

TSUGAMI
AMERICA

VA3S

VERTICAL MACHINING CENTER

- 21 Station Tool Magazine
- 20,000 RPM Spindle BT30
- Tsugami ECO System
- 1.1 Second Tool Change
- FANUC Oi-MF Plus CNC Control

tsugamiamerica.com

VA3S

VERTICAL MACHINING CENTER

SPEED

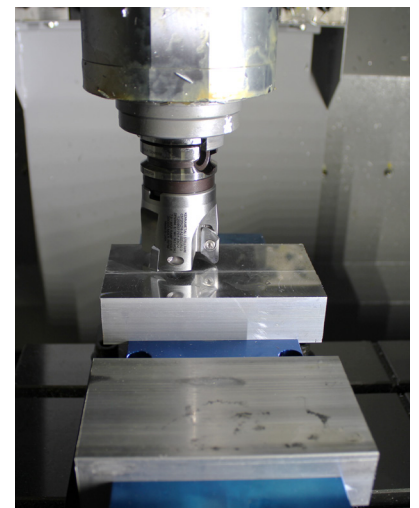
- The VA3S vertical machining center features a 20,000 RPM spindle, offering the flexibility of aggressive material removal to delicate surfacing.
- The 21 turret style tool magazine allows for 1.1 second tool-to-tool time, ensuring you spend more time making chips and less time cutting air.

ACCURACY

- With FANUC's AI Contour II, 200 block look ahead ensures accurate machine movements are fully optimized, leading to higher productivity.
- The machine comes standard with a FANUC Oi-MF Plus Control and 4th Axis plug and play capability.

RIGIDITY

- A more rigid platform allows higher speeds and feeds, and heavier depth of cut. The VA3S is built on a heavy duty one piece cast iron base with thermally symmetrical construction.
- The VA3S' space saving design packs serious productivity into a small package. It fits through most industrial doors, allowing it to be placed where traditional mills can't.
- For extra peace of mind, the machines, motors, and FANUC controls are covered by an industry leading two-year parts and service warranty.



TSUGAMI ECO SYSTEM

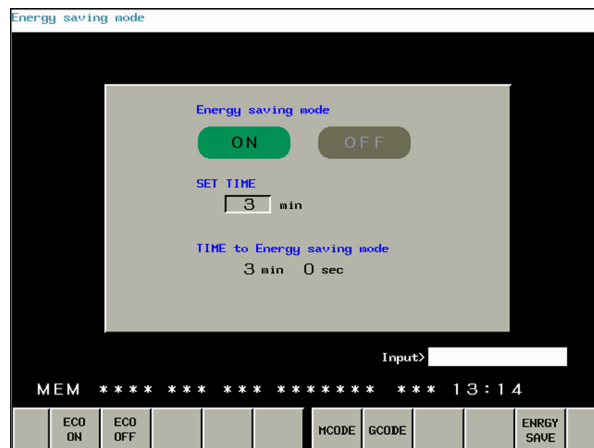


Led by Tsugami's green initiative, ECO System allows you to make energy conscious decisions about your manufacturing process while saving money on your energy bills. This is ideal for all production, including lights out operation.

Tsugami ECO System includes two unique functions, Energy Saving Mode and Continuous Cycle.

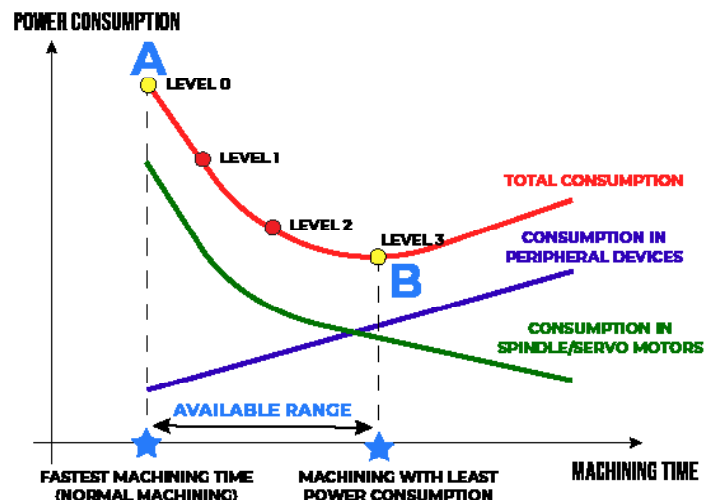
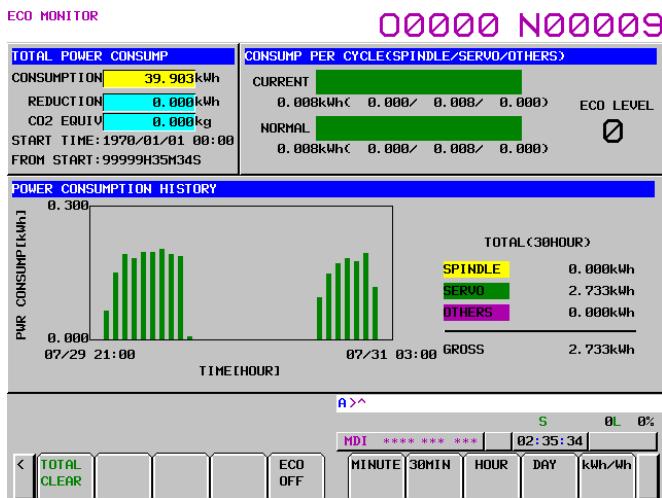
ENERGY SAVING MODE

