



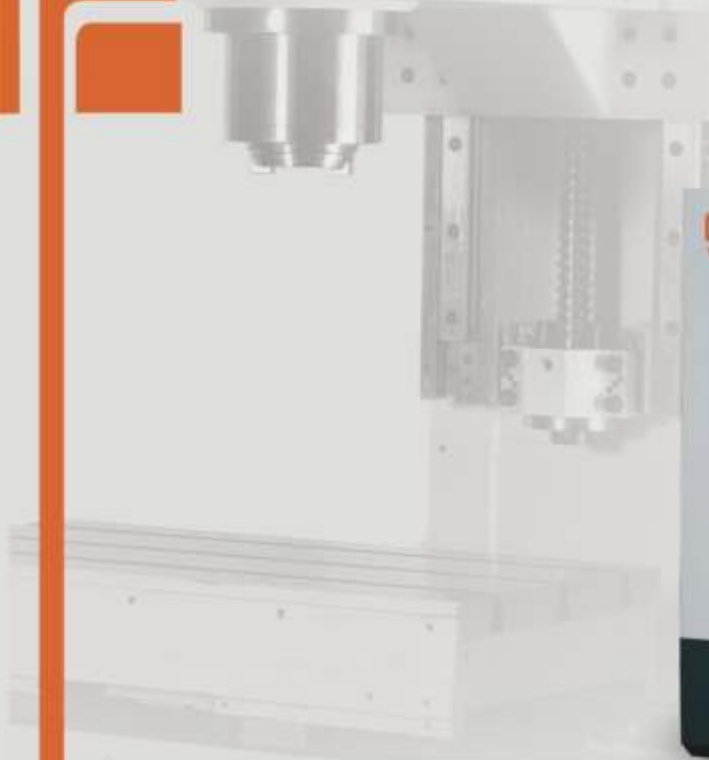
CNC Vertical Machining Center



CNC Vertical Machining Center

VL-510 (510/410/460mm) Linear Guide Ways

VH-510 (510/410/460mm) Box Ways



- BT40/CAT40/DIN40 spindle(Ø120mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.
- Optional spindle speed: 10,000/12,000/15,000/24,000/30,000RPM
- Hardened & Ground C3 Double-Nut ballscrews(Ø32mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.
- Positioning accuracy: $\pm 0.005\text{mm}/300\text{mm}$ Repeating accuracy: $\pm 0.003\text{mm}/300\text{mm}$

■ VL-510



■ VH-510



CNC Vertical Machining Center

VL-610 (610/460/510mm) Linear Guide Ways

VH-610 (610/460/510mm) Box Ways



- BT40/CAT40/DIN40 8000RPM spindle(Ø120mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.
- Optional spindle speed: 10,000/12,000/15,000/24,000/30,000RPM
- Hardened & Ground C3 Double-Nut ballscrews(Ø40mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.
- Box-way machines are coated with Turcite by professional hand-scraping in 20 dots/inch².

■ VL-610



■ VH-610



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VL-850 (850/510/560mm) Linear Guide Ways
VH-850 (850/510/560mm) Box Ways



- ✓ BT40/CAT40/DIN40 8000RPM spindle(Ø150mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.
- ✓ Optional spindle speed: 10,000/12,000/15,000/24,000RPM
- ✓ Hardened & Ground C3 Double-Nut ballscrews(Ø40mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.
- ✓ Positioning accuracy: $\pm 0.005\text{mm}/300\text{mm}$ Repeating accuracy: $\pm 0.003\text{mm}/300\text{mm}$

■ VL-850



■ VH-850



CNC Vertical Machining Center

VL-1000 (1020/510/560mm) Linear Guide Ways

VH-1000 (1020/510/560mm) Box Ways



- ✓ BT40/CAT40/DIN40 8000RPM spindle(\varnothing 150mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.
- ✓ Optional spindle speed: 10,000/12,000/15,000/24,000RPM
- ✓ Hardened & Ground C3 Double-Nut ballscrews(\varnothing 40mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.
- ✓ Special design Weight Balance leadscrew with needle bearings for better support and smooth movement.

