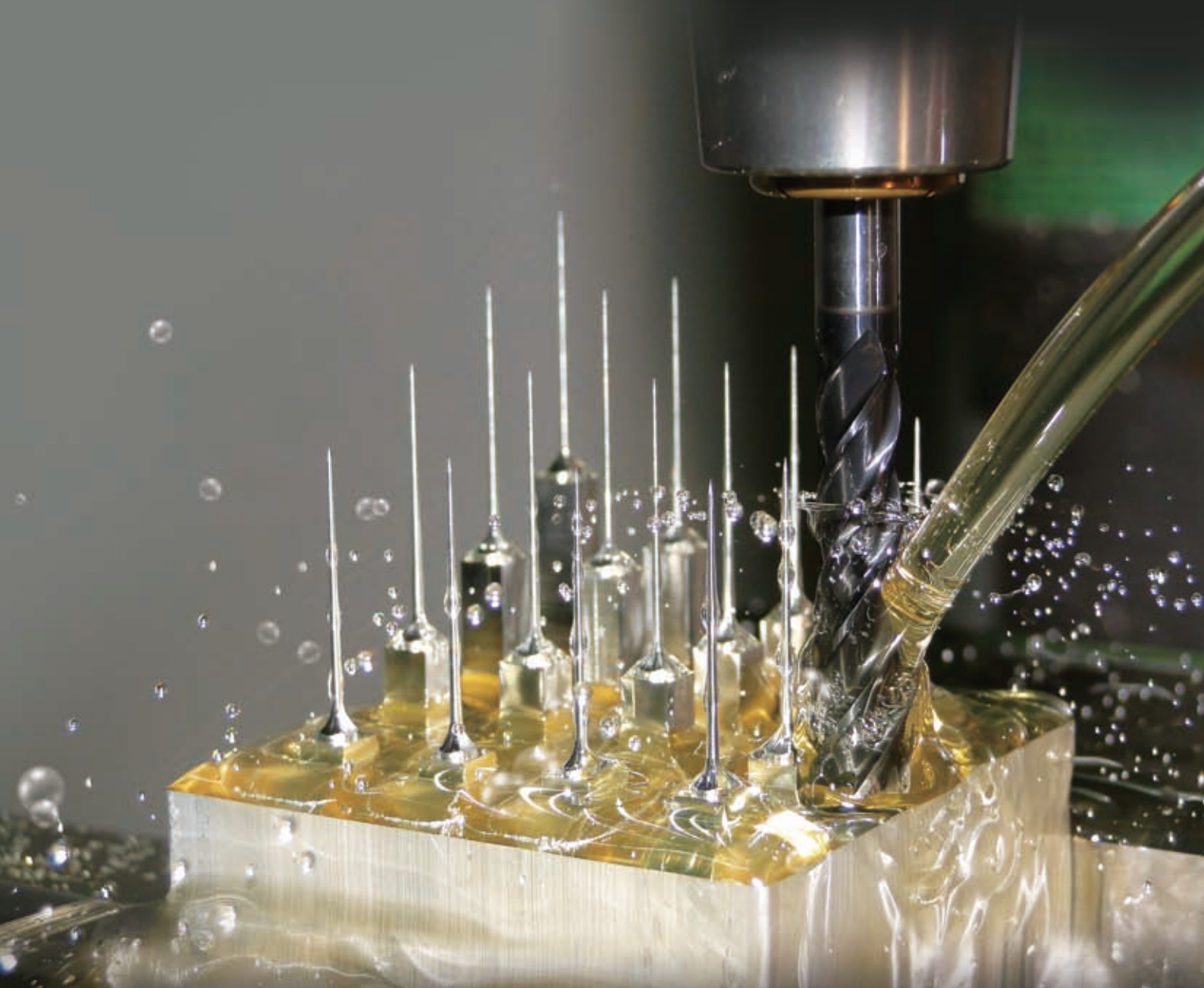


LILIAN



CE



Vertical Machining Center

<http://www.lilian.com.tw>



High Precision & Excellent Performance

LILIAN, the leading milling machine builder in Taiwan, was established in 1978 and has built more than twenty thousand manual, CNC milling machines & VMC sold to many countries. We are proud of our state-of-art machines to be seen in different places around the world. We shall develop more techniques of machine manufacturing in the future and to keep the role as a leading machine tool builder. Our goal is to build another twenty thousand LILIAN machines and make them to be seen in every country of the world in coming decade.

ASSEMBLY LINE

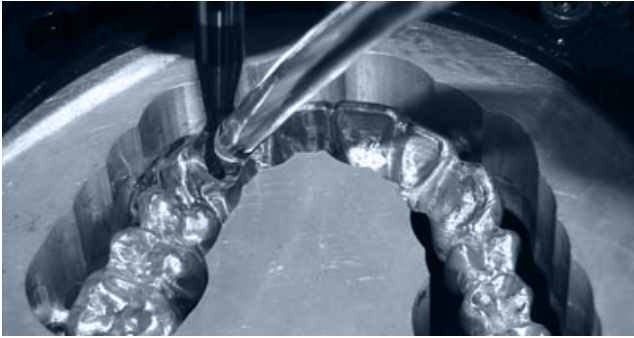


Factory With CE and ISO No dust for assembly environment.



24 Hours for Long-term seven days running and functional test.

MILLING >> DRILLING >> TAPPING >> BORING >> ENGRAVING



INSPECTION



INSPECTION BY BALL BAR AND LASER UNIT

- Each machine is subject to rigorous ball bar testing that ensuring linear accuracy and squareness.
- The advanced laser unit is employed to check the linear accuracy, providing accurate compensation to pitch and backlash.
- Speed of each machine is subject to Spectrum Analyzer testing to ensure the spindle dynamic balance and the noise level.

