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※Specifications and design are subject to change without notice.

www.nakanishi-inc.com
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E4000

NAKANISHI INC. 2022



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

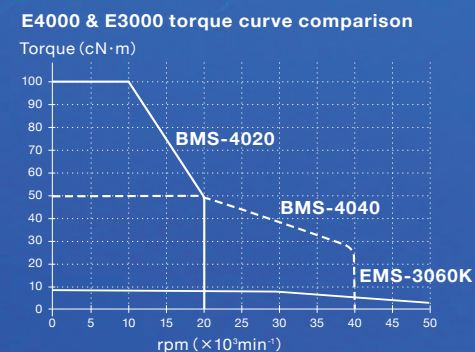
- Optimum for high-precision machining
- Longer tool life

✓ 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



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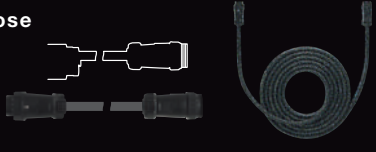
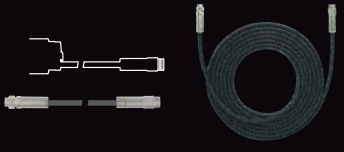
Controller

E4000 CONTROLLER Controller		p.27
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Air line kit

AL-C1204 Air line kit		p.28
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Motor cord

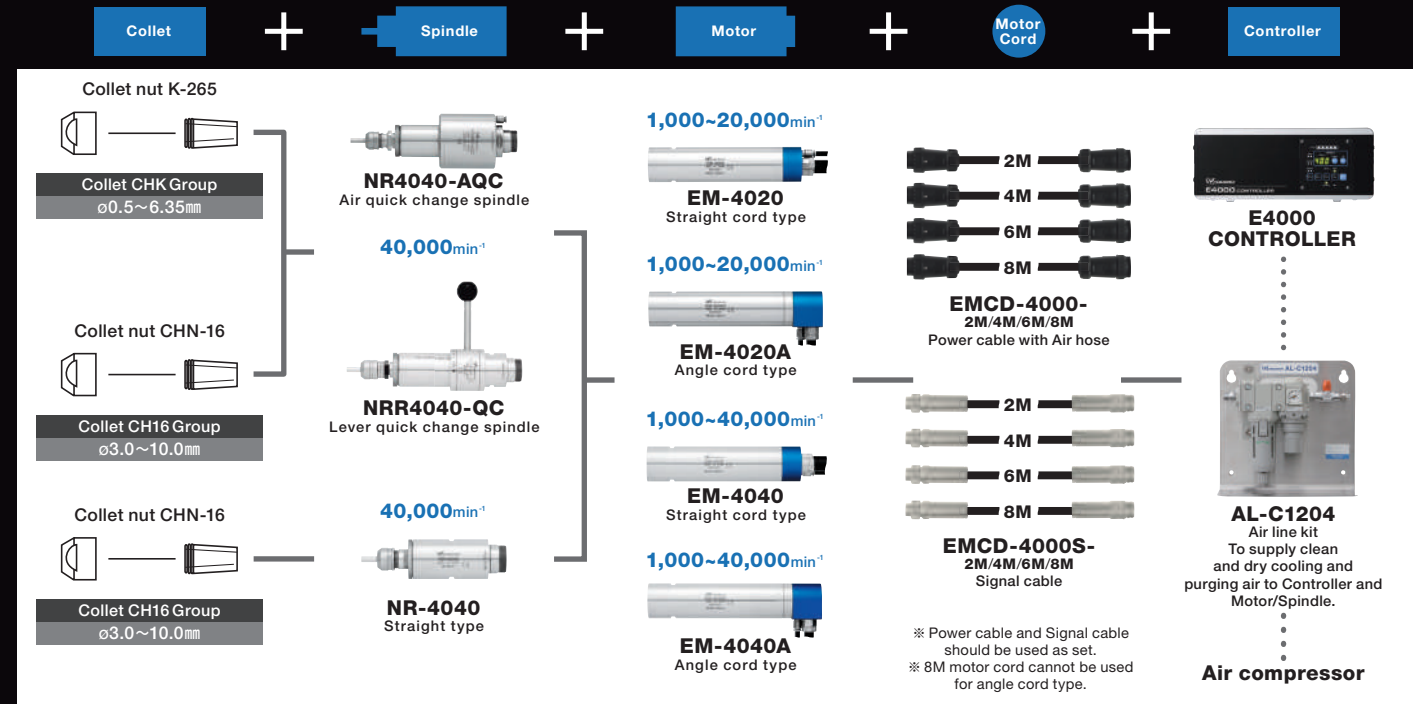
Power cable with Air hose [Length] 2m, 4m, 6m, 8m			Signal cable [Length] 2m, 4m, 6m, 8m		
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Accessories

