

**POWER & DETERMINATION**

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**MANFORD**

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# Power & Determination

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After more than three decades in the machining industry, people have got used to us. Through periods of high growth and development, we were right there at the front. And through times of uncertainty and doubt, we stared adversity in the face, unshakeable.

We have developed a thick skin. An amazing ability to move forward with determination. Every step in our journey has left a mark. On us and in the market. Over many years, we have developed great partnerships. Invested in Development. Reinvented ourselves a few times. All in the interest of being here for the next generation of machine users. All in the interest of being here for you.

Nowhere in the world will you find a team more determined to be around for another 100 years. And we know we will. Through the quality of our products. Through the strength of our partners. Through the unbeatable value that we offer.

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# ABOUT MANFORD

## Back in 1987,

President James Hsieh founded “Manford Machinery Co., LTD.”, and focused on the development, manufacturing and sales of various precision machines while providing high quality and high performance products. Manford offers a wide variety of products to satisfy the needs of all of its customers. Today, Manford products are sold in five continents and customers are from fields of aeronautics, transportation, automobile, shoe mold, high-tech electronics.

The Manford Group owns three manufacturing facilities in Taiwan. The headquarters in Taiwan focuses on the front-end development of new models. All of Manford R&D engineers participate in on-job training while constantly improving professional skills with one mission in mind; to innovate. In the R&D department, product development is based on high precision, high speed, larger machines, and simplified operation (i-console human machine interface.)

# Power & Determination

A multi-talented R&D team is able to integrate advanced design into products, as well as supplying machines on an OEM/ODM basis and providing special solutions to meet user requirement variables.

PRESIDENT

*James Hsieh*



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87 88 94 96 02 05

- The MANFORD brand is launched.
- Started to produce conventional milling machines.
- Developed CNC Vertical Machining Center.
- Main factory moved to Taichung, Taichung (582 sqm)
- Awarded the ISO-9001 Certificate.
- Invested USD\$2.1 million in setting up the Guangdong, Foshan, facility. (40 acres).

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- Started ODM cooperation with worldwide major machine tool companies.

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- Started using Metis PDM system for technical data archive, and for the preparation of CRM system implementation.

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- Completed development of VM760 CNC Tool Room Milling Center with CITD plan subsidy.

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- Main manufacturing facility moved to Nantou (2500 sqm) for expanding mass production capacity.

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- Invested in the Taichung Precision Machinery Park (2450 sqm) for company headquarters.

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- Awarded the Cooperation Bronze Medal Reward by TTQS (Taiwan Train Quality System, Ministry of Labor).

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- Began implementing ERP system for the plans of Industry 4.0, IFRS and TOP.

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- Completed development of high performance VU-620 & VX-1300 5-Axis Machining Center. Completed development of VF-1000 High Speed Machining Center.

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- Celebrated 30 years Anniversary. Completed development of HBM-110 Horizontal Boring and Milling Machine.

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- Moved to Taichung Precision Machine Tool Industrial Park.

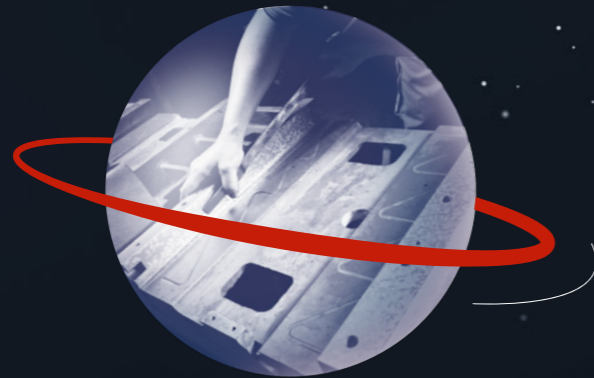
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- Manford is rebranded (Launched during TIMTOS, Taipei, 2019)

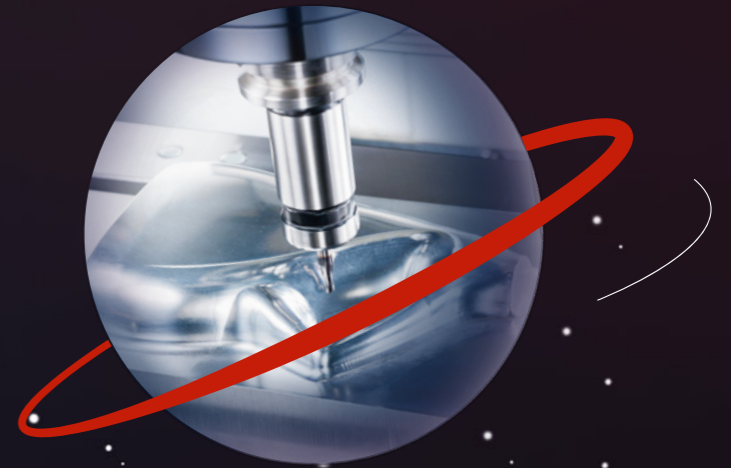
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- Today, Manford leads the way through Power & Determination.

# CORE TECHNOLOGY



Highly professional and experienced hand scrapping team.



Greater flexibility for processing and optimizing parts with company owned processing department. Manford is able to offer high quality customized parts with short lead-time and fast delivery.



Outstanding electrical development ability with fast and effective technical support.

Outstanding customization capabilities.

Strong and professional R&D team.

Efficient turnkey solution.

Superior quality of products with professional manufacturing and engineering analysis from technical department.



