



YOU JI

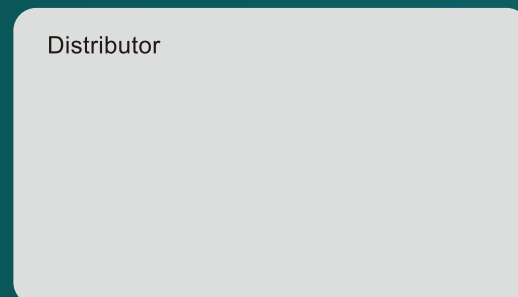
Sincerity Responsibility Innovation



HBM-130

You Ji Machine Industrial Company Limited
Horizontal Boring and Milling Machine

Distributor



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HBM-130 Series

Horizontal Boring and Milling Machine

Leader of rigid structure for HBM



HBM 130 / 25 18 - APC

Automatic Twin-Pallet Changer

Y axis travel (18:1800mm)

X axis travel (25:2500mm)

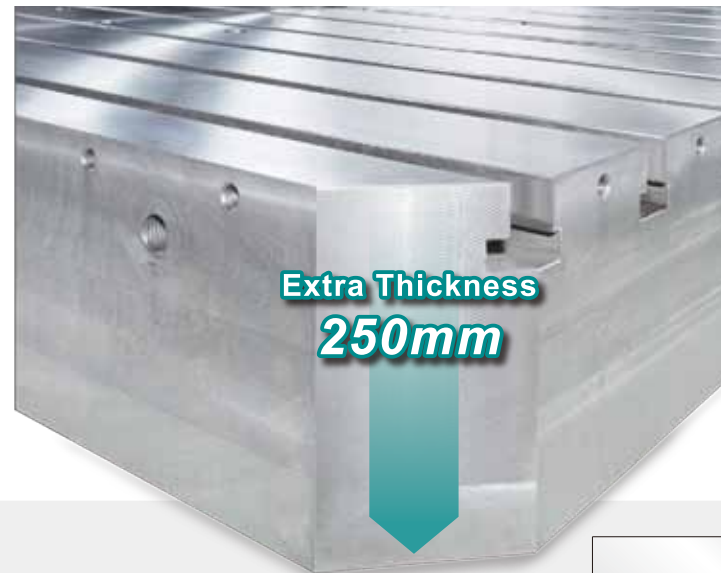
Boring Spindle Diameter

Horizontal Boring and Milling Machine

HBM-130

Horizontal Boring and Milling Machine

Full Support / Extra Thickness 250mm

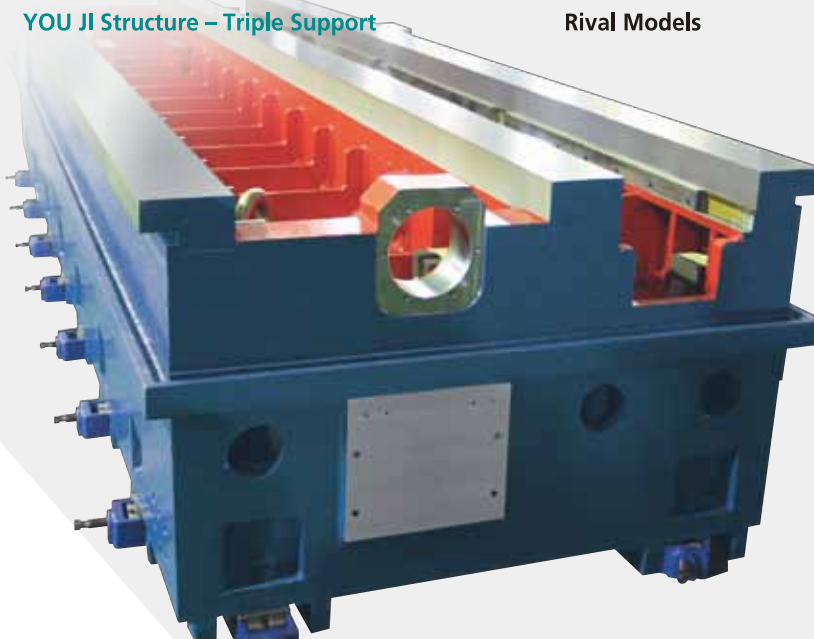
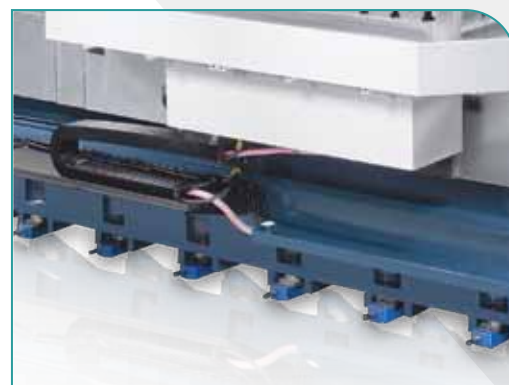
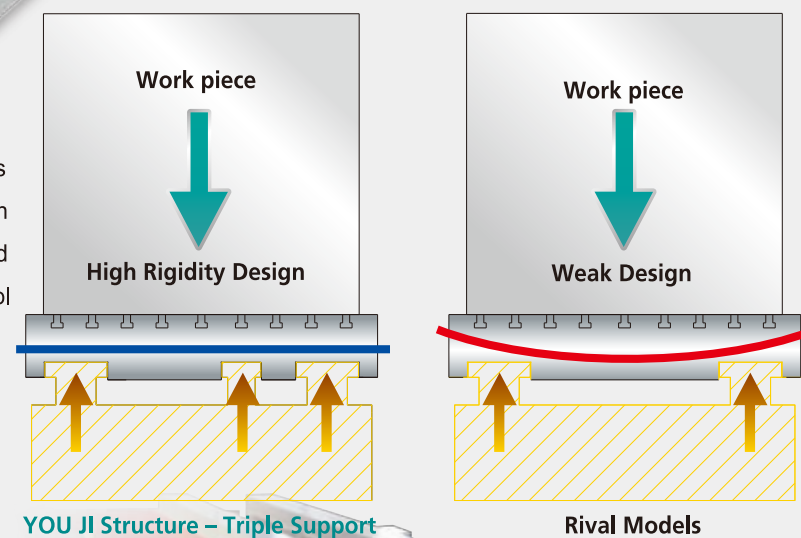


ROBUST & RIGID STRUCTURE, MULTIPLE PERFORMANCE

