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PR-K364E Ver.1 2022-06-16 05. 590

# SERIES E3000

ULTRA-HIGH-SPEED & SUPER-PRECISION

## De Facto

E3000 Series has become the largest product lines of electric motor spindle with the decades of effort to respond to the customer's requests from all over the world.

### ✓ $\varnothing$ 30mm Spindle

- Max. power 350w
- Max. rpm 80,000min<sup>-1</sup>

### ✓ The largest product lines

- 26 types of spindles are available.

### ✓ Spindle accuracy within 1 $\mu$ m

- Optimum for high-precision machining
- Longer tool life

### ✓ Ceramic Bearing

- Longer bearing life
- Higher rigidity for heavy cutting











### ✓ Brushless motor



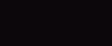


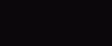



- Maintenance free
- Longer product life thanks to no dust from carbon brushes







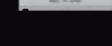
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## Spindle & Motor ø25 Specifications (Modular type)

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## Motor cord

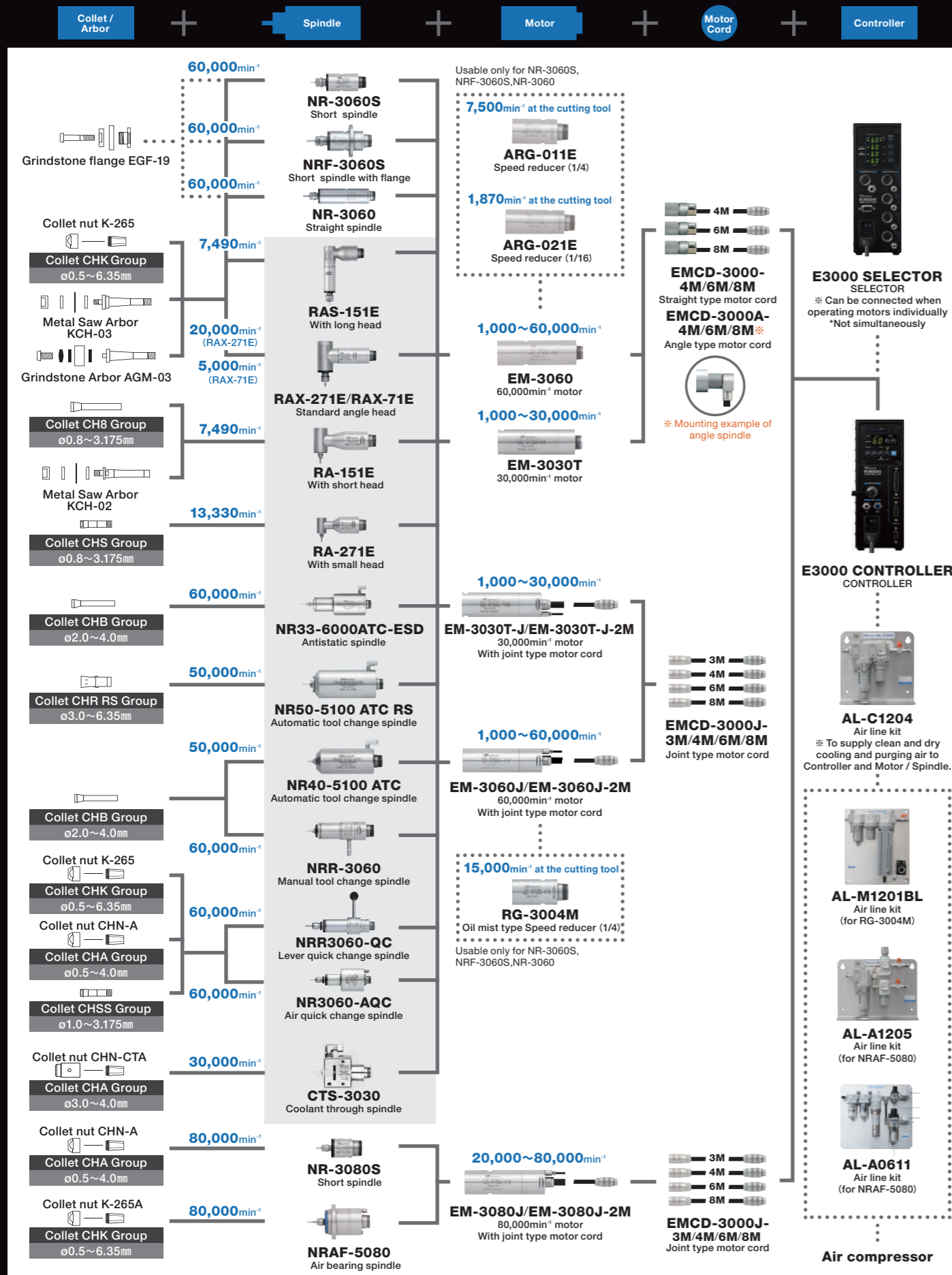
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## Accessories

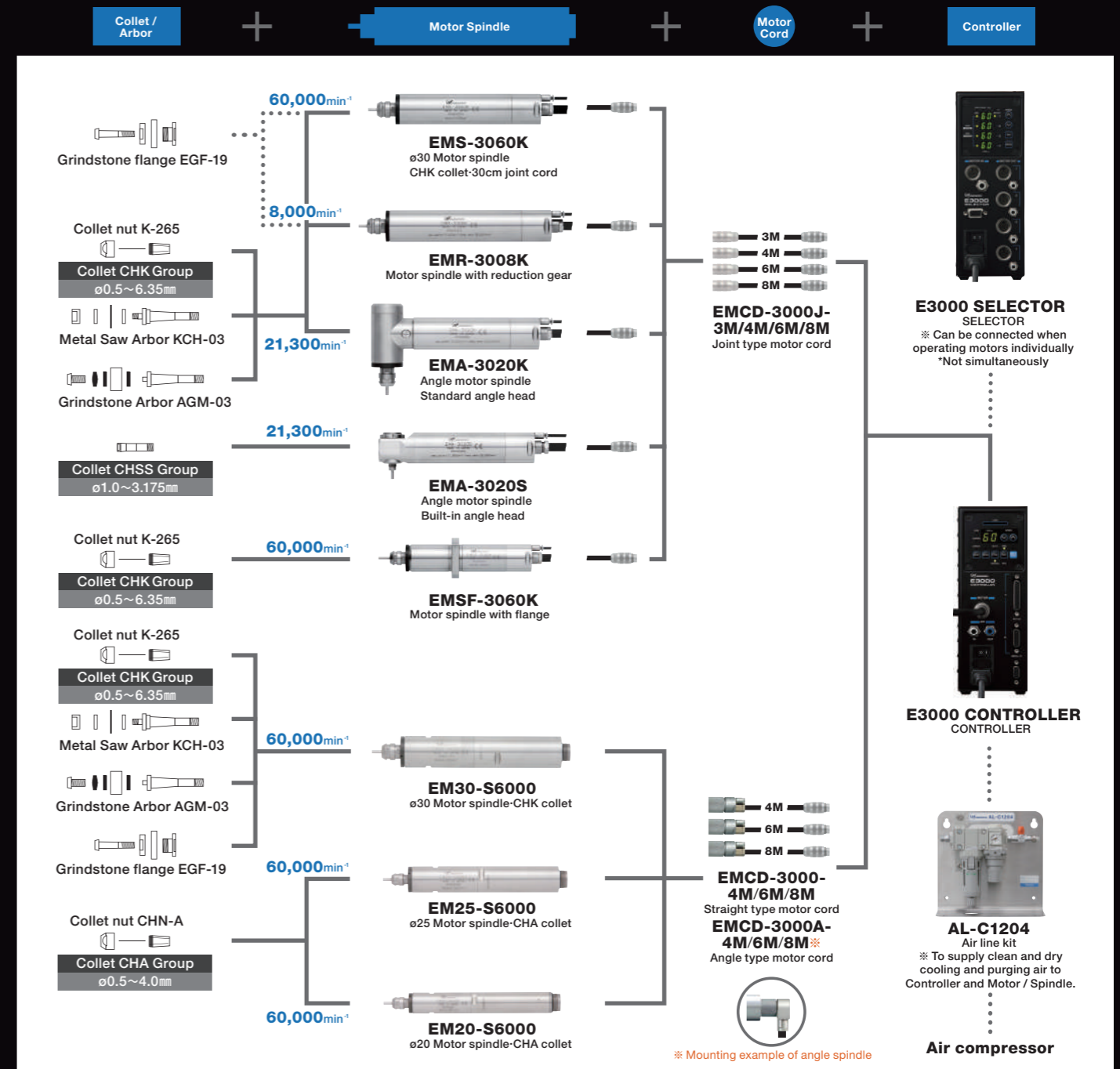
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# System Chart

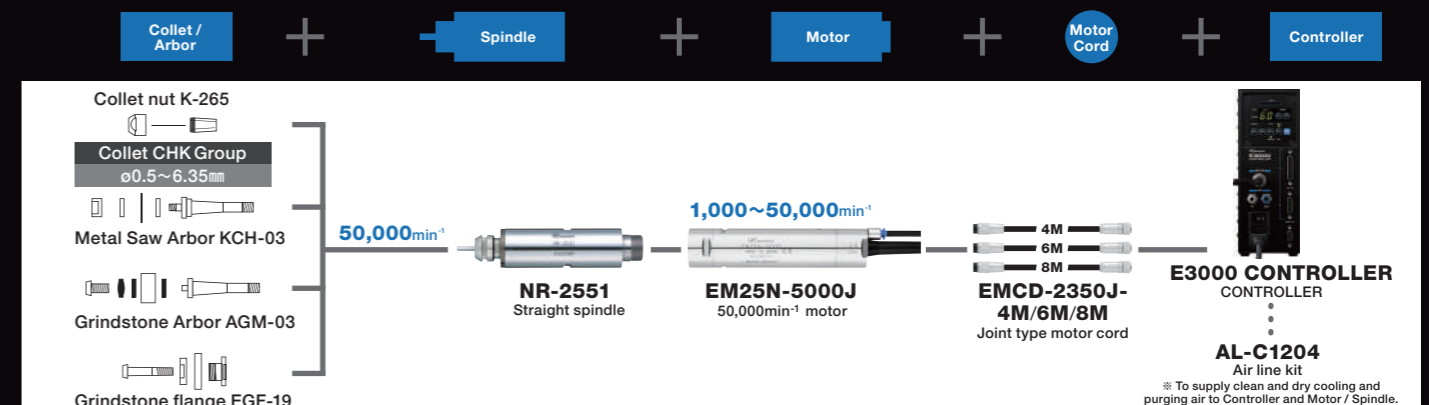
## Modular type ø30mm



## One-piece type ø30/ø25/ø20mm



## Modular type ø25mm



# Spindle (Modular type)



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- 50 NR50-5100 ATC RS p.17
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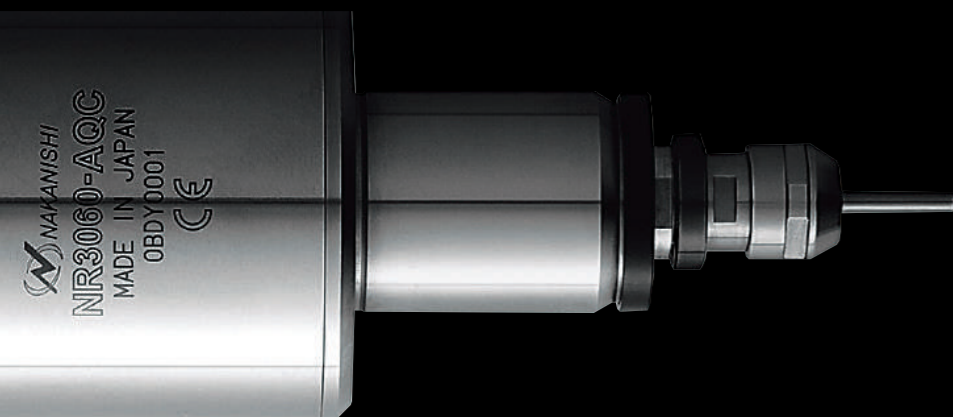


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- 30 ARG-011E p.27
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- 30 EM-3060J p.31
- 30 EM-3030T p.33
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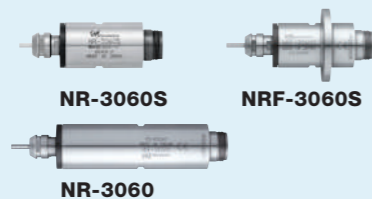


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Spindle  
Guide

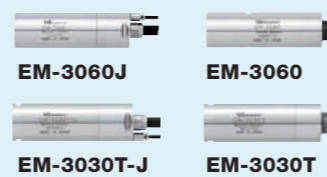
CHK



NR-3060S

NRF-3060S

NR-3060

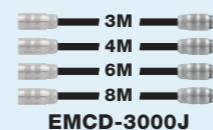


EM-3060J

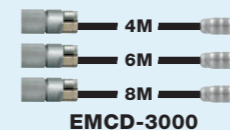
EM-3060

EM-3030T-J

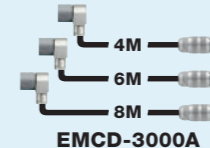
EM-3030T



EMCD-3000J



EMCD-3000



EMCD-3000A



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

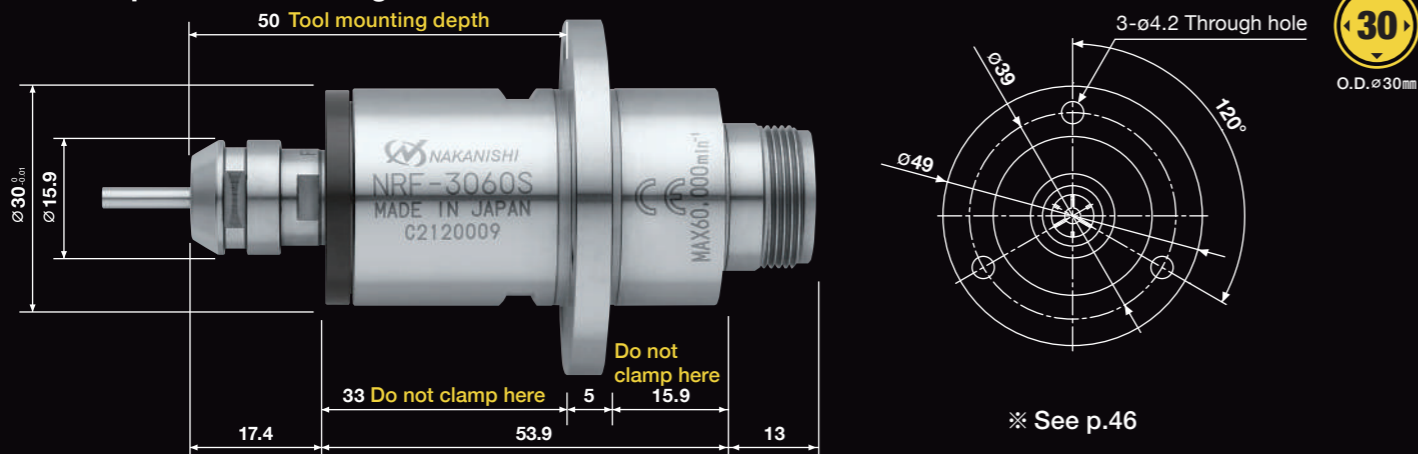
## NR-3060S

Short spindle

O.D.  $\varnothing$ 30mm

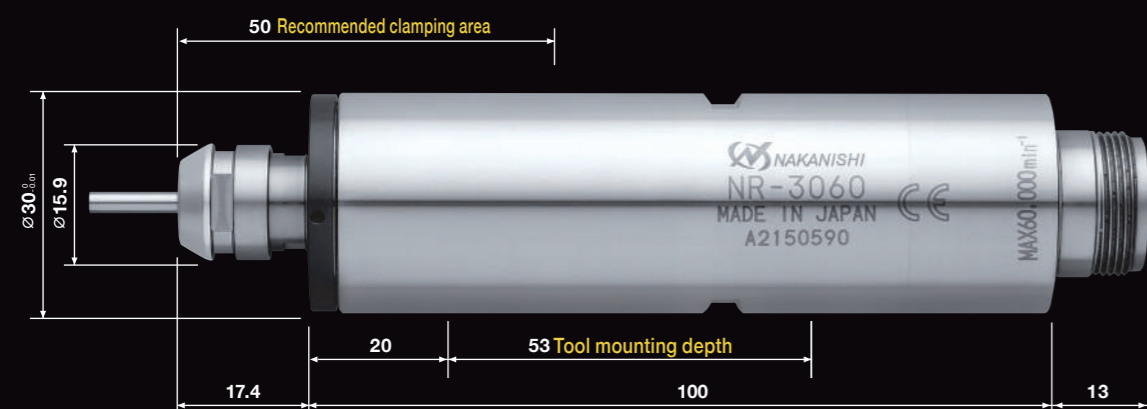
## NRF-3060S

Short spindle with flange

O.D.  $\varnothing$ 30mm

## NR-3060

Straight spindle

O.D.  $\varnothing$ 30mm

## Specifications

DXF data DXF files are available on our website

Order by Code No.

## NR-3060S

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

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\varnothing$ 30mm	<b>60,000</b> min <sup>-1</sup>	Within 1 $\mu$ m	<b>CHK Group</b> ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	<b>260g</b>
Standard Accessories	Collet nut (K-265) / Wrench (12×14) : 2pcs. · (22×27) : 1pc.			
Options	Collet (CHK Group) : $\varnothing$ 0.5~ $\varnothing$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\varnothing$ d (I.D.) × under $\varnothing$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\varnothing$ 5.0mm Grindstone Flange (EGF-19) : applicable grindstone I.D. $\varnothing$ 19.05×O.D. $\varnothing$ 40×7mm			

※ Collet is sold separately.

