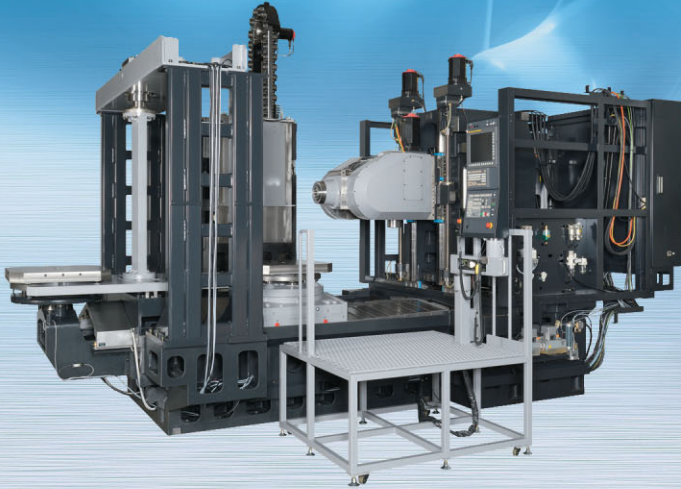


5-axis Horizontal Machining Center

# HM-X8000

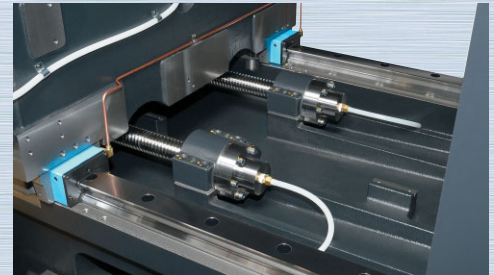
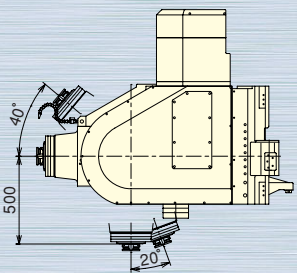
**Tilting spindle head structure!**  
**Both vertical and horizontal**  
**spindle positions are available!**  
**Max.workpiece diameter 1200mm**



## High precision machining

The forced core cooled ball screws and Ball screw thermal displacement compensation function (OKK's original compensation function) included in the standard specification, limit the thermal displacement and improve the machining accuracy.

## Spindle Head tilting axis (A-axis)



The tilting head structure improves operator accessibility and visibility to the work piece as well as maximizing the machining work envelope and weight capacities.

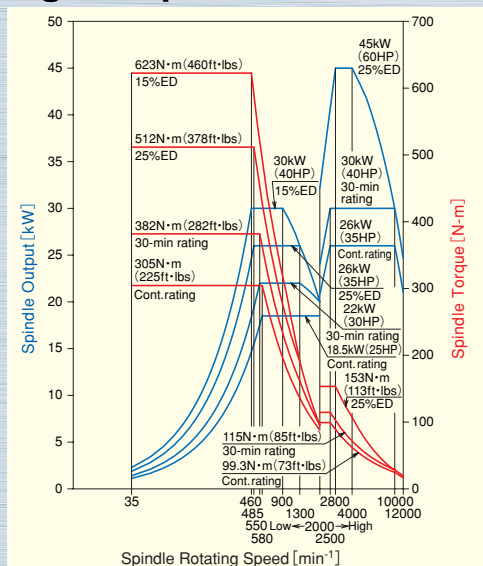
Additionally, when the angle of the A-axis is 90 degrees, the spindle can access to the center of the table.

## A5-System-A (Opt.)

Accuracy of 5-axis machining is greatly influenced by geometric errors. Such as dislocation and tilt of the rotation axis.

The A5-System automatically compensates for the dislocation of the rotation axis by measuring them with the touch sensor to achieve a highly-accurate 5-axis compensation for simultaneous 5-axis machining.

## 45-kW/623-Nm high-power/ high-torque built-in motor



## Machining capabilities

HM-X8000 : No.50 12000min<sup>-1</sup> 45/26kW (25%/Cont.)