■ VL-1000



■ VH-1000



CNC Vertical Machining Center

MODEL:VMC-1100 (1100/560/560mm) Linear Guide Ways

**HIGH SPEED
CUTTING TECHNOLOGY**



- Spindle driven by 11Kw(15HP) spindle motor through a high-torque timing belt, ensuring no slip, low noise, and low vibration.
- C3 double nut ballscrews (Ø40mm), hardened & ground for high accuracy and long lasting. Pre-tensioned on each axes to reduce heat deformation.
- High precision heavy-duty linear guide ways on 3 axes. 3-way linear guide ways on X and Y axes. Five sliding blocks for X & Y and six for Z axis to ensure machining accuracy.
- Positioning accuracy: $\pm 0.005\text{mm}/300\text{mm}$ Repeating accuracy: $\pm 0.003\text{mm}/300\text{mm}$



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MODEL: VL-1200 (1200/610/610mm) Linear Guide Ways



- 2-way high precision linear guide ways are installed on each axis. Y&Z linear guide ways are 45mm for better support and high precision movement.
- BT40/CAT40/DIN40 8000RPM spindle(Ø150mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.
- Optional spindle speed: 10,000/12,000/15,000/24,000RPM
- Hardened & Ground C3 Double-Nut ballscrews(Ø40mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.



➤ ARM TYPE QUICK TOOL CHANGER (OPTIONAL)
Tool to tool 2.5 secs



➤ Direct type spindle
(Optional)

CNC Vertical Machining Center

MCV-1100 (1100/700/610mm) Box Ways
MCV-1300 (1300/700/710mm) Box Ways



BT40/CAT40/DIN40 8000rpm spindle(Ø150mm). 100% balanced with low vibration performs high precision machining. Air blow function is standard to keep chips from falling into Spindle.

Spindle variety : Belt type, Direct type, Built-in, Gear type(VHG series) are available for heavy duty cutting or high speed machining.

Hardened & Ground C3 Double-Nut ballscrews(Ø40mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.

All solid ways are coated with high grade Turcite-B. Hardened & Ground slide ways give extra 40% wear resistance.

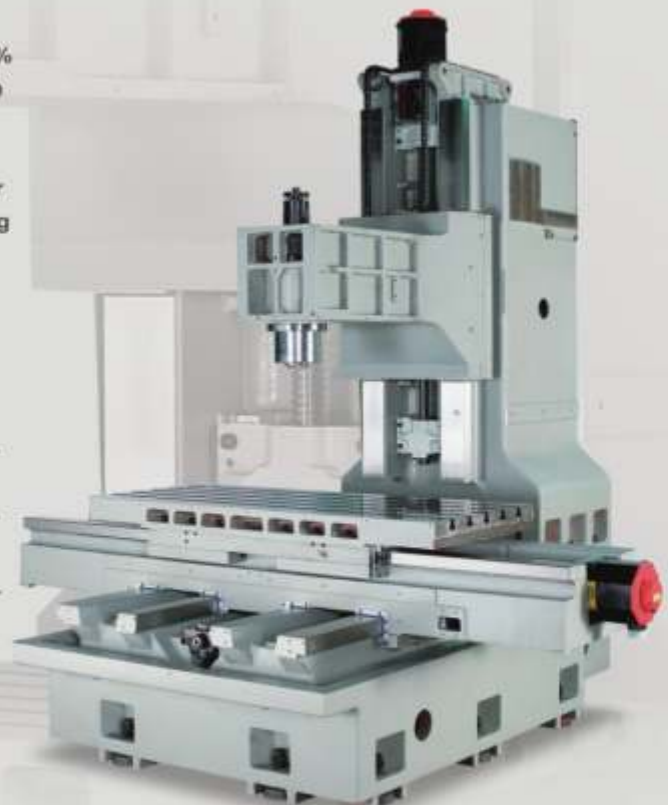
4 solid ways on base provides precise rigidity under heavy cutting conditions.

Y travel 700mm keeps superior rigidity and stability.

Main frame is made of Meehanite casting for superior rigidity.

Positioning accuracy:±0.005mm/300mm

Repeating accuracy:±0.003mm/300mm



CNC Vertical Machining Center

VHG-1104/VHG-1105 (1100/700/610mm) Box Ways
VHG-1304/VHG-1305 (1300/700/710mm) Box Ways

