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Higher accuracy  
produces  
greater profitability

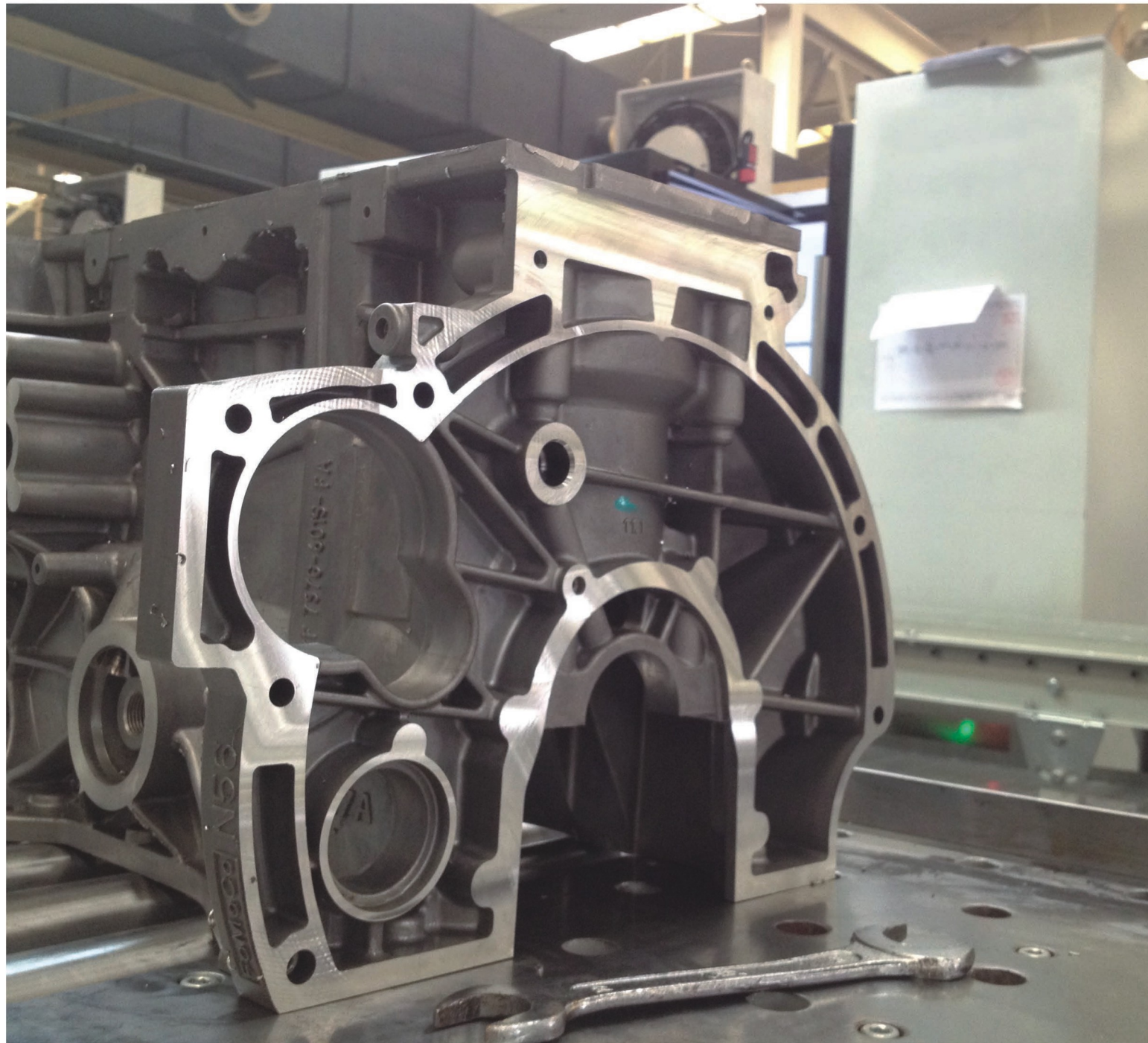


MBM-500/630

## CNC Horizontal Boring Machining Center

High Accuracy & High Power Series

- 2 / Fields of application
- 3 / Machine Concept
- 4 / Structure and Design
- 5 / Machine Technology
- 6 / Machine Exterior and Layout
- 7 / Technical Data



Efficient machining of various complex, mass production components  
Used in the automotive, aerospace, transportation and machine tool  
Industries to name a few.

## The MBM-Series - Precise High Speed Horizontal Machining Center

Perfect machine tools for precise, high speed, high production parts. The machine was designed with one thing in mind and that is production. Equipped with 200+ N.m. high speed spindle and high speed rotary table changer at 8.0 secs per change. This machine out performs machines within its class.