With the touch of a button, enable Energy Saving Mode, which allows the operator to set a timer which will conserve air and energy consumption when the machine is idle.



CONTINUOUS CYCLE

View and manage the power consumption of your FANUC controlled devices to optimize your process for energy efficiency.



Tool Magazine
Tool Storage Capacity: 21

Spindle
20,000 min⁻¹

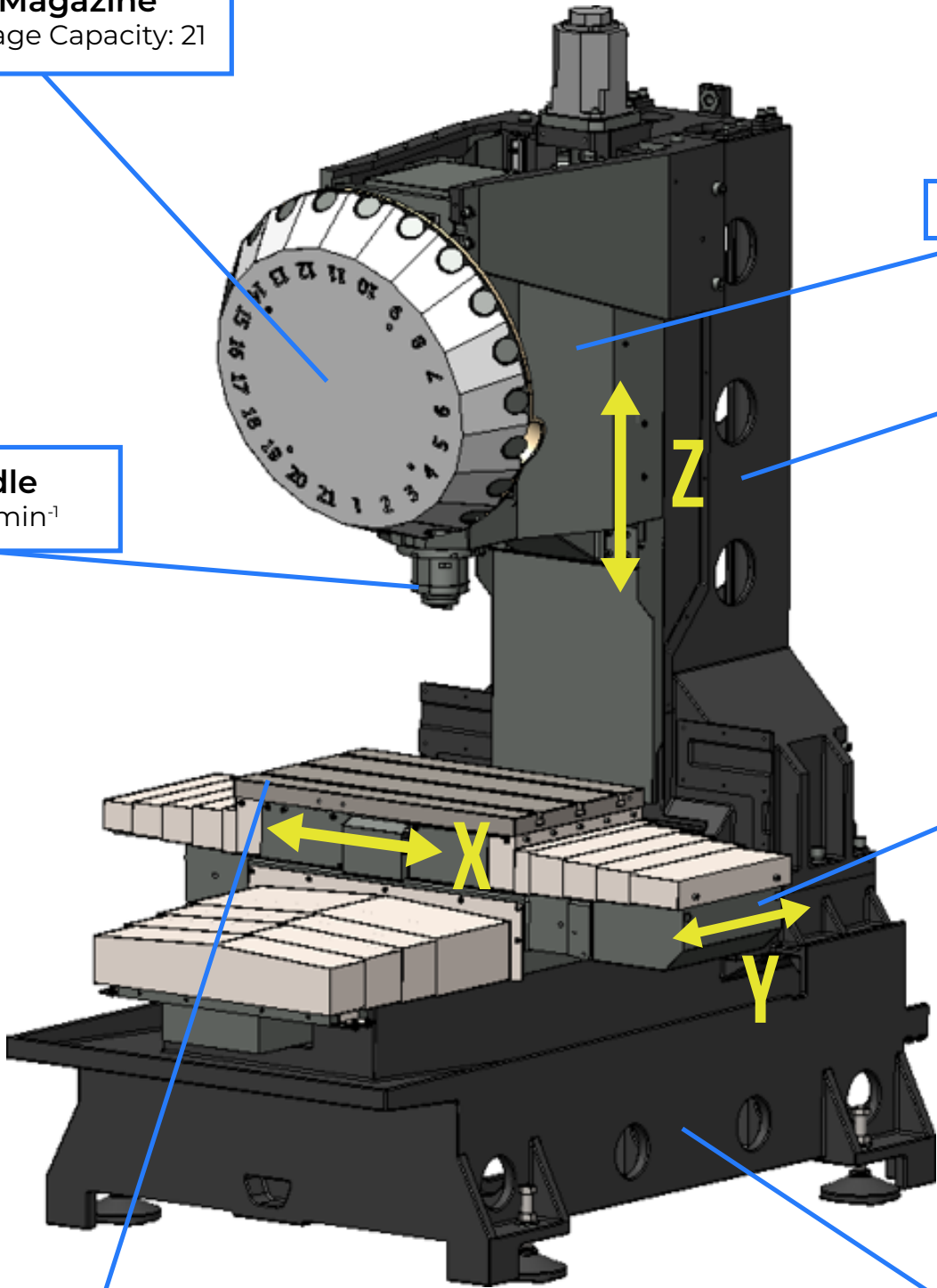
Ram

Column

Saddle

Table
Max. mountable weight: 551 lbs

Bed



MACHINE STANDARD SPECIFICATIONS

STANDARD SPECIFICATIONS

INCLUDED ACCESSORIES

	ITEMS	VA3S	ITEMS
STROKE	X-Axis	19.7 in (500 mm)	Ceiling Cover
	Y-Axis	15.7 in (400 mm)	Coolant System (Coolant Tank 35 Gal.)
	Z-Axis	11.8 in (300 mm)	Coolant Level Switch
TABLE	Table Size	(26 in X 15.7 in) (660 mm X 400 mm)	Air Blow For Tool Cleaning (Through-Spindle Type In ATC Operation)
	Table Height	32.7 in (830 mm)	Automatic Lubrication Unit (Oil)
	T-Slot Size	14H8 × 3 P = 5 in (125 mm)	Pneumatic Unit