FIVE AXIS VMC

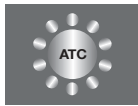
HVM-110L-BC
HVM-110L-AC
SVM-75-AC



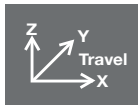
DIRECT
BUILT-IN



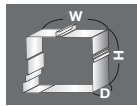
BT30/24000RPM
BT40/12000/15000RPM
BBT40/HSK63A/20000/24000RPM



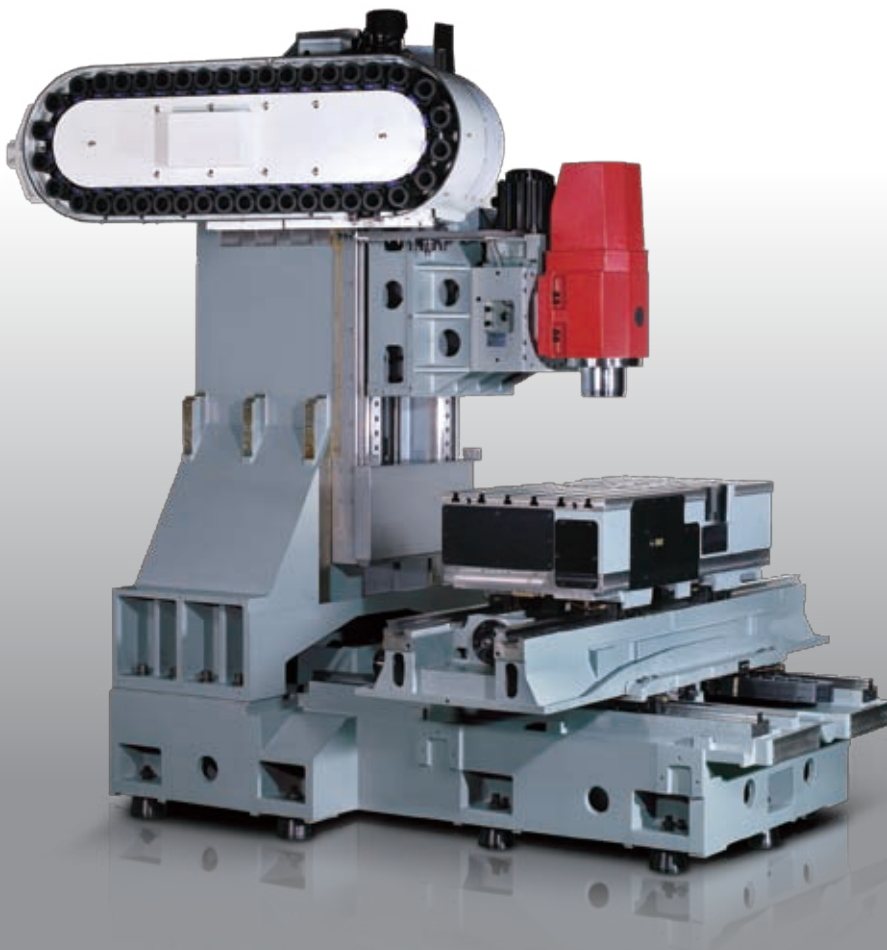
24/30/40



750x500x510mm
1100x650x800mm
1100x650x800mm



215x223x223cm
320x340x360cm
320x340x360cm

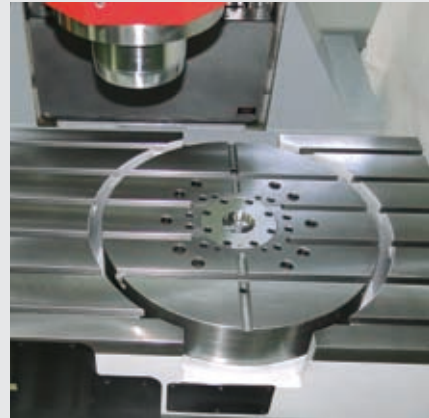




Tilting Rotating Table
200/350/450mm With Option
Angle Encoder (A+C).



CNC Tilting Head of Roller
Gear Cam Drive.

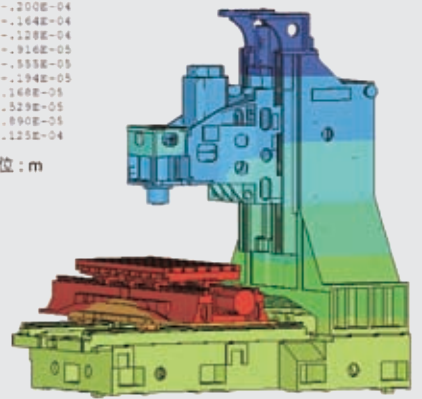


Accuracy B/C Axis With Heavy
Table Load Option With High
Angle Encoder (B+C).



HIGH SPEED VMC (TWO LINEAR OR TWO BOX)

HVM-120L Linear Guide
 HVM-120H Box Way



DIRECT DRIVE
BUILT-IN



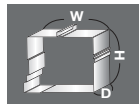
BT40/10000/12000/15000RPM
 BBT40/HSK63A/15000/20000/24000RPM



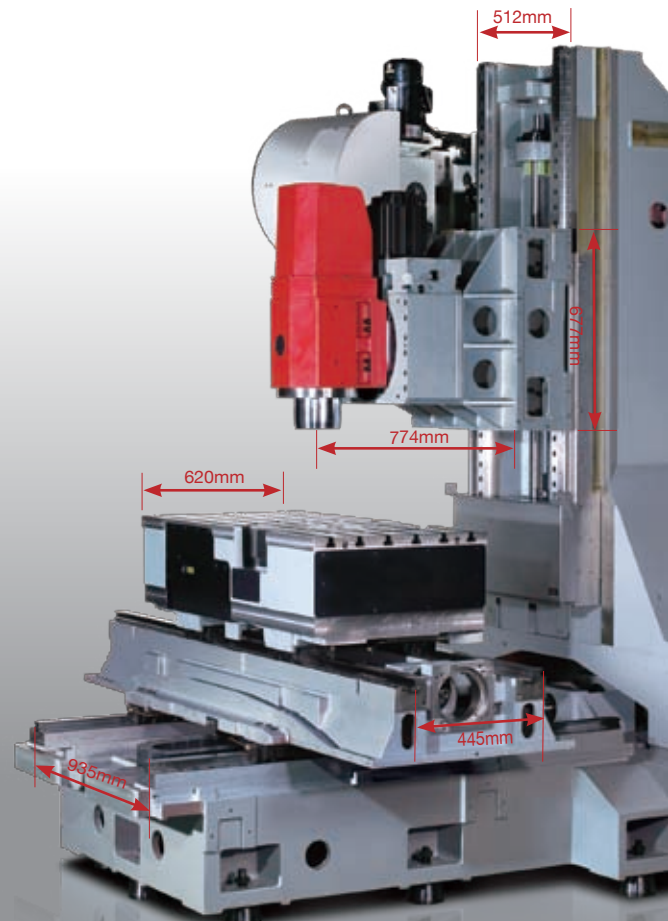
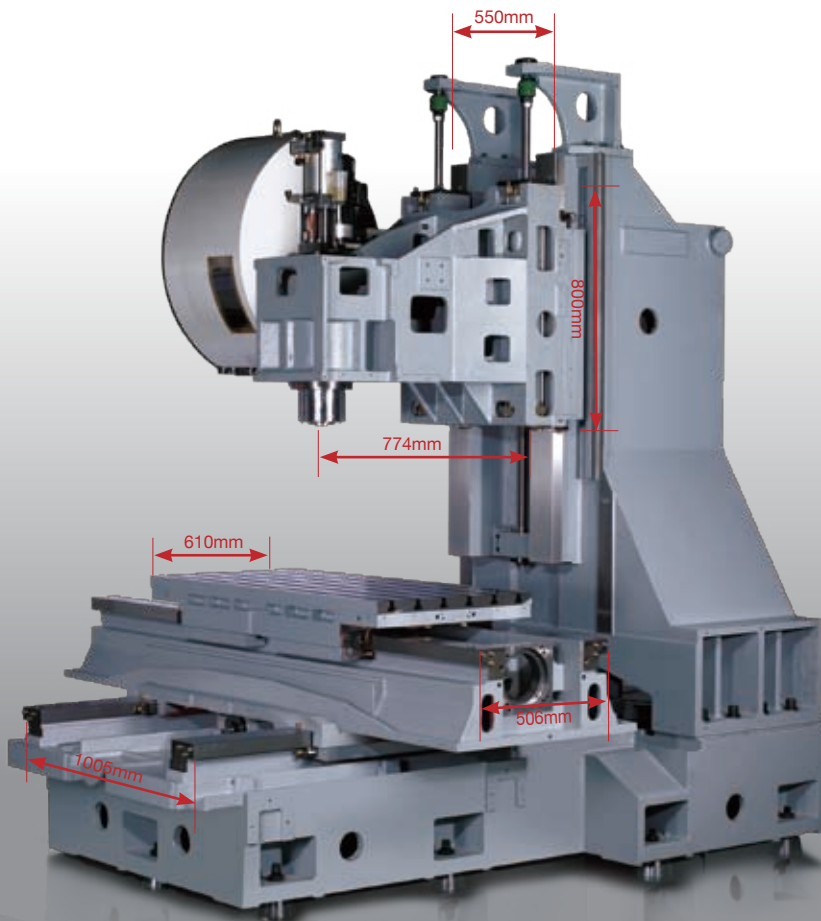
30/40