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01

## 5 AXIS MACHINING CENTER

- VU-350
- VU-620
- VX-600/VX-600T
- VG-800

5-axis simultaneous machining  
high accuracy, high performance,  
and excellent stability.  
A wide range of 5-axis products.

# VU-350

## 5 AXIS MACHINING CENTER



MACHINE WEIGHT  
**8,500 kgs**

### About VU-350

Equipped with an A & C axis, VU-350 provides higher performance on various workpieces with its high precision and multiple functions features. The direct drive spindle enhances the machining precision as well as stability. VU-350 can be used for light and smaller pieces and is perfect on complex works.



CNC Control	Fanuc
X Travel	1,020 mm (40")
Y Travel	610 mm (24")
Z Travel	510 mm (20")
Spindle Nose to Table Surface	100-610mm (3.9"~24")
Table Diameter	Ø 350 mm (13.8")
T-slot (Q'ty x Size x Dist)	8 x 12 x 45 mm
Table Load Capacity	200 kgs (Horizontal) 200 kgs (Tilting)
A Axis Tilting Range	-120°~+30°
C Axis rotating Range	360°

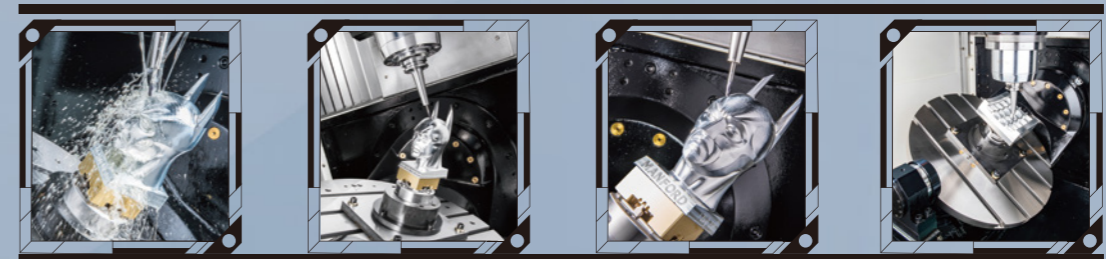
Spindle Transmission	Direct type
Spindle Taper	BT40
Spindle Speed	12,000rpm (opt. 15,000rpm)
Spindle Motor	7.5/11 Kw
Rapid Feedrate (XYZ)	36/36/36 M/min
ATC Capacity	24 Tools
Max Tool Diameter	Full:Ø 75 mm (3") Next empty:Ø150 mm (5.9")
Floor Space	350 x 245 x 335 cm
Machine Weight	8,500 kgs

# VU-620

## 5 AXIS MACHINING CENTER

### About VU-620

VU-620 offers high speed, high accuracy and more reliable quality. Twin door design with wide open space is easy for loading workpiece. Movable column C-shape provides superior rigidity. Rotary table with one-piece iron casting provides excellent ductility and greater anti-vibration. Rotary table selection: standard worm gear, or double DD motor.



MACHINE WEIGHT  
**8,700 kgs**

CNC Control	Heidenhain TNC640 Siemens 840D
X Travel	620 mm (24.4")
Y Travel	520 mm (20.4")
Z Travel	460 mm (18.1")
Spindle Nose to Table Surface	150~610 mm (6"~24")
Table Diameter	Ø 650 mm (25.6")
T-slot (Q'ty x Size x Dist)	5 x 18 x 100 mm
Table Load Capacity	300 kgs (Horizontal) 200 kgs (Tilting)
A Axis Tilting Range	-50°~+110°
C Axis rotating Range	360°

Spindle Transmission	Direct type (opt. Build-in)
Spindle Taper	BBT40/DIN40
Spindle Speed	12000rpm (opt. 15,000rpm)
Spindle Motor	*10~12.5 Kw
Rapid Feedrate (XYZ)	36/36/36 M/min
ATC Capacity	32 tools (opt. 40/60 tools)
Max Tool Diameter	Full: Ø 75 mm (3") Next empty: Ø 125 mm (4.9")
Floor Space	320x412x310 cm
Machine Weight	8,700 kgs

\* Spindle motor power depends on motor selection

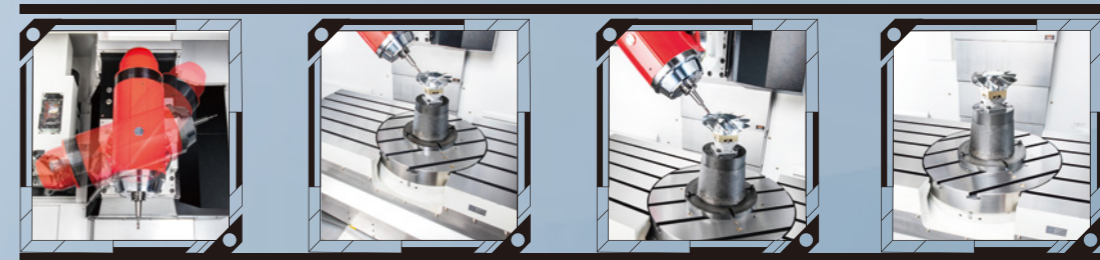


# VX-600 VX-600T

## 5 AXIS-TILTING HEAD

### About VX-600 / VX-600T

VX-600T 5-Axis Machining Center has been highly recognized by customers. VX-600T was designed with a swiveling spindle head and equipped with a 15,000rpm built-in spindle. Furthermore, this machine uses an embedded rotary table. Any complex workpiece can be accomplished with a single setup.



