

HS-630i with AVEREX-FANUC MPro III SPECIFICATIONS

	DESCRIPTIONS	IMPERIAL	METRIC
TRAVEL	X-axis, Y-axis, Z-axis	41.3", 35.4", 40.2" (10,000 rpm Spindle) 41.3", 34.6", 40.2" (8,000 rpm Spindle)	1050 mm, 900 mm, 1020 mm (10,000 min ⁻¹ Spindle) 1050 mm, 880 mm, 1020 mm (8,000 min ⁻¹ Spindle)
	Spindle center to pallet surface Spindle nose to pallet center Pallet top height (from the floor)	3.1" - 34.6" (10,000 rpm Spindle) 3.9" - 34.6" (8,000 rpm Spindle) 2.0" - 42.1" 52.4"	80 - 980 mm (10,000 min ⁻¹ Spindle) 100 - 980 mm (8,000 min ⁻¹ Spindle) 50 - 1,070 mm 1,330 mm
TABLE	Table size (2 pallets) Workpiece max. size Max. payload Configuration Min. indexing degree Indexing speed Pallet clamping system Pallet clamping force B-axis clamping torque	24.8" x 24.8" Ø39.4" x 51.2" 2,640 lb M16x30L P=4.9" 1" (0.001" Optional) 2.2 sec./90° (2.0 sec./90° Optional) Mechanical Lock 3,590 lb x 4 cones 36,140 lb-ft (3,023 lb-ft Optional)	630 mm x 630 mm Ø1,000 mm x 1,300 mm 1,200 kg M16x30L P=125 mm 1" (0.001" Optional) 2.2 sec./90° (2.0 sec./90° Optional) Mechanical Lock 16 kN x 4 cones 49,000 Nm (5,300 Nm Optional)
	Spindle speed Spindle rated torque	20-10,000 rpm (8,000 rpm Optional) 442 lb-ft (15%ED) 309 lb-ft (15 min.) 885 lb-ft (10%ED) (8,000 rpm Optional) 481 lb-ft (30 min.) (8,000 rpm Optional)	20-10,000 min ⁻¹ (8,000 min ⁻¹ Optional) 600 Nm (15%ED) 420 Nm (15 min.) 1202 Nm (10%ED) (8,000 min ⁻¹ Optional) 653 Nm (30 min.) (8,000 min ⁻¹ Optional)
SPINDLE	Spindle acceleration / deceleration Spindle taper Through spindle coolant	5.5 sec. (0-10K rpm) / 5.5 sec. (10K-0 rpm) ISO 7/24 Taper NT No. 50 435 psi	5.5 sec. (0-10K min ⁻¹) / 5.5 sec. (10K-0 min ⁻¹) ISO 7/24 Taper NT No. 50 3.0 MPa
	Rapid feed (X/Y/Z) Cutting feed (X/Y/Z) Table rotating speed	1,969 ipm 0.04-1,969 ipm Parkson: 16.6 rpm Tsudakoma: 22.2 rpm	50,000 mm/min 1-50,000 mm/min Parkson: 16.6 min ⁻¹ Tsudakoma: 22.2 min ⁻¹
FEED	Guide ways (X/Y/Z) Acceleration (X/Y/Z) Ballscrews size	Roller ways [THK] 0.7 G/1.0 G/0.9 G Ø1.97"	Roller ways [THK] 0.7 G/1.0 G/0.9 G Ø50 mm
	Type of tool shank Type of pull-stud Number of tools Max. tool diameter (Adjacent pots full / empty) Max. tool length Max. tool weight Tool selection system Tool to tool Chip to chip	BBT 50 / CAT 50 (Optional) JIS / CAT 50 (Optional) 60 Ø4.5" / Ø11.8" 23.6" 55 lb Random 2.5 sec. (3.5 : Heavy tool programmable) 5.8 sec. (6.8 : Heavy tool programmable)	BBT 50 / CAT 50 (Optional) JIS / CAT 50 (Optional) 60 Ø115 mm / Ø300 mm 600 mm 25 kg Random 2.5 sec. (3.5 : Heavy tool programmable) 5.8 sec. (6.8 : Heavy tool programmable)
ATC	Number of pallets Pallet change system APC exchange time	2, Optional 6 Rotation 15 sec.	2, Optional 6 Rotation 15 sec.
	Spindle motor Feed axes motors (X/Y/Z/B) Lubrication pump motor Spindle coolant pump Chips flush (base) coolant pump Through spindle coolant pump Overhead shower flush coolant pump Hydraulic pump Spindle oil chiller	60 / 50 hp 7.4 / 6.7 / 7.4 / 5.4 hp 0.024 hp 2.2 hp 2.7 hp 3.0 hp 3.2 hp 3.0 hp 7.2 hp	45 / 37 kW 5.5 / 5.0 / 5.5 / 4.0 kW 18 W 1.62 kW 2.03 kW 2.24 kW 2.35 kW 2.23 kW 5.40 kW
MOTOR	Electric voltage Electric power supply Air pressure Air volume	200 - 230 volt 70 kVA 87.0 psi 174 gal/min	200 - 230 volt 70 kVA 0.6 MPa 660 liter/min
	Hydraulic unit tank Coolant Tank Lubrication unit tank	15.9 gallon 303.8 gallon 0.79 gallon	60 liter 1150 liter 3.0 liter
SUPPLY	Machine dimension (L x W x H) Required floor space (L x W x H) Machine weight	270.7" x 161.6" x 132.4" 302.2" x 220.3" x 132.4" 40,124 lb	6,877 x 4,105 x 3,364 7,677 x 5,595 x 3,364 18,200 kg

