

# VP-Series

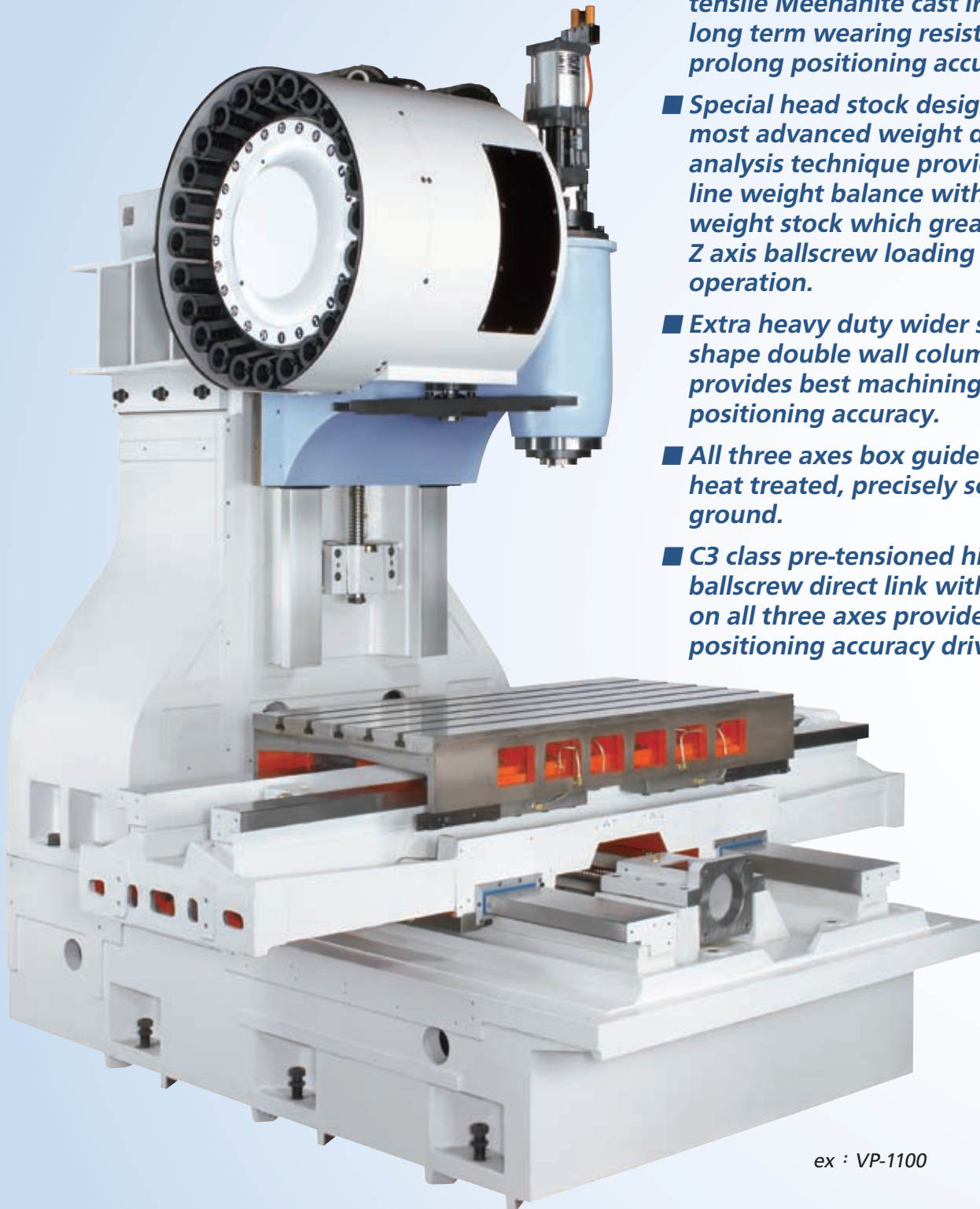
**VP-1100/1500**  
**Vertical Machining Center**