	Distance Between Spindle Face And Table Face	7.8 in to 19.68 in (200 mm to 500 mm)	Internal Light
	Max. Weight On Table	551.16 lbs (250 Kg) Uniform Load	Spindle Air Purge
	Taper Size	BT30	Shut-Off Valve For Air Purge
	Rotation Speed	Max. 20,000 Min-1 (Rated Speed: 15,000 Min-1)	Door Interlock
SPINDLE	Rapid Traverse Rate	1,890 in/ min (48 m/min)	Portable Manual Pulse Generator
	Tool Shank Configuration	JIS B 6339-1998 BT30	
	Pullstud	MA S403-1982 P30T-1	
ATC	Tool Changing Method	Spindle Direct	
	Tool Storage Capacity	21	
	Max. Tool Size (Ø × L)	Ø80 mm × 250 mm	
	Max. Tool Weight *4	3.0 kg	
	Tool Change Time (Tool - Tool)	1.1 Sec (1.5 kg) / 1.3 Sec (3 kg)	
MOTORS & POWER SUPPLY	Spindle (Cont. / S3 25%)	12/5 Hp (9.0/3.7kW)	
	Coolant Pump	0.18 Kw	
	Weight	5,952 lbs (2,700 kg)	
	Power Source Requirement	21 KVA	
	Compressed Air Requirement	0.5 Mpa Or More	
	Air Discharge Rate	110 NI/Min	
	Coolant Tank Capacity	35 Gal.	
	Width × Depth × Height	59 in X 91 in X 101.8 in (1,500 mm × 2,322 mm × 2,585 mm)	