## NRF-3060S

Code No. **7795**Model **NRF-3060S**

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\varnothing$ 30mm	<b>60,000</b> min <sup>-1</sup>	Within 1 $\mu$ m	<b>CHK Group</b> ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	<b>285g</b>
Standard Accessories	Collet nut (K-265) / Wrench (12×14) : 2pcs. · (22×27) : 1pc. Hexagon Socket Head Screw (M4×12) : 3pcs.			
Options	Collet (CHK Group) : $\varnothing$ 0.5~ $\varnothing$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\varnothing$ d (I.D.) × under $\varnothing$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\varnothing$ 5.0mm Grindstone Flange (EGF-19) : applicable grindstone I.D. $\varnothing$ 19.05×O.D. $\varnothing$ 40×7mm			

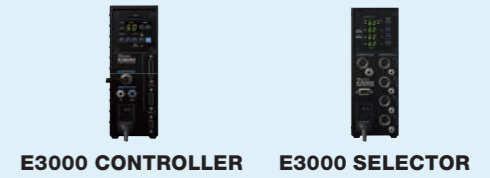
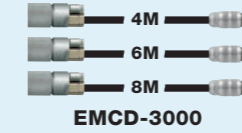
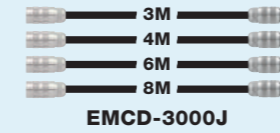
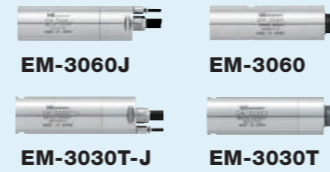
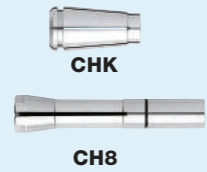
※ Collet is sold separately.

## NR-3060

Code No. **7875**Model **NR-3060**

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\varnothing$ 30mm	<b>60,000</b> min <sup>-1</sup>	Within 1 $\mu$ m	<b>CHK Group</b> ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	<b>420g</b>
Standard Accessories	Collet nut (K-265) / Wrench (12×14) : 2pcs. · (22×27) : 1pc.			
Options	Collet (CHK Group) : $\varnothing$ 0.5~ $\varnothing$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\varnothing$ d (I.D.) × under $\varnothing$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\varnothing$ 5.0mm Grindstone Flange (EGF-19) : applicable grindstone I.D. $\varnothing$ 19.05×O.D. $\varnothing$ 40×7mm			

※ Collet is sold separately.

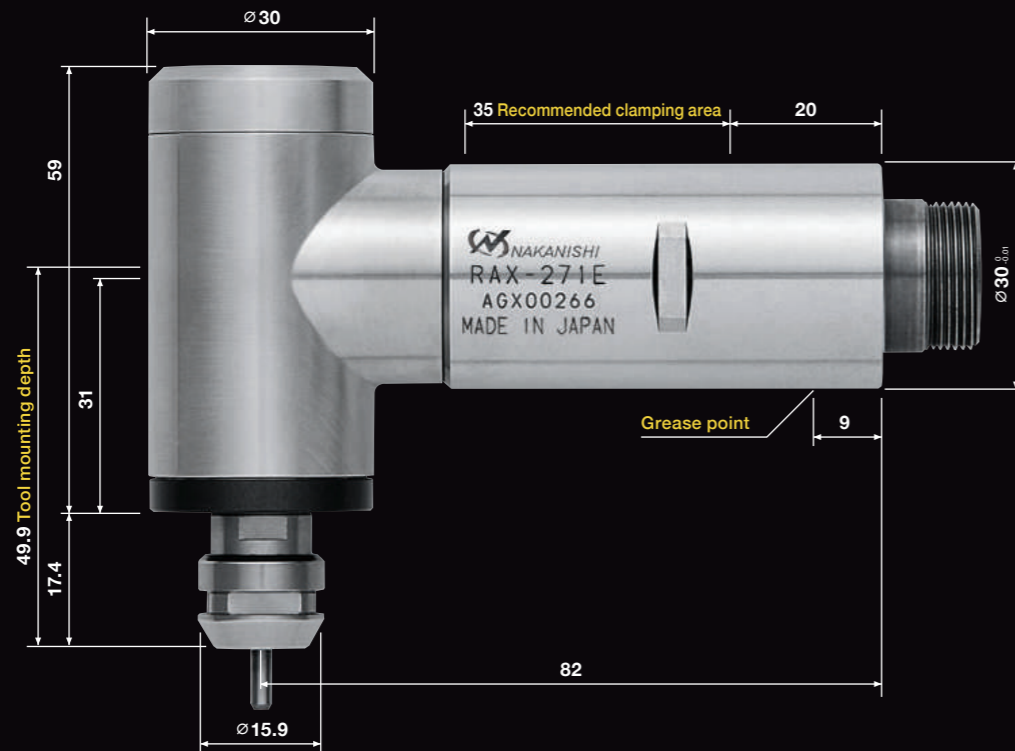
Spindle  
Guide

E3000 SERIES

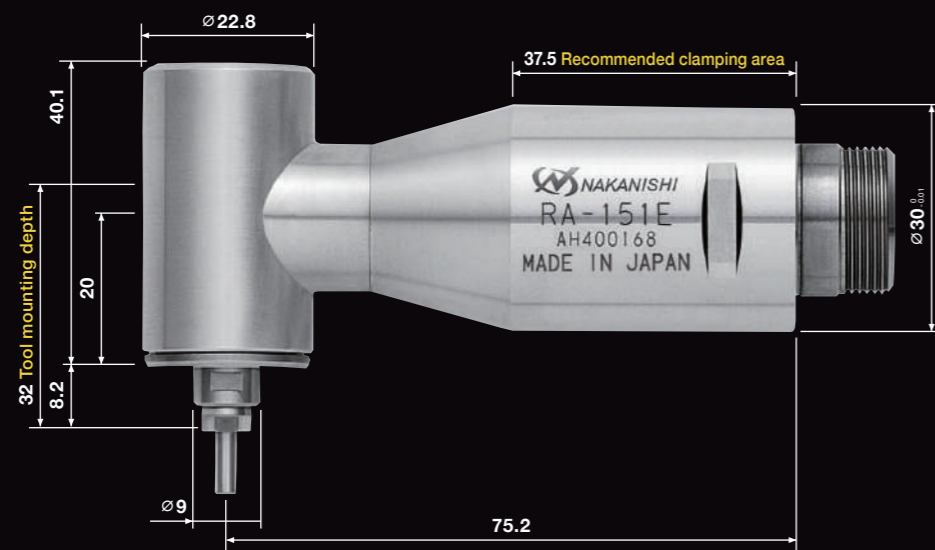
Shown In Actual Size

## Spindle (Modular type)

## RAX-271E / RAX-71E

Angle spindle  
Standard angle headO.D.  $\varnothing$ 30mm

## RA-151E

Angle spindle  
With short headO.D.  $\varnothing$ 30mm

## Specifications

DXF data DXF files are available on our website

Order by Code No.

## RAX-271E / RAX-71E



Code No.	<b>7856</b>	Model	<b>RAX-271E</b>
Code No.	<b>7857</b>	Model	<b>RAX-71E</b>

[Model]	O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
<b>RAX-271E</b>	$\varnothing$ 30mm	<b>20,000</b> min <sup>-1</sup>	$\frac{1}{1.5}$	<b>30,000</b> min <sup>-1</sup>
Spindle Accuracy	Collet	Weight		
Within 2 $\mu$ m	CHK Group ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	580g		
[Model]	O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
<b>RAX-71E</b>	$\varnothing$ 30mm	<b>5,000</b> min <sup>-1</sup>	$\frac{1}{6}$	<b>30,000</b> min <sup>-1</sup>
Spindle Accuracy	Collet	Weight		
Within 2 $\mu$ m	CHK Group ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	580g		
Standard Accessories	Collet nut (K-265) / Wrench (12 $\times$ 14) : 2pcs. · (22 $\times$ 27) : 1pc. Grease for speed reducer (10m $\ell$ ) / Grease nipple : 1pc.			
Options	Collet (CHK Group) : $\varnothing$ 0.5~ $\varnothing$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\varnothing$ d (I.D.) $\times$ under $\varnothing$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\varnothing$ 5.0mm			

※ Collet is sold separately.

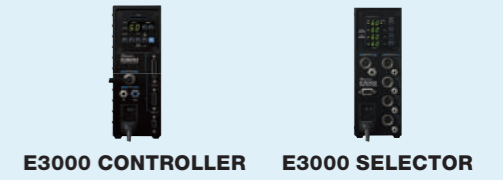
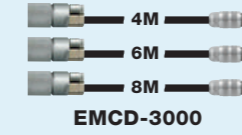
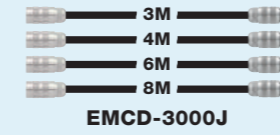
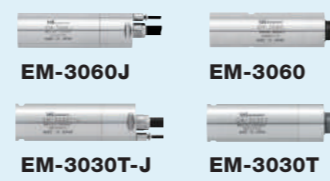
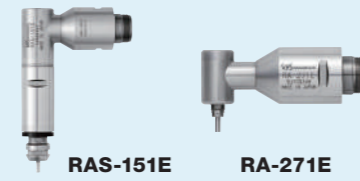
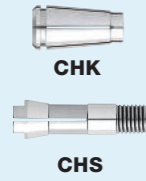
Put grease every 70 to 100 hours to extend the life of the speed reducer.  
Grease-up prevents friction of the internal gears and degradation of the existing grease in the reducer.

## RA-151E



Code No.	<b>1505</b>	Model	<b>RA-151E</b>
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O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm	Collet	Weight
$\varnothing$ 30mm	<b>7,490</b> min <sup>-1</sup>	$\frac{1}{2.67}$	<b>20,000</b> min <sup>-1</sup>	CH8 Group ( $\varnothing$ 0.8 ~ $\varnothing$ 3.175mm)	<b>385g</b>
Standard Accessories	Collet : $\varnothing$ 3.0mm (CH8-3.0) / Wrench (7 $\times$ 5.5) · (8 $\times$ 5) · (22 $\times$ 27) : 1pc. each				
Options	Collet (CH8 Group) : $\varnothing$ 0.8~ $\varnothing$ 3.175mm <b>p.51</b> Metal Saw Arbor (KCH-02) : $\varnothing$ d (I.D.) $\times$ under $\varnothing$ 30mm (O.D.)				

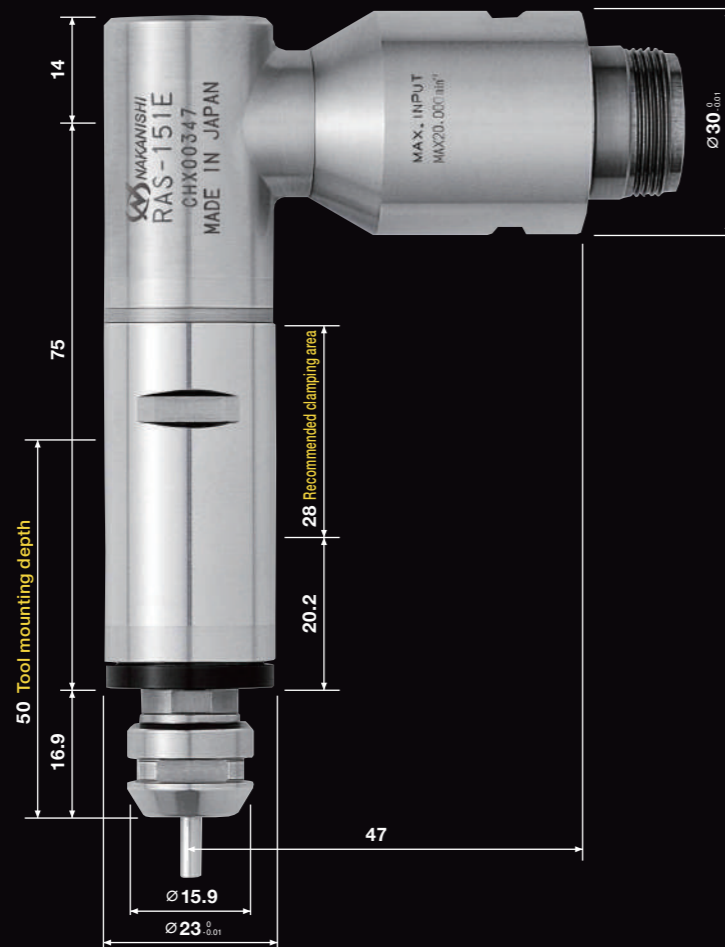
Spindle  
Guide

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

## RAS-151E

Angle spindle  
With long headO.D.  $\varnothing$ 30mm

## Specifications

DXF  
dataDXF files are available  
on our website

Order by Code No.

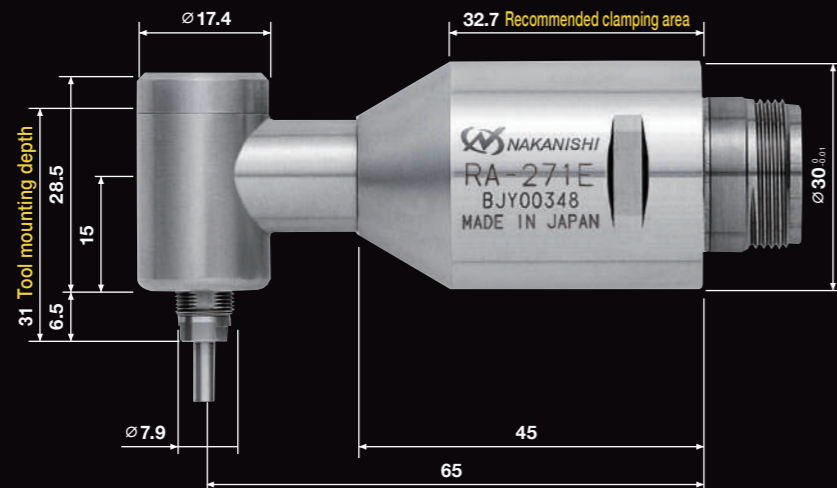
## RAS-151E

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

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
$\varnothing$ 30mm	<b>7,490</b> min <sup>-1</sup>	$\frac{1}{2.67}$	<b>20,000</b> min <sup>-1</sup>
Spindle Accuracy	Collet	Weight	
Within <b>2</b> μm	<b>CHK Group</b> ( $\varnothing$ 0.5 ~ $\varnothing$ 6.35mm)	<b>413g</b>	
Standard Accessories	Collet nut (K-265) / Wrench (12×14) : 2pcs. · (22×27) : 1pc.		
Options	Collet (CHK Group) : $\varnothing$ 0.5~ $\varnothing$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\varnothing$ d (I.D.) × under $\varnothing$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\varnothing$ 5.0mm		

※ Collet is sold separately.

## RA-271E

Angle spindle  
With small headO.D.  $\varnothing$ 30mm

## RA-271E

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

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm	Collet	Weight
$\varnothing$ 30mm	<b>13,330</b> min <sup>-1</sup>	$\frac{1}{1.5}$	<b>20,000</b> min <sup>-1</sup>	<b>CHS Group</b> ( $\varnothing$ 0.8 ~ $\varnothing$ 3.175mm)	<b>240g</b>
Standard Accessories	Collet : $\varnothing$ 3.0mm (CHS-3.0) / Wrench (7×5.1) · (8×5) · (22×27) : 1pc. each				
Options	Collet (CHS Group) : $\varnothing$ 0.8~ $\varnothing$ 3.175mm <b>p.51</b>				

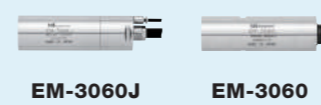


Spindle  
Guide

CHB



NR33-6000ATC-ESD

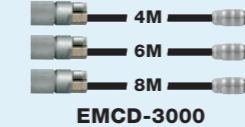


EM-3060J

EM-3060



EMCD-3000J



EMCD-3000



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

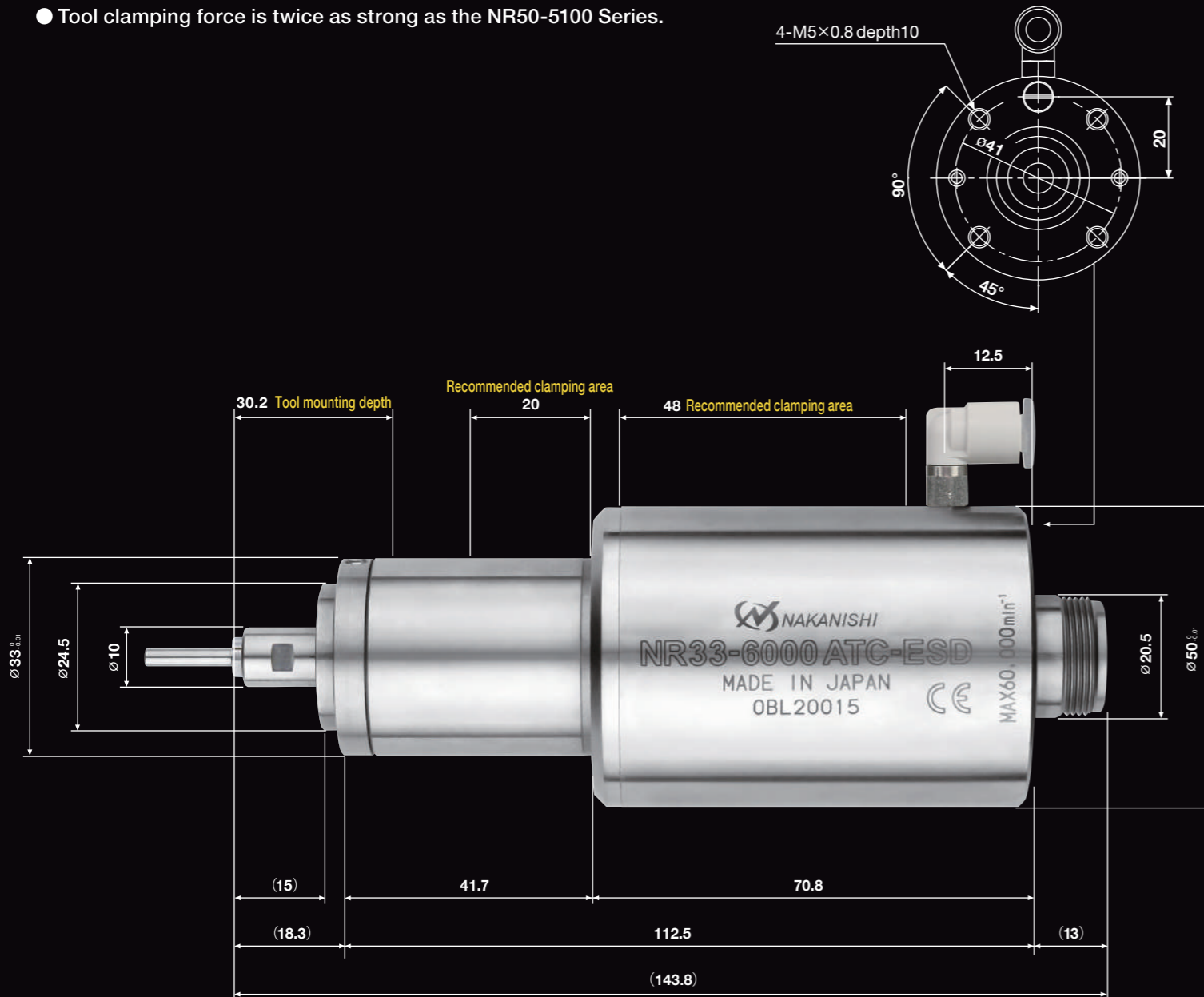
## Spindle (Modular type)

### NR33-6000ATC-ESD

Antistatic spindle

O.D.  $\phi$ 33mm

- Prevents damage to electronic components on the PCB due to static electricity conducted during the machining process.
- The  $\phi$  10 x 15L extended spindle nose length helps to avoid interference with components mounted on the PCB.
- Pneumatic tool clamp and unclamp system allows for quick and easy automatic tool change.
- Tool clamping force is twice as strong as the NR50-5100 Series.