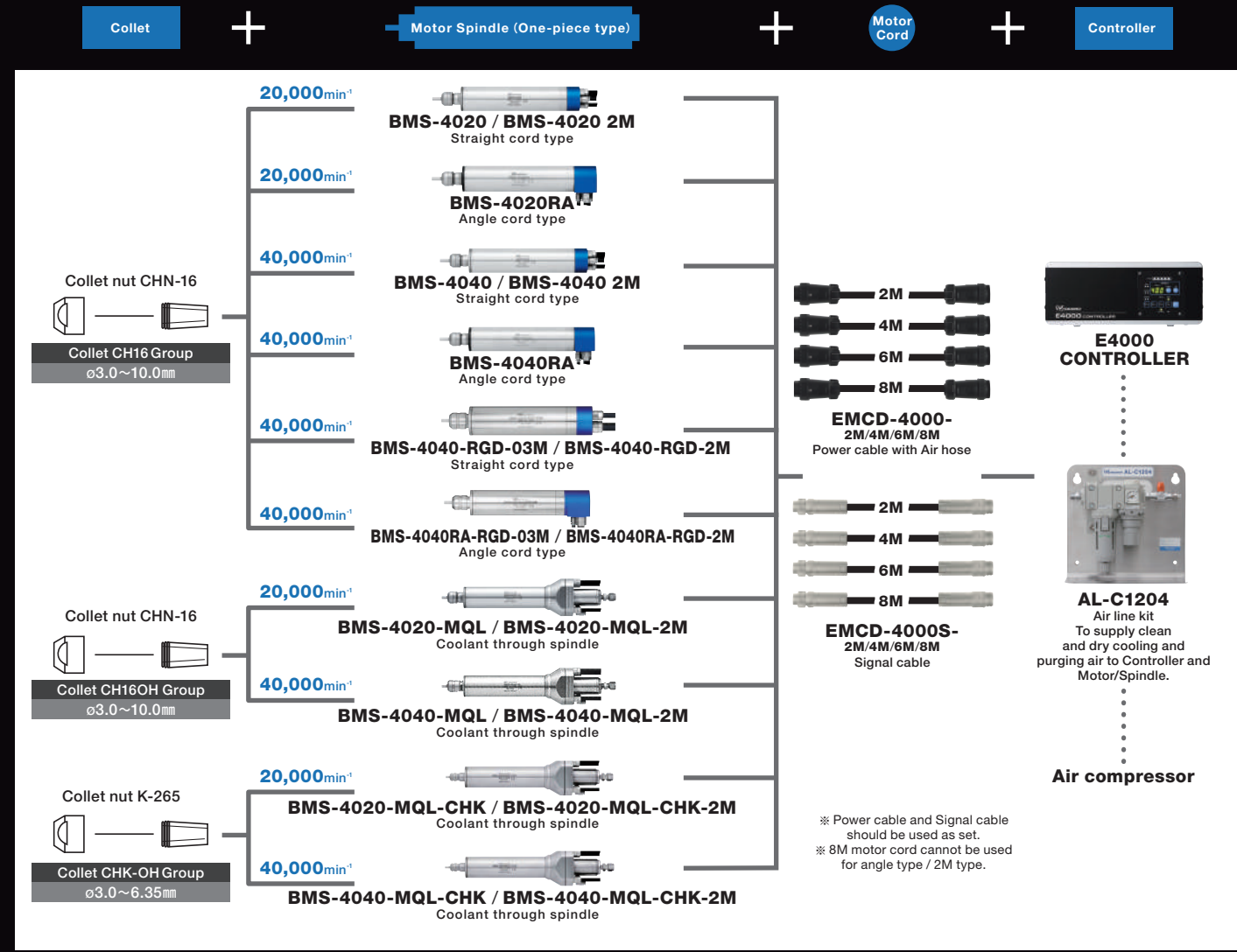
				
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System Chart

Modular type ø40mm



One-piece type ø40mm



Spindle (Modular type)

Shown In Actual Size



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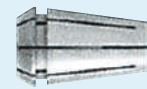
40 NR4040-AQC
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40 EM-4020
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Spindle
Guide

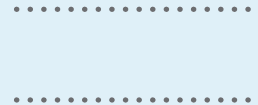
CH16 / CHK



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



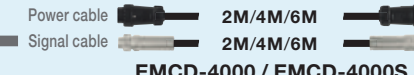
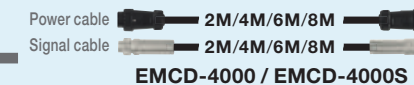
NR4040-AQC



EM-4020 / EM-4040



EM-4020A / EM-4040A



EMCD-4000 / EMCD-4000S



E4000 CONTROLLER



AL-C1204

E4000 SERIES

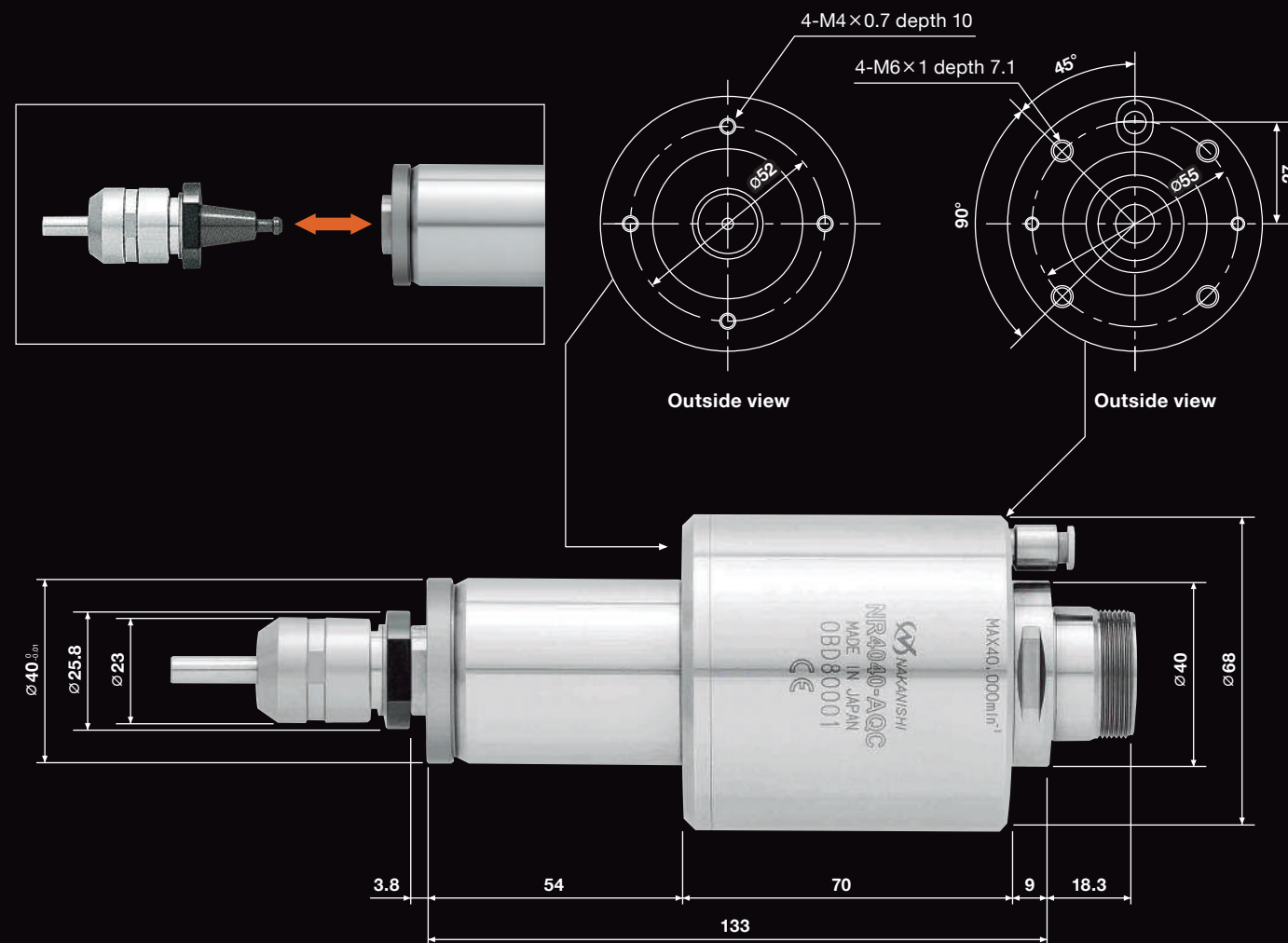
Spindle (Modular type)

NR4040-AQC

Air quick change spindle

O.D. ϕ 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
$\phi 40$ mm	Within 1μ m	40,000min ⁻¹	0.55 ~ 0.6MPa	2,160g
Motors			Collet holders	
EM-4020 · EM-4020A · EM-4040 · EM-4040A			QC5-16 / QC5-16-R (For collet CH16)	QC5-K / QC5-K-R (For collet CHK)

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

Parts (Optional)