CF-0512106  
RPM10000

# RIGID CONSTRUCTION

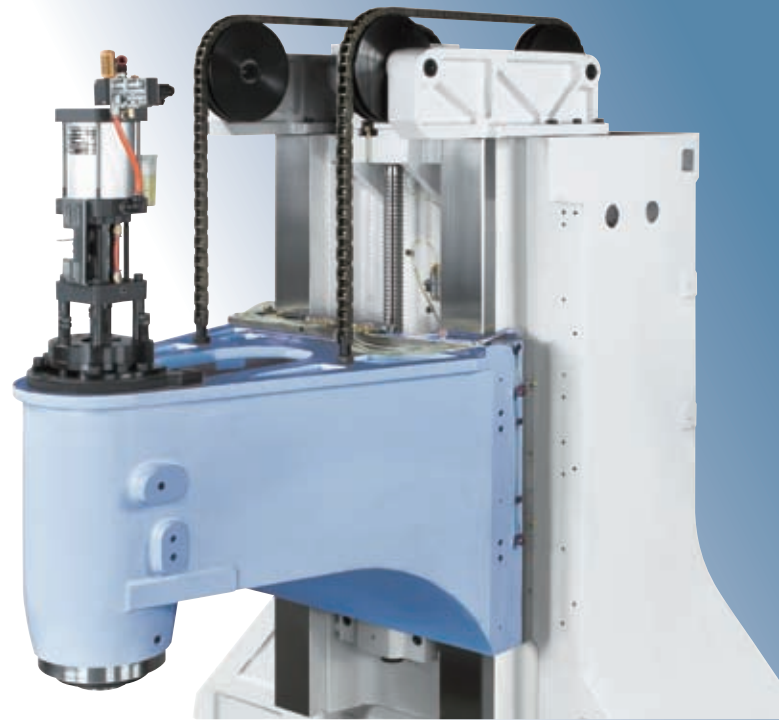
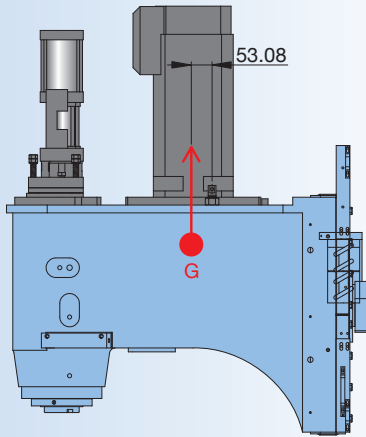
*INNOVATIVE DESIGN ·  
SUPERIOR PRODUCTIVITY*



- *All major parts are built with high tensile Meehanite cast iron, featuring long term wearing resistance and prolong positioning accuracy.*
- *Special head stock design with the most advanced weight distribution analysis technique provides best in line weight balance with counter weight stock which greatly reduced Z axis ballscrew loading during operation.*
- *Extra heavy duty wider span Y shape double wall column design provides best machining rigidity and positioning accuracy.*
- *All three axes box guide ways are heat treated, precisely scraped and ground.*
- *C3 class pre-tensioned high precision ballscrew direct link with servomotor on all three axes provides high positioning accuracy driven.*

