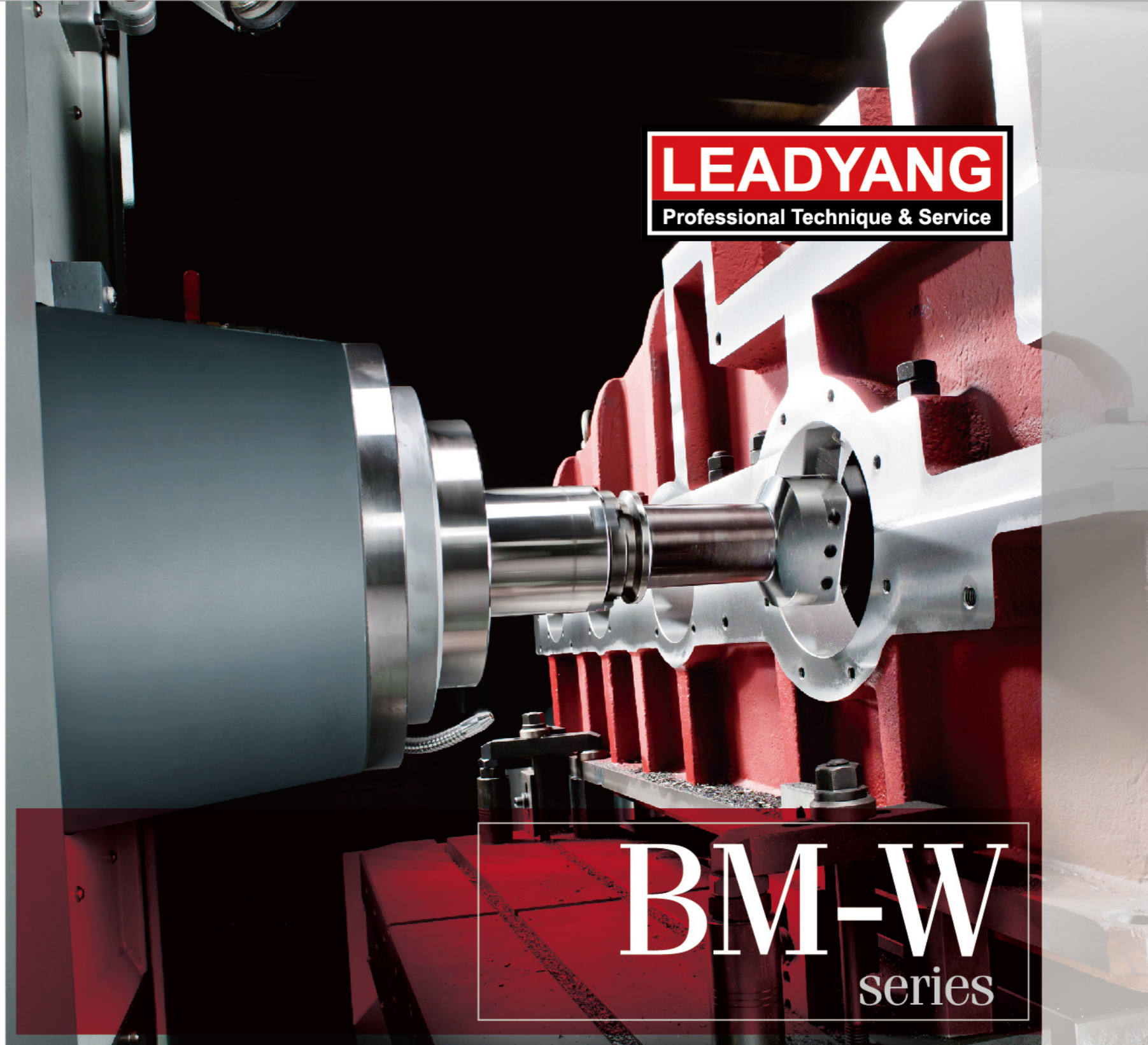




Since 1997 we always insist on this sincere service



**LEADYANG**  
Professional Technique & Service

**BMW**  
series

**LEADYANG PRECISION TECHNOLOGY CO., LTD.**

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AGENT

# *CNC Horizontal Boring & Milling Machine*

## BM-11020IS, 11020RS, 11020RSA SERIES

## BM-13020IS, 13020RS SERIES

### FIXED COLUMN

#### CNC HORIZONTAL BORING & MILLING MACHINE

- Fixed column construction.
- Suitable for heavy boring and milling for workpiece weight under 5 tons.
- Minimum deflection of spindle extension (W- axis).
- 360D 1° indexing CNC rotary table. (UBM-11020IS, UBM-13020IS)
- 0.001° CNC rotary table. (UBM-11020RSA, UBM-11020RS, UBM-13020RS)
- 40-tool magazine is standard.
- 60-tool magazine is optional.



#### Perfectly Designed To Optimize Rigidity And Stability

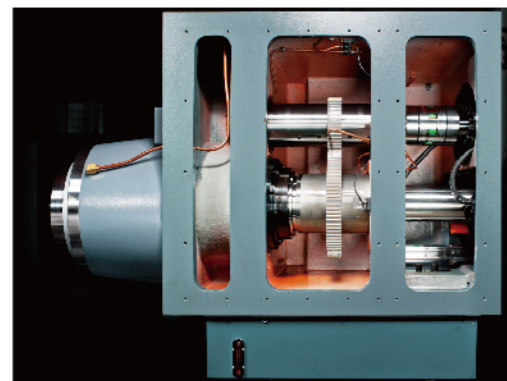
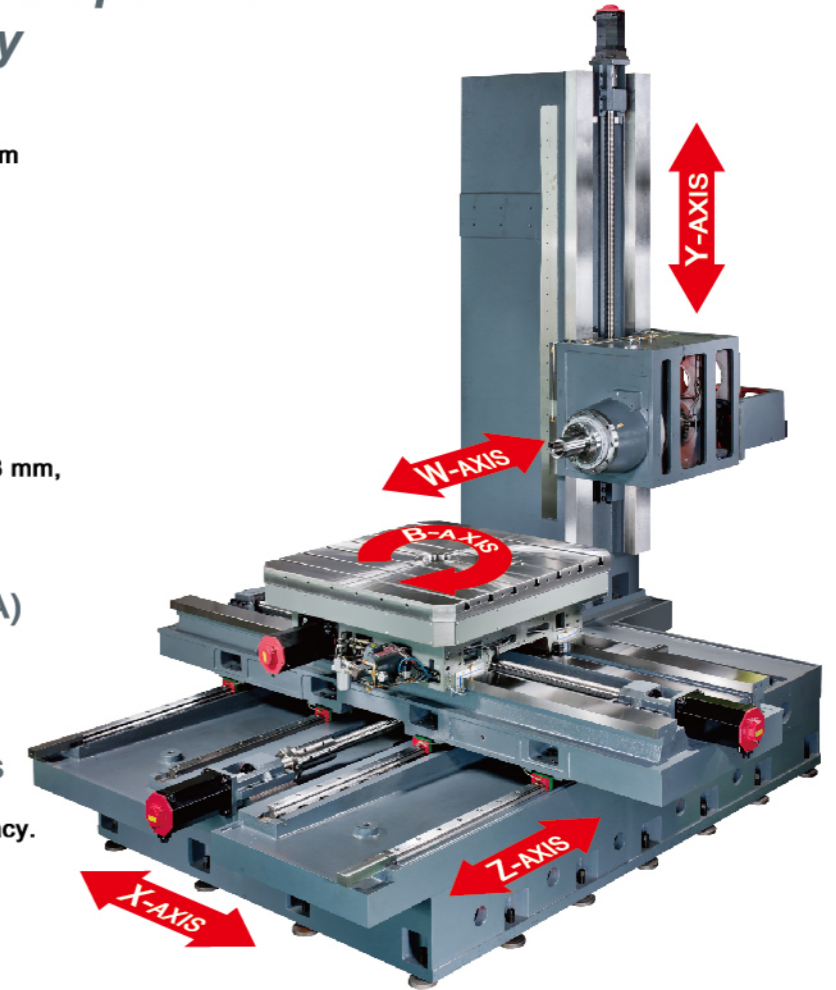
**Rigid & Stable Structure**  
All structural parts are manufactured from high quality cast iron (FC 30), tempered and stress relieved.

**Guide Ways**  
Box ways on X and Y-axis.  
Four linear guide ways on Z-axis.

**Large Ball Screws**  
X, Y, Z-axis are transmitted through Ø63 mm, class C3 ball screws, featuring maximum rigidity.

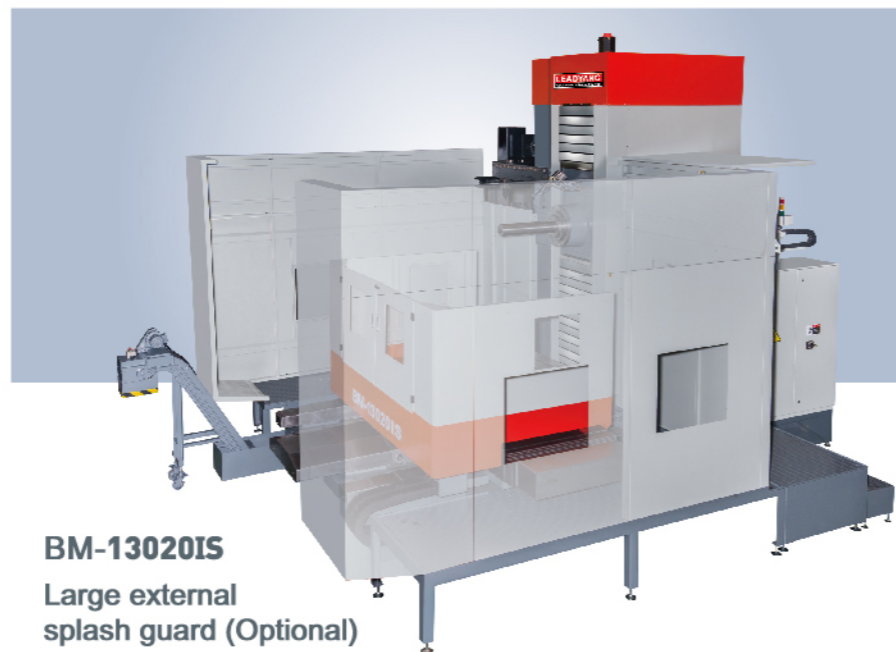
**Finite Element Analysis (FEA)**  
The major structural parts are designed with Finite Element Analysis software to simulate stress/strain condition.