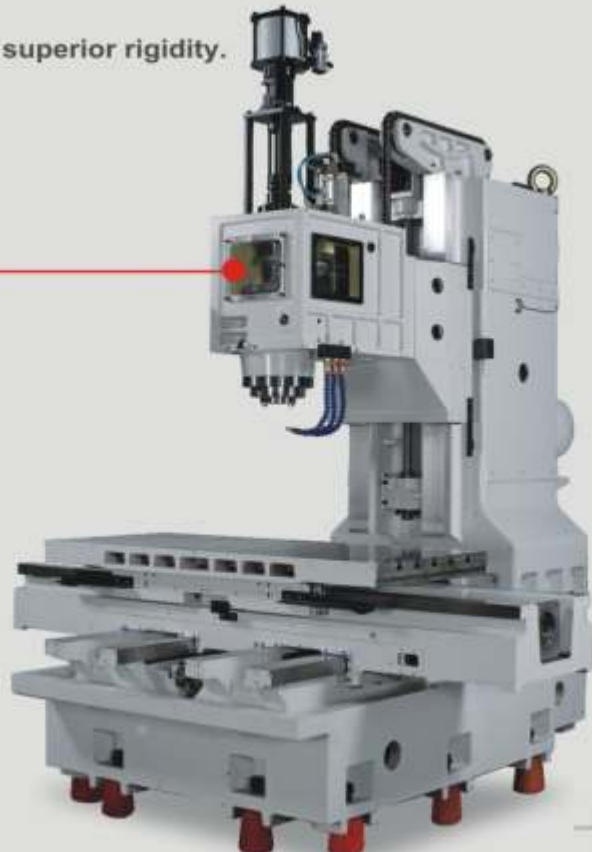


- ✓ Spindle transmission is through gears, offering more torque for heavy duty machining.
- ✓ Japan made Hi-Low gears are made of Cr-Mo alloy steel and ground to JIS Zero grade, offering lowest noise, heaviest cutting ability, and longest life.
- ✓ Standard with Arm type 24 tools ATC.
- ✓ Main frame is made of Meehanite casting for superior rigidity.
- ✓ Positioning accuracy: $\pm 0.005\text{mm}/300\text{mm}$
Repeating accuracy: $\pm 0.003\text{mm}/300\text{mm}$

VH-1000



Japan made Hi-Low gears are Zero grade



GEAR TRANSMISSION

MODEL	Spindle Taper	Spindle Speed
VHG-1104	BT40/CAT40/DIN40	8000rpm
VHG-1105	BT50/CAT50/DIN50	6000rpm
VHG-1304	BT40/CAT40/DIN40	8000rpm
VHG-1305	BT50/CAT50/DIN50	6000rpm

CNC Vertical Machining Center

VH-1600 (1600/800/800mm) Box Ways



- Spindle transmission is through gears, which offers more torque for heavy duty machining.
- Japan made HI-Low gears are made of Cr-Mo alloy steel and ground to JIS Zero grade, offering low noise and heavy duty machining.
- BT50/CAT50/DIN50 600RPM Gear Head spindle(Ø190mm) with spindle oil cooler 6000BTU.
Optional spindle: BT40/CAT40/DIN40 8000RPM Belt type and Direct type.
- Hardened & Ground C3 Double-Nut ballscrews(Ø50mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes. All solid ways are coated with high grade Turcite-B. Hardened&Ground slideways give extra 40% wear resistance.
- 4 solid ways on base provides precise rigidity under heavy cutting conditions.
- Y rear end standard with an auger type chip conveyor for easy chip removal.
- Main frame is made of Meehanite casting for superior rigidity.
Positioning accuracy : $\pm 0.005\text{mm}/300\text{mm}$
Repeating accuracy : $\pm 0.003\text{mm}/300\text{mm}$



➤ **GEAR HEAD**
Japanese brand Hi-Low gears are made of Cr-Mo alloy steel, which are ground to JIS Zero grade.



➤ **REAR SCREW TYPE CHIP CONVEYOR**



➤ **ELECTRICAL CABINET**
All high quality electrical components and circuits are fully protected. Standard electrical interface for easy maintenance.



CNC Vertical Machining Center

VH-2200 (2200/1000/800mm) Box Ways



- Spindle transmission is through gears, which offers more torque for heavy duty machining.
- Japan made Hi-Low gears are made of Cr-Mo alloy steel and ground to JIS Zero grade, offering low noise and heavy duty machining.
- BT50/CAT50/DIN50 600RPM Gear Head spindle(Ø190mm) with spindle oil cooler 6000BTU.
Optional spindle: BT40/CAT40/DIN40 8000RPM Belt type and Direct type.
- Hardened & Ground C3 Double-Nut ballscrews(Ø50mm) are pre-tensioned to minimize backlash, provide high precision movement, and reduce heat deformation on all axes.
- All solid ways are coated with high grade Turcite-B. Hardened & Ground slideways give extra 40% wear resistance.
- 6 solid ways are on a One-piece Base instead of two supporting ways connecting to the main base, which provides more rigidity under heavy duty machining. Standard with two auger type chip conveyors on Y axis for easy chip removal.
- Main frame is made of Meehanite casting for superior rigidity.
- Positioning accuracy : $\pm 0.005\text{mm}/300\text{mm}$
Repeating accuracy : $\pm 0.003\text{mm}/300\text{mm}$