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

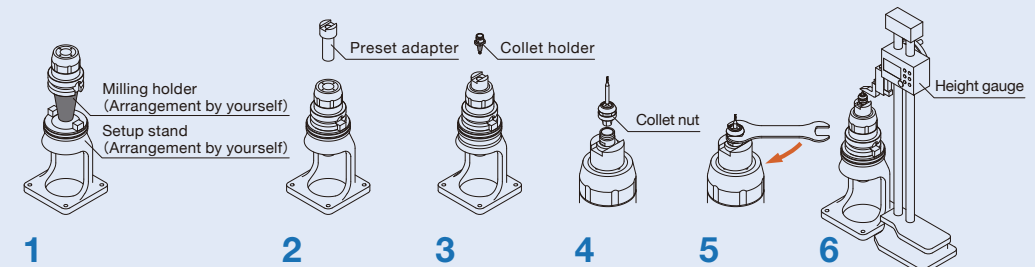
In case using a Preset adapter, only 1pc. wrench is used.
CH16 collet $\rightarrow$ 17 $\times$ 22 wrench (1pc.) / CHK collet $\rightarrow$ 12 $\times$ 14 wrench (1pc.) .
Preset adapter
(QC5-16/QC5-K)* Holding section size is $\phi 20$.

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

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

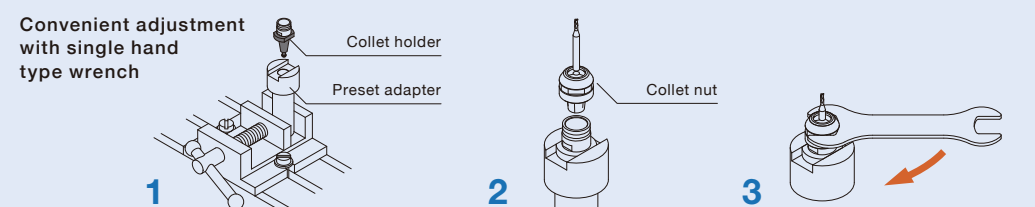
Set-up outside machines

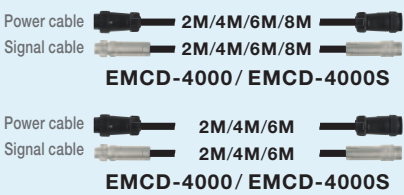
In case using a milling holder



Set-up outside machines

In case using a vice





E4000 SERIES

Spindle (Modular type)

NRR4040-QC

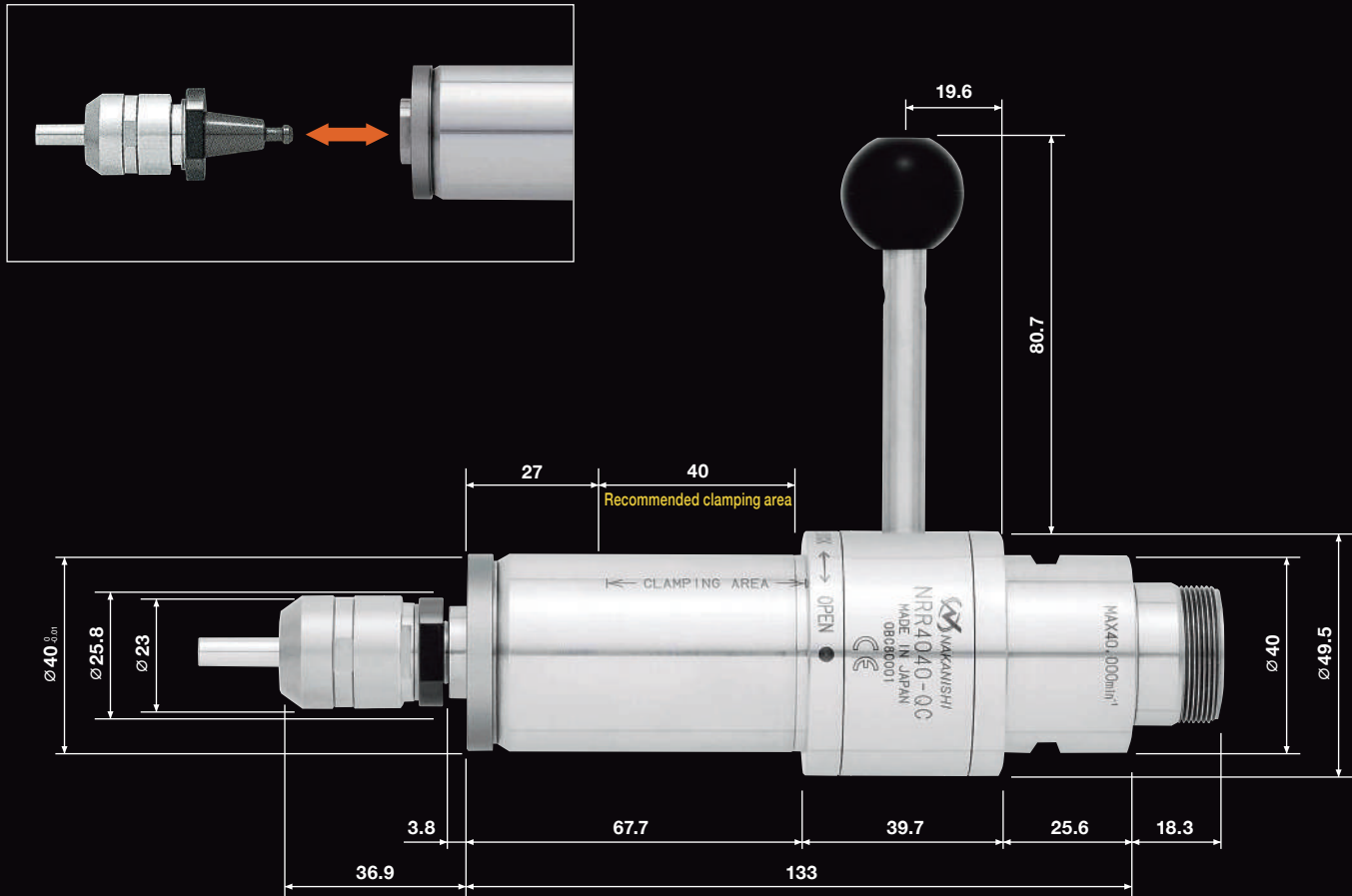
Lever quick change spindle

※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
φ40mm	Within1μm	40,000min ⁻¹	90°	1,300g
Motors			Collet holders	
EM-4020・EM-4020A・EM-4040・EM-4040A			QC5-16 / QC5-16-R (For collet CH16)	QC5-K / QC5-K-R (For collet CHK)

Standard Accessories Wrench (36) : 1pc.

