

**VL-6i**

## Expertise in High Efficiency and sharp productivity

**ecom**  
東剛精機

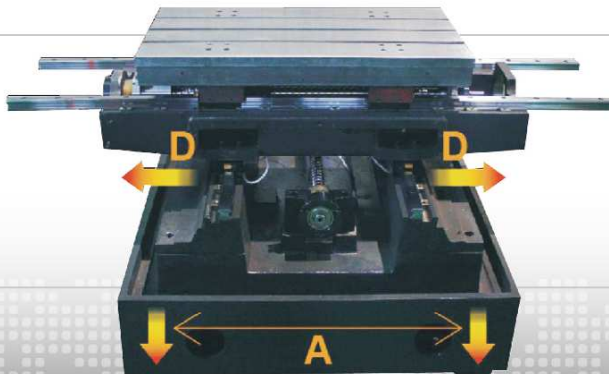


» IDD spindle is designed with heat-insulated coupling to reduce heat deformation and efficiently increase the spindle precision. It can also be optionally adapted with the optimal direct type spindle design. Motor can drive directly with spindle to increase the motor efficiency, providing a higher quality of rigid tapping. Direct type driving has no problems of noise, backlash and vibration.



• 3 Axis Design with high precision ball screw and linear guide to enhance the rigidity and inertia of the servo bearing.

• The Large-span base effectively supports and evenly disperses the load force the saddle.



• Labyrinth oil-water separated design.



• Flush device: Optimal chip removal angle provides ultimate chip removing capabilities, enabling smooth flow of chips into the storage cart.





### Concise Western style: Complete all convenience

Entire machine and accessories with unique off-the-ground design and with tool cabinet, desk and chair.



» Context » Concept » Collaboration

### Multiple axis control panel

⚙ The **4-way swivel controller panel** complies with safety requirements. Users may rotate it in any direction for an easier control.

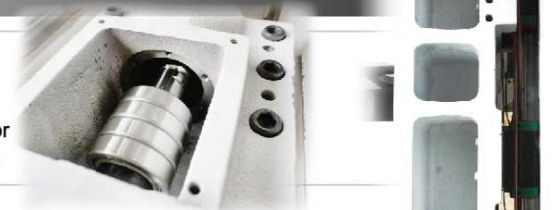


⦿ Labyrinth oil-water separated design.

⦿ X/Y/Z Axis upgrade to  $\Phi 35/45/35$  roller type linear guide way. ⦿ **3 Axis** Design with precision  $\Phi 40$  ball screw



⦿ **4 bearings** on the fixing end of triaxial motor to increase servo rigidity.



⦿ With **6 heavy duty roller blocks** installed on the **Z-axis** headstock, consistent contact is made between head stock and stand, which provides an incomparable rigidity to the machine.



## Excellent Features, Provide Our Value

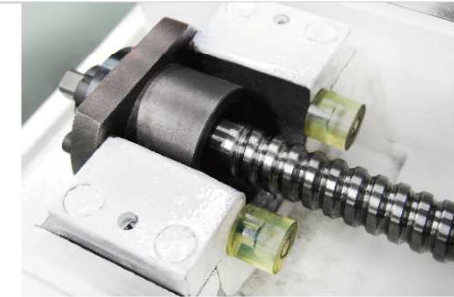
### Concise Western style: Complete all convenience

Multiple axis control panel

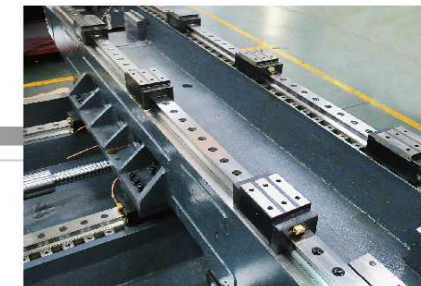


One-piece ATC saddle.

» **3 Axis** Design with precision  $\Phi 40$  ball screw



» **X.Y.Z.** design with high precision  $\Phi 35 / \Phi 45 / \Phi 35$  Roller type Linear guideway.



» With **6 heavy duty roller blocks** installed on the **Z-axis** headstock and **X-axis** (X-axis will valid from Sept.2014)



Context Concept Collaboration » Multiple axis control panel

» **MPG**



» **4 bearings** on the fixing end of triaxial motor to increase servo rigidity.





# VL-12i SUPERIOR CONSEQUENCE OF EXPERT TECHNOLOGY



- 3 Axis Axis Design with  $\Phi 45$  ballscrew.
- 3 Axis adapted with  $\Phi 45$  Roller linear guideway.
- 6 heavy duty roller blocks installed on the X and Z-axis.
- 4 bearings on the fixing end of triaxial motor.
- Y-Axis is adapted with 2 box way and 2 liner guideway on Y-Axis.

With 6 heavy duty roller blocks installed on the X-axis and Z-axis headstock.