ex : VP-1100

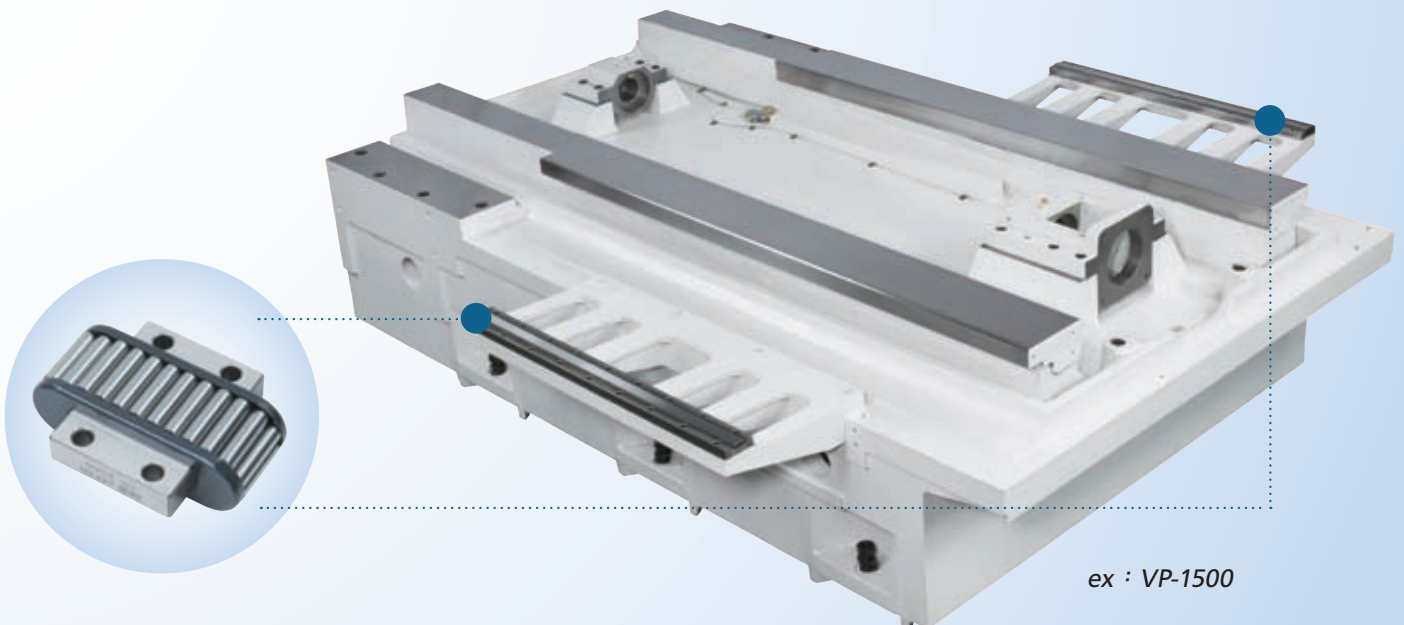
## ***INNOVATIVE HEAD STOCK DESIGN***



- Tri-angle design head stock provides best stability and flexibility on Z axis movement during operation.
- Floating tool clamp/unclamp system prevent spindle bearing from impacting during tool exchange.

## ***HIGH RIGIDITY BASE DESIGN***

- *Extra wide distance between guide ways design provides best stability and accurate operation.*
- *Advanced coolant and oil separated design prolongs coolant quality.*
- *All bearing housings are ground and precisely scrapped to provide higher accuracy and prolong ballscrews durability.*
- *VP-1500 model featured with steel roller bearing on supporting guide ways provides best combination of stability and flexibility during operation.*



ex : VP-1500

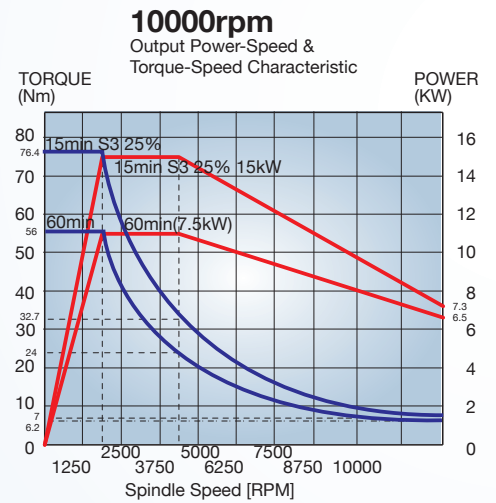
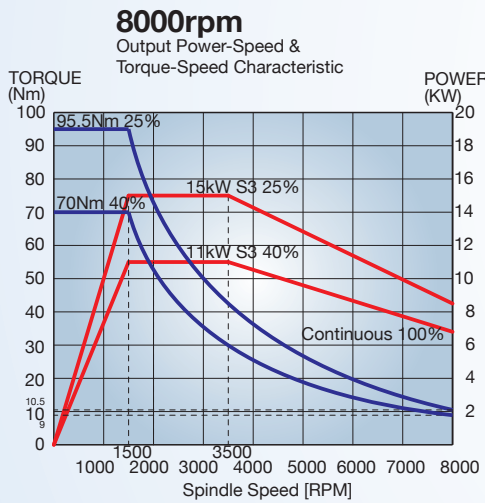
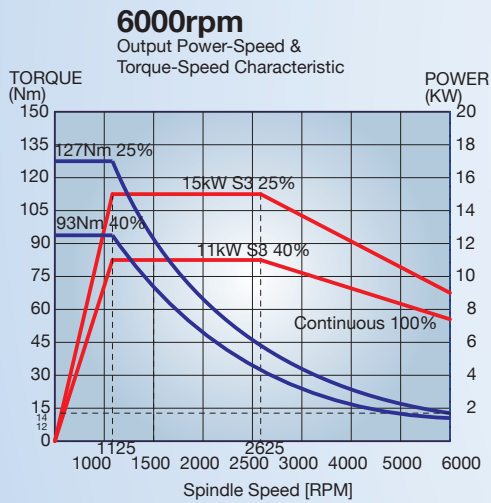