- **Stress-relieved Meehanite casting** – Ensures a deformation-free structure
- **Hardened and fine ground box guide ways** – The hardness on slide way surface is high; while the center core of the casting is soft, the perfect combination features optimum support to the accuracy and best damping effect.
- **Box structure strengthened with inner-ribs** – The entire machine axes travel is fully supported, free from overhang situation, the static and dynamic long term accuracy is assured.

TRIPLE SUPPORT

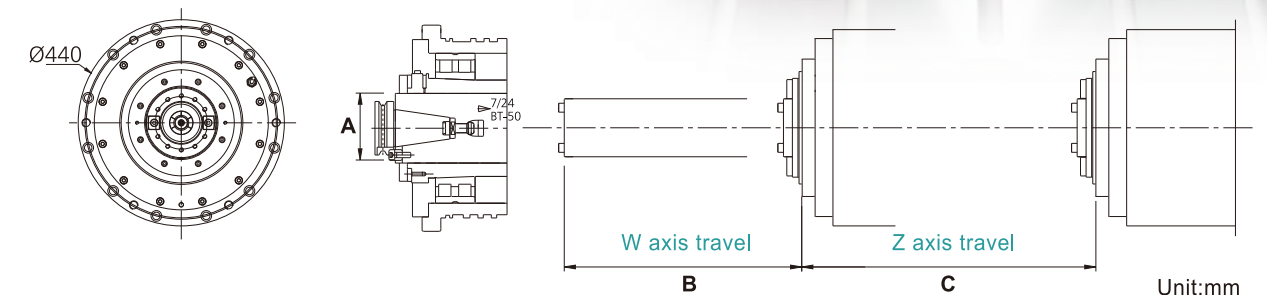
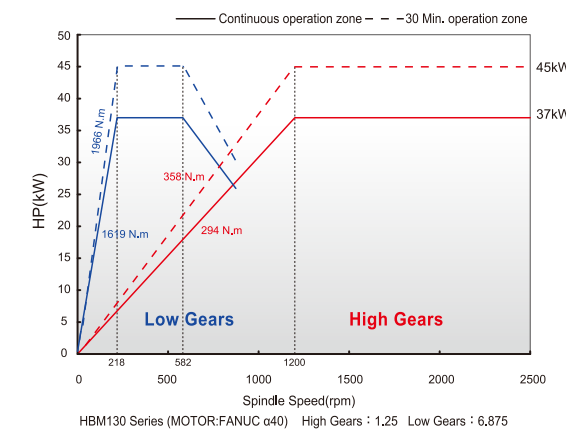
- The unique technology from You Ji showcases the asymmetric TRIPLE slide ways design, which is capable of sustaining heavy work pieces and still maintains excellent and precise motion control in minimum movement



