

Trust And Reliability

FIRST



Roller Guide System

V33/V43

VERTICAL
MACHINING
CENTER



LONG CHANG MACHINERY CO., LTD.

- Fully enclosed splashguard for elegant outlook
- With standard flat-type removal mechanism.
- MEEHANITE cast iron for all major machine parts.
- Big diameter 3-Axis ball screws preload.
- Automatic central lubrication system.
- High efficiency.
- Excellent and stable accuracy.



SPEED & ACCURACY

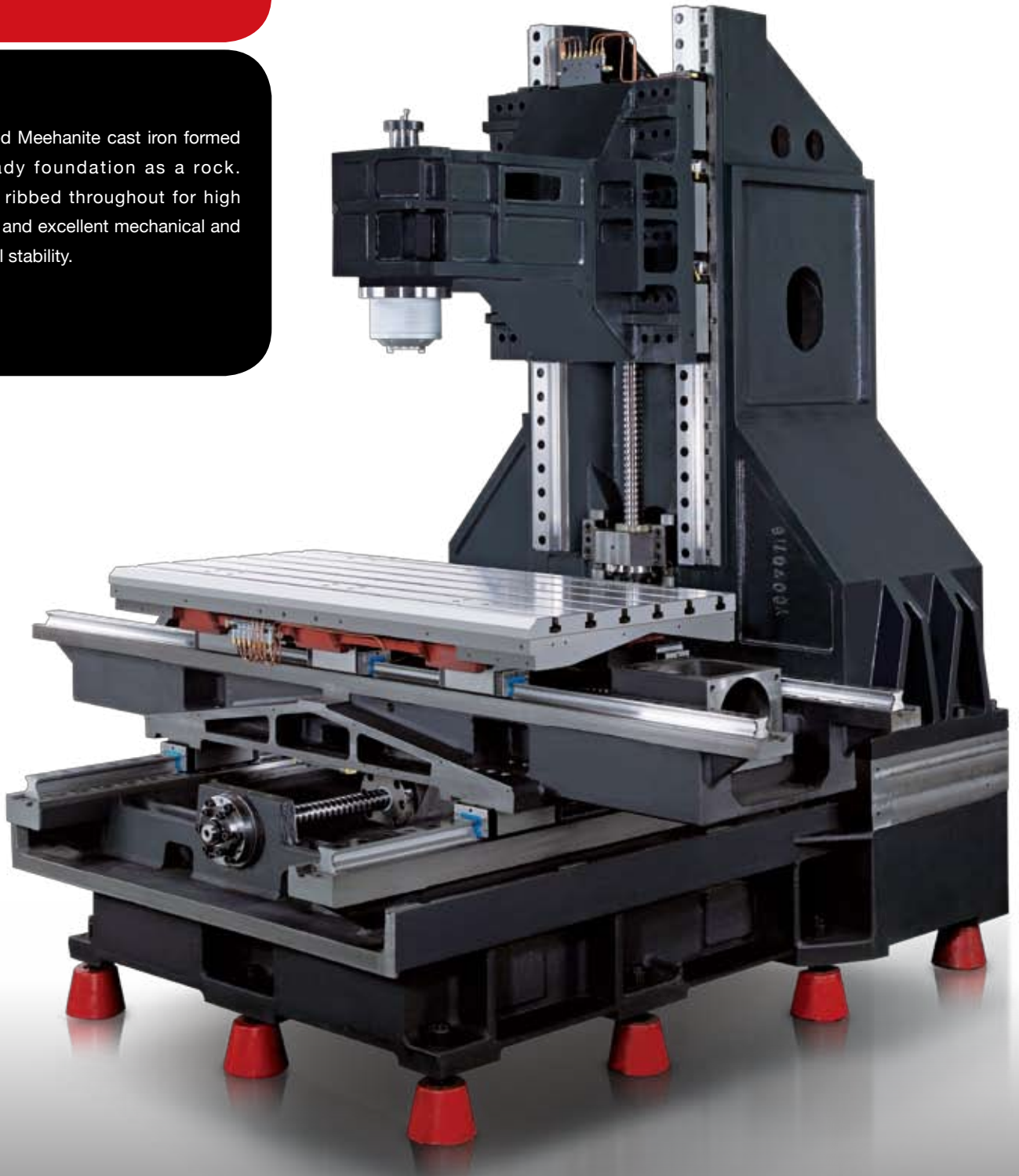
VERTICAL MACHINING CENTER

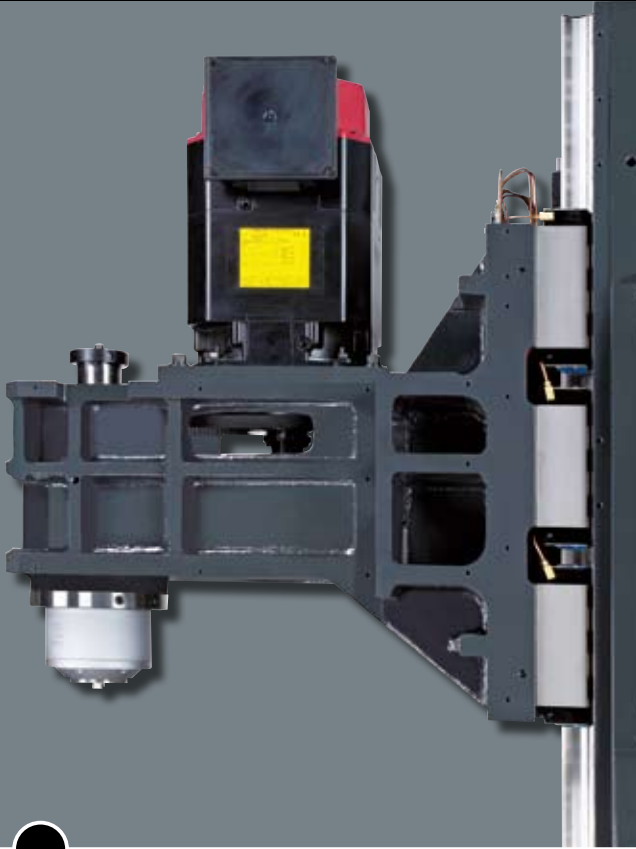


