25 mm) | AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101 |
| | 1873 | RB-22.8 × 25.4 | φ25.4 Bush (φ22.8 × φ25.4 × 44 mm) | RA-100 |
| | 1880 | RB-30 × 32 | φ32 Bush (φ30 × φ32 × 45 mm) | NR-3060 · NR-3060S · NR-403E |
| 1881 | RB-30 × 36 | φ36 Bush (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 BMS-4040-MQL-CHK / 2M |

E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES

Collet holder

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

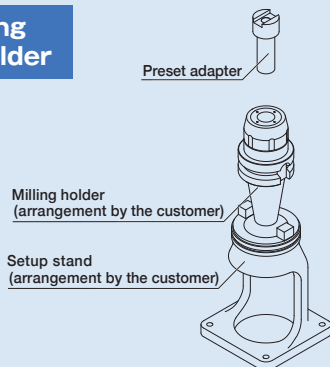
Preset adapter

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

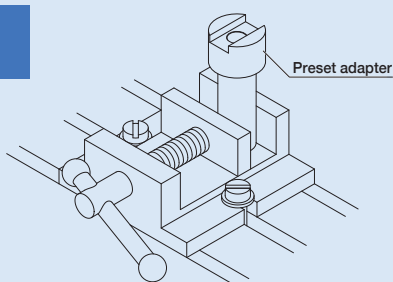
Set-up outside machines

1

In case using
a milling holder



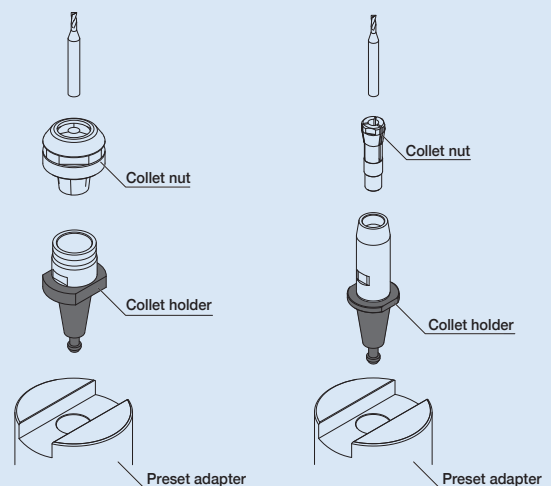
In case using
a vice



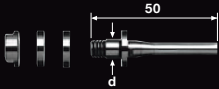
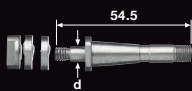
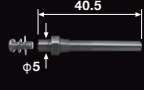
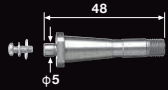
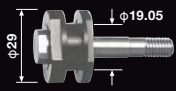
2

For QC3-K/A
QC5-16/K





For QC3-SS



Metal saw arbor · Grindstone arbor · Grindstone flange

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

Grease · Oil

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

COMBOX



| Code No. | 8495 | Model | COMBOX |
|----------|------|-------|--------|
|----------|------|-------|--------|

- By connecting the COMBOX to a CITIZEN “Cincom” CNC automatic lathe, iSpeed3 and E3000 motors can be easily operated by using the external M code signal.

| | |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specifications | Input voltage: DC24 V (DC23-25 V) Dimensions: W142 × D240 × H31 mm / Net weight: 1.2 kg |
| Standard equipment and accessories | I/F Cable (High density D-SUB 15 connector): 1 pc. Cable D · E · F: 1 pc. each / Relay: 1 pc. Screw · Nut: 2 pcs. each / Connector cap: 4 pcs. |
| Compatible controllers | E3000 controller · iSpeed3 controller |
| External connecting device | CNC automatic lathe For details, please contact us or your local distributor. |

Network Interface

COMBOX-NET.EIP

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

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.



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

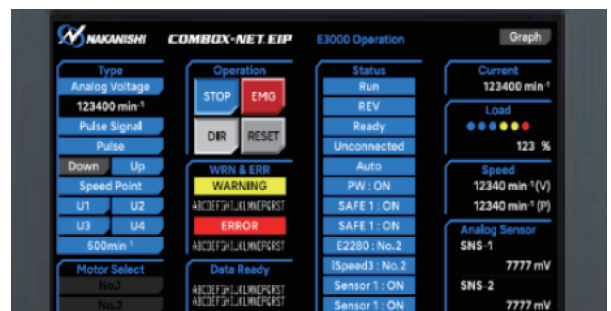
Feature 1 Remote management through IoT

• Easy remote error/warning display

Error or warning output from the controller can be easily displayed remotely. *Display contents vary depending on S/N

• Up to 4 sensors (digital × 2, analog × 2) can be connected

Various commercially available sensors can be added and used for condition monitoring.