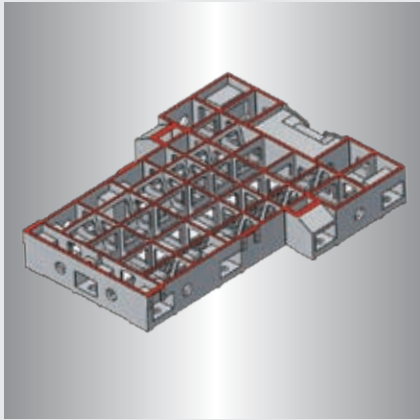


1200x650x630mm
 1200x650x630mm
 z-800mm OPTION

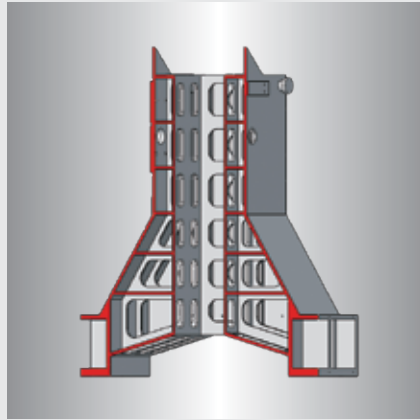


320x340x360cm
 320x340x360cm

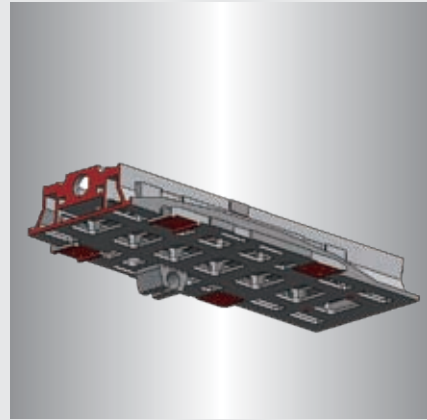




Extra Wide Rigidity Column Base.



Double Rigidity Wide Column Without Counter Weight.



One Piece Double Saddle.



STANDARD VMC TWO LINEAR GUIDE WAY X+

SVM-75 SVM-105



BUILT-IN
BELT/DIRECT



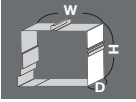
BT30/24000RPM
BT40/8000/10000/12000RPM



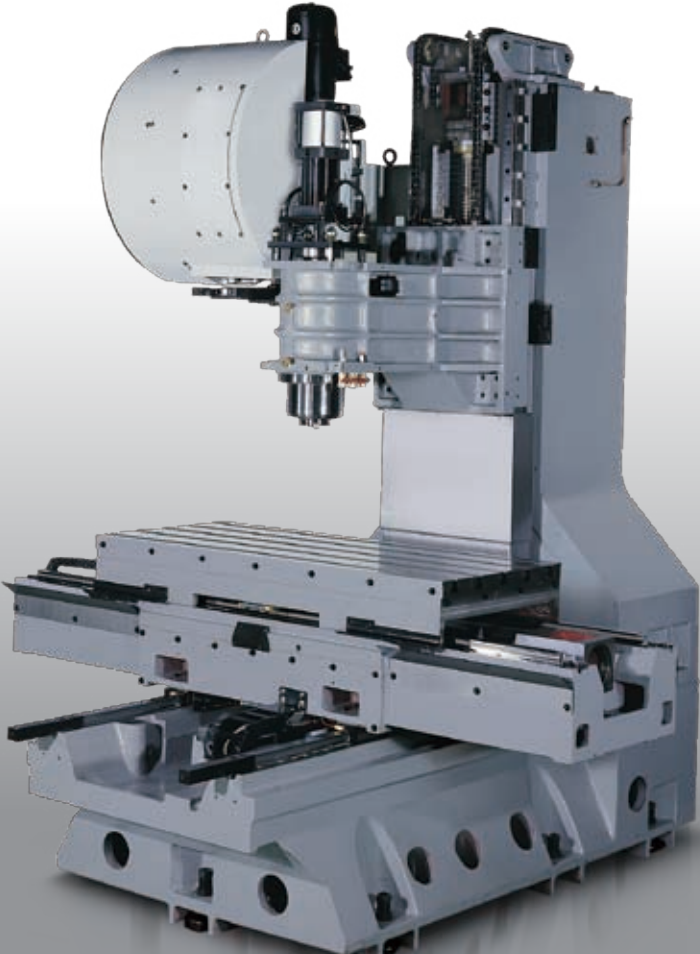
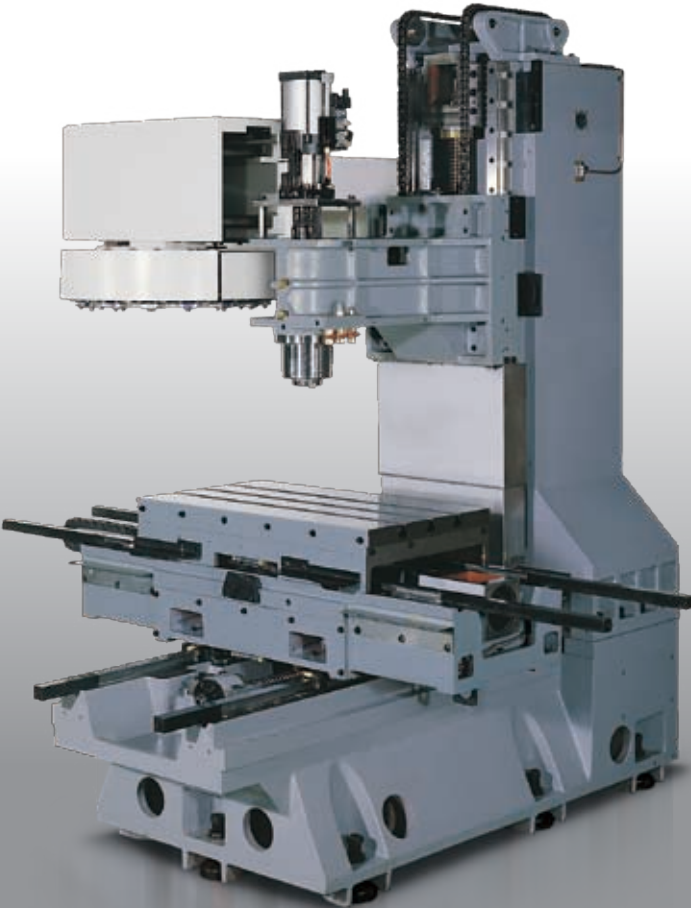
20/24