**Linear Scales on Three Axes**  
X, Y, Z-axis are all equipped with linear scales to ensure high positioning accuracy.

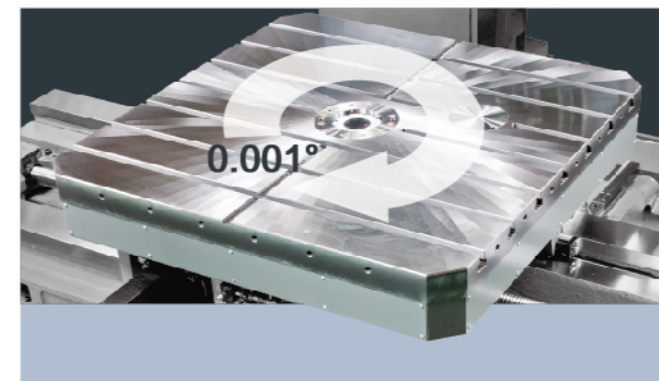


#### Rigid, Powerful Spindle Head

- The spindle head is reinforced with cage-shape ribs for increased rigidity.
- The spindle head integrates a self-made gearbox in combination with a German gearbox with 1: 8 teeth ratio, providing greater torque output in heavy cutting. (1:11 low speed teeth ratio is available)



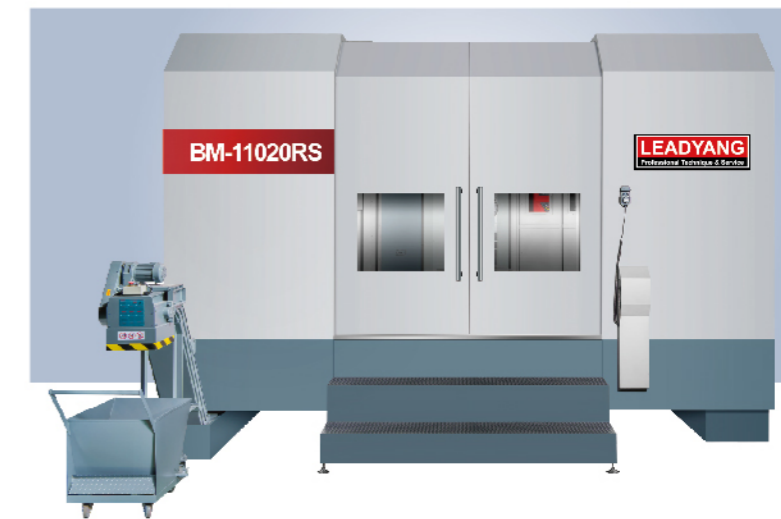
**BM-13020IS**  
Large external splash guard (Optional)



#### 0.001° Direct-Drive Rotary Table

- 0.001° indexing rotary table. (Simultaneously controlled type is optional)
- 5 tons loading capacity.
- Automatic hydraulic clamping.
- Each 90° positioning with dowel pin.

NOTE: UBM-11020IS is equipped with a 360D teeth positioning table.



Fully enclosed splash guard (optional)

# BM-11020RSA, 11020ISA

## FIXED COLUMN APC

CNC HORIZONTAL  
BORING & MILLING MACHINE

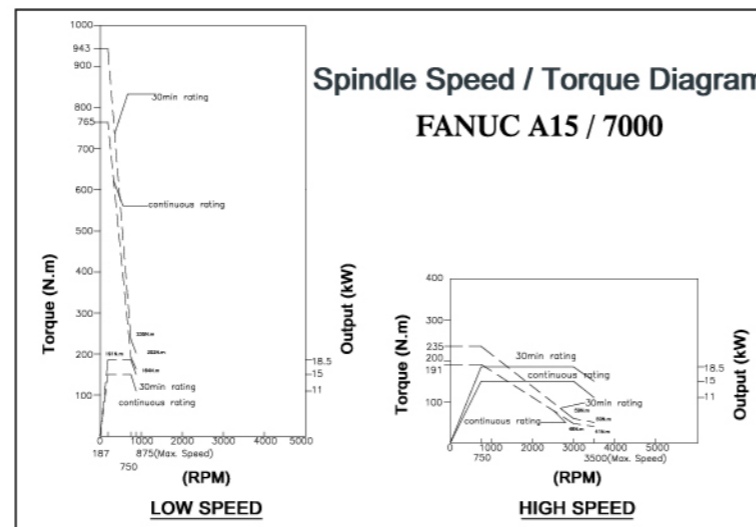


# BM-13020RS, 13020IS

- Spindle diameter  $\varnothing 130\text{mm}$ .
- Fixed column construction.



- ※ W-axis 700mm
- ※ Large external splash guard (optional)



## MACHINE SPECIFICATIONS ( ): As Optional

| MODEL                 |                                     | UNIT               | BM-11020IS   | BM-11020RS        | BM-11020ISA                 | BM-11020RSA                   | BM-13020IS   | BM-13020RS        |  |
|-----------------------|-------------------------------------|--------------------|--|-------------------|-----------------------------|-------------------------------|--|-------------------|--|
| TABLE                 | Table Size                          | mm                 | 1250x1250x360D   | 1250x1250x0.001*  | 1250x1250x360D(Two-station) | 1250x1250x0.001*(Two-station) | 1250x1250x360D   | 1250x1250x0.001*  |  |
|                       | T-slots Size                        | mm                 | 22 x 7   |                   |                             |                               | 22 x 7   |                   |  |
|                       | Maximum Load                        | kg                 | 5000   |                   |                             |                               | 5000   |                   |  |
| TRAVEL                | X-Axis                              | mm                 | 2000   |                   |                             |                               | 2000   |                   |  |
|                       | Y-Axis                              | mm                 | 1800   |                   |                             |                               | 1650 (2150)  |                   |  |
|                       | Z-Axis                              | mm                 | 1400   |                   |                             |                               | 1400   |                   |  |
|                       | W-Axis                              | mm                 | 400 (500)  |                   |                             |                               | 700  |                   |  |
| SPINDLE               | Diameter                            | mm                 | $\varnothing 110$  |                   |                             |                               | $\varnothing 130$  |                   |  |
|                       | Speed                               | rpm                | 10 ~ 2500 (3000, 4000)   |                   |                             |                               | 10 ~ 2000 (2500, 3000)   |                   |  |
| DISTANCES             | Taper                               |                    | 7/24 taper ISO.50, BT-50   |                   |                             |                               | 7/24 taper ISO.50, BT-50   |                   |  |
|                       | Spindle Center to Table             | mm                 | 0~1800   |                   |                             |                               | 0~1600 (2150)  |                   |  |
|                       | Spindle Nose to Table Center        | mm                 | 90~1890 (-10~1890)   |                   |                             |                               | -210~1890  |                   |  |
|                       | Height From Ground to Table Surface | mm                 | 1350   |                   |                             |                               | 1350   |                   |  |
|                       | Rapid Feed Rate X/Y/Z               | m/min              | 12   |                   |                             |                               | 12 / 10 / 12   |                   |  |
| FEED RATE             | Rapid Feed Rate W                   | m/min              | 10   |                   |                             |                               | 6  |                   |  |
|                       | Minimum Setting                     | mm/min             | 0.001  |                   |                             |                               | 0.001  |                   |  |
|                       | Cutting Feed Rate                   | mm/min             | 1~5000   |                   |                             |                               | 1~5000   |                   |  |
| MOTOR                 | Spindle Servo Motor-cont. / 30min   | kW                 | 15 / 18.5 (22 / 26)  |                   |                             |                               | 15 / 18.5 (22 / 26)  |                   |  |
|                       | Axis X/Y/Z/W/B                      | kW                 | 4 / 4 / 4 / 4 / 4  | 4 / 4 / 4 / 4 / 7 | 4 / 4 / 4 / 4 / 4           | 4 / 4 / 4 / 4 / 7             | 4 / 7 / 4 / 4 / 4  | 4 / 7 / 4 / 4 / 7 |  |
|                       | Lubricator Motor                    | kW                 | 0.15   |                   |                             |                               | 0.15   |                   |  |
|                       | Hydraulic Pump                      | kW                 | 2.25   |                   |                             |                               | 2.25   |                   |  |
|                       | Coolant Pump                        | kW                 | 1.17   |                   |                             |                               | 1.17   |                   |  |
|                       | Chip Conveyor                       | kW                 | 0.2  |                   |                             |                               | 0.2  |                   |  |
|                       | Oil Cooler Pump                     | kW                 | 0.75   |                   |                             |                               | 0.75   |                   |  |
| ATC                   | No. of Tools                        | pieces             | 40 ( 60 )  |                   |                             |                               | 40 ( 60 )  |                   |  |
|                       | Tool Selection                      |                    | Absolute   |                   |                             |                               | Absolute   |                   |  |
|                       | Tool Change Time                    | Sec.               | 15   |                   |                             |                               | 15   |                   |  |
|                       | Max. Tool-Diameter / Length         | mm                 | $\varnothing 125/\varnothing 250$ (Without Adjacent Tool) / Length 400 |                   |                             |                               | $\varnothing 125/\varnothing 250$ (Without Adjacent Tool) / Length 400 |                   |  |
|                       | Max. Tool Weight                    | kg                 | 25   |                   |                             |                               | 25   |                   |  |
| COOLANT & LUBRICATION | Coolant Tank Volume                 | L                  | 400  |                   |                             |                               | 400  |                   |  |
|                       | Hydraulic Tank Volume               | L                  | 80   |                   |                             |                               | 80   |                   |  |
|                       | Lubrication Tank Volume             | L                  | 8  |                   |                             |                               | 8  |                   |  |
| MISCELLANEOUS         | Power Required                      | kVA                | 45   |                   |                             |                               | 50   |                   |  |
|                       | Pressurized Air                     | kg/cm <sup>2</sup> | 6  |                   |                             |                               | 6  |                   |  |

■ Specifications are subject to change without prior notice.