Control performance & accuracy at the same time

HIGH TORQUE OUTPUT

- Together with dual speed transmission gearbox, the spindle output power is 45kW, which is able to supply super high torque. Furthermore, the high spindle speed produces fine finish surface, in the same time the low spindle speed offers high torque suitable for heavy duty machining or big and deep hole boring.

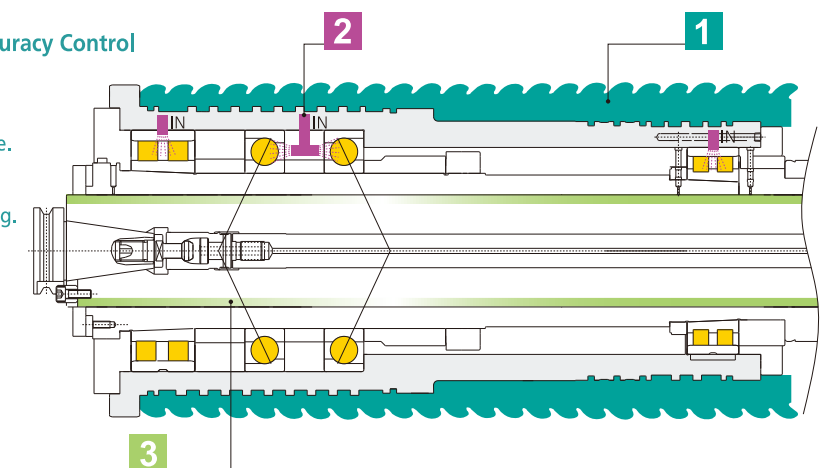


- High tech chosen alloy steel have been used to maintain the minimal thermal deformation and guarantee the longest spindle life
- The state of the arts spindle design uses oil-mist lubrication method thus reducing any undesirable thermal deformation.

Model	HBM130 Series
A	Ø130mm
B	750mm
C	1250(1600/2000)

TRIPLE COOLING/Temperature Control = Accuracy Control

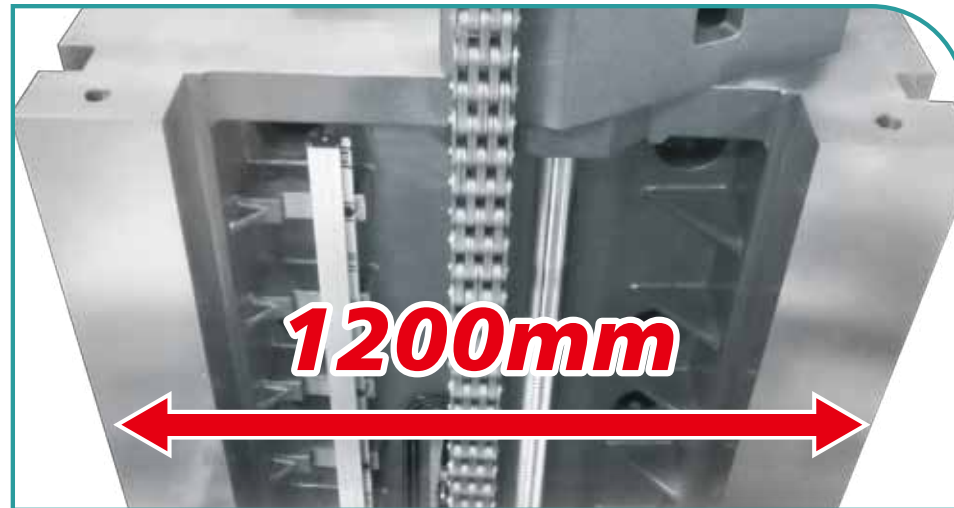
1. First Cooling: Oil cooling for external spindle sleeve.
2. Second Cooling: Oil mist cooling for spindle bearing.
3. Third Cooling: Oil cooling for boring spindle.