# HIGH MACHINING CAPACITY DESIGN SPINDLE

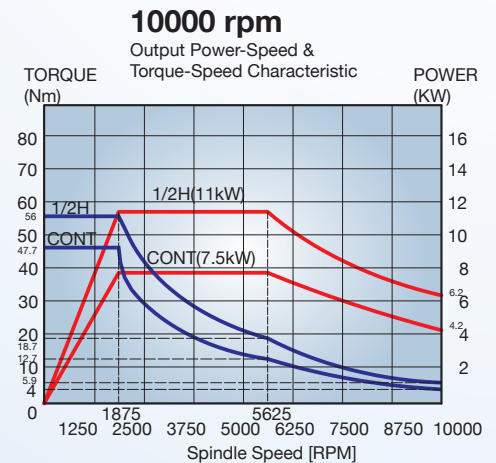
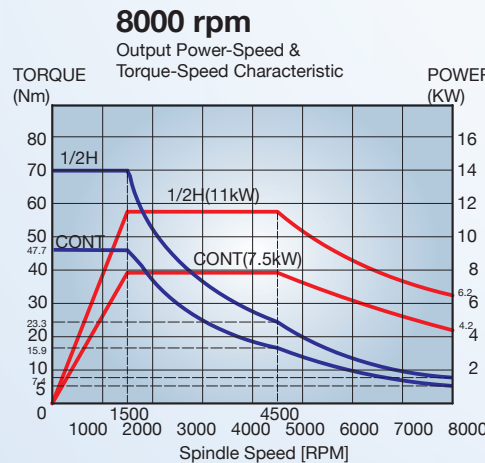
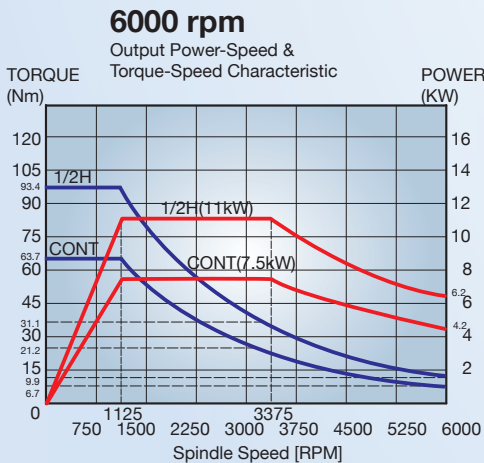
- 70 mm P4 class angular contact bearings and large span design largely promote the spindle rigidity and cutting ability.
- Special spindle nose design with Labyrinth and air curtain prevents coolant and chips damage.