Parts (Optional)

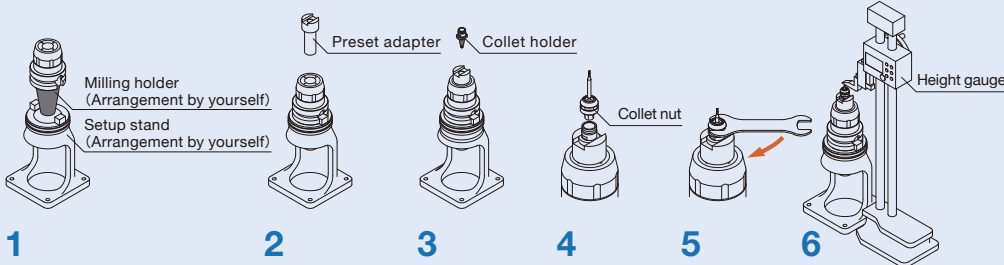
Collet		You can choose the I.D. size (The following is an example of φ6.0mm.)		Collet holder (With collet nut) QC5-16/K QC5-16/K-R ※ In case using a Preset adapter, QC5-16/K is needed.		Wrench	
CH16 I.D. φ3.0mm~10.0mm p.29	Code No.	931 6 0		9216	9225	2083	
	Model	CH16- 6 . 0 (I.D. φ6.0mm)		QC5-16 (For collet CH16)	QC5-16-R (For collet CH16)	Wrench 17 × 22 (2pcs.)	
CHK I.D. φ0.5mm~6.35mm p.29	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)

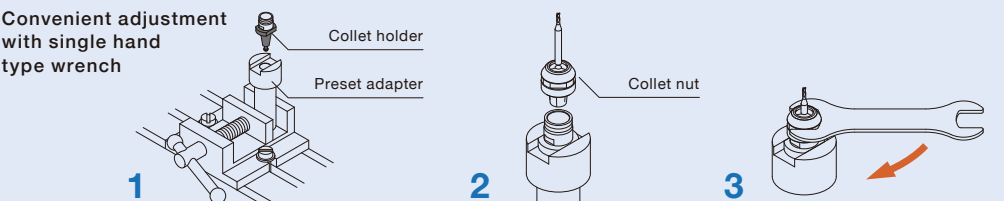
Set-up outside machines

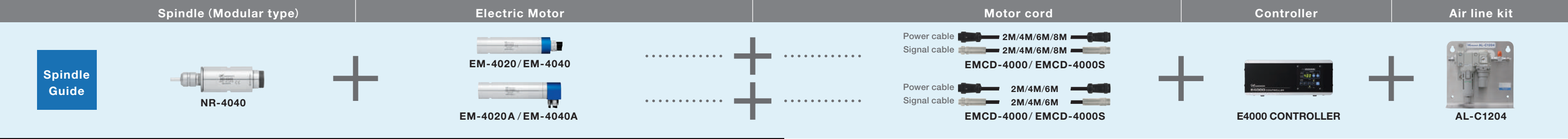
In case using a milling holder



Set-up outside machines

In case using a vice





E4000 SERIES

Spindle (Modular type)

NR-4040

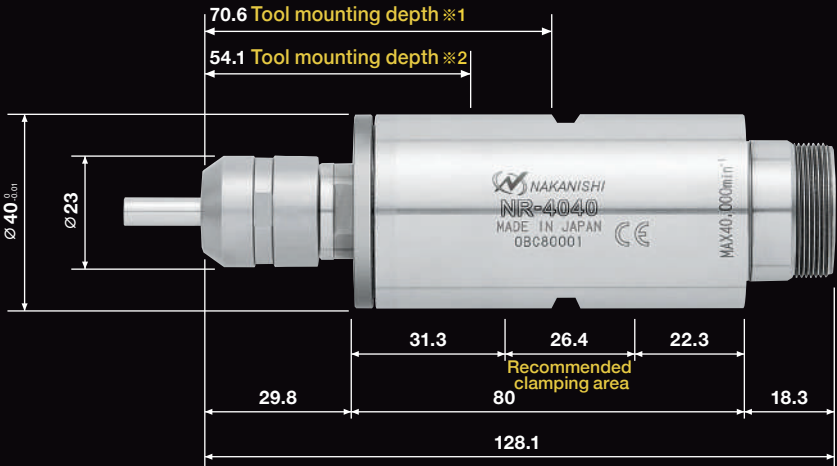
Straight type

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

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



O.D.ø40mm



Specifications

DXF data

DXF files are available on our website

Order by Code No.

NR-4040

Code No.	7902	Model	NR-4040
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O.D.	Spindle Accuracy	Collet	Max. rpm	Motors	Weight
Ø40mm	Within1μm	CH16 Group (ø3.0 ~ ø10.0mm)	40,000min ⁻¹	EM-4020・EM-4020A 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 p.29				

※ Collet is sold separately.

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



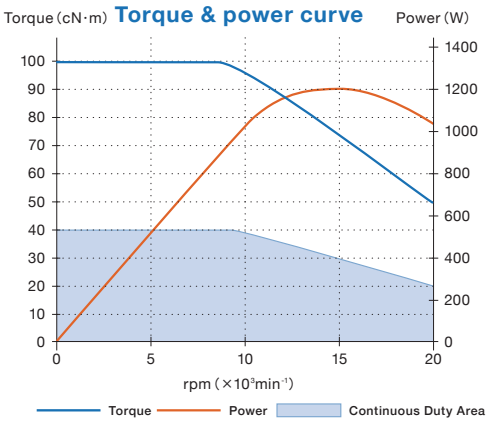
Specifications

DXF data DXF files are available on our website

Order by Code No.

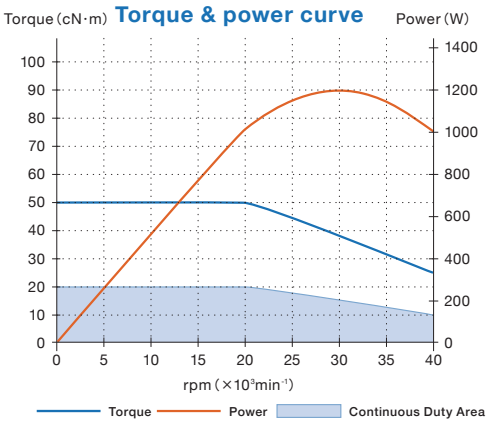
EM-4020		Code No.	8348	Model	EM-4020
O.D.	Rpm		Max. power		
Ø40 _{mm}	1,000~20,000 _{min⁻¹}		1,200 _w		
Cord length	Min. Bending Cord Radius	Max. torque		Weight	
0.3 _m	70 _{mm}	1.0 _{N·m}		1,300 _g	
Standard Accessories		Wrench (36) : 1pc.			
Specifications		Air pressure : 0.35MPa / Max. Air consumption : 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 _{mm}	1,000~20,000 _{min⁻¹}		1,200 _w		
Cord length	Min. Bending Cord Radius	Max. torque		Weight	
2.0 _m	70 _{mm}	1.0 _{N·m}		1,800 _g	
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 _{mm}	1,000~40,000 _{min⁻¹}		1,200 _w		
Cord length	Min. Bending Cord Radius	Max. torque		Weight	
0.3 _m	70 _{mm}	0.5 _{N · m}		1,300 _g	
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 _{mm}	1,000~40,000 _{min⁻¹}		1,200 _w		
Cord length	Min. Bending Cord Radius	Max. torque		Weight	
2.0 _m	70 _{mm}	0.5N · m		1,800 _g	
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

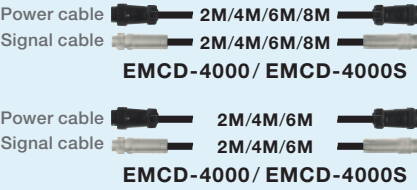


- BMS-4020 / BMS-4020 2M**
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- BMS-4040 / BMS-4040 2M**
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- BMS-4040-RGD-03M / BMS-4040-RGD-2M**
p.21



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

Spindle Guide



E4000 SERIES

Motor Spindle (One-piece type)

BMS-4020 / BMS-4020 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-4020RA

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.

