



V-1000L · V-1100H

VERTICAL MACHINING CENTER



Россия

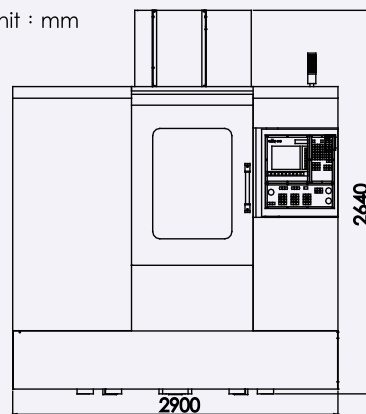
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High Rigidity, High Accuracy Construction Design

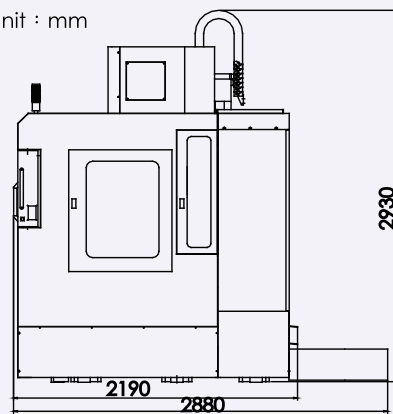
1. The major construction components are made of Meehanite cast iron. It assures of stable and precision structure.
2. X, Y and Z axis are applied with linear guide way. It provides advantage of high speed feedrate, accurate repeatability and load deformation-free.
3. The designs of widened base, saddle, full support structure and box-shaped column and contributed to the heavy duty machining and loading capability.
4. The reinforced ribs structure of headstock, the design with proportionate ratio on to the dimension between spindle head to column surface offer a stable standing and supporting.