MACHINE WEIGHT  
**12,000 kgs**

#### VX-600 | VX-600T

CNC Control	Heidenhain TNC640 Siemens 840D
X Travel	1,300 mm (51.2")
Y Travel	700 mm (27.6")
Z Travel	700 mm (27.6")
Table size	700x1,450 mm (27.6"x56.6")
Table Load Capacity	1,000 kgs   600 kgs

#### Tilting Spindle Head (B axis)

Transmission	Worm gear
Tilting Angle	-120°~+30°
Spindle Transmission	Build-in
Spindle Taper	BBT40   HSK-T63
Spindle Speed	15,000rpm   12,000rpm
Spindle Power	21~25Kw

#### C Axis

Transmission	DD motor
Table Diameter	Ø 630 mm (23.6")
T-slot (Q'ty x Size x Dist)	18 x 5 x 125 mm
C Axis rotating Range	360°
Max Speed	120rpm   1,200rpm
Brake torque	300 kgf-m   400kgf-m
Rapid Feedrate (XYZ)	30/30/24M/min
ATC Capacity	24 tools (opt. 40/60 tools)
Floor Space	530 x 370 x 330cm
Machine Weight	12,000kgs

# VG-800

## 5 AXIS-GANTRY TYPE

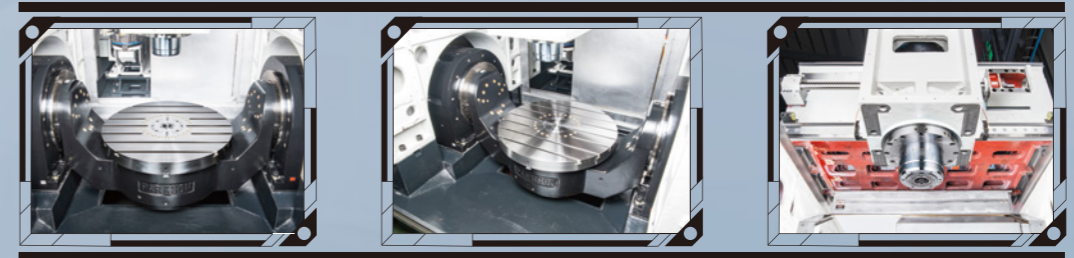


MACHINE WEIGHT  
**20,000 kgs**

### About VG-800

The advanced gantry type structure design provides greater stability, optimal high precision and superior working flexibility when applied to complex workpieces. Powerful 5-axis simultaneous machining is generated by the high dynamics of the tool motion (3-axis) and workpiece motion (2-axis).

The two rotary axes in the table are driven by a built-in motor with high torque.



CNC Control	Heidenhain TNC640 Siemens 840D
X Travel	800 mm (31.5")
Y Travel	1245 mm (-510 ~ +390 + 345 Tool change travel) (49")
Z Travel	620 mm (24.4")
Spindle Nose to Table Surface	100~720 mm (3.9"~28.3")
Table Diameter	Ø 800 mm (31.5")
T-slot (Q'ty x Size x Dist)	7 x 14 x 100 mm
Table Load Capacity	1000 kgs (Horizontal) 500 kgs (Tilting)
A Axis Tilting Range	-120°~+30°
C Axis rotating Range	360°

Spindle Transmission	Build-in
Spindle Taper	HSK-A63
Spindle Speed	15,000rpm
Spindle Power	*10~12.5 Kw
Rapid Feedrate (XYZ)	48/48/48 M/min
ATC Capacity	32T (opt up to 120T)
Max Tool Diameter	Full:Ø 75 mm (3") Next empty:Ø 125 mm (4.9")
Floor Space	505 x 640 x 390cm
Machine Weight	20,000 kgs