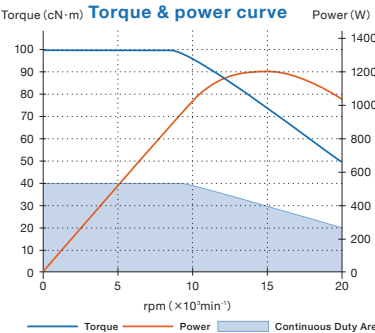
BMS-4020 / BMS-4020 2M



Code No.	7803	Model	BMS-4020
Code No.	7805	Model	BMS-4020 2M

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power
ø40mm	20,000min ⁻¹	Within1μm	CH16Group (ø3.0 ~ ø10.0mm)	1,200w
Cord length	Min. Bending Cord Radius	Max. torque	Weight	
BMS-4020 : 0.3m BMS-4020 2M : 2.0m	70mm	1.0N·m	BMS-4020 : 1.5kg BMS-4020 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 p.29			
	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-4020 2M.
※ Collet is sold separately.



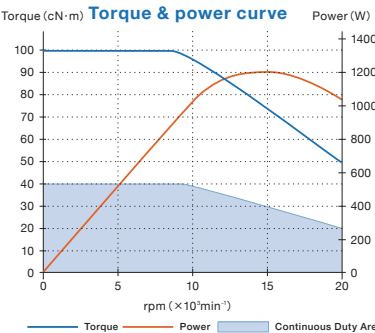
BMS-4020RA



Code No.	7804	Model	BMS-4020RA
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O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power
ø40mm	20,000min ⁻¹	Within1μm	CH16Group (ø3.0 ~ ø10.0mm)	1,200w
Cord length	Min. Bending Cord Radius	Max. torque	Weight	
2.0m	70mm	1.0N·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 p.29			
	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.





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 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.

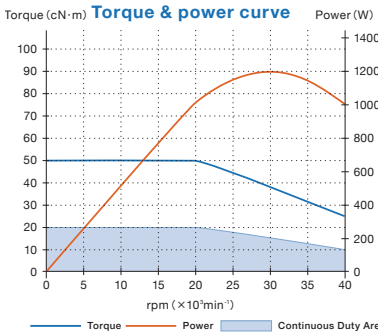
BMS-4040 / BMS-4040 2M



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 ⁻¹	Within1μm		CH16Group (ø3.0 ~ ø10.0mm)	1,200w
Cord length	Min. Bending Cord Radius		Max. torque		Weight
BMS-4040: 0.3m BMS-4040 2M: 2.0m	70mm		0.5N·m		BMS-4040: 1.5kg 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 p.29				
	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.



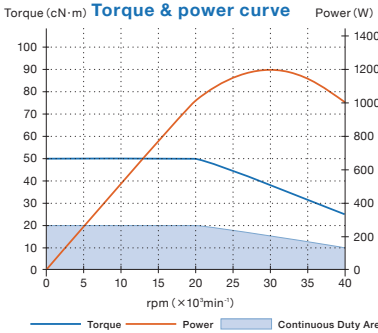
BMS-4040RA



Code No.	7807	Model	BMS-4040RA
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O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power
Ø40mm	40,000min ⁻¹	Within1μm	CH16Group (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 p.29			
	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.



Spindle Guide



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



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.



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.



Specifications

DXF data DXF files are available on our website

Order by Code No.

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

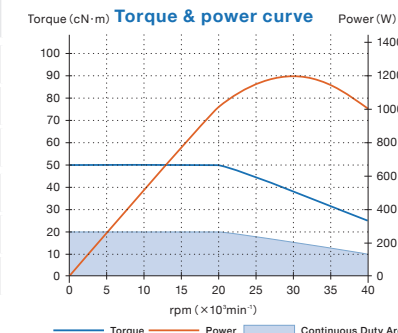


Code No.	7740	Model	BMS-4040-RGD-03M
Code No.	7769	Model	BMS-4040-RGD-2M

O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power
ø40mm	40,000min ⁻¹	Within1μm	CH16Group (ø3.0 ~ ø10.0mm)	1,200w
Cord length	Min. Bending Cord Radius	Max. torque	Weight	
BMS-4040-RGD-03M : 0.3m BMS-4040-RGD-2M : 2.0m	70mm	0.5N·m	BMS-4040-RGD-03M : 1.4kg 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 p.29
	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

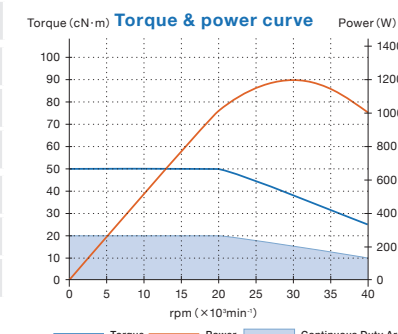


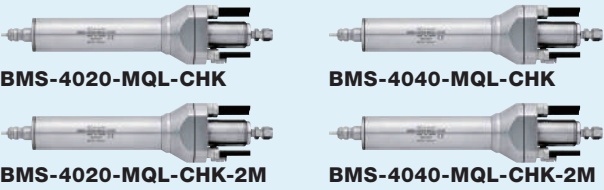
Code No.	7741	Model	BMS-4040RA-RGD-03M
Code No.	7770	Model	BMS-4040RA-RGD-2M

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

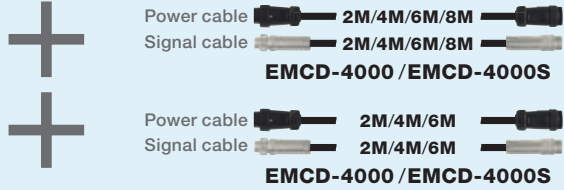
Standard Accessories	Collet nut (CHN-16) / Wrench (17 × 22) : 2pcs.
Specifications	Air pressure : 0.35MPa / Max. Air consumption : 100Nℓ / min
	Power cable with Air hose : Connector Diameter : ø30mm / Air hose : ø6mm
	Signal cable : Connector Diameter : ø16mm
Options	Collet (CH16 Group) : ø3.0 ~ ø10.0mm p.29
	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.