↘ 4th axis machining



↘ High precision mode making



↘ BT-50 24 tools



↘ Surface Milling

BELT HEAD VL: LINEAR GUIDE WAYS		VH: BOX WAYS	
SPECIFICATIONS	VL-510/VH-510	VL-610/VH-610	VL-850/VH-850
TRAVEL			
X/Y/Z travel	510/410/460mm (20"/16"/18")	610/460/510mm (24"/18"/20")	850/510/560mm (33.5"/20"/22")
X/Y/Z Guide ways	2/2/2 ways	2/2/2 ways	2/2/2 ways
Spindle nose to table surface	VL-510: 130-590 mm VH-510: 130-590 mm	VL-610: 130-630 mm VH-610: 130-640 mm	VL-850: 150-710 mm VH-850: 130-690 mm
Spindle center to column surface	VL-510=430mm (16.9") VH-510=470mm(18.5")	VL-610=535mm (21") VH-610=553mm(21.7")	VL-850=614mm (24.2") VH-850=575mm(22.6")
TABLE			
Table size	VL-510: 600 X 320mm (23.6" X 12.6") VH-510: 600X370mm(23.6"X14.5")	800 X 450mm (31.5" X 17.7")	1000 X 500mm (39.4" X 19.7")
T-Slot (Size/Q'ty /Dist)	14mm X 3 X 100mm (0.6" X 3 X 3.9")	18mm X 3 X 100mm (0.7" X 3 X 3.9")	18mm X 5 X 100mm (0.7" X 5 X 3.9")
Max. table load (Kgs)	300Kgs (661Lbs)	400Kgs (882Lbs)	500Kgs (1102Lbs)
SPINDLE			
Speed	8,000RPM (*10,000-24,000 RPM)	8,000RPM (*10,000-24,000 RPM)	8000RPM (*10,000-15,000RPM)
Taper	BT40/DIN40/CAT40	BT40/DIN40/CAT40	BT40/DIN40/CAT40
Transmission	Belt	Belt	Belt
FEED RATE			
Rapid feed rate of XYZ	36/36/36 M/min (1418/1418/1418 lpm)	36/36/36 M/min (1418/1418/1418 lpm)	36/36/36 M/min (1418/1418/1418 lpm)
Cutting feed rate	1-10,000mm/min (394 lpm)	1-10,000mm/min (394 lpm)	1-10,000mm/min (394 lpm)
AUTOMATIC TOOL CHANGER			
Tool storage capacity	Armless 12 (*Armless 20 / Arm 20)	Armless 16 (*Armless 20 / Arm 24)	Armless 16 (*Armless 20 / Arm 24)
Max. tool diameter	Full:100mm(3.9")Next empty:150mm(5.9")	Full:100mm(3.9")Next empty:150mm(5.9")	Full:100mm(3.9") Next empty:150mm(5.9")
Max. tool length	250mm (11.8")	300mm (11.8")	300mm (11.8")
Max. tool weight	7Kgs (13.2Lbs)	7Kgs (13.2Lbs)	7Kgs (13.2Lbs)
CNC CONTROL&MOTOR			
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN / FAGOR / ANILAM / LNC)		
Spindle motor	3.5/5.5KW(7.5HP)	5.5/7.5KW (10HP)	5.5/7.5KW (10HP)
Axis motors	1.5KW	2KW	2KW
COOLANT			
Coolant pump	0.75Kw	0.75Kw	0.75Kw
Coolant tank capacity	180L	200L	230L
AIR&POWER SUPPLY			
Air source	6Kg/cm ²	6Kg/cm ²	6Kg/cm ²
Power supply	15KVA	15KVA	15KVA
MACHINE SIZE			
Machine dimensions (LxWxH)	2000X2305X2460mm	2160X2435X2550mm	2900X2210X2850mm
Machine net weight (approx.)	2800Kgs	4000Kgs	5000Kgs
Machine gross weight (approx.)	3000Kgs	4200Kgs	5200Kgs