### STANDARD ACCESSORIES :

1. Linear scales on X, Y, Z axes
2. Spindle oil cooler
3. Automatic power off
4. Hydraulic system
5. Coolant system
6. Lubricator system
7. Alarm lamp
8. Work lamp
9. M.P.G.
10. RS232 interface
11. Heat exchanger
12. Chip conveyor and cart
13. Leveling bolts & pads
14. Controller manuals and circuit diagram
15. Operation manuals
16. Machine inspection lists
17. Splash guards (around the table)
18. Tool box
19. FANUC OiMF
20. ATC : 40 Tools

### OPTIONAL ACCESSORIES :

1. ATC: 60 Tools
2. Oil mist device
3. Variety of controllers (FANUC / MELDAS / SIEMENS / HEIDENHAIN)
4. Various auxiliary work tables
5. Air conditioner at the electrical cabinet
6. Extension sleeve 250mm/300mm
7. Coolant through spindle
8. Manual 90° angular milling head
9. Simultaneously controlled rotary table

# BM-110xxR SERIES

## MOVABLE COLUMN

### CNC HORIZONTAL BORING & MILLING MACHINE

- Movable column construction.
- Minimum deflection of spindle extension (W-axis).
- 0.001° indexing direct-drive rotary table. (0.001° simultaneously controlled rotary table is available)
- Table sizes 1400x1600mm. (Various types of table are optional)
- Two box ways on X-axis. (M65 roller type linear ways are optional)
- Two box ways on Y-axis with counter-balance weight. (2500mm of Y-axis travel is available)
- M65 roller type linear ways on Z-axis. (Three linear ways with 4 blocks on each way)
- Linear scales on 3 axes. (Heidenhain or Schneebberger brand)
- 40-tool magazine is standard. (60-tool or 90-tool magazine is optional)



※ UBM-11025R  
Increased height of top guard (optional)

## Optimal Structure Design To Boost Stability

### Rigid & Stable Structure

All structural parts are manufactured from high quality cast iron (FC30), tempered and stress relieved.

### T-shape Base

The T-shape base construction allows the machine to be equipped with various table types.

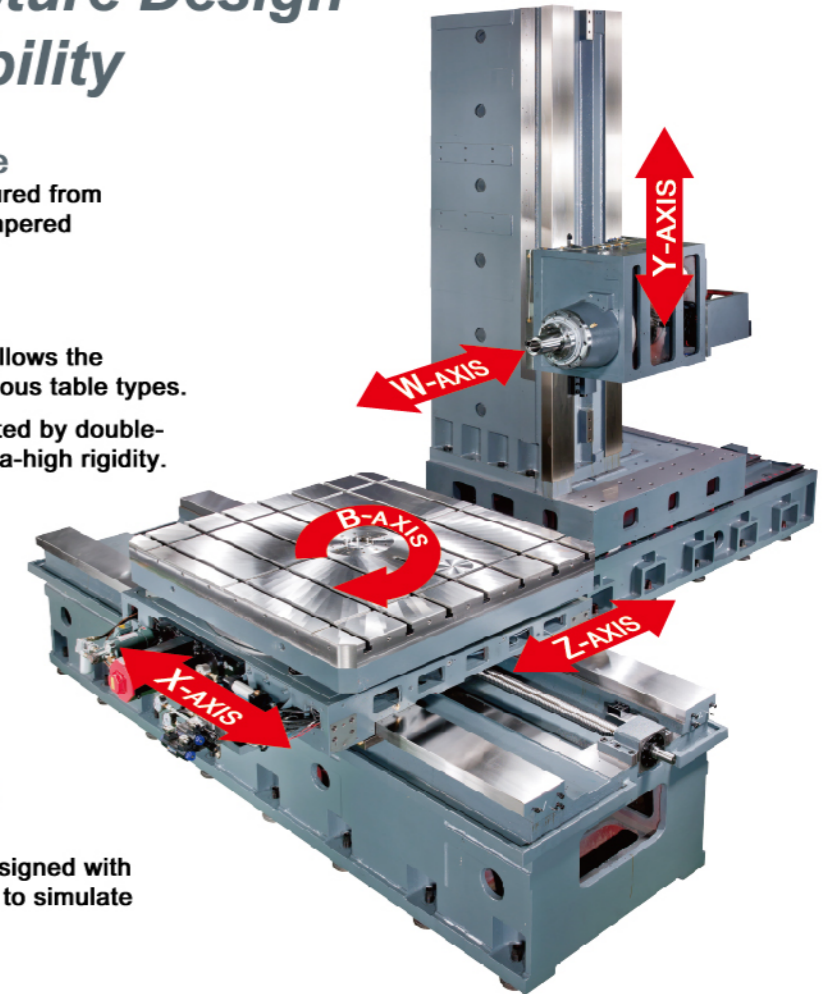
The X-axis slideways are supported by double-wall cage-shape structure for ultra-high rigidity.

### Guide Ways

Box ways on X and Y-axis. Z-axis with 3 MRD65 SCHNEEBERGER roller type linear guide ways, featuring 12 blocks.

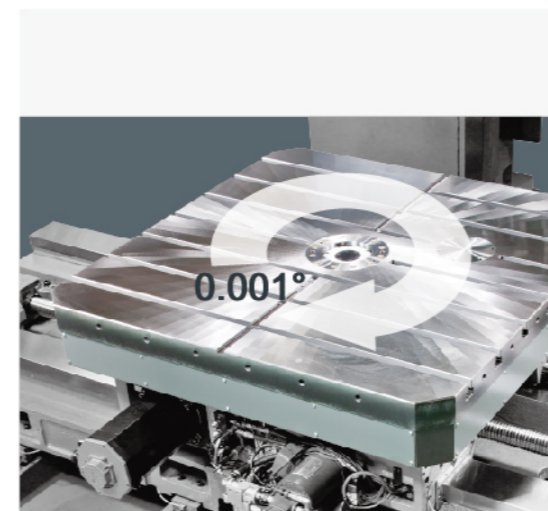
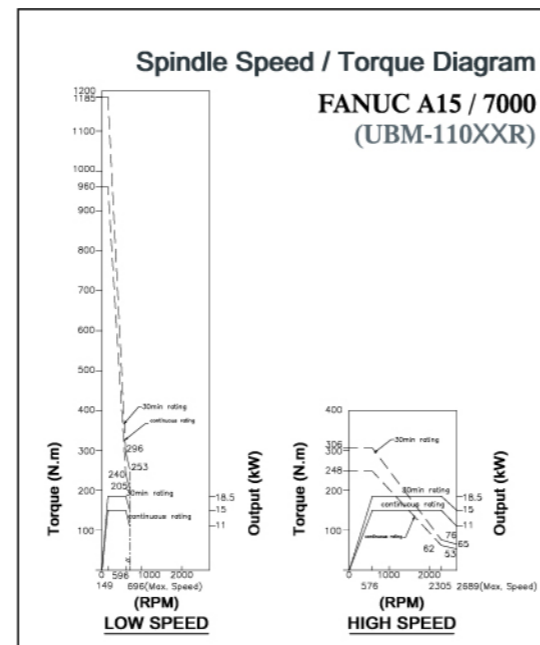
### Finite Element Analysis (FEA)

The major structural parts are designed with Finite Element Analysis software to simulate stress/strain condition.



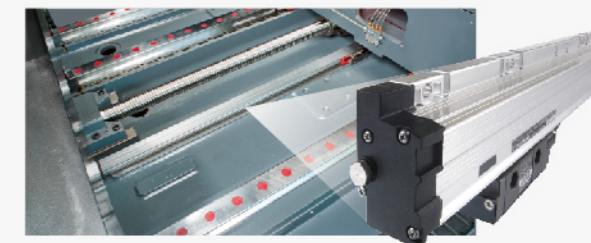
### Rigid, Powerful Spindle Head

- The spindle head is reinforced with cage-shape ribs for increased rigidity.
- The BM-110XXR series is designed with a self-made gearbox, having a 1:10 teeth ratio.



### 0.001° Rotary Table

- 0.001° indexing.
- 8 tons loading capacity on 1600 x 1400mm table.
- Available to equip with a 1800x1600mm table with 20 tons of loading capacity (optional)
- Each 90° positioning with dowel pin.
- Simultaneously controlled rotary table is available (optional).



