



## NAKANISHI INC.

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

※Specifications and design are subject to change without notice.

[www.nakanishi-inc.com](http://www.nakanishi-inc.com)  
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E4000

NAKANISHI INC. 2022



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SERIES **E4000**  
ULTRA-HIGH-SPEED & SUPER-PRECISION

# 「Little Giant」

This little spindle brings you a giant profit

## ✓ The Strongest Spindle in its Ø40mm class

- Max power 1,200W
- E4000 torque is 10 times as big as E3000  
BMS-4020 (100cN·m), EMS-3060K (10cN·m)

## ✓ Spindle accuracy within 1 μm

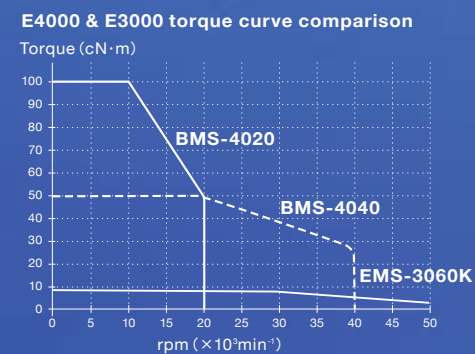
- Optimum for high-precision machining
- Longer tool life

## ✓ Ceramic Bearing

- Higher rigidity for heavy cutting
- Longer bearing life

## ✓ Brushless motor

- No need to replace carbon brushes  
to enable maintenance-free operation
- Carbon brush dust will no longer penetrate  
the bearing to extend the product life

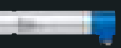


Index

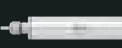
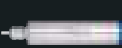
Spindle (Modular type)

|                                                                                 |                                                                                     |      |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| <b>NR4040-AQC</b> Air quick change spindle<br>Max.rpm 40,000min <sup>-1</sup>   |  | p.7  |
| <b>NRR4040-QC</b> Lever quick change spindle<br>Max.rpm 40,000min <sup>-1</sup> |  | p.9  |
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Motor (Modular type)

|                                                                      |                                                                                     |      |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| <b>EM-4020</b> Straight cord type<br>1,000 ~ 20,000min <sup>-1</sup> |  | p.13 |
| <b>EM-4020A</b> Angle cord type<br>1,000 ~ 20,000min <sup>-1</sup>   |  | p.13 |
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Motor Spindle (One-piece type)

|                                                                                                          |                                                                                       |      |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
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| <b>BMS-4040 / BMS-4040 2M</b> Straight cord type<br>Max.rpm 40,000min <sup>-1</sup>                      |   | p.19 |
| <b>BMS-4040RA</b> Angle cord type<br>Max.rpm 40,000min <sup>-1</sup>                                     |  | p.19 |
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| <b>BMS-4020-MQL / BMS-4020-MQL-2M</b> Coolant through spindle<br>Max.rpm 20,000min <sup>-1</sup>         |  | p.23 |
| <b>BMS-4040-MQL / BMS-4040-MQL-2M</b> Coolant through spindle<br>Max.rpm 40,000min <sup>-1</sup>         |  | p.23 |
| <b>BMS-4020-MQL-CHK / BMS-4020-MQL-CHK-2M</b> Coolant through spindle<br>Max.rpm 20,000min <sup>-1</sup> |  | p.25 |
| <b>BMS-4040-MQL-CHK / BMS-4040-MQL-CHK-2M</b> Coolant through spindle<br>Max.rpm 40,000min <sup>-1</sup> |  | p.25 |

Controller

|                                             |                                                                                     |      |
|---------------------------------------------|-------------------------------------------------------------------------------------|------|
| <b>E4000 CONTROLLER</b> .....<br>Controller |  | p.27 |
|---------------------------------------------|-------------------------------------------------------------------------------------|------|

Motor cord

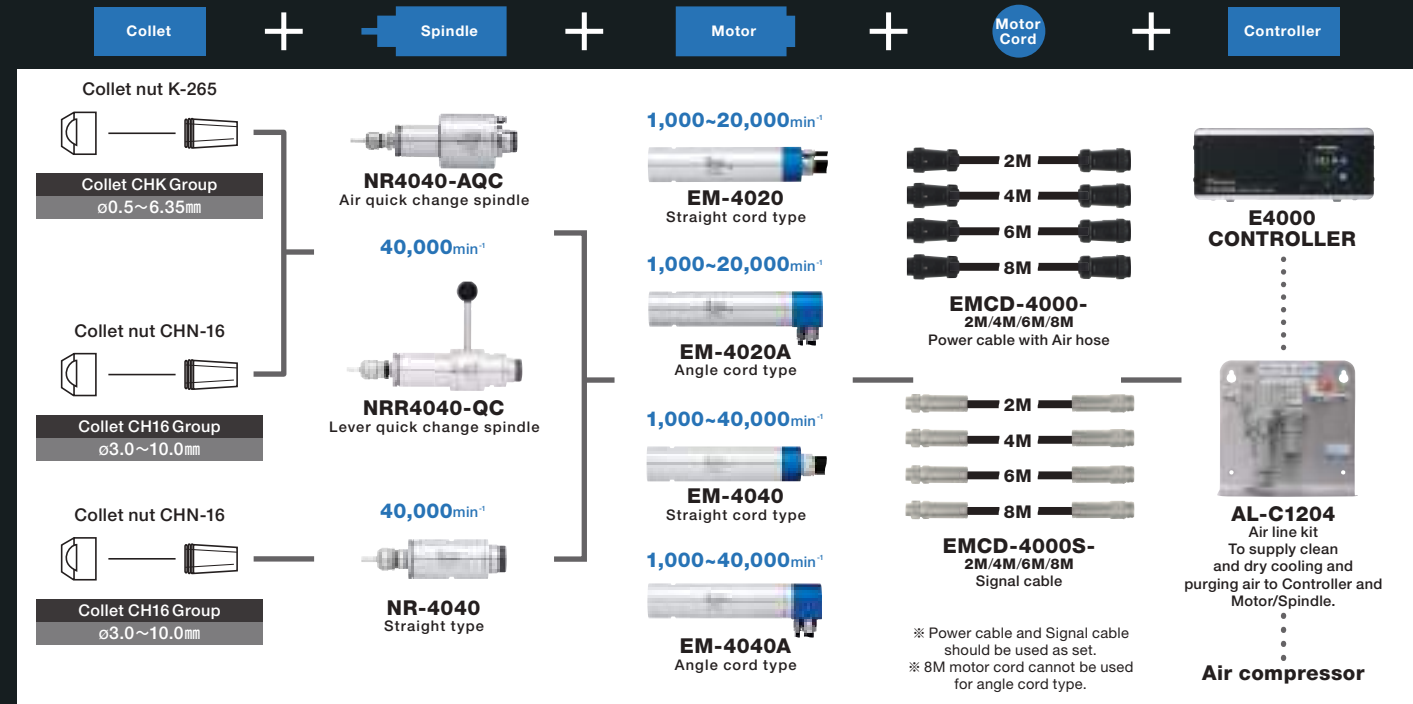
|                                                                                                                          |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Power cable with Air hose</b><br>[ Length ] 2m, 4m, 6m, 8m<br><b>EMCD-4000</b><br>Joint type motor cord<br>..... p.27 |    |
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Accessories

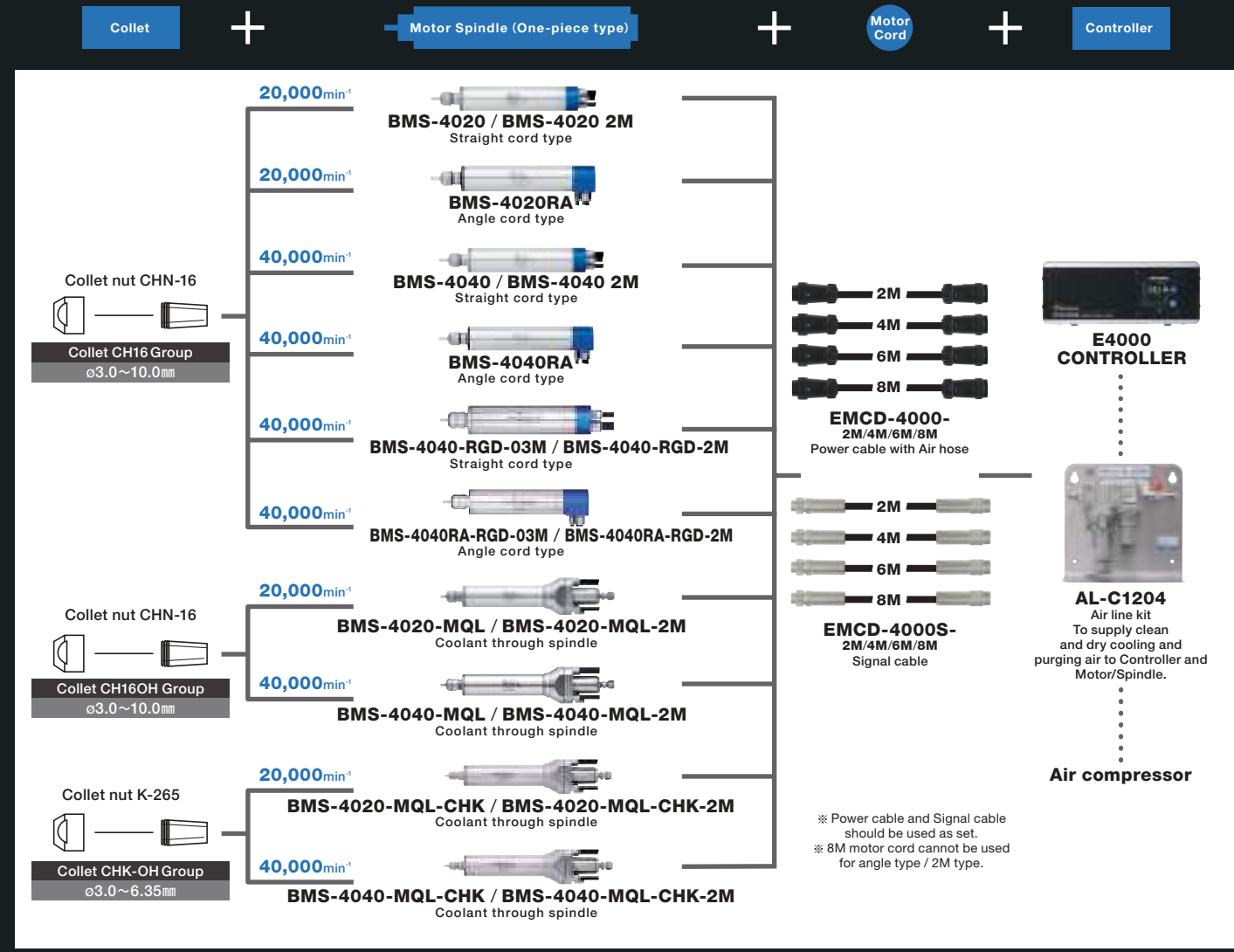
|                                                   |                                               |                                      |                                                             |                                                                           |
|---------------------------------------------------|-----------------------------------------------|--------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|
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|---------------------------------------------------|-----------------------------------------------|--------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|