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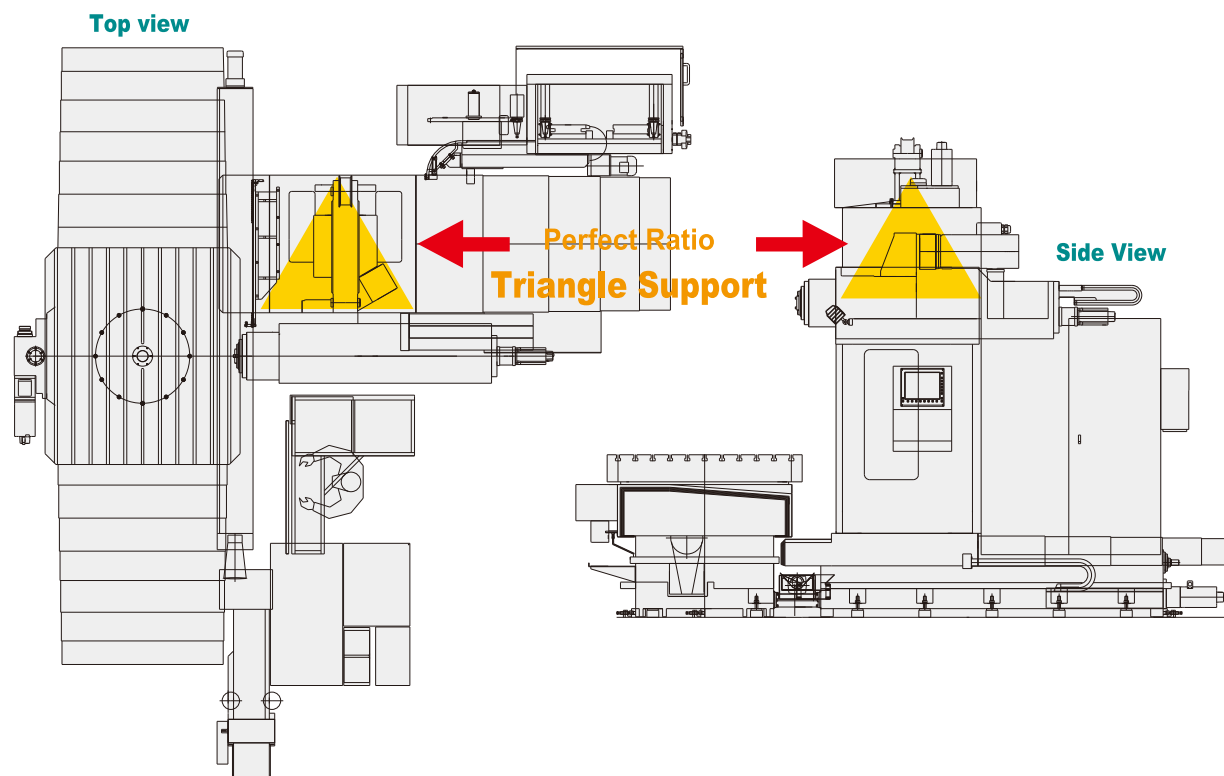
Horizontal Boring and Milling Machine