### HEIDENHAIN Linear Scales on Three Axes (or Schneebberger)

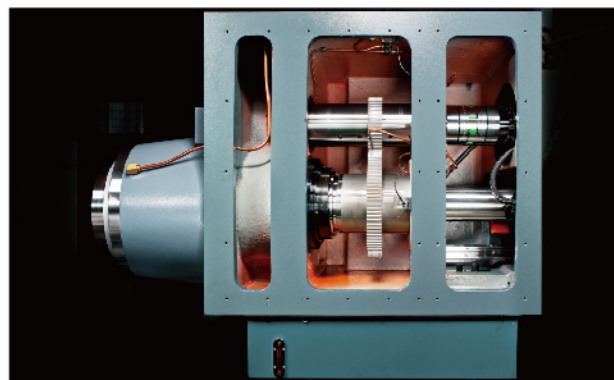
X, Y, Z- axis are all equipped with linear scales to ensure high positioning accuracy.

# BM-110xxRT SERIES

## MOVABLE COLUMN

### CNC HORIZONTAL BORING & MILLING MACHINE

- Movable column construction.
- Minimum deflection of spindle extension (W-axis).
- 0.001° indexing direct-drive rotary table or long table. (Simultaneously controlled table is available)
- Table sizes 1400x1600mm. (Various types of table are optional)
- Two box ways on X-axis. (M65 roller type linear ways are optional)
- Two box ways on Y-axis with counter-balance weight.
- M65 roller type linear ways on Z-axis. (Three linear ways with 4 blocks on each way)
- Linear scales on 3 axes. (Heidenhain or Schneberger brand)
- 40-tool magazine is standard. (60-tool or 90-tool magazine is optional)



#### Rigid, Powerful Spindle Head

- The spindle head is reinforced with cage-shape ribs for increased rigidity.
- The spindle head integrates a self-made gearbox in combination with a German gearbox with 1: 8 teeth ratio, providing greater torque output in heavy cutting. (1:11 low speed teeth ratio is available)



Table of BM-11025RT  
1600x1400x0.001°  
W-axis Travel 500mm



### MACHINE SPECIFICATIONS ( ): As Optional

| MODEL                 | UNIT                                | BM-11020RT                                     | BM-11025RT | BM-11032RT | BM-11042RT | BM-11020R         | BM-11025R | BM-11032R | BM-11042R |
|-----------------------|-------------------------------------|--|------------|------------|------------|-------------------|-----------|-----------|-----------|
| TABLE                 | Table Size                          | 1400 x 1600 x 0.001°                           |            |            |            |                   |           |           |           |
|                       | T-slots Size                        | 24 x 7   |            |            |            |                   |           |           |           |
|                       | Maximum Load                        | 8000   |            |            |            |                   |           |           |           |
| TRAVEL                | X-Axis                              | 2000   | 2500       | 3200       | 4200       | 2000              | 2500      | 3200      | 4200      |
|                       | Y-Axis                              | 1800   |            |            |            | 2000 (2500)       |           |           |           |
|                       | Z-Axis                              | 1700   |            |            |            |                   |           |           |           |
|                       | W-Axis                              | 500  |            |            |            | 550               |           |           |           |
| SPINDLE               | Diameter                            | Ø110   |            |            |            |                   |           |           |           |
|                       | Speed                               | 0 ~ 2500 (3000, 4000)                          |            |            |            | 0 ~ 2000 (2500)   |           |           |           |
|                       | Taper                               | 7/24 taper ISO.50, BT-50                       |            |            |            |                   |           |           |           |
| DISTANCES             | Spindle Center to Table             | 0-1800   |            |            |            | 0-2000 (2500)     |           |           |           |
|                       | Spindle Nose to Table Center        | 0-2200   |            |            |            | 0-2250            |           |           |           |
|                       | Height From Ground to Table Surface | 1250   |            |            |            |                   |           |           |           |
| FEED RATE             | Rapid Feed Rate X/Y/Z               | 10   |            |            |            |                   |           |           |           |
|                       | Rapid Feed Rate W                   | 10   |            |            |            |                   |           |           |           |
|                       | Minimum Setting                     | 0.001  |            |            |            |                   |           |           |           |
|                       | Cutting Feed Rate                   | 1-5000   |            |            |            |                   |           |           |           |
| MOTOR                 | Spindle Servo Motor-cont. / 30min   | 15 / 18.5 (22 / 26)                            |            |            |            |                   |           |           |           |
|                       | Axis X/Y/Z/W/B                      | 7 / 4 / 4 / 4 / 7                              |            |            |            | 7 / 7 / 7 / 4 / 7 |           |           |           |
|                       | Lubricator Motor                    | 0.15   |            |            |            |                   |           |           |           |
|                       | Hydraulic Pump                      | 2.25   |            |            |            |                   |           |           |           |
|                       | Coolant Pump                        | 1.17   |            |            |            |                   |           |           |           |
|                       | Chip Conveyor                       | 0.2  |            |            |            |                   |           |           |           |
|                       | Oil Cooler Pump                     | 0.75   |            |            |            |                   |           |           |           |
| ATC                   | No. of Tools                        | 40 ( 60 )                                      |            |            |            |                   |           |           |           |
|                       | Tool Selection                      | Absolute                                       |            |            |            |                   |           |           |           |
|                       | Tool Change Time                    | 15   |            |            |            |                   |           |           |           |
|                       | Max. Tool-Diameter / Length         | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |            |            |            |                   |           |           |           |
|                       | Max. Tool Weight                    | 25   |            |            |            |                   |           |           |           |
| COOLANT & LUBRICATION | Coolant Tank Volume                 | 400  |            |            |            |                   |           |           |           |
|                       | Hydraulic Tank Volume               | 80   |            |            |            |                   |           |           |           |
|                       | Lubrication Tank Volume             | 8  |            |            |            |                   |           |           |           |
| MISCELLANEOUS         | Power Required                      | 55   |            |            |            |                   |           |           |           |
|                       | Pressurized Air                     | 6  |            |            |            |                   |           |           |           |

■ Specifications are subject to change without prior notice.

#### STANDARD ACCESSORIES :

1. Linear scales on X, Y, Z axes
2. Spindle oil cooler
3. Automatic power off
4. Hydraulic system
5. Coolant system
6. Lubricator system
7. Alarm lamp
8. Work lamp
9. M.P.G.
10. RS232 interface
11. Heat exchanger
12. Chip conveyor and cart
13. Leveling bolts & pads
14. Controller manuals and circuit diagram
15. Operation manuals
16. Machine inspection lists
17. Splash guards (around the table)
18. Tool box
19. FANUC OiMF
20. ATC : 40 Tools

#### OPTIONAL ACCESSORIES :

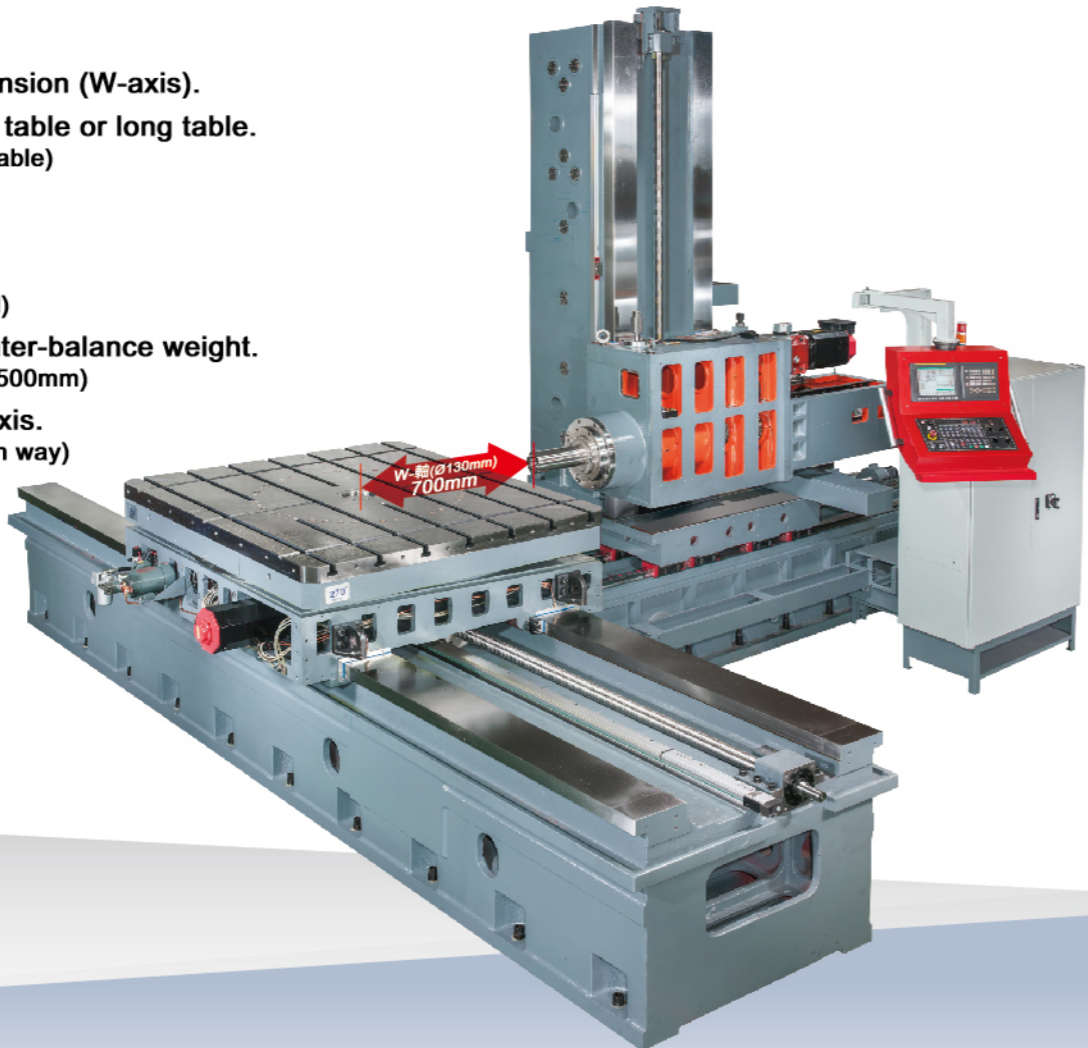
1. ATC: 60 tools
2. Oil mist device
3. Variety of controllers ( FANUC / MELDAS / SIEMENS / HEIDENHAIN )
4. Various auxiliary work tables
5. Air conditioner at the electrical cabinet
6. Extension sleeve 250 / 300mm
7. Coolant through spindle
8. 1800x1600x0.001° rotary table (Table load 10 tons or 20 tons)
9. Manual 90° angular milling head
10. Simultaneously controlled rotary table