System Chart

Modular type ø40mm



One-piece type ø40mm

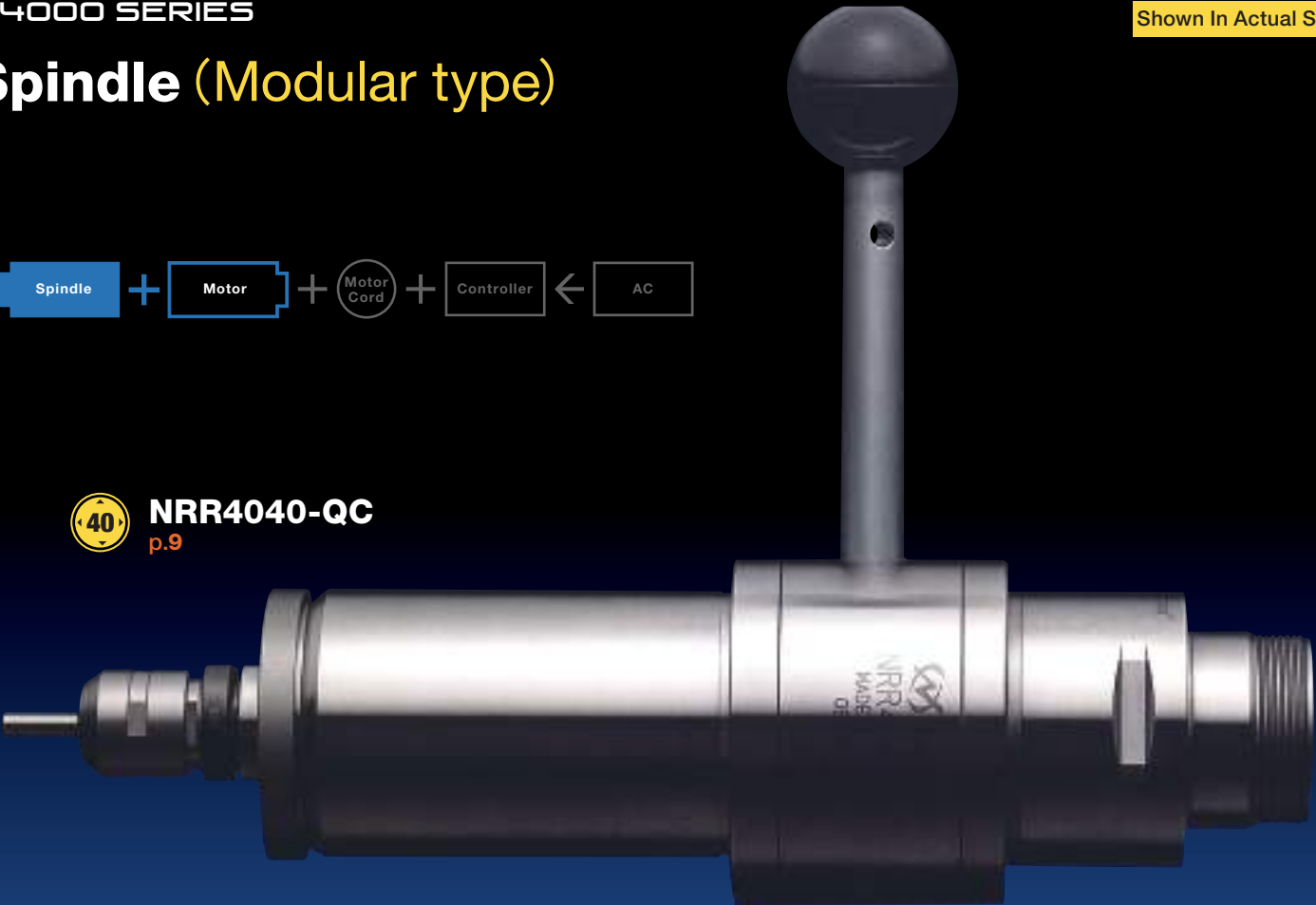


Spindle (Modular type)

Shown In Actual Size



**40** NRR4040-QC  
p.9



**40** NR-4040  
p.11



**40** NR4040-AQC  
p.7



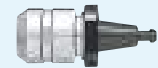
**40** EM-4020  
p.13

**40** EM-4040  
p.13



Spindle  
Guide

CH16 / CHK



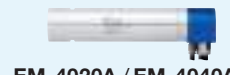
QC5-16/QC5-16-R/QC5-K/QC5-K-R



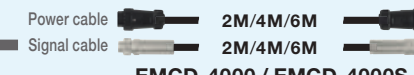
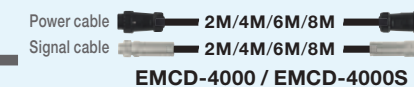
NR4040-AQC



EM-4020 / EM-4040



EM-4020A / EM-4040A



EMCD-4000 / EMCD-4000S



E4000 CONTROLLER



AL-C1204

## E4000 SERIES

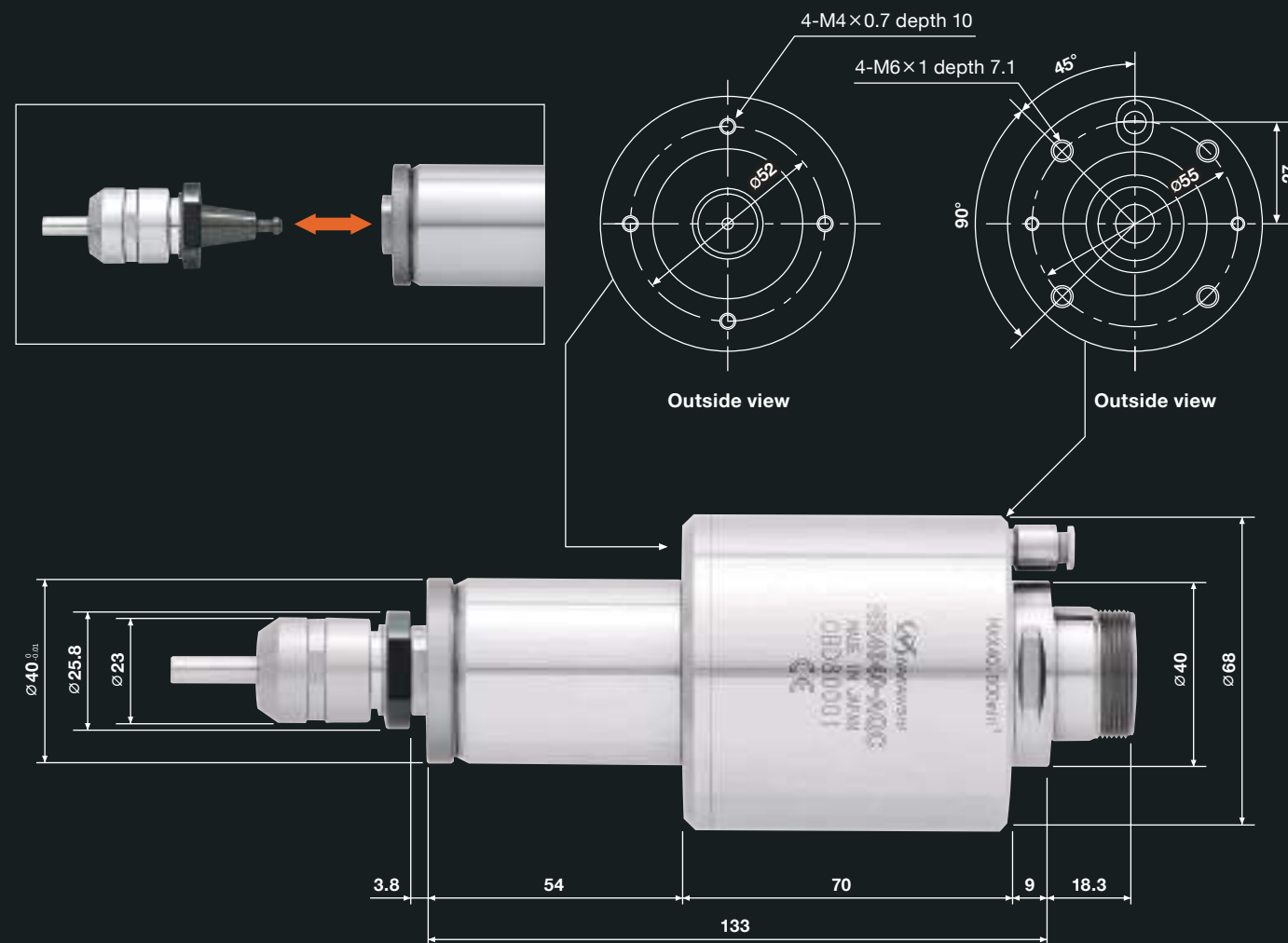
## Spindle (Modular type)

## NR4040-AQC

## Air quick change spindle

O.D.  $\phi$ 40mm

- Auto Tool Change with \*BT5 collet holder. ※Original
- Enhancing productivity by enabling external tool set-up.
- 2 types of collet holders are available. (CH16 and CHK)



## Specifications

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

Order by Code No.

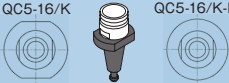
## NR4040-AQC

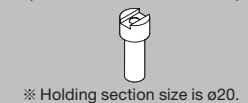
**Code No.** 9219 **Model** NR4040-AQC

| O.D.                                    | Spindle Accuracy      | Max. rpm                | Air for collet opening                 | Weight                              |
|-----------------------------------------|-----------------------|-------------------------|----------------------------------------|-------------------------------------|
| $\phi$ 40mm                             | Within $1\mu\text{m}$ | 40,000min <sup>-1</sup> | 0.55 ~ 0.6MPa                          | 2,160g                              |
| Motors                                  |                       |                         | Collet holders                         |                                     |
| EM-4020 · EM-4020A · EM-4040 · EM-4040A |                       |                         | QC5-16 / QC5-16-R<br>(For collet CH16) | QC5-K / QC5-K-R<br>(For collet CHK) |

**Standard Accessories** Wrench (36) : 1pc. / Air hose with filter (K-251) :  $\phi$ 6mm  $\times$  2m

## Parts (Optional)

| Collet                                                                              |          | You can choose the I.D. size<br>(The following is an example of $\phi 6.0\text{mm}$ .) |  | Collet holder<br>(With collet nut)                                                                                                           |                               | Wrench                                                                              |  |
|-------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------|--|
|  |          |                                                                                        |  | <br>* In case using a Preset adapter, QC5-16/K is needed. |                               |  |  |
| CH16<br><br>I.D.<br>$\phi 3.0\text{mm} \sim 10.0\text{mm}$<br>p.29                  | Code No. | 931 6 0                                                                                |  | 9216                                                                                                                                         | 9225                          | 2083                                                                                |  |
|                                                                                     | Model    | CH16- 6 . 0<br>(I.D. $\phi 6.0\text{mm}$ )                                             |  | QC5-16<br>(For collet CH16)                                                                                                                  | QC5-16-R<br>(For collet CH16) | Wrench 17 $\times$ 22 (2pcs.)                                                       |  |
| CHK<br><br>I.D.<br>$\phi 0.5\text{mm} \sim 6.35\text{mm}$<br>p.29                   | Code No. | 915 6 0                                                                                |  | 9215                                                                                                                                         | 9224                          | 2026                                                                                |  |
|                                                                                     | Model    | CHK- 6 . 0<br>(I.D. $\phi 6.0\text{mm}$ )                                              |  | QC5-K<br>(For collet CHK)                                                                                                                    | QC5-K-R<br>(For collet CHK)   | Wrench 12 $\times$ 14 (2pcs.)                                                       |  |

