

# Takumi

The Art of Productivity

## H10

### Double-Column Machining Center



#### High Speed Machining and Outstanding Surface Finish

- › 40.16 x 27.56 x 19.69 in (1,020 x 700 x 500mm) travels
- › 41.3 x 27.6 in (1,050 x 700 mm) table working surface with 1,760 lbs (800 kg) maximum capacity
- › 1,259 inches per minute (32 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
- › 35% 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

	H10
<b>Travel</b>	
X-Axis	40.16 in / 1,020 mm
Y-Axis	27.56 in / 700 mm
Z-Axis	19.69 in / 500 mm
Distance from Spindle Nose to Table	7.09 ~ 26.77 in / 180 ~ 680 mm
Distance between Columns	42.5 in / 1,080 mm
<b>Table</b>	
Dimensions	41.3 x 27.6 in / 1,050 x 700 mm
Max. Load	1,760 lbs / 800 kg
T-slot (number x width x pitch)	6 x .71" on 4.92" Centers / 6 x 18mm on 125mm Centers
<b>Spindle</b>	
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
<b>Feed Rate</b>	
Rapid Traverse (X/Y/Z)	1,259 x 1,259 x 1,259 ipm / 32 x 32 x 32 m/min
Cutting Feed Rate	0.04 ~ 787 ipm / 1~ 20,000 mm/min
Power (X/Y/Z)	4.5kw/4.5kw/4.5kW
<b>ATC &amp; Magazine</b>	
ATC Type	Swing-Arm
Magazine Capacity	30 tools
Maximum Tool Diameter (next pocket empty)	2.95/5.85 in / 74.9/148 mm
Maximum Tool Length	11.8 in / 300 mm
Maximum Tool Weight	15.4 lbs / 7 kg
Tool Shank	CAT 40 (BT 40 optional)
<b>Space &amp; System Requirements</b>	
Pneumatic Pressure	5 CFM @ 85-115 psi / 0.14m <sup>3</sup> /min. @ 6-8 bar
Electrical Power Consumption	50 KVA
Machine Net Weight	20,020 lbs / 9,100 kg
Operating Dimensions (W x L x H)	177.95 x 168.74 x 120.01 in / 4,520 x 4,286 x 3,050 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
- › 110 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
- › Toolbox, leveling bolts and pads
- › Operator manuals
- › Full enclosure
- › Work-light
- › 3-light indicator lamp

### Optional:

- › 20000 rpm HSK A63 integral spindle
- › 24000 rpm HSK A63 IBAG integral spindle
- › Oil mist device
- › Oil mist collector
- › Coolant filtration
- › Part probe measurement system
- › Tool probe measurement system
- › 4th axis preparation kit
- › 4th axis rotary table
- › Lift up chip conveyor with cart
- › 1000 psi coolant thru spindle
- › Cutting air thru spindle
- › 48 additional work offsets
- › BBT 40 tool holder conversion

## Layout