# BM-130xxRT SERIES

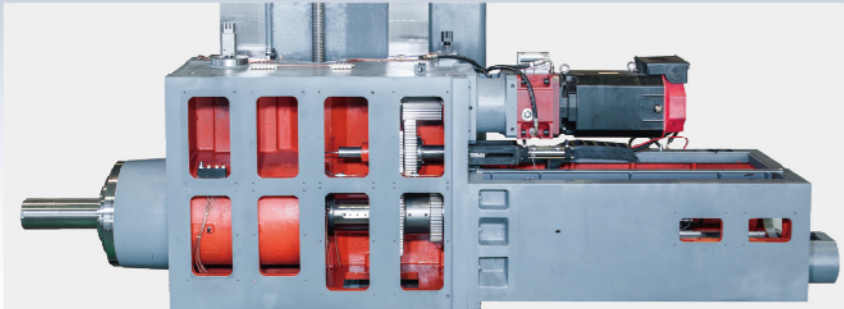
## MOVABLE COLUMN

### CNC HORIZONTAL BORING & MILLING MACHINE

- Movable column construction.
- Minimum deflection of spindle extension (W-axis).
- 0.001° indexing direct-drive rotary table or long table. (Simultaneously controlled table is available)
- Table sizes 1400x1600mm. (Various types of table are optional)
- Two box ways on X-axis. (M65 roller type linear ways are optional)
- Two box ways on Y-axis with counter-balance weight. (Choice of Y-axis travels: 2500, 3000, 3500mm)
- M65 roller type linear ways on Z-axis. (Three linear ways with 4 blocks on each way)
- Linear scales on 3 axes. (Heidenhain or Schneberger brand)
- 40-tool magazine is standard. (60-tool or 90-tool magazine is optional)



※ Fully enclosed splash guard (optional)



#### Rigid, Powerful Spindle Head

- The spindle head is reinforced with cage-shape ribs for increased rigidity.
- The spindle head integrates a self-made gearbox in combination with a German ZF gearbox with 1:16 (1:22 as optional) teeth ratio, providing greater torque output in heavy cutting.



Table of BM-13025RT  
1600x1400x0.001°  
W-axis Travel 700mm

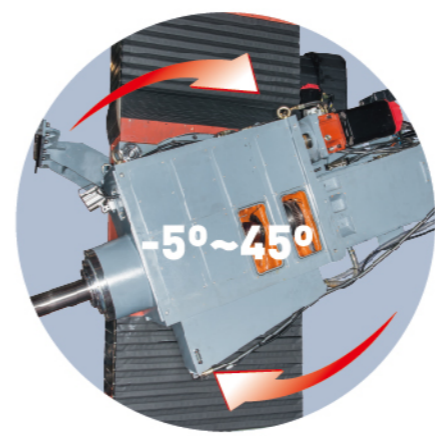
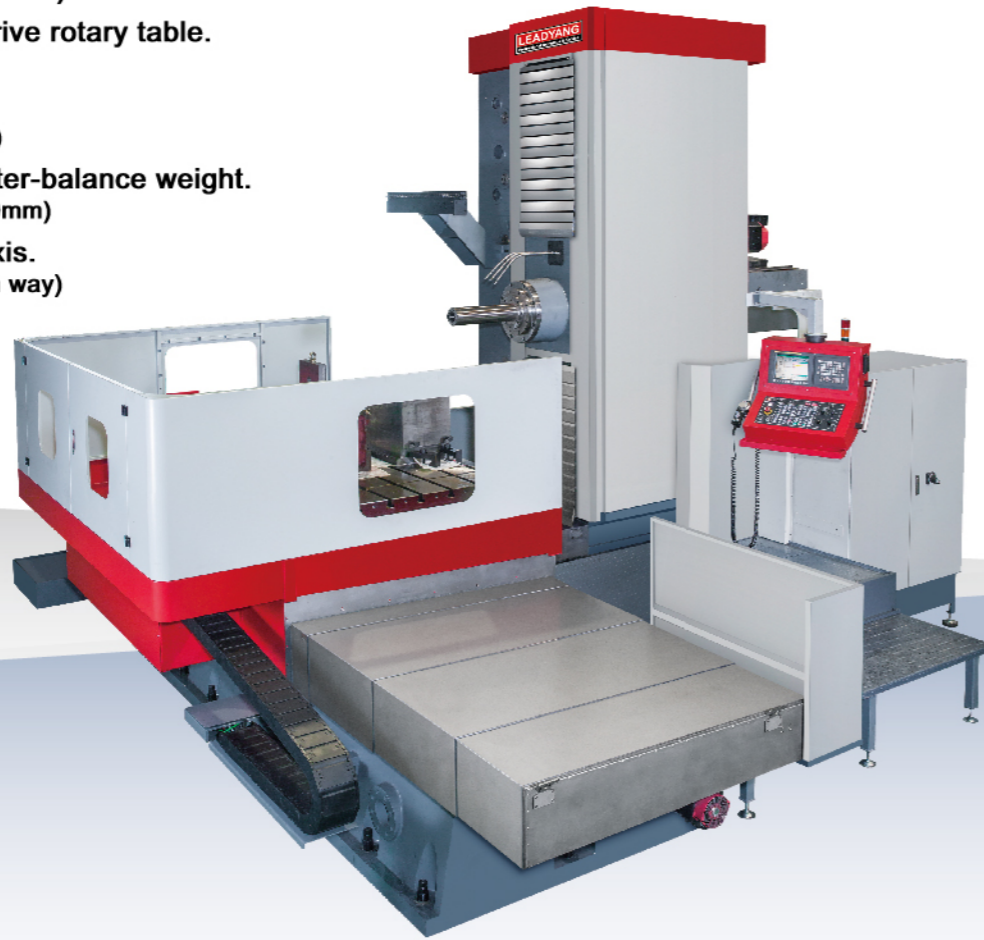
# BM-130xxR SERIES

## MOVABLE COLUMN

### CNC HORIZONTAL BORING & MILLING MACHINE



- Germany imported high rigidity, high accuracy spindle.
- Spindle diameter  $\varnothing 130\text{mm}$ . Spindle extension (W-axis) is 700mm (Standard). (900mm optional).
- 1800mmx2000mmx0.001° direct-drive rotary table. (Various types of table are optional)
- Two box ways on X-axis. (M65 roller type linear ways are optional)
- Two box ways on Y-axis with counter-balance weight. (Choice of Y-axis travels: 3000 and 3500mm)
- M65 roller type linear ways on Z-axis. (Three linear ways with 4 blocks on each way)
- Linear scales on 3 axes. (Heidenhain or Schneberger brand)
- 40-tool magazine is standard. (60-tool or 90-tool magazine is optional)



Swiveling head -5°~45° (Optional)

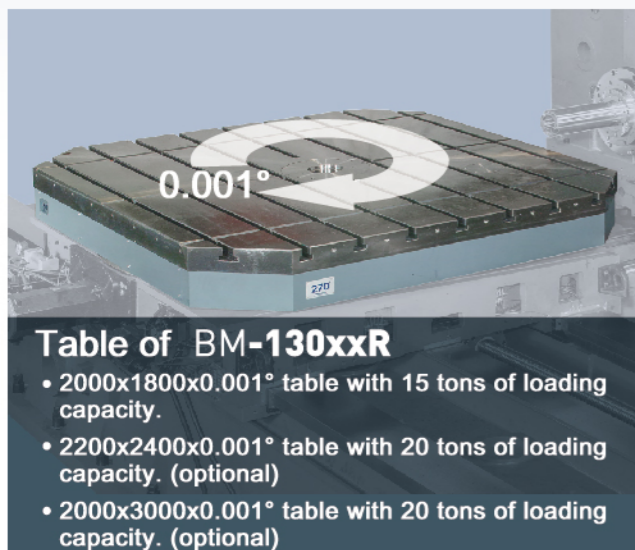


Face milling head (Optional)

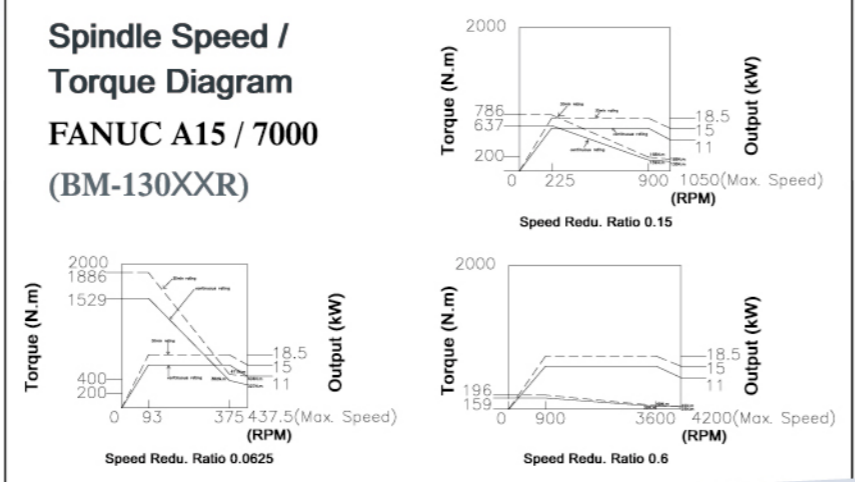
- Patented in Taiwan No. M506663
- Patented in China No. CN204868135U



