

VL550 / VH510

XYZ travel: 510 / 410 / 460 mm

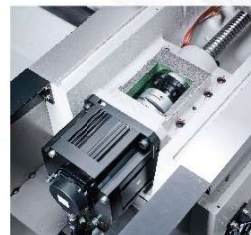
#40 Belt Drive Spindle 8,000 rpm

#40 Direct Drive Spindle

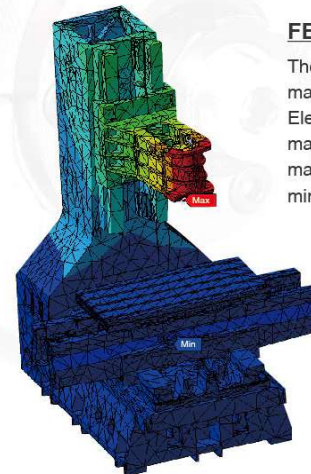
10,000 – 15,000 rpm (Optional)



Hardened Slideways

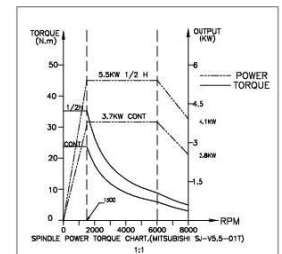


Axis motors are direct coupled with ball screws, featuring highly efficient motion control, high response and low noise.



FEA

The Manford VH Box Way Series machining centers are all Finite Element Analysis (FEA) designed. The machine structure is optimized for maximum mechanical rigidity but with minimum cast iron material used.



3.7 / 5.5 KW for VL 510 / VH 510

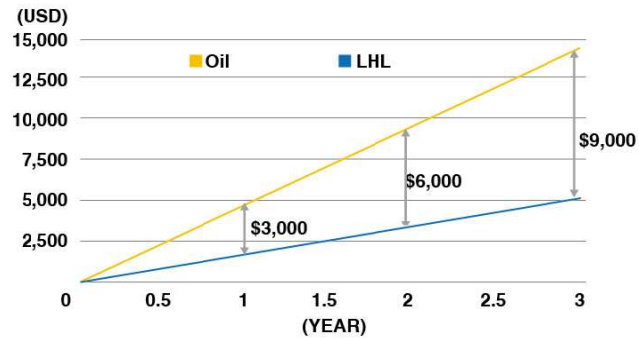


Reliable Armless Type ATC

Standard with 12 tools Armless type Arm type 16T is optional.

OPTIONAL

LHL Vs Oil cost comparison (Every Year)



Compared to high velocity lubrication oil, the med-pressure grease system uses 90% less oil, and the pump motor consumes 80% less electricity.



Chain type 32 tools ATC



Spindle oil cooler



CTS system



CTS filter type 30 bar



NC rotary table



Chip conveyor (chain type & scraper type)

STANDARD ACCESSORIES

- Rigid tapping
- RS-232/RJ45 interface
- Auto power off
- Auto lubrication
- LED work light
- Program light
- Heat exchanger for electrical cabinet
- Full guarding
- Remote handwheel
- Leveling bolts & plate
- Tools & box
- Operation manual
- Spindle oil cooler (VHG Series)

OPTIONAL ACCESSORIES

- Spindle oil cooler
- High pressure coolant flush
- Air conditioner for electrical cabinet
- Coolant through spindle center
- Oil skimmer
- Screw type chip conveyor
- Chain type chip conveyor
- Scraper type chip conveyor
- Oil through tool holder
- 4th axis
- CE electrical box
- DRO
- Transformer