Specifications subject to change without notice.

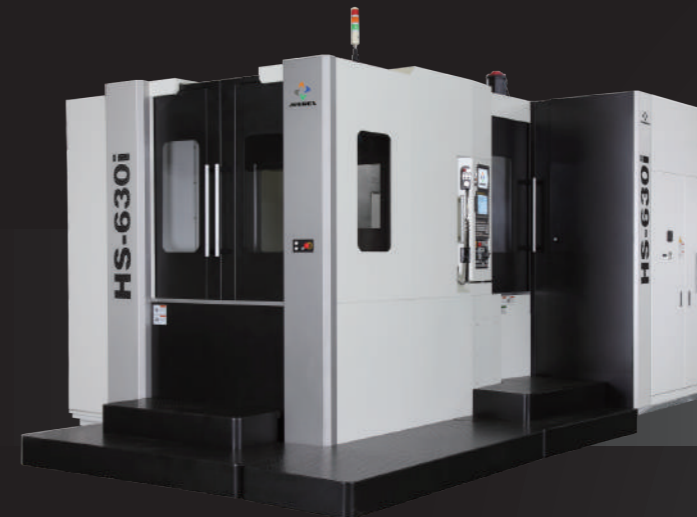


Standard Accessories

- Full chip enclosure
- Guide-way covers
- iPad with monitoring camera
- Safety door
- Sealed electric cabinet
- Heat exchanger for electric cabinet
- Chiller for spindle and x/y/z axes
- Central oil-air lubrication system
- Air through spindle (cutting)
- Spindle air seal
- Spindle air blow (ATC)
- Cutting air blow
- 30 Bar through spindle coolant, prepared for optional 70 Bar
- Flood coolant system
- Oil skimmer
- Floating ball type level detection for coolant tank
- Center trough conveyor
- Manual Guide i
- Multi-language display
- Programmable spindle tool load monitoring
- Programmable ATC speed (heavy tools)
- Automatic power on / off and warm-up within 7 days
- 3-color machine status indicator
- Fluorescent lamps at operation and loading station
- Leveling blocks and screws
- Maintenance tools
- Manuals

Optional Accessories

- 6 pallet APC
- Chip conveyor and chips cart
- Hydraulic overhead arms for fixture
- A/C for heat exchanger of E-cabinet
- Linear scale (X/Y/Z/B)
- Workpiece measurement
- Tool measurement
- Tool breakage detection
- Chiller for coolant tank
- Oil mist collector
- Rotary wiper
- Energy-saving function
- CE certified EN ISO 13849-1
- Tool shank and pull stud



HS-630i

Ultimate High Speed Horizontal Machining Center

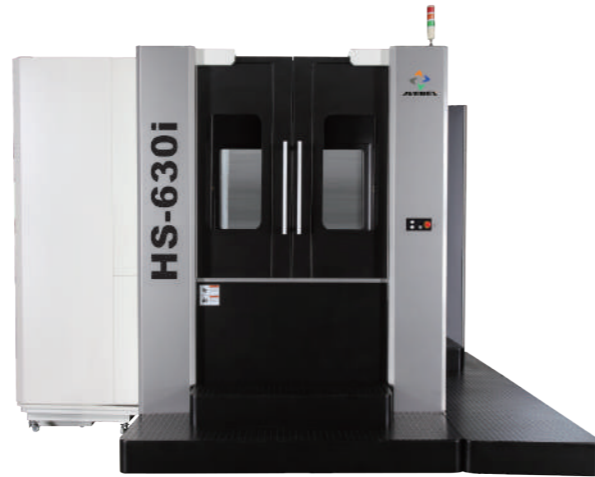


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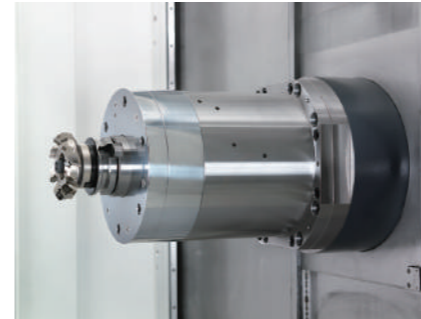
HS-630i *Standard Features*

