

VT Series

The Takumi VT Series, drill and tapping center machining center, is designed for light and fast machining of small to medium parts and high precision dies and molds. Thanks to the high accuracy and speed, VT Series enables a wider range of machining applications such as 3C, electronic and automobile industry. The advantage of compact footprint enhance the space utility of the factory tremendously.

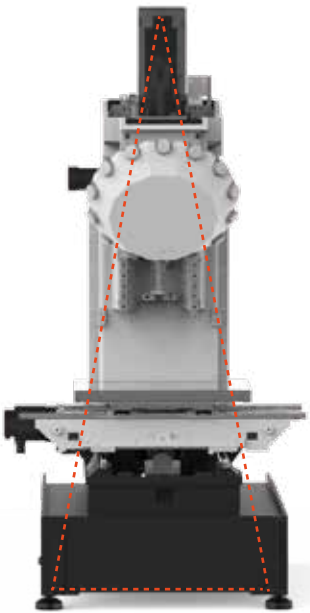
Basic Structure



High rigidity structure

Bed, columns, saddle and other main castings are made of Meehanite grade cast iron and remove the internal stress by heat treatment to ensure the best structural stability and positioning accuracy.

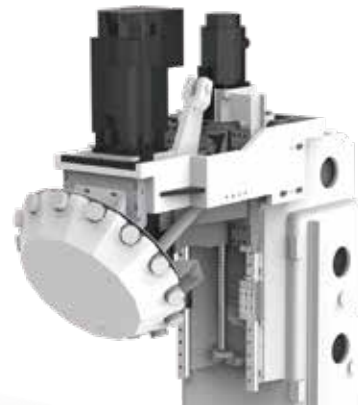
The VT Series achieves high-rigidity and optimal machine structure by using FEM analysis from the design.



Solid type Stability Constructure

Combined with high rigidity large base span column, which offer absolute stability and accuracy. The low gravity center strengthens the structural rigidity of the machine base. Reduces vibration during cutting.

User Convenience



Stable ATC system

With the mechanical tool changing design, the tool change time has been optimized to reduce non cutting time.

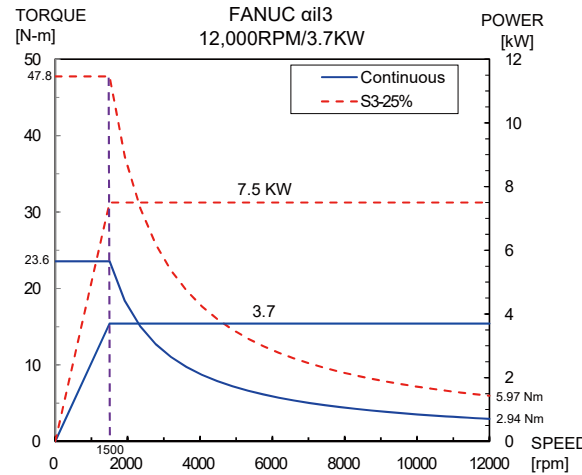
The tool change is synchronize with the movement of Z axis, which assures high speed and high productivity.

Direct Spindle



Stable spindle cooling circulation

Spindle temperature is constantly controlled by oil chiller. Our test result have proven that the temperature of the circulating oil is controlled within certain variation, which minimizes thermal displacement during continuous operation at high speed.



*FANUC control

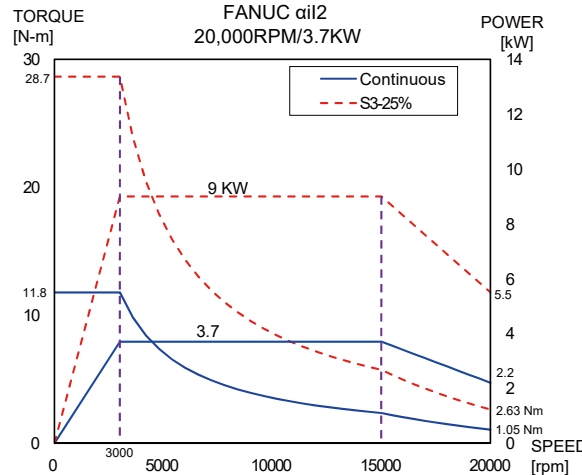
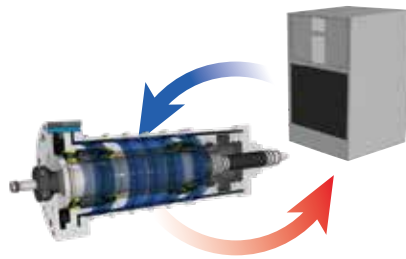
12,000rpm Direct drive spindle (ST: VT500)

3.7/7.5 kW Power (Cont./S3-25%)

23.6/47.8 N.m Torque (Cont./S3-25%)

High speed direct drive spindle

The high-power direct drive spindle limits vibration, noise and power loss during high speed rotations to achieve superior part finish.