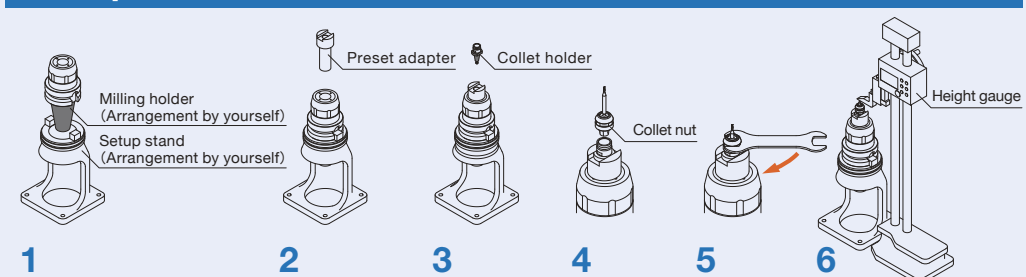
 In case using a Preset adapter, only 1pc. wrench is used.  
 CH16 collet  $\rightarrow$  17  $\times$  22 wrench (1pc.) / CHK collet  $\rightarrow$  12  $\times$  14 wrench (1pc.) .
Preset adapter  
(QC5-16/QC5-K)※ Holding section size is  $\phi$ 20.

|          |                                   |
|----------|-----------------------------------|
| Code No. | 9218                              |
| Model    | QC5-16 ADP<br>(For collet QC5-16) |

|          |                                 |
|----------|---------------------------------|
| Code No. | 9217                            |
| Model    | QC5-K ADP<br>(For collet QC5-K) |

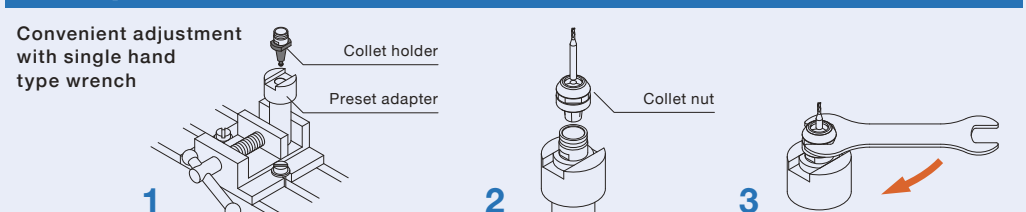
## Set-up outside machines

In case using a milling holder



## Set-up outside machines

In case using a vice





E4000 SERIES

Spindle (Modular type)

NRR4040-QC

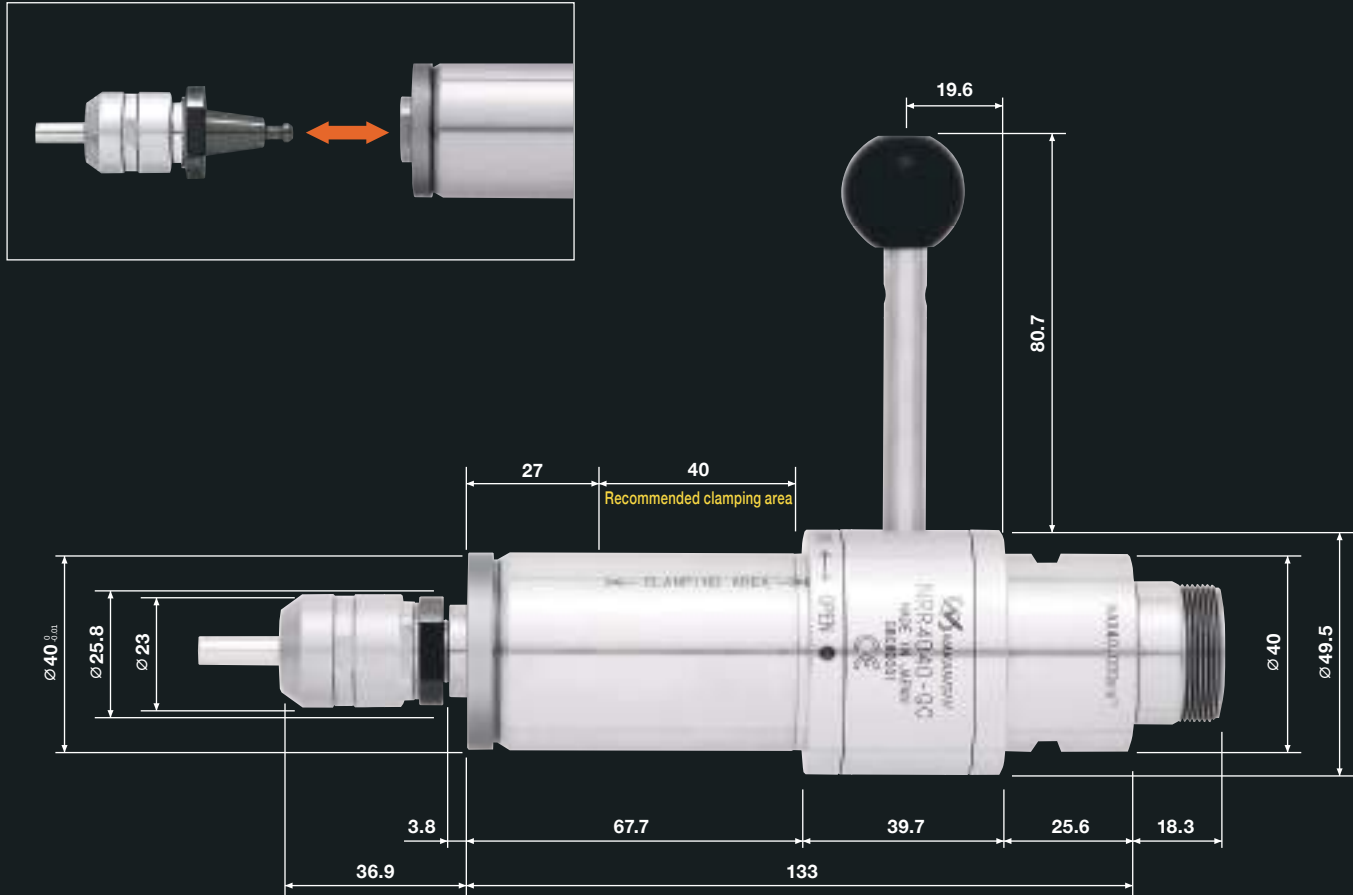
Lever quick change spindle

※Outside view : with QC5-16 collet holder

- Quick and easy tool change with ※BT5 collet holder by lever chucking system. ※Original
- Improvement of adjustment process by setting collet in advance.
- 2 types of collet holders are available. (CH16 and CHK)



O.D.φ40mm



Specifications

DXF data DXF files are available on our website

Order by Code No.

|                                            |                  |                         |                                        |      |                                     |            |
|--------------------------------------------|------------------|-------------------------|----------------------------------------|------|-------------------------------------|------------|
| NRR4040-QC                                 |                  |                         | Code No.                               | 9214 | Model                               | NRR4040-QC |
| O.D.                                       | Spindle Accuracy | Max. rpm                | Lever operating angle                  |      | Weight                              |            |
| Ø40mm                                      | Within1μm        | 40,000min <sup>-1</sup> | 90°                                    |      | 1,300g                              |            |
| Motors                                     |                  |                         | Collet holders                         |      |                                     |            |
| EM-4020・EM-4020A・EM-4040・EM-4040A          |                  |                         | QC5-16 / QC5-16-R<br>(For collet CH16) |      | QC5-K / QC5-K-R<br>(For collet CHK) |            |
| Standard Accessories    Wrench (36) : 1pc. |                  |                         |                                        |      |                                     |            |

Parts (Optional)

|        |          |                                                                       |  |                                 |                            |                                                         |  |
|--------|----------|-----------------------------------------------------------------------|--|---------------------------------|----------------------------|---------------------------------------------------------|--|
| Collet |          | You can choose the I.D. size (The following is an example of φ6.0mm.) |  | Collet holder (With collet nut) |                            | Wrench                                                  |  |
| CH16   |          | I.D. φ3.0mm~10.0mm p.29                                               |  | QC5-16 / K QC5-16 / K-R         |                            | * In case using a Preset adapter, QC5-16 / K is needed. |  |
| CH16   | Code No. | 931 6 0                                                               |  | 9216                            | 9225                       | 2083                                                    |  |
|        | Model    | CH16- 6 . 0 (I.D. φ6.0mm)                                             |  | QC5-16 (For collet CH16)        | QC5-16-R (For collet CH16) | Wrench 17 × 22 (2pcs.)                                  |  |
| CHK    | Code No. | 915 6 0                                                               |  | 9215                            | 9224                       | 2026                                                    |  |
|        | Model    | CHK- 6 . 0 (I.D. φ6.0mm)                                              |  | QC5-K (For collet CHK)          | QC5-K-R (For collet CHK)   | Wrench 12 × 14 (2pcs.)                                  |  |

In case using a Preset adapter, only 1pc. wrench is used.  
CH16 collet → 17 × 22 wrench (1pc.) / CHK collet → 12 × 14 wrench (1pc.) .

Preset adapter (QC5-16/QC5-K)

※ Holding section size is φ20.

|          |                                |
|----------|--------------------------------|
| Code No. | 9218                           |
| Model    | QC5-16 ADP (For collet QC5-16) |
| Code No. | 9217                           |
| Model    | QC5-K ADP (For collet QC5-K)   |

Set-up outside machines

In case using a milling holder

1

2

3

4

5

6

Set-up outside machines

In case using a vice

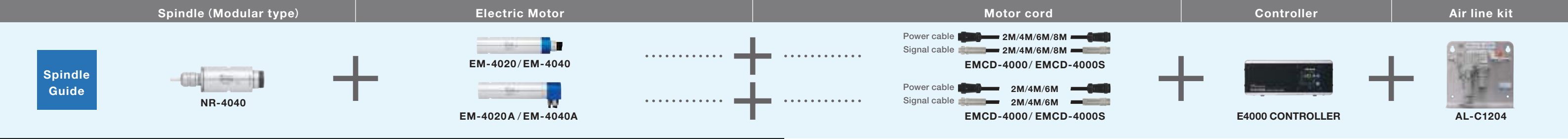
1

2

3

p.9

p.10



E4000 SERIES

Spindle (Modular type)

NR-4040

Straight type

※1:In case for the shank size less than ø6.9mm

※2:In case for the shank ø6.9mm or more

40

O.D. ø40mm

70.6 Tool mounting depth ※1

54.1 Tool mounting depth ※2

ø40mm

ø23

29.8

31.3

26.4

22.3

18.3

128.1

80

Recommended clamping area

Specifications

DXF data

DXF files are available on our website

Order by Code No.

NR-4040

Code No.

7902

Model

NR-4040

| O.D.                 | Spindle Accuracy                                             | Collet                         | Max. rpm                | Motors                                   | Weight |
|----------------------|--------------------------------------------------------------|--------------------------------|-------------------------|------------------------------------------|--------|
| Ø40mm                | Within1μm                                                    | CH16 Group<br>(ø3.0 ~ ø10.0mm) | 40,000min <sup>-1</sup> | EM-4020 · EM-4020A<br>EM-4040 · EM-4040A | 700g   |
| Standard Accessories | Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs. · (36) : 1pc. |                                |                         |                                          |        |
| Options              | Collet (CH16 Group) : ø3.0mm ~ ø10.0mm <b>p.29</b>           |                                |                         |                                          |        |

※ Collet is sold separately.