## Specifications

**DXF data** DXF files are available on our website

Order by Code No.

NR33-6000ATC-ESD



Code No. **7788** Model **NR33-6000ATC-ESD**

O.D.	Allowable rotation speed	Air for collet opening	Spindle Accuracy	Collet	Weight
$\phi$ 33mm / $\phi$ 50mm	<b>60,000</b> min <sup>-1</sup> (Motor rotation speed)	<b>0.55~0.6</b> MPa	Within 1 $\mu$ m	<b>CHB Group</b> ( $\phi$ 3.175mm)	<b>1,170g</b>
<b>Standard Accessories</b>	Collet : $\phi$ 3.175mm (CHB-3.175) / Wrench (6.1×8) · (9×11) : 1pc. each / Bar wrench (K-236) : 1pc. Air hose with filter (K-251) : $\phi$ 6mm×2m				
<b>Options</b>	Collet (CHB Group) : $\phi$ 2.0, $\phi$ 3.0, $\phi$ 3.175, $\phi$ 3.5, $\phi$ 4.0mm <b>p.51</b>				

Spindle  
Guide

CHR RS



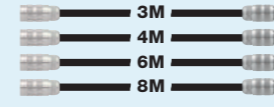
NR50-5100 ATC RS



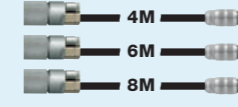
EM-3060J



EM-3060



EMCD-3000J



EMCD-3000



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

### NR50-5100 ATC RS Automatic tool change spindle

O.D.  $\varnothing$ 50mm

This spindle is recommended for the customers who use a big amount of cutting fluid.

"RS" stands for "Rubber Seal". This Rubber Seals added in the collet prevent coolant from going into the collet. In addition, the dust-proof cover which is bigger than NR50-5100 ATC prevents coolant from going into the spindle bearing.



## Specifications

DXF  
dataDXF files are available  
on our website

Order by Code No.

### NR50-5100 ATC RS

Code No. **7690**Model **NR50-5100 ATC RS**

O.D.	Max. rpm	Air for collet opening	Spindle Accuracy	Collet	Weight
$\varnothing$ 50mm	<b>50,000</b> min <sup>-1</sup>	<b>0.55~0.6</b> MPa	Within 1 $\mu$ m	<b>CHR RS Group</b> ( $\varnothing$ 3.175mm)	<b>1,370g</b>
Standard Accessories	Collet : $\varnothing$ 3.175mm (CHR-3.175RS) / Wrench (9×11) · (12×14) : 1pc. each / Bar wrench (K-236) : 1pc. Air hose with filter (K-251) : $\varnothing$ 6mm×2m				
Options	Collet (CHR RS Group) : $\varnothing$ 3.0, $\varnothing$ 3.175, $\varnothing$ 4.0, $\varnothing$ 6.0, $\varnothing$ 6.35mm <b>p.51</b>				

Spindle  
Guide

CHB



NR40-5100 ATC



NRR-3060



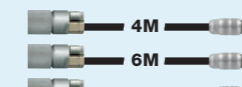
EM-3060J



EM-3060



EMCD-3000J



EMCD-3000



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

### NR40-5100 ATC

Automatic tool  
change spindle

O.D. 40mm

## Specifications

DXF data DXF files are available on our website

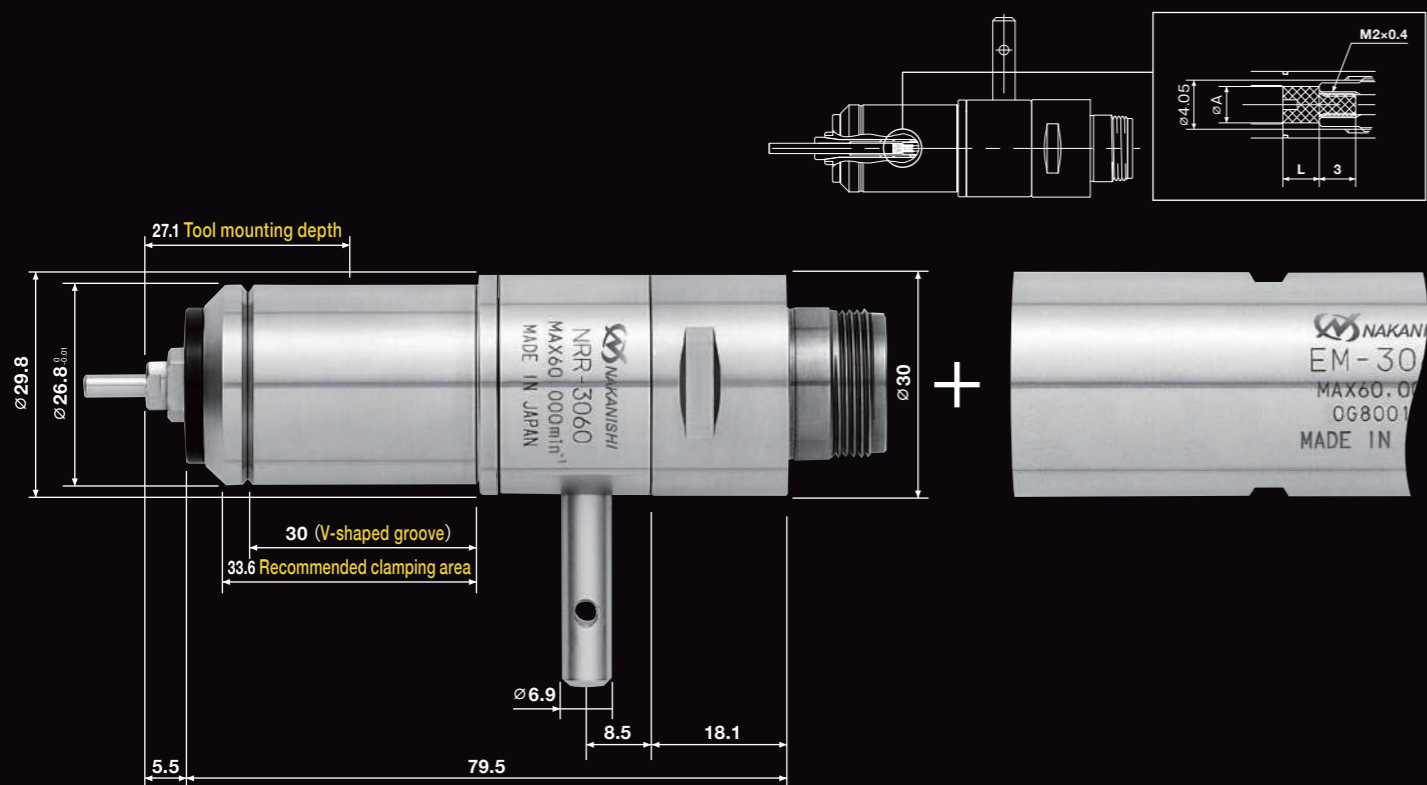
Order by Code No.

### NR40-5100 ATC

Code No. **1582**Model **NR40-5100 ATC**

O.D.	Max. rpm	Air for collet opening	Spindle Accuracy	Collet	Weight
Ø40mm	<b>50,000</b> min <sup>-1</sup>	<b>0.55~0.6</b> MPa	Within <b>2</b> µm	<b>CHB Group</b> (Ø3.175mm)	<b>740g</b>
Standard Accessories	Collet : Ø3.175mm (CHB-3.175) / Wrench (6.1×8) · (9×11) : 1pc. each / Bar wrench (K-236) : 1pc. Air hose with filter (K-251) : Ø6mm×2m				
Options	Collet (CHB Group) : Ø2.0, Ø3.0, Ø3.175, Ø4.0mm <b>p.51</b>				

### NRR-3060

Manual tool  
change spindle

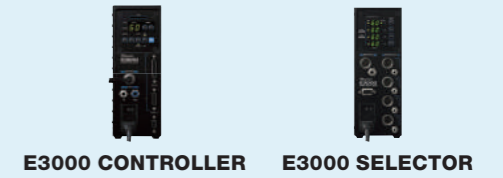
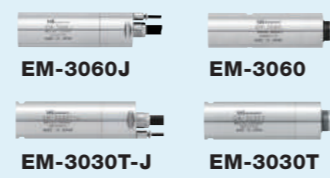
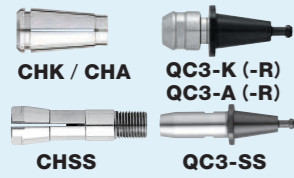
O.D. 26.8mm

### NRR-3060

Code No. **1836**Model **NRR-3060**

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
Ø26.8mm Recommended clamping area	<b>60,000</b> min <sup>-1</sup>	Within <b>1</b> µm	<b>CHB Group</b> (Ø3.175mm)	<b>350g</b>
Standard Accessories	Collet : Ø3.175mm (CHB-3.175) / Wrench (6.1×8) : 2pcs · (22×27) : 1pc			
Options	Collet (CHB Group) : Ø2.0, Ø3.0, Ø3.175, Ø4.0mm <b>p.51</b>			

## Spindle Guide



## E3000 SERIES

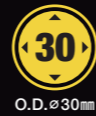
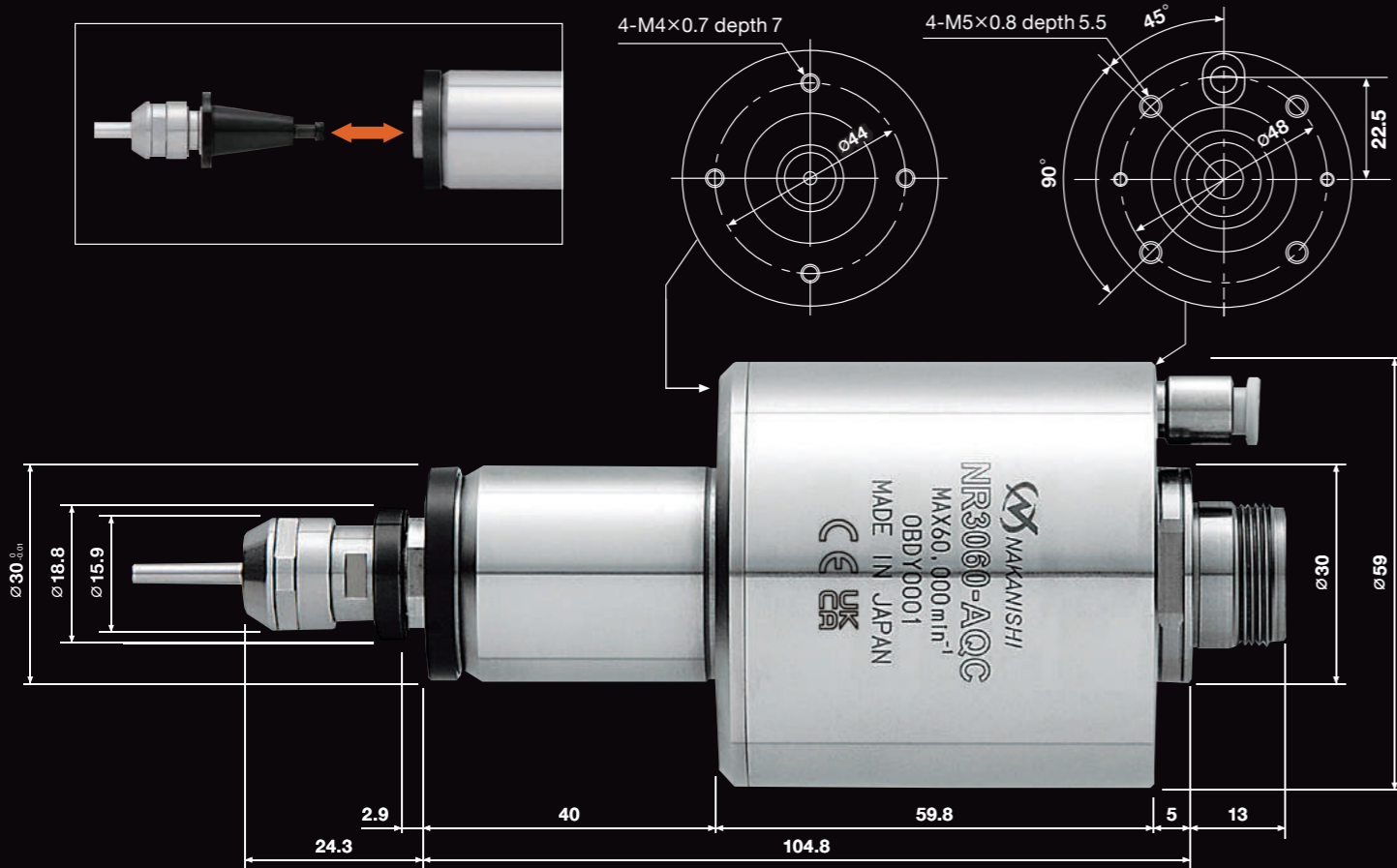
Shown In Actual Size

## Spindle (Modular type)

## NR3060-AQC

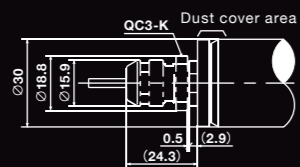
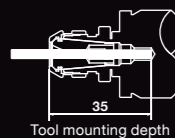
## Air quick change spindle

- Quick and easy collet holder change with air chucking mechanism.
- Enhancing productivity by enabling external tool set-up.
- 3 types of collet holders are available. (CHK  $\phi$ 0.5 ~ 6.35mm, CHA  $\phi$ 0.5 ~ 4.0mm, CHSS  $\phi$ 1.0 ~ 3.175mm)

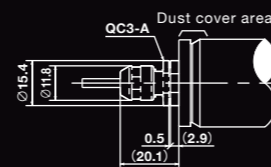
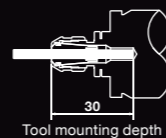
O.D.  $\phi$ 30mm

## Outside view of the tip of the spindle

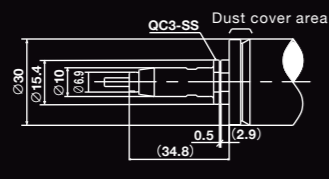
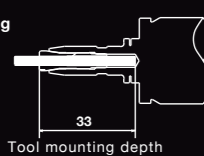
QC3-K  
(Collet holder for  
collet CHK)  
When mounting



QC3-A  
(Collet holder for  
collet CHA)  
When mounting



QC3-SS  
(Collet holder for  
collet CHSS)  
When mounting



## Specifications

DXF data DXF files are available on our website

Order by Code No.

## NR3060-AQC

Code No. **9220** Model **NR3060-AQC**

O.D.	Max. rpm	Air pressure of collet open/close	Spindle Accuracy	Collet holders	Weight
$\phi$ 30mm	60,000min <sup>-1</sup>	0.6MPa	Within 1 $\mu$ m	QC3-K / QC3-K-R (for Collet CHK) QC3-A / QC3-A-R (for Collet CHA) QC3-SS (for Collet CHSS)	1,230g

Standard Accessories Wrench (22×27) : 1pc. / Air hose with filter (K-251) :  $\phi$ 6mm × 2m 1pc.

## Parts (Optional)

Collet	Collet holder (Collet nut included) QC3-K/A QC3-K/A-R	Wrench
<p><b>CHK</b></p> <p>I.D. <math>\phi</math>0.5mm~6.35mm p.51</p>	<p>You can choose the I.D. size (The following is an example of <math>\phi</math>3.0mm.)</p>	<p>Wrench 12 × 14 (2pcs.)</p>
<p><b>CHA</b></p> <p>I.D. <math>\phi</math>0.5mm~4.0mm p.51</p>	<p>QC3-K (for Collet CHK) QC3-K-R (for Collet CHK)</p>	<p>Wrench 8 × 5 (1pc.) Wrench 9 × 11 (1pc.)</p>
<p><b>CHSS</b></p> <p>I.D. <math>\phi</math>1.0mm~3.175mm p.51</p>	<p>QC3-A (for Collet CHA) QC3-A-R (for Collet CHA)</p>	<p>Wrench 6.1 × 8 (1pc.) Wrench 9 × 11 (1pc.)</p>

Preset adapter  
(For QC3 Collet holders)

※ Holding section size is  $\phi$ 20.  
※ QC3-K-R/QC3-A-R cannot be used to Preset adapter.

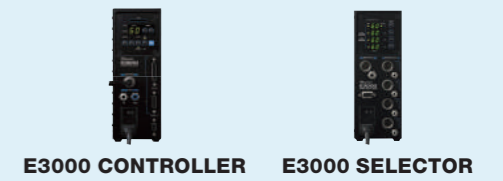
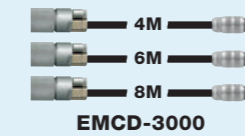
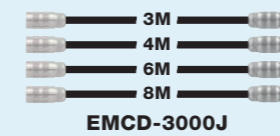
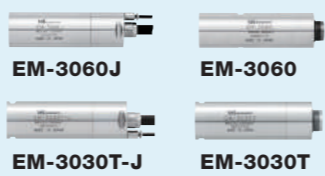
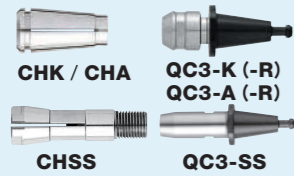
Code No.	9211
Model	QC3-ADP

[Use below Wrenches when using Preset adapter]

CHK collet : 12 × 14 Wrench (1pc.)  
CHA collet : 9 × 11 Wrench (1pc.)  
CHSS collet : 6.1 × 8 Wrench (1pc.)