Extra Large Span Design

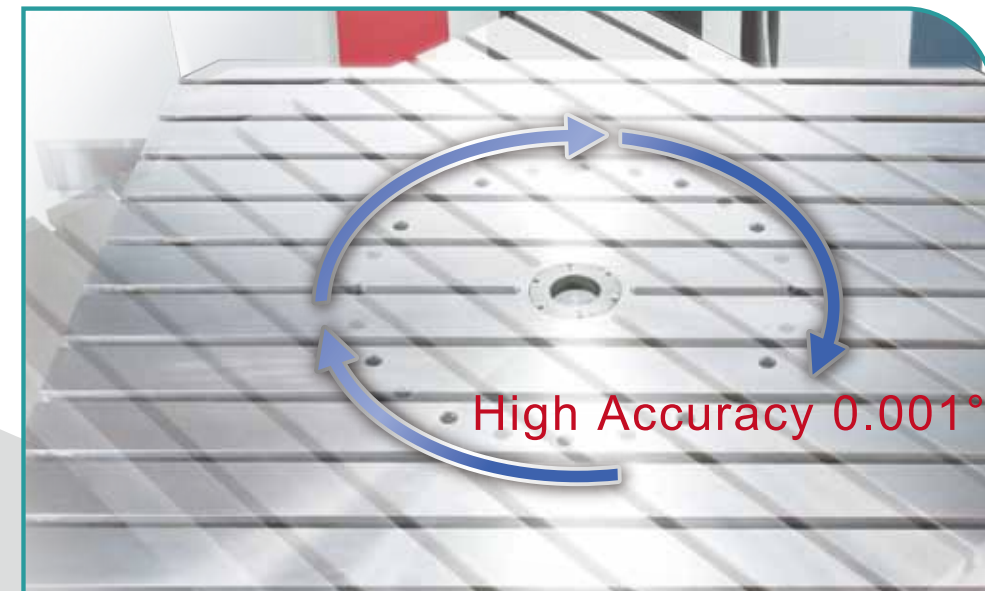


Ultra Perfect Design

- A superb large designed machine column with extra large span 1200mm slideways offers optimum structural rigidity.
- The hydraulic counterbalance mechanism reduces ram drop to a minimum if external sudden power failure occurs, work piece and cutting tools protection is assured.
- The perfect triangle designed support firmly embraces the spindle and W axis assembly, high rigidity is obtained ensuring accurate machining even during high speed Y axis reciprocating movement.



Ultra high resolution, high accuracy and high torque Rotary Table



CUTTING EDGE TECHNOLOGY – HYDROSTATIC SYSTEM ON B AXIS

- The YOU JI designed Rotary Table uses the latest Hydrostatic technology, our system can carry a maximum of 20 tons (Option)
- High precision B axis provides $\pm 7.5''$ positioning accuracy, and $\pm 5''$ repeatability accuracy.
- The combination of the 3 axis of the machine and B axis allows four-axis-machining capability, which provides all necessary criteria machining needs of complex work pieces.
- The Floating Braking System ensures superior accuracy and stability even under heavy cutting.

HIGH ACCURACY PERFORMANCE: TOLERANCE WITHIN ± 7.5 SECONDS

- The rotary table is driven by servo motor via high precision twin-pinion mechanism; delivering maximum thrust force up to 12240 Nm. The continuous immense power easily handles deep cavity milling, cam groove slotting or milling on rotating axis with accurate and satisfactory results.



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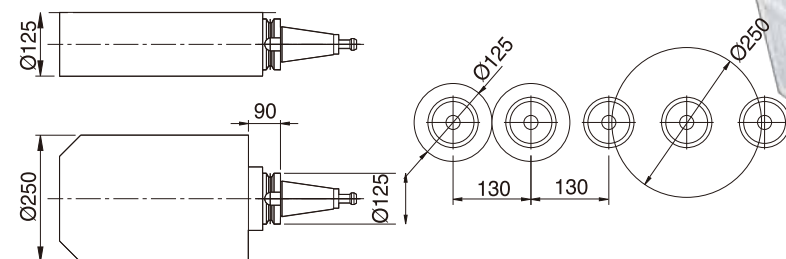
Horizontal Boring and Milling Machine

FLOOR TYPE AUTOMATIC TOOL CHANGER

■ HBM series uses a floor type ATC, it is separated from the machine column, and therefore the ATC system does not interfere with the machining accuracy.

