

**KIWA** Japan

# KH-5800kai

Horizontal Machining Center

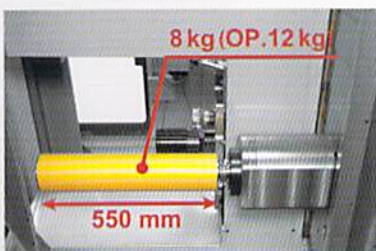


**NEW**

X/Y/Z TRAVEL:  
**800/800/850** mm



## Largest Strokes in its Class (#40 Taper) for Small Footprint



Large and Heavy Tools  
Acceptable

Number of Tools:  
40 (OP. 60/120/240)



Large Workpiece Size  
for #40 Taper

Max. Load:  
500kg/pallet (OP. 750kg/pallet)



Expandable APC & ATC  
in the Field

2 to 6 pallets  
40 to 60 tools  
(Simple Oval Shaped Magazine)  
120 to 240 tools  
(Larger Tool Storage Magazine)

**KIWA MACHINERY CO., LTD.**

# KH-5800kai

● TRAVEL			● AUTOMATIC TOOL CHANGER		
X-axis	mm [inch]	800 [31.5] for 12,000/15,000min <sup>-1</sup> (OP. 740 [29.1] for 20,000min <sup>-1</sup> )	Type of tool shank	BBT40/CAT40 for 12,000/15,000min <sup>-1</sup> (OP. HSK-A63 for 15,000/20,000min <sup>-1</sup> )	
Y-axis	mm [inch]	800 [31.5]	Type of pull-stud	JIS	
Z-axis	mm [inch]	850 [33.5] (OP. 840 [33.1] for 630x630mm Pallet)	Number of tools	40 (OP. 60 / 120 / 240)	
Spindle center to pallet surface	mm [inch]	50-850 [2.0-33.5]	Max. tool diameter	mm [inch]	Dia. 70 / 140 [Dia. 2.8 / 5.5] for 40/60ATC
Spindle nose to pallet center	mm [inch]	75-925 [3.0-36.4] (OP. 85-925 [3.3-36.4] for 630x630mm Pallet)	(Adjacent pots full/empty)	Dia. 90 / 185 [Dia. 3.5 / 7.3] for 120/240ATC	
Pallet top height (from the floor)	mm [inch]	1,069 [42.1]	Max. tool length	mm [inch]	550 [21.7]
● PALLET			● MOTOR		
Pallet size (x 2 pallets)	mm [inch]	500x500 [19.7x19.7] (OP. 400x400 [15.7x15.7] / 630x630 [24.8x24.8])	Max. tool weight	kg [lbs]	8 [17.6] (OP. 12 [26.5] Max. moment 13.5Nm)
Max. workpiece diameter	mm [inch]	Dia. 800 [31.5]	Tool selection system	Random for 40/60ATC, Fixed tool pot for 120/240ATC	
Min. workpiece height	mm [inch]	1,000 [39.4]	Tool to tool / Chip to chip	sec.	1.1 / 2.7
Max. load	kg [lbs]	500 [1,100] /pallet (OP. 750 [1,650] /pallet)	● SUPPLY		
Configuration	mm [inch]	25-M16 P=100 [3.9] (OP. 25-M16 P=80 [3.1] for 400x400mm Pallet 25-M16 P=125 [4.9] for 630x630mm Pallet)	Spindle motor	kW [hp]	37 [50] (S3 15%)
Min. indexing degree	degrees	0.001	Feed axes motors (X/Y/Z/B)	kW [hp]	4.5/4.5/4.5/2.7 [6.0/6.0/6.0/3.6]
Indexing speed	sec./90 degrees	1.1	Lubrication pump motor	W [hp]	Oil: 18 [0.024] / Grease: 20 [0.027]
Pallet clamping force/clamping system	30 (=10x4) cornes / Mechanical lock		Coolant pumps	W [hp]	550 [0.74] x 2pcs (60Hz) 370 [0.5] x 1pc / 550 [0.74] x 1pc (50Hz)
B-axis clamping torque	Nm	5,000	Hydraulic pump	kW [hp]	2.2 [2.9]
● SPINDLE			● TANK		
Spindle speed	min <sup>-1</sup>	12,000 Direct drive (OP. 15,000 Direct drive / 20,000 Built-in)	Hydraulic unit tank	liters [gal]	20 [5.3]
Spindle rated torque	Nm	249 [S3 15%] for 12,000/15,000min <sup>-1</sup> (OP. 200 [S3 15%] for 20,000min <sup>-1</sup> )	Coolant tank	liters [gal]	510 [134.7]
Spindle taper	ISO 7/24 Taper NT No. 40		Lubrication tank	liters [gal]	Oil: 1.8 [0.5] / Grease cartridge: 0.7 [0.2]
● FEED			● SIZE		
Rapid feed (X/Y/Z)	mm/min. [ipm]	80,000 [3,150]	Floor space	mm [inch]	2,896 x 5,058 [114.0x199.1] (for 40 / 60ATC)
Cutting feed	mm/min. [ipm]	30,000 [1,181]	(w/o Chip conveyor & Coolant tank)	3,128 x 5,058 [123.1x199.1] (for 120 / 240ATC)	
Table rotating speed	min <sup>-1</sup>	66.6 (OP. 55.5 for Max. load 750kg /pallet)	Machine height	mm [inch]	2,652 [104.4] (40 / 120ATC), 2,764 [108.8] (60ATC) 3,143 [123.7] (240ATC)
Acceleration (X/Y/Z)	G	1.0 / 1.0 / 1.0	Machine weight	kg [lbs]	9,650 [21,230] (for 2APC+40ATC) 10,400 [22,880] (for 2APC+120ATC) 11,200 [24,640] (for 2APC+240ATC)
● AUTOMATIC PALLET CHANGER					
Number of pallets	2 (OP. 6)				
Pallet change system	Rotation				

