

Standard machine specifications

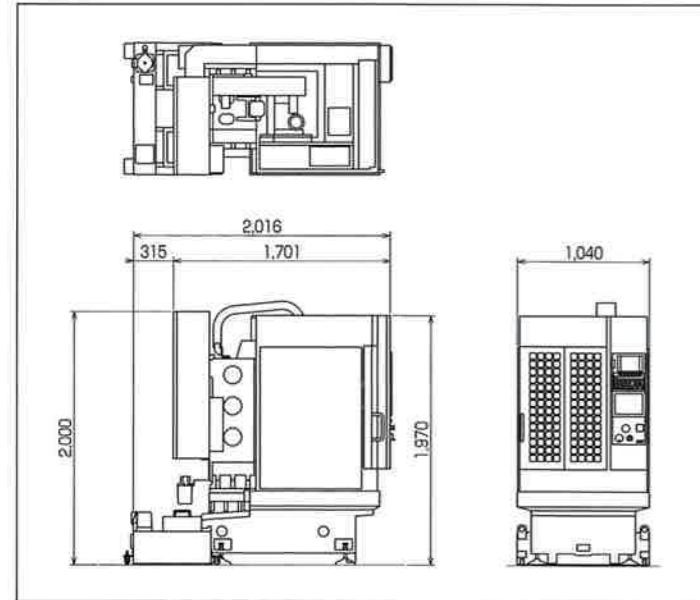
Item	VA1-II	
Spindle	Spindle taper	7/24 taper S20T
	Spindle speeds	300 to 30,000 min ⁻¹ (Normal highest spindle speed 28,000 min ⁻¹)
	Motor output	9.0/5.5kW
Table	Table size	500 x 300 mm
	Table height	830 mm
	T-slot size	14H7 x 3 P = 125 mm
	Distance between spindle face and table face	110 to 360 mm
	Maximum weight on table	200 kg (uniform load)
Stroke	X-axis stroke	360 mm
	Y-axis stroke	260 mm
	Z-axis stroke	250 mm
Feed rate	Rapid traverse rate (X, Y, Z axis)	40 m/min
	Cutting feed rate	1 to 30,000 mm/min
ATC	Automatic tool change	Double arm
	Tool selection	Random in nearest direction
	Tool storage capacity *1	14 tools (Maximum mountable tool numbers: 15 tools)
	Maximum tool size (φ x L) *1	φ60 x 130 mm
	Maximum tool weight *2	0.6 kg
Coolant	Tank capacity	120 L
	Pump discharge volume	60 L/min
	Motor	0.18 kW
Power requirement	18 KVA	
Machine size (Width x Depth x Height)	1,040 x 2,016 x 2,000 mm	
Machine weight	Approx. 1,800 kg	

*Note1 If the tool size is larger than φ50, adjacent tool post cannot be used. Tool storage capacity is restricted.
*Note2 Maximum tool weight depends on the position of the center of gravity. Stated value is a reference value.

Standard NC specifications

Item	VA1-II	
Control unit	NC unit	FANUC Oi-MD
	Axis name	X, Y, Z
	Least input increment	0.001 mm
Feed function	Position detector	Absolute pulse coder
	Rapid traverse override	F0, 25, 50, 100%
	Feed per minute	mm/min
	Federate override	0 to 200%
Programming	Optional block skip	1
	Workpiece coordinate system	G54 to G59
Miscellaneous function/ Spindle function	Canned cycle for drilling	○
	Auxiliary function	M 3 digits
Tool function	Spindle function	S 5 digits
	Tool function	T 2 digits
Tool offset function	Tool offset pairs	400
	Tool length compensation	○
	Cutter and tool nose radius compensation	○
Edition	Part program storage size	512 Kbyte
	Registered programs	400
Setting/Display	Multi-language display	○
	Self-diagnosis function	○
	Alarm display	○
Input/output interface	Alarm history display	○
	Memory card, RS232C, USB	○
Other	Display unit	8.4" color LCD