Maximum Tool Dimension:

Max. tool length	400 mm
Max. tool diameter	Ø125 mm(with adjacent tools) / Ø250 mm(without adjacent tools)
Max. tool weight	25 kg

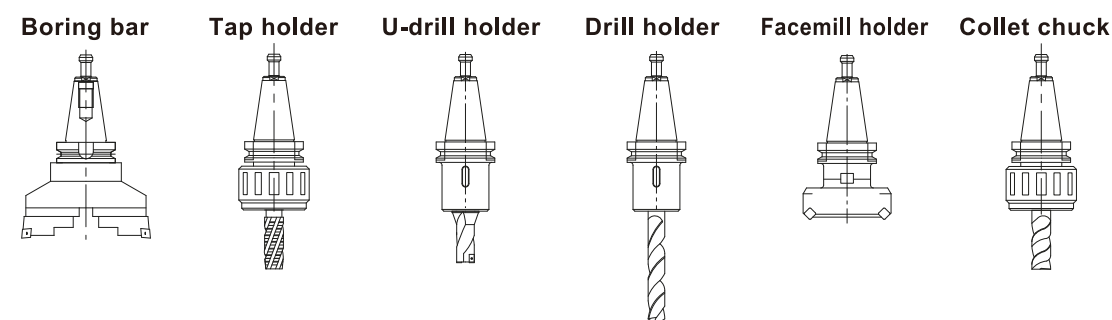


Optional Accessories



▲ Manual Extension Milling Head ▲ Manual 90° Milling Head ▲ Manual Universal Milling Head ▲ Spindle Supporting Sleeve ▲ Manual 90° Extension Milling Head