See p.53

## Spindle Guide



## E3000 SERIES

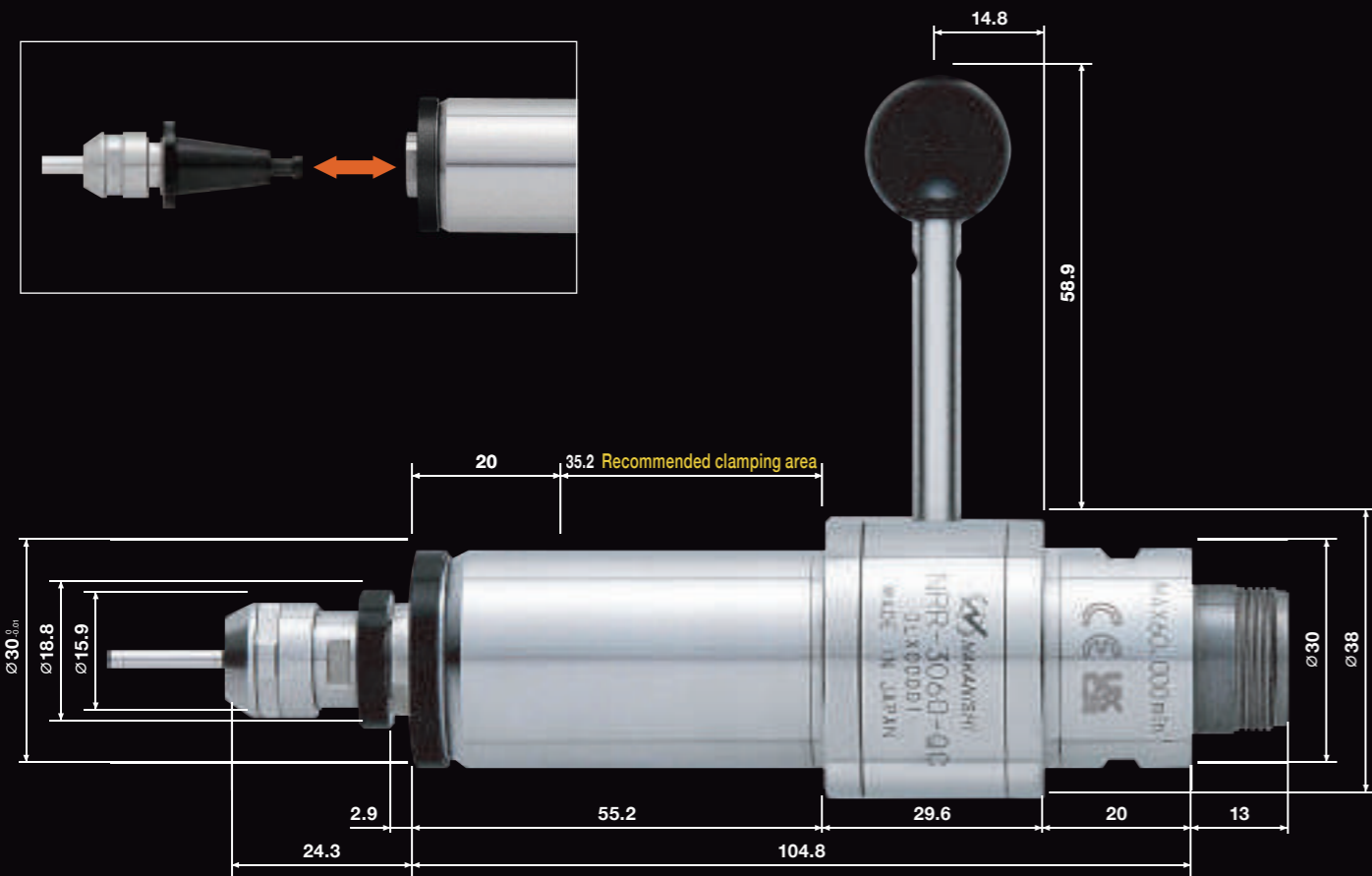
Shown In Actual Size

## Spindle (Modular type)

## NRR3060-QC

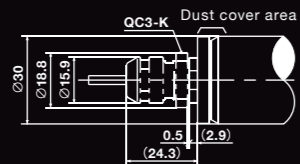
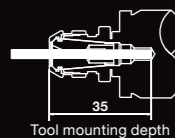
## Lever quick change spindle

- Quick and easy collet holder change with lever chucking mechanism.
- Enhancing productivity by enabling external tool set-up.
- 3 types of collet holders are available. (CHK  $\phi 0.5 \sim 6.35\text{mm}$ , CHA  $\phi 0.5 \sim 4.0\text{mm}$ , CHSS  $\phi 1.0 \sim 3.175\text{mm}$ )

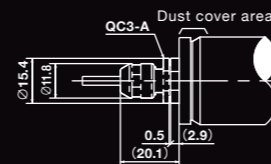
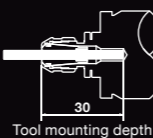
O.D.  $\phi 30\text{mm}$ 

## Outside view of the tip of the spindle

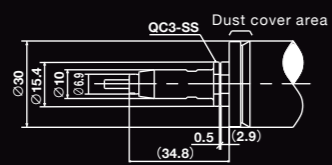
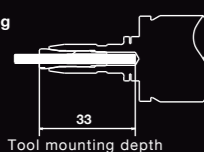
QC3-K  
(Collet holder for  
collet CHK)  
When mounting



QC3-A  
(Collet holder for  
collet CHA)  
When mounting



QC3-SS  
(Collet holder for  
collet CHSS)  
When mounting



## Specifications

**DXF data** DXF files are available on our website

Order by Code No.

## NRR3060-QC

Code No. **9208** Model **NRR3060-QC**

O.D.	Max. rpm	Lever operating angle	Spindle Accuracy	Collet holders	Weight
$\phi 30\text{mm}$ Recommended clamping area	<b>60,000</b> min <sup>-1</sup>	<b>90°</b>	Within <b>1<math>\mu\text{m}</math></b>	<b>QC3-K / QC3-K-R</b> (for Collet CHK) <b>QC3-A / QC3-A-R</b> (for Collet CHA) <b>QC3-SS</b> (for Collet CHSS)	<b>570g</b>
Standard Accessories Wrench (22×27) : 1pc.					

## Parts (Optional)

Collet	Collet holder (Collet nut included)		Wrench		
	<p>You can choose the I.D. size (The following is an example of <math>\phi 3.0\text{mm}</math>.)</p>				
<b>CHK</b>	Code No.	<b>915 3 0</b>	<b>9210</b>	<b>9223</b>	<b>2026</b>
I.D. $\phi 0.5\text{mm} \sim 6.35\text{mm}$ p.51	Model	<b>CHK- 3 . 0</b> (I.D. $\phi 3.0\text{mm}$ )	<b>QC3-K</b> (for Collet CHK)	<b>QC3-K-R</b> (for Collet CHK)	<b>Wrench 12 × 14 (2pcs.)</b>
<b>CHA</b>	Code No.	<b>914 3 0</b>	<b>9209</b>	<b>9222</b>	<b>2012</b>
I.D. $\phi 0.5\text{mm} \sim 4.0\text{mm}$ p.51	Model	<b>CHA- 3 . 0</b> (I.D. $\phi 3.0\text{mm}$ )	<b>QC3-A</b> (for Collet CHA)	<b>QC3-A-R</b> (for Collet CHA)	<b>Wrench 8 × 5 (1pc.)</b>
<b>CHSS</b>	Code No.	<b>930 3 0</b>	<b>7794</b>	<b>2069</b>	<b>2054</b>
I.D. $\phi 1.0\text{mm} \sim 3.175\text{mm}$ p.51	Model	<b>CHSS- 3 . 0</b> (I.D. $\phi 3.0\text{mm}$ )	<b>QC3-SS</b> (for Collet CHSS)	<b>Wrench 6.1 × 8 (1pc.)</b>	<b>Wrench 9 × 11 (1pc.)</b>

Preset adapter  
(For QC3 Collet holders)

※ Holding section size is  $\phi 20$ .  
※ QC3-K-R/QC3-A-R cannot be used to Preset adapter.

Code No.	<b>9211</b>
Model	<b>QC3-ADP</b>

[Use below Wrenches when using Preset adapter]

CHK collet : 12 × 14 Wrench (1pc.)  
CHA collet : 9 × 11 Wrench (1pc.)  
CHSS collet : 6.1 × 8 Wrench (1pc.)

See p.53

Spindle Guide

CHN-CTA

CHA

CTS-3030

EM-3030T-J

EM-3030T

3M  
4M  
6M  
8M  
EMCD-3000J4M  
6M  
8M  
EMCD-3000

E3000 CONTROLLER

E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

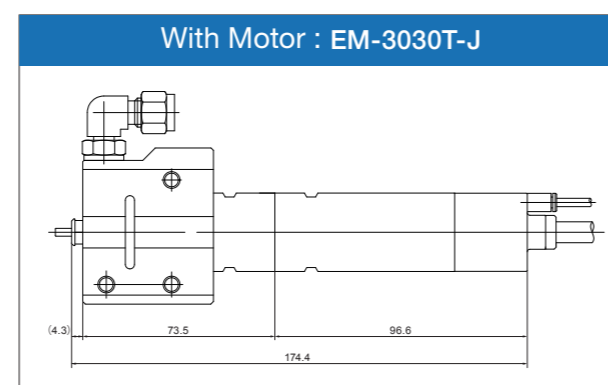
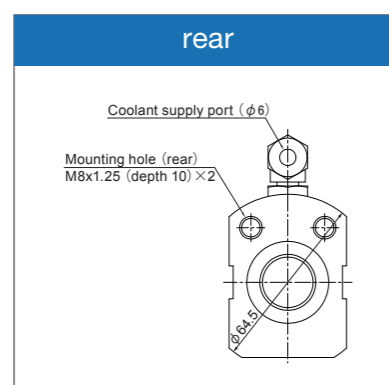
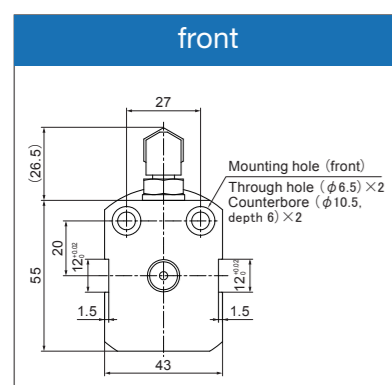
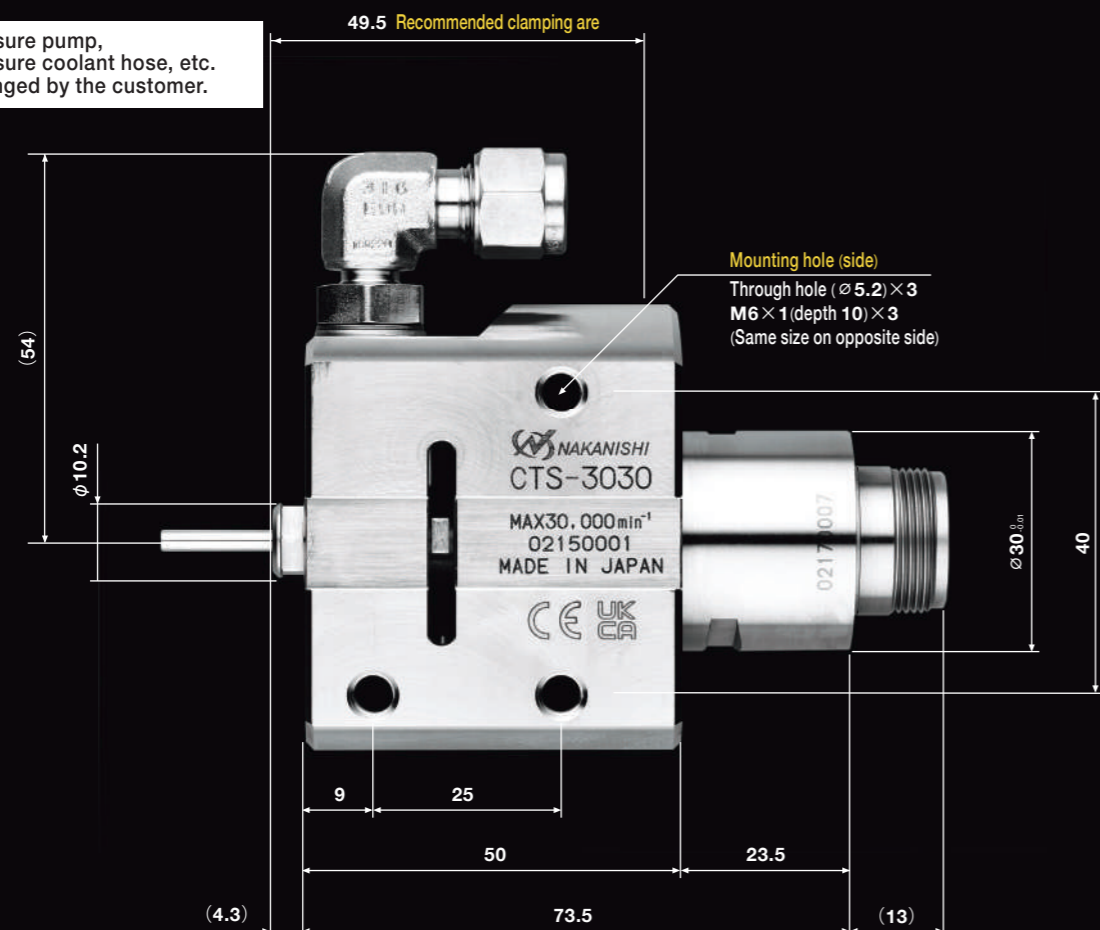
## CTS-3030

Coolant through spindle

- A Spindle that uses an oil hole drill for deep hole drilling.
- To inject coolant from it's tool tip of the drill, there are several advantages, such as improved chip discharge, reduction drilling time, extended tool life, and high precision when performing.

O.D.  $\phi$ 30mm

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



## Specifications

DXF data DXF files are available on our website

Order by Code No.

CTS-3030

Code No. **7797** Model **CTS-3030**

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\phi$ 30mm	<b>30,000</b> min <sup>-1</sup>	Within 1 $\mu$ m	<b>CHA Group</b> ( $\phi$ 3.0, $\phi$ 3.175, $\phi$ 4.0mm)	<b>885g</b>
Standard Accessories	Wrench (8 $\times$ 5) · (9 $\times$ 11) · (22 $\times$ 27) : 1pc. each			
Options	Collet (CHA Group) : $\phi$ 3.0, $\phi$ 3.175, $\phi$ 4.0mm <b>p.51</b> Collet nut (CHN-CTA) : 3.0, 3.175, 4.0mm <b>p.52</b>			

※ The Collet and the Collet nut are sold separately. Please match the collet and collet nut size.  
※ High precision AA grade types are highly recommended.

## パーツ (別売品)

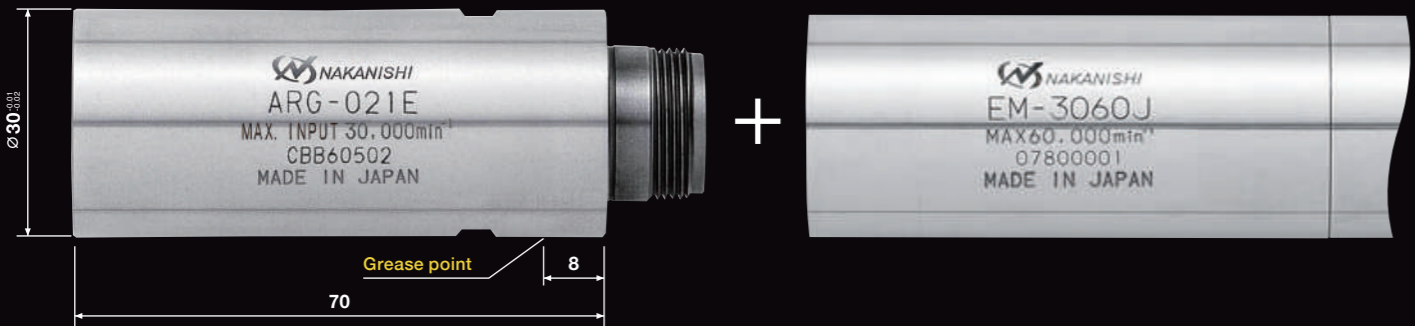
Collet		Collet nut	
$\phi$ 3.0	Code No.	91494	7798
	Model	CHA-3.0AA	CHN-CTA-3.0
$\phi$ 3.175	Code No.	91496	7799
	Model	CHA-3.175AA	CHN-CTA-3.175
$\phi$ 4.0	Code No.	91495	7800
	Model	CHA-4.0AA	CHN-CTA-4.0

# Speed Reducer (Modular type)

## ARG-011E Speed Reducer (1/4)



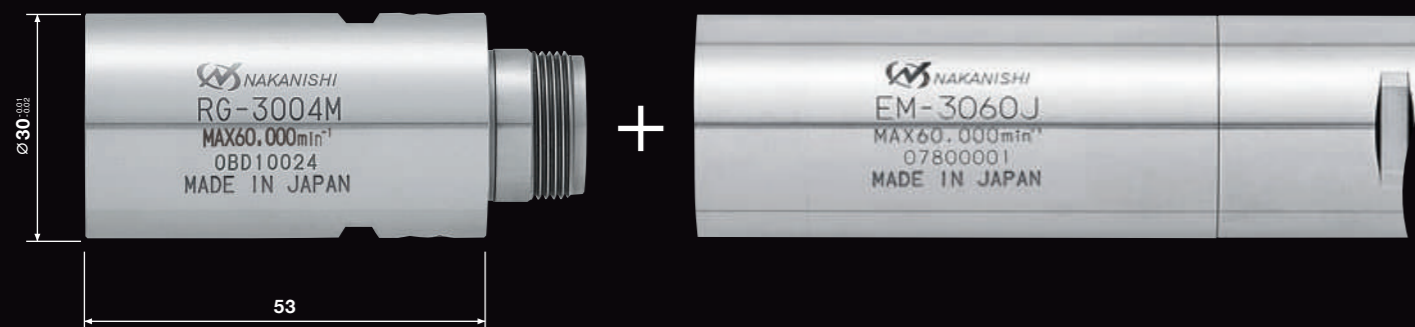
## ARG-021E Speed Reducer (1/16)



## RG-3004M Oil mist type Speed Reducer (1/4)



- Max. input speed 60,000min<sup>-1</sup> (standard type 30,000min<sup>-1</sup>)
- Longer product life by oil mist lubrication
- No greasing is necessary
- Oil mist supply is necessary
- ※ Not recommended for dry machining.