Appearance



Machine standard accessories

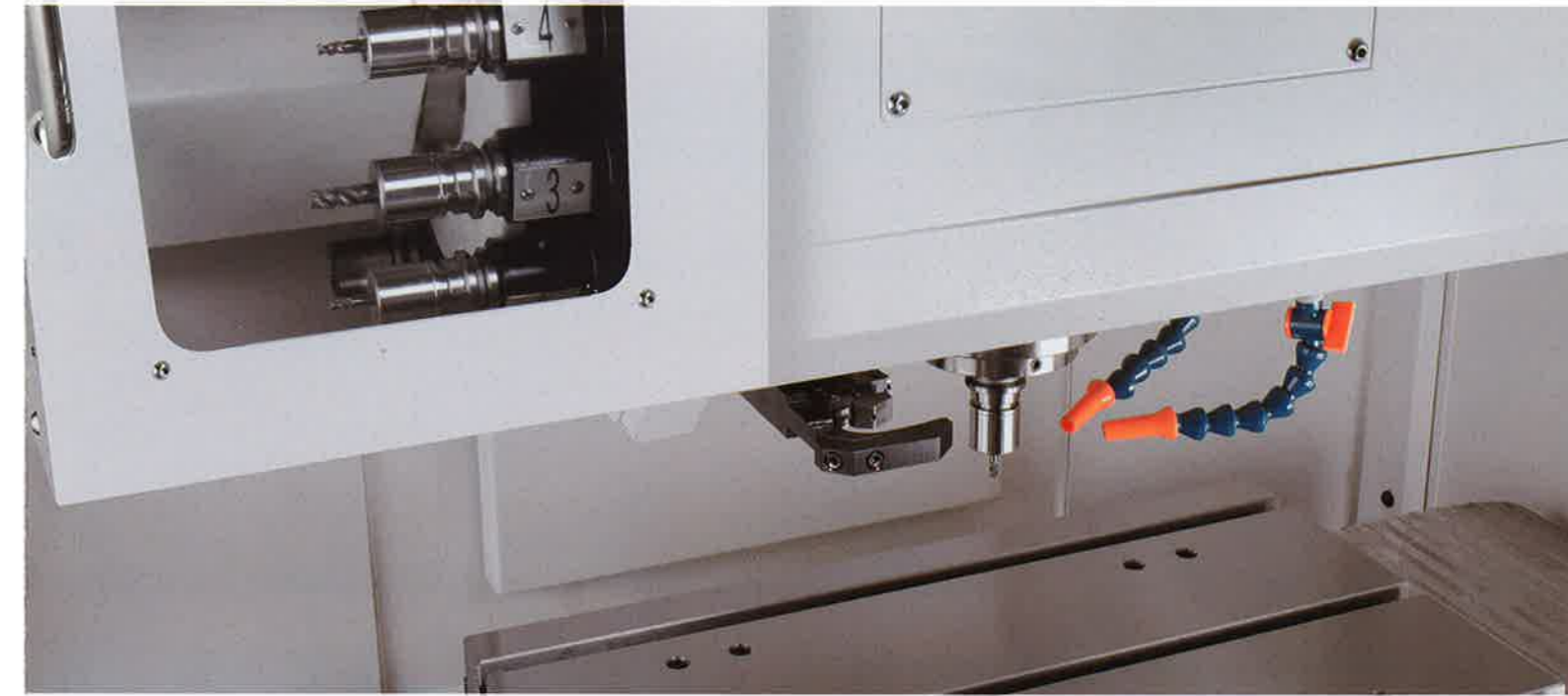
Coolant splash guard
Coolant system (chip pan and coolant tank)
Air blower for tool cleaning (Through-spindle type in ATC operation)
Automatic lubrication unit
Pneumatic unit
Internal illumination light (LED)

Machine options

Signal indicator
Coolant flow on bed
CNC rotary table (1 axis)
Raised column

NC options

Part program storage size 2 Mbyte
A1 contour control II
Bell-type acceleration/deceleration before look ahead interpolation



High speed and high accuracy vertical machining center
Compact machine body with long stroke