	Angle of A-axis is 0°	Angle of A-axis is -90°
Type of machining	Face milling $\phi 125$ (5") $\times 6T$	
Spindle rotating speed	400min <sup>-1</sup> (400rpm)	400min <sup>-1</sup> (400rpm)
Width of cut	100mm (3.94")	100mm (3.94")
Depth of cut	6mm (0.24")	6mm (0.24")
Feed rate	700mm/min (27.56ipm)	800mm/min (31.50ipm)
Cutting rate	420cm <sup>3</sup> /min (25.6in <sup>3</sup> /min)	480cm <sup>3</sup> /min (29.3in <sup>3</sup> /min)
Spindle motor load	100%	100%
Workpiece material	S45C	S45C



A-axis 0°  
(Horizontal position)

	Angle of A-axis is 0°	Angle of A-axis is -90°
Type of machining	Side milling $\phi 50$ (2") $\times 6T$	
Spindle rotating speed	200min <sup>-1</sup> (200rpm)	200min <sup>-1</sup> (200rpm)
Width of cut	15mm (0.59")	15mm (0.59")
Depth of cut	50mm (1.97")	50mm (1.97")
Feed rate	200mm/min (7.87ipm)	240mm/min (9.54ipm)
Cutting rate	150cm <sup>3</sup> /min (9.2in <sup>3</sup> /min)	180cm <sup>3</sup> /min (11in <sup>3</sup> /min)
Spindle motor load	68%	78%
Workpiece material	S45C	S45C



A-axis -90°  
(Vertical position)

Values shown here are for reference to provide an indication of cutting capability.

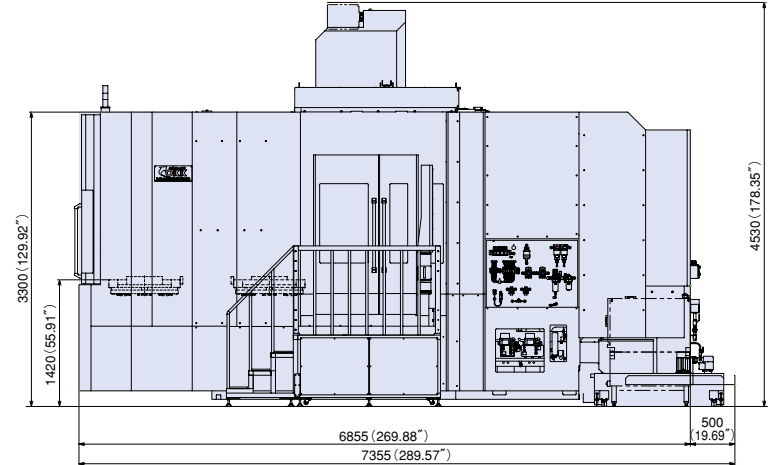
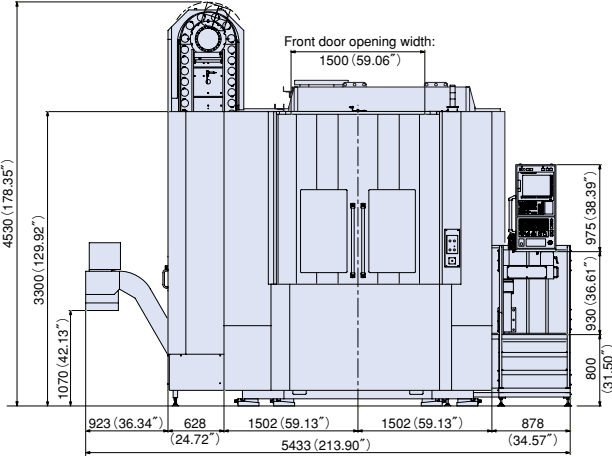
# Main Specification

