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	3.1" - 34.6" (10,000 rpm Spindle) 3.9" - 34.6" (8,000 rpm Spindle)	80 - 980 mm (10,000 min^{-1} Spindle) 100 - 980 mm (8,000 min^{-1} Spindle)
	Spindle nose to pallet center	2.0" - 42.1"	50 - 1,070 mm
	Pallet top height (from the floor)	52.4"	1,330 mm
TABLE	Table size (2 pallets)	24.8" x 24.8"	630 mm x 630 mm
	Workpiece max. size	Ø39.4" x 51.2"	Ø1,000 mm x 1,300 mm
	Max. payload	2,640 lb	1,200 kg
	Configuration	M16x30L P=4.9"	M16x30L P=125 mm
	Min. indexing degree	1° (0.001° Optional)	1°(0.001°Optional)
	Indexing speed	2.2 sec. /90° (2.0 sec. /90° Optional)	2.2 sec. /90°(2.0 sec. /90°Optional)
	Pallet damping system	Mechanical Lock	Mechanical Lock
	Pallet damping force	3,590 lb x 4 cones	16 kN x 4 cones
	B-axis damping torque	36,140 lb-ft (3,023 lb-ft Optional)	49,000 Nm (5,500 Nm Optional)
SPINDLE	Spindle speed	20-10,000 rpm (8,000 rpm Optional)	20-10,000 min^{-1} (8,000 min^{-1} Optional)
	Spindle rated torque	442 lb-ft (15%ED) 309 lb-ft (15 min.)	600 Nm (15%ED) 420 Nm (15 min.)
		885 lb-ft (10%ED) (8,000 rpm Optional) 481 lb-ft (30 min.) (8,000 rpm Optional)	1202 Nm (10%ED) (8,000 min^{-1} Optional) 653 Nm (30 min.) (8,000 min^{-1} Optional)
	Spindle acceleration / deceleration	5.5 sec. (0-10K rpm) / 5.5 sec. (10K-0 rpm)	5.5 sec. (0-10K min^{-1}) / 5.5 sec. (10K-0 min^{-1})
	Spindle taper	ISO 7/24 Taper NT No. 50	ISO 7/24 Taper NT No. 50
	Through spindle coolant	435 psi	3.0 MPa
FEED	Rapid feed (X/Y/Z)	1,969 ipm	50,000 mm/min
	Cutting feed (X/Y/Z)	0.04-1,969 ipm	1-50,000 mm/min
	Table rotating speed	Parkson: 16.6 rpm Tsudakoma: 22.2 rpm	Parkson: 16.6 min^{-1} Tsudakoma: 22.2 min^{-1}
	Guide ways (X/Y/Z)	Roller ways [THK]	Roller ways [THK]
	Acceleration (X/Y/Z)	0.7 G/1.0 G/0.9 G	0.7 G/1.0 G/0.9 G
	Ballscrews size	Ø1.97"	Ø50 mm
ATC	Type of tool shank	BBT 50 /CAT 50 (Optional)	BBT 50 /CAT 50 (Optional)
	Type of pull-stud	JIS /CAT 50 (Optional)	JIS /CAT 50 (Optional)
	Number of tools	60	60
	Max. tool diameter (Adjacent pots full / empty)	Ø4.5" / Ø11.8"	Ø115 mm / Ø300 mm
	Max. tool length	23.6"	600 mm
	Max. tool weight	55 lb	25 kg
	Tool selection system	Random	Random
	Tool to tool	2 .5 sec. (3 .5 : Heavy tool programmable)	2.5 sec. (3.5 : Heavy tool programmable)
	Chip to chip	5.8 sec. (6.8 : Heavy tool programmable)	5.8 sec. (6.8 : Heavy tool programmable)
APC	Number of pallets	2, Optional 6	2, Optional 6
	Pallet change system	Rotation	Rotation
	APC exchange time	15 sec.	15 sec.
MOTOR	Spindle motor	60 / 50 hp	45 / 37 kW
	Feed axes motors (X/Y/Z/B)	7.4 / 6.7 / 7.4 / 5.4 hp	5.5 / 5.0 / 5.5 / 4.0 kW
	Lubrication pump motor	0.024 hp	18 W
	Spindle coolant pump	2.2 hp	1.62 kW
	Chips flush (base) coolant pump	2.7 hp	2.03 kW
	Through spindle coolant pump	3.0 hp	2.24 kW
	Overhead shower flush coolant pump	3.2 hp	2.35 kW
	Hydraulic pump	3.0 hp	2.23 kW
	Spindle oil chiller	7.2 hp	5.40 kW
SUPPLY	Electric voltage	200 - 230 volt	200 - 230 volt
	Electric power supply	70 kVA	70 kVA
	Air pressure	87.0 psi	0.6 MPa
	Air volume	174 gal/min	660 liter/min
TANK	Hydraulic unit tank	15.9 gallon	60 liter
	Coolant Tank	303.8 gallon	1150 liter
	Lubrication unit tank	0.79 gallon	3.0 liter
SIZE	Machine dimension (L x W x H)	270.7" x 161.6" x 132.4"	6,877 x 4,105 x 3,364
	Required floor space (L x W x H)	302.2" x 220.3" x 132.4"	7,677 x 5,595 x 3,364
	Machine weight	40,124 lb	18,200 kg