Outline Dimension

Unit : mm



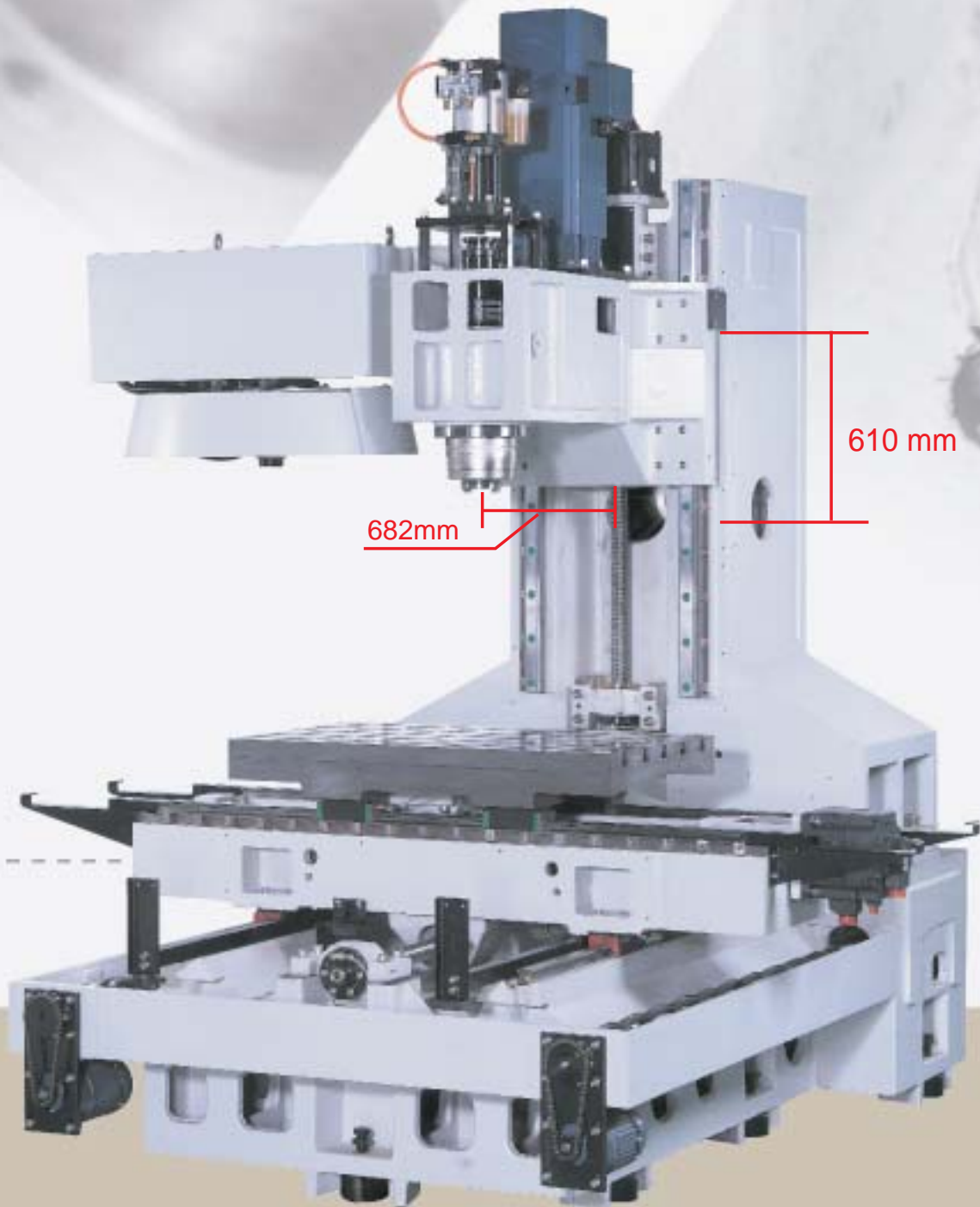
Unit : mm






MACHTEK
V-1000L

□ The new body structure
Super rigid ultra-wide base

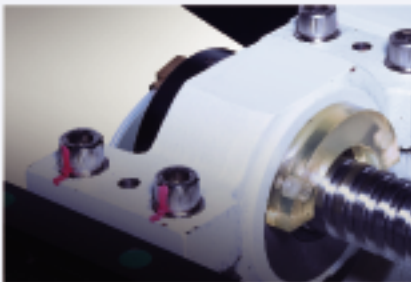


High speed high accuracy



Spelinear guideway & ballscrews

- The design of zero backlash linear guideways applies for helical, inclination cutting demand.
- Suitable for high speed travelling, minimized power requirement.
- The linear guideway can stand for stress of multiple directions, if occurred. Points and maintain multiple contact to ensure cutting rigidity.
- C3 grade precision ball screws, double-nut designed, preloaded and anchored at both ends.
- The fixed both ends, ball screw type plus strict qualifying test on not atating torque guarantee non-deformed eigeion marimum.



Collision protecting device

Collision protected bumper is equipped to absorb and reduce the vibration and collided force in case of any malfunction operating or collision so that the mechanical accuracy can be maintained.

High efficient chip-removal mechanism

- High efficiency double screw type chip conveyor design to remove totally the manufactured chips during machining.





Stable and reliable drum type ATC unit (Arm type OPT)

- The easy operating, fast, but reliable Automatic Tool Changer (ATC) provides outstanding function on tools change.
- The Programmable Logic Control is cable of fast management of the advanced cam driven designed mechanism and random position-selecting performance.
- The cam driven tool magazine assures high accurate rotation, and smooth motion of heavy type cutting tools.

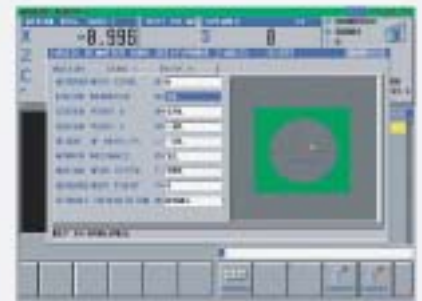


High speed and high accuracy spindle

- The spindle adopts extreme precision angular contact ball bearings. 8000rpm is standard spindle speed.
- With features of high extensive four collet jaws, large contact range, powerful clamping force, low wear out and long service life of shank.
- High horse power spindle motor and specialized spindle belt are particularly designed for diversified, heavy applications.
- The advanced high tensile timing belt is applied to assure non-slip, high torque power transmitting and low rotating noise and low thermal temperature.
- Mobile IRD balancing device allows the spindle unit inspected and balanced dynamically on assembly site. This procedure will fully eliminate potential resonance problems of spindle on high speed running, to further ensure the best machining status and accuracy.

