

## Machine Specifications

		MB-5000HII	
		No.40	No.50*1
Travels	X axis (Left/right column)	760 (29.92)	
	Y axis (spindle up/down)	760 (29.92)	
	Z axis (table front/back)	810 (31.89)	
	Spindle center to pallet top	50 to 810 (1.97 to 31.89)	
	Spindle nose to pallet center	100 to 910 (3.94 to 35.83)	
Pallet	Pallet size	500 × 500 (19.69 × 19.69)	
	Max load	500 (1,100)	
	Indexing angle	1 [0.001]	
	Max workpiece dimensions	ø800 × 1,000 (31.5 × 39.37)	
	Spindle	Spindle speed	15,000 [12,000, 20,000]
Tapered bore		7/24 taper No. 40 [HSK-A63]	7/24 taper No. 50 HSK-A100
Bearing dia		ø70 [ø90, ø70]	ø90
Feedrate	Rapid traverse	X-Y-Z: 60 (196.86)	
	Cutting feedrate	X-Y-Z: 1 to 60,000 (2362.2)	
Motors	Spindle (10 min/cont)	26/18.5 (35/25) [33/26, 30/22 (44/35, 40/30)]	33/26 (44/35)
	Feed axes	X-Y-Z: 5.2 (6.9)	
	Table indexing	3.0 (4.0) [3.5 (4.7)]	
ATC	Tool shank	MAS403 BT40 [HSK-A63]	MAS403 BT50 HSK-A100
	Pull stud	MAS 2	
	Magazine capacity	48 [64, 100, 140, 180, 220, 260, 300, 340]	40, 60, 80, 90, 120, 150, 180, 210, 240
	Max tool dia (w/ adjacent)	ø90 (ø3.54)	ø100 (ø3.94)
	Max tool dia (w/o adjacent)	ø170 (ø6.69)	
	Max tool length	510 (20.08)	
	Max tool weight	12 (26.4)	15 (33)
Machine Size	Tool selection	Memory random*2	
	Height	2,893 (113.9)	
	Floor space; width × depth (RDF specs)*3	2,540 × 5,620 (100 × 221.26)	2,900 × 5,620 (114.17 × 221.26)
	Weight	13,700 (30,140)	14,000 (30,800)
Controller	OSP-P300MA		

\*1. No.50 spindle is optional \*2. Fixed address for 80 or more tools \*3. With RDF drum filter lift-up chip conveyor  
[ ] : Optional

## Standard Specifications

Spindle speed	15,000 min <sup>-1</sup> , 26/18.5 kW (10 min/cont)	Automatic 1° indexing table	
ATC magazine capacity	48 tools	2-pallet rotary-shuttle APC	Pallet top surface M16 tap
Spindlehead cooling system	Oil controller	Full enclosure shielding	Two-pallet pivoted type for APC
Centralized lubrication auto grease supply unit	Grease cartridge 700 ml, and with grease level and pressure warnings	Operation panel	Swing type located on the left
Coolant supply system	Tank 1,000 L (Effective: 710 L), pump 3.3/3.8 W (50/60 Hz)	NC (OSP) control cabinet ventilation fan	
		Work lamp	LED lamp
In-machine chip discharge	Hinge type chip conveyor	3-lamp status indicator	Signal tower Red (alarm), Yellow (end), Green (running)
Chip pan for above			
ATC air blower (blast)		Foundation washers, jack bolts	
Chip air blower (blast)	Nozzle type	Tool release lever	
In-machine chip washer		Tapered bore cleaning bar	
Below pallet washing		Hand tools	
Air filter and oiler		Tool box	
X-Y armored bellows		TAS-S	Thermo Active Stabilizer—Spindle
Hydraulic unit			

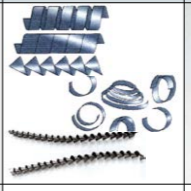
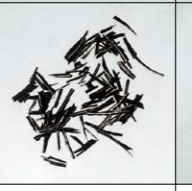
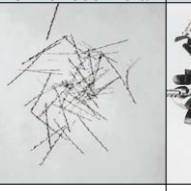

## Optional Specifications

Spindle speeds	20,000 min <sup>-1</sup> , 30/22 kW, HSK-A63 12,000 min <sup>-1</sup> , 33/26 kW	Chip air blower (blast)	Adapter
Dual contact spindle	HSK, BIG-PLUS®	Off-machine chip discharge (lift-up chip conveyor types)	· Hinge · Scraper + drum filter · Hinge + scraper + drum filter Conveyor discharge heights; 800, 1,200 mm
ATC magazine capacity (No.40)	64 (disk magazine)	Chip buckets for above	Heights: 700 mm, 1,000 mm
	100 (chain) 140, 180, 220, 260, 300, 340 (matrix)		
ATC magazine capacity (No.50)	40, 60 (disk magazine)	Hydraulic oil cooler	
	80 (chain)	Coolant heater/cooler	
	90, 120, 150, 180, 210, 240 (matrix)	Tool breakage detection	Auto tool length compensation included (touch sensor)
AbsoScale detection	X-Y-Z axes	In-magazine tool breakage detection	
Auto 0.001° indexing table	Built-in NC table	Auto zero offset	Auto gauging (touch probe)
Multi-pallet APC	6-P (parallel shuttle), 12-P (tower), FMS	Tool life management	By cumulative operation timer, etc
Pallet top	T-slots, inch holes	Overload monitoring	Adaptive feed rate control included
Spare pallets		Pull stud specs	MAS 1, CAT, DIN, JIS
Edge locator		Standard T-column fixture	Height: 850 mm, Pitch:100 mm
Oil-hole coolant system	1.5 MPa	Standard square-column fixture	Height: 850 mm, Pitch:100 mm
Thru-spindle coolant	1.5, 7.0 MPa; Large flow 1.5, 7.0 MPa	Ball-screw cooler	X-Y-Z axis
Shower coolant	10 nozzles	Machining Navi	M-i, M-gII+
Work wash gun		TAS-C	Thermo Active Stabilizer—Construction
Oil mist lubricator			

## Recommended chip conveyors

(Please contact an Okuma sales representative for details.)

○ : Recommended △ : Conditionally recommended

Workpiece material		Steel	FC	Aluminum / Non-ferrous metal	Mixed (general use)
Chip shape					
	In-machine	Hinge type (Standard) *	○	○	○
Off-machine chip discharge (Optional)	Hinge type	○	—	—	△ (*4)
	Scraper type	—	○ (Dry)	—	—
	Scraper type (with drum filter)	—	○ (Wet) with magnet	△ (*3)	—
	Hinge + scraper (with drum filter)	△ (*1)	△ (Wet) (*2)	○	○

\* Scraper type (optional) can be selected.

\*1. When there are many fine chips \*2. When chips are longer than 100 mm \*3. When chips are shorter than 100 mm \*4. When there are few fine chips

Note: When chips are dry, clean out chips that have accumulated under the pallet or elsewhere in the machine as needed.

## Off-machine lift-up chip conveyors

Type	Hinge	Scraper	Scraper (with drum filter)	Hinge + scraper (with drum filter)
Shape	