\* Spindle motor power depends on motor selection



02

DOUBLE COLUMN  
MACHINING CENTER

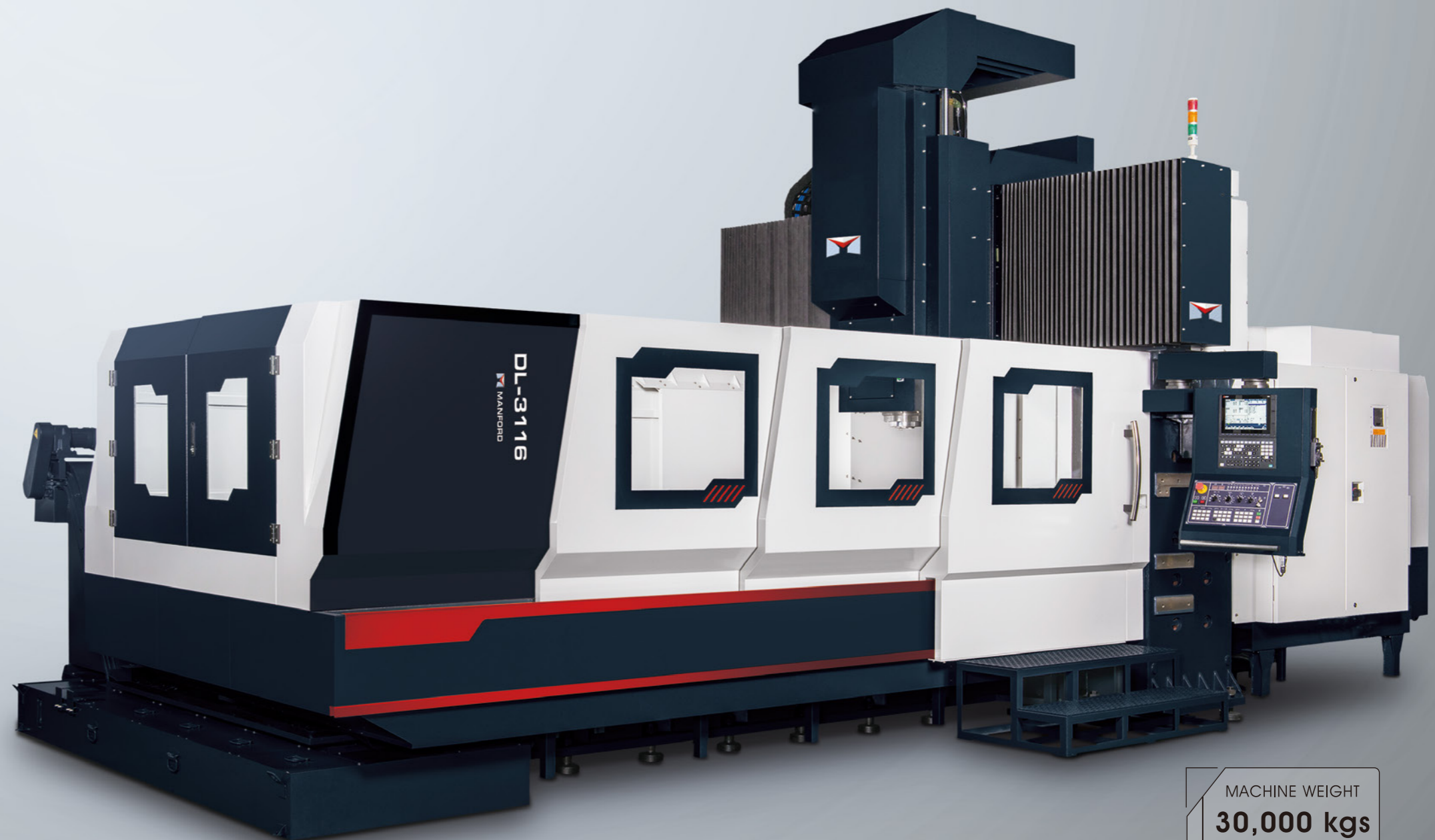
- DL-2112 / DL-3112 / DL-4112
- DL-2116 / DL-3116 / DL-4116
- DL-3120 / DL-4120

Rigid structure design  
Strong roller guide ways for high  
speed machining.

# DL-3116

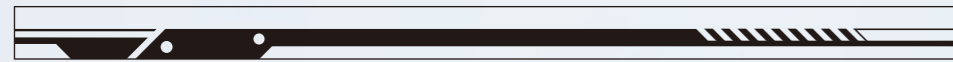
## DOUBLE COLUMN MACHINING CENTER

XYZ Linear Guide Ways	Roller type
Distance Between Two Columns	1,700 mm (66.9")
X Travel	3,100 mm (122")
Y Travel	1,620 mm (47.2")
Z Travel	800 mm (31.5") Opt: 1,020 mm (40.2")
Spindle Nose to Table Surface	150~950 mm (5.9"~37.4") Opt: 150~1170mm (5.9"~46")
Table size	3,000x1,500mm (118.1"x59")
T-slot (Q'ty x Size x Dist)	9 x 22 x 150 mm
Max. Table Load	10,000 kgs
Spindle Transmission	Two-step Gear (opt. Direct type / Build-in spindle)
Spindle Taper	BT50
Spindle Speed	6,000rpm
ATC Capacity	32 tools (opt. 40T/60T/90T)
Spindle Motor	15/18.5 Kw
Rapid Feedrate (XYZ)	12/15/12 M/min
Floor space	434 x 909 x 359cm
Machine Weight	30,000 kgs



MACHINE WEIGHT  
**30,000 kgs**

# DL SERIES



## DOUBLE COLUMN MACHINING CENTER

	DL-2112	DL-3112	DL-4112
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XYZ Linear Guide Ways	Roller type		
Distance Between Two Columns	1,400 mm (55.1")		
X Travel	2,100 mm (82.7")	3,100 mm (122")	4,100 mm (161.4")
Y Travel	1,200 mm (47.2")		
Z Travel	800 mm (31.5")		
Spindle Nose to Table Surface	150~950 mm (5.9"~37.4")		
Table size	2,000x1,100mm (78.7"x43.3")	3,000x1,100mm (118.1"x43.3")	4,000x1,100mm (157.4"x43.3")
T-slot (Qty x Size x Dist)	7 x 22 x 150 mm		
Max. Table Load	4,000 kgs	5,000 kgs	6,000 kgs
Spindle Transmission	Direct type		
Spindle Taper	BT40		
Spindle Speed	10,000rpm (DL-2112P) 15,000rpm (DL-2112M)	10,000rpm (DL-3112P) 15,000rpm (DL-3112M)	10,000rpm (DL-4112P) 15,000rpm (DL-4112M)
ATC Capacity	24 tools		
Spindle Motor	11/15 Kw		
Rapid Feedrate (XYZ)	20/20/20 M/min	20/20/20 M/min	15/20/20 M/min
Floor space	443 x 750 x 386 cm	443 x 967 x 386 cm	443 x 1,185 x 385cm
Machine Weight	15,500 kgs	19,500 kgs	23,500 kgs