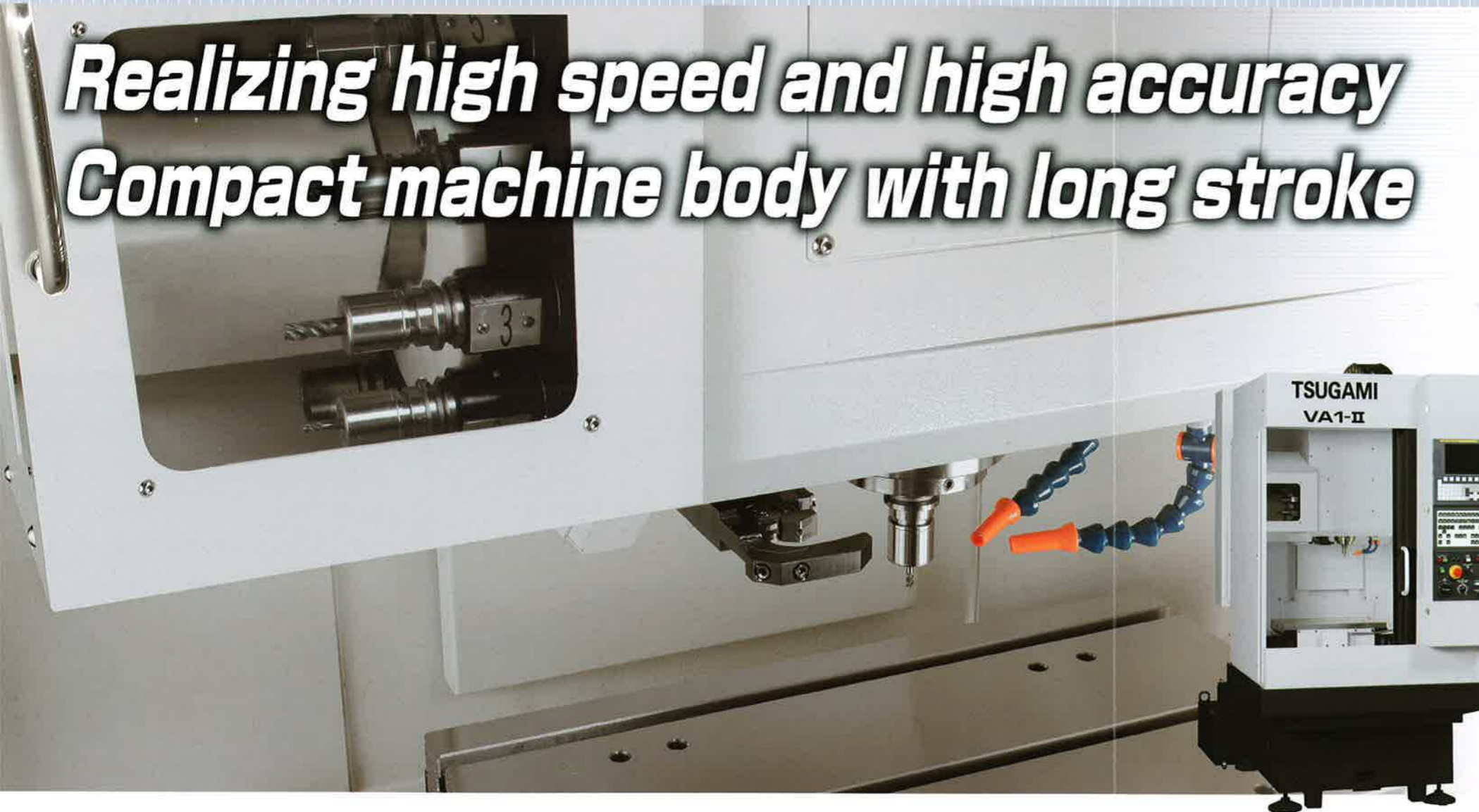
Export permission by the Japanese Government may be required for exporting our products in accordance with the Foreign Exchange and Foreign Trade Law. Please contact our sales office before exporting our products.

The specifications of this catalogue are subject to change without prior notice.

TSUGAMI CORPORATION

12-20, TOMIZAWA-CHO, NIHONBASHI,
CHUO-KU, TOKYO 103-0006, JAPAN
Phone : 03-3808-1172
Facsimile : 03-3808-1175

Realizing high speed and high accuracy Compact machine body with long stroke



High speed

- 30,000min⁻¹ max. spindle speed
- High rapid traverse speed of X, Y and Z axes with 40 m/min
- High speed ATC is realized by simultaneous tool changing with swiveling arm.
- Optimum for high-speed, high-accuracy and high-productivity machining of small workpiece.

Space saving, Long stroke

- Compact machine of 1,040mm wide.
X-axis stroke: 360 mm
Productivity improvement per space.

High speed ATC

- Simultaneous tool changing with swiveling arm
- Chip To Chip 1.35 sec. at tool weight 0.4kg or less
- ATC, tool magazine and spindle are composed integrally and tool changing is realized at arbitrary position of Z-axis.

Tools can be mounted/dismounted to the tool magazine from the machine front side.



Standard

Coolant tank 120L (Standard)

Large capacity (120 L) coolant tank is provided as standard to correspond to the wide variety of tooling.



LED illumination light (Standard)

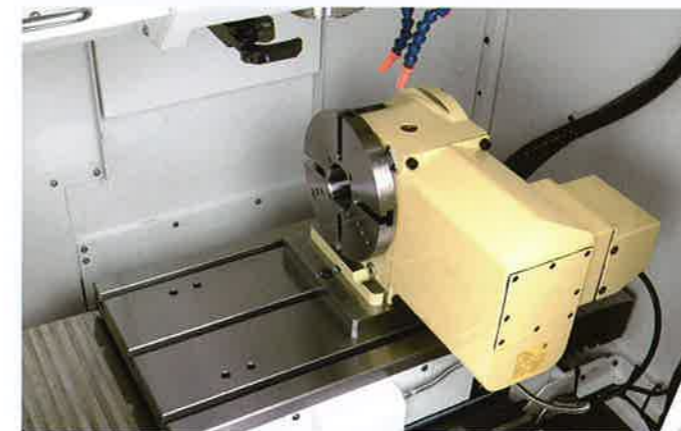
Eco-friendly LED internal illumination light is provided as standard.



Option

CNC rotary table 1 axis (Option)

By mounting the CNC rotary table, contour control processing of 4-axis simultaneous control is made possible.



Signal indicator (Option)

The machine status are indicated by the 3 colors of lamps.



Coolant flow on bed (Option)

Improving chip disposal in case of large-volume cutting.