Spindle coolant system



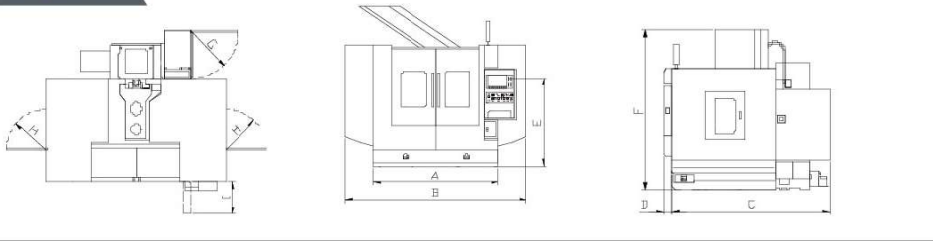
Tool length measurement



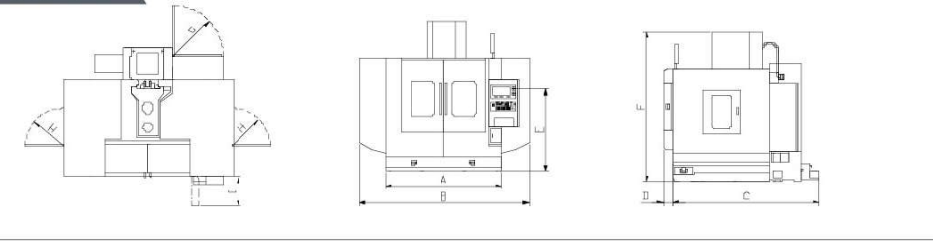
Work piece measurement

Machine Dimensions

TYPE A



TYPE B



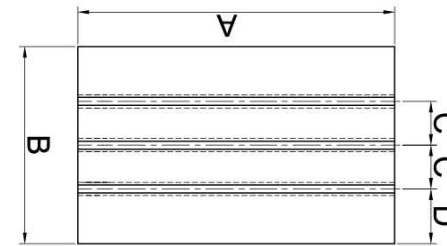
TYPE A		Unit : mm			
	VH510	VH610	VH1100 VHG1104 VHG1105	VH1300 VHG1304 VHG1305	
A			2200	2200	
B	2000	2160	3200	3200	
C	2140	2270	2665	2665	
D	165	165	160	160	
E	1650	1650	1650	1650	
F	2460	2550	3080	3080	
G	R831	R831	R831	R830	
H	R653	R653	R768	R768	
I	570	570	570	570	

TYPE B		Unit : mm			
	VH/VHG850 VH/VHG1000	VH1600 VHG1600	VH2000 VHG2000	VH2200 VHG2200	
A		3300	3480	4470	
B	2900	4400	5500	6130	
C	2055	3170	3275	3732	
D	160	160	160	461	
E	1650	1650	1650	1700	
F	2850	3300	3300	3661	
G	R831	R981	R981	R981	
H	R708	R913	R913	R938	
I	570	570	570	673	

TYPE A		Unit:mm		
	VL510	VL610	VL1200	
A			2200	
B	2000	2160	3450	
C	2140	2270	2645	
D	165	165	160	
E	1650	1650	1650	
F	2460	2550	2950	
G	R831	R831	R831	
H	R653	R653	R708	
I	570	570	600	

TYPE B		Unit:mm		
	VL850/1000	VL1300	VL1600	
A				
B	2900	3650	4370	
C	2050	2490	2490	
D	160	556	556	
E	1650	1700	1700	
F	2850	3050	3050	
G	R831	R831	R831	
H	R708	R873	R873	
I	570	555	555	

Table Sizes



MODEL	A	B	C	D	T-slot Q'ty
VL510	600	320	100	60	3
VL610	800	450	100	125	3
VL850	1000	500	100	50	5
VL1000	1200	500	100	50	5
VL1200	1300	600	100	100	5
VL1300	1450	700	125	100	5
VL1600	1750	700	125	100	5

MODEL	A	B	C	D	T-slot Q'ty
VH-510	600	370	100	85	3
VH-610	800	450	100	125	3
VH-850	1000	500	100	50	5
VH-1000	1200	500	100	50	5
VH-1100	1300	650	100	125	5
VH-1300	1500	650	100	125	5
VH-1600	1800	840	150	140	5
VH-2000	2200	850	150	150	5
VH-2200	2400	1000	150	50	7

Pull Stud

BT

MODEL	L	L1	L2	L3	L4	D	D1	d1	d2	W	G	θ
BT40 45	60	35	5	28	3	6	15	23	10	17	19	M16 45

BT-CTS

MODEL	L	L1	L2	L3	L4	L5	D	D1	d1	d2	W	G	t	θ
BT40 45-COOLANT	60	35	5	28	3	6	15	23	10	17	19	M16	4	45

CAT

MODEL	L	L1	L2	D	d	d1	G	θ	L
CAT40 45-A	1.500	0.640	0.440	0.074	0.940	0.490	5/8"-11	45	1.500

DIN

MODEL	L	L1	L2	D	d	d1	d2	W	t
DIN69872A-M16	54	26	20	19	23	14	17	19	-

DIN-CTS

MODEL	L	L1	L2	D	d	d1	d2	W	t
DIN69872A-M16	54	26	20	19	23	14	17	19	7.5

Specifications

*Opt.