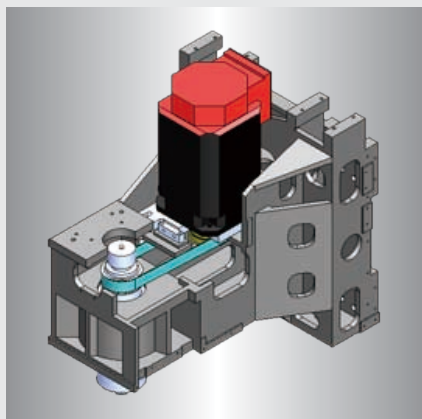


750x500x510mm
1050x510x560mm

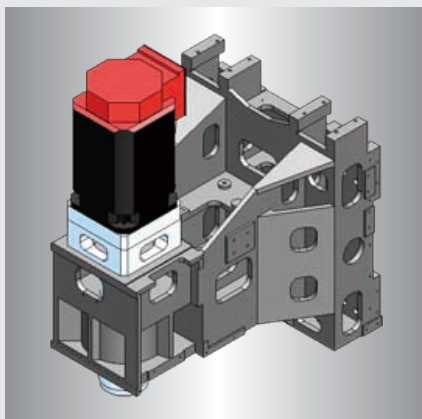


240X275X250cm
306x275x256cm

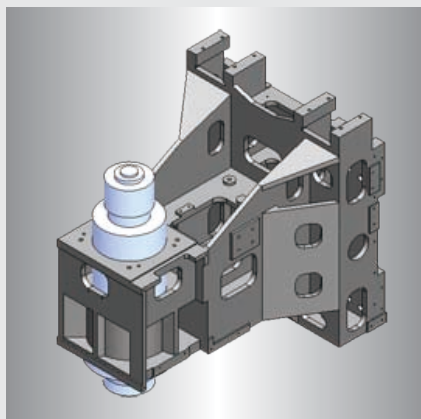




Belt Drive Spindle.



Direct Drive Spindle.



Built-In Drive Spindle.



STANDARD VMC FOUR HARDEN BOX WAY

VMC-1100
VMC-1400
VMC-1500(G)



BELT/DIRECT
GEAR HEAD



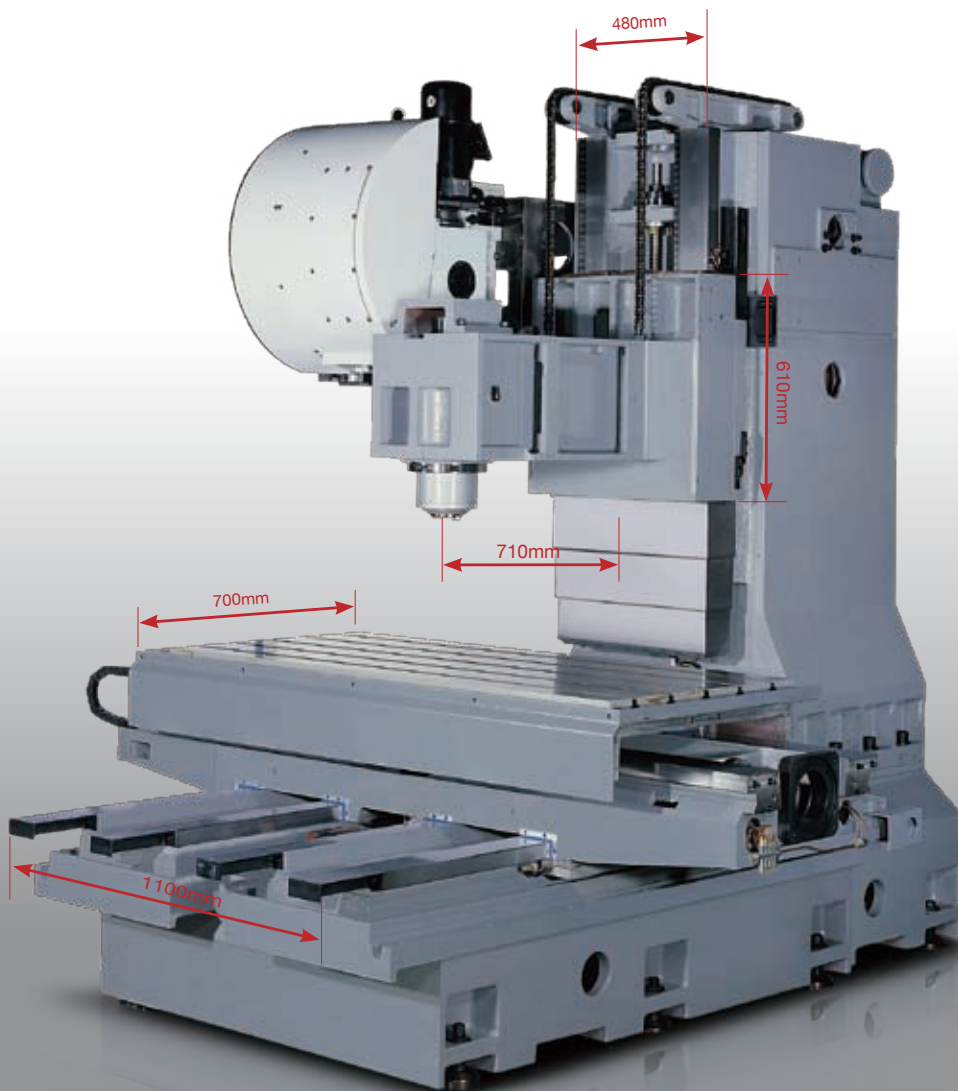
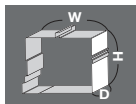
BT40/8000/10000RPM
BT50/6000RPM