- Large Travels: X 1,050mm × Y 900mm × Z 1,020mm
- Large Work Envelope: Ø1,000mm × 1,300mm
- One-piece Stepped Machine Base with Heavy Ribbed
- AVEREX-FANUC MPro III
- Standard 10,000 rpm 45 kW / 600 Nm **BIG-PLUS**® BBT-50 Spindle
Optional 8,000 rpm 55 kW / 1,200 Nm **BIG-PLUS**® BBT-50 Spindle
- Standard 1° Index Table
Optional Full 4th Axis Rotary Table (0.001°)
Optional **Tsudakoma**® Full 4th Axis Rotary Table (0.001°)
- 60 Tools Automatic Tool Changer (2.5 Sec. T-T)
- 50m/min Rapid Traverse
- 0.7G / 1.0G / 0.9G (X / Y / Z) Acceleration and Deceleration
- **THK**® Roller Guide Ways
- **TSUBAKI**® core-cooled Ballscrews
- Thermal Compensation (Chilled Spindle, Ballscrews and Bearings)
- Pressurized Oil-Air Lubricated for Spindle, Ballscrews and Guide Ways.
- Mechanical Lock Pallet Clamping System with Air Seal Detection
- Air Cutting Through Spindle
- 30 Bar Through Spindle Coolant, Prepared for Optional 70 Bar
- Overhead Automatic Pallet Wash System & Z-axis Central Chips Disposal
- Manual Guide i
- Automatic Machine Power On / Off and Warm-up within 7 Days