Specifications subject to change without notice.

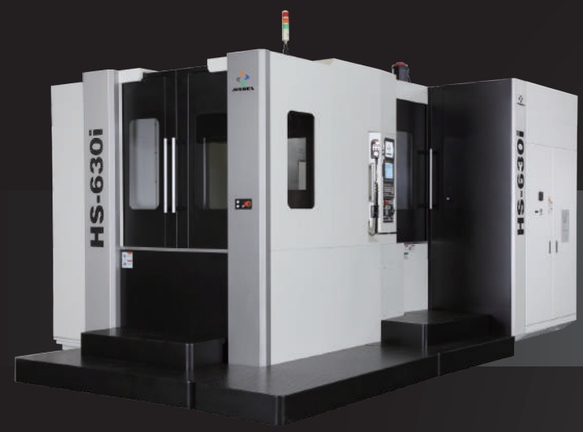
Standard Accessories

- 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

AVEREX®
AVEREX AUTOMATION CO., LTD.
No.63, Industrial Park 35th Rd.,
Situn Dist., Taichung 40768 Taiwan
Tel:+886-4-2355-1899
Fax:+886-4-2350-9977
www.averexcnc.com

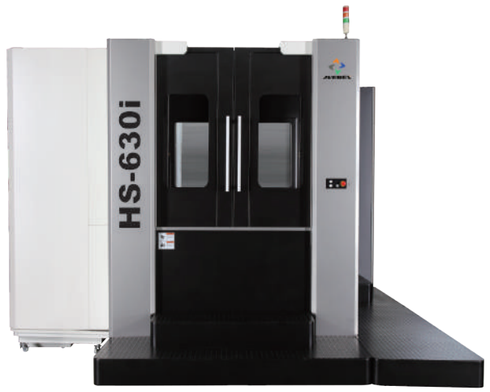


HS-630i

Ultimate High Speed Horizontal Machining Center

HS-630i *Standard Features*

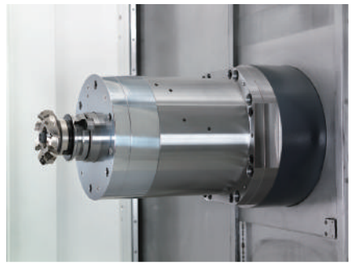
- Large Travels: X 1,050mm × Y 900mm × Z 1,020mm
- Large Work Envelope: Ø1,000mm × 1,300mm
- One-piece Stepped Machine Base with Heavy Ribbed
- AVEREX-FANUC MPro III
- Standard 10,000 rpm 45 kW / 600 Nm **BIG-PLUS**® BBT-50 Spindle
  Optional 8,000 rpm 55 kW / 1,200 Nm **BIG-PLUS**® BBT-50 Spindle
- 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



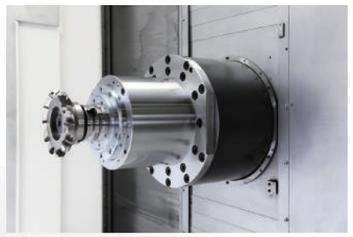


Standard 30 Bar CTS and
Optional Roller Type Chip Conveyor

Powerful Spindle



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



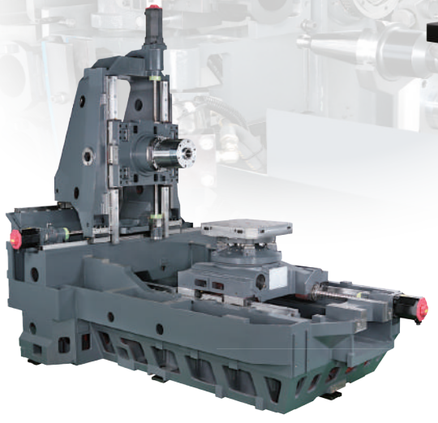
8,000 rpm / 55 kW / 1,200 Nm Max.
Spindle Output (Optional)