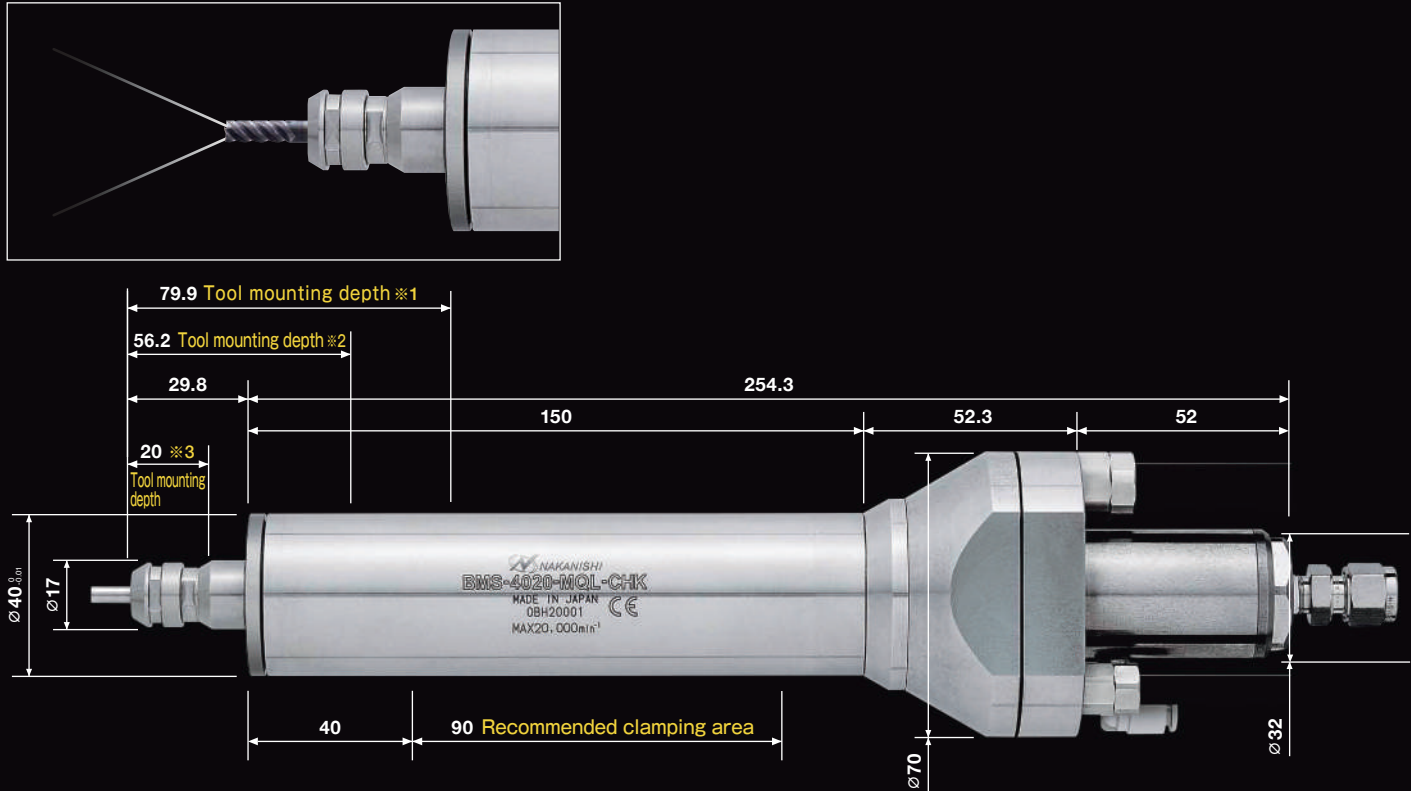
E4000 SERIES

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.

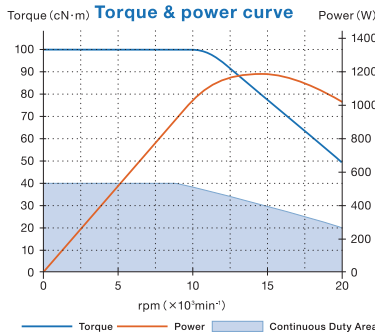
BMS-4020-MQL-CHK / BMS-4020-MQL-CHK-2M

Code No.	7735	Model	BMS-4020-MQL-CHK
Code No.	7736	Model	BMS-4020-MQL-CHK-2M



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

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



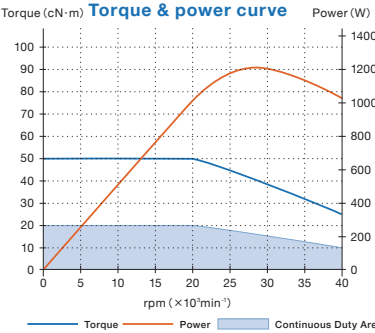
BMS-4040-MQL-CHK / BMS-4040-MQL-CHK-2M

Code No.	7737	Model	BMS-4040-MQL-CHK
Code No.	7738	Model	BMS-4040-MQL-CHK-2M



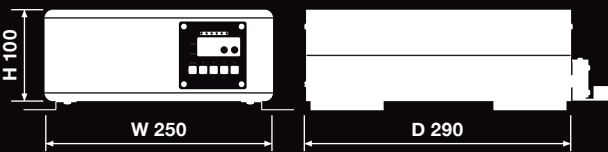
O.D.	Max. rpm	Spindle Accuracy	Collet	Max. power
$\phi 40\text{mm}$	$40,000\text{min}^{-1}$	Within $1\mu\text{m}$	CHK-OH Group ($\phi 3.0 \sim \phi 6.35\text{mm}$)	1,200w
Cord length		Min. Bending Cord Radius	Max. torque	Weight
BMS-4040-MQL-CHK : 0.3m BMS-4040-MQL-CHK-2M : 2.0m		70mm	0.5N·m	BMS-4040-MQL-CHK : 2.3kg BMS-4040-MQL-CHK-2M : 2.8kg
Standard Accessories		Collet nut (K-265) / Insert / Ferrule Set Wrench (12×14) : 2pcs.		
Specifications		Coolant pressure : 0.2~3.0MPa / Oil Mist pressure : 0.2~1.0MPa Power cable with Air hose : Connector Diameter : $\phi 30\text{mm}$ / Air hose : $\phi 6\text{mm}$ Signal cable : Connector Diameter : $\phi 16\text{mm}$		
Options		Collet (CHK-OH Group) : $\phi 3.0 \sim \phi 6.35\text{mm}$ p.29 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) 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 Multiple output power	1,000~40,000min ⁻¹	3.2A	100Nℓ/min (0.2~0.35MPa)	6.7kg
Standard Accessories		Power cord : 4m / Air hose with filter(K-251:2058) : 2M / Motor connector cap(provided) Connector cover(provided) / Bracket : 4pcs. / Rubber pad : 4pcs.			