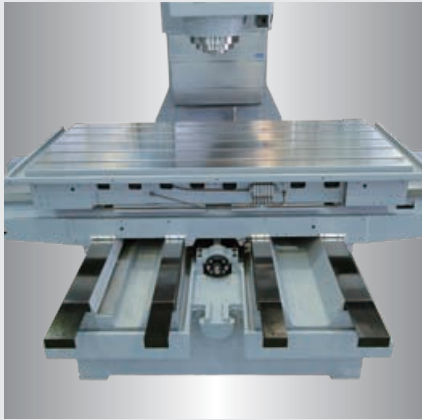
24/30/40



1100x610x610mm 362x320x302cm
1400x720x610mm 392x327x302cm
1500x720x680mm 405x393x302cm



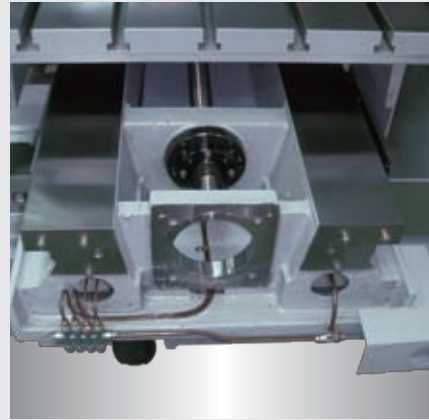
*VMC-2000 2000x825x720 BT40 24/40 also available



Extra Wide 1100mm Four Box Way.



Built-in Type 6,000rpm Gear Head (BT50).



X+Y+Z One Piece Casting With Direct Coupling Drive.