	DL-2116	DL-3116	DL-4116	DL-3120	DL-4120
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	Roller type				
	1,700 mm (66.9")			2,100 mm (82.7")	
	2,100 mm (82.7")	3,100 mm (122")	4,100 mm (82.7")	3,100 mm (122")	4,100 mm (161.4")
	1,620 mm (47.2")			2,020 mm (47.2")	
	800 mm (31.5") Opt: 1,020 mm (40.2")				
	150~950 mm (5.9"~37.4") Opt: 150~1170mm (5.9"~46")				
	2,000x1,500mm (78.7"x59")	3,000x1,500mm (118.1"x59")	4,000x1,500mm (157.5"x59")	3,000x1,800mm (118.1"x70.9")	4,000x1,800mm (157.5"x70.9")
	9 x 22 x 150 mm			11 x 22 x 150 mm	
	8,000 kgs	10,000 kgs	12,000 kg	10,000 kgs	12,000 kgs
	Two-step Gear (opt. Direct type / Build-in spindle)				
	BT50				
	6,000rpm				
	32 tools (opt. 40T/60T/90T)				
	15/18.5 Kw				
	12/15/12 M/min				
	434 x 709 x 359cm	434 x 909 x 359cm	434 x 1,109 x 359cm	474 x 909 x 359cm	474 x 1,109 x 359cm
	26,000 kgs	30,000 kgs	35,000 kgs	33,000 kgs	38,000 kgs

03

**HIGH SPEED  
MACHINING CENTER**

- VF-700
- VF-1000

Rigid & steady one-piece column  
High speed machining for mold making

# VF-700 VF-1000

## HIGH SPEED MACHINING CENTER



MACHINE WEIGHT  
**8,500 kgs**



	VF-700	VF-1000
XYZ Linear Guide Ways	Roller type	Roller type
X Travel	700 mm (27.6")	1,020 mm (40.2")
Y Travel	510 mm (20")	610 mm (24")
Z Travel	410 mm (16.1")	510 mm (20")
Spindle Nose to Table Surface	150~560 mm (5.9"~22")	150~660 mm (5.9"~26")
Table size	800x510 mm (31.5"x20")	1100x600 mm (43.3"x23.6")
T-slot (Q'ty x Size x Dist)	5x18x100 mm	5x18x100 mm
Max. Table Load	500 kgs	1000 kgs
Spindle Transmission	Direct type	Direct type (opt. Build-in)
Spindle Taper	BT40	BT40
Spindle Speed	12,000rpm (opt. 15,000rpm)	12,000rpm (opt. 15,000rpm /24,000rpm)
ATC Capacity	16 tools	24 tools
Spindle Motor	7.5/11 Kw	7.5/11 Kw
Rapid Feedrate (XYZ)	36/36/36 M/min	36/36/36 M/min
Floor space	263 x 233 x 201 cm	350 x 245 x 335 cm
Machine Weight	6,300 kgs	8,500 kgs

# 04

## VERTICAL MACHINING CENTER

### LINEAR GUIDE WAYS

- VL-610
- VL-550
- VL-850 / VL-1000
- VL-1200
- VL-1300 / VL-1600
- VL-1690 / VL-2090
- EL-850 / VL-1050

### BOX WAYS

- VH-850 / VH-1000
- VH-510 / VH-610
- VH-1100 / VH-1300
- VH-1600 / VH-2000
- VH-2200

A wide selection of Vertical Machining Centers  
in box ways and linear guide ways  
Positioning accuracy:  $\pm 0.005\text{mm} / 300\text{mm}$   
Repeating accuracy:  $\pm 0.003\text{mm} / 300\text{mm}$ .



# VL-610

## VERTICAL MACHINING CENTER

- Linear Guide Ways

### » SUPPLY TRAY ELASTIC TRANSFORMATION

The feeding tray and the feeding cart only need to replace the material plate when the workpiece is different, and the customer parts are elastically changed. (The size of the tray is available for customers to change)

### » FRONT AND BACK PROCESSING

Work-piece can be turned over with steering gear to allow the pulled semi-finished product to be put into the next process to continue processing.

### » BUILT-IN AUTOMATIC DOOR

The feeder has a built-in automatic door. The processing machine can be installed without the need of an additional automatic door. The waterproof strip is integrated to prevent water droplets from leaking out. (Optional automatic door)

### » BUCKLING TYPE REFUELING

Finished parts can be pulled out directly, as the billet is continuously fed to shorten the refueling time.

### » SAFETY PROTECTION

Machines can be equipped with safety guards to CE specifications to reduce work hazards.

### » QUICK INSTALLATION

Quick plug-in design to start to operation easily.

### » MINIMIZED MACHINE WIDTH

Together with the processing machine, the back width is only 1100mm to minimize the space.

\* Guarding LED light is optional



MACHINE WEIGHT  
**3,800 kgs**



VL-610	
X Travel	610 mm (24")
Y Travel	460 mm (18.1")
Z Travel	510 mm (20")
Spindle Nose to Table Surface	125~635 mm (4.9"~25")
Table size	800 x 450 mm (31.5"x17.7")
T-slot (Q'ty x Size x Dist)	3 x 18 x 100 mm
Max. Table Load	500 kgs
Spindle Transmission	Belt type / Direct type Build-in
Spindle Taper	BT40
Spindle Speed	8,000rpm (opt. 15,000~24,000rpm)
ATC Capacity	16 tools (opt. 24 tools)
CNC control	Mitsubishi / Fanuc / Fagor Siemens / Heidenhain
Spindle Motor	5.5 / 7.5 Kw (*)
Floor space	284 x 165 x 262 cm
Machine Weight	3,800 kgs