- ※ 3 linear ways on X-axis (Optional for UBM-130xxR)
- Standard accessory for model BM-130xxRL
- Standard accessory for model BM-150xxRL



Spindle Speed / Torque Diagram  
FANUC A15 / 7000  
(BM-130XXR)



## MACHINE SPECIFICATIONS

[ ]: As Optional

|                       | MODEL                               | UNIT               | BM-13020RT                                     | BM-13025RT | BM-13032RT | BM-13042RT | BM-13032R                                      | BM-13042R | BM-13052R |
|-----------------------|-------------------------------------|--------------------|--|------------|------------|------------|--|-----------|-----------|
| TABLE                 | Table Size                          | mm                 | 1600 x 1400 x 0.001°                           |            |            |            | 1800 x 2000 x 0.001°                           |           |           |
|                       | T-slots Size                        | mm                 | 24 x 7   |            |            |            | 28 x 9   |           |           |
|                       | Maximum Load                        | kg                 | 8000   |            |            |            | 15000 (20000)                                  |           |           |
| TRAVEL                | X-Axis                              | mm                 | 2000   | 2500       | 3200       | 4200       | 3200   | 4200      | 5200      |
|                       | Y-Axis                              | mm                 | 2000 (2500, 3000)                              |            |            |            | (2000) 2500 (3000)                             |           |           |
|                       | Z-Axis                              | mm                 | 2000 (2500)                                    |            |            |            | 2000 (2500)                                    |           |           |
|                       | W-Axis                              | mm                 | 700 (900)                                      |            |            |            | 700 (900)                                      |           |           |
| SPINDLE               | Diameter                            | mm                 | Ø130   |            |            |            | Ø130   |           |           |
|                       | Speed                               | rpm                | 10 ~ 2000 (2500) (3000)                        |            |            |            | 10 ~ 2000 (2500) (3000)                        |           |           |
| DISTANCES             | Taper                               |                    | 7/24 taper ISO.50, BT-50                       |            |            |            | 7/24 taper ISO.50, BT-50                       |           |           |
|                       | Spindle Center to Table             | mm                 | 0~2000 (0~2500, 0~3000)                        |            |            |            | (0~2000) 0~2500 (0~3000)                       |           |           |
|                       | Spindle Nose to Table Center        | mm                 | -150~2250                                      |            |            |            | 50~2750  |           |           |
| FEED RATE             | Height From Ground to Table Surface | mm                 | 1260   |            |            |            | 1520   |           |           |
|                       | Rapid Feed Rate X/Y/Z               | m/min              | 10   |            |            |            | 10   |           |           |
|                       | Rapid Feed Rate W                   | m/min              | 6  |            |            |            | 6  |           |           |
|                       | Minimum Setting                     | mm/min             | 0.001  |            |            |            | 0.001  |           |           |
|                       | Cutting Feed Rate                   | mm/min             | 1~5000   |            |            |            | 1~5000   |           |           |
| MOTOR                 | Spindle Servo Motor-cont. / 30min   | kW                 | 15 / 18.5 (22 / 26)                            |            |            |            | 15 / 18.5 (22 / 26)                            |           |           |
|                       | Axis X/Y/Z/W/B                      | kW                 | 7 / 7 / 7 / 4 / 7                              |            |            |            | 9 / 7 / 9 / 4 / 7                              |           |           |
|                       | Lubricator Motor                    | kW                 | 0.15   |            |            |            | 0.15   |           |           |
|                       | Hydraulic Pump                      | kW                 | 2.25   |            |            |            | 2.25   |           |           |
|                       | Coolant Pump                        | kW                 | 1.17   |            |            |            | 1.17   |           |           |
|                       | Chip Conveyor                       | kW                 | 0.2  |            |            |            | 0.2  |           |           |
|                       | Oil Cooler Pump                     | kW                 | 0.75   |            |            |            | 0.75   |           |           |
| ATC                   | No. of Tools                        | pieces             | 40 ( 60 )                                      |            |            |            | 40 ( 60 )                                      |           |           |
|                       | Tool Selection                      |                    | Absolute                                       |            |            |            | Absolute                                       |           |           |
|                       | Tool Change Time                    | Sec.               | 15   |            |            |            | 15   |           |           |
|                       | Max. Tool-Diameter / Length         | mm                 | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |            |            |            | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |           |           |
| COOLANT & LUBRICATION | Max. Tool Weight                    | kg                 | 25   |            |            |            | 25   |           |           |
|                       | Coolant Tank Volume                 | L                  | 400  |            |            |            | 400  |           |           |
|                       | Hydraulic Tank Volume               | L                  | 80   |            |            |            | 80   |           |           |
| MISCELLANEOUS         | Lubrication Tank Volume             | L                  | 8  |            |            |            | 8  |           |           |
|                       | Power Required                      | kVA                | 55   |            |            |            | 55   |           |           |
|                       | Pressurized Air                     | kg/cm <sup>2</sup> | 6  |            |            |            | 6  |           |           |

■ Specifications are subject to change without prior notice.

### STANDARD ACCESSORIES :

- Linear scales on X, Y, Z axes
- Spindle oil cooler
- Automatic power off
- Hydraulic system
- Coolant system
- Lubricator system
- Alarm lamp
- Work lamp
- M.P.G.
- RS232 interface
- Heat exchanger
- Chip conveyor and cart
- Leveling bolts & pads
- Controller manuals and circuit diagram
- Operation manuals
- Machine inspection lists
- Splash guards (around the table)
- Tool box
- FANUC OiMF
- ATC : 40 Tools

## MACHINE SPECIFICATIONS

[ ]: As Optional

|                       | MODEL                               | UNIT               | BM-13032RL                                     | BM-13042RL | BM-13052RL | BM-13062RL | BM-15032RL                                     | BM-15042RL | BM-15052RL | BM-15062RL |
|-----------------------|-------------------------------------|--------------------|--|------------|------------|------------|--|------------|------------|------------|
| TABLE                 | Table Size                          | mm                 | 2200 x 2500 x 0.001° (2500 x 3000 x 0.001°)    |            |            |            | 2200 x 2500 x 0.001° (2500 x 3000 x 0.001°)    |            |            |            |
|                       | T-slots Size                        | mm                 | 28 x 11 (28 x 13)                              |            |            |            | 28 x 11 (28 x 13)                              |            |            |            |
|                       | Maximum Load                        | kg                 | 30000 (40000)                                  |            |            |            | 30000 (40000)                                  |            |            |            |
| TRAVEL                | X-Axis                              | mm                 | 3200   | 4200       | 5200       | 6200       | 3200   | 4200       | 5200       | 6200       |
|                       | Y-Axis                              | mm                 | 2500 ( 3000, 3500)                             |            |            |            | 2500 ( 3000, 3500)                             |            |            |            |
|                       | Z-Axis                              | mm                 | 2000 (2500)                                    |            |            |            | 2000 (2500)                                    |            |            |            |
|                       | W-Axis                              | mm                 | 900  |            |            |            | 900  |            |            |            |
| SPINDLE               | Diameter                            | mm                 | Ø130   |            |            |            | Ø150   |            |            |            |
|                       | Speed                               | rpm                | 10 ~ 2000 (2500) (3000)                        |            |            |            | 10 ~ 1500 (2000)                               |            |            |            |
| DISTANCES             | Taper                               |                    | 7/24 taper ISO.50, BT-50                       |            |            |            | 7/24 taper ISO.50, BT-50                       |            |            |            |
|                       | Spindle Center to Table             | mm                 | 0~2500 (0~3000) (0~3500)                       |            |            |            | 0~2500 (0~3000) (0~3500)                       |            |            |            |
|                       | Spindle Nose to Table Center        | mm                 | -50~2850 (3350) (50~2950 (3450))               |            |            |            | -50~2850 (3350) (50~2950 (3450))               |            |            |            |
| FEED RATE             | Height From Ground to Table Surface | mm                 | 1520   |            |            |            | 1520   |            |            |            |
|                       | Rapid Feed Rate X/Y/Z               | m/min              | 8 / 10 / 10 ( 6 / 10 / 10)                     |            |            |            | 8 / 10 / 10 ( 6 / 10 / 10)                     |            |            |            |
|                       | Rapid Feed Rate W                   | m/min              | 6  |            |            |            | 6  |            |            |            |
|                       | Minimum Setting                     | mm/min             | 0.001  |            |            |            | 0.001  |            |            |            |
|                       | Cutting Feed Rate                   | mm/min             | 1~5000   |            |            |            | 1~5000   |            |            |            |
| MOTOR                 | Spindle Servo Motor-cont. / 30min   | kW                 | 22 / 26 (30 / 37)                              |            |            |            | 22 / 26 (30 / 37)                              |            |            |            |
|                       | Axis X/Y/Z/W/B                      | kW                 | 9 / 7 / 9 / 4 / 9                              |            |            |            | 9 / 7 / 9 / 4 / 9                              |            |            |            |
|                       | Lubricator Motor                    | kW                 | 0.15   |            |            |            | 0.15   |            |            |            |
|                       | Hydraulic Pump                      | kW                 | 2.25   |            |            |            | 2.25   |            |            |            |
|                       | Coolant Pump                        | kW                 | 1.17   |            |            |            | 1.17   |            |            |            |
|                       | Chip Conveyor                       | kW                 | 0.2  |            |            |            | 0.2  |            |            |            |
|                       | Oil Cooler Pump                     | kW                 | 0.75   |            |            |            | 0.75   |            |            |            |
| ATC                   | No. of Tools                        | pieces             | 40 ( 60 )                                      |            |            |            | 40 ( 60 )                                      |            |            |            |
|                       | Tool Selection                      |                    | Absolute                                       |            |            |            | Absolute                                       |            |            |            |
|                       | Tool Change Time                    | Sec.               | 15   |            |            |            | 15   |            |            |            |
|                       | Max. Tool-Diameter / Length         | mm                 | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |            |            |            | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |            |            |            |
| COOLANT & LUBRICATION | Max. Tool Weight                    | kg                 | 25   |            |            |            | 25   |            |            |            |
|                       | Coolant Tank Volume                 | L                  | 400  |            |            |            | 400  |            |            |            |
|                       | Hydraulic Tank Volume               | L                  | 80   |            |            |            | 80   |            |            |            |
| MISCELLANEOUS         | Lubrication Tank Volume             | L                  | 8  |            |            |            | 8  |            |            |            |
|                       | Power Required                      | kVA                | 65   |            |            |            | 65   |            |            |            |
|                       | Pressurized Air                     | kg/cm <sup>2</sup> | 6  |            |            |            | 6  |            |            |            |

■ Specifications are subject to change without prior notice.