MEEHANITE CASTING STRUCTURE

Certified Meehanite cast iron formed a steady foundation as a rock. Heavy ribbed throughout for high rigidity and excellent mechanical and thermal stability.

- 3-axis linear guide ways for high speed feed rate and repeatability accuracy are guaranteed.
- Heavy design on column and base to take more force from cutting.
- Max. table load 1,000kgs.





RIGID HEAD STRUCTURE

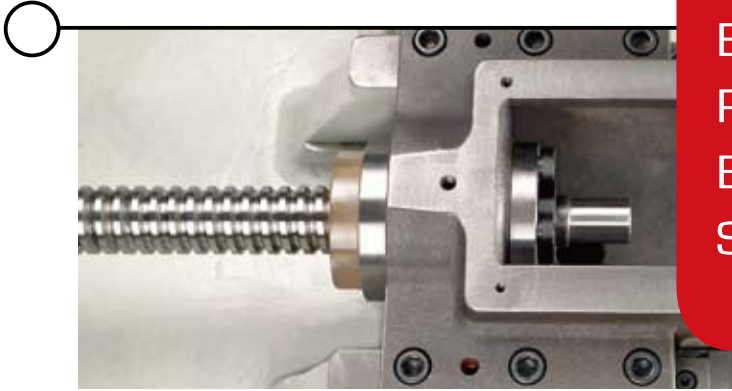
- 6 blocks on Z axis linear way to take more force from cutting.
- 1,000rpm belt type spindle as standard. (#40)