# Specifications

**DXF data** DXF files are available on our website

Order by Code No.

### ARG-011E



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

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm	Weight
Ø30mm	<b>7,500</b> min <sup>-1</sup>	$\frac{1}{4}$	<b>30,000</b> min <sup>-1</sup>	<b>242g</b>

Standard Accessories Grease for reduction gear (10mℓ) / Grease nipple : 1pc.

**!** Put grease every 70 to 100 hours to extend the life of the Speed reducer.  
Grease-up prevents friction of the internal gears and degradation of the existing grease in the reducer.

### ARG-021E



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

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm	Weight
Ø30mm	<b>1,870</b> min <sup>-1</sup>	$\frac{1}{16}$	<b>30,000</b> min <sup>-1</sup>	<b>325g</b>

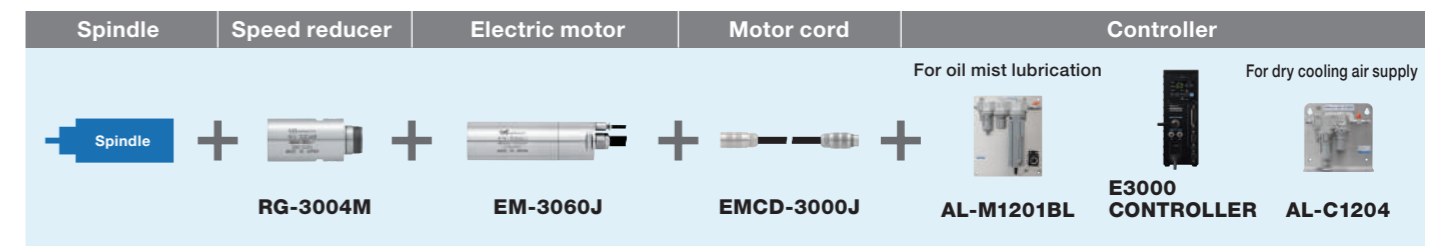
Standard Accessories Grease for reduction gear (10mℓ) / Grease nipple : 1pc.

**!** Put grease every 70 to 100 hours to extend the life of the Speed reducer.  
Grease-up prevents friction of the internal gears and degradation of the existing grease in the reducer.

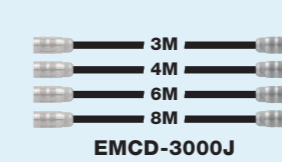
### RG-3004M



Code No. **7348** Model **RG-3004M**



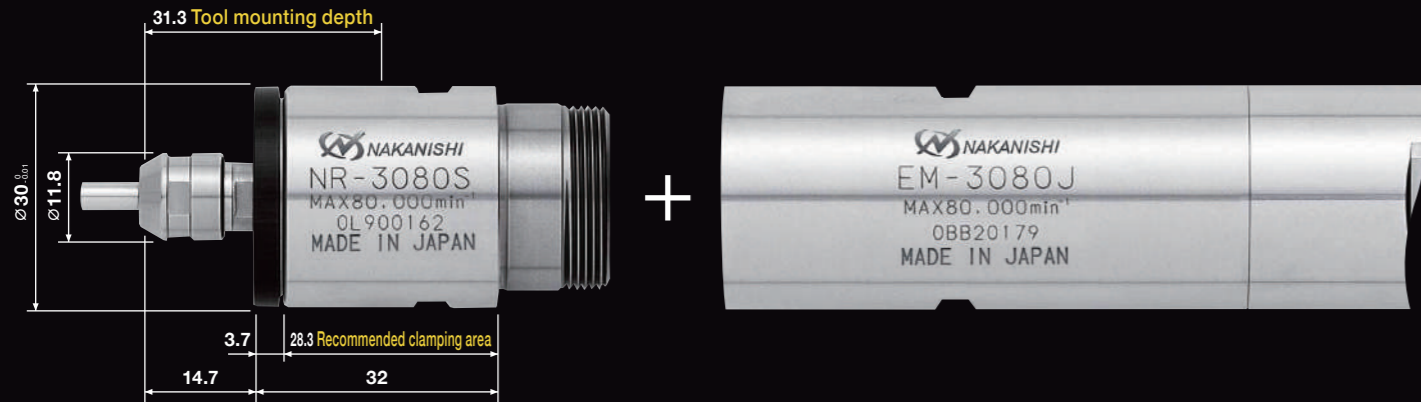
O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm	Weight
Ø30mm	<b>15,000</b> min <sup>-1</sup>	$\frac{1}{4}$	<b>60,000</b> min <sup>-1</sup>	<b>240g</b>

Spindle  
Guide

E3000 SERIES

Shown In Actual Size

## Spindle (Modular type)

NR-3080S  
Short spindle

## Specifications

DXF data DXF files are available on our website

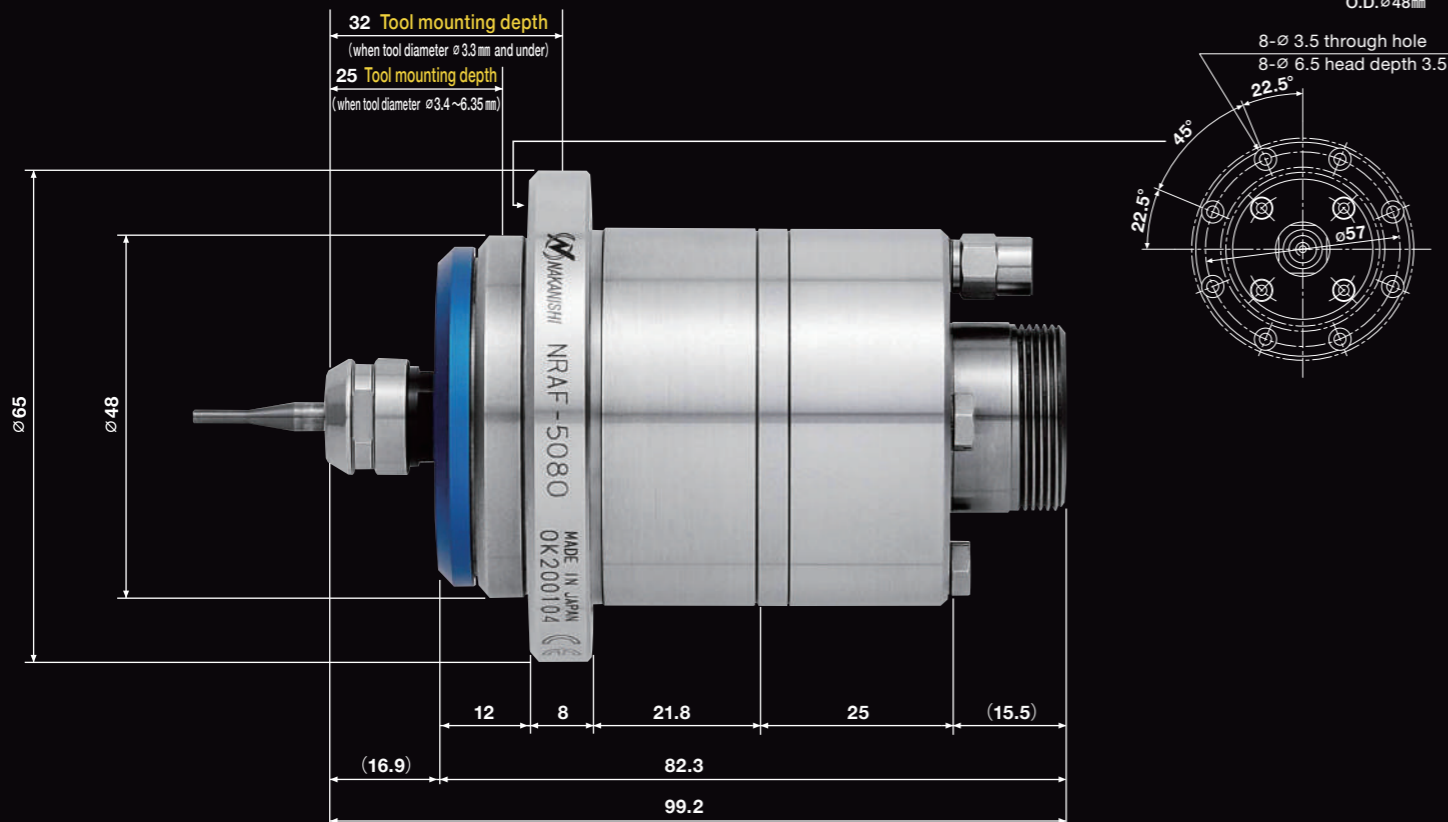
Order by Code No.

## NR-3080S

Code No. **7876** Model **NR-3080S**

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\phi$ 30mm	<b>80,000</b> min <sup>-1</sup>	Within 1 $\mu$ m	<b>CHA</b> Group ( $\phi$ 0.5 ~ $\phi$ 4.0mm)	<b>170g</b>
Standard Accessories	Collet nut (CHN-A) / Wrench (22×27) · (8×5) · (9×11) : 1pc. each			
Options	Collet (CHA Group) : $\phi$ 0.5 ~ $\phi$ 4.0mm <b>p.51</b>			

\* Collet is sold separately.

NRAF-5080  
Air bearing spindle

## NRAF-5080

Code No. **1782** Model **NRAF-5080**

O.D.	Max. rpm	Appropriate bearing air pressure	Spindle Accuracy	Collet	Weight
$\phi$ 48mm	<b>80,000</b> min <sup>-1</sup>	<b>35N<math>\ell</math>/min</b> (0.5MPa)	Within 1 $\mu$ m	<b>CHK</b> Group ( $\phi$ 0.5 ~ $\phi$ 6.35mm)	<b>810g</b>
Specifications	Body mounting : flange mounting, M3 bolt (8 locations, equidistribution, 45° angle, PCD57) Bearing type : air static bearing / bearing load capacity : radial 18N, thrust 35N Useable Max. diameter of grindstone : $\phi$ 8.0mm and under on $\phi$ 6.0mm shank Hose diameter : $\phi$ 4mm, for bearing air inlet				
Standard Accessories	Collet : $\phi$ 3.0mm (CHK-3.0) / Collet nut (K-265A) / Wrench (12×14) : 2pcs. Reducer : 1pc. / Inlet air hose ( $\phi$ 4mm×4m) : 1pc. / Bar wrench (K-236) : 1pc.				
Options	Collet (CHK Group) : $\phi$ 0.5 ~ $\phi$ 6.35mm <b>p.51</b>				



# Motor

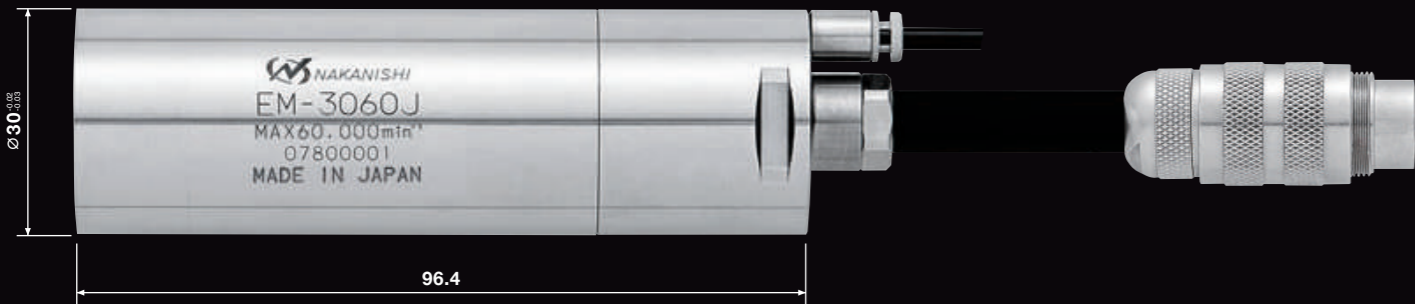
## EM-3060

60,000min<sup>-1</sup> motor



## EM-3060J

60,000min<sup>-1</sup> motor with joint type motor cord



Cord length L=0.3m / 2m

# Specifications

**DXF data** DXF files are available on our website

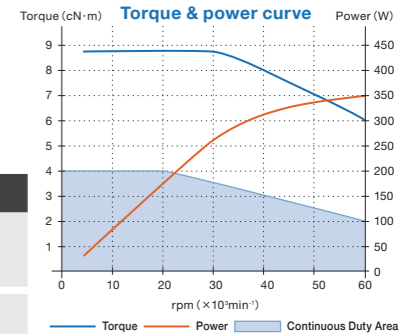
Order by Code No.

## EM-3060

Code No. **1597** Model **EM-3060**



O.D.	Speed Range	Max. power	Weight
Ø30mm	1,000 ~ 60,000min <sup>-1</sup>	350w	325g
Standard Accessories Wrench (22×27) : 1pc.			



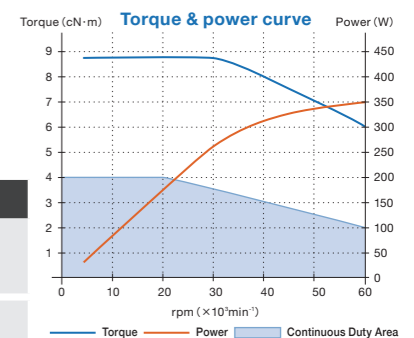
## EM-3060J

Length **0.3m** Code No. **1765** Model **EM-3060J**  
 Length **2m** Code No. **1779** Model **EM-3060J-2M**



\* Joint type motor cord is necessary.

O.D.	Speed Range	Max. power	Weight
Ø30mm	1,000 ~ 60,000min <sup>-1</sup>	350w	0.3m : 360g 2 m : 525g
Standard Accessories Wrench (22×27) : 1pc.			



# Motor

## EM-3030T 30,000min<sup>-1</sup> torque motor



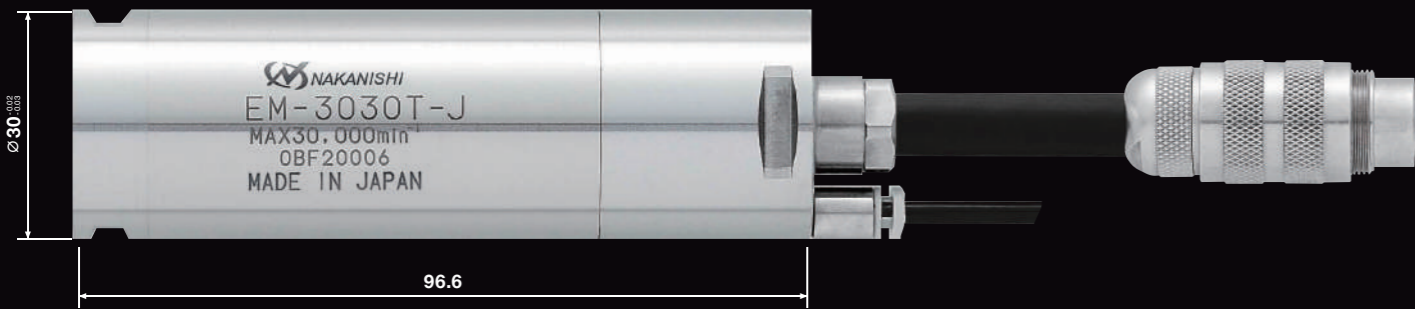
● EM-3030T torque is twice as big as EM-3060.



## EM-3030T-J 30,000min<sup>-1</sup> torque motor with joint type motor cord

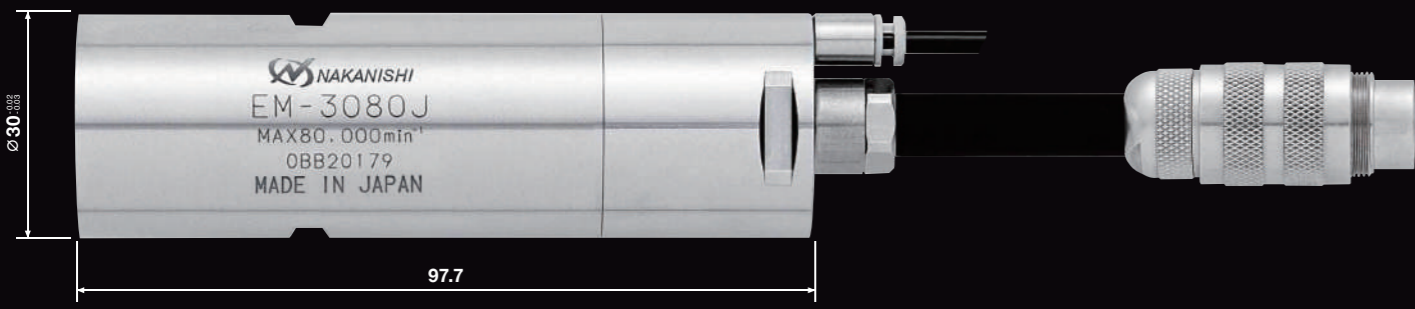


● EM-3030T-J torque is twice as big as EM-3060J.



Cord length L=0.3m / 2m

## EM-3080J 80,000min<sup>-1</sup> motor with joint type motor cord



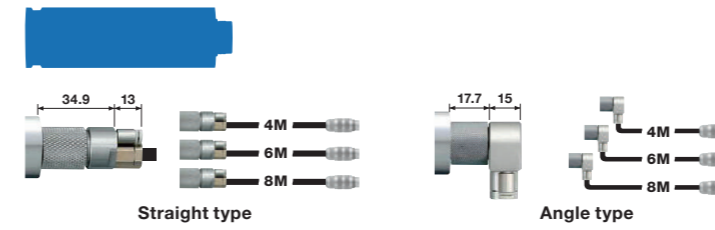
Cord length L=0.3m / 2m

# Specifications

**DXF data** DXF files are available on our website

Order by Code No.