E4000 SERIES

Motor (Modular type)

EM-4020 (20,000rpm)

Straight cord type



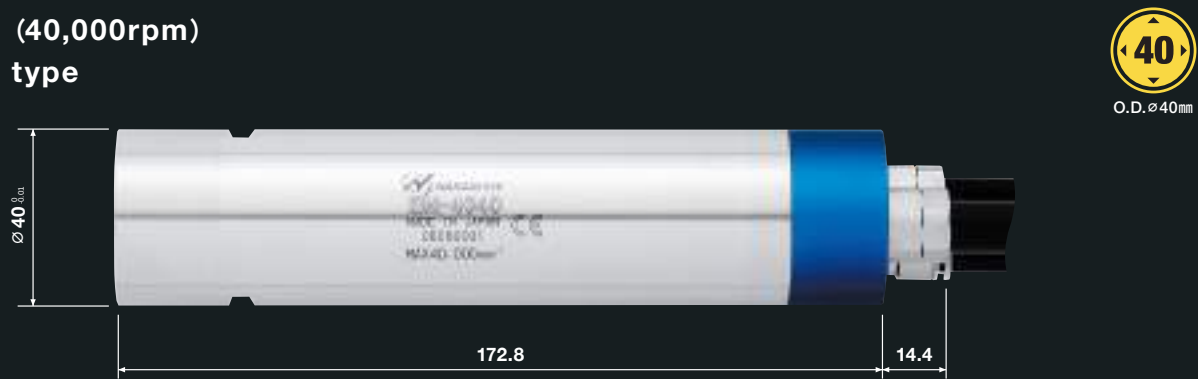
EM-4020A (20,000rpm)

Angle cord type



EM-4040 (40,000rpm)

Straight cord type



EM-4040A (40,000rpm)

Angle cord type



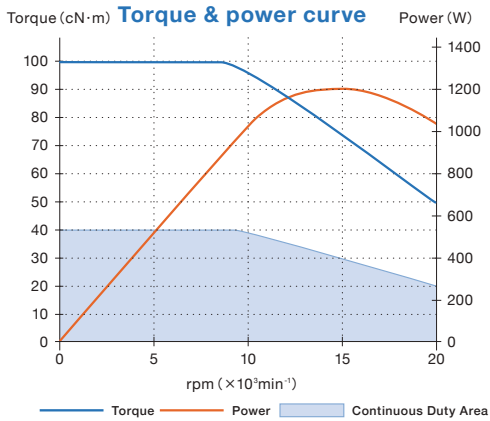
Specifications

DXF data DXF files are available on our website

Order by Code No.

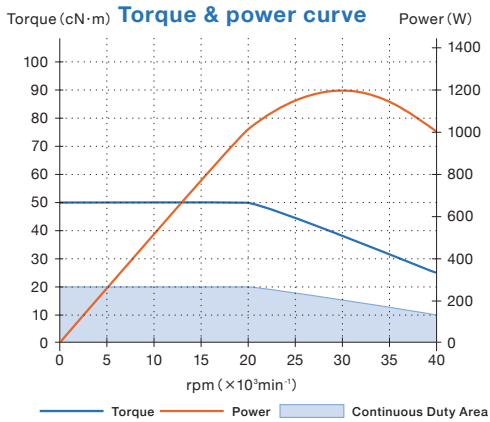
| EM-4020              |                                          | Code No.                                                                         | 8348               | Model              | EM-4020 |
|----------------------|------------------------------------------|----------------------------------------------------------------------------------|--------------------|--------------------|---------|
| O.D.                 | Rpm                                      |                                                                                  | Max. power         |                    |         |
| Ø40 <sub>mm</sub>    | 1,000~20,000 <sub>min<sup>-1</sup></sub> |                                                                                  | 1,200 <sub>w</sub> |                    |         |
| Cord length          | Min. Bending Cord Radius                 | Max. torque                                                                      |                    | Weight             |         |
| 0.3 <sub>m</sub>     | 70 <sub>mm</sub>                         | 1.0 <sub>N·m</sub>                                                               |                    | 1,300 <sub>g</sub> |         |
| Standard Accessories |                                          | Wrench (36) : 1pc.                                                               |                    |                    |         |
| Specifications       |                                          | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min                      |                    |                    |         |
|                      |                                          | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm         |                    |                    |         |
|                      |                                          | Signal cable : Connector Diameter : ø16mm                                        |                    |                    |         |
| Options              |                                          | Power cable with Air hose : Length 2m (9253) , 4m (9254) , 6m (9255) , 8m (9256) |                    |                    |         |
|                      |                                          | Signal cable : Length 2m (9257) , 4m (9258) , 6m (9259) , 8m (9260)              |                    |                    |         |

| EM-4020A             |                                          | Code No.                                                                 | 8349               | Model              | EM-4020A |
|----------------------|------------------------------------------|--------------------------------------------------------------------------|--------------------|--------------------|----------|
| O.D.                 | Rpm                                      |                                                                          | Max. power         |                    |          |
| Ø40 <sub>mm</sub>    | 1,000~20,000 <sub>min<sup>-1</sup></sub> |                                                                          | 1,200 <sub>w</sub> |                    |          |
| Cord length          | Min. Bending Cord Radius                 | Max. torque                                                              |                    | Weight             |          |
| 2.0 <sub>m</sub>     | 70 <sub>mm</sub>                         | 1.0 <sub>N·m</sub>                                                       |                    | 1,800 <sub>g</sub> |          |
| Standard Accessories |                                          | Wrench (36) : 1pc.                                                       |                    |                    |          |
| Specifications       |                                          | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min              |                    |                    |          |
|                      |                                          | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm |                    |                    |          |
|                      |                                          | Signal cable : Connector Diameter : ø16mm                                |                    |                    |          |
| Options              |                                          | Power cable with Air hose : Length 2m (9253) , 4m (9254) , 6m (9255)     |                    |                    |          |
|                      |                                          | Signal cable : Length 2m (9257) , 4m (9258) , 6m (9259)                  |                    |                    |          |



| EM-4040              |                                          | Code No.                                                                         | 8346               | Model              | EM-4040 |
|----------------------|------------------------------------------|----------------------------------------------------------------------------------|--------------------|--------------------|---------|
| O.D.                 | Rpm                                      |                                                                                  | Max. power         |                    |         |
| Ø40 <sub>mm</sub>    | 1,000~40,000 <sub>min<sup>-1</sup></sub> |                                                                                  | 1,200 <sub>w</sub> |                    |         |
| Cord length          | Min. Bending Cord Radius                 | Max. torque                                                                      |                    | Weight             |         |
| 0.3 <sub>m</sub>     | 70 <sub>mm</sub>                         | 0.5 <sub>N · m</sub>                                                             |                    | 1,300 <sub>g</sub> |         |
| Standard Accessories |                                          | Wrench (36) : 1pc.                                                               |                    |                    |         |
| Specifications       |                                          | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min                      |                    |                    |         |
|                      |                                          | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm         |                    |                    |         |
|                      |                                          | Signal cable : Connector Diameter : ø16mm                                        |                    |                    |         |
| Options              |                                          | Power cable with Air hose : Length 2m (9253) , 4m (9254) , 6m (9255) , 8m (9256) |                    |                    |         |
|                      |                                          | Signal cable : Length 2m (9257) , 4m (9258) , 6m (9259) , 8m (9260)              |                    |                    |         |

| EM-4040A             |                                          | Code No.                                                                 | 8347               | Model              | EM-4040A |
|----------------------|------------------------------------------|--------------------------------------------------------------------------|--------------------|--------------------|----------|
| O.D.                 | Rpm                                      |                                                                          | Max. power         |                    |          |
| Ø40 <sub>mm</sub>    | 1,000~40,000 <sub>min<sup>-1</sup></sub> |                                                                          | 1,200 <sub>w</sub> |                    |          |
| Cord length          | Min. Bending Cord Radius                 | Max. torque                                                              |                    | Weight             |          |
| 2.0 <sub>m</sub>     | 70 <sub>mm</sub>                         | 0.5N · m                                                                 |                    | 1,800 <sub>g</sub> |          |
| Standard Accessories |                                          | Wrench (36) : 1pc.                                                       |                    |                    |          |
| Specifications       |                                          | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min              |                    |                    |          |
|                      |                                          | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm |                    |                    |          |
|                      |                                          | Signal cable : Connector Diameter : ø16mm                                |                    |                    |          |
| Options              |                                          | Power cable with Air hose : Length 2m (9253) , 4m (9254) , 6m (9255)     |                    |                    |          |
|                      |                                          | Signal cable : Length 2m (9257) , 4m (9258) , 6m (9259)                  |                    |                    |          |



# Motor Spindle (One-piece type)



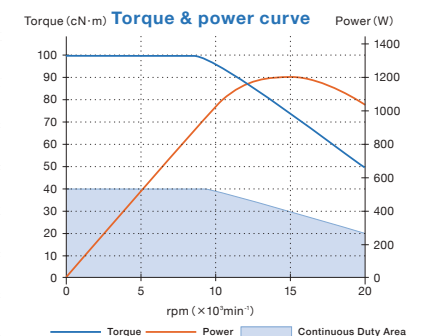
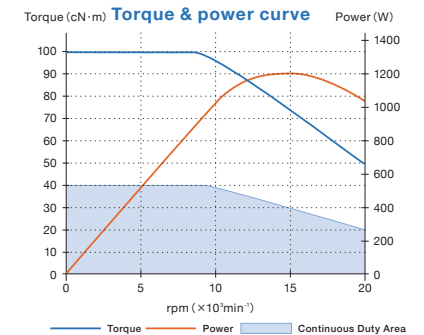
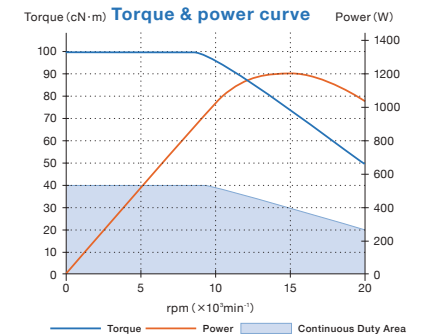
- BMS-4020RA**  
p.17
- BMS-4040RA**  
p.19
- BMS-4040RA-RGD-03M / BMS-4040RA-RGD-2M**  
p.21

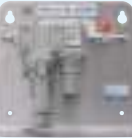
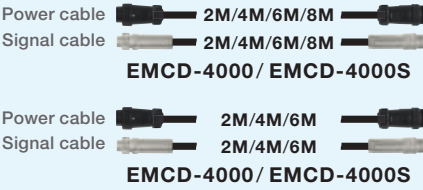
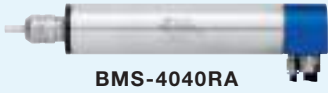
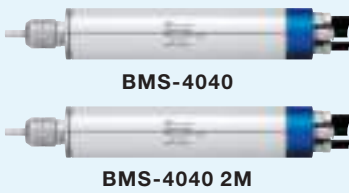


- BMS-4020 / BMS-4020 2M**  
p.17
- BMS-4040 / BMS-4040 2M**  
p.19
- BMS-4040-RGD-03M / BMS-4040-RGD-2M**  
p.21



- BMS-4020-MQL / BMS-4020-MQL-2M**  
p.23
- BMS-4040-MQL / BMS-4040-MQL-2M**  
p.23
- BMS-4020-MQL-CHK / BMS-4020-MQL-CHK-2M**  
p.25
- BMS-4040-MQL-CHK / BMS-4040-MQL-CHK-2M**  
p.25





E4000 SERIES

Motor Spindle (One-piece type)

BMS-4040 / BMS-4040 2M

Straight cord type

※1:In case for the shank size less than ø6.9mm ※ 2:In case for the shank ø6.9mm or more



O.D. ø40mm



BMS-4040RA

Angle cord type

※1:In case for the shank size less than ø6.9mm ※ 2:In case for the shank ø6.9mm or more



O.D. ø40mm



Specifications

DXF data DXF files are available on our website

Order by Code No.

