

Higher accuracy  
produces  
greater profitability



**MBM-500/630**

## **CNC Horizontal Boring Machining Center**

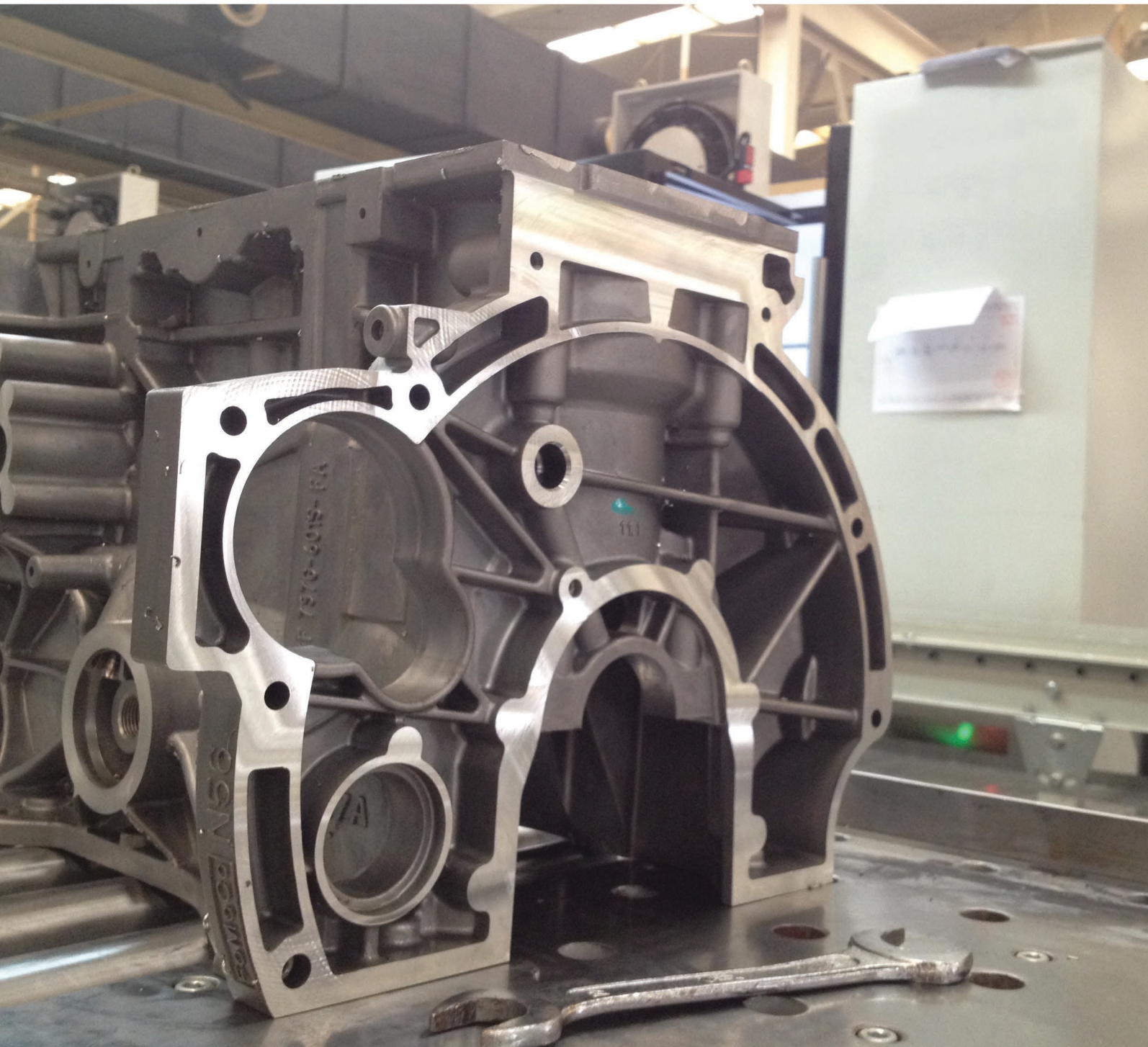
High Accuracy & High Power Series



**MBM-500/630**



- 2 / Fields of application
- 3 / Machine Concept
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- 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