Tooling System



Rotary Tables

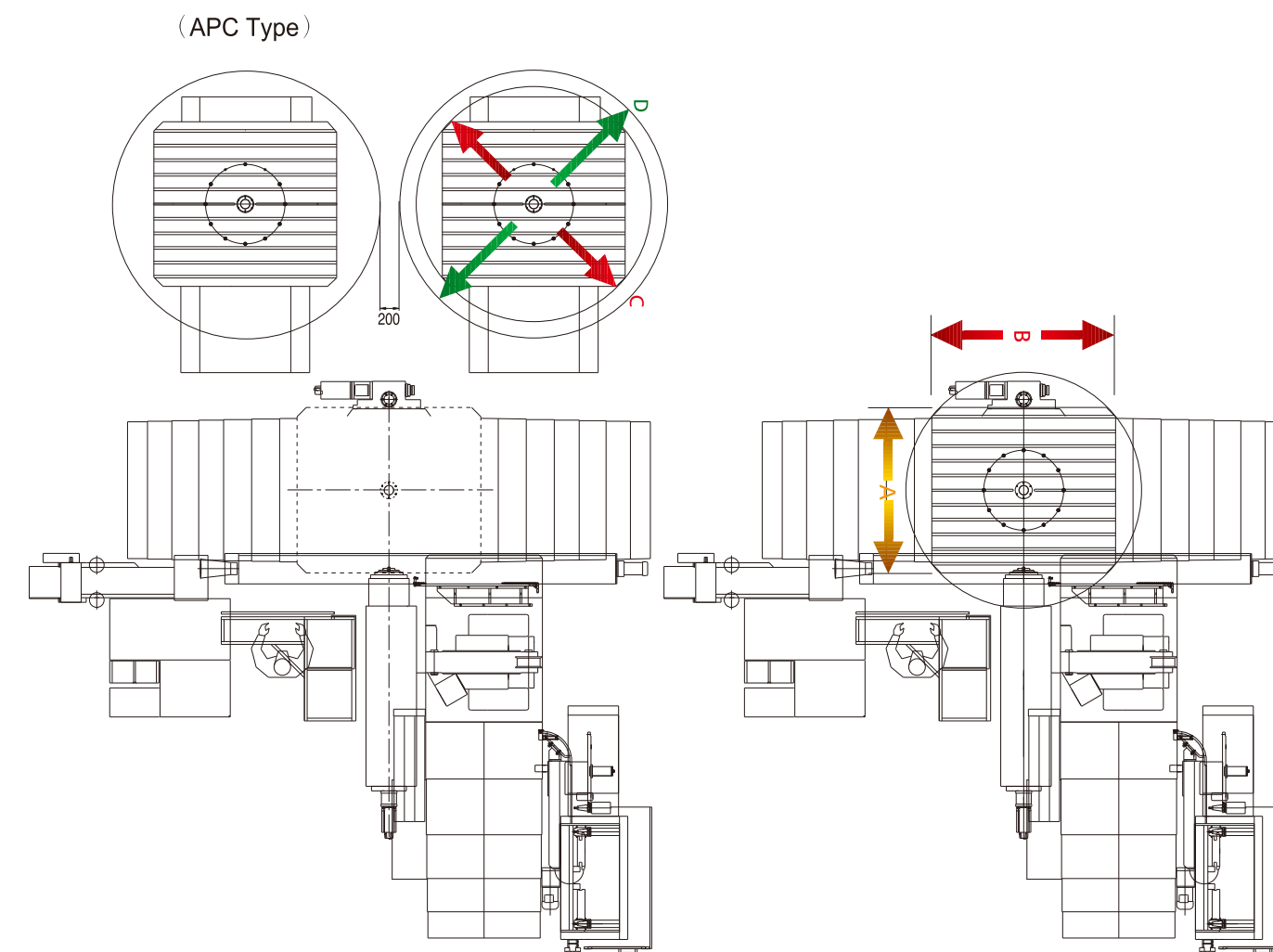


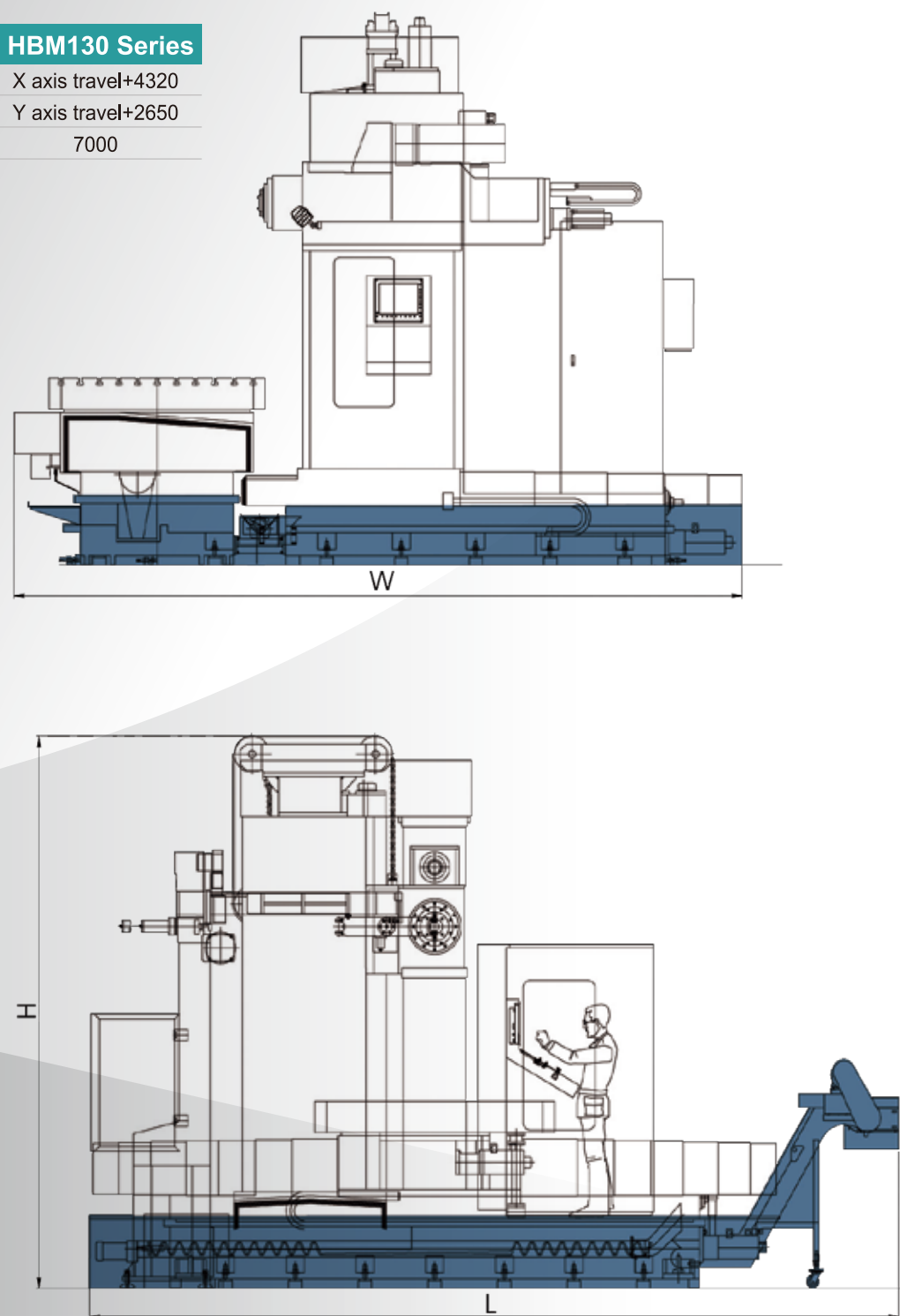
Table Model	Unit	HBM130 Series		
		RT18/18	RT18/20(Optional)	RT18/22(Optional)
Table Dimension (AxB)	mm	1800x1800mm	1800x2000mm	1800x2200mm
Table swing diameter (C)	mm	Ø2540mm	Ø2690mm	Ø2840mm
Work piece swing diameter (D)	mm	Ø2840mm	Ø3070mm	Ø3300mm
Max. table load	kg	12000	12000	12000
T-Slot (Size x Pitch x No.)	mm	28X160X11	28X160X11	28X160X11
Rotation speed (B axis)	rpm/min	2	2	2
X axis minimum travel (APC type)	mm	3500	3500	3500