## SPINDLE MOTOR TORSION DRAWING

### Fanuc

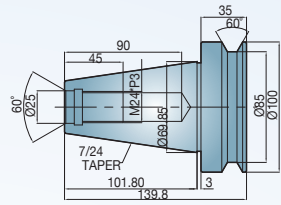


### Mitsubishi

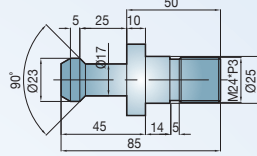


# PULL STUD & TOOL SHANK DRAWING

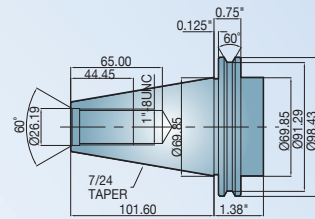
Tool shank BT50



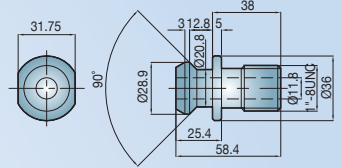
MAS-P50T-1



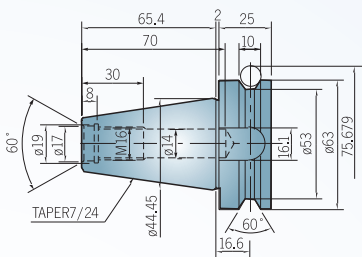
CAT50



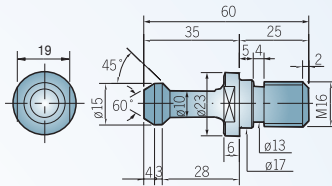
ANSI CAT50



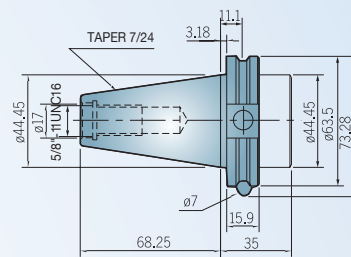
Tool shank BT40



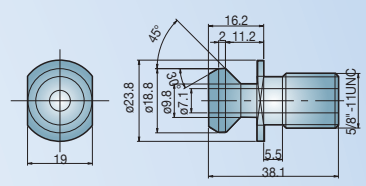
MAS-P40T-1



CAT40

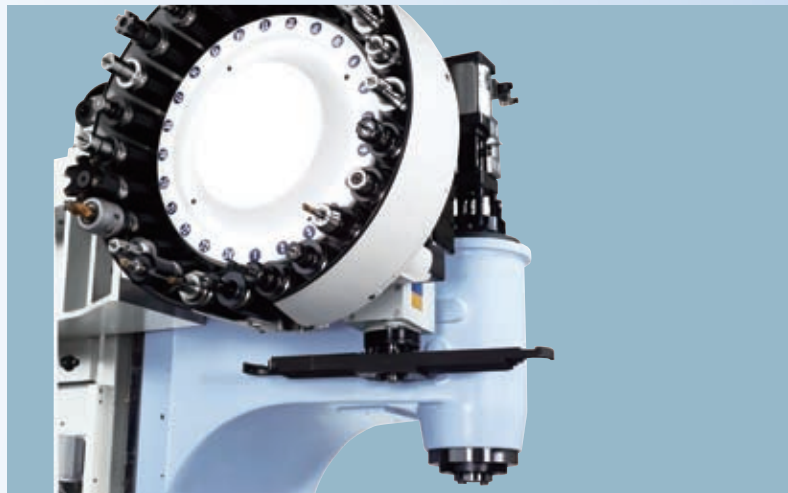


ANSI CAT40



## MACHINE FEATURE

24 tools arm type ATC system (Standard)



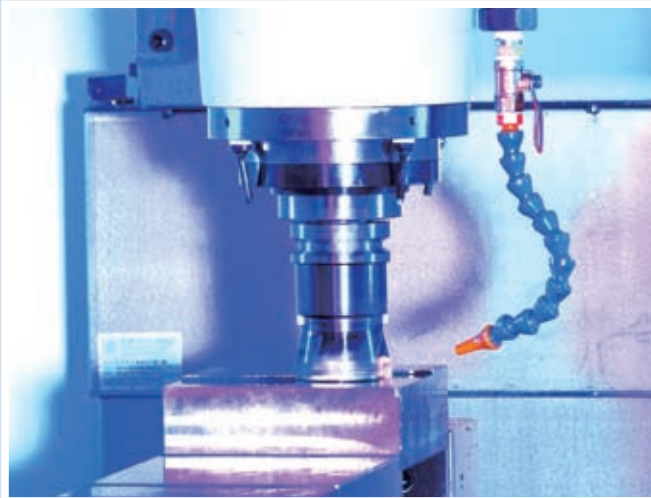
## Chip flush system (Optional)

Flush nozzles provide at both side of splash guard, efficiently remove chips during operation.