GEAR HEAD SERIES

SPECIFICATIONS	VHG-1104	VHG-1105	VHG-1304	VHG-1305
TRAVEL				
X/Y/Z travel	1100 / 700 / 710 mm	1100 / 700 / 710 mm	1300 / 700 / 710 mm	1300 / 700 / 710 mm
X/Y/Z Guide ways	2 / 4 / 2 Box ways	2 / 4 / 2 Box ways	2 / 4 / 2 Box ways	2 / 4 / 2 Box ways
Spindle nose to table surface	130-840 mm	130-840 mm	130-840 mm	130-840 mm
Spindle center to column surface	730 mm	730 mm	730 mm	730 mm
TABLE				
Table size	1300 x 650 mm	1300 x 650 mm	1500 x 650 mm	1500 x 650 mm
T-Slot (Size/Q'ty /Dist)	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm
Max. table load (Kgs)	1000 kgs	1000 kgs	1000 kgs	1000 kgs
SPINDLE				
Speed	8000 RPM	6000 RPM	8000 RPM	6000 RPM
Taper	BT 40	BT 50	BT 40	BT 50
Transmission	Gear Head	Gear Head	Gear Head	Gear Head
FEED RATE				
Rapid feed rate of XYZ	24 / 24 / 15 m/min	24 / 24 / 15 m/min	24 / 24 / 15 m/min	24 / 24 / 15 m/min
Cutting feed rate	1-10 m/min	1-10 m/min	1-10 m/min	1-10 m/min
AUTOMATIC TOOL CHANGER				
Tool storage capacity	#40Arm24 (*Chain32)	#50Arm24 (*Chain32)	#40Arm24 (*Chain32)	#50Arm24 (*Chain32)
Max. tool diameter	Full: 100 mm Next empty: 150 mm	Full: 125 mm Next empty: 200 mm	Full: 80 mm Next empty: 150 mm	Full: 125 mm Next empty: 200 mm
Max. tool length	100 mm	300 mm	300 mm	300 mm
Max. tool weight	7 kgs	15 kgs	7 kgs	15 kgs
CNC CONTROL&MOTOR				
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN / FAGOR)			
Spindle motor	7.5/11 kW (15HP)	7.5/11 kW (15HP)	7.5/11 kW (15HP)	7.5/11 kW (15HP)
Axis motors	3.5 kW	3.5 kW	3.5 kW	3.5 kW
COOLANT				
Coolant pump	0.75 kW	0.75 kW	0.75 kW	0.75 kW
Coolant tank capacity	270 L	270 L	270 L	270 L
AIR&POWER SUPPLY				
Air source	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²
Power supply	20 kVA	20 kVA	20 kVA	20 kVA
MACHINE SIZE				
Machine dimensions (LxWxH)	3000 x 2825 x 3100 mm	3200 x 2825 x 3100 mm	3000 x 2825 x 3100 mm	3200 x 2825 x 3100 mm
Machine net weight (approx.)	7500 kgs	7600 kgs	8500 kgs	8600 kgs
Machine gross weight (approx.)	7700 kgs	7800 kgs	8700 kgs	8800 kgs

BELT HEAD VL: LINEAR GUIDE WAYS VH: BOX WAYS VMC: BOX WAYS			
SPECIFICATIONS	VL-1000/VH-1000	VMC-1100	VL-1200
TRAVEL			
X/Y/Z travel	1020/510/560mm (40.2"/20"/22")	1100/560/560mm (43.3"/22"/22")	1200/610/610mm (47.2"/24"/24")
X/Y/Z Guide ways	2/2/2 ways	3/3/2 Lindear guide ways	2/2/2 Lindear guide ways
Spindle nose to table surface	VL-1000: 150~710mm (5.9"~28") VH-1000: 130~690mm (5.1"~27.2")	150~710mm (5.9"~28")	150~760mm (5.9"~29.9")
Spindle center to column surface	VL-1000=614mm (24.2") / VH-1000=575mm(22.8")	625mm (24.6")	717mm (28.2")
TABLE			
Table size	1200 X 500mm (47.2" X 19.7")	1120 X 510mm (44" X 20")	1300 X 600mm (51.2" X 23.6")
T-Slot (Size/Q'ty /Dist)	18mm X 5 X 100mm (0.7" X 5 X 3.9")	18mm X 3 X 160mm (0.7" X 3 X 6.3")	18mm X 5 X 100mm (0.7" X 5 X 3.9")
Max. table load (Kgs)	500Kgs (1102Lbs)	700Kgs (1543Lbs)	1000Kgs (2205Lbs)
SPINDLE			
Speed	8000RPM (*10,000~15,000RPM)	8000RPM (*10,000~15,000RPM)	8000RPM (*10,000~15,000RPM)
Taper	BT40/DIN40/CAT40	BT40/DIN40/CAT40	BT40/DIN40/CAT40
Transmission	Belt	Belt	Belt
FEED RATE			
Rapid feed rate of XYZ	36/36/36 M/min (1418/1418/1418 lpm)	36/36/36 M/min (1418/1418/1418 lpm)	36/36/36 M/min (1418/1418/1418 lpm)
Cutting feed rate	1~10,000mm/min (394 lpm)	1~10,000mm/min (394 lpm)	1~10,000mm/min (394 lpm)
AUTOMATIC TOOL CHANGER			
Tool storage capacity	Armless 16 (*Armless 20 / Arm 24)	Armless 20 (*Arm 24 / Chain 32)	Armless 20 (*Arm 24 / Chain 32)
Max. tool diameter	Full:100mm(3.9") Next empty:150mm(5.9")	Full:100mm(3.9") Next empty:150mm(5.9")	Full:100mm(3.9") Next empty:150mm(5.9")
Max. tool length	300mm (11.8")	300mm (11.8")	300mm (11.8")
Max. tool weight	7Kgs(13.2Lbs)	7Kgs(13.2Lbs)	7Kgs(13.2Lbs)
CNC CONTROL&MOTOR			
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN / FAGOR / ANILAM / LNC)		
Spindle motor	5.5/7.5KW (10HP)	7.5/11KW (15HP)	7.5/11KW (15HP)
Axis motors	2KW	2KW	3KW
COOLANT			
Coolant pump	0.75Kw	0.75Kw	0.75Kw
Coolant tank capacity	230L	180L	270L
AIR&POWER SUPPLY			
Air source	6Kg/cm ²	6Kg/cm ²	6Kg/cm ²
Power supply	15KVA	20KVA	20KVA
MACHINE SIZE			
Machine dimensions (LxWxH)	2900X2210X2850mm	3350X2200X2870mm	3450X2805X2890mm
Machine net weight (approx.)	5200Kgs	5500Kgs	6000Kgs
Machine gross weight (approx.)	5400Kgs	5700Kgs	6200Kgs

