

CINCINNATI MACHINES

SMART
Series

HB

CNC HORIZONTAL BORING
& MILLING MACHINE

***SMART* HB**
Boring Mills
provide very
Precision Boring
at a very
affordable
Price



HB-800, 1000W

CNC HORIZONTAL BORING & MILLING MACHINE

Automatic Tool Changer System

Standard chain type with 60 tools magazine ATC, provide safety and stable tools exchange. This will enhances machining flexibility and efficiency.

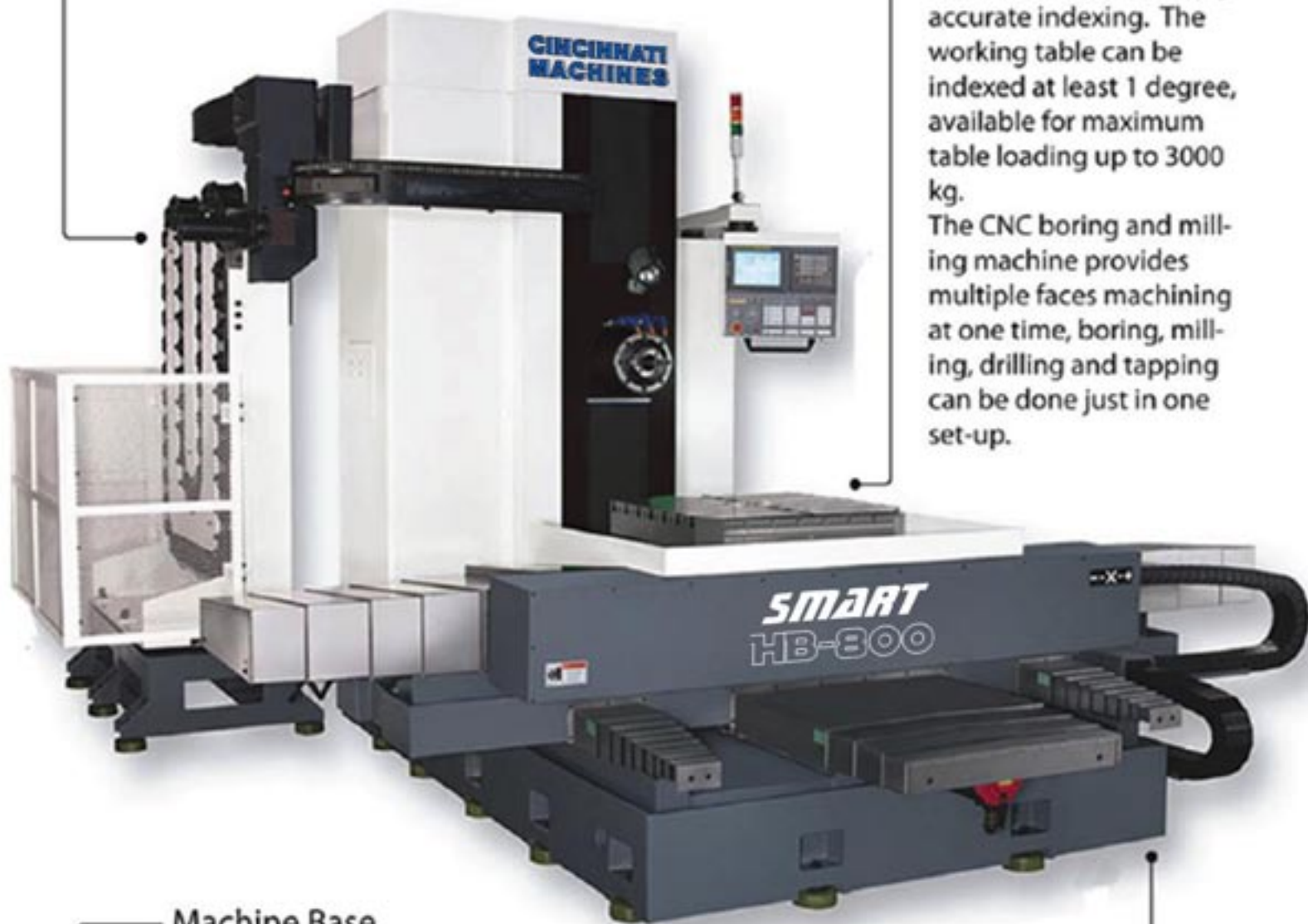
Working Table

The high precision indexing work table driven by a servo motor provides high accurate indexing. The working table can be indexed at least 1 degree, available for maximum table loading up to 3000 kg.

The CNC boring and milling machine provides multiple faces machining at one time, boring, milling, drilling and tapping can be done just in one set-up.

Machine Base

The extra heavy, wide one-piece base has 4 slide ways. Box type column features outstanding stability in heavy duty machining and accurate dynamic level at all time.



Control System

The suspended control box can be rotated during operation and the portable MPG hand wheel easily in set-up work piece. With high reliable and high performance control FANUC 18i-MB.



Main Spindle

The spindle is mounted on class SP high precision NN dual roller bearing. Full geared drive spindle with two ranges of speed change provides flexible cutting capacity.