## Chain type chip conveyor (Optional)



# CUTTING ABILITY



## FACE MILLING

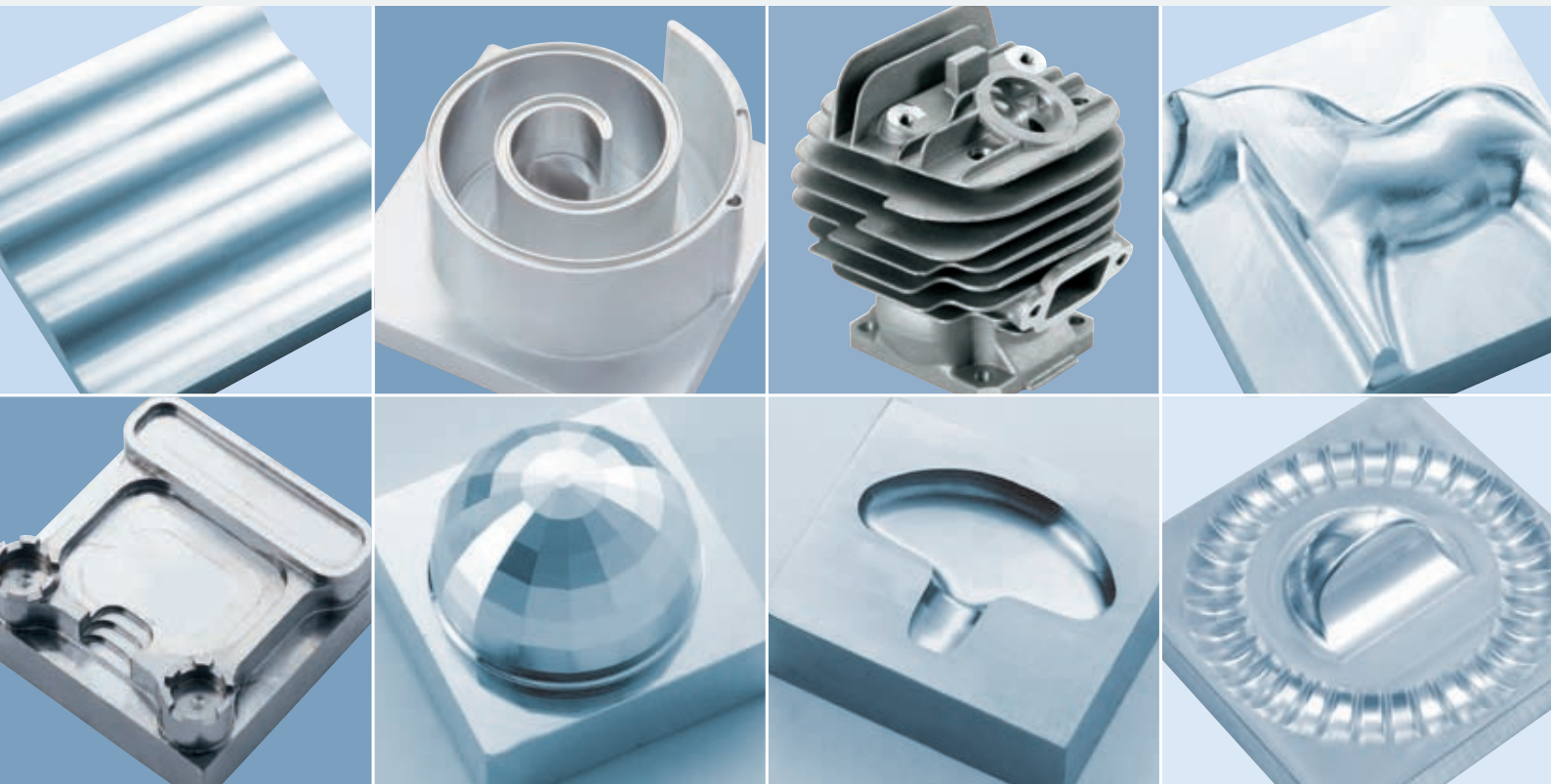
Work piece material	S50C
Spindle speed	920 RPM
Feedrate	1380 mm/min
Cutting width	90 mm
Cutting depth	3 mm
Material elimination rate	373 cc/min



## END MILLING

Work piece material	S50C
Spindle speed	800 RPM
Feedrate	200 mm/min
Cutting width	6 mm
Cutting depth	45 mm
Material elimination rate	54 cc/min