Your advantages at one glance

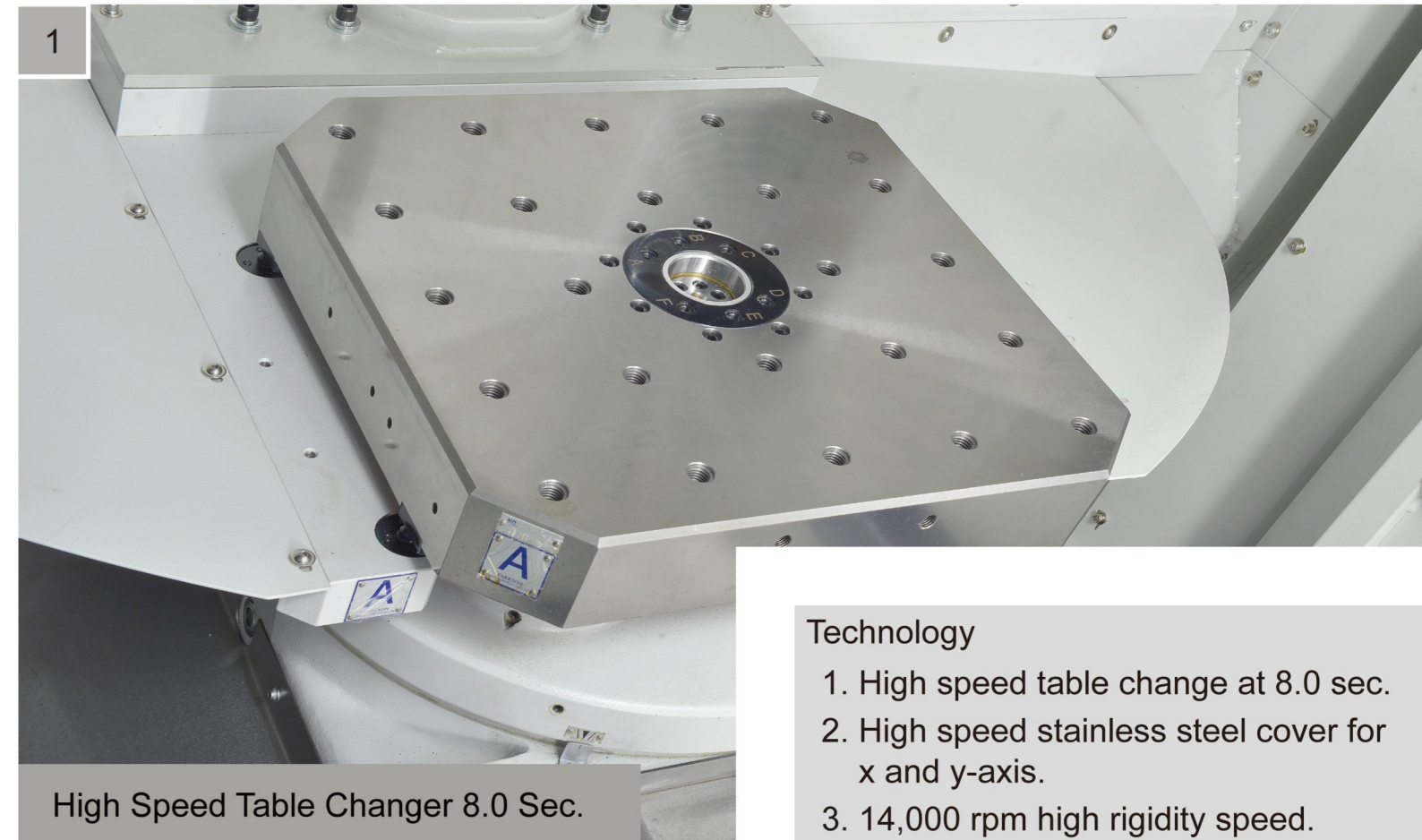
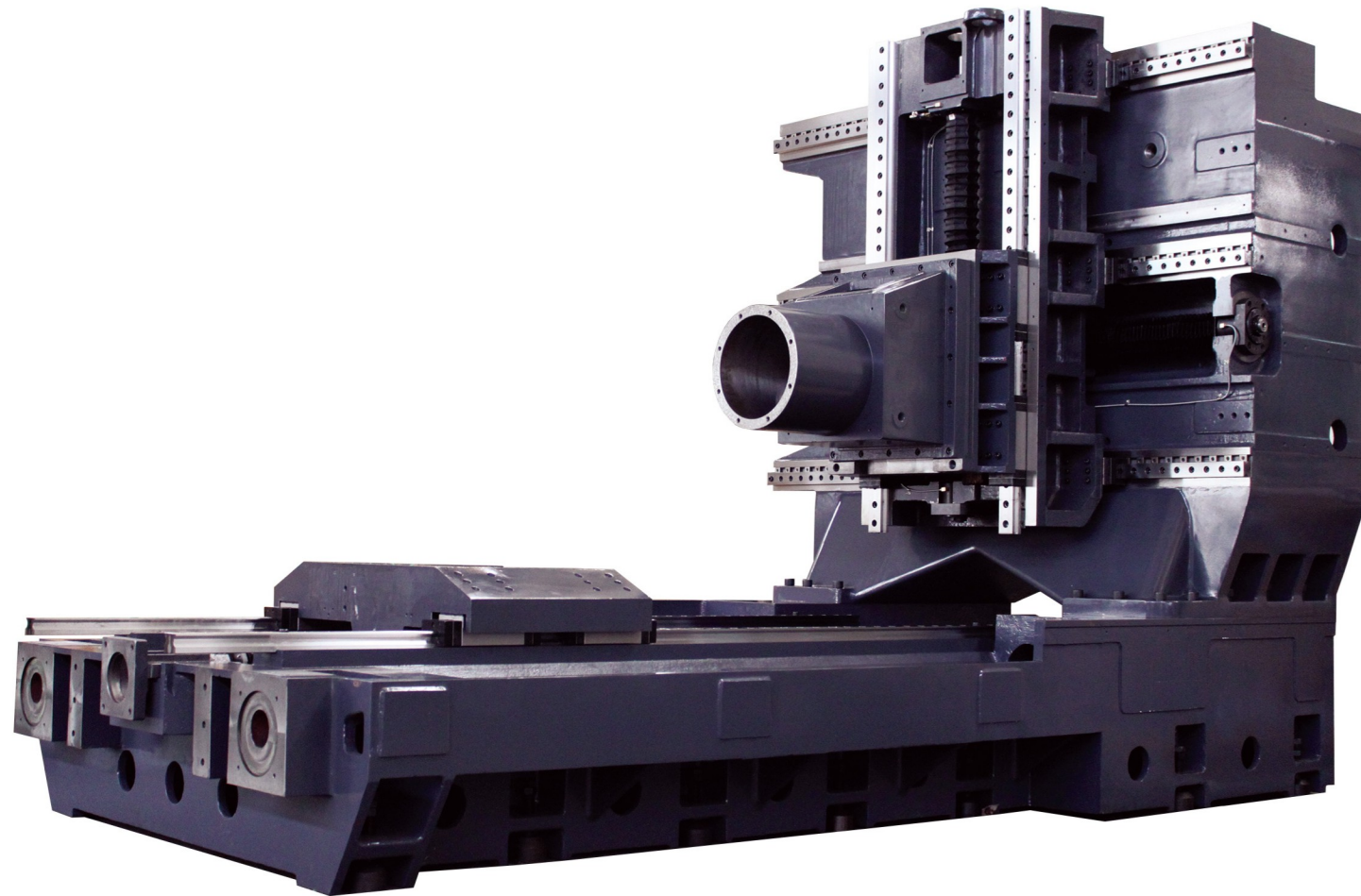
- > Promotes easy loading and unloading of work pieces.
- > Self lubricating guide ways.
- > Extremely rigid and heavily designed for any job.
- > Many other advantages.