Item	Specification
Travel on X axis	mm 1300 (51.18")
Travel on Y axis	mm 1100 (43.31")
Travel on Z axis	mm 1550 (61.02")
Travel on A axis	deg 40 to -110
Travel on B axis	deg 360
Table (Pallet) work surface area	mm □800 (□31.50")
Mass of maximum load loadable on table (Pallet)	kg 2000 (4409lbs) (Uniformly distributed load)
Size of maximum load loadable on table (Pallet)	mm φ1200 (47.24") × 1250 (49.21")
Spindle rotating speed	min <sup>-1</sup> 35 to 12000 (35 to 12000rpm)
Spindle motor (25%ED/30-min rating/continuous rating)	kW 45/30/26 (60/40/35HP)
Spindle torque (25%ED/30-min rating/continuous rating)	N·m 623/382/305 (460/282/225ft·lbs)
Spindle taper hole	7/24 taper, No. 50

Item	Specification
Rapid traverse rate	m/min X/Y/Z:48 (1889.76ipm)
	min <sup>-1</sup> A:8.3 (8.3rpm) B:16.6 (16.6rpm)
Number of storable tools	tools 60
Maximum tool diameter	mm φ115 (4.53") (φ270 (10.63") with no tools in adjoining pots)
Maximum tool length	mm 400 (15.75")
Maximum tool mass	kg 25 (55lbs)
Tool exchange time (tool-to-tool)	sec 2.8
Tool exchange time (cut-to-cut)	sec 5.7
Required floor space	mm 5433 (213.90") × 7355 (289.57")
Machine height	mm 4530 (178.35")
Machine mass	kg 30000 (66138lbs)

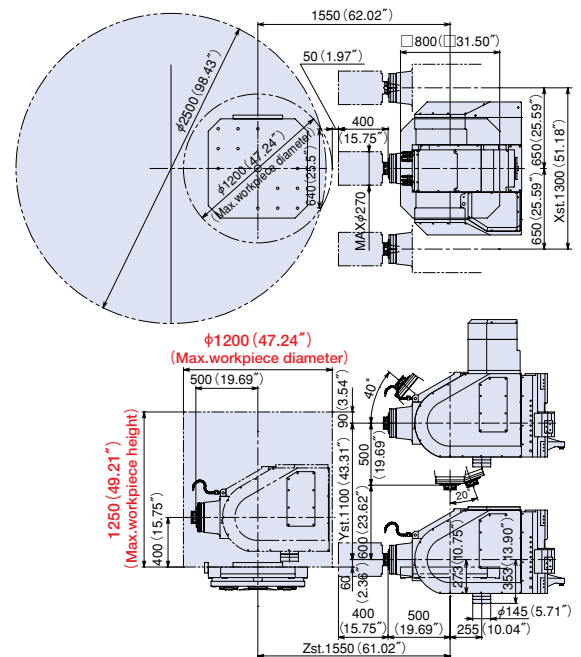
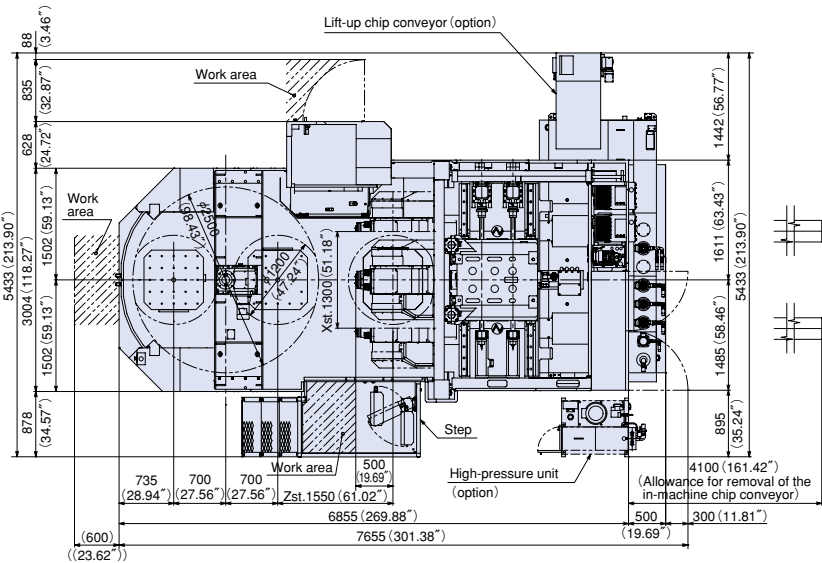
Front view

Side view



Floor space

Stroke diagram



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