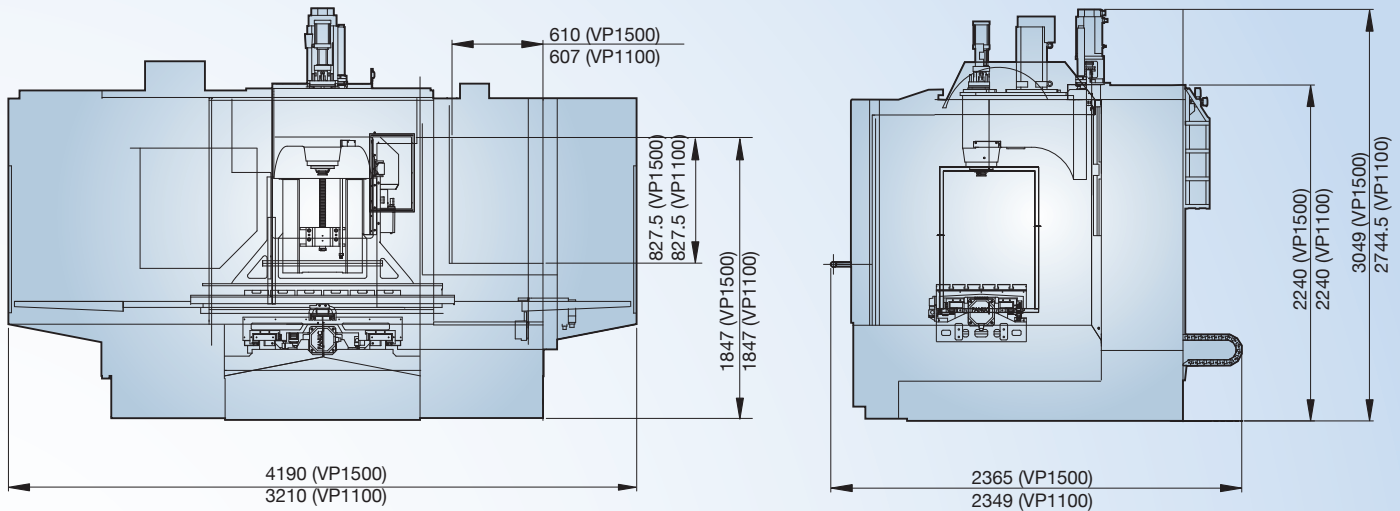
# WORK PIECE SAMPLE



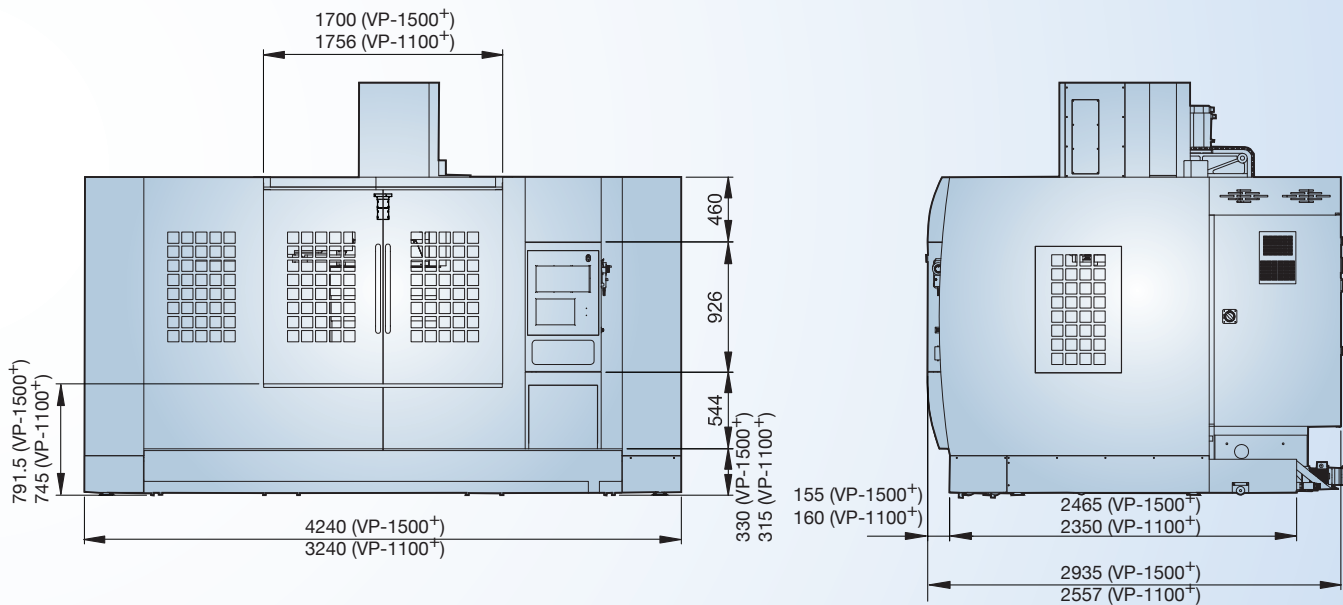
# DIMENSIONAL DRAWING

Unit:mm

## VP Series

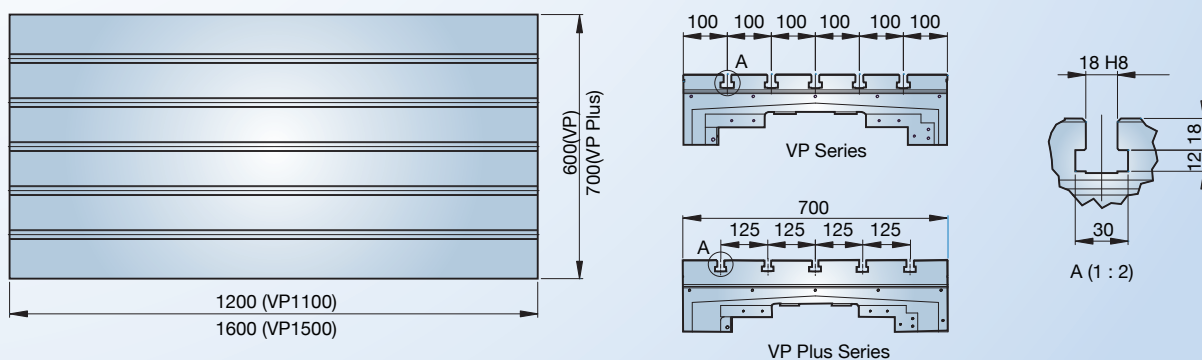


## VP Plus Series (Y-Axis travels 700mm)



# WORK TABLE DIMENSIONAL DRAWING

Unit:mm



# MACHINE SPECIFICATION

	VP-1100	VP-1100 <sup>+</sup>	VP-1500	VP-1500 <sup>+</sup>
<b>TRAVELS</b>				
X Axis	1100 mm		1500 mm	
Y Axis	600 mm	700 mm	600 mm	700 mm
Z Axis	600 mm			
Spindle Nose To Table Surface	150 - 750 mm			
Spindle Center To Column Front	660 mm			
Column Rail Face To Table Center	350 - 950 mm			
<b>FEEDRATE</b>				
Rapid Feedrate X & Y Axis	20 m/min	20 m/min	16 m/min	16 m/min
Rapid Feedrate Z Axis	20 m/min	20 m/min	16 m/min	16 m/min
Cutting Feedrate	8 m/min	8 m/min	8 m/min	8 m/min
<b>TABLE</b>				
Table Size	1200 x 600 mm	1200 x 700 mm	1600 x 600 mm	1600 x 700 mm
Max. Load Permissible	800 kgs			
T-Slot Number	5			
T-Slot Pitch	100 mm (VP) / 125 mm (VP+)			
T-Slot Width	18 mm			
<b>HEAD STOCK</b>				
Spindle Speed	8000 rpm			
Spindle Diameter	Ø70 mm			
Spindle Taper	BT-40 / CAT-40			
Spindle Motor	11 / 15 kW (Fanuc) , 7.5 / 11 kW (Mitsubishi)			
<b>ATC</b>				
Max. Tool Diameter(With Adj. Tool)	Ø80 mm			
Max. Tool Diameter	Ø125 mm			
Max. Tool Length	300 mm			