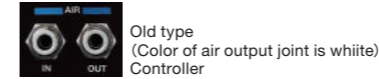
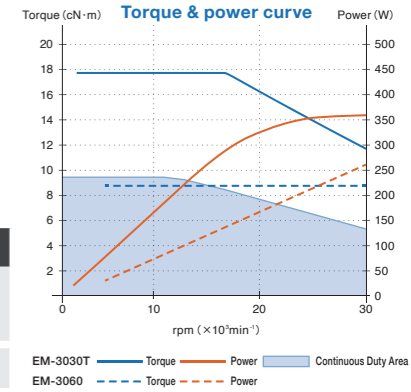
### EM-3030T



O.D.	Speed Range	Max. power	Weight
Ø30mm	1,000 ~ 30,000min <sup>-1</sup>	350w	350g

Standard Accessories Wrench (22×27) : 1pc.

Code No. **7360** Model **EM-3030T**



If EM-3030T is connected to old type non applicable controller, it will not rotate.

### EM-3030T-J



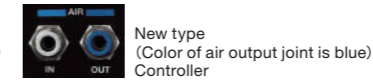
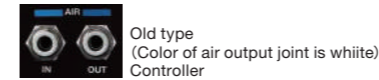
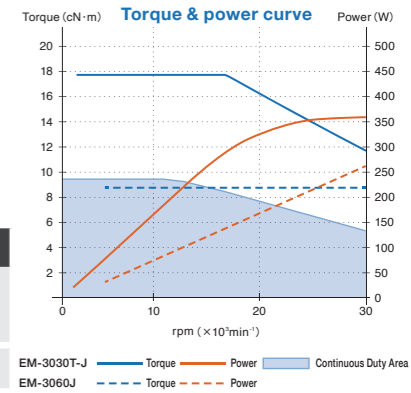
Length	0.3m	Code No.	<b>7358</b>	Model	<b>EM-3030T-J</b>
Length	2m	Code No.	<b>7359</b>	Model	<b>EM-3030T-J-2M</b>



※ Joint type motor cord is necessary.

O.D.	Speed Range	Max. power	Weight
Ø30mm	1,000 ~ 30,000min <sup>-1</sup>	350w	0.3m : 425g 2 m : 600g

Standard Accessories Wrench (22×27) : 1pc.



If EM-3030T-J is connected to old type non applicable controller, it will not rotate.

### EM-3080J



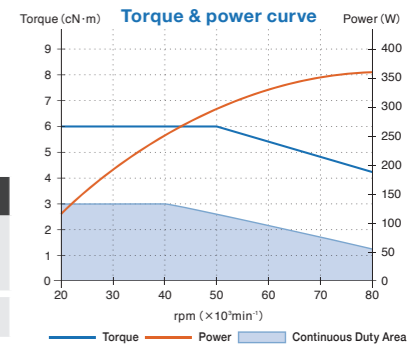
Length	0.3m	Code No.	<b>1781</b>	Model	<b>EM-3080J</b>
Length	2m	Code No.	<b>1788</b>	Model	<b>EM-3080J-2M</b>



※ Joint type motor cord is necessary.

O.D.	Speed Range	Max. power	Weight
Ø30mm	20,000 ~ 80,000min <sup>-1</sup>	350w	0.3m : 375g 2 m : 550g

Standard Accessories Wrench (22×27) : 1pc.



Spindle  
Guide

CHK



NR-2551



EM25N-5000J



EMCD-2350J



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

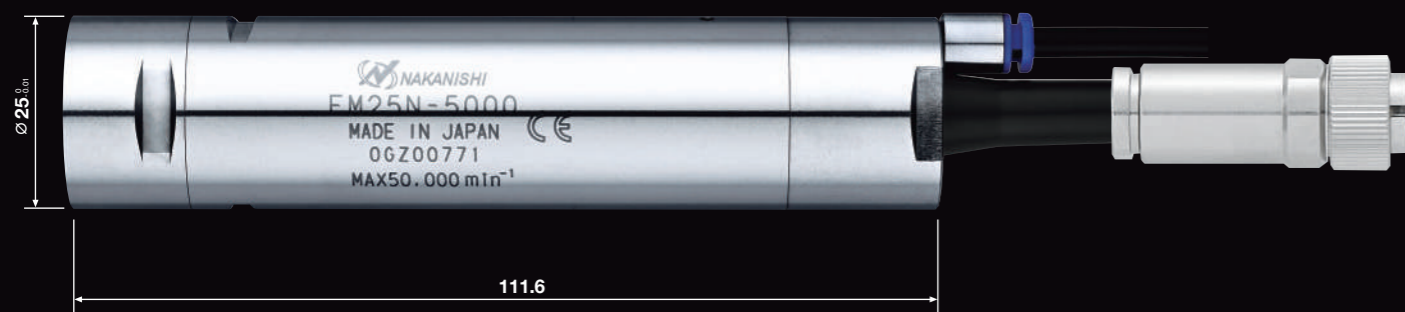
Shown In Actual Size

# Spindle (Modular type)

## NR-2551 Straight spindle

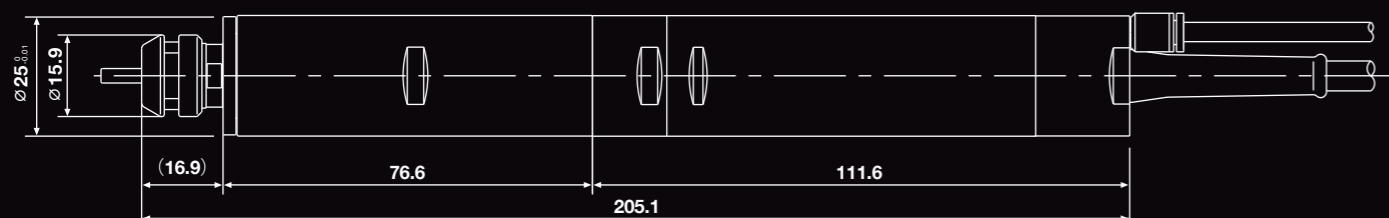
O.D.  $\phi$ 25mm

## EM25N-5000J 50,000min<sup>-1</sup> motor

O.D.  $\phi$ 25mm

Cord length L=0.3m

### Dimensions when connected



## Specifications

DXF data DXF files are available on our website

Order by Code No.

### NR-2551

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

O.D.	Max. rpm	Spindle Accuracy	Collet	Weight
$\phi$ 30mm	50,000min <sup>-1</sup>	Within 1 $\mu$ m	CHK Group ( $\phi$ 0.5 ~ $\phi$ 6.35mm)	253g
<b>Standard Accessories</b> Collet nut (K-265) / Wrench (12×14) : 2pcs. · (22×27) : 1pc.				
<b>Options</b> Collet (CHK Group) : $\phi$ 0.5 ~ $\phi$ 6.35mm <b>p.51</b> Metal Saw Arbor (KCH-03) : $\phi$ d (I.D.) × under $\phi$ 30mm (O.D.) /Grindstone Arbor (AGM-03) : Grindstone I.D. $\phi$ 5.0mm Grindstone Flange (EGF-19) : applicable grindstone I.D. $\phi$ 19.05×O.D. $\phi$ 40×7mm				

※ Outside diameter  $\phi$ 25.4mm type is also available.

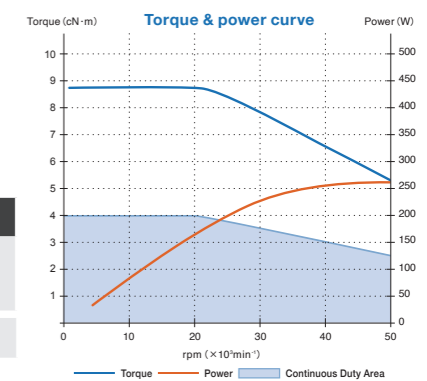
※ Collet is sold separately.

### EM25N-5000J

Code No. **7904** Model **EM25N-5000J**

O.D.	Speed Range	Max. Power	Weight
$\phi$ 25mm	1,000 ~ 50,000min <sup>-1</sup>	250w	335g
<b>Standard Accessories</b> Wrench (22×27) : 1pc.			

※ Use EMCD-2350J Series for Motor code.



## Motor cord

Motor cord	Cord No.	Model	Model	Standard Accessories	Compatible model
4M	<b>7722</b>	EMCD-2350J-4M	3.7m	Air hose Connector cap (Included)	EM25N-5000J
6M	<b>7723</b>	EMCD-2350J-6M	5.7m		
8M	<b>7724</b>	EMCD-2350J-8M	7.7m		
Joint type					

# Motor spindle (One-piece type)



**30** EMS-3060K  
p.39

**30** EMR-3008K  
p.39



**30** EM30-S6000  
p.43

**25** EM25-S6000  
p.43

**20** EM20-S6000  
p.43



**30** EMA-3020K  
p.41

**30** EMA-3020S  
p.41

**30** EMSF-3060K  
p.45

Spindle  
Guide

CHK



EMS-3060K



EMR-3008K



EMCD-3000J



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

# Motor spindle (One-piece type)

## EMS-3060K

ø30 Motor spindle  
CHK collet·30cm joint cord

O.D. ø30mm



Cord length L=0.3m

# Specifications

DXF data DXF files are available on our website

Order by Code No.

## EMS-3060K

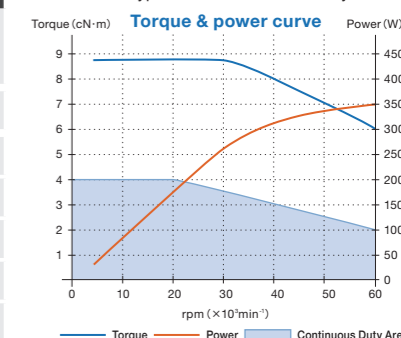
Code No. **7862** Model **EMS-3060K**

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power	Weight
ø30mm	60,000min <sup>-1</sup>	Within 1μm	CHK Group (ø0.5 ~ ø6.35mm)	350w	565g
<b>Standard Accessories</b> Collet nut (K-265) / Wrench (12×14) : 2pcs.					
<b>Options</b> Collet (CHK Group) : ø0.5 ~ ø6.35mm <b>p.51</b>					
Motor cord : Length 3m (1778), 4m (1768), 6m (1767), 8m (1766)					
Metal Saw Arbor (KCH-03) : ød (I.D.) × under ø30mm (O.D.) /					
Grindstone Arbor (AGM-03) : Grindstone I.D. ø5.0mm					
Grindstone Flange (EGF-19) : for grindstone I.D. ø19.05×O.D. ø40×7mm					

※ Collet is sold separately.



※ Joint type motor cord is necessary.

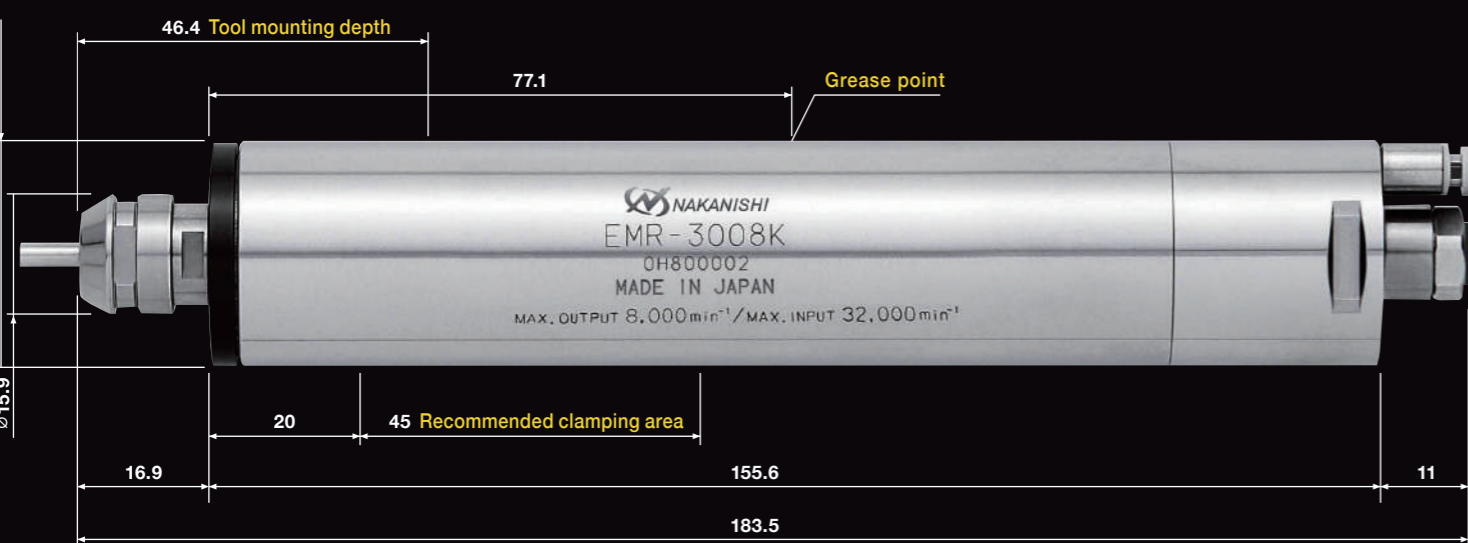


## EMR-3008K

Motor spindle with reduction gear



O.D. ø30mm



Cord length L=0.3m

## EMR-3008K

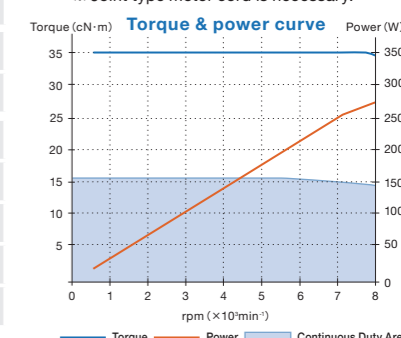
Code No. **7869** Model **EMR-3008K**

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
ø30mm	8,000min <sup>-1</sup>	$\frac{1}{4}$	32,000min <sup>-1</sup>
<b>Spindle Accuracy</b> Within 1μm			
<b>Collet</b> CHK Group (ø0.5 ~ ø6.35mm)			
<b>Max. power</b> 350w			
<b>Weight</b> 650g			
<b>Standard Accessories</b> Collet nut (K-265) / Wrench (12×14) : 2pcs. Grease for reduction gear (10mℓ) / Grease nipple : 1pc.			
<b>Options</b> Collet (CHK Group) : ø0.5 ~ ø6.35mm <b>p.51</b>			
Motor cord : Length 3m (1778), 4m (1768), 6m (1767), 8m (1766)			
Metal Saw Arbor (KCH-03) : ød (I.D.) × under ø30mm (O.D.) /			
Grindstone Arbor (AGM-03) : Grindstone I.D. ø5.0mm			
Grindstone Flange (EGF-19) : for grindstone I.D. ø19.05×O.D. ø40×7mm			

※ Collet is sold separately.



※ Joint type motor cord is necessary.



! Put grease every 70 to 100 hours to extend the life of the reduction gear. Grease-up prevents friction of the internal gears and degradation of the existing grease in the reducer.

Spindle  
Guide

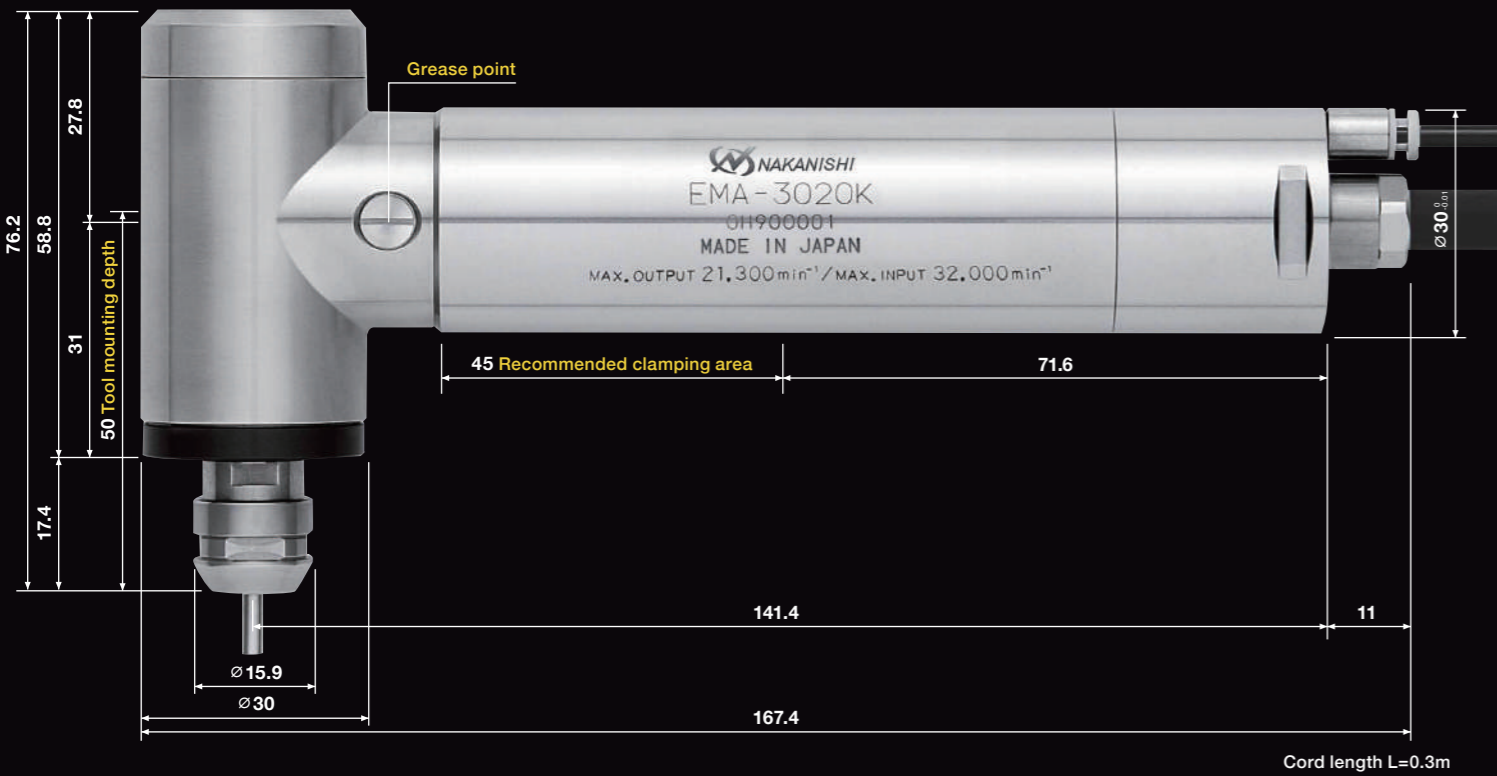
E3000 SERIES

Shown In Actual Size

# Motor spindle (One-piece type)

## EMA-3020K

Angle motor spindle  
Standard angle head

O.D.  $\phi$ 30mm

# Specifications

**DXF data** DXF files are available on our website

Order by Code No.