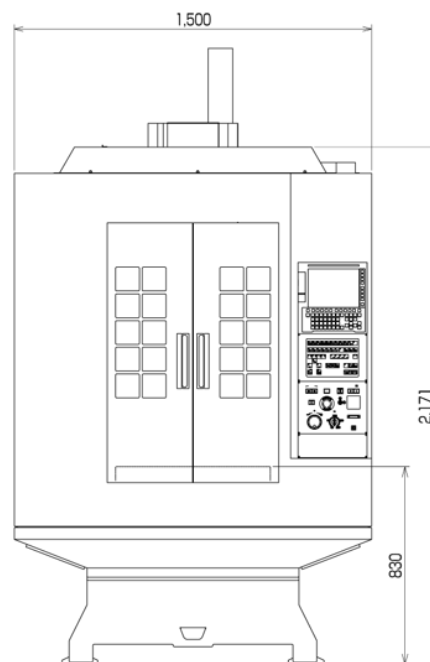
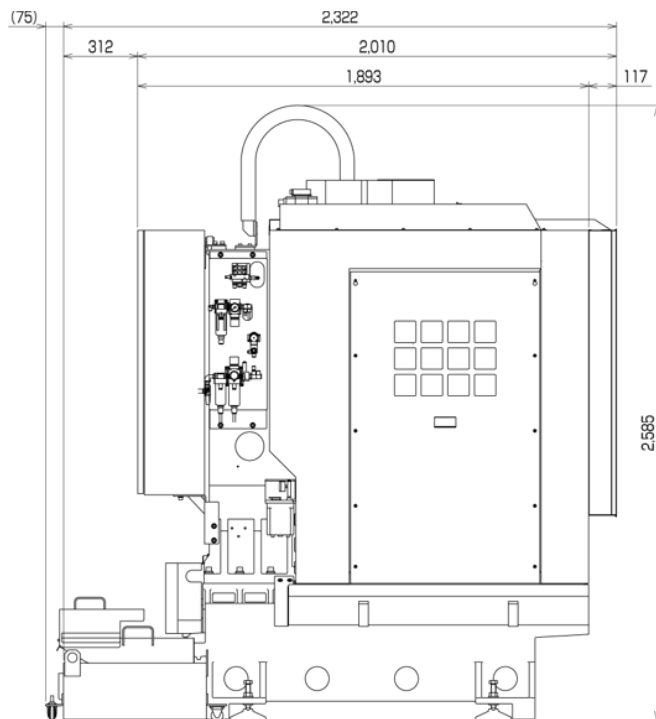
NC SPECIFICATIONS

NC ACCESSORIES

NC UNIT

ITEMS	VA3S
NC Unit	FANUC Oi-MF Plus
Controllable Axes	X, Y, Z
Least Input Increment	0.001 mm
Maximum Commandable Value	± 8 Digits
Interpolation Method	Linear / Circular
Cutting Feed Rate	1 To 30,000 mm/min
Feed Rate Override	0 To 200%
Dwell	G04, 0 To 99999.999
Absolute/Incremental Command By G-Code	G90: Absolute G91: Incremental
Number Of Tool Offset	400
LCD/MDI	10.4" Color LCD
Display Language	English
Part Program Storage Size	2 Mb
No. Of Registerable Programs	1,000
Miscellaneous Function	M3- Digits
Spindle Function	S5-Digit
Tool Function	T4-Digit

ITEMS	VA3S
Background Editing	Standard
Extended Program Editing	Standard
Run Time & Parts Number Display	Standard
Custom Macro	Standard
Programmable Data Input	Standard
Cutter Or Tool Nose Radius Compensation	Standard
Tool Length Compensation	Standard
Tool Life Management	Standard
Canned Drilling Cycle	Standard
Small-Hole Peck Drilling Cycle	Standard
Rigid Tap	Standard
Ai Contour Control Function II	Standard
Helical Interpolation	Standard
Cylindrical Interpolation	Standard
Multi-Language Display	Standard
Inch/Metric Conversion	Standard
M Code/G Code List Screen	Standard
Energy Saving Mode	Standard
Power Consumption Monitor	Standard
Eco Operation Mode	Standard



Dimensions are in mm

Since 1978, Tsugami America (formerly known as Tsugami/Rem Sales) has been the exclusive source for Precision Tsugami CNC machine tools in North America. Headquartered in Windsor, CT, Tsugami America provides machine tools and engineering expertise through an extensive network of authorized distributors and technical centers. Technical support and customer service are available throughout North America. Our distributors' trained service personnel provide technical support throughout the long life-cycle of our Tsugami machine tools, and work hand-in-hand with Tsugami America's engineers to deliver common-sense solutions to everyday problems.

Our application engineers help customers tackle and solve the toughest high-precision manufacturing challenges, on-time and on-budget. We have a 40-year history and reputation of serving the needs of small parts manufacturers in North America with the highest level of expertise and customer care. Our industry-respected, knowledgeable staff is comprised of both long-time employees and fresh faces all who share a commitment to provide you, our customers, with the competitive advantage to "do more with less" every day.

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TSUGAMI AMERICA LOCATIONS

WINDSOR, CT

651 Day Hill Road
Windsor, CT 06095

FORT WAYNE, IN

4501 Earhart Drive, Suite B
Fort Wayne, IN 46809

BROOKLYN PARK, MN

9495 Winnetka Avenue N, Suite 100
Brooklyn Park, MN 55445

FULLERTON, CA

1521 E Orangethorpe Ave, Suite E
Fullerton, CA 92831

860-687-3400 | www.tsugamiamerica.com | info@tsugamiamerica.com

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