Max. Tool Weight	7 kgs			
<b>GENERAL INFORMATION</b>				
Machine Weight (Approx.)	8800 kgs	9300 kgs	9000 kgs	12000 kgs
Machine Height	2730 mm	2930 mm	2730 mm	2930 mm
Floor Space (WxDxH)	3210 x 2360 mm	3240 x 2560 mm	4170 x 2900 mm	4300 x 2935 mm
Positioning	0.005 / 300 mm			
Repeatability	±0.003 mm			
Air Pressure Required	6 kgs/cm <sup>2</sup>			

Remark : Specification and design characteristics subject to change without prior notice.

## STANDARD FEATURE

- Coolant system
- Arm type 24T ATC
- Rigid tapping
- Automatic Oil Lubricator
- Work lamp
- Heat exchanger for electrical cabinet
- Automatic power off (M30)
- Remote MPG
- Adjustment tools & tool box
- Enclosed splash guard
- Leveling bolts and pads
- Spindle air blast
- Work air blast
- RS-232 interface
- Fanuc Oi-MD or Mitsubishi M70

## OPTIONAL FEATURE

- Y axis Travels 700mm
- Spindle speed 6000rpm (BT-50)
- Spindle speed 10000rpm (BT-40)
- ZF Gear box
- Coolant through spindle with filter system
- Wide range motor
- 4<sup>th</sup> axis rotary table
- Chain type chip conveyor with cart
- Spiral type chip conveyor with cart
- Transformer
- CE Specification
- Fanuc 31i-MB
- Mitsubishi M700 series
- Siemens 802D SL / 828D / 840D SL

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