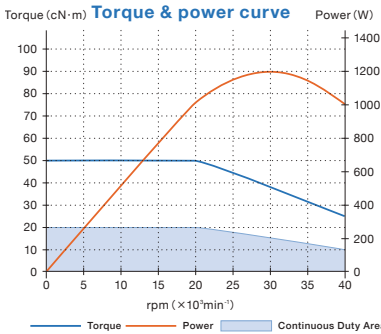
BMS-4040 / BMS-4040 2M



|          |      |       |             |
|----------|------|-------|-------------|
| Code No. | 7806 | Model | BMS-4040    |
| Code No. | 7809 | Model | BMS-4040 2M |

| O.D.                                | Max. rpm                | Spindle Accuracy                                                              |             | Collet                        | Max. power                            |
|-------------------------------------|-------------------------|-------------------------------------------------------------------------------|-------------|-------------------------------|---------------------------------------|
| Ø40mm                               | 40,000min <sup>-1</sup> | Within1μm                                                                     |             | CH16Group<br>(Ø3.0 ~ Ø10.0mm) | 1,200w                                |
| Cord length                         |                         | Min. Bending Cord Radius                                                      | Max. torque |                               | Weight                                |
| BMS-4040: 0.3m<br>BMS-4040 2M: 2.0m |                         | 70mm                                                                          | 0.5N·m      |                               | BMS-4040: 1.5kg<br>BMS-4040 2M: 2.0kg |
| Standard Accessories                |                         | Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs.                                |             |                               |                                       |
| Specifications                      |                         | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min                   |             |                               |                                       |
|                                     |                         | Power cable with Air hose : Connector Diameter : Ø30mm / Air hose : Ø6mm      |             |                               |                                       |
|                                     |                         | Signal cable : Connector Diameter : Ø16mm                                     |             |                               |                                       |
| Options                             |                         | Collet (CH16 Group) : Ø3.0 ~ Ø10.0mm <b>p.29</b>                              |             |                               |                                       |
|                                     |                         | Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256) |             |                               |                                       |
|                                     |                         | Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)              |             |                               |                                       |

※ 8M motor cord cannot be used for BMS-4040 2M.  
※ Collet is sold separately.



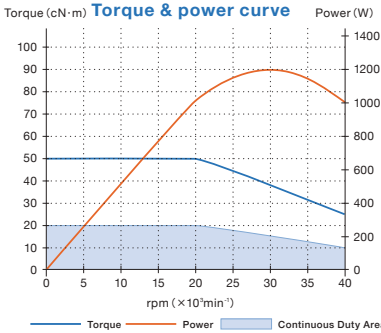
BMS-4040RA



|          |      |       |            |
|----------|------|-------|------------|
| Code No. | 7807 | Model | BMS-4040RA |
|----------|------|-------|------------|

| O.D.                 | Max. rpm                                                                 | Spindle Accuracy | Collet                        | Max. power |
|----------------------|--------------------------------------------------------------------------|------------------|-------------------------------|------------|
| Ø40mm                | 40,000min <sup>-1</sup>                                                  | Within1μm        | CH16Group<br>(ø3.0 ~ ø10.0mm) | 1,200w     |
| Cord length          | Min. Bending Cord Radius                                                 | Max. torque      | Weight                        |            |
| 2.0m                 | 70mm                                                                     | 0.5N·m           | 2.0kg                         |            |
| Standard Accessories | Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs.                           |                  |                               |            |
| Specifications       | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min              |                  |                               |            |
|                      | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm |                  |                               |            |
|                      | Signal cable : Connector Diameter : ø16mm                                |                  |                               |            |
| Options              | Collet (CH16 Group) : ø3.0 ~ ø10.0mm <b>p.29</b>                         |                  |                               |            |
|                      | Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255)       |                  |                               |            |
|                      | Signal cable : Length 2m (9257), 4m (9258), 6m (9259)                    |                  |                               |            |

※ Collet is sold separately.



BMS-4040-RGD-03M/BMS-4040-RGD-2M

BMS-4040RA-RGD-03M/BMS-4040RA-RGD-2M

Power cable 2M/4M/6M/8M  
Signal cable 2M/4M/6M/8M  
EMCD-4000/ EMCD-4000S

Power cable 2M/4M/6M  
Signal cable 2M/4M/6M  
EMCD-4000/ EMCD-4000S

E4000 CONTROLLER

AL-C1204

## E4000 SERIES

## Motor Spindle (Rigidity type)

## BMS-4040-RGD-03M / BMS-4040-RGD-2M

Straight cord type

※1:In case for the shank size less than ø6.9mm ※2:In case for the shank ø6.9mm or more



O.D. ø40mm

- Twice as high rigidity as BMS-4040 in thrust and radial directions.



## Specifications

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

Order by Code No.

## BMS-4040-RGD-03M / BMS-4040-RGD-2M

|          |      |       |                  |
|----------|------|-------|------------------|
| Code No. | 7740 | Model | BMS-4040-RGD-03M |
| Code No. | 7769 | Model | BMS-4040-RGD-2M  |

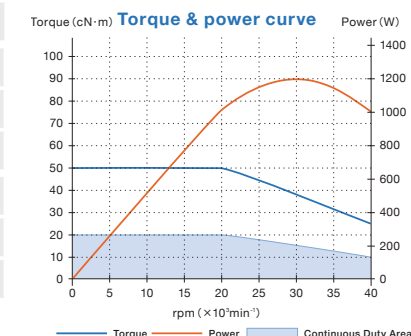


| O.D.                                              | Max. rpm                 | Spindle Accuracy | Collet                                              | Max. power |
|---------------------------------------------------|--------------------------|------------------|-----------------------------------------------------|------------|
| ø40mm                                             | 40,000min <sup>-1</sup>  | Within1μm        | CH16Group<br>(ø3.0 ~ ø10.0mm)                       | 1,200w     |
| Cord length                                       | Min. Bending Cord Radius | Max. torque      | Weight                                              |            |
| BMS-4040-RGD-03M : 0.3m<br>BMS-4040-RGD-2M : 2.0m | 70mm                     | 0.5N·m           | BMS-4040-RGD-03M : 1.4kg<br>BMS-4040-RGD-2M : 1.9kg |            |

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Standard Accessories | Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs.                                |
| Specifications       | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min                   |
|                      | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm      |
|                      | Signal cable : Connector Diameter : ø16mm                                     |
| Options              | Collet (CH16 Group) : ø3.0 ~ ø10.0mm <b>p.29</b>                              |
|                      | Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256) |
|                      | Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)              |

※ 8M motor cord cannot be used for BMS-4040-RGD-2M.

※ Collet is sold separately.



## BMS-4040RA-RGD-03M / BMS-4040RA-RGD-2M

Angle cord type

※1:In case for the shank size less than ø6.9mm ※2:In case for the shank ø6.9mm or more



O.D. ø40mm

- Twice as high rigidity as BMS-4040 in thrust and radial directions.



## BMS-4040RA-RGD-03M / BMS-4040RA-RGD-2M

|          |      |       |                    |
|----------|------|-------|--------------------|
| Code No. | 7741 | Model | BMS-4040RA-RGD-03M |
| Code No. | 7770 | Model | BMS-4040RA-RGD-2M  |

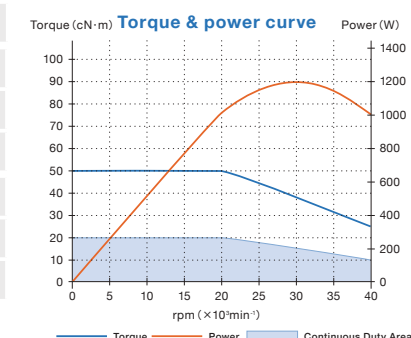


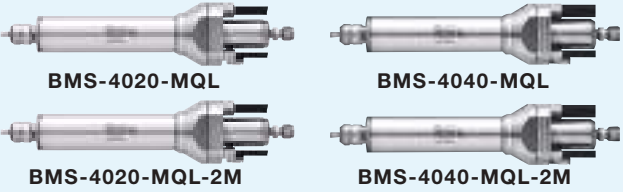
| O.D.                                                  | Max. rpm                 | Spindle Accuracy | Collet                                                  | Max. power |
|-------------------------------------------------------|--------------------------|------------------|---------------------------------------------------------|------------|
| ø40mm                                                 | 40,000min <sup>-1</sup>  | Within1μm        | CH16Group<br>(ø3.0 ~ ø10.0mm)                           | 1,200w     |
| Cord length                                           | Min. Bending Cord Radius | Max. torque      | Weight                                                  |            |
| BMS-4040RA-RGD-03M : 0.3m<br>BMS-4040RA-RGD-2M : 2.0m | 70mm                     | 0.5N·m           | BMS-4040RA-RGD-03M : 1.4kg<br>BMS-4040RA-RGD-2M : 1.9kg |            |

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Standard Accessories | Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs.                                |
| Specifications       | Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min                   |
|                      | Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm      |
|                      | Signal cable : Connector Diameter : ø16mm                                     |
| Options              | Collet (CH16 Group) : ø3.0 ~ ø10.0mm <b>p.29</b>                              |
|                      | Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256) |
|                      | Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)              |

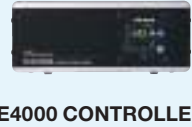
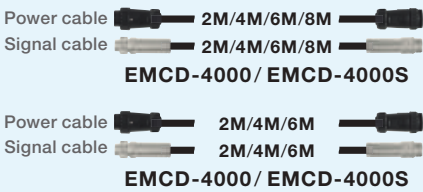
※ 8M motor cord cannot be used for BMS-4040RA-RGD-2M.

※ Collet is sold separately.





! "High pressure coolant device" or "oil mist supply device" to be arranged by the customer.



AL-C1204

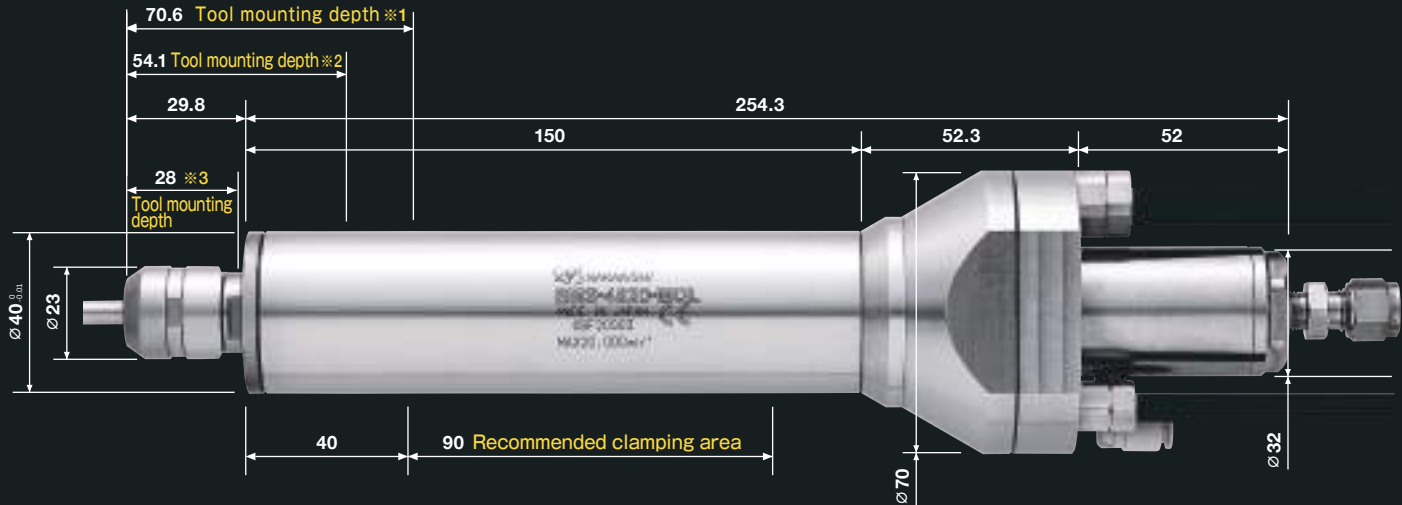
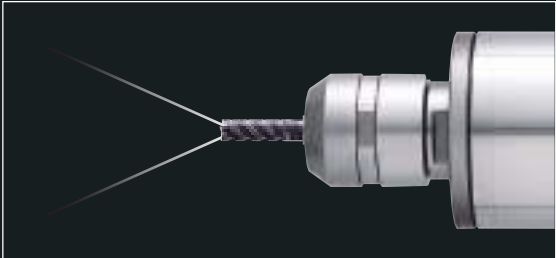
E4000 SERIES

Motor Spindle (One-piece type :  $\phi 3.0 \sim \phi 10.0\text{mm}$ )

BMS-4020-MQL / BMS-4020-MQL-2M  
BMS-4040-MQL / BMS-4040-MQL-2M

Coolant through spindle

- Pressurized coolant entered through the back of the spindle and through the cutting tool at a speed of 40,000 RPM.
  - Through coolant improves chip clearance, accuracy, productivity and extends tool-life.
- ※ "High pressure coolant device" or "oil mist supply device" to be arranged by the customer.