PLC display example

Feature 2 Reduce design and production work hours

• Connectable to Ethernet/IP compatible devices via LAN cable

*Support for other protocols is pending

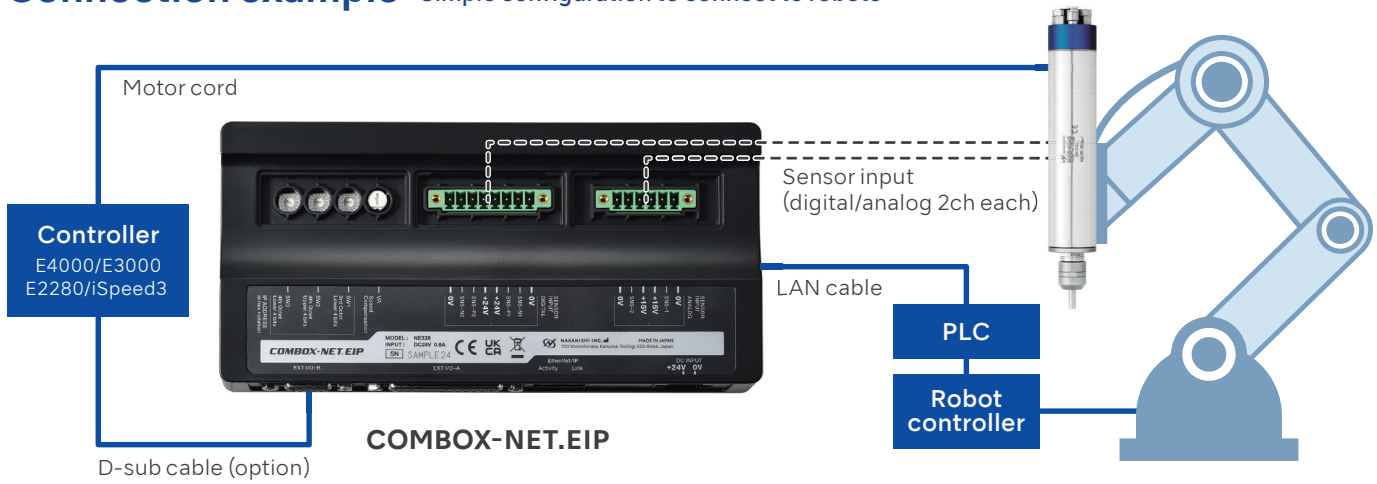
• Reduction of the number of lines in the ladder program in PLCs is possible

• I/O-related devices are no longer needed, reducing the amount of wiring required

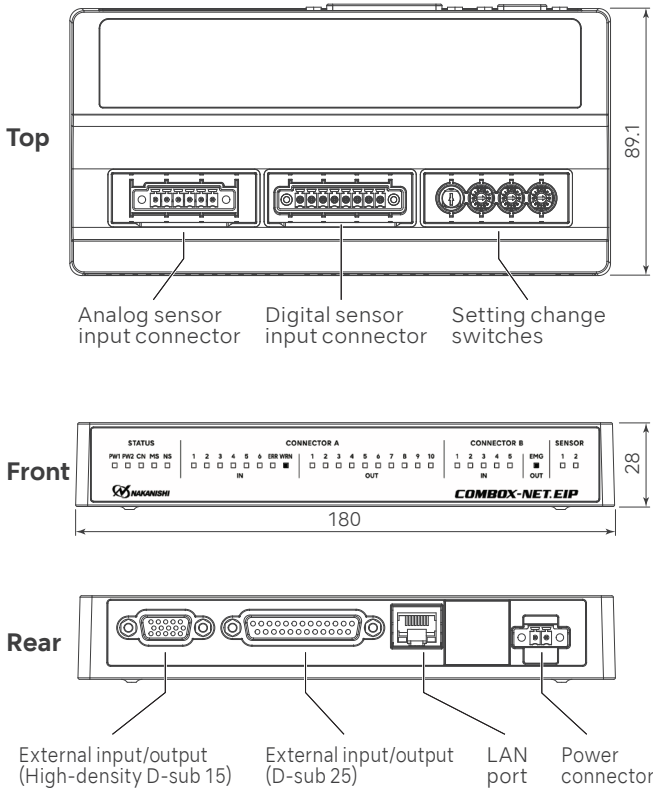
33% reduction in work hours
(compared to in-house measurements)



Connection example Simple configuration to connect to robots



Outside view



Specifications

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

Basic package

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

Code No. **7796** Model **COMBOX-NET.EIP**

*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.



E4000 controller
S/N: E*****



E3000 controller
S/N: G*****

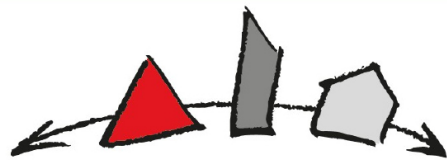


E2280 controller
S/N: B*****



iSpeed3 controller
S/N: C*****

*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.



eka Klingseisen
Werkzeuge & Maschinen

Erich Klingseisen KG Brunnenstraße 2 78554 Aldingen

info@klingseisen.de • Tel. (07424) 98192-0 • www.klingseisen.de

NAKANISHI INC.

Headquarters · Factory
700 Shimohinata, Kanuma, Tochigi 322-8666, Japan
TEL: +81-289-64-3520 / FAX: +81-289-62-1135

en.nakanishi-spindle
PR-K372E Ver.2 2026-02-03 XXX.YX

*Specifications and design are subject to change without notice.