Huge double doors >>



3 Axis Design with  $\Phi 45$  ballscrew and all adapted with  $\Phi 45$  Roller linear guideways.



Y-Axis is adapted with 2 box way and 2 liner guide ways to reduce the abrasion and shock-absorbing effect.



Labyrinth oil-water separated design can separate oil and water to cost down the cost.



Z-Axis is adapted with Nitrogen counterbalance to enhance precision and production capacity.





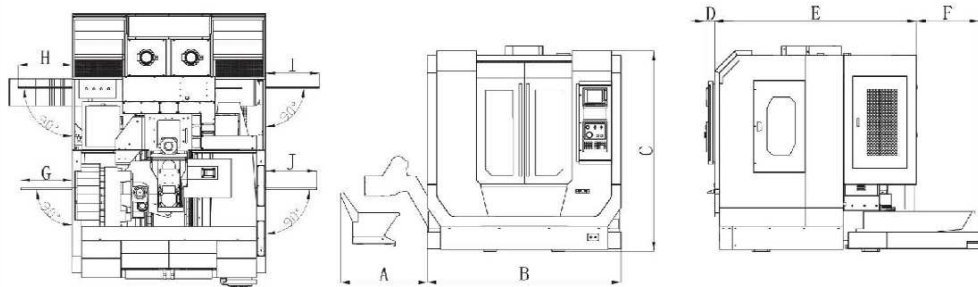
# VL-6i.8i.10i.12i

A full set of strict quality inspection



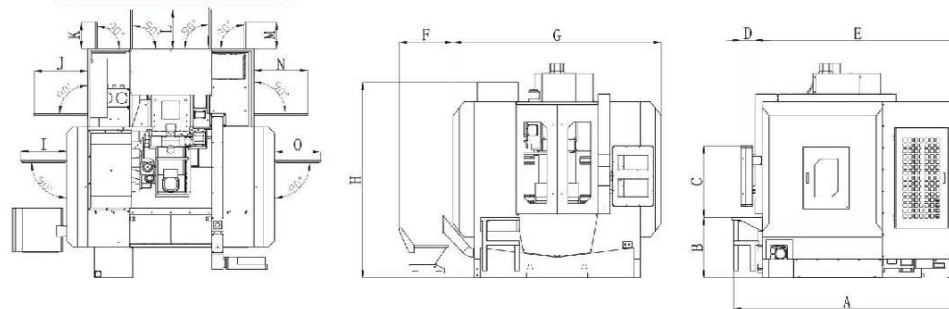
## MACHINE DIMENSIONS

### VL-6i



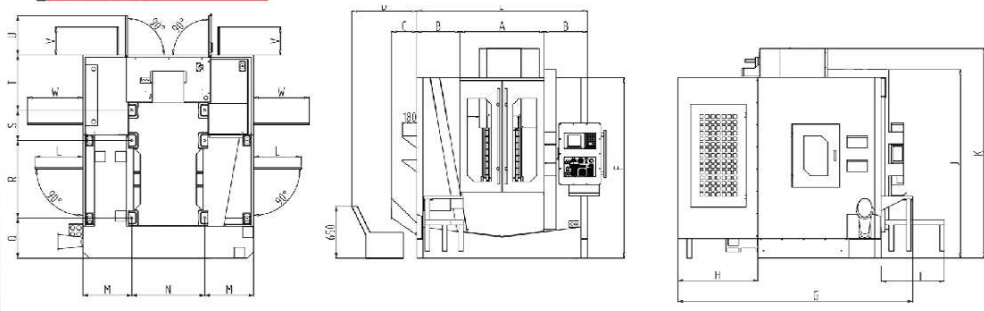
Models	Unit	A	B	C	D	E	F	G	H	I	J
VL-6i	mm	950	2100	2180	120	2190	680	560	590	590	560

### VL-10i



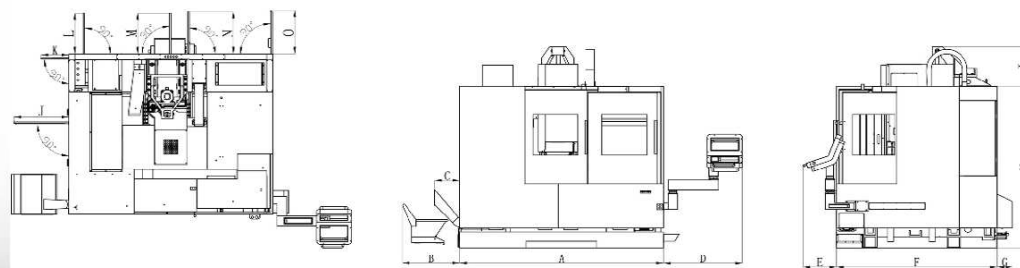
Models	Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
VL-10i	mm	2350	780	930	190	2660	700	2670	2530	600	700	350	510	350	700	600

### VL-8i



Models	Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	W
VL-8i	mm	1061	545	318	818	2151	2275	2959	1010	798	2375	2455	600	615	920	508	975	381	698	494	350	700