- ※ 1 : In case for the shank  $\phi 4\text{mm}$  to less than  $\phi 6.9\text{mm}$  (The shank size less than  $\phi 4\text{mm}$  is through hole)
- ※ 2 : In case for the shank size  $\phi 6.9\text{mm}$  or more
- ※ 3 : The tool needs to be inserted more than 28mm, or the oil leaks

Specifications

DXF data DXF files are available on our website

Order by Code No.

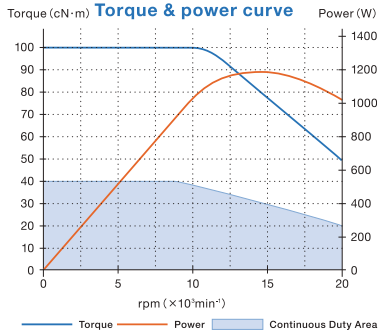
BMS-4020-MQL / BMS-4020-MQL-2M



|          |      |       |                 |
|----------|------|-------|-----------------|
| Code No. | 7716 | Model | BMS-4020-MQL    |
| Code No. | 7717 | Model | BMS-4020-MQL-2M |

| O.D.                                        | Max. rpm                | Spindle Accuracy                                                                                                                                                                                                                   | Collet                                              | Max. power                                    |
|---------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| $\phi 40\text{mm}$                          | $20,000\text{min}^{-1}$ | Within $1\mu\text{m}$                                                                                                                                                                                                              | CH16OH Group ( $\phi 3.0 \sim \phi 10.0\text{mm}$ ) | 1,200w                                        |
| Cord length                                 |                         | Min. Bending Cord Radius                                                                                                                                                                                                           | Max. torque                                         | Weight                                        |
| BMS-4020-MQL: 0.3m<br>BMS-4020-MQL-2M: 2.0m |                         | 70mm                                                                                                                                                                                                                               | 1.0N·m                                              | BMS-4020-MQL: 2.3kg<br>BMS-4020-MQL-2M: 2.8kg |
| Standard Accessories                        |                         | Collet nut (CHN-16) / Insert / Ferrule Set<br>Wrench (17 × 22) : 2pcs.                                                                                                                                                             |                                                     |                                               |
| Specifications                              |                         | Coolant pressure : 0.2 ~ 3.0MPa / Oil Mist pressure : 0.2 ~ 1.0MPa<br>Power cable with Air hose : Connector Diameter : $\phi 30\text{mm}$ / Air hose : $\phi 6\text{mm}$<br>Signal cable : Connector Diameter : $\phi 16\text{mm}$ |                                                     |                                               |
| Options                                     |                         | Collet (CH16OH Group) : $\phi 3.0 \sim \phi 10.0\text{mm}$ p.29<br>Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256)<br>Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)               |                                                     |                                               |

※ 8M motor cord cannot be used for BMS-4020-MQL-2M.  
※ Collet is sold separately.



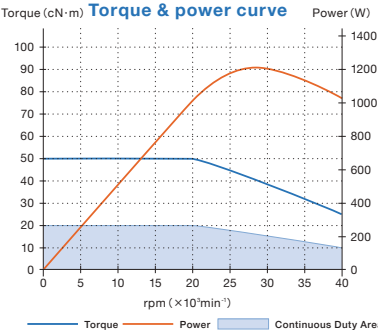
BMS-4040-MQL / BMS-4040-MQL-2M

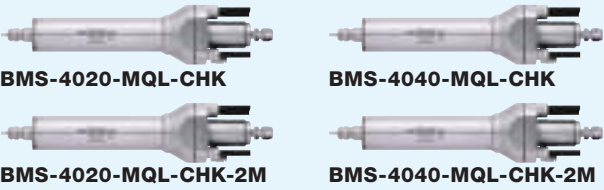


|          |      |       |                 |
|----------|------|-------|-----------------|
| Code No. | 7714 | Model | BMS-4040-MQL    |
| Code No. | 7715 | Model | BMS-4040-MQL-2M |

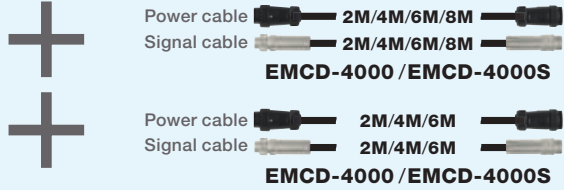
| O.D.                                        | Max. rpm                | Spindle Accuracy                                                                                                                                                                                                                   | Collet                                              | Max. power                                    |
|---------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| $\phi 40\text{mm}$                          | $40,000\text{min}^{-1}$ | Within $1\mu\text{m}$                                                                                                                                                                                                              | CH16OH Group ( $\phi 3.0 \sim \phi 10.0\text{mm}$ ) | 1,200w                                        |
| Cord length                                 |                         | Min. Bending Cord Radius                                                                                                                                                                                                           | Max. torque                                         | Weight                                        |
| BMS-4040-MQL: 0.3m<br>BMS-4040-MQL-2M: 2.0m |                         | 70mm                                                                                                                                                                                                                               | 0.5N·m                                              | BMS-4040-MQL: 2.3kg<br>BMS-4040-MQL-2M: 2.8kg |
| Standard Accessories                        |                         | Collet nut (CHN-16) / Insert / Ferrule Set<br>Wrench (17 × 22) : 2pcs.                                                                                                                                                             |                                                     |                                               |
| Specifications                              |                         | Coolant pressure : 0.2 ~ 3.0MPa / Oil Mist pressure : 0.2 ~ 1.0MPa<br>Power cable with Air hose : Connector Diameter : $\phi 30\text{mm}$ / Air hose : $\phi 6\text{mm}$<br>Signal cable : Connector Diameter : $\phi 16\text{mm}$ |                                                     |                                               |
| Options                                     |                         | Collet (CH16OH Group) : $\phi 3.0 \sim \phi 10.0\text{mm}$ p.29<br>Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256)<br>Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)               |                                                     |                                               |

※ 8M motor cord cannot be used for BMS-4040-MQL-2M.  
※ Collet is sold separately.





! "High pressure coolant device" or "oil mist supply device" to be arranged by the customer.



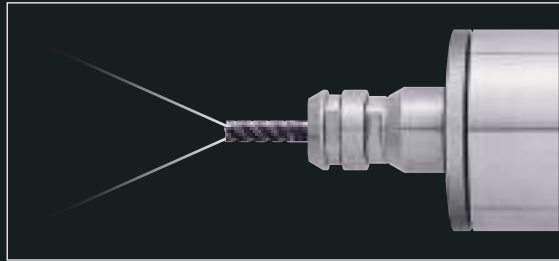
E4000 SERIES

Motor Spindle (One-piece type :  $\phi 3.0 \sim \phi 6.35\text{mm}$ )

**BMS-4020-MQL-CHK / BMS-4020-MQL-CHK-2M**  
**BMS-4040-MQL-CHK / BMS-4040-MQL-CHK-2M**  
Coolant through spindle



- Pressurized coolant entered through the back of the spindle and through the cutting tool at a speed of 40,000 RPM.
  - Through coolant improves chip clearance, accuracy, productivity and extends tool-life.
- ※ "High pressure coolant device" or "oil mist supply device" to be arranged by the customer.



※ 1 : In case for the shank  $\phi 4\text{mm}$  to less than  $\phi 6.35\text{mm}$  (The shank size less than  $\phi 4\text{mm}$  is through hole)  
※ 2 : In case for the shank size  $\phi 6.35\text{mm}$   
※ 3 : The tool needs to be inserted more than 20mm, or the oil leaks

Specifications

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

Order by Code No.

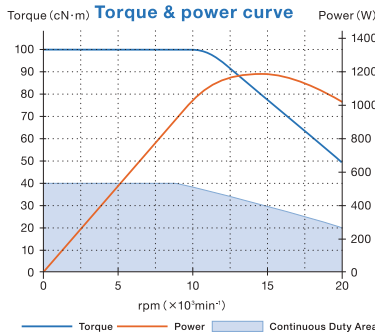
**BMS-4020-MQL-CHK / BMS-4020-MQL-CHK-2M**

|          |             |       |                            |
|----------|-------------|-------|----------------------------|
| Code No. | <b>7735</b> | Model | <b>BMS-4020-MQL-CHK</b>    |
| Code No. | <b>7736</b> | Model | <b>BMS-4020-MQL-CHK-2M</b> |



| O.D.                                                                | Max. rpm                | Spindle Accuracy                                                                                                                                                                                                                                    | Collet                                                     | Max. power                                                            |
|---------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------|
| $\phi 40\text{mm}$                                                  | $20,000\text{min}^{-1}$ | Within $1\mu\text{m}$                                                                                                                                                                                                                               | <b>CHK-OH</b> Group ( $\phi 3.0 \sim \phi 6.35\text{mm}$ ) | <b>1,200w</b>                                                         |
| Cord length                                                         |                         | Min. Bending Cord Radius                                                                                                                                                                                                                            | Max. torque                                                | Weight                                                                |
| BMS-4020-MQL-CHK : <b>0.3m</b><br>BMS-4020-MQL-CHK-2M : <b>2.0m</b> |                         | <b>70mm</b>                                                                                                                                                                                                                                         | <b>1.0N·m</b>                                              | BMS-4020-MQL-CHK : <b>2.3kg</b><br>BMS-4020-MQL-CHK-2M : <b>2.8kg</b> |
| Standard Accessories                                                |                         | Collet nut (K-265) / Insert / Ferrule Set<br>Wrench (12 × 14) : 2pcs.                                                                                                                                                                               |                                                            |                                                                       |
| Specifications                                                      |                         | Coolant pressure : 0.2~3.0MPa / Oil Mist pressure : 0.2~1.0MPa<br>Power cable with Air hose : Connector Diameter : $\phi 30\text{mm}$ / Air hose : $\phi 6\text{mm}$<br>Signal cable : Connector Diameter : $\phi 16\text{mm}$                      |                                                            |                                                                       |
| Options                                                             |                         | Collet (CHK-OH Group) : $\phi 3.0 \sim \phi 6.35\text{mm}$ <b>p.29</b><br>Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256)<br>Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)<br>Adjuster Bolt (7739) |                                                            |                                                                       |

※ 8M motor cord cannot be used for BMS-4020-MQL-CHK-2M.  
※ Collet is sold separately.