The quill type designed spindle has circulating coolant with oil temperature control to eliminate thermal expansion on the spindle.

Torque Chart

Powerful AC spindle motor: 15kW/18.5kW
2 steps variable speed at maximum 3000 rpm.

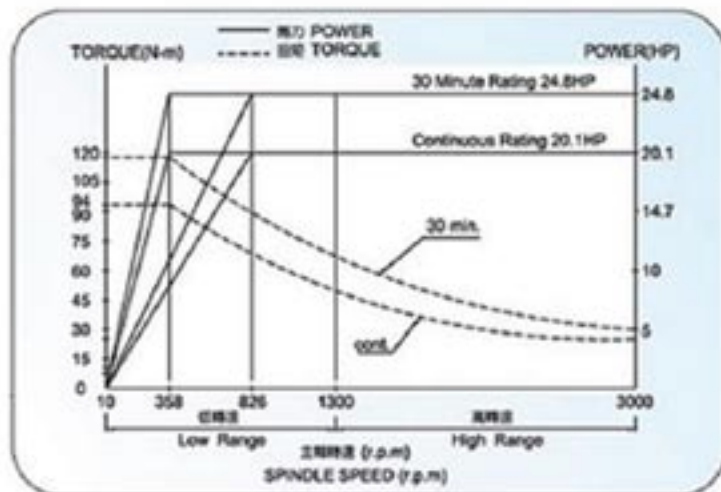
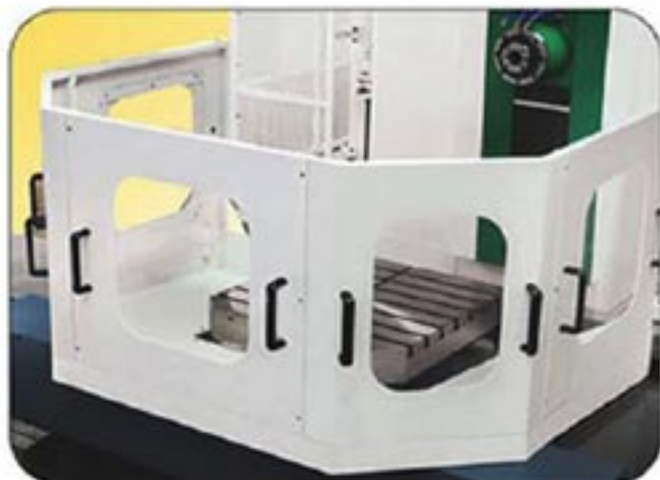


Table Splash Guard

A removable splash guard helps to prevent chips and coolant splashing to keep the working area clean. (Optional)



SMART HB CNC Horizontal Boring Mill

MACHINE SPECIFICATION:

ITEM		HB-800	HB-1000W
Table			
Table size	mm	800 x 800	1200 x 1500
T slot (wide x no. x pitch)	mm	22H7	22H8 x 7 x 150
Max. load capacity	kg	3000	5000
Auto indexing	deg	1° (360D)	Min. input 0.001 Every 90 deg with locating pin
Clamping force	kg	5000	12800
Table height from ground	mm	-	1000
B-axis rapid feed	rpm	-	2
Travel			
X-axis travel	mm	2000	2000, 3000 (opt)
Y-axis travel	mm	1200	1500
Z-axis travel	mm	1200	1500
W-axis travel	mm	-	550
Spindle nose to table center	mm	275 - 1475	-130 - 1920
Spindle center to table top	mm	0 - 1200	0 - 1500
Spindle			
Spindle nose	mm	BT50	BT50
Spindle diameter	mm	-	110
Output max.	kg-m	-	114.2
Speed/ 2 steps (auto)	Lo-Speed	rpm	5 - 625
	Hi-Speed		626 - 2500
Feeds			
Rapid X,Y,Z, W-axis	m/min	15/12/15 (No W-Axis)	10/10/10/6
Feed rate of X, Y, Z, W-axis	mm/min	1 - 6000 (No W-Axis)	1 - 6000
X, Y, Z ballscrew (Dia./Pitch)	mm	-	63/10
W-axis ballscrew (Dia./Pitch)	mm	-	40/10
A.T.C			
Magazine capacity	pcs	60	60
Pull stud	-	MAX-P50T-1	MAS-P50T-1
Max. tool length	mm	400	400
Max. tool weight	kg	25	5
Max. tool diameter	mm	Ø125 / Ø250	Ø125 / Ø250
Tool selection	-	Shortest way	Shortest way
Tool changer time (approx.)	sec	13	13
Motors			
Spindle motor	kw	15 / 18.5	22 / 26
Servo motor for X/Y/Z/B	kw	7/7/7/4	6/6/6/7
Centralized lubrication pump	w	25	150
Hydraulic pump	kw	2.2	3.7
Spindle oil cooler pump	kw	0.2	0.4
Coolant pump	kw	1	1.34
General Information			
Air pressure required	kg/cm	6	6
Coolant tank	L	400	250
Machine dimension	mm	4900 x 5100 x 3250	4570 x 5380 x 3720
Machine weight	kg	18000	23000
NC Controller	-	Fanuc 18i-MB	Fanuc 18i-MB