HEAVY-DUTY VMC FOUR-SIX HARDEN BOX WAY

DMC-1600
DMC-1900
DMC-2200



GEAR HEAD



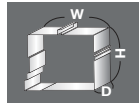
BT50/6000RPM



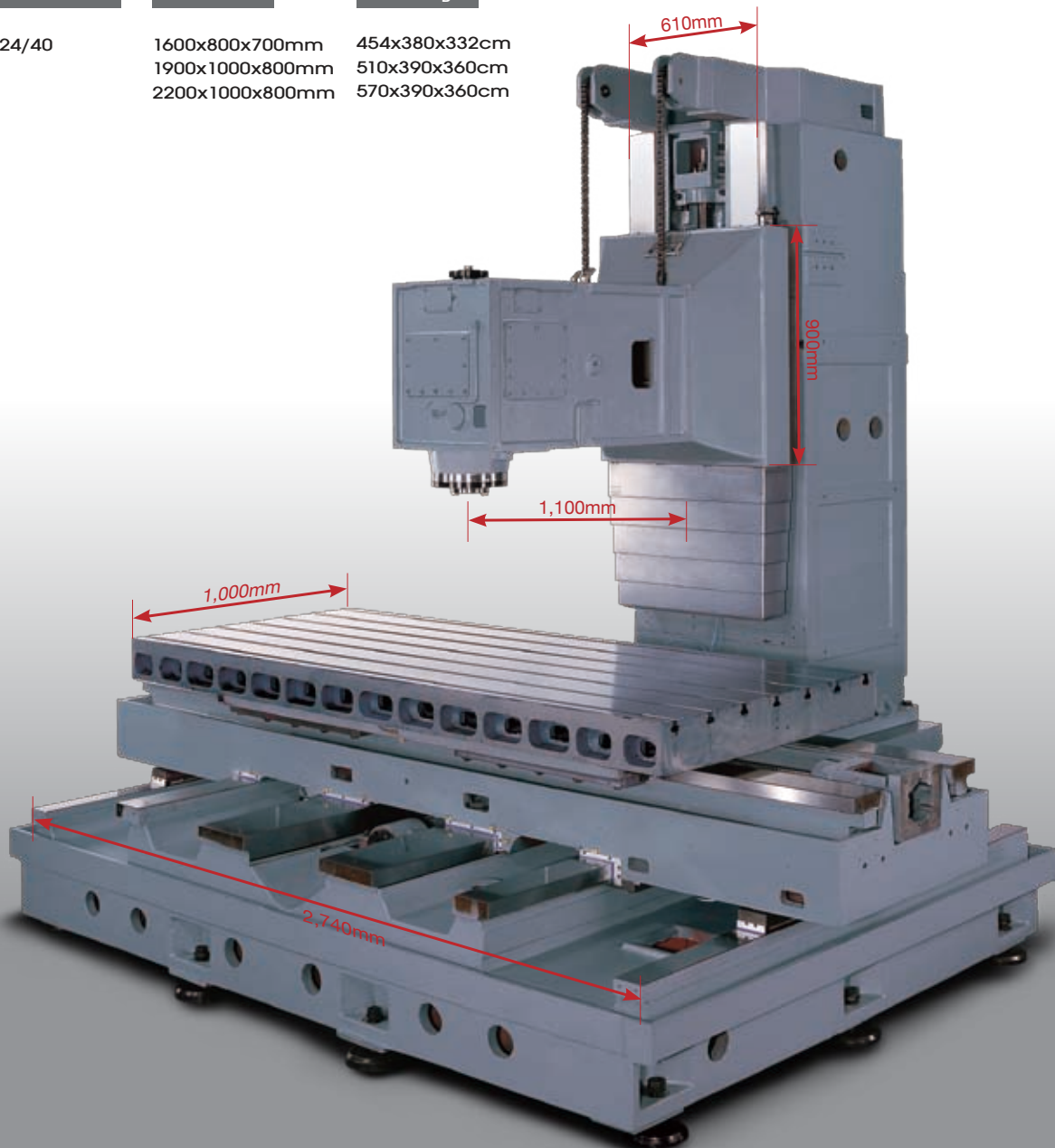
24/40



1600x800x700mm
1900x1000x800mm
2200x1000x800mm



454x380x332cm
510x390x360cm
570x390x360cm



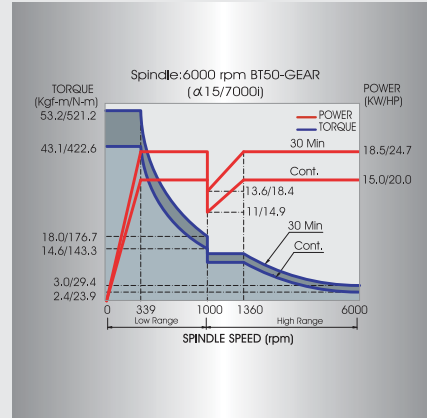
Y (GEAR HEAD)



DMC-1600/1900 With Four Box Machine Body.



Built-in Type 6000 Rpm Gear Head(BT50).



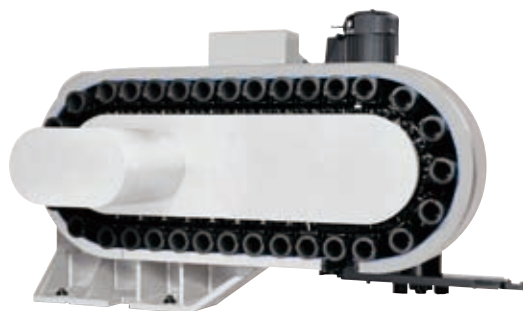
High Torque With Low And High Speed.



PARTS FEATURE



High pressure big CTS tank (20 to 70 Bar.)



40 ATC option



New development LED light operation control panel.



C.E type electrical components easy maintain and after-service job.



Pneumatic parts in one plate easy to inspect and maintain.



4 Axis CNC Rotary Table or Index.



Auto Tool Length Measurement.



Chain type Chip Conveyor & Chip Cart for Model VMC-1100/1400, DMC-1600/1900/2500.

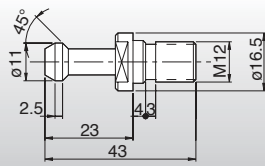


Big Oil Cooler to keep long-term Spindle temperature. Air Cooler for electrical cabinet.

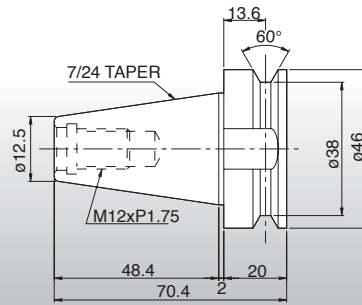
DIMENSIONS

BT#30

Unit:mm

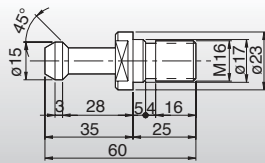


PULL-STUD

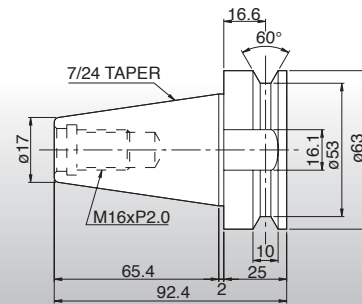


TOOL-SHANK

BT#40

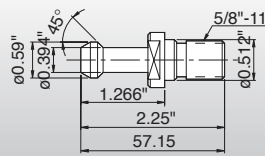


PULL-STUD

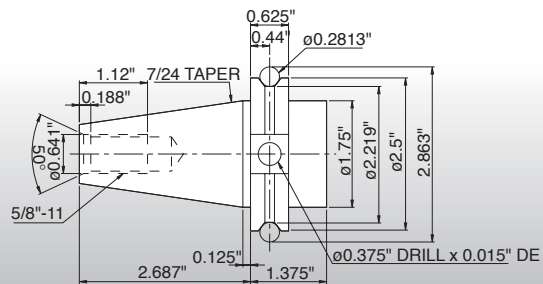


TOOL-SHANK

CAT#40

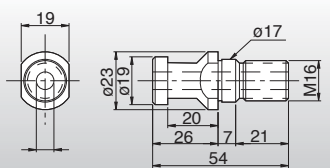


PULL-STUD

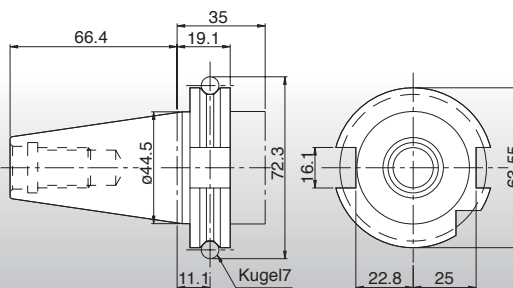


TOOL-SHANK

DIN#40
69871/72

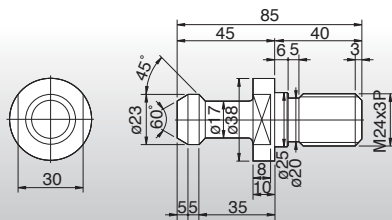


PULL-STUD

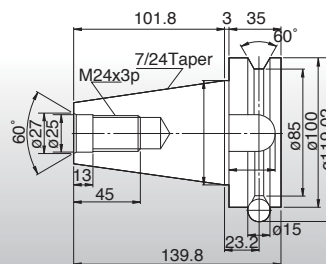


TOOL-SHANK

BT#50



PULL-STUD



TOOL-SHANK

* DIN 50 Opt.
* BBT/NBT Opt.