## EMA-3020K

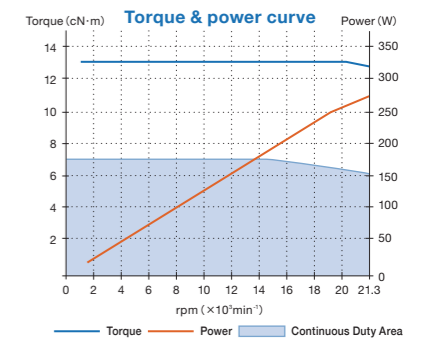


Code No. **7874** Model **EMA-3020K**

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
$\phi$ 30mm	<b>21,300</b> min <sup>-1</sup>	$\frac{1}{1.5}$	<b>32,000</b> min <sup>-1</sup>
Spindle Accuracy	Collet	Max. power	Weight
Within <b>2</b> $\mu$ m	<b>CHK Group</b> ( $\phi$ 0.5 ~ $\phi$ 6.35mm)	<b>280w</b>	<b>760g</b>
Standard Accessories	Collet nut (K-265) / Wrench (12 $\times$ 14) : 2pcs. Grease for Speed reducer (10m $\ell$ ) / Grease nipple : 1pc.		
Options	Collet (CHK Group) : $\phi$ 0.5 ~ $\phi$ 6.35mm <b>p.51</b> Motor cord : Length 3m (1778), 4m (1768), 6m (1767), 8m (1766) Metal Saw Arbor (KCH-03) : $\phi$ d (I.D.) $\times$ under $\phi$ 30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. $\phi$ 5.0mm		



\* Joint type motor cord is necessary.



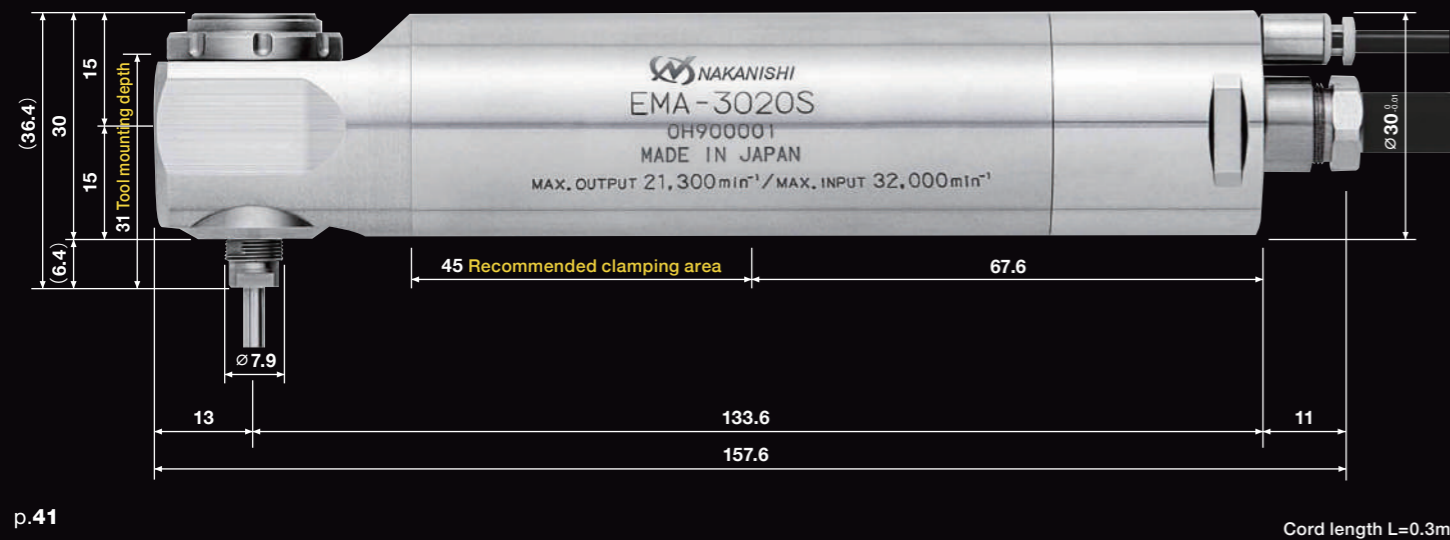
\* Collet is sold separately.



Put grease every 70 to 100 hours to extend the life of the Speed reducer.  
Grease-up prevents friction of the internal gears and degradation of the existing grease in the reducer.

## EMA-3020S

Angle motor spindle  
Built-in angle head

O.D.  $\phi$ 30mm

## EMA-3020S

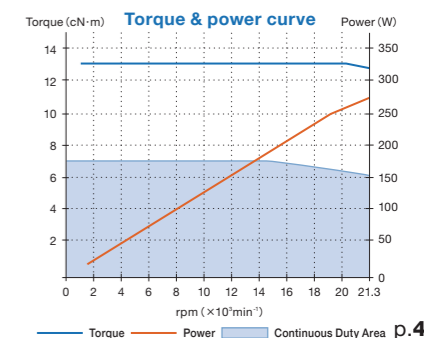


Code No. **1758** Model **EMA-3020S**

O.D.	Max. speed at the cutting tool	Reduction ratio	Max. rpm
$\phi$ 30mm	<b>21,300</b> min <sup>-1</sup>	$\frac{1}{1.5}$	<b>32,000</b> min <sup>-1</sup>
Spindle Accuracy	Collet	Max. power	Weight
Within <b>3</b> $\mu$ m	<b>CHSS Group</b> ( $\phi$ 1.0 ~ $\phi$ 3.175mm)	<b>275w</b>	<b>605g</b>
Standard Accessories	Collet : $\phi$ 3.0mm (CHSS-3.0) / Wrench (7 $\times$ 5.1) · (8 $\times$ 6.1) : 1pc. each		
Options	Collet (CHSS Group) : $\phi$ 1.0 ~ $\phi$ 3.175mm <b>p.51</b> Motor cord : Length 3m (1778), 4m (1768), 6m (1767), 8m (1766)		



\* Joint type motor cord is necessary.



Spindle  
Guide

CHK

CHA

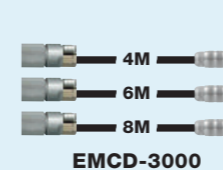


EM30-S6000

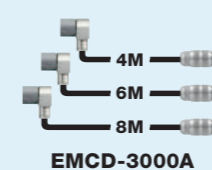
EM25-S6000



EM20-S6000



EMCD-3000



EMCD-3000A



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

Shown In Actual Size

# Motor spindle (One-piece type)

## EM30-S6000

ø30 Motor spindle · CHK collet



O.D. ø30mm



## EM25-S6000

ø25 Motor spindle · CHA collet



O.D. ø25mm



## EM20-S6000

ø20 Motor spindle · CHA collet



O.D. ø20mm



# Specifications

**DXF data** DXF files are available on our website

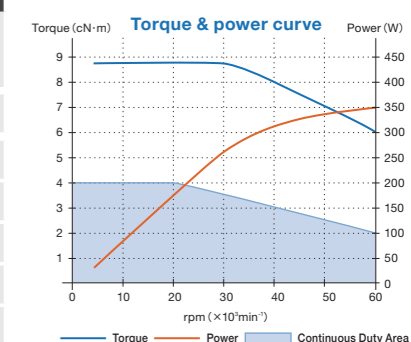
Order by Code No.

## EM30-S6000

Code No. **7903** Model **EM30-S6000**

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power	Weight
ø30mm	60,000min <sup>-1</sup>	Within 1μm	<b>CHK Group</b> (ø0.5 ~ ø6.35mm)	<b>350w</b>	<b>575g</b>
Standard Accessories		Collet nut (K-265) / Wrench (12×14) : 2pcs.			
Options		Collet (CHK Group) : ø0.5 ~ ø6.35mm <b>p.51</b> Motor cord : Length 4m (1748), 6m (1749), 8m (1750) ※Angle type is also available Metal Saw Arbor (KCH-03) : ød (I.D.) × under ø30mm (O.D.) / Grindstone Arbor (AGM-03) : Grindstone I.D. ø5.0mm Grindstone Flange (EGF-19) : for grindstone I.D. ø19.05×O.D. ø40×7mm			

※ Collet is sold separately.

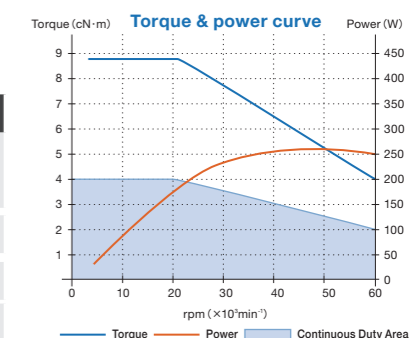


## EM25-S6000

Code No. **7858** Model **EM25-S6000**

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power	Weight
ø25mm	60,000min <sup>-1</sup>	Within 1μm	<b>CHA Group</b> (ø0.5 ~ ø4.0mm)	<b>250w</b>	<b>375g</b>
Standard Accessories		Collet nut (CHN-A) / Wrench (8×5) · (9×11) : 1pc. each			
Options		Collet (CHA Group) : ø0.5 ~ ø4.0mm <b>p.51</b> Motor cord : Length 4m (1748), 6m (1749), 8m (1750) ※Angle type is also available			

※ Collet is sold separately.

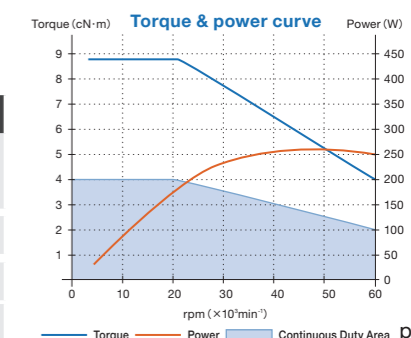


## EM20-S6000

Code No. **7860** Model **EM20-S6000**

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power	Weight
ø20mm	60,000min <sup>-1</sup>	Within 1μm	<b>CHA Group</b> (ø0.5 ~ ø4.0mm)	<b>250w</b>	<b>230g</b>
Standard Accessories		Collet nut (CHN-A) / Wrench (8×5) · (9×11) : 1pc. each			
Options		Collet (CHA Group) : ø0.5 ~ ø4.0mm <b>p.51</b> Motor cord : Length 4m (1748), 6m (1749), 8m (1750) ※Angle type is also available			

※ Collet is sold separately.



Spindle Guide



CHK



EMSF-3060K



EMCD-3000J



E3000 CONTROLLER



E3000 SELECTOR

E3000 SERIES

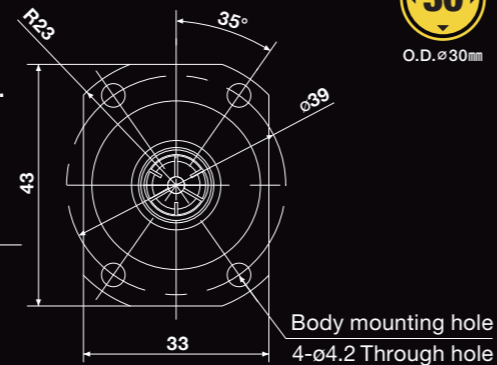
Shown In Actual Size

# Motor spindle (One-piece type)

## EMSF-3060K

Motor spindle with flange

- Easy clamping / Unclamping of the spindle, Easy mounting to the machine.
- Avoid trouble by excessive tightening.
- Mounting spindle at small intervals available.

O.D.  $\phi$ 30mm

Cord length L=0.3m

## Specifications

DXF data

DXF files are available on our website

Order by Code No.

EMSF-3060K

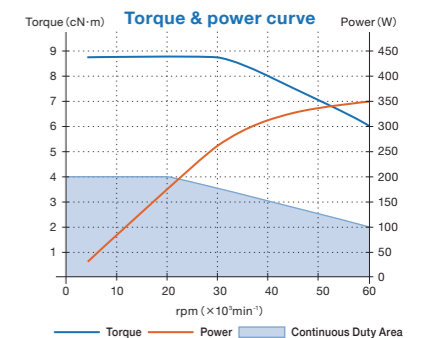
Code No. **7863**Model **EMSF-3060K**

O.D.	Max. rpm	Spindle Accuracy	Collet
$\phi$ 30mm	60,000min <sup>-1</sup>	Within 1 $\mu$ m	CHK Group ( $\phi$ 0.5 ~ $\phi$ 6.35mm)
Max. power	Weight		
350w	620g		
Standard Accessories	Collet nut (K-265) / Wrench (12 $\times$ 14) : 2pcs. Air hose 0.3m : 1pc. / Lock bolt (M4 hexagon socket head bolt) : 4pcs.		
Options	Collet (CHK Group) : $\phi$ 0.5 ~ $\phi$ 6.35mm <b>p.51</b> Motor cord : Length 3m (1778), 4m (1768), 6m (1767), 8m (1766)		

\*Collet is sold separately.



\* Joint type motor cord is necessary.



## Various ways to mount

3 spindle types are available in E3000 series to meet customer's demands



### Straight type

Mounting devices have to be prepared by user



### Straight type + Grip Ring

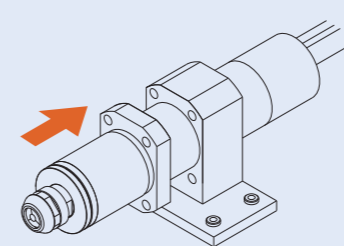
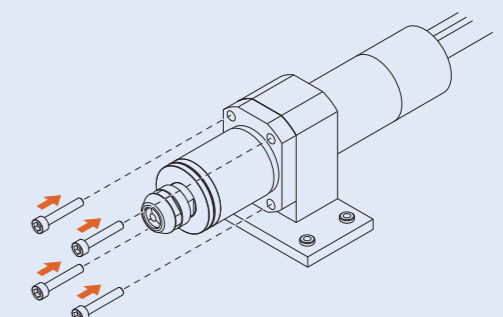
Type of usage for attachment to straight spindle  
Grip Ring TS available

### With flange

Type of spindle and mounting device integrated

## How to mount to a machine tool

In case of EMSF-3060K / NRF-3060S

**1** Insert motor spindle body into the holder**2** Tighten the flange with 4 lock bolt (M4)

\*Above figures show EMSF-3060K. NRF-3060S has 3 mounting holes (See p.9)



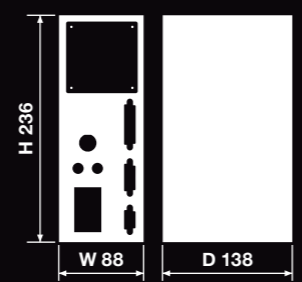
# E3000 Controller



## E3000 CONTROLLER

Controller

Code No. **8422**



### External Input / Output Control Signal Operation

- External Input  
Motor ON / OFF, Error Released, Rotating Direction, Motor Speed Setting and etc.
- External Monitor  
Motor Current, Error, Warning, Rotating pulse and etc.
- Parameter Setting  
Maximum motor speed setting, Fix the motor speed  
※For more information, please refer to the operation manual on our website.
- Equipped with safety relay break and speed point

Speed Range	
1,000~80,000min <sup>-1</sup>	
Input Voltage	
AC100~240v Without plug Multiple output power	
Max. power	Power consumption
350w	AC1.8A
Air consumption	Weight
30Nℓ/min (at 0.25~0.3MPa)	2.8kg
Standard Accessories	
Power cord : 2m / Air hose with filter (K-251 : 2058)	
Reducer / Connector cap (Included)	
Bracket / Nylon Clip / Screw / Rubber pad	
Fuse (T6.3AL) 250V : 2pcs.	

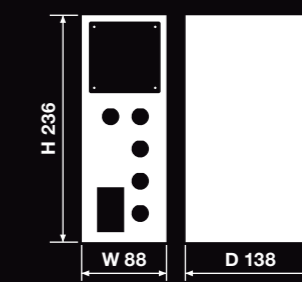
# E3000 Selector



## E3000 SELECTOR

Selector

Code No. **8426**

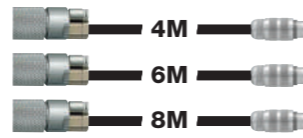
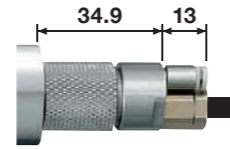


Number of motor		
4pcs. Up to 4 motors to control with connecting selector to controller ※not simultaneously		
Input Voltage		
AC100~240v Without plug Multiple output power		
Power consumption	Air consumption	Weight
AC0.15A	120ℓ/min (When connecting 4 motors)	1.9kg
Standard Accessories		
Power cord : 2m / Communication cable : 60cm		
Selector connecting cord : 60cm		
Connector cap (Included) / Plug to avoid air flow		
Bracket / Nylon Clip / Screw / Rubber pad		
Fuse (T1.6AL) 250V : 2pcs.		