\*MBM-500 is displayed.

# Horizontal Machining Center with Unparalleled Rigidity and Agility

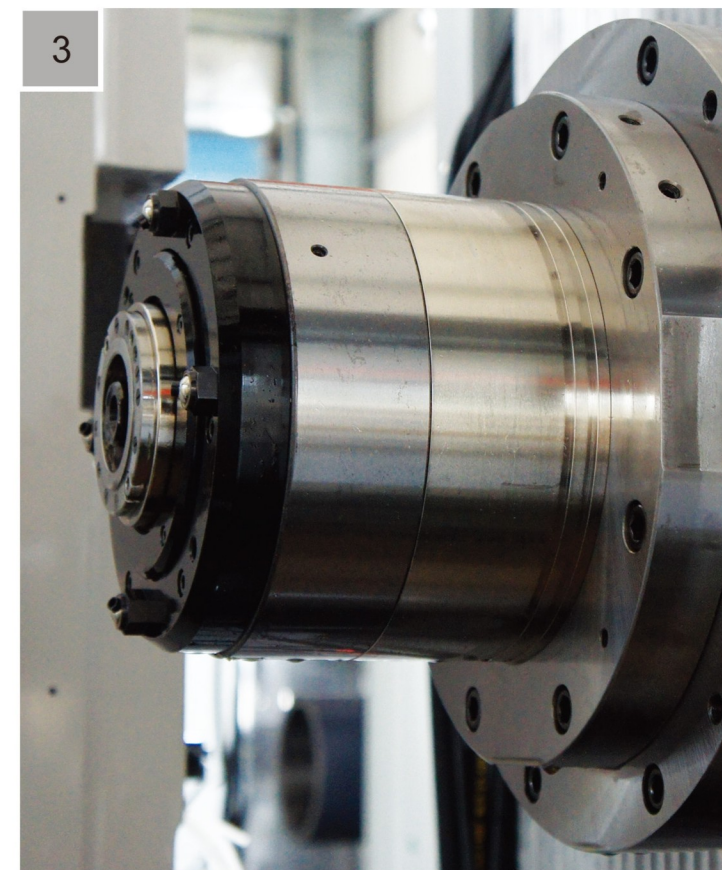
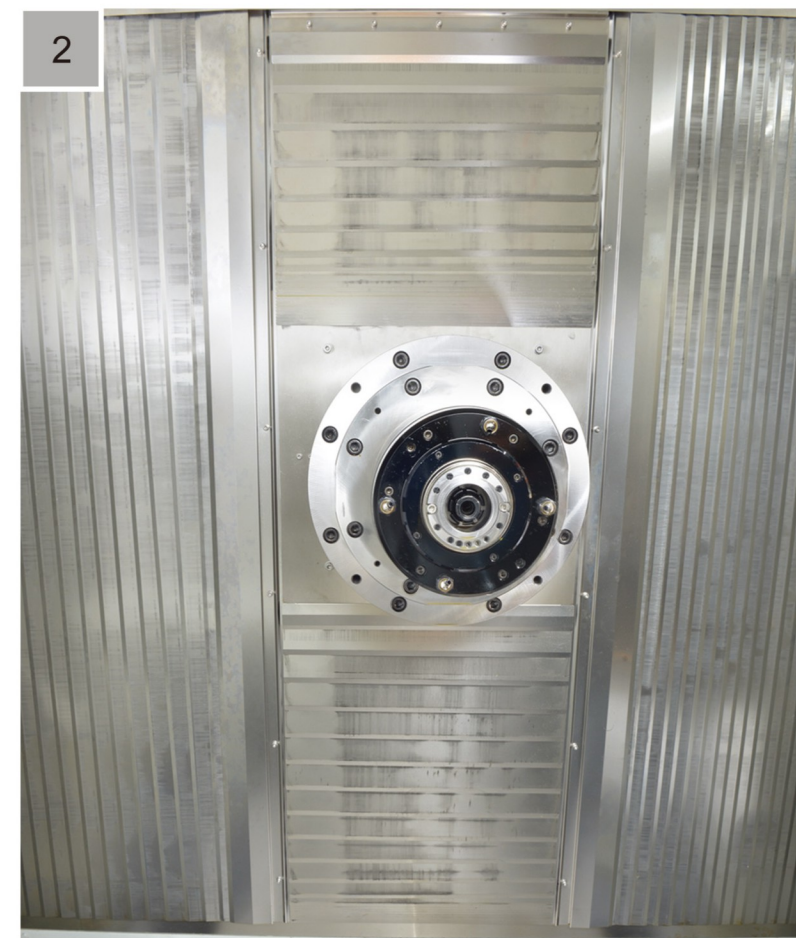
The MBM-500 and MBM-630 were designed specifically for the use of high speed spindles to offer outstanding performance in heavy-duty cutting of large workpieces. Featuring a thick, robust bed and the largest spindle bearing inner diameter in its class, the MBM-500 and MBM-630 achieve high rigidity and high accuracy required for heavy-duty cutting. With extended Z-axis strokes and better internal and external operability, the MBM-500 and MBM-630 deliver unprecedented levels of productivity.



High Speed Table Changer 8.0 Sec.

## Technology

1. High speed table change at 8.0 sec.
2. High speed stainless steel cover for x and y-axis.
3. 14,000 rpm high rigidity speed.
4. Many other advance technology.