Friendly

Machine-operator interface



- The swivel type operating panel makes not only in accordance with the safety regulation but also in considering of friendly and convenient operating for customers.
- Auto-diagnosis function, signal gives warning of operating malfunction will display on TFT-LCD screen for instant trouble shooting.
- The optimal pendant MPG for customer's easy work setting-up.
- Touch screen button & switch, for convenient display, diagram and text.

Large volume design in coolant tank

- 200 liters coolant tank. The large capacity coolant circulation can remove away generated chips and heat fast as well, and efficiently.
- Special L-shaped coolant tank design is laid inside the machine to urge an economic floor space.



■ Laser inspection

Every machine has been statically and dynamically inspected and compensated by laser measurement instrument.



■ Ball bar inspection

The Renishaw ball bar instrument calibrates the circularity and the geometrical accuracy to ensure the three dimensional motions precise.



■ Spindle dynamic balancing

The IRD dynamic balancing device calibrates the spindle displacement, speed, and acceleration of the full speed range.



Specifications

MODEL		V-1000L	V-1100H	
Capacity				
X-axis travel	mm	1000	1100	
Y-axis travel	mm	560	560	
Z-axis travel	mm	Drum=500+110 / Arm=610		
Distance from table surface to spindle nose	mm	150-760	130-740	
Table				
Size of working surface	mm×mm	1220×560		
Permissible max. of table load	kg	800		
T-slot	mm	18T×100×5		
A.T.C				
A.T.C Type		Drum type		
Tool shank		BT-40		
Tool storage capacity		16		
Max. tool diameter (with adjacent tools)	mm	100		
Max. tool weight	kg	6		
Max. tool length	mm	300		
Motors		MITSUBISHI M70VB	MACHTEK 900M	Fanuc Oi-MD
Spindle motor(30min/cont)	KW	7.5/11	7.5	7.5/11
Spindle speeds	RPM	8,000	8,000	8,000
X-axis feed motor	KW	2	2	3
Y-axis feed motor	KW	2	2	3
Z-axis feed motor	KW	3.5	3.5	4
Power sources				
Electrical power supply	KVA	25		
Compressed air pressure	Mpa (psi)	0.6 (87)		
Coolant tank	L	200		
Machine size				
Machine dimensions (L×W×H)	mm	2900×2800×2640	2900×2880×2640	
Machine weight	kg	5100	5200	

All specifications, designs and characteristics shown in this catalogue are subject to change without prior notice.

Accessories

TYPE	V-1000L	V-1100H
Full enclosure guarding	●	●
Chip conveyor (coil type)	●	●
Work light	●	●
Alarm lamp	●	●
Heat exchanger for electrical cabinet	●	●
Rigid tapping	●	●
Remote MPG	●	●
8000 rpm spindle	●	●
Air blast around spindle	○	○
Auto counter for workpiece	○	○
10000 rpm spindle	○	○
12000 rpm spindle	○	○
Spindle oil chiller	○	○
Two speeds gearbox	○	○
C.T.S	○	○
Tool overload detection	○	○
Auto tool length measurement (A.T.L.M)	○	○
Automatic workpiece measurement	○	○
Simple tool life management	○	○
Chip conveyor outside machine & chip bucket	○	○
Oil skimmer	○	○
Water coolant gun	○	○
Rotary table preparation	○	○
Manual tail stock for rotary table	○	○
Through hole drill kit	○	○
CTS Preparation	○	○
Extra coolant tank	○	○
Surrounding coolant system	○	○
Linear Scale	○	○

● STANDARD ACCESSORIES ○ OPTIONAL ACCESSORIES



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