*FANUC control

20,000rpm Direct drive spindle (ST: VT500)

3.7/9 kW Power (Cont./S3-25%)

11.8/28.7 N.m Torque (Cont./S3-25%)

Compact Footprint



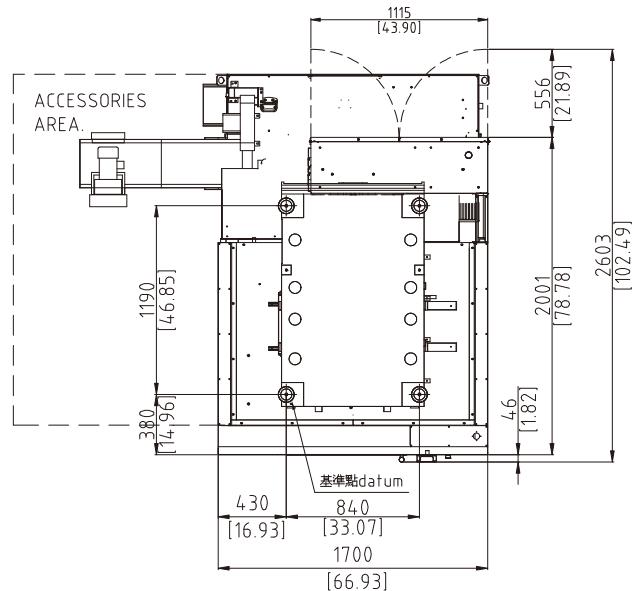
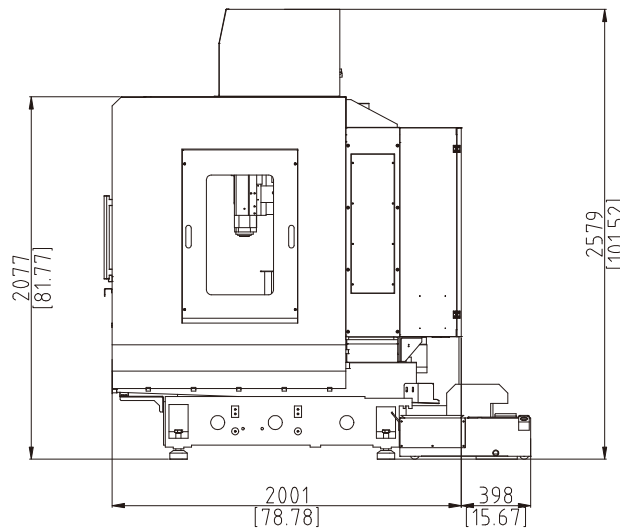
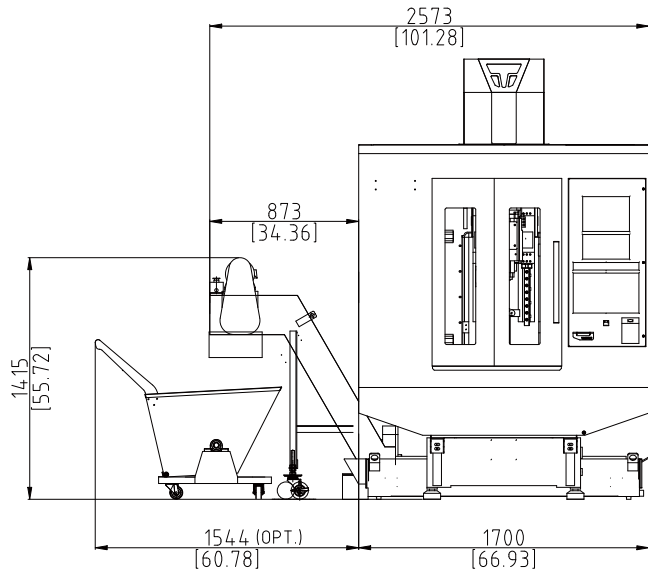
Small footprint

The dimension of the machine on the front side is only 1,700mm, which increases the productivity by saving factory floor space.

External Dimension

VT500

Unit : mm





Machine Specification

Travel	VT500
X/Y/Z-axis	500 / 400 / 320mm
Distance from spindle nose to table	160-480mm (short column) 260-580mm (long column)

Table	
Dimension	650 x 400mm
Max. load	250kg
T-slot	14 x 125 x 3mm

Spindle	
Spindle type	Direct drive
Spindle speed	12000rpm
Spindle motor power	3.7kW/5.5kW (Cont./S3-25%)
Spindle taper	BT30

Feed	
Rapid feed (X/Y/Z) (ball screw pitch 16mm)	48/48/48m/min
Cutting feed	10000mm/min
Motor power (X/Y/Z)	1.5/1.5/2.2kW

ATC & Magazine	
ATC type	Turret
Number of tools	21pcs
Max. tool diameter (next pockets empty)	80mm
Max. tool length	150mm
Max. tool weight	3kg

Supply	
Air pressure	6kgf/cm²
Electric power supply	20kVA

Net weight	
Machine weight	2500kg

• The specifications and information may be changed without prior notice.

Standard & Optional

Standard:
Fanuc 0iMF-Plus 10.4"
12,000rpm, BT30, direct spindle
21T, turret
Spindle air curtain
Cutting coolant system
Flush coolant system
Manual pulse generator
Full chip enclosure
Working light
3-Color signal light
Heat exchange for electric cabinet (fan)
Leveling block and screws
Maintenance tools
Manuals

Optional:
20,000rpm, BT30, direct drive
Long column
Spindle oil cooler
Coolant through spindle (20bar)
Chain type chip conveyor
Workpiece measurement
Tool measurement
4th axis rotary table
CNC tilting rotary table (4+1 axis)
Transformer
CE certified
Data server 2GB



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VT Series



High Speed Drill/ Tapping Machine Center

VT500