### OPTIONAL ACCESSORIES :

- Choice of various magazines (60 / 90)
- Oil mist device
- Choice of various controllers (FANUC / MELDAS / SIEMENS / HEIDENHAIN)
- Various auxiliary work tables
- Air conditioner at the electrical cabinet
- Extension sleeve 250 / 300mm (For BM-110 series)  
Extension sleeve 350 / 400mm (For BM-130 series, BM-150 series)
- Coolant through spindle
- Choice of various sizes of tables
  - 1600x1800 (For BM-110xxRT, 110xxR, 130xxRT series)
  - 2000x2200 / 2000x3000 / 2200x2400 (For BM-130xxR series)
  - 2500x3000 table with 40 tons of loading capacity (For BM-130xxRL, 150xxRL series)
- Manual 90° angular milling head
- Face milling head
- 30/37kW spindle motor and ZF-300 gearbox (For BM-130, 150 series)

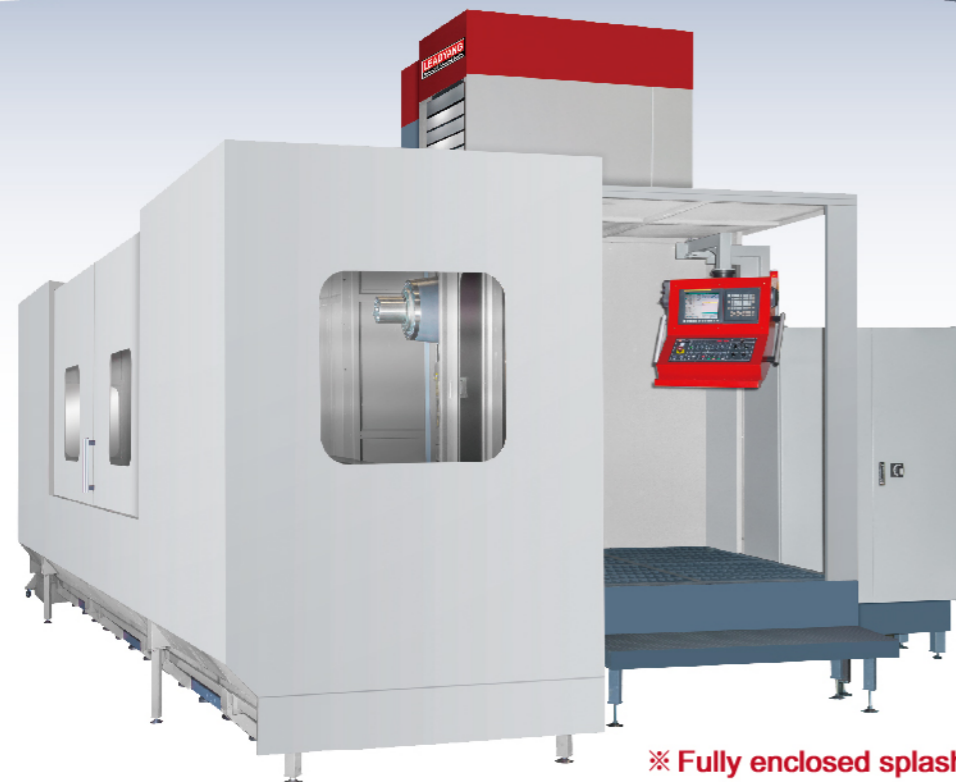


# BM-LONG TABLE SERIES

## MOVABLE COLUMN

### CNC HORIZONTAL BORING & MILLING MACHINE

- Movable column construction.
- Minimum deflection of spindle extension (W-axis).
- Long type heavy duty table.
- Rigid roller type linear ways on X, Z-axis.
- 40-tool magazine is standard. (60-tool magazine optional)
- Integrated Schneberger linear ways and linear scales on X, Y, Z-axis.



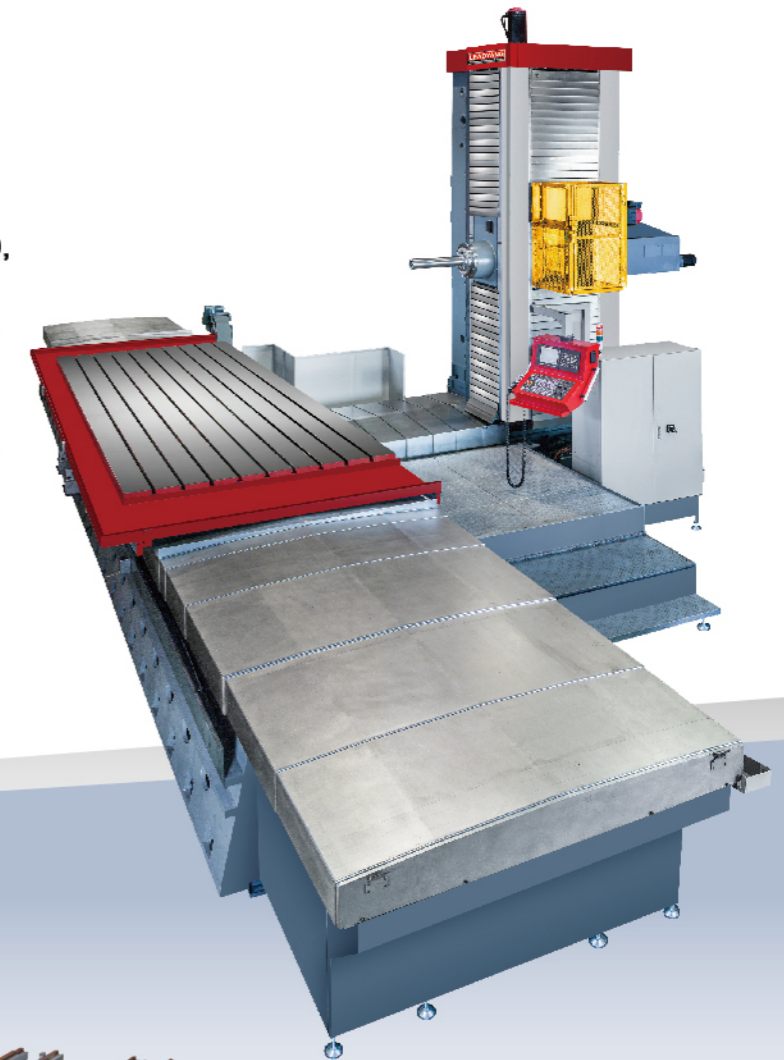
※ Fully enclosed splash guard (optional)

## BM-13042

## BM-13052

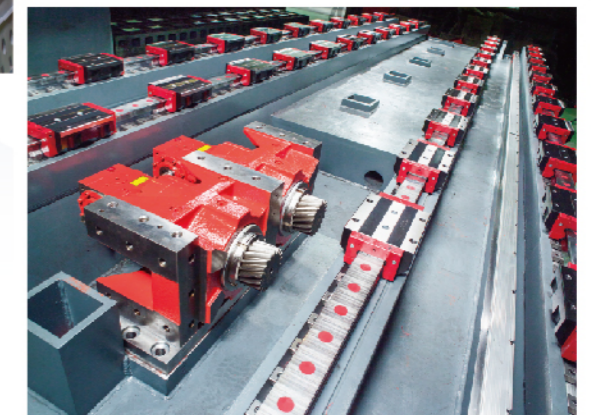
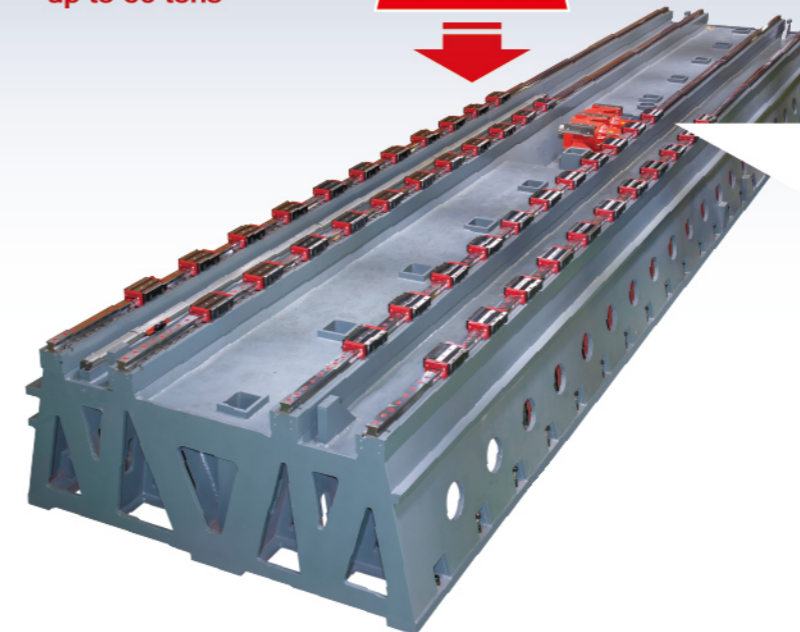
## BM-13062

- Heavy duty table (4000x2500, 5000x2500, 6000x2500mm).
- 4 linear ways on X-axis (M65 roller type).
- X-axis feed is transmitted through precision rack (MB-13052, 13062).
- Integrated Schneberger linear ways and linear scales on X, Y, Z-axis.