\* Spindle motor power depends on controller and spindle transmission selection

# VL SERIES

## VERTICAL MACHINING CENTER

- Linear Guide Ways



	VL-550	VL-850	VL-1000
X Travel	510 mm (20")	850 mm (33.5")	1,020 mm (40.2")
Y Travel	410 mm (16.1")	510 mm (20")	
Z Travel	460 mm (18.1")	560 mm (22")	
Spindle Nose to Table Surface	130~590 mm	150~710 mm	
Table size	600 x 320 mm	1,000 x 500 mm	1,200 x 500 mm
T-slot (Q'ty x Size x Dist)	3 x 14 x 100 mm	5 x 18 x 100 mm	
Max. Table Load	350 kgs	800 kgs	1,000 kgs
Spindle Taper	BT40		
Spindle Speed	8,000 rpm (opt. 10,000~15,000 rpm)		
Floor space	219 x 165 x 262 cm	290 x 242 x 285 cm	290 x 242 x 285 cm
Machine Weight	2,800 kgs	5,000 kgs	5,500 kgs

Positioning accuracy:  $\pm 0.005/300\text{mm}$   
 Repeating accuracy:  $0.003/300\text{mm}$

	VL-1200	VL-1300	VL-1600	VL-1690	VL-2090
X Travel	1,200mm (47.2")	1,300mm (51.2")	1,600 mm(63")	1,690 mm(66.5")	2,090 mm(82.3")
Y Travel	610 mm (24.4")	700 mm (27.6")		900 mm (35.4")	
Z Travel	610 mm (24.4")	700 mm (27.6")		810 mm (31.5")	
Spindle Nose to Table Surface	150~760 mm	BT40: 130~830 mm BT50: 130~800 mm		150~960 mm (5.9~37.7")	
Table size	1,300 x 600 mm	1,450 x 700 mm	1,750 x 700 mm	1,800 x 850 mm	2,200 x 850 mm
T-slot (Q'ty x Size x Dist)	5 x 18 x 100 mm	5 x 18 x 125 mm		5 x 22 x 150 mm	
Max. Table Load	1,200 kgs	1,300 kgs	1,500 kgs	1,500 kgs	2,500 kgs
Spindle Taper	BT40	BT40 / BT50		BT40 / BT50	
Spindle Speed	8,000 rpm (opt. 10,000~15,000 rpm)	BT40 8,000rpm / BT50 6,000 rpm		BT40 8,000rpm / BT50 6,000 rpm	
Floor space	427 x 250 x 299 cm	443 x 260 x 299 cm	593 x 276 x 299 cm	593 x 325 x 331 cm	674 x 343 x 331 cm
Machine Weight	6,800 kgs	7,000 kgs	10,000 kgs	16,000 kgs	20,000 kgs

# EL-850 VL-1050



## VERTICAL MACHINING CENTER



MACHINE WEIGHT  
**4,100 kgs**



MACHINE WEIGHT  
**6,800 kgs**



XYZ Travel	850/510/510 mm
Spindle Nose to Table Surface	140 ~ 650 mm
Table size	950 x 500 mm
T-slot (Q'ty x Size x Dist)	18 x 5 x 100 mm
Max. Table Load	400 kgs



Spindle	BT40 belt type 8,000rpm
Floor space	260 x 216 x 268 mm
Machine Weight	4,100 kgs
Positioning accuracy:	±0.005/300mm
Repeating accuracy:	0.003/300mm



XYZ Travel	1,050/610/610 mm
Spindle Nose to Table Surface	160~760 mm
Table size	1,150 x 600 mm
T-slot (Q'ty x Size x Dist)	18 x 5 x 100 mm
Max. Table Load	700 kgs



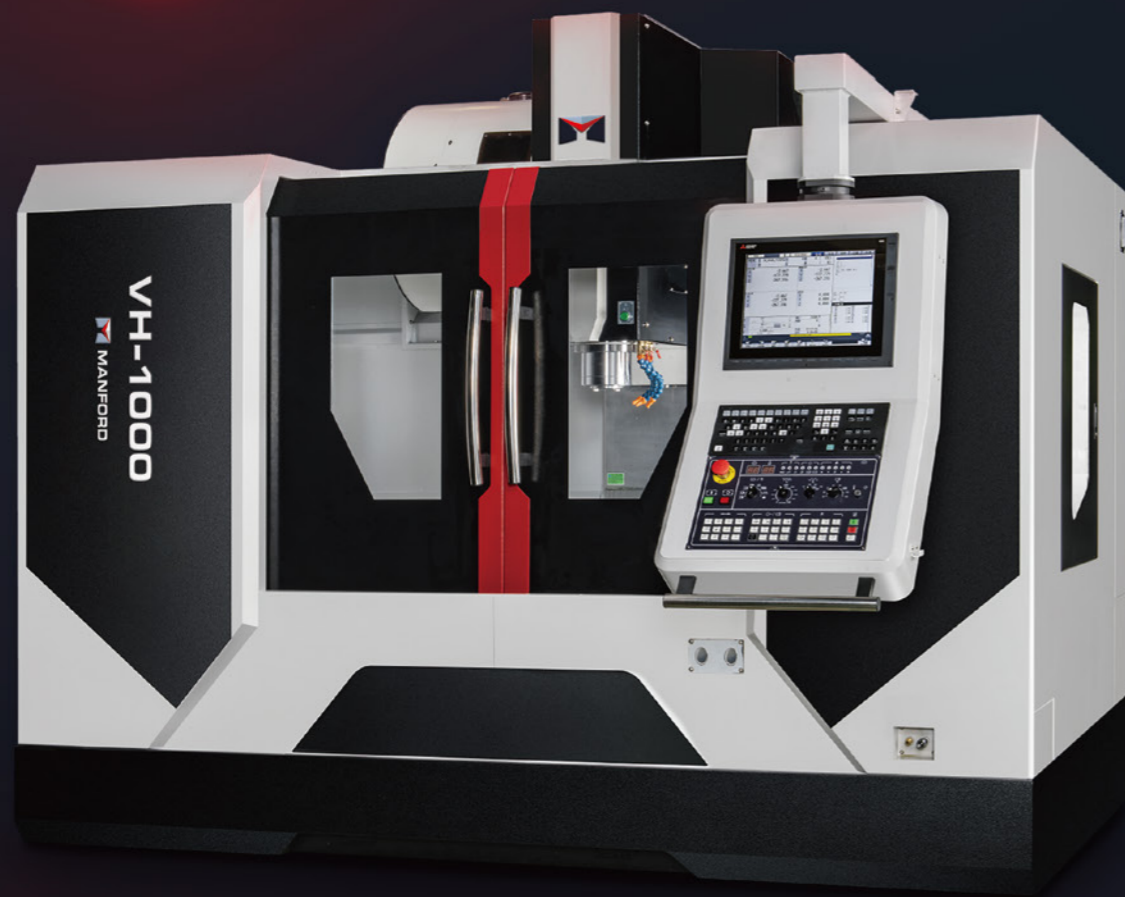
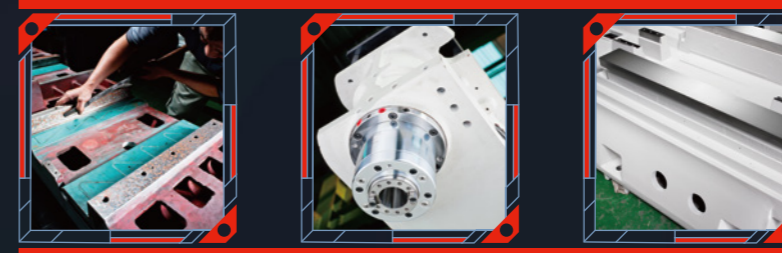
Spindle	BT40 belt type 8,000rpm
Floor space	247 x 345 x 300 mm
Machine Weight	6,800 kgs
Positioning accuracy:	±0.005/300mm
Repeating accuracy:	0.003/300mm