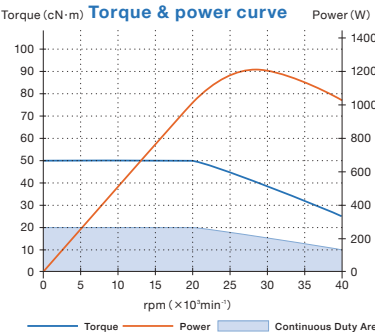
**BMS-4040-MQL-CHK / BMS-4040-MQL-CHK-2M**

|          |             |       |                            |
|----------|-------------|-------|----------------------------|
| Code No. | <b>7737</b> | Model | <b>BMS-4040-MQL-CHK</b>    |
| Code No. | <b>7738</b> | Model | <b>BMS-4040-MQL-CHK-2M</b> |



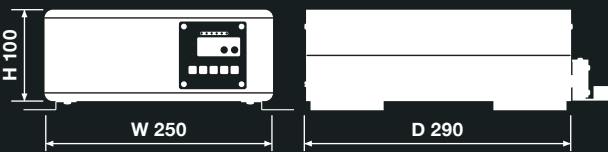
| O.D.                                                                | Max. rpm                | Spindle Accuracy                                                                                                                                                                                                                                    | Collet                                                     | Max. power                                                            |
|---------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------|
| $\phi 40\text{mm}$                                                  | $40,000\text{min}^{-1}$ | Within $1\mu\text{m}$                                                                                                                                                                                                                               | <b>CHK-OH</b> Group ( $\phi 3.0 \sim \phi 6.35\text{mm}$ ) | <b>1,200w</b>                                                         |
| Cord length                                                         |                         | Min. Bending Cord Radius                                                                                                                                                                                                                            | Max. torque                                                | Weight                                                                |
| BMS-4040-MQL-CHK : <b>0.3m</b><br>BMS-4040-MQL-CHK-2M : <b>2.0m</b> |                         | <b>70mm</b>                                                                                                                                                                                                                                         | <b>0.5N·m</b>                                              | BMS-4040-MQL-CHK : <b>2.3kg</b><br>BMS-4040-MQL-CHK-2M : <b>2.8kg</b> |
| Standard Accessories                                                |                         | Collet nut (K-265) / Insert / Ferrule Set<br>Wrench (12×14) : 2pcs.                                                                                                                                                                                 |                                                            |                                                                       |
| Specifications                                                      |                         | Coolant pressure : 0.2~3.0MPa / Oil Mist pressure : 0.2~1.0MPa<br>Power cable with Air hose : Connector Diameter : $\phi 30\text{mm}$ / Air hose : $\phi 6\text{mm}$<br>Signal cable : Connector Diameter : $\phi 16\text{mm}$                      |                                                            |                                                                       |
| Options                                                             |                         | Collet (CHK-OH Group) : $\phi 3.0 \sim \phi 6.35\text{mm}$ <b>p.29</b><br>Power cable with Air hose : Length 2m (9253), 4m (9254), 6m (9255), 8m (9256)<br>Signal cable : Length 2m (9257), 4m (9258), 6m (9259), 8m (9260)<br>Adjuster Bolt (7739) |                                                            |                                                                       |

※ 8M motor cord cannot be used for BMS-4040-MQL-CHK-2M.  
※ Collet is sold separately.



E4000 Controller / Motor cord

E4000 CONTROLLER  
Controller



External Input / Output Control Signal Operation

- External Input  
Motor Rotating / Stopped, 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.



| Max. power           | Input Voltage                                    | Speed Range                                                                                                                                                 | Power consumption | Air consumption            | Weight |
|----------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------|--------|
| 1,200w               | AC200~240v Without plug<br>Multiple output power | 1,000~40,000min <sup>-1</sup>                                                                                                                               | 3.2A              | 100Nℓ/min<br>(0.2~0.35MPa) | 6.7kg  |
| Standard Accessories |                                                  | Power cord : 4m / Air hose with filter(K-251:2058) : 2M / Motor connector cap(provided)<br>Connector cover(provided) / Bracket : 4pcs. / Rubber pad : 4pcs. |                   |                            |        |

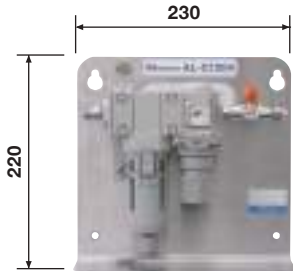
| Power cable with Air hose | Motor cord                 | Code No. | Model         | Length | Standard Accessories | Compatible model                                                                                                                                                                                                                                                                                                                            |
|---------------------------|----------------------------|----------|---------------|--------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | 2M                         | 9253     | EMCD-4000-2M  | 2m     | Air hose             | BMS-4020-BMS-4040-BMS-4020RA<br>BMS-4040RA-BMS-4020 2M<br>BMS-4040 2M-EM-4020-EM-4040<br>EM-4020A-EM-4040A<br>BMS-4020-MQL-BMS-4020-MQL-2M<br>BMS-4040-MQL-BMS-4040-MQL-2M<br>BMS-4020-MQL-CHK-BMS-4020-MQL-CHK-2M<br>BMS-4040-MQL-CHK-BMS-4040-MQL-CHK-2M<br>BMS-4040-RGD-03M-BMS-4040-RGD-2M<br>BMS-4040RA-RGD-03M-BMS-4040RA-RGD-2M      |
|                           | 4M                         | 9254     | EMCD-4000-4M  | 4m     |                      |                                                                                                                                                                                                                                                                                                                                             |
|                           | 6M                         | 9255     | EMCD-4000-6M  | 6m     |                      |                                                                                                                                                                                                                                                                                                                                             |
|                           | 8M                         | 9256     | EMCD-4000-8M  | 8m     |                      |                                                                                                                                                                                                                                                                                                                                             |
| Signal cable              | 2M                         | 9257     | EMCD-4000S-2M | 2m     | -                    | BMS-4020-BMS-4040-EM-4020-EM-4040<br>BMS-4040RA-BMS-4020 2M<br>BMS-4040 2M-EM-4020-EM-4040<br>EM-4020A-EM-4040A<br>BMS-4020-MQL-BMS-4020-MQL-2M<br>BMS-4040-MQL-BMS-4040-MQL-2M<br>BMS-4020-MQL-CHK-BMS-4020-MQL-CHK-2M<br>BMS-4040-MQL-CHK-BMS-4040-MQL-CHK-2M<br>BMS-4040-RGD-03M-BMS-4040-RGD-2M<br>BMS-4040RA-RGD-03M-BMS-4040RA-RGD-2M |
|                           | 4M                         | 9258     | EMCD-4000S-4M | 4m     |                      |                                                                                                                                                                                                                                                                                                                                             |
|                           | 6M                         | 9259     | EMCD-4000S-6M | 6m     |                      |                                                                                                                                                                                                                                                                                                                                             |
|                           | 8M                         | 9260     | EMCD-4000S-8M | 8m     |                      |                                                                                                                                                                                                                                                                                                                                             |
|                           | Connector Diameter : ø16mm |          |               |        |                      | BMS-4020-BMS-4040-EM-4020-EM-4040<br>BMS-4020-MQL-BMS-4040-MQL<br>BMS-4020-MQL-CHK-BMS-4040-MQL-CHK<br>BMS-4040-RGD-03M-BMS-4040RA-RGD-03M                                                                                                                                                                                                  |

※ Power cable and Signal cable should be used as set.  
※ 8M motor cord cannot be used for angle cord type / 2M type.

| Operation panel extension cord | Code No. | Model      | Specifications                         | Compatible model |
|--------------------------------|----------|------------|----------------------------------------|------------------|
|                                | 8474     | E4000-PEX4 | Cord length : 4m<br>Screw (M3) : 4pcs. | E4000 Controller |

Accessories (Air line kit, etc.)

AL-C1204  
Air line kit



Weight:1.9kg  
※ Recommendation of normal filtration rating : 0.3 μ m, Pressure range : 0.1 ~ 1.0MPa  
Recommendation of air filter : M2000-WS (CKD)

| Code No.             | 4504                                            | Model | AL-C1204 |
|----------------------|-------------------------------------------------|-------|----------|
| Standard Accessories | Air filter / Air regulator / Air pressure gauge |       |          |
|                      | Air ON-OFF valve / Hose pipe (K-260) : 2m       |       |          |

E4000-PB  
Box for control panel

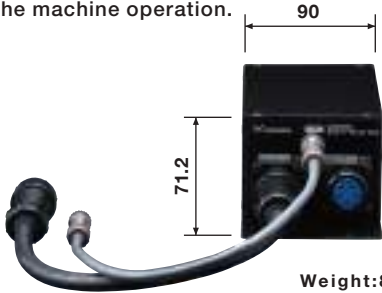


※ Control panel is sold separately.  
Weight:216g

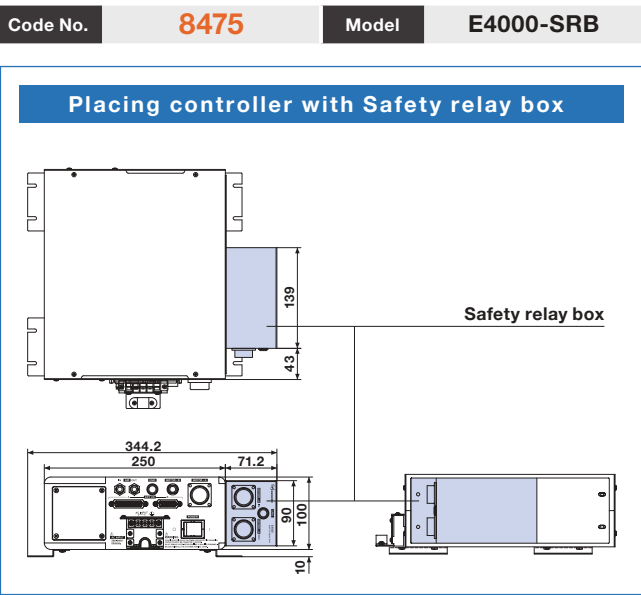
| Code No.             | 8473                                                         | Model | E4000-PB |
|----------------------|--------------------------------------------------------------|-------|----------|
| Standard Accessories | Case / Blind plate / Screw (M3) : 6pcs. / Screw (M4) : 2pcs. |       |          |
| Compatible model     | E4000 Controller                                             |       |          |

E4000-SRB  
Safety relay box

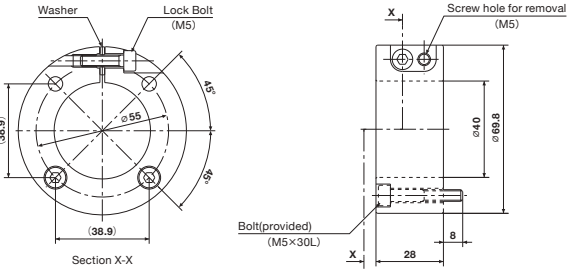
- Mounts directly on E4000 Controller
- Allows Emergency Stop Signal from the CNC to stop the E4000 Motor Spindle of the E4000 Controller to stop the machine operation.



|                      |                                                   |
|----------------------|---------------------------------------------------|
| Standard Accessories | Power cord : 400mm<br>Emergency stop cord : 400mm |
|----------------------|---------------------------------------------------|