GEAR HEAD SERIES

SPECIFICATIONS	VH-1600	VH-1800	VH-2000	VH-2200
TRAVEL				
X/Y/Z travel	1600 / 800 / 800 mm	1800 / 900 / 800 mm	2000 / 900 / 800 mm	2200 / 1000 / 800 mm
X/Y/Z Guide ways	2 / 4 / 2 Box ways	2 / 4 / 2 Box ways	2 / 4 / 2 Box ways	2 / 6 / 2 Box ways
Spindle nose to table surface	200~1000 mm	200~1000 mm	200~1000 mm	250~1050 mm
Spindle center to column surface	870 mm	870 mm	870 mm	1050 mm
TABLE				
Table size	1800 x 840 mm	2000 x 850 mm	2200 x 850 mm	2400 x 1000 mm
T-Slot (Size/Q'ty /Dist)	22 mm x 5 x 150 mm	22 mm x 5 x 150 mm	22 mm x 5 x 150 mm	22 mm x 7 x 150 mm
Max. table load (Kgs)	2200 kgs	2300 kgs	2400 kgs	3000 kgs
SPINDLE				
Speed	6000 RPM	6000 RPM	6000 RPM	6000 RPM
Taper	BT 50	BT 50	BT 50	BT 50
Transmission	Gear Head	Gear Head	Gear Head	Gear Head
FEED RATE				
Rapid feed rate of XYZ	15 / 15 / 12 m/min	15 / 15 / 12 m/min	15 / 15 / 12 m/min	15 / 15 / 12 m/min
Cutting feed rate	1~10 m/min	1~10 m/min	1~10 m/min	1~10 m/min
AUTOMATIC TOOL CHANGER				
Tool storage capacity	#50Arm24(*Chain32)	#50Arm24(*Chain32)	#50Arm24(*Chain32)	#50Arm24(*Chain32)
Max. tool diameter	Full: 125 mm Next empty: 200 mm	Full: 125 mm Next empty: 200 mm	Full: 125 mm Next empty: 200 mm	Full: 125 mm Next empty: 200 mm
Max. tool length	300 mm	300 mm	300 mm	300 mm
Max. tool weight	15 kgs	15 kgs	15 kgs	15 kgs
CNC CONTROL&MOTOR				
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN / FAGOR)			
Spindle motor	11/15 kW (20HP)	7.5/11 kW (15HP)	11/15 kW (20HP)	11/15 kW (20HP)
Axis motors	3.5 kW	3.5 kW	3.5 kW	7/9/7 kW
COOLANT				
Coolant pump	0.75 kW	0.75 kW	0.75 kW	0.75 kW
Coolant tank capacity	300 L	300 L	300 L	590 L
AIR&POWER SUPPLY				
Air source	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²
Power supply	35 kVA	35 kVA	35kVA	35 kVA
MACHINE SIZE				
Machine dimensions (LxWxH)	4400 x 3330 x 3310mm	4800 x 3350 x 3250mm	5200 x 3350 x 3250mm	6130 x 4200 x 3530mm
Machine net weight (approx.)	14000 kgs	14200 kgs	14500 kgs	22000 kgs
Machine gross weight (approx.)	14500 kgs	14700 kgs	15000 kgs	22500 kgs