Exterior Design of Machine



Machine Specifications

| Descriptions             |                                            | MBM 500                              | MBM 630            |
|--------------------------|--------------------------------------------|--------------------------------------|--------------------|
| Travel                   | X-axis (column longitudinal)               | 700                                  | 800                |
|                          | Y-axis (head vertical)                     | 700                                  | 800                |
|                          | Z-axis (pallet table cross)                | 700                                  | 800                |
|                          | Distance from spindle center to pallet top | 100 - 800                            | 100 - 900          |
|                          | Distance from spindle nose to table center | 100 - 800                            | 150 - 950          |
| Table                    | Pallet size                                | 500 x 500                            | 630 x 630          |
|                          | Pallet loading capacity                    | 500 (opt. 800)                       | 1200               |
|                          | Pallet surface                             | Drill-SLOT                           |                    |
|                          | Pallet index degree                        | 1° {0.001°}                          |                    |
| Spindle                  | Max. spindle speed                         | 14,000 (12,000/14,000/18,000)        |                    |
|                          | Spindle taper                              | HSK A63/A100                         |                    |
|                          | Max. spindle torque (15 min.)              | 233                                  | 233                |
| Feedrate                 | Rapid traverse rate (X/Y/Z)                | 60                                   |                    |
|                          | Cutting feedrate                           | 50                                   | 50                 |
| Automatic tool changer   | Type of tool shank                         | HSK-A63/A100                         |                    |
|                          | Tool storage capacity                      | 40 {opt. 60}                         |                    |
|                          | Max. tool diameter                         | 100.0                                |                    |
|                          | Max. tool diameter without adjacent tools  | 240.0                                |                    |
|                          | Max. tool length                           | 500                                  | 500                |
|                          | Max. tool weight                           | 8                                    | 20                 |
|                          | Method of tool selection                   | Fixed address                        |                    |
|                          | Tool change time (tool-to-tool)            | 1.8 (Opt 1.5 Servo Type)             | 4.0                |
|                          | Tool change time (chip-to-chip)            | 6 (Opt 5.0 Servo Type)               | 9.0                |
| Automatic pallet changer | Number of pallet                           | 2                                    |                    |
|                          | Type                                       | Rotary shuttle                       |                    |
|                          | Pallet change time (no load)               | 8.0                                  | 22.0 (Opt. 15 sec) |
|                          | Pallet rotation in loading station         | 180                                  |                    |
| Motor                    | Spindle motor (15min)                      | 25/18.5                              |                    |
|                          | Feed motor (X/Y/Z/B)                       | 7.0 / 7.0 / 7.0 / 4.0                |                    |
| Accuracy (VDI 3441)      | Positing                                   | < 0.008 (< 0.005 with linear scale)  |                    |
|                          | Repeatibiliy                               | < 0.005 (< 0.0025 with linear scale) |                    |
|                          | Rotary Table Accuracy                      | P:10/PS:6                            |                    |
| Power source             | Electric power supply                      | 65                                   | 80                 |
|                          | Compressed air supply                      | 6                                    |                    |
| Machine size             | Machine weight                             | 15,000                               | 18,500             |

Note : { } are optional

Standard Features

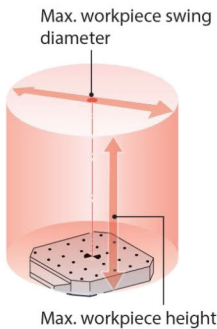
|                               |                                           |                                     |
|-------------------------------|-------------------------------------------|-------------------------------------|
| ■ Assembly & Operation tools  | ■ 40-Tool Canger                          | ■ Spindle cooling unit & Oil cooler |
| ■ Coolant tank, flood coolant | ■ Operator call lamp (red, yellow, green) | ■ Work light                        |
| ■ FANUC Oi-MD controller      | ■ Rigid tapping                           |                                     |
| ■ Full enclosure spash guard  | ■ Screw conveyor                          |                                     |

Optional Features

|                           |                            |
|---------------------------|----------------------------|
| ■ Fanuc 31i               | ■ 60/90/120-Tool Canger    |
| ■ Coolant cooler          | ■ Mist collector           |
| ■ Data Server             | ■ Chain Type Chip Conveyor |
| ■ Coolant through spindle |                            |

Working area

| Machine type | Max. workpiece height  | Max. workpiece swing diameter | Pallet loading capacity |
|--------------|------------------------|-------------------------------|-------------------------|
| MBM-500      | 1,000 mm<br>(39.3 in.) | 800 mm<br>(31.4 in.)          | 500 kg<br>(1,100 lb.)   |
| MBM-630      | 1,300 mm<br>(51.1 in.) | 900 mm<br>(35.4 in.)          | 1,200 kg<br>(2,645 lb.) |



[ ] Option