# VH-850 VH-1000

## VERTICAL MACHINING CENTER

- Box Ways



MACHINE WEIGHT  
**5,200 kgs**

	VH-850	VH-1000
X Travel	850 mm (40.2")	1,020 mm (40.2")
Y Travel	510 mm (20")	510 mm (20")
Z Travel	560 mm (22")	560 mm (22")
Spindle Nose to Table Surface	130 - 690	130 - 690
Table size	1,000 x 500 mm	1,200x500 mm
T-slot (Q'ty x Size x Dist)	5 x 18 x 100 mm	5x18x100 mm
Max. Table Load	750 kgs	750 kgs
Spindle Transmission	Belt type / Direct type	Belt type / Direct type
Spindle Taper	BT40	BT40
Spindle Speed	8,000rpm (opt. 15,000)	8,000rpm (opt. 15,000)
ATC Capacity	24 tools (opt. 30 tools)	24 tools (opt. 30 tools)
CNC control	Mitsubishi / Fanuc / Siemens Heidenhain / Fagor	Mitsubishi / Fanuc / Siemens Heidenhain / Fagor
Spindle Motor	7.5 / 11Kw	7.5/11 Kw
Rapid Feedrate (XYZ)	24/24/16 M/min	24/24/16 M/min
Floor space	290 x 226 x 279 cm	290 x 226 x 279 cm
Machine Weight	5,000 kgs	5,200 kgs

# VH SERIES

## VERTICAL MACHINING CENTER

- Box Ways

	VH-510	VH-610	VH-1100
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X Travel	510 mm (20")	610 mm (24")	1,100 mm (51.2")
Y Travel	410 mm (16.1")	460 mm (18.1")	700 mm (27.6")
Z Travel	460 mm (18.1")	510 mm (20")	700 mm (27.6")
Spindle Nose to Table Surface	130~590 mm	130~640 mm	BT40: 130~830 mm BT50: 130~800 mm
Table size	600 x 320 mm	800 x 450 mm	1,300x650 mm
T-slot (Q'ty x Size x Dist)	3 x 14 x 100 mm	3 x 18 x 100 mm	5 x 18 x 100 mm
Max. Table Load	500 kgs	800 kgs	1,300 kgs
Spindle Taper	BT40		BT40 / BT50
Spindle Speed	8,000rpm		BT40 8,000rpm BT50 6,000rpm
Floor space	200 x 230 x 246 cm	216 x 245 x 255 cm	290 x 242 x 285 cm
Machine Weight	2,800 kgs	3,800 kgs	7,700 kgs

VH-1300	VH-1600	VH-2000	VH-2200	Gear Head
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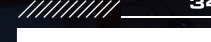
1,300 mm (63")	1,690 mm (66.5")	2,090 mm (82.3")	2,090 mm (82.3")	VHG-1104
700 mm (27.6")	800 mm (31.5")	900 mm (35.4")	1,000 mm (39.3")	VHG-1105
700 mm (27.6")	800 mm (31.5")			VHG-1304
BT40: 130~830 mm BT50: 130~800 mm	200~1,000 mm		250~1,050 mm	VHG-1305
1,500x650 mm	1,800 x 840mm	2,200 x 850 mm	2,400 x 1,000 mm	VHG-1600
5 x 18 x 100 mm	5 x 22 x 150 mm	5 x 22 x 150 mm	7 x 22 x 150 mm	VHG-2000
1,500 kgs	2,200 kgs	2,500 kgs	3,000 kgs	VHG-2200
BT40 / BT50				
BT40 8,000rpm / BT50 6,000rpm				
290 x 242 x 285 cm	440 x 330 x 330 cm	550 x 345 x 330 cm	613 x 420 x 367 cm	
8,300 kgs	14,500 kgs	16,000 kgs	23,500 kgs	