LINEAR WAYS	VL550	VL610	VL850	VL1000	VL1200	VL1300		VL1600	
TRAVEL									
X/Y/Z travel	510 / 410 / 460 mm	610 / 460 / 510 mm	850/510/560mm	1,020 / 510 / 560 mm	1,200 / 610 / 610 mm	1,300 / 700 / 700mm		1,600 / 700 / 700 mm	
XYZ ballscrews	C3 32 mm	C3 40 mm	C3 40mm	C3 40 mm	C3 40 mm	C3 45 mm			
Spindle nose to table surface	130~590 mm	125~635 mm	150~710mm	150~710 mm	150~760 mm	BT-40: 130~830mm	BT-50: 130~800mm	BT-40: 130~830mm	BT-50: 130~800mm
Spindle center to column surface (guide way surface)	430 mm	553 mm	608 mm	608 mm	717 mm	770 mm			
TABLE									
Table size	600 x 320 mm	800 x 450 mm	1,000 X 500mm	1,200 x 500 mm	1,300 x 600 mm	1,450 x 700 mm		1,750 x 700 mm	
T-Slot (Size / Q'ty / Dist)	14 mm x 3 x 100 mm	18 mm x 3 x 100 mm	18mm X 5 X 100mm	18 mm x 5 x 100 mm	18 mm x 5 x 100 mm	18 x 5 x 125 mm			
Max. table load (Kgs)	300 Kgs	400 Kgs	500Kgs	500 Kgs	1,000 Kgs	1,000 kgs		2,200 kgs	
SPINDLE									
Taper	BT40	BT40	BT40	BT40	BT40	BT40	BT50	BT40	BT50
Speed	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM	8,000 RPM
Transmission	Belt	Belt	Belt	Belt	Belt	Belt			
FEED RATE									
Rapid feed rate of XYZ Axes	36/36/36 M/min	36/36/36 M/min	36/36/36 M/min	36/36/36 M/min	36/36/36 M/min	30 / 30 / 24 M/min			
Cutting feed rate	1~10 M / min	1~10 M / min	1~10 M / min	1~10 M / min	1~10 M / min	1~12 M/min			
AUTOMATIC TOOL CHANGER									
Tool storage capacity	Armless 12 (*Armless 20 / Arm 20)	Armless 16 (Armless 20 / Arm 20)	Arm 24 (*Chain 32)	Arm 24 (*Chain 32)	Arm 24 (*Chain 32)	Arm 24 (*Chain 32)			
Max. tool diameter	Full : 100 mm Next empty : 150 mm	Full: 90mm Next empty: 180mm	Full: 80mm Next empty: 150mm	Full: 80mm Next empty: 150mm	Full: 80mm Next empty: 150mm	BT40 Full: 80 mm Next empty :150 mm	BT50 Full :125 mm Next empty :200 mm	BT40 Full: 80 mm Next empty :150 mm	BT50 Full :125 mm Next empty :200 mm
Max. tool length	200mm	200mm	300mm (*Chain: 350mm)	300mm (*Chain: 350mm)	300mm (*Chain: 350mm)	300mm (*Chain: 350mm)	300mm (*Chain: 400mm)	300mm (*Chain: 350mm)	300mm (*Chain: 400mm)
Max. tool weight	6Kgs	6Kgs	7Kgs	7Kgs	7Kgs	7Kgs	15Kgs	7Kgs	15Kgs
CNC CONTROL & MOTOR									
CNC control	MITSUBISHI (* FANUC / SIEMENS / HEIDENHAIN)								
Spindle motor	5.5 / 7.5 KW (10HP)	5.5 / 7.5 KW (10HP)	5.5 / 7.5 KW (10HP)	5.5 / 7.5 KW (10HP)	11 / 15 KW (20HP)	7.5 / 11 KW (15 HP)			
GENERAL SPECIFICATIONS									
Coolant tank capacity(L)	180	200	230	230	270	400		400	
Air source	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²	6 Kg/cm ²		6 Kg/cm ²	
Power supply	12 KVA	15 KVA	15 KVA	15 KVA	20 KVA	12 KVA		12 KVA	
MACHINE SIZE									
Machine dimensions (LxWxH)	2,000 x 2,305 x 2,460 mm	2,160 x 2,435 x 2,550 mm	2,900 x 2,420 x 2,850 mm	2,900 x 2,420 x 2,850 mm	3,450 x 2,805 x 2,950 mm	3,650 x 2,915 x 3,050 mm		4,370 x 2,915 x 3,027 mm	
Machine net weight (approx.)	2,800 KGS	3,800 KGS	5,000 KGS	5,200 KGS	6 800 KGS	7,000 KGS		10,000 KGS	

The mentioned specifications & dimensions are subject to change without notice.