*Optional *BT=JIS, DIN=DIN6972, CAT

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BELT HEAD MCV: BOX WAYS

SPECIFICATIONS

	VH-1100	VH-1300
TRAVEL		
X/Y/Z travel	1100/700/610mm (43.3"/27.5"/24")	1300/700/710mm (51.1"/27.5"/27.9")
X/Y/Z Guide ways	2/4/2 Box ways	2/4/2 Box ways
Spindle nose to table surface	130~740mm (5.1"~29.1")	130~840mm (5.1"~33")
Spindle center to column surface	730mm (28.7")	730mm (28.7")
TABLE		
Table size	1300 X 650mm (51.2" X 25.6")	1500 X 650mm (59" X 25.6")
T-Slot (Size/Q'ty /Dist)	18mm X 5 X 100mm (0.7" X 5 X 3.9")	18mm X 5 X 100mm (0.7" X 5 X 3.9")
Max. table load (Kgs)	1000Kgs (2205Lbs)	1000Kgs (2205Lbs)
SPINDLE		
Speed	8000RPM (*10,000~15,000RPM)	8000RPM (*10,000~15,000RPM)
Taper	BT40/DIN40/CAT40	BT40/DIN40/CAT40
Transmission	Belt	Belt
FEED RATE		
Rapid feed rate of XYZ	24/24/15 M/min (946/946/591 lpm)	24/24/15 M/min (946/946/591 lpm)
Cutting feed rate	1~10,000mm/min (394 lpm)	1~10,000mm/min (394 lpm)
AUTOMATIC TOOL CHANGER		
Tool storage capacity	Armless 20 (*Arm 24 / Chain 32)	Armless 20 (*Arm 24 / Chain 32)
Max. tool diameter	Full:100mm(3.9") Next empty:150mm(5.9")	Full:100mm(3.9") Next empty:150mm(5.9")
Max. tool length	300mm (11.8")	300mm (11.8")
Max. tool weight	7Kgs (13.2Lbs)	7Kgs (13.2Lbs)
CNC CONTROL&MOTOR		
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN / FAGOR / ANILAM / LNC)	
Spindle motor	7.5/11KW (15HP)	7.5/11KW (15HP)
Axis motors	3KW	3KW
COOLANT		
Coolant pump	0.75Kw	0.75Kw
Coolant tank capacity	270L	270L
AIR&POWER SUPPLY		
Air source	6Kg/cm ²	6Kg/cm ²
Power supply	20KVA	20KVA
MACHINE SIZE		
Machine dimensions (LxWxH)	3000X2825X3100mm	3200X2825X3100mm
Machine net weight (approx.)	7000Kgs	8000Kgs
Machine gross weight (approx.)	7200Kgs	8200Kgs

*Optional *BT=JIS, DIN=DIN69872, CAT

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STANDARD ACCESSORIES

- * Rigid tapping
- * RS-232 interface
- * Auto power off
- * Auto lubrication
- * Halogen work light
- * End of program light
- * Heat exchanger for electrical cabinet
- * Full guarding/ Remote handwheel
- * Leveling bolts & plate
- * Tools & box
- * Operation manual

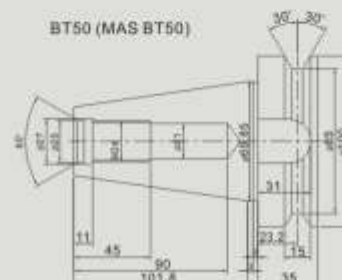
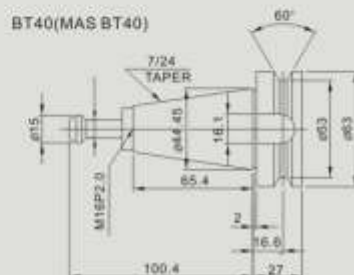
★VHG-1104/1105/1304/1305/VH-1600/VH-2200
standard with spindle oil cooler 6000BTU

機型 / 名稱	A	B	C	D	溝數
VL-510	600	320	100	60	3
VH-510	600	370	100	85	3
VL/VH-610	800	450	100	125	3
VL/VH-850	1000	500	100	50	5
VL/VH-1000	1200	500	100	50	5
VMC-1100	1120	510	160	95	3
VL-1200	1300	600	100	100	5
VH-1100	1300	650	100	125	5
VH-1300	1500	650	100	125	5
VH-1600	1800	840	150	100	5
VH-1800	2000	850	150	100	5
VH-2000	2200	850	150	100	5
VH-2200	2400	1000	150	50	7

OPTIONAL ACCESSORIES

- ★ Spindle oil cooler
- ★ High pressure water scour for chip removal
- ★ Air conditioner for electrical box
- ★ Coolant through spindle center
- ★ Screw type chip conveyor
- ★ Oil skimmer
- ★ Chain type chip conveyor
- ★ Oil through tool holder
- ★ Scraper type chip conveyor
- ★ Oil mist lubrication pump
- ★ 4th axis
- ★ CE electrical box
- ★ DRO
- ★ Transformer

WORKING TABLE SIZE





↘ **BALLBAR TEST**
Every machine is inspected by Ballbar test to ensure machining accuracy.