※ Extra rigid base can withstand heavy load up to 60 tons

60 tons



High precision rack and twin speed reducers transmission.  
(For models BM-13052, 13062)

# BM-W series

## MACHINE SPECIFICATIONS

[ ] : As Optional

| MODEL                 |                                     | UNIT               | BM-11022T                                      | BM-11026T   | BM-11032T   | BM-11042T   | BM-11022                                       | BM-11026    | BM-11032    | BM-11042    | BM-13032                                       | BM-13042          | BM-13052    | BM-13062    |
|-----------------------|-------------------------------------|--------------------|--|-------------|-------------|-------------|--|-------------|-------------|-------------|--|-------------------|-------------|-------------|
| TABLE                 | Table Size                          | mm                 | 2000 x 1400                                    | 2400 x 1400 | 3000 x 1400 | 4000 x 1400 | 2000 x 1400                                    | 2400 x 1400 | 3000 x 1400 | 4000 x 1400 | 3000 x 1400                                    | 4000 x 2500       | 5000 x 2500 | 6000 x 2500 |
|                       | T-slots Size                        | mm                 | 22   |             |             |             | 22   |             |             |             | 22   | 28                |             |             |
|                       | Maximum Load                        | kg                 | 12000  | 15000       | 20000       | 25000       | 12000  | 15000       | 20000       | 25000       | 20000  | 30000             | 40000       | 50000       |
| TRAVEL                | X-Axis                              | mm                 | 2200   | 2600        | 3200        | 4200        | 2200   | 2600        | 3200        | 4200        | 3200   | 4200              | 5200        | 6200        |
|                       | Y-Axis                              | mm                 | 1800   |             |             |             | 2000 (2500)                                    |             |             |             | 2500 (3000) (3500)                             |                   |             |             |
|                       | Z-Axis                              | mm                 | 1700   |             |             |             | 1700   |             |             |             | 2000 (2500)                                    |                   |             |             |
|                       | W-Axis                              | mm                 | 500  |             |             |             | 550  |             |             |             | 700 (900)                                      |                   |             |             |
|                       | Diameter                            | mm                 | Ø110   |             |             |             | Ø110   |             |             |             | Ø130   |                   |             |             |
| SPINDLE               | Speed                               | rpm                | 10 ~ 2500 (3000) (4000)                        |             |             |             | 10 ~ 2500                                      |             |             |             | 10 ~ 2000 (2500) (3000)                        |                   |             |             |
|                       | Taper                               |                    | 7/24 taper ISO.50, BT-50                       |             |             |             | 7/24 taper ISO.50, BT-50                       |             |             |             | 7/24 taper ISO.50, BT-50                       |                   |             |             |
| DISTANCES             | Spindle Center to Table             | mm                 | 0~1800   |             |             |             | 0~2000 (2500)                                  |             |             |             | 0~2500 (3000) (3500)                           |                   |             |             |
|                       | Spindle Nose to Table Center        | mm                 | -50~2150                                       |             |             |             | -100~2150                                      |             |             |             | -250~2150                                      | 200~2900 (0~2900) |             |             |
|                       | Height From Ground to Table Surface | mm                 | 1180   |             |             |             | 1180   |             |             |             | 1180   | 1520              |             |             |
| FEED RATE             | Rapid Feed Rate X/Y/Z               | m/min              | 10   |             |             |             | 10   |             |             |             | 10   | 6 / 10 / 10       |             |             |
|                       | Rapid Feed Rate W                   | m/min              | 10   |             |             |             | 10   |             |             |             | 10   | 6                 |             |             |
|                       | Minimum Setting                     | mm/min             | 0.001  |             |             |             | 0.001  |             |             |             | 0.001  |                   |             |             |
|                       | Cutting Feed Rate                   | mm/min             | 1~5000   |             |             |             | 1~5000   |             |             |             | 1~5000   |                   |             |             |
| MOTOR                 | Spindle Servo Motor-cont. / 30min   | kW                 | 15 / 18.5 (22 / 26)                            |             |             |             | 15 / 18.5 (22 / 26)                            |             |             |             | 15 / 18.5 (22 / 26)                            |                   |             |             |
|                       | Axis X/Y/Z/W/B                      | kW                 | 7 / 4 / 4 / 4                                  |             |             |             | 7 / 7 / 7 / 4                                  |             |             |             | 9 / 7 / 7 / 4                                  | 9 / 7 / 9 / 4     |             |             |
|                       | Lubricator Motor                    | kW                 | 0.15   |             |             |             | 0.15   |             |             |             | 0.15   |                   |             |             |
|                       | Hydraulic Pump                      | kW                 | 2.25   |             |             |             | 2.25   |             |             |             | 2.25   |                   |             |             |
|                       | Coolant Pump                        | kW                 | 1.17   |             |             |             | 1.17   |             |             |             | 1.17   |                   |             |             |
|                       | Chip Conveyor                       | kW                 | 0.2  |             |             |             | 0.2  |             |             |             | 0.2  |                   |             |             |
|                       | Oil Cooler Pump                     | kW                 | 0.75   |             |             |             | 0.75   |             |             |             | 0.75   |                   |             |             |
|                       | No. of Tools                        | pieces             | 40 (60)  |             |             |             | 40 (60)  |             |             |             | 40 (60)  |                   |             |             |
| ATC                   | Tool Selection                      |                    | Absolute                                       |             |             |             | Absolute                                       |             |             |             | Absolute                                       |                   |             |             |
|                       | Tool Change Time                    | Sec.               | 15   |             |             |             | 15   |             |             |             | 15   |                   |             |             |
|                       | Max. Tool-Diameter / Length         | mm                 | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |             |             |             | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |             |             |             | Ø125/Ø250 (Without Adjacent Tool) / Length 400 |                   |             |             |
|                       | Max. Tool Weight                    | kg                 | 25   |             |             |             | 25   |             |             |             | 25   |                   |             |             |
| COOLANT & LUBRICATION | Coolant Tank Volume                 | L                  | 400  |             |             |             | 400  |             |             |             | 400  |                   |             |             |
|                       | Hydraulic Tank Volume               | L                  | 80   |             |             |             | 80   |             |             |             | 80   |                   |             |             |
|                       | Lubrication Tank Volume             | L                  | 8  |             |             |             | 8  |             |             |             | 8  |                   |             |             |
| MISCELLANEOUS         | Power Required                      | kVA                | 55   |             |             |             | 55   |             |             |             | 55   |                   |             |             |
|                       | Pressurized Air                     | kg/cm <sup>2</sup> | 6  |             |             |             | 6  |             |             |             | 6  |                   |             |             |

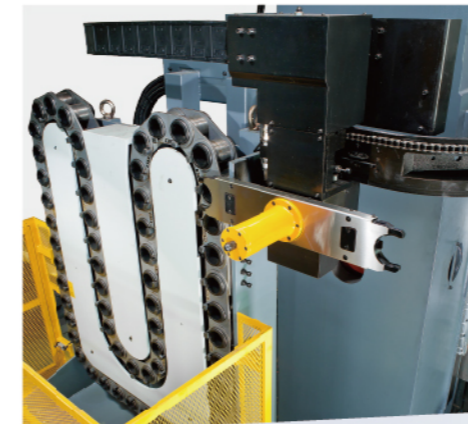
■ Specifications are subject to change without prior notice.

### STANDARD ACCESSORIES :

- Linear scales on X, Y, Z axes
- Spindle oil cooler
- Automatic power off
- Hydraulic system
- Coolant system
- Lubricator system
- Alarm lamp
- Work lamp
- M.P.G.
- RS232 interface
- Heat exchanger
- Chip conveyor and cart
- Leveling bolts & pads
- Controller manuals and circuit diagram
- Operation manuals
- Machine inspection lists
- Splash guards (around the table)
- Tool box
- FANUC 0iMF
- ATC : 40 Tools

### OPTIONAL ACCESSORIES :

- ATC: 60 tools
- Oil mist device
- Variety of controllers (FANUC / MELDAS / SIEMENS / HEIDENHAIN)
- Various auxiliary work tables
- Air conditioner at the electrical cabinet
- Extension sleeve 250mm / 300mm
- Coolant through spindle
- Manual 90° angular milling head
- Splash guard around table and large external splash guard



### Side-mount Chain Type Magazine

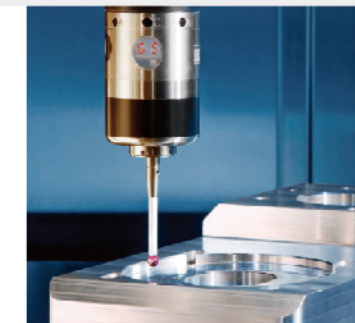
- 40 - tool magazine is standard.
- 60 - tool magazine is optional.



Extension Sleeve (Optional)



Manual 90° Degree Milling Head (Optional)



Work Piece Coordinate Measuring (m&h RWP38.41) (RENISHAW RMP60) (Optional)



Auto. Tool Length & Diameter Measurement (m&h TS35.10) (RENISHAW RTS-27) (Optional)