SPECIFICATIONS

Model 機型		Five Axis VMC 五軸機	
		SVM-75-AC	HVM-110L-BC
		Fixed Head +200mm Tilting Rotary Table (固定頭+200mm旋轉工作台)	Roller Cam Driver B-axis+550mm built-in work table C-axis (傾斜軸+內置式旋轉工作台)
WORKING TABLE 工作台			
Table Size (mm)	工作台尺寸(mm)	850x500	1260x620
T-Slot (widthxdis.x no. mm)	T-槽(寬x間距x數量 mm)	18x100x5	18x100x6
Travel (XxYxZmm)	行程 (XxYxZmm)	750x500x510	1100x650x800
Positioning XYZ axis (mm)	定位精度 XYZ 軸 (mm)	0.005/300mm	0.005/300mm
Repeatability XYZ axis (mm)	重覆精度 XYZ axis (mm)	±0.003	±0.003
X/Y/Z-Axis Motor (Z axis with Brake)	三軸馬達規格(Z軸掛剎車)	1.6/1.6/3.0B kw	4.3/4.3/5.2B kw
Rapid Feed Rate (X/Y/Z m/min)	快速位移 (X/Y/Z m/min)	36x36x30	36x36x30
Feed Rate (X/Y/Z mm/min)	進給速度 (X/Y/Z mm/min)	1-10000	1-20000
Max. Table Load (Kg)	最大工件重 (Kgs)	20	770
SPINDLE 主軸			
Taper	錐度	BT30/BT40	BT40
Main Motor	主軸馬達	7.5kw	15kw
Spindle Speed (RPM)	主軸轉速(RPM)	12000/15000	16000/20000/24000
Spindle Type	主軸型式	Built-IN(內藏式): BT30	Built-IN(內藏式): BBT40/HSK63A
		24000	20000/24000
Spindle Nose Vertical to Table Surface (mm)	主軸鼻端垂直至工作台面(mm)	130-640	100-900
Spindle Center to Column (mm)	主軸中心至機身面距離 (mm)	556	740
TOOL MAGAZINE 刀庫			
Tool Storage Capacity (PCs)/ ATC Type	刀具儲藏容量/刀庫型式	24ARM (刀臂式)	30 ARM (刀臂式) 40 CHAIN (鏈連式)
Max. Tool Diameter (mm)/ Weight (Kgs)	最大刀具調整內徑/重量(kgs)	80/6	80/6
MISCELLANEOUS 概括他項			
Air Requirement (Kg/cm2)	氣壓需求(Kg/cm2)	6	6
Power Requirements (KVA)	動力消耗(KVA)	20	45
Coolant Tank Capacity (L)	冷卻液容量(L)	200	300
Machine Weight (KGs)	機台淨重(KGs)	4600	7800
SWIVEL HEAD (A&B AXIS) 旋轉軸 (AB軸)			
Driver Type	驅動型式	Worm Gear(蝸輪)	Roller Cam(轉子凸輪)
Reduction Ratio	齒輪比	1:90	1:90
Tilting Range (deg)	傾斜角度(deg)	- 230 ~+230	- 120 ~+120
Rotation Speed (RPM)	旋轉速度(RPM)	22.2	33.3
Min. Unit (deg)	最小分割精度(deg)	0.001	0.001
Clamp Torque (Nm)	夾持扭力(Nm)	24	24
Working Torque (Nm)	加工承載扭力(Nm)	12	16
ROTARY TABLE (C Axis) 旋轉工作臺 (C軸)			
Type	形態	Worm Gear(蝸輪)	Worm Gear(蝸輪)
Driver Type	驅動齒數比	1:120	1:180
Table Diameter (mm)	工作台面(mm)	200	550
Center Bore Diameter (mm)	中心通孔(mm)	30H7	
Rotation Speed (RPM)	旋轉速度(RPM)	16.7	26
Min. Index (Sec.)	分割精度(秒)	4"	4"

	High speed VMC (Two Linear or Two Box Way) 高速機(二線軌或二硬軌)		Standard VMC Two Linear Guide Way X+Y+Z 線軌標準機(二線軌)	
HVM-110L-AC	HVM-120H	HVM-120L	SVM-75	SVM-105
Fixed Head+320/450mm Tilting Rotary Table (固定頭+320/450mm 旋轉工作台)	X+Y+Z box way	X+Y+Z linear guide		
1260x610	1260x610	1260x610	850x500	1200x500
18x100x6	18x100x6	18x100x6	18x100x5	18x100x5
1100x650x1000	1200x650x630	1200x650x630 (800 option)	750x500x510	1050x510x560
0.005/300mm ±0.003	0.005/300mm ±0.003	0.005/300mm ±0.003	0.005/300mm ±0.003	0.005/300 ±0.003
4/4/4B kw	4/4/4B kw	4/4/4B kw	1.5/1.5/1.5B kw	1.5/1.5/1.5B kw
36x36x30	20x20x20	36x36x36 (42 Opt.(選配))	36x36x30	36x36x30
1-20000	1-20000	1-20000	1-10000	1-10000
300	1000	800	500	650
BT40	BT40 (Direct Drive) (直傳式)	BT40 (Direct Drive) (直傳式)	BT30/BT40	BT40
15kw	15kw	15kw	7.5Kw	7.5/11Kw
12000/15000	10000/12000/15000	10000/12000/15000	8000/10000/12000	8000/10000/12000
Built-IN(內藏式): BBT40/ HSK63A		Built-IN(內藏式): BBT40/ HSK63A	Built-IN (內藏式):BT30/24000	
20000/24000		15000/20000/24000		
150-1150	100-730	100-730	130-640	150-710
740	740	740	556	585
30 ARM (刀臂式) 40 CHAIN (鏈連式)	30 ARM (刀臂式) 40 CHAIN (鏈連式)	30 ARM (刀臂式) 40 CHAIN (鏈連式)	BT40:20 GENOVA (日內瓦式) BT40:24ARM (刀臂式)	24 ARM (刀臂式)
80/6	80/6	80/6	80/7	80/7
6	6	6	6	6
45	30	30	15	15
300	300	300	200	250
7600	7500	7500	4500	5200

Worm Gear(蝸輪)
1:180
- 120 ~+30
11.1
0.001
18
16
Worm Gear(蝸輪)
1:90
450
150H7
22.2
4"