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Horizontal Boring and Milling Machine

Machine Layout Dimension

Item	Unit	HBM130 Series
L	mm	X axis travel+4320
H	mm	Y axis travel+2650
W	mm	7000



Machine Specifications

Item	Unit	HBM130 SERIES
AXIS TRAVEL		
X axis travel	mm	2500 (3000/3500/4000/4500/5000/5500)
Y axis travel	mm	1800 (2200/2600/3000)
Z axis travel	mm	1250 (1600/2000)
W axis travel	mm	750
Distance from table surface to spindle center	mm	MIN : 0 , MAX : Y axis travel
Distance from table center to spindle nose	mm	MIN : 100 , MAX : W axis travel+Z axis travel
SPINDLE		
Boring spindle diameter	mm	Ø130
Spindle taper		BT-50
Max. spindle speed	RPM	2500
Max. spindle torque	N-m(kgf-m)	1960 (200)
ATC (Option)		
No. of tools	pcs	40/60/80/120
Max. tool weight	kg	25
Max. tool diameter	mm	Ø125 (Max Ø250)
Max. tool length	mm	400
FEED RATE		
X/Y/Z axis rapid traverse	m/min	10
W axis rapid traverse	m/min	6
Cutting feedrate	mm/min	1~4000
Manual feedrate	mm/min	1~4000
CONTROLLER		
FANUC 0i-MD		
MOTOR		
Spindle motor	kW	37/45
X/Y/Z/B axis servo motor	kW	7
W axis servo motor	kW	4
Coolant pump	kW	1.5
Power capacity	KVA	110
TANK CAPACITY		
Lubrication tank	L	8
Coolant tank	L	360

* Specification is subject to change without prior notice.

Standard Accessories

- FANUC 0i-MD controller
- Rotary table
- Dual speed gearbox
- Spindle air blast system
- Side coolant for spindle
- Oil mist lubrication system for spindle
- Rigid tapping
- Hydraulic system
- Auto lubrication system
- Coolant system
- Screw type chip disposal equipment
- Steel belt type chip conveyor
- Telescopic covers for slide ways
- Air conditioner for electrical cabinet
- Lighting inside the electrical cabinet
- Working lamp
- Signal tower light (3 stages)
- Manual pulse generator
- Levelling bolts and blocks
- Ethernet socket

Optional Accessories

- SIEMENS 840D controller
- FANUC 31i controller
- HEIDENHAIN iTNC 530 controller
- Rotary encoder
- Automatic pallet changer
- Coolant through spindle (12, 20 bar)
- Paper filter
- Double filter cartridge
- X/Y/Z/W axis linear scale
- Work piece probe
- Tool presetter
- Manual 90 milling head
- Manual extension milling head
- Manual universal milling head
- Manual 90° extension milling head
- Coolant chiller
- Oil skimmer
- 40/60/80/120 tool magazine
- 90° fixture plate
- Scraper type chip conveyor
- Spindle supporting sleeve
- Cutting air blast
- Automatic power off
- Operator platform
- Transformer
- CE regulation
- Machine safety fence
- Machine with table guarding
- Machine with full enclosure guarding