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## TOOL ROOM MILL

- VM-760 / VM-1000
- EH-610



# VM-760/1000 EH-610

## TOOL ROOM MILL ECONOMIC MACHINING CENTER



MACHINE WEIGHT  
**2,500 kgs**



MACHINE WEIGHT  
**2,600 kgs**

### VM-760 VM-1000

X Travel	760 mm (29.9")   1,020 mm (40.2")
X Travel	400 mm (15.7")
Z Travel	400 mm (15.7")
Spindle Nose to Table Surface	102~502 mm
Table size	1,270x305mm   1,524x305 mm
T-slot (Q'ty x Size x Dist)	3x16x102 mm
Max. Table Load	200 kgs   300 kgs

Spindle Transmission	Belt type
Spindle Taper	BT40
Spindle Speed	8,000rpm (opt. 10,000~12,000rpm)
ATC Capacity	Genoa type 12 tools
CNC control	Mitsubishi/Fanuc/Siemens/Fagor
Floor space	251 x 217 x 239 cm   302 x 217 x 239 cm
Machine Weight	2,500 kgs   2700 kgs

### EH-600

X Travel	610 mm (24")
X Travel	350 mm (13.8")
Z Travel	460 mm (18.1")
Spindle Nose to Table Surface	70~530 mm
Table size	710x350 mm
T-slot (Q'ty x Size x Dist)	5 x 16 x 63 mm
Max. Table Load	350 kgs

Spindle Transmission	Belt type
Spindle Taper	BT40
Spindle Speed	8,000rpm (opt. 10,000~12,000rpm)
ATC Capacity	Genoa type 12 tools Arm type 24 tools
CNC control	Mitsubishi/Fanuc/Siemens/Fagor
Floor space	331 x 306 x 180cm
Machine Weight	2,600 kgs

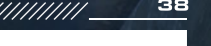
06



## TAPPING CENTER

- TP-510
- TP-510APC

Low inertia spindle motor gives superior spindle acceleration and deceleration speed  
Quick & smooth tool change





# TP-510

## TP-510 (APC)

### TAPPING CENTER



MACHINE WEIGHT  
**2,600 kgs**



MACHINE WEIGHT  
**3,300 kgs**

X Travel	510 mm (27.6")
X Travel	400 mm (20")
Z Travel	330 mm (16.1")
Spindle Nose to Table Surface	200~530 mm (5.9"~22")
Table size	650x400 mm (31.5"x20")
T-slot (Q'ty x Size x Dist)	3x14x125 mm
Max. Table Load	250 kgs
Spindle Transmission	Direct type

Spindle Taper	BT30
Spindle Speed	12,000rpm (opt. 15,000/20,000rpm)
ATC Type	Servo motor
ATC Capacity	14 tools (opt. 21 tools)
Spindle Motor	2.2/3.7 Kw
Rapid Feedrate (XYZ)	48/48/60 M/min
Floor space	219 x 165 x 262 cm
Machine Weight	2,600 kgs

X Travel	510 mm (27.6")
X Travel	400 mm (20")
Z Travel	330 mm (16.1")
Spindle Nose to Table Surface	200~530 mm (5.9"~22")
Table size	600x400 mm (31.5"x20")
T-slot (Q'ty x Size x Dist)	35 holes (M16xP2.0)
Max. Table Load	250 kgs
Spindle Transmission	Direct type

Spindle Taper	BT30
Spindle Speed	12,000rpm (opt. 15,000/20,000rpm)
ATC Type	Servo motor
ATC Capacity	14 tools (opt. 21 tools)
Spindle Motor	2.2/3.7 Kw
Rapid Feedrate (XYZ)	48/48/60 M/min
Floor space	284 x 165 x 262 cm
Machine Weight	3,300 kgs

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## TWIN SPINDLE VERTICAL MACHINING CENTER

VL-1200(2S)

Breaching the conventional design of the spindle head with a single spindle VL-1200(2S) is specially engineered with two spindles to bring machining efficiency to a new level.

# VL-1200 (2S)

## TWIN SPINDLE VERTICAL MACHINING CENTER



MACHINE WEIGHT  
**10,000 kgs**

### About VL-1200(S)

#### - Perfectly designed machine structure; 4 linear ways on base.

The extra-wide and extremely stable base has 4 linear ways in combination with 6 blocks for table support. This provides a solid support for the entire machine. Major casting parts are box type structures for outstanding rigidity and stability. High precision ball screws on three axis are pre-loaded to eliminate thermal displacement while ensuring high reparability. The counter-balance weight is guided to minimize vibration.

Table	1,500 x 550 mm
Table T-slot	CD100x18x5T mm
Max. table load	800 kgs
X Travel	620 mm
Y Travel	600 mm
Z Travel	600 mm
Spindle Nose to Table Surface	100~700 mm
Table Taper	BT-40 /CAT-40
Spindle Speed	Belt Type 10000
Linear Guide ways	X/Y:Linear Way Z:Box Way
CNC System	Fanuc/H.D.H

3 Axis Cutting Feedrates	30/30/12m/min
Magazine Capacity	24 Tool
Max. Adjustment Tool Diameter x Length	76x265mm
Max. Tool Weight	7kgs
Dimensions (LxWxH)	405x242x328cm
Machine Net Weight (approx.)	9,000 kgs
Machine Net Weight (approx.)	10,000 kgs

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