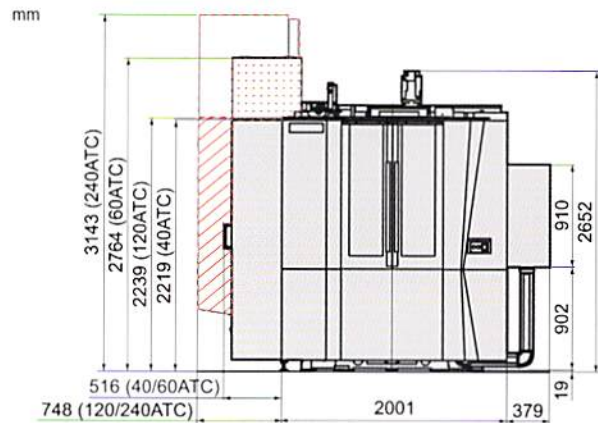
## FANUC 31i-B Plus

- Simultaneously controllable axes: 4 axes
- Spindle override 50- 150% (each 10%)
- Cutting feed override 0 - 200% (each 10%)
- Rapid traverse rate override 1,2,4,8,15,25,50,100%
- Rapid traverse bell-shaped acceleration/deceleration
- Position switch
- Manual handle feed 1 unit
- Thread cutting, synchronous cutting
- Workpiece coordinate system

- Addition of workpiece coordinate system 48 sets
- Programmable data input G10
- Custom macro
- Canned cycles for drilling
- Run hour and parts count display
- Tool offset: 400 pcs
- Tool radius / Tool nose radius compensation
- Part program storage: 4 Mbyte
- Number of registrable programs: 1,000 pcs
- AI contour control II+Expansion (400 Look-ahead Blocks)
- Stored pitch error compensation

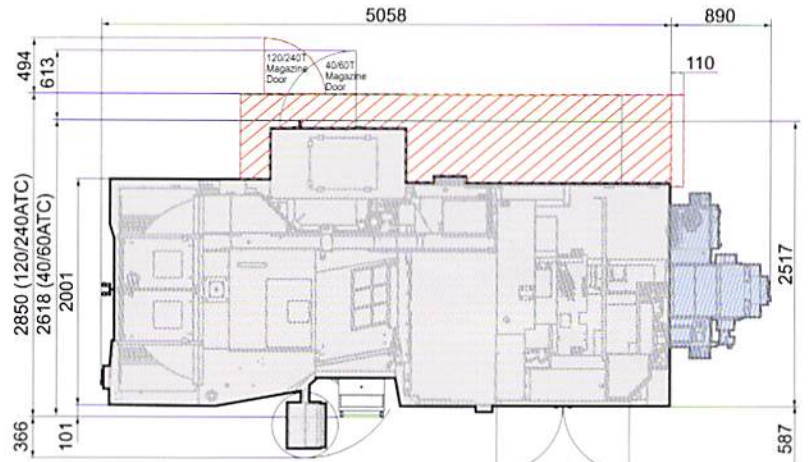
- Background editing
- Rigid tapping
- Helical interpolation
- Automatic corner override
- Tool offset memory C
- Tool management function
- Scaling
- Single direction positioning
- Programmable mirror image
- Coordinate system rotation

## MACHINE SIZE



[Front View]

Specifications and dimensions are subject to change without notice.



[Top View]

40T Machine
  60T
  120T
  240T
  Chip Conveyor/ Coolant Tank

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