SPECIFICATIONS

Model 機型		Standard VMC Four Harden B 硬軌標準機(四硬軌)	
		VMC-1100	VMC-1400
WORKING TABLE 工作台			
Table Size (mm)	工作台尺寸(mm)	1200x500	1550x700
T-Slot (widthxdis.x no. mm)	T-槽(寬x間距x數量 mm)	18x130x5	18x130x5
Travel (XxYxZmm)	行程 (XxYxZmm)	1100x610x610	1400x720x610
Positioning XYZ axis (mm)	定位精度 XYZ 軸 (mm)	0.005/300	0.005/300
Repeatability XYZ axis (mm)	重覆精度 XYZ axis (mm)	±0.003	±0.003
X/Y/Z-Axis Motor (Z axis with Brake)	三軸馬達規格(Z軸掛剎車)	2.5/2.5/2.5B kw	4/4/4B kw
Rapid Feed Rate (X/Y/Z m/min)	快速位移 (X/Y/Z m/min)	15x15x15 (18 Opt.選配)	15x15x15 (18 Opt.選配)
Feed Rate (X/Y/Z mm/min)	進給速度 (X/Y/Z mm/min)	1-10000	1-10000
Max. Table Load (Kg)	最大工件重 (Kgs)	1000	1200
SPINDLE 主軸			
Taper	錐度	BT40	BT40
Main Motor	主軸馬達	11/15Kw	11/15Kw
Spindle Speed (RPM)	主軸轉速 (RPM)	8000/10000	8000/10000
Spindle Type	主軸型式		
Spindle Nose Vertical to Table Surface (mm)	主軸鼻端垂直至工作台面(mm)	140-750	100-780
Spindle Center to Column (mm)	主軸中心至機身面距離 (mm)	660	710
TOOL MAGAZINE 刀庫			
Tool Storage Capacity (PCs)/ Atc Type	刀具儲藏容量/刀庫型式	24/30 ARM (刀臂式) 40 CHAIN (鏈連式)	24/30 ARM (刀臂式) 40 CHAIN (鏈連式)
Max. Tool Diameter (mm)/ Weight (Kgs)	最大刀具調整內徑 (Kgs)/ 重量	80/7	80/7
MISCELLANEOUS 概括他項			
Air Requirement (Kg/cm2)	氣壓需求(Kg/cm2)	6	6
Power Requirements (KVA)	動力消耗(KVA)	25	25
Coolant Tank Capacity (L)	冷卻液容量(L)	300	300
Machine Weight (KGs)	機台淨重(KGs)	7500	11500

STANDARD ACCESSORIES

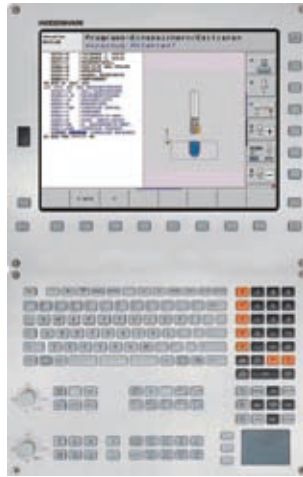
- Coolant System
- Auto Lubrication
- Spindle Air Blast
- Compact Fluorescent Work Light
- Alarm System
- Work Air Blast
- Rigid Tapping
- Heat Exchanger
- Enclosed Splash Guard
- Auto Tool Changer
- 3 Axes Telescopic Steel Guard
- .RS232/ RJ45/ USB Interface
- Auto Power Off (M30)
- M.P.G
- Level Pads & Bolts
- 冷卻系統
- 自動潤滑系統
- 主軸吹氣系統
- 密閉防水型螢光燈
- 3色警示燈
- 工件吹氣裝置
- 剛性攻牙
- 熱交換散熱裝置
- 歐式全罩式鈹金
- 刀換刀系統
- 三軸伸縮護蓋
- RS232/RJ45/USB連結介面
- M30自動斷電系統
- 手輪譯碼器
- 地基螺絲及腳墊

Box Way	Heavy-Duty VMC Four-Six Harden Box Way (Gear Head) 超重加工齒輪機(四~六硬軌)		
VMC-1500 (G)	DMC-1600 (G)	DMC-1900 (G)	DMC-2200 (G)
	Four Box Way (四硬軌)	Four Box Way (四硬軌)	Six Box Way (六硬軌)
1550x700	1700x815	2100x1000	2400x1000
18x130x5	18x150x5	18x150x7	18x150x7
1500x720x680	1600x800x700	1900x1000x800	2200x1000x800
0.005/300	0.005/300	0.005/300mm	0.005/300
±0.003	±0.003	±0.003	±0.003
4/4/4B kw	4/4/4B kw	7/7/7B kw	7/7/7B kw
15x15x15 (18 Opt.選配)	15/15/12	15/ 15/ 12	15/ 15/ 12
1-10000	1-10000	1-10000	1-10000
1500	2000	3000	4000
BT50 (Gear Head齒輪頭)	BT50 (Gear Head齒輪頭)	BT50 (Gear Head)	BT50 (Gear Head)
15/18.5 Kw	15/18.5	15/18.5	15/18.5
6000	6000	6000	6000
150-830	200-900	150-950	150-950
710	855	1100	1100
24 ARM (刀臂式) 40 CHAIN (鏈連式)	24 ARM (刀臂式) 40 CHAIN (鏈連式)	24 ARM (刀臂式) 40 CHAIN (鏈連式)	24 ARM (刀臂式) 40 CHAIN (鏈連式)
125/15	125/15	125/15	125/15
7	7	7	7
30	30	40	50
300	300	300	300
12000	15000	18000	20000

OPTIONAL ACCESSORIES

- Chain/ Scraper Type Chip Conveyor & Chip Cart
- Oil Coolant
- Coolant Through Spindle (20~70 Bar)
- CNC Rotary Table
- Update Motor
- TS 27R Tool Setting
- OMP40 / OMP60 Work Piece Setting
- Germany brand Heidenhain X+Y+Z axis Linear Encoders
- Isolate type Transformer
- Voltage Stabilizer
- Angle Encoder (A,B,C axis)
- Air Cooler for Control Box
- Oil Skimmer
- Air Gun & Water Gun
- 龍頭式/刮板式排屑機及集屑車
- 主軸油冷機 (水箱)
- 主軸中心出水 (20~70Bar)
- 第四軸旋轉工作台
- 馬達加大
- 刀具量測系統
- 工件量測系統
- 德製Heidenhain三軸數字尺
- 獨立式變壓器
- 穩壓器
- 角度編碼器 (A.B.C軸)
- 空調冷氣機
- 油水分離機
- 水槍及風槍

CONTROLLER SYSTEM



FANUC Oi-MateMD
日本發那科 OiMD(A)
OiMD(B)
31iB
31iB5

MITSUBISHI M70A
日本三菱 M70B
720M
730M

HEIDENHAIN iTNC530HSCi
德國海德漢 iTNC620i
TNC640i

SIEMENS 828D
德國西門子 840DSL

- Final testing by laser measurement.
- Ball bar roundness measurement instrument.
- Total Quality Assurance System. C.E approval by AMTRI.
- All specifications and design are subject to change without notice.
The machine color shown on the catalogue is for reference only. Correct painting color depends on the actual machine.

LILIAN MACHINERY INDUSTRIAL CO., LTD.

8 Ta-Tung Street, Tu-Cheng District, New Taipei City 236, Taiwan
URL: <http://www.lilian.com.tw> E-MAIL: sales@lilian.com.tw
TEL: 886-2-22680303 FAX: 886-2-22681247

利聯機械工業股份有限公司

台灣新北市土城區大同街八號 統一編號 07629765



AGENT