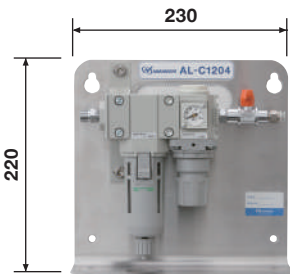
Motor cord	Code No.	Model	Length	Standard Accessories	Compatible model
Power cable with Air hose	9253	EMCD-4000-2M	2m	Air hose	BMS-4020-BMS-4040-BMS-4020RA BMS-4040RA-BMS-4020 2M BMS-4040 2M-EM-4020-EM-4040 EM-4020A-EM-4040A BMS-4020-MQL-BMS-4020-MQL-2M BMS-4040-MQL-BMS-4040-MQL-2M BMS-4020-MQL-CHK-BMS-4020-MQL-CHK-2M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

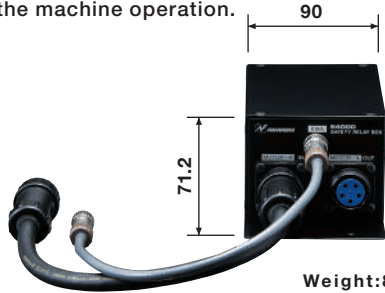


※ Control panel is sold separately.
Weight:216g

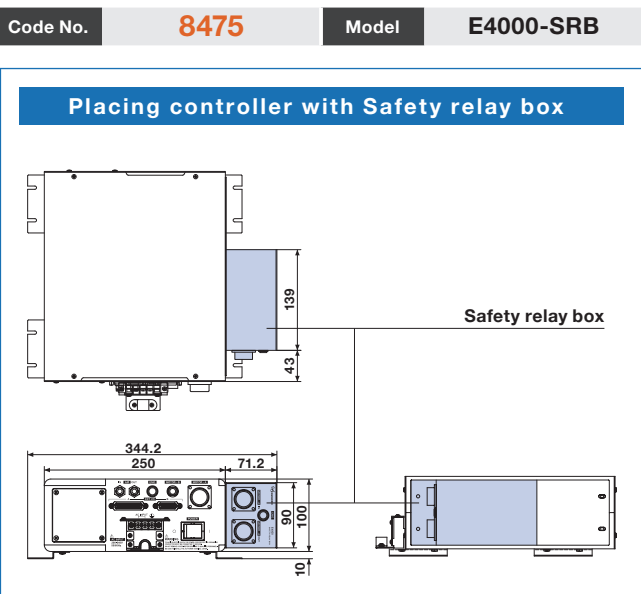
Code No.	8473	Model	E4000-PB
Standard Accessories	Case / Blind plate / Screw (M3) : 6pcs. / Screw (M4) : 2pcs.		
Compatible model	E4000 Controller		

E4000-SRB
Safety relay box

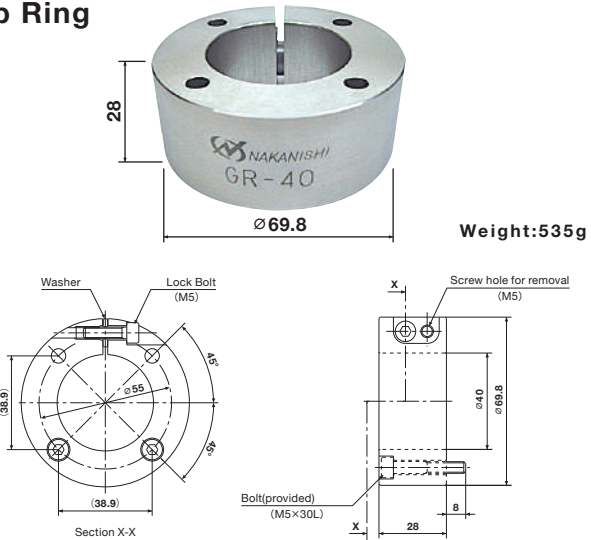
- Mounts directly on E4000 Controller
- Allows Emergency Stop Signal from the CNC to stop the E4000 Motor Spindle of the E4000 Controller to stop the machine operation.



Standard Accessories	Power cord : 400mm Emergency stop cord : 400mm
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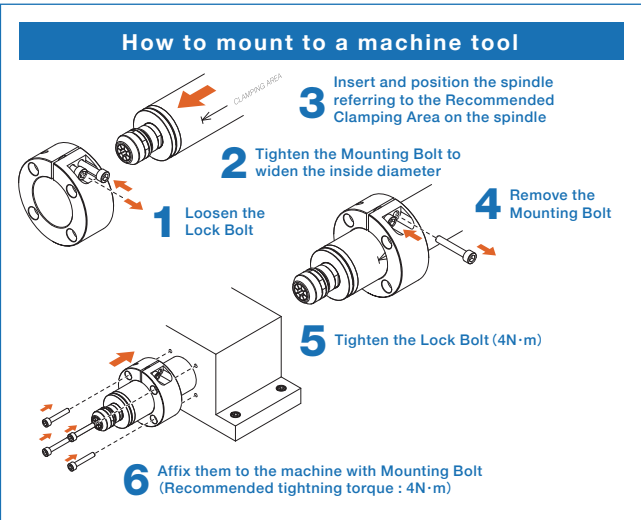


GR-40
Grip Ring

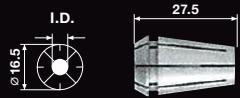
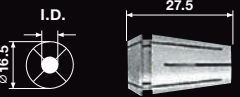
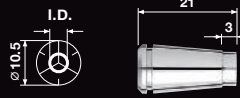
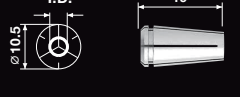
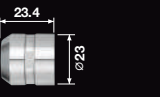
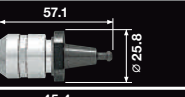
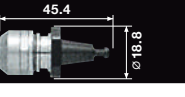
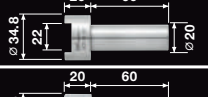
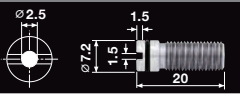


Standard Accessories	Mounting Bolt (GR-40) M5 × 30 : 4pcs.
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Code No.	1886	Model	GR-40
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Accessories (Collet, etc.)