↘ **LASER INSPECTION SYSTEM**
All 3 axes are checked by Laser test to ensure positioning and repeating accuracy.

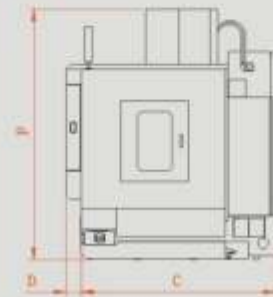
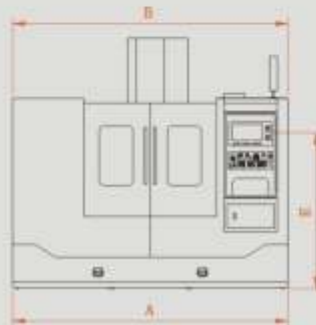
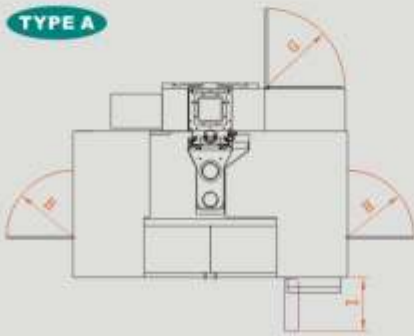


↘ **SPINDLE NOISE&VIBRATION CHECK**

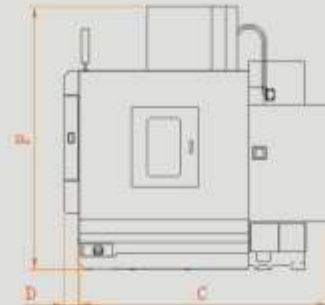
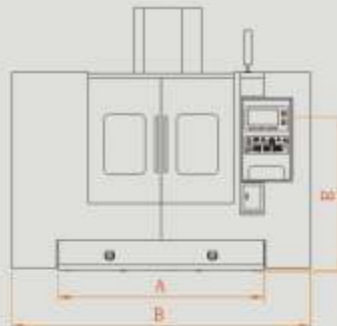


Dimension ↘

TYPE A



TYPE B



TYPE A

	VL/VH-850 VL/VH-1000	VMC-1100	VH-1600	VH-1800	VH-2000	VH-2200
A	2900	3350	3300	3500	3500	6130
B	2900	3075	4400	5000	5500	6130
C	2050	2035	3170	3110	3110	3735
D	160	160	160	160	160	470
E	1650	1650	1650	1650	1650	1700
F	2850	2870	3310	3310	3310	3530
G	R835	R835	R985	R985	R985	R985
H	R710	R710	R820	R820	R820	R940
I	570	570	570	570	570	675

Unit : mm

TYPE B

	VL-510 VH-510	VL-610 VH-610 VL-762	VL-1200	VH-1100 VHG-1104 VHG-1105	VH-1300 VHG-1304 VHG-1305
A	2000	2160	2200	2200	2200
B	2000	2160	3450	3000	3200
C	2140	2270	2645	2645	2665
D	165	165	160	160	160
E	1650	1650	1650	1650	1650
F	2460	2550	3040	3040	3100
G	R835	R835	R835	R835	R835
H	R655	R655	R710	R710	R710
I	570	570	570	570	570

Unit : mm

OPTIONAL ACCESSORIES



➤ CTS system



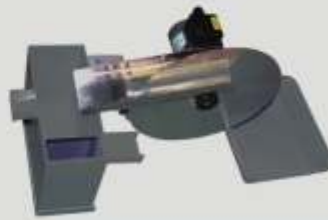
➤ CTS filter type 30 bar



➤ CTS filter type 70 bar



➤ CTS Pper filter



➤ Oil skimmer



➤ Spindle oil cooler



➤ ZF gear box



➤ Spindle heat transformation compensation



➤ Work piece and tool length measurement



➤ Linear scale



➤ NC rotary table



➤ Air conditioner for electrical box



➤ High pressure water jet for chip removal



➤ Chip conveyor (chain type & scraper type)



➤ Chain type 32 tools ATC



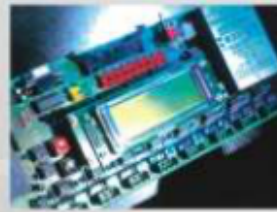
OPTIONAL ACCESSORIES



➤ CTS system



➤ Work piece and tool length measurement



➤ Spindle heat transformation compensation



➤ Linear scale



➤ Oil skimmer



➤ CTS Pper filter



➤ NC rotary table



➤ ZF gear box



➤ High pressure water jet for chip removal



➤ CTS filter type 30 bar



➤ Spindle oil cooler



➤ Air conditioner for electrical box



➤ CTS filter type 70 bar



➤ Chip conveyor (chain type & scraper type)



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