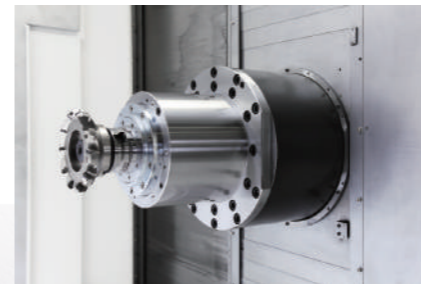


Standard 30 Bar CTS and
Optional Roller Type Chip Conveyor

Powerful Spindle



10,000 rpm / 45 kW / 600 Nm Max.
Spindle Output



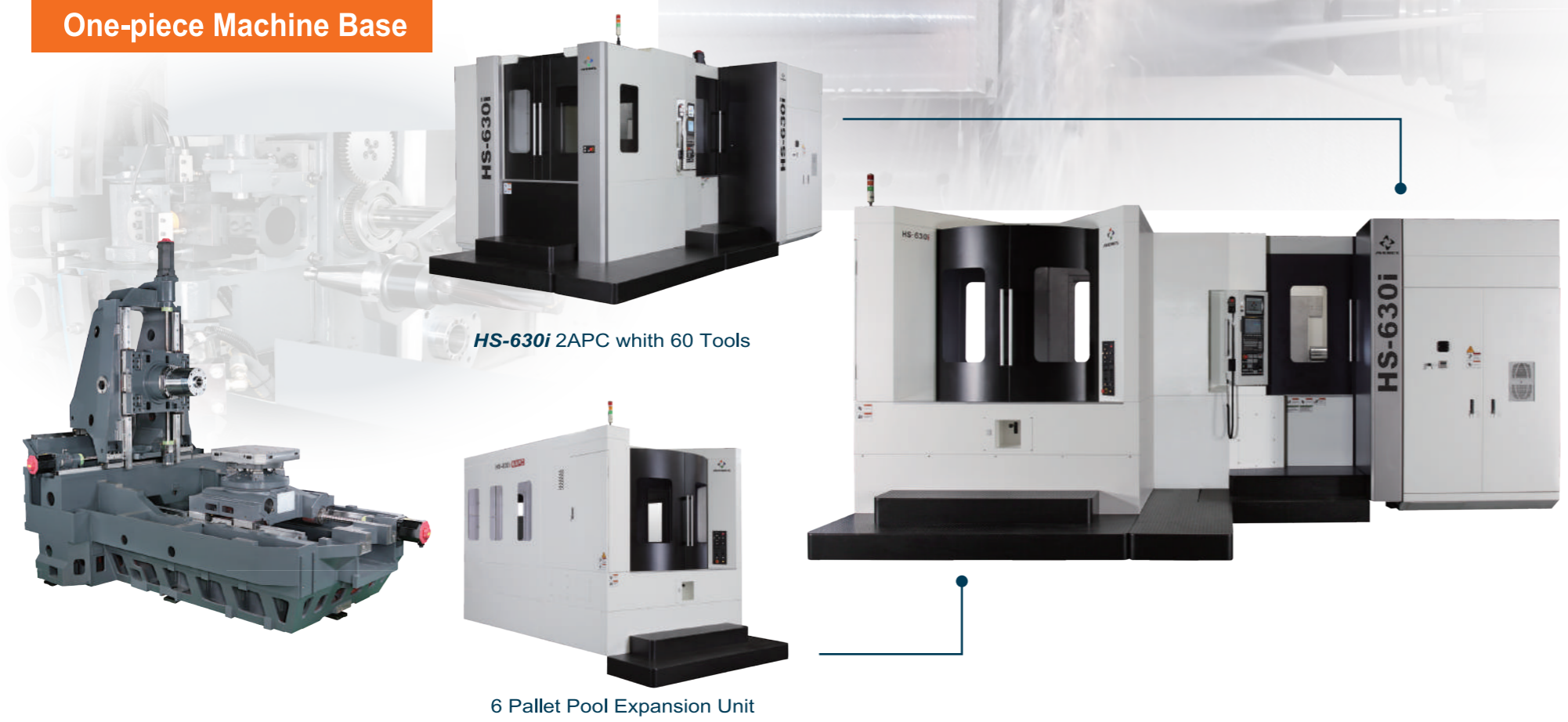
8,000 rpm / 55 kW / 1,200 Nm Max.
Spindle Output (Optional)

AVEREX-FANUC MPro III / NC Standard Features



- 10.4" Color LCD
- AICC II Nano Control with 200 Blocks Look Ahead
- JERK Control
- HRV-III High Performance Servo Drives
- 300 Pairs Workpiece Coordinate Offsets
- Helical Interpolation
- Circular Interpolation
- Rigid Tapping
- Canned Cycle
- Ethernet and CF/USB Device
- Tool Life Management
- Tool Offset Memory C
- Manual Guide i
- 1,280 meter Part Program Memory
- Custom Marco B
- 1,000 Registerable Programs
- Programmable Spindle Tool Load Monitoring
- Programmable Data Input G10

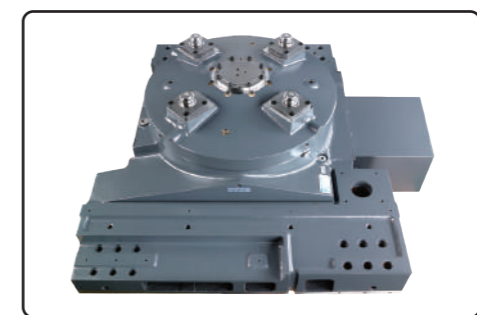
One-piece Machine Base



HS-630i 2APC with 60 Tools

6 Pallet Pool Expansion Unit

Automatic Pallet Changer(APC)

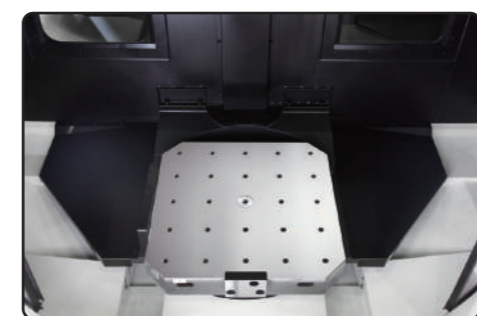


Standard 1° Index Table (Optional 0.001°)

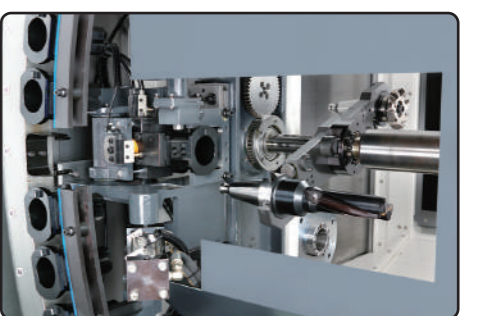
Automatic Tool Changer(ATC)



60 Tools Magazine



15 Sec. Pallet changing



2.5 Sec. T-T changing