Collet	Code No.	Model	I.D.	Compatible model
 ※CH16-10.0 Length 24.5 Collet CH16 Group	93130	CH16-3.0	ø3.0	BMS-4020・BMS-4040 BMS-4020 2M・BMS-4040 2M BMS-4020RA・BMS-4040RA・NR-4040 QC5-16 (NRR4040-QC) QC5-16 (NR4040-AQC) BMS-4040-RGD-03M BMS-4040-RGD-2M BMS-4040RA-RGD-03M BMS-4040RA-RGD-2M
	93193	CH16-3.175	ø3.175	
	93140	CH16-4.0	ø4.0	
	93160	CH16-6.0	ø6.0	
	93196	CH16-6.35	ø6.35	
	93180	CH16-8.0	ø8.0	
	93100	CH16-10.0	ø10	
	93330	CH16OH-3.0	ø3.0	
	93331	CH16OH-3.175	ø3.175	
	93340	CH16OH-4.0	ø4.0	
 ※CH16OH-9.0, 10.0 Length 24.5 Collet CH16OH Group	93350	CH16OH-5.0	ø5.0	BMS-4020-MQL BMS-4040-MQL BMS-4020-MQL-2M BMS-4040-MQL-2M
	93360	CH16OH-6.0	ø6.0	
	93363	CH16OH-6.35	ø6.35	
	93370	CH16OH-7.0	ø7.0	
	93380	CH16OH-8.0	ø8.0	
	93390	CH16OH-9.0	ø9.0	
	93400	CH16OH-10.0	ø10.0	
	91597	CHK-3.0AA	ø3.0AA※	
	91598	CHK-3.175AA	ø3.175AA※	
	91599	CHK-4.0AA	ø4.0AA※	
 ø1.0 ~ ø6.35 Collet CHK Group	91600	CHK-6.0AA	ø6.0AA※	QC5-K (NRR4040-QC) QC5-K (NR4040-AQC) ※ High precision type AA (Run-out Accuracy within 2 μm)
	91601	CHK-6.35AA	ø6.35AA※	
	91592	CHK-2.35	ø2.35	
	91530	CHK-3.0	ø3.0	
	91593	CHK-3.175	ø3.175	
	91540	CHK-4.0	ø4.0	
	91560	CHK-6.0	ø6.0	
	91596	CHK-6.35	ø6.35	
	—	CHK- □□	ø0.5, ø0.6, ø0.7, ø0.8, ø0.9 ø1.0, ø1.5, ø2.0, ø2.5, ø3.5, ø4.5, ø4.76, ø5.5 ø1.1, ø1.2, ø1.3, ø1.4, ø1.7, ø1.8, ø1.9, ø2.1, ø2.2, ø2.3, ø2.4, ø2.6, ø2.7, ø2.8, ø2.9, ø3.1, ø3.2, ø3.3, ø3.4, ø3.6, ø3.7, ø3.8, ø3.9, ø4.1, ø4.2, ø4.3, ø4.4, ø4.6, ø4.7, ø4.8, ø4.9, ø5.1, ø5.2, ø5.3, ø5.4, ø5.6, ø5.7, ø5.8, ø5.9 ø1.6, ø5.0	
 ø0.5 ~ ø0.9 Collet CHK-OH Group	93630	CHK-OH-3.0	ø3.0	BMS-4020-MQL-CHK BMS-4020-MQL-CHK-2M BMS-4040-MQL-CHK BMS-4040-MQL-CHK-2M
	93631	CHK-OH-3.175	ø3.175	
	93640	CHK-OH-4.0	ø4.0	
	93650	CHK-OH-5.0	ø5.0	
	93660	CHK-OH-6.0	ø6.0	
93663	CHK-OH-6.35	ø6.35		
Collet nut	Code No.	Model	Description	Compatible model
	2161	CHN-16	Collet nut for CH16 Collet	BMS-4020・BMS-4040・BMS-4020 2M BMS-4040 2M・BMS-4020RA・BMS-4040RA NR-4040・QC5-16 (NRR4040-QC) QC5-16 (NR4040-AQC) BMS-4020-MQL・BMS-4040-MQL BMS-4020-MQL-2M・BMS-4040-MQL-2M BMS-4040-RGD-03M・BMS-4040-RGD-2M BMS-4040RA-RGD-03M BMS-4040RA-RGD-2M
	2129	K-265	Collet nut for CHK Collet	QC5-K (NRR4040-QC)・QC5-K (NR4040-AQC) BMS-4020-MQL-CHK・BMS-4020-MQL-CHK-2M BMS-4040-MQL-CHK・BMS-4040-MQL-CHK-2M
	9216	QC5-16	Collet holder for CH16 ※With CHN-16	NRR4040-QC NR4040-AQC
	9225	QC5-16-R		
	9215	QC5-K	Collet holder for CHK ※With K-265	NRR4040-QC NR4040-AQC
	9224	QC5-K-R		
Preset adapter	Code No.	Model	Description	Compatible model
	9218	QC5-16 ADP	Preset adapter	QC5-16
	9217	QC5-K ADP	Preset adapter	QC5-K
Adjuster Bolt	Code No.	Model	Description	Compatible model
	7739	ADJUSTER BOLT	Adjuster Bolt	BMS-4020-MQL-CHK BMS-4020-MQL-CHK-2M BMS-4040-MQL-CHK BMS-4040-MQL-CHK-2M

NAKANISHI Solutions LINE UP

Electric spindle

Electric Motors & Spindles

Brushless Motors & Spindles

Spindle

+

Motor

+

Controller

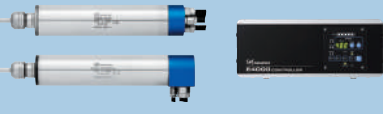
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AC

Application for CNC lathes / Special purpose machines

E4000 SERIES

1,000~40,000min⁻¹ Max.1,200W
[ø40mm]



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

E2000 SERIES

1,000~50,000min⁻¹ Max.200W
[ø22.8/25mm]



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

E3000 SERIES

1,000~80,000min⁻¹ Max.350W
[ø30/25/20mm]



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

iSpeed3 SERIES

1,000~80,000min⁻¹ 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⁻¹
[For small diameter endmills and drills only]



[HES810]
■ The most cost effective solution to add high-speed machining capability
■ 80,000min⁻¹, 6.0cN·m
■ BT, HSK A63, ST shanks are available
■ Driven by E3000 Controller



[HES110]
■ 50,000min⁻¹, 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

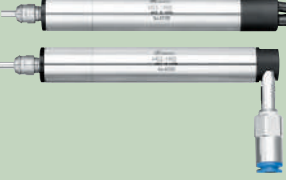
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Air compressor

Application for CNC lathes / Special purpose machines

Air-Speed SERIES One-piece type

Max.30,000min⁻¹ 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⁻¹ 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

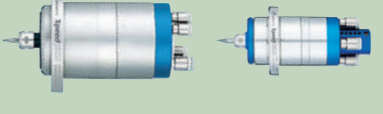
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Air compressor

Application for CNC lathes / Special purpose machines

Xpeed SERIES

Max.160,000min⁻¹
[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

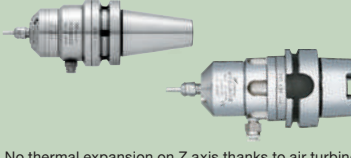
Max.65,000min⁻¹



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

HTS SERIES

150,000min⁻¹
[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⁻¹ with higher rigidity thanks to ceramic bearings
■ BT, HSK E and straight (M2040) shanks are available

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