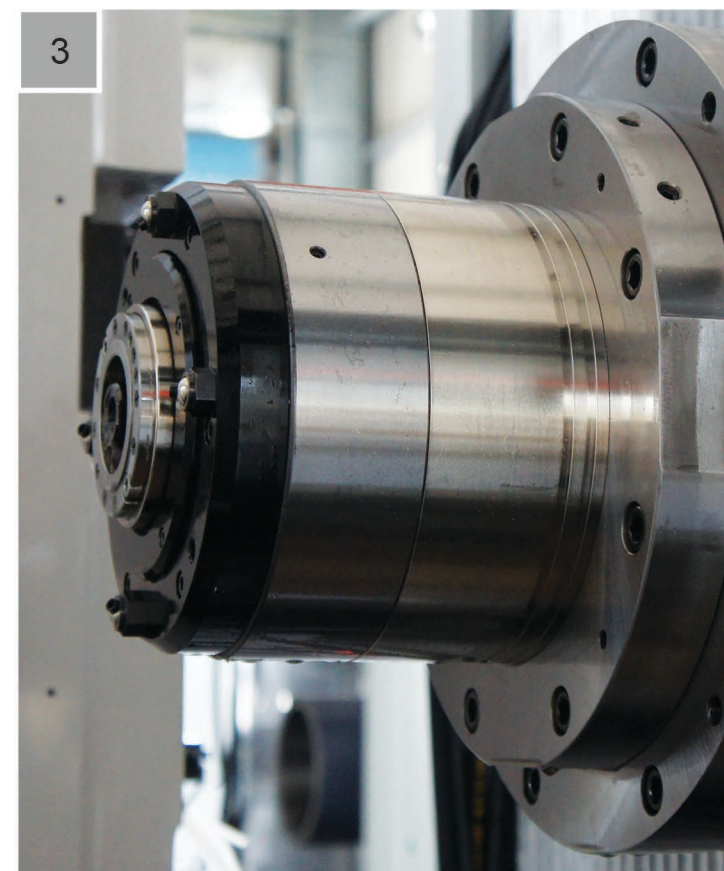
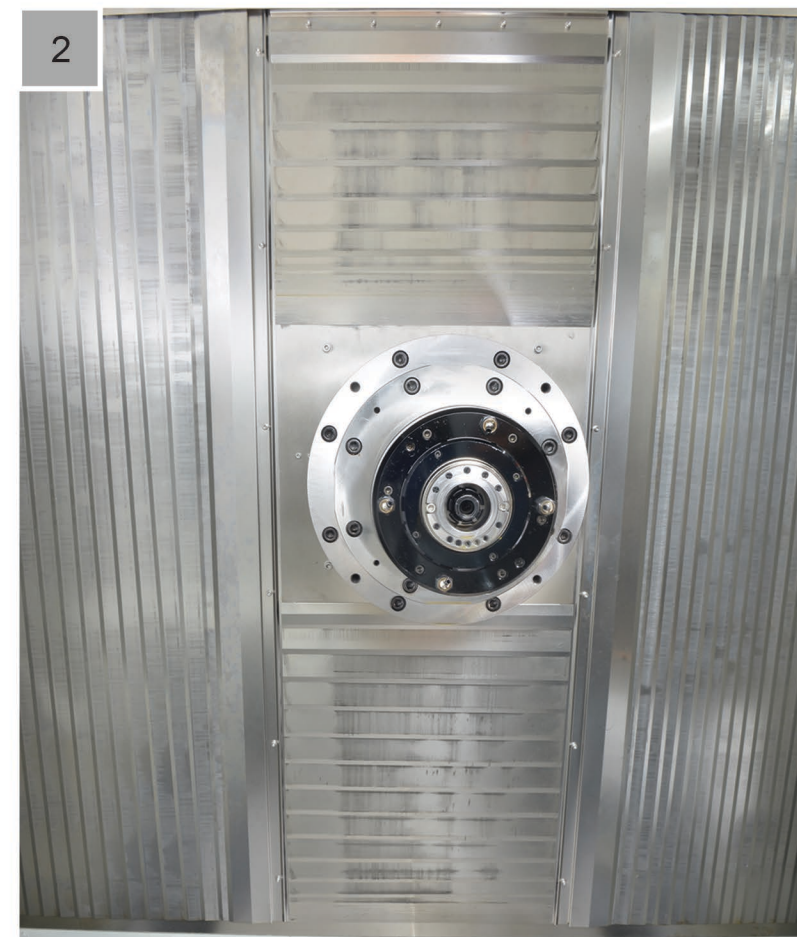
The MBM-500 and MBM-630 were designed specifically for the use of high speed spindles to offer outstanding performance in heavy-duty cutting of large workpieces. Featuring a thick, robust bed and the largest spindle bearing inner diameter in its class, the MBM-500 and MBM-630 achieve high rigidity and 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.





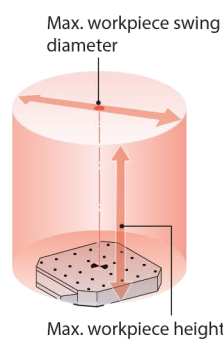
## Exterior Design of Machine



### Working area

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

[ ] Option



## 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	
Spindle	Pallet index degree	1° {0.001°}	
	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
Automatic pallet changer	Tool change time (chip-to-chip)	6 (Opt 5.0 Servo Type)	9.0
	Number of pallet	2	
	Type	Rotary shuttle	
	Pallet change time (no load)	8.0	22.0 (Opt. 15 sec)
Motor	Pallet rotation in loading station	180	
	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)	
	Repeatibility	< 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 splash 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



Endless Innovation



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