### VL-12i



Models	Unit	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
VL-12i	mm	2900	820	360	1130	480	2290	220	2300	570	780	400	590	590	600	600

# VL-6i.8i.10i.12i

## SPECIFICATION



Specifications \ Models	VL-6i	VL-8i	VL-10i	VL-12i
<b>Travel</b>				
X - Axis Travel	600mm	800mm	1000mm	1200mm
Y - Axis Travel	450mm	560mm	560mm	650mm
Z - Axis Travel	500mm	560mm	560mm	650mm
Spindle Center To Z - Rail	500mm	650mm	650mm	750mm
Spindle Nose To Table	130-630mm	150-710mm	150-710mm	120-770mm
<b>Table</b>				
Table Size	750mm*420mm	1050mm*550mm	1120mm*550mm	1300mm X 650mm
T - Slot (number*width*pitch)	3*14mm*100mm	5*18mm*100mm	5*18mm*100mm	5 X 18mm X 110mm
Maximum Table Load	400kg	800kg	800kg	1200kg
<b>Spindle</b>				
Spindle Taper	BT-40	BT-40	BT-40	BT-40
Spindle RPM	10000rpm	8000rpm	8000rpm	8000rpm
Type Of Driving	Belt Type	Belt Type	Belt Type	Belt Type
<b>Feed Rate</b>				
X, Y Axis Rapid Feed Rate	36m/min			
Z Axis Rapid Feed Rate	36m/min			
X, Y, Z Max.Cutting Feed Rate	10m/min			
<b>Automatic tool changer (ATC)</b>				
Arm Type (Tool to Tool)	24T (3sec)	24T (3sec)	24T (3sec)	24T (3sec)
<b>Motors</b>				
	Mitsubishi / Fanuc	Mitsubishi / Fanuc	Mitsubishi / Fanuc	Mitsubishi / Fanuc
Spindle Motor	5.5kw	7.5kw	11kw	11kw
X, Y Axis Servo Motor	1.5kw / 1.2kw	2.0kw / 1.8kw	2.0kw / 1.8kw	3.0kw / 3.0kw
Z Axis Servo Motor	3.0kw BS	3.0kw BS	3.0kw BS	3.0kw BS
<b>Machine Accuracy</b>				
Positioning Accuracy (JIS)	+/- 0.005mm/300mm			
Repeat Positioning Accuracy (JIS)	+/- 0.003mm			
<b>Other</b>				
Approximate Weight	4200 kas	6500 kas	7000 kgs	8000 kgs
Floor Space Measurement	2100*2800*2250mm	2650*2960*2850mm	2850*2960*2850mm	3350*2900*3000mm

★ ★ SPECIFICATIONS SUBJECT TO CHANGED WITHOUT PRIOR NOTICE. THANKS!

### Standard Accessories

- Mitsubishi M70A Controller
- Arm Type ATC -24T
- Spindle Coolant System
- Screw Type Chip Conveyor (for VL-8i/10i/12i only)
- Flushing Device
- High pressure water & air gun
- Leveling Bolts and Leveling Blocks
- Tool Box
- Air Blast Through Spindle
- Work Lamp
- Alarm Lamp
- Auto Power Off
- Auto Lubrication System
- Rigid Tapping
- RS 232 Interface
- CF Card Interface
- MPG
- Heat Exchanger For Control Cabinet
- Operation Manual



### Optional Accessories

- Tool Length Measurement Tool
- Around Spindle Cutting Coolant Unit
- Cutting Coolant Through Spindle Unit(18Bar 30Bar 50Bar)
- Arm Type ATC (24T / 30T) (Built-in spindle excluded)
- Geneva Type ATC(16T) (Built-in spindle excluded)
- Rotary Table 4th Axis
- Transformer
- CE
- Chain type Chip Conveyor with Car(VL-8i/10i/12i only)
- Air conditioner
- Three axis optical scale (HEIDENHAIN)

### Controller Optional

- Mitsubishi M70B Controller
- Fanuc 0i-MD / 0i-MD MATE / 0i-MD α Controller

### Spindle Optional

- BT-30 Built-in Spindle: 24000/30000rpm (VL-6i Mitsubishi only)
- BT-40 Direct Drive Spindle: 12000rpm (VL-10i/12i only)
- BT-40 Direct Drive Spindle: 12000/15000rpm(VL-6i/8i only)
- BT-40 Built-in Spindle: 18000rpm(VL-8i/10i/12i Mitsubishi only)
- BT-40 Belt type spindle: 8000 /10000rpm (VL-8i/10i/12i only)
- BT-40 Belt type spindle: 10000rpm (VL-6i only)
- BT-50 Belt type spindle: 6000 /8000rpm (VL-12i only. 8000rpm Mitsubishi only)
- BT-50 Gear type spindle: 6000 /8000rpm (VL-12i only. 8000rpm Mitsubishi only)