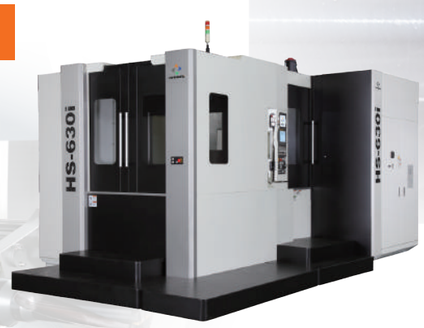
AVEREX-FANUC MPro III / NC Standard Features



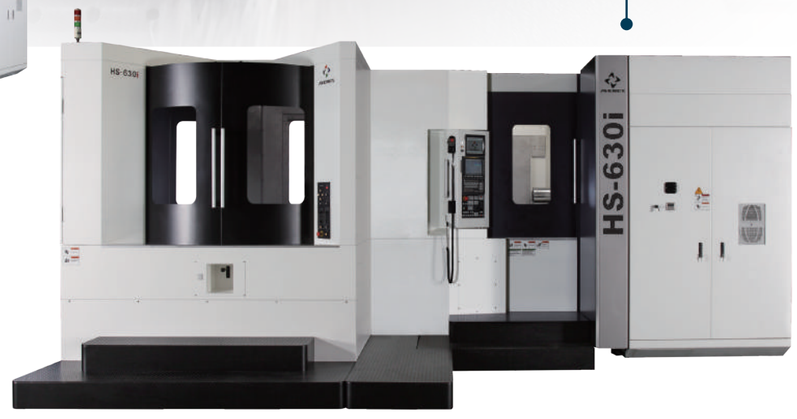
- 10.4” Color LCD
- AICC II Nano Control with 200 Blocks Look Ahead
- JERK Control
- HRV-III High Performance Servo Drives
- 300 Pairs Workpiece Coordinate Offsets
- Helical Interpolation
- Circular Interpolation
- Rigid Tapping
- Canned Cycle
- Ethernet and CF/USB Device
- Tool Life Management
- Tool 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

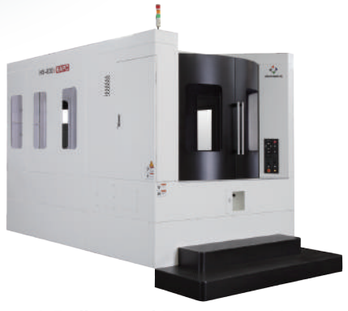
One-piece Machine Base





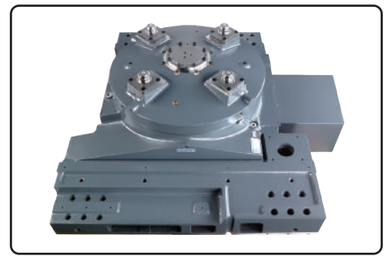
HS-630i 2APC whith 60 Tools





6 Pallet Pool Expansion Unit

Automatic Pallet Changer(APC)

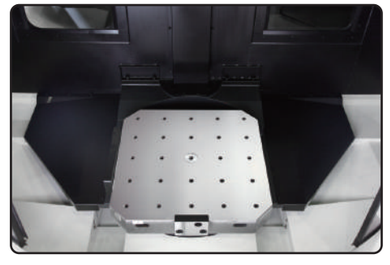


Standard 1° Index Table (Optional 0.001°)

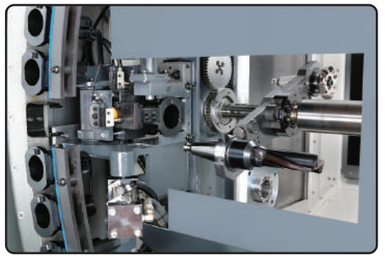
Automatic Tool Changer(ATC)



60 Tools Magazine



15 Sec. Pallet changing



2.5 Sec. T-T changing