

Takumi

The Art of Productivity

H16

Double-Column Machining Center



High Speed Machining and Outstanding Surface Finish

- 62.9 x 51.1 x 27.5 in (1,600 x 1,300 x 700mm) travels
- 74.8 x 51.1 in (1,900 x 1,300 mm) table working surface with 13,200 lbs (6,000 kg) maximum capacity
- 1,181 inches per minute (30 m/minute) rapids
- 787 in/minute (20 m/minute) cutting feed rates
- 30-station swing-arm ATC, random access
- 15,000 RPM Big Plus® CAT 40 inline direct-drive spindle
- World-class performance for die/mold, aerospace, and other high speed applications
- One piece robust base absorbs the inertia of high cutting feeds
- Extra-wide door openings, for easier loading and unloading
- One piece double column design increases rigidity enabling higher cutting feeds while maintaining part finish
- 45% increase in Y axis work area over the standard vertical machine design
- Specially designed head and included spindle chiller ensure thermal stability
- 30 components on the machine are hand scraped for alignment during assembly
- Roller-type rails on all axes for added rigidity and speed
- Large diameter, preloaded and pretensioned ballscrews with fine pitch for accurate motion control
- Linear scales on all axes
- FANUC® 31i-MB Series Control
- AICC II for high feed rates with optimal cutting precision
- High speed processor and 600 block look ahead for fast contour milling
- 1 Gigabyte data server with high speed ethernet connection
- Programmable mirror image
- Rigid Tapping (M29)
- 2 year machine parts warranty
- 2 year control parts and labor warranty
- Factory trained local service and 24/7 tech support

Specifications

	H16
Travel	
X-Axis	62.99 in / 1,600 mm
Y-Axis	51.18 in / 1,300 mm
Z-Axis	27.56 in / 700 mm
Distance from Spindle Nose to Table	7.9 ~ 35.4 in / 200 ~ 900 mm
Distance between Columns	59.0 in / 1,500 mm
Table	
Dimensions	74.8 x 51.18 in / 1,900 x 1,300 mm
Max. Load	13,200 lbs / 6,000 kg
T-slot (number x width x pitch)	8 x .87" on 6.3" Centers / 8 x 22mm on 160mm Centers
Spindle	
Type	Direct Drive
Spindle Speed	15,000 rpm
Spindle Torque Peak	105.5 ft/lb / 143.04 nm
Motor Power (cont./30 min)	20.1/24.8 HP / 15/18.5 KW
Coolant Thru Spindle	30 bar / 435.11 psi
Spindle Taper	Big Plus® CAT 40
Feed Rate	
Rapid Traverse (X/Y/Z)	1,181 x 1,181 x 1,181 ipm / 30 x 30 x 30 m/min
Cutting Feed Rate	0.04~787 ipm / 1 ~ 20,000 mm/min
Power (X/Y/Z)	14.0kw/5.5kw/5.5kW
ATC & Magazine	
ATC Type	Swing-Arm
Magazine Capacity	30 tools
Maximum Tool Diameter (next pocket empty)	2.95/5.85 in / 74.9/151.1 mm
Maximum Tool Length	11.8 in / 300 mm
Maximum Tool Weight	15.4 lbs / 7 kg
Tool Shank	CAT 40 (BT 40 optional)
Space & System Requirements	
Pneumatic Pressure	5 CFM @ 85-115 psi / 0.14m3 /min. @ 6-8 bar
Electrical Power Consumption	75 KVA
Machine Net Weight	40,000 lbs / 22,000 kg
Operating Dimensions (W x L x H)	191.45 x 204.92 x 156.69 in / 4,863 x 5,205 x 3,980 mm

Accessories

Standard:

- › Linear Scales
- › 15,000 RPM, Big Plus® CAT 40, inline spindle
- › 435 PSI coolant thru the spindle
- › Operator safety door switches
- › Spindle chiller
- › Programmable cutting airflow
- › 197 gallon coolant tank
- › Programmable coolant washdown
- › Centralized automatic lubrication system
- › Oil Skimmer
- › Wash-down gun and air gun
- › 1GB Dataserver
- › Manual pulse generator (MPG)
- › Ethernet & RS-232C interface
- › Electrical cabinet air conditioner
- › Dual internal chip augers and lift up chip conveyor
- › Toolbox, leveling bolts and pads
- › Operator manuals
- › Full enclosure
- › Work-light
- › 3-light indicator lamp

Optional:

- › Oil mist device
- › Oil mist collector
- › Coolant filtration
- › Part probe measurement system
- › Tool probe measurement system
- › 4th axis preparation kit
- › 4th axis rotary table
- › 1000 psi coolant thru spindle
- › Cutting air thru spindle
- › 48 additional work offsets
- › BBT 40 tool holder conversion

Layout