# Motor cord

## Straight type

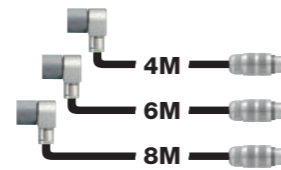
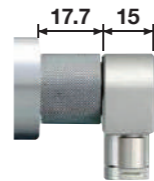
[ Feature ] Connection at the body end



コード番号	型式	コード長さ	標準装備・付属品	適応機種
1748	EMCD-3000-4M	4m	Air hose Connector cap (Included)	EM-3060 EM-3030T EM30-S6000 EM25-S6000 EM20-S6000
1749	EMCD-3000-6M	6m		
1750	EMCD-3000-8M	8m		

## Angle type

[ Feature ] Connection at the body end into 90° degree



コード番号	型式	コード長さ	標準装備・付属品	適応機種
1744	EMCD-3000A-4M	4m	Air hose Connector cap (Included)	EM-3060 EM-3030T EM30-S6000 EM25-S6000 EM20-S6000
1743	EMCD-3000A-6M	6m		
1742	EMCD-3000A-8M	8m		

## Joint type

[ Feature ] Connection possible out of the machine



コード番号	型式	コード長さ	標準装備・付属品	適応機種
1778	EMCD-3000J-3M	3.0m	Air hose Connector cap (Included)	EM-3060J・EM-3030T-J EMS-3060K・EMS-3060A EMR-3008K・EMA-3020K EMA-3020S・EMSF-3060K EM-3080J
1768	EMCD-3000J-4M	3.7m		
1767	EMCD-3000J-6M	5.7m		
1766	EMCD-3000J-8M	7.7m		

# Accessories (Air line kit, etc.)

## AL-C1204

Air line kit  
0.3μm filter  
※ 1



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

## AL-M1201BL

Air line kit (for RG-3004M)  
0.3μm filter  
※ 1



Code No. **4501** Model **AL-M1201BL**

## AL-A1205

Air line kit (for NRAF-5080)  
0.3μm filter  
※ 1 ※ 2



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

## AL-A0611

Air line kit (for NRAF-5080)  
0.01μm filter



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

※ 1 Recommendation of nominal filtration rating : 0.3μm, Pressure range : 0.1-1.0MPa Recommendation of air filter : M2000-WS (CKD)  
※ 2 Customers to provide their own micro-mist separator (filtration rating 0.01 um)

## GR-30 Grip Ring



Code No.	1885	Model	GR-30
Standard Accessories	Mounting Bolt (GR-30) M5×25 : 3pcs.		

### How to mount to a machine tool

- Loosen the Lock Bolt
- Tighten the Mounting Bolt to widen the inside diameter
- Insert and position the spindle referring to the Recommended Clamping Area on the spindle
- Remove the Mounting Bolt
- Tighten the Lock Bolt (4N·m)
- Affix them to the machine with Mounting Bolt (Recommended tightening torque: 4N·m)

# Accessories (Collet, etc.)

Collet	Code No.	Model	I.D.	Compatible model			
<p>Collet CHA Group</p>	91494	CHA-3.0AA	ø3.0AA*	CTS-3030 EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S  * High precision type AA (Run-out Accuracy within 2 μm)			
	91496	CHA-3.175AA	ø3.175AA*				
	91495	CHA-4.0AA	ø4.0AA*				
	91492	CHA-2.35	ø2.35				
	91430	CHA-3.0	ø3.0				
	91493	CHA-3.175	ø3.175				
	91440	CHA-4.0	ø4.0				
<p>Collet CHB Group</p>	92820	CHB-2.0	ø2.0	NR40-5100 ATC NRR-3060-NRR-2651 NR33-6000ATC-ESD			
	92830	CHB-3.0	ø3.0				
	92893	CHB-3.175	ø3.175				
	92835	CHB-3.5	ø3.5				
	92840	CHB-4.0	ø4.0				
	91597	CHK-3.0AA	ø3.0AA*		EM30-S6000 · EMA-3020K EMS-3060K · EMR-3008K NR-151E · NR-3060S NRF-3060S · NR-3060 NR-403E · RAS-151E RAX-271E · RAX-71E NRAF-5080  * High precision type AA (Run-out Accuracy within 2 μm)		
	91598	CHK-3.175AA	ø3.175AA*				
	91599	CHK-4.0AA	ø4.0AA*				
	91600	CHK-6.0AA	ø6.0AA*				
	91601	CHK-6.35AA	ø6.35AA*				
91592	CHK-2.35	ø2.35					
91530	CHK-3.0	ø3.0					
91593	CHK-3.175	ø3.175					
91540	CHK-4.0	ø4.0					
91560	CHK-6.0	ø6.0					
<p>Collet CHK Group</p>	91596	CHK-6.35	ø6.35				
	<p>Collet CHR Group</p>	91930	CHR-3.0	ø3.0	NR50-5100 ATC		
		91993	CHR-3.175	ø3.175			
		91996	CHR-6.35	ø6.35			
		91920	CHR-2.0	ø2.0			
		91940	CHR-4.0	ø4.0			
		91960	CHR-6.0	ø6.0			
		<p>Collet CHR RS Group</p>	93201	CHR-3.0RS		ø3.0	NR50-5100 ATC RS *Also available for NR50-5100 ATC
			93202	CHR-3.175RS		ø3.175	
			93203	CHR-4.0RS		ø4.0	
93204			CHR-6.0RS	ø6.0			
<p>Collet CHS Group</p>	93205	CHR-6.35RS	ø6.35	RA-271E			
	90592	CHS-2.35	ø2.35				
	90530	CHS-3.0	ø3.0				
	90593	CHS-3.175	ø3.175				
	90516	CHS-1.6	ø1.6				
<p>Collet CHSS Group</p>	—	CHS-□□	ø0.8,ø0.9 ø1.0,ø2.0,ø2.5 ø1.1,ø1.2,ø1.3,ø1.4,ø1.5,ø1.7,ø1.8,ø1.9 ø2.1,ø2.2,ø2.3,ø2.4,ø2.6,ø2.7,ø2.8,ø2.9	RA-151E			
	93092	CHSS-2.35	ø2.35				
	93030	CHSS-3.0	ø3.0				
	93093	CHSS-3.175	ø3.175				
<p>Collet CH8 Group</p>	—	CHSS-□□	ø1.0,ø1.5,ø2.0,ø2.5	EMA-3020S			
	91092	CH8-2.35	ø2.35				
	91030	CH8-3.0	ø3.0				
<p>Collet CH8 Group</p>	91093	CH8-3.175	ø3.175	RA-151E			
	—	CH8-□□	ø0.8,ø0.9 ø1.0,ø1.5,ø2.0,ø2.5 ø1.1,ø1.2,ø1.3,ø1.4,ø1.6,ø1.7,ø1.8,ø1.9 ø2.1,ø2.2,ø2.3,ø2.4,ø2.6,ø2.7,ø2.8,ø2.9				

Collet nut	Code No.	Model	Description	Compatible model
	2102	CHN-A	Collet nut for CHA collet	EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S
	2129	K-265	Collet nut for CHK collet	EM30-S6000 · EMA-3020K EMS-3060K · EMR-3008K NR-151E · NR-3060S NRF-3060S · NR-3060 NR-403E · RAS-151E RAX-271E · RAX-71E
	2158	K-265A	Collet nut for NRAF-5080	NRAF-5080
	7798	CHN-CTA-3.0	Collet nut for CTS-3030	CTS-3030
	7799	CHN-CTA-3.175		
	7800	CHN-CTA-4.0		

Metal Saw Arbor · Grindstone Arbor	Code No.	Model	I.D. / Description / Specifications	Compatible model
	2146	KCH-02 (5.0)	ø5.0 (I.D.)	Metal Saw Arbor ød (I.D.) x under ø30mm (O.D.) Run-out Accuracy : within 0.02mm
	1077	KCH-02 (6.0)	ø6.0 (I.D.)	
	2147	KCH-02 (8.0)	ø8.0 (I.D.)	
	2148	KCH-03 (5.0)	ø5.0 (I.D.)	Metal Saw Arbor ød (I.D.) x under ø30mm (O.D.) Run-out Accuracy : within 0.02m
	2130	KCH-03 (6.0)	ø6.0 (I.D.)	
	2149	KCH-03 (8.0)	ø8.0 (I.D.)	
	2131	AGM-03	Grindstone Arbor Run-out Accuracy : within 0.02mm for Grindstone I.D. ø5.0mm	EMA-3020K · EMS-3060K EMR-3008K NR-3060S · NRF-3060S NR-3060 · RAS-151E RAX-71E · RAX-271E
	2138	EGF-19	Grindstone Flange Available grindstone dimension ø19.05 (I.D.) x ø40 (O.D.) mm x 7 (width) mm	EMS-3060K · EMR-3008K NR-3060S · NRF-3060S NR-3060 · NR-403E

Grease for speed reducer	Code No.	Model	Description	Compatible model
	1547	—	Grease for speed reducer (2.5mℓ)	ARG-011E · ARG-021E EMA-3020K RAX-271E · RAX-71E
	1550	—	Grease for speed reducer (10mℓ)	
	1549	—	Grease for speed reducer (100mℓ)	

Collet holder	Code No.	Model	Description	Compatible model
	9210	QC3-K	Collet holder for CHK * With K-265 (Collet nut)	
	9223	QC3-K-R		
	9209	QC3-A	Collet holder for CHA * With CHN-A (Collet nut)	NR3060-AQC NRR3060-QC
	9222	QC3-A-R		
	7794	QC3-SS	Collet holder for CHSS	

Bush	Code No.	Model	Description × I.D. × O.D.	Compatible model
	1877	RB-20×22	ø22 Bush Dimensions : ø20×ø22×40mm	EM20-S6000  NR-3060S · NR-3060 · NR-403E
	1876	RB-20×22.8	ø22.8 Bush Dimensions : ø20×ø22.8×40mm	
	1875	RB-20×23	ø23 Bush Dimensions : ø20×ø23×40mm	
	1878	RB-20×25	ø25 Bush Dimensions : ø20×ø25×40mm	
	1879	RB-20×25.4	ø25.4 Bush Dimensions : ø20×ø25.4×40mm	
	1880	RB-30×32	ø32 Bush Dimensions : ø30×ø32×45mm	
	1881	RB-30×36	ø36 Bush Dimensions : ø30×ø36×45mm	

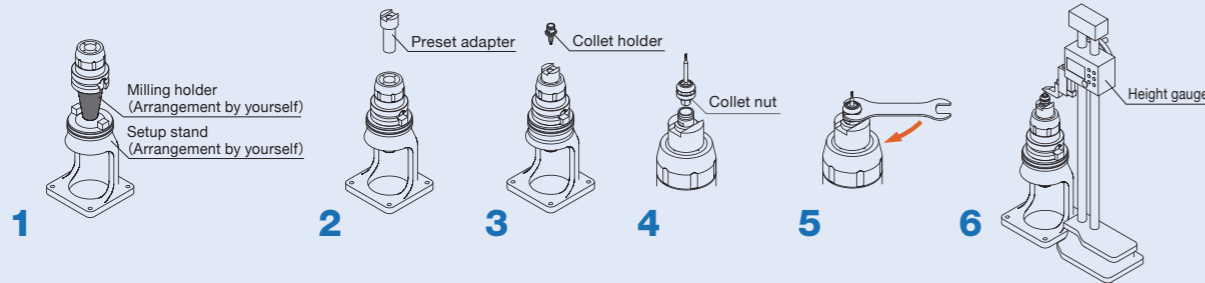
# Accessories

Preset adapter	Cod e No.	Model	Description	Compatible model
	<b>9211</b>	QC3-ADP	Preset adapter	QC3-K·QC3-A QC3-SS

## For QC3-K/A

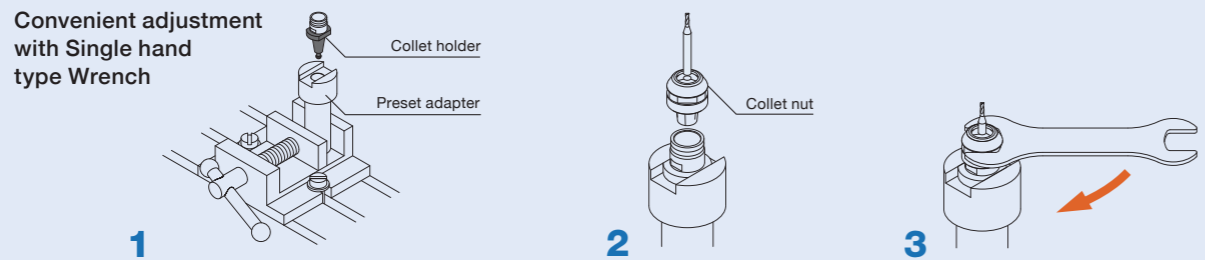
### Set-up outside machines

In case using a milling holder



### Set-up outside machines

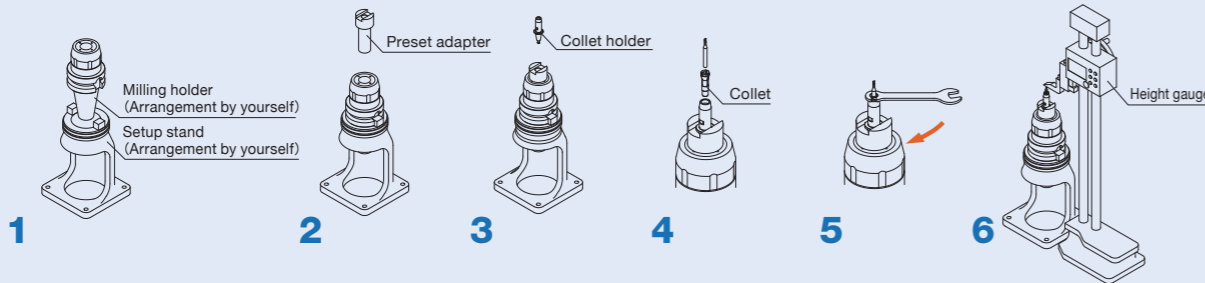
In case using a vice



## For QC3-SS

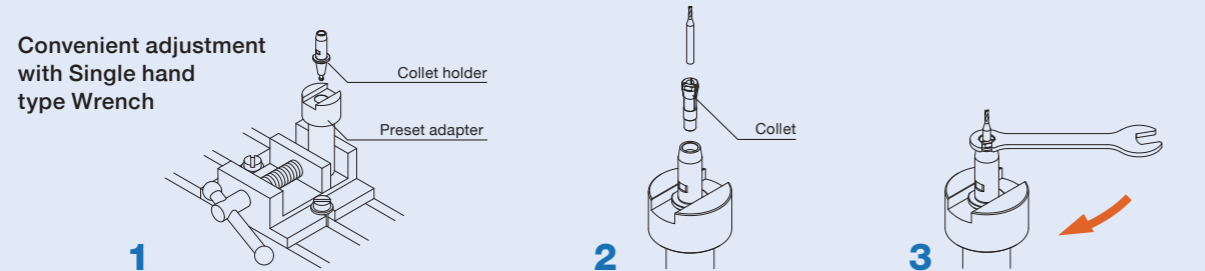
### Set-up outside machines

In case using a milling holder



### Set-up outside machines

In case using a vice



# NAKANISHI Solutions LINE UP

## Electric Motors & Spindles

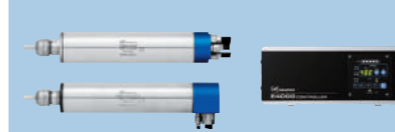


Application for CNC lathes / Special purpose machines

Application for machining centers and milling machines

### E4000 SERIES

1,000~40,000min<sup>-1</sup> Max.1,200W  
[ φ40mm ]



- World's highest power in this class
- Max. power: 1,200W, Max. torque: 1.0N·m

### E3000 SERIES

1,000~80,000min<sup>-1</sup> Max.350W  
[ φ30/25/20mm ]



- The largest product lines for various processing
- Space-saving solution for small CNC lathe

### HES SERIES

Max.80,000min<sup>-1</sup>  
[ For small diameter endmills and drills only ]



- The most cost effective solution to add high-speed machining capability
- 80,000min<sup>-1</sup>, 6.0cN·m
- BT, HSK A63, ST shanks are available
- Driven by E3000 Controller

### E2000 SERIES

1,000~50,000min<sup>-1</sup> Max.200W  
[ φ22.8mm ]



- Small size spindle allows multi-axis installation in limited space

### iSpeed3 SERIES

1,000~80,000min<sup>-1</sup> Max.150W  
[ φ19.05/20/22mm ]



- Super short motor spindle
- High efficiency brushless motor



- [ HES10 ]
- 50,000min<sup>-1</sup>, 8.75cN·m
- BT, NT, CAT, IT, HSK A, ST shanks are available
- Driven by E3000 Controller

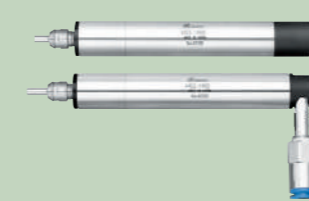
## Air Motors & Spindles



Application for CNC lathes / Special purpose machines

### Air-Speed SERIES One-piece type

Max.30,000min<sup>-1</sup> Max.130W  
[ φ25/23/20/19.05mm ]



- Short body enables the spindle to mount in a limited space on a small NC/CNC lathe or on a special purpose machine

### Air-Speed SERIES Modular type

Max.30,000min<sup>-1</sup> Max.130W  
[ φ30/25/22.8mm ]



- Separate motor and spindle for flexible application changes
- Adjustable to various application through changing spindles

## Air Turbine Spindles

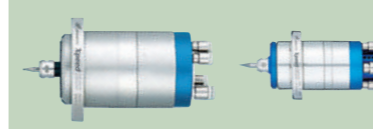


Application for CNC lathes / Special purpose machines

Application for machining centers and milling machines

### Xpeed SERIES

Max.160,000min<sup>-1</sup>  
[ φ65/40mm ]



- Extreme accuracy-Runout 1μm
- For high precision small diameter drilling, internal grinding of ceramics
- Long life of spindle thanks to contactless rotation mechanism

### PLANET SERIES

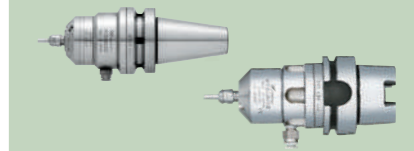
Max.65,000min<sup>-1</sup>



- A milling machine turns into a jig grinder
- For high precision internal grinding

### HTS SERIES

150,000min<sup>-1</sup>  
[ For small diameter endmills and drills only ]



- No thermal expansion on Z axis thanks to air turbine generating little heat
- Ultra high speed 150,000min<sup>-1</sup> with higher rigidity thanks to ceramic bearings
- BT, HSK E and straight (M2040) shanks are available