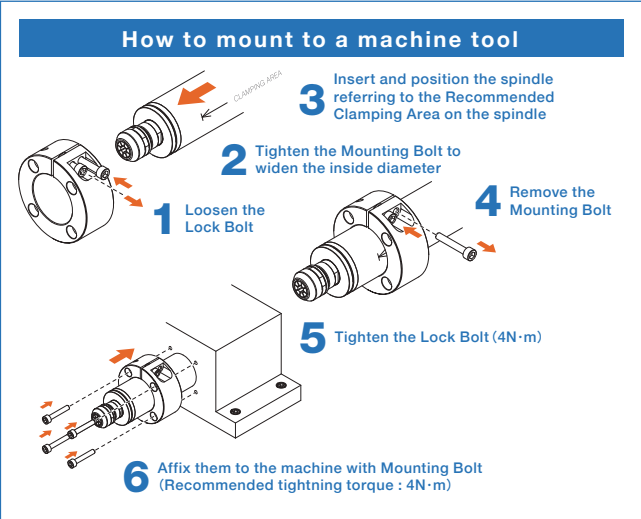


GR-40  
Grip Ring

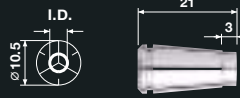


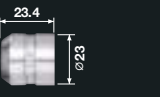
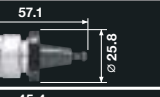
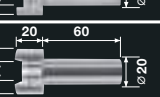
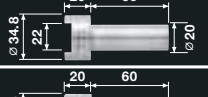
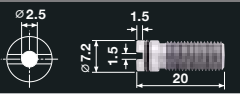
|                      |                                       |
|----------------------|---------------------------------------|
| Standard Accessories | Mounting Bolt (GR-40) M5 × 30 : 4pcs. |
|----------------------|---------------------------------------|

| Code No. | 1886 | Model | GR-40 |
|----------|------|-------|-------|
|----------|------|-------|-------|



Accessories (Collet, etc.)

| Collet                                                                                                                                   | Code No.     | Model        | I.D.                                                                                                                                                                                                                                                                                                                                               | Compatible model                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>※CH16-10.0 Length 24.5<br>Collet CH16 Group          | <b>93130</b> | CH16-3.0     | ø3.0                                                                                                                                                                                                                                                                                                                                               | BMS-4020・BMS-4040<br>BMS-4020 2M・BMS-4040 2M<br>BMS-4020RA・BMS-4040RA・NR-4040<br>QC5-16 (NRR4040-QC)<br>QC5-16 (NR4040-AQC)<br>BMS-4040-RGD-03M<br>BMS-4040-RGD-2M<br>BMS-4040RA-RGD-03M<br>BMS-4040RA-RGD-2M |
|                                                                                                                                          | <b>93193</b> | CH16-3.175   | ø3.175                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93140</b> | CH16-4.0     | ø4.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93160</b> | CH16-6.0     | ø6.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93196</b> | CH16-6.35    | ø6.35                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                               |
| <br>※CH16OH-9.0, 10.0 Length 24.5<br>Collet CH16OH Group | <b>93180</b> | CH16-8.0     | ø8.0                                                                                                                                                                                                                                                                                                                                               | BMS-4020-MQL<br>BMS-4040-MQL<br>BMS-4020-MQL-2M<br>BMS-4040-MQL-2M                                                                                                                                            |
|                                                                                                                                          | <b>93100</b> | CH16-10.0    | ø10                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93330</b> | CH16OH-3.0   | ø3.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93331</b> | CH16OH-3.175 | ø3.175                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93340</b> | CH16OH-4.0   | ø4.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93350</b> | CH16OH-5.0   | ø5.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93360</b> | CH16OH-6.0   | ø6.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93363</b> | CH16OH-6.35  | ø6.35                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93370</b> | CH16OH-7.0   | ø7.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>93380</b> | CH16OH-8.0   | ø8.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
| <br>ø1.0 ~ ø6.35<br>Collet CHK Group                     | <b>93390</b> | CH16OH-9.0   | ø9.0                                                                                                                                                                                                                                                                                                                                               | QC5-K (NRR4040-QC)<br>QC5-K (NR4040-AQC)<br><br>※ High precision type AA<br>(Run-out Accuracy within 2 μm)                                                                                                    |
|                                                                                                                                          | <b>93400</b> | CH16OH-10.0  | ø10.0                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91597</b> | CHK-3.0AA    | ø3.0AA※                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91598</b> | CHK-3.175AA  | ø3.175AA※                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91599</b> | CHK-4.0AA    | ø4.0AA※                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91600</b> | CHK-6.0AA    | ø6.0AA※                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91601</b> | CHK-6.35AA   | ø6.35AA※                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91592</b> | CHK-2.35     | ø2.35                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91530</b> | CHK-3.0      | ø3.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91593</b> | CHK-3.175    | ø3.175                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                               |
| <br>ø0.5 ~ ø0.9<br>Collet CHK-OH Group                   | <b>91540</b> | CHK-4.0      | ø4.0                                                                                                                                                                                                                                                                                                                                               | BMS-4020-MQL-CHK<br>BMS-4020-MQL-CHK-2M<br>BMS-4040-MQL-CHK<br>BMS-4040-MQL-CHK-2M                                                                                                                            |
|                                                                                                                                          | <b>91560</b> | CHK-6.0      | ø6.0                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                               |
|                                                                                                                                          | <b>91596</b> | CHK-6.35     | ø6.35                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                               |
|                                                                                                                                          | —            | CHK- □□      | ø0.5, ø0.6, ø0.7, ø0.8, ø0.9<br>ø1.0, ø1.5, ø2.0, ø2.5, ø3.5, ø4.5, ø4.76, ø5.5<br>ø1.1, ø1.2, ø1.3, ø1.4, ø1.7, ø1.8, ø1.9, ø2.1, ø2.2, ø2.3,<br>ø2.4, ø2.6, ø2.7, ø2.8, ø2.9, ø3.1, ø3.2, ø3.3, ø3.4, ø3.6,<br>ø3.7, ø3.8, ø3.9, ø4.1, ø4.2, ø4.3, ø4.4, ø4.6, ø4.7, ø4.8,<br>ø4.9, ø5.1, ø5.2, ø5.3, ø5.4, ø5.6, ø5.7, ø5.8, ø5.9<br>ø1.6, ø5.0 |                                                                                                                                                                                                               |
|                                                                                                                                          |              |              | ø1.0, ø1.5, ø2.0, ø2.5, ø3.5, ø4.5, ø4.76, ø5.5                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                               |

| Collet nut                                                                                                            | Code No.    | Model         | Description                            | Compatible model                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------|-------------|---------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>23.4<br>ø23                    | <b>2161</b> | CHN-16        | Collet nut for CH16 Collet             | BMS-4020・BMS-4040・BMS-4020 2M<br>BMS-4040 2M・BMS-4020RA・BMS-4040RA<br>NR-4040・QC5-16 (NRR4040-QC)<br>QC5-16 (NR4040-AQC)<br>BMS-4020-MQL・BMS-4040-MQL<br>BMS-4020-MQL-2M・BMS-4040-MQL-2M<br>BMS-4040-RGD-03M・BMS-4040-RGD-2M<br>BMS-4040RA-RGD-03M<br>BMS-4040RA-RGD-2M |
|                                                                                                                       | <b>2129</b> | K-265         | Collet nut for CHK Collet              | QC5-K (NRR4040-QC)・QC5-K (NR4040-AQC)<br>BMS-4020-MQL-CHK・BMS-4020-MQL-CHK-2M<br>BMS-4040-MQL-CHK・BMS-4040-MQL-CHK-2M                                                                                                                                                   |
| <br>57.1<br>ø25.8                  | <b>9216</b> | QC5-16        | Collet holder for CH16<br>※With CHN-16 | NRR4040-QC<br>NR4040-AQC                                                                                                                                                                                                                                                |
|                                                                                                                       | <b>9225</b> | QC5-16-R      |                                        |                                                                                                                                                                                                                                                                         |
| <br>45.4<br>ø18.8                  | <b>9215</b> | QC5-K         | Collet holder for CHK<br>※With K-265   | NRR4040-QC<br>NR4040-AQC                                                                                                                                                                                                                                                |
|                                                                                                                       | <b>9224</b> | QC5-K-R       |                                        |                                                                                                                                                                                                                                                                         |
| Preset adapter                                                                                                        | Code No.    | Model         | Description                            | Compatible model                                                                                                                                                                                                                                                        |
| <br>ø34.8<br>22<br>20<br>60<br>ø20 | <b>9218</b> | QC5-16 ADP    | Preset adapter                         | QC5-16                                                                                                                                                                                                                                                                  |
|                                                                                                                       | <b>9217</b> | QC5-K ADP     | Preset adapter                         | QC5-K                                                                                                                                                                                                                                                                   |
| Adjuster Bolt                                                                                                         | Code No.    | Model         | Description                            | Compatible model                                                                                                                                                                                                                                                        |
| <br>ø2.5<br>7.2<br>1.5<br>1.5<br>20 | <b>7739</b> | ADJUSTER BOLT | Adjuster Bolt                          | BMS-4020-MQL-CHK<br>BMS-4020-MQL-CHK-2M<br>BMS-4040-MQL-CHK<br>BMS-4040-MQL-CHK-2M                                                                                                                                                                                      |

NAKANISHI Solutions LINE UP

Electric spindle

Electric Motors & Spindles

Brushless Motors & Spindles

Spindle + Motor + Controller ← AC

Application for CNC lathes / Special purpose machines

E4000 SERIES

1,000~40,000min<sup>-1</sup> Max.1,200W  
[ ø40mm ]



■ 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  
[ ø30/25/20mm ]



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

E2000 SERIES

1,000~50,000min<sup>-1</sup> Max.200W  
[ ø22.8/25mm ]



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

iSpeed3 SERIES

1,000~80,000min<sup>-1</sup> Max.150W  
[ ø19.05/20/22mm ]



■ Super short motor spindle  
■ High efficiency brushless motor

Application for machining centers and milling machines

HES SERIES

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



[ HES810 ]  
■ 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



[ HES510 ]  
■ 50,000min<sup>-1</sup>, 8.75cN·m  
■ BT, NT, CAT, IT, HSK A, ST shanks are available  
■ Driven by E3000 Controller

Air spindle

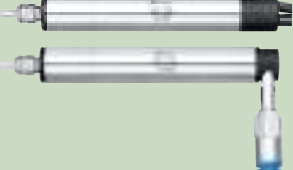
Air Motors & Spindles

Spindle + Motor + Air line kit ← Air compressor

Application for CNC lathes / Special purpose machines

Air-Speed SERIES One-piece type

Max.30,000min<sup>-1</sup> Max.130W  
[ ø25/23/20/19.05mm ]



■ 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  
[ ø30/25/22.8mm ]



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

Application for machining centers and milling machines

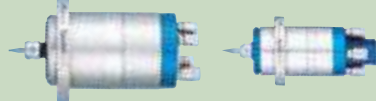
Air Turbine Spindles

Air Turbine Spindles + Air line kit ← Air compressor

Application for CNC lathes / Special purpose machines

Xpeed SERIES

Max.160,000min<sup>-1</sup>  
[ ø65/40mm ]



■ 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>

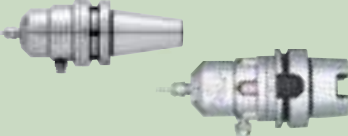


■ A milling machine turns into a jig grinder  
■ For high precision internal grinding

Application for machining centers and milling machines

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

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