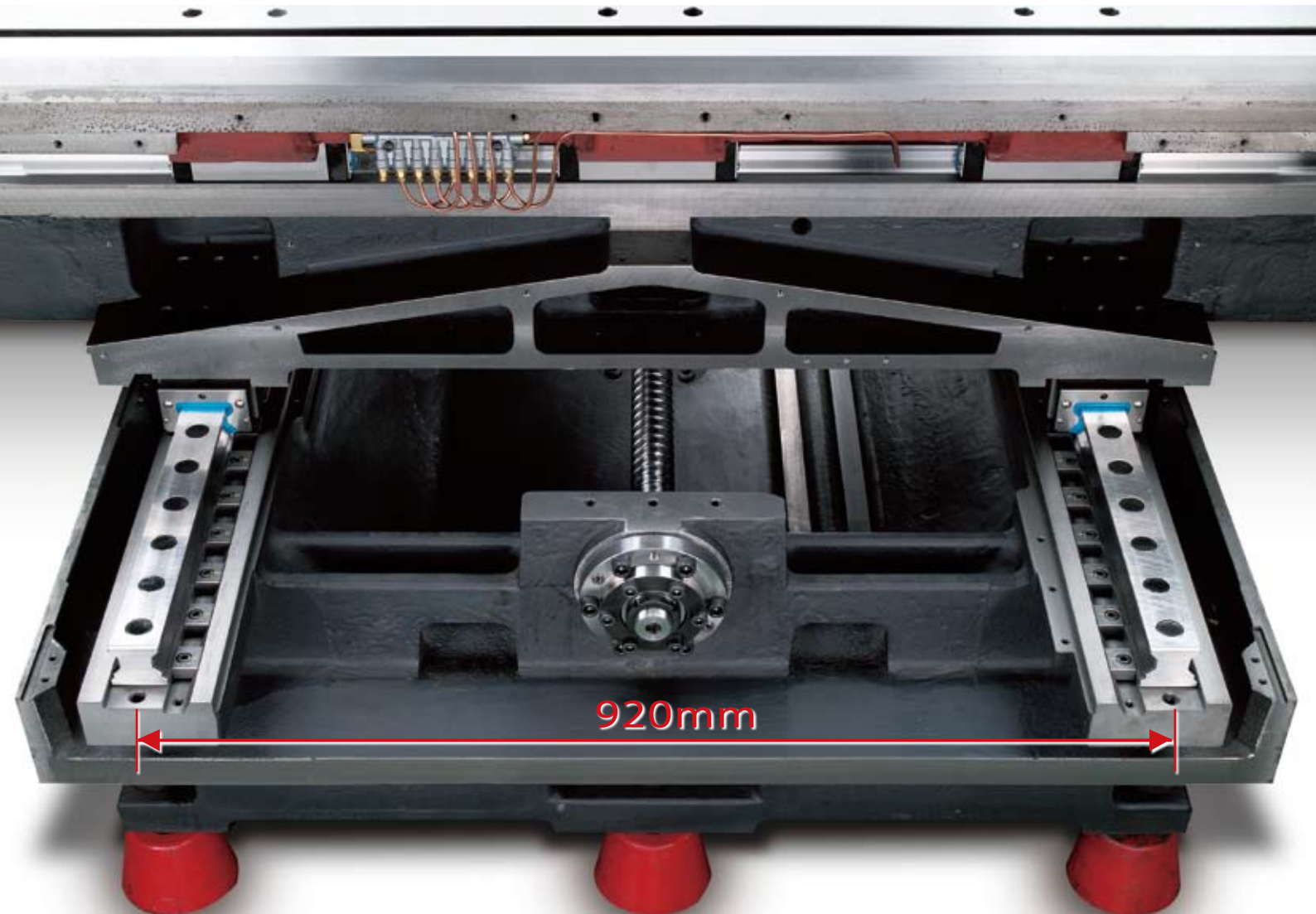
DIRECT DRIVE SPINDLE (#40 OPTION)



- Oversized ball screws $\varnothing 45\text{mm}$ for X/Y Axis; $\varnothing 50\text{mm}$ for Z Axis are directly driving on all 3 axes.
- 3-axis ball screws preloaded for excellent feeding accuracy.
- All axes are with high precision C3 grade ball screws.



**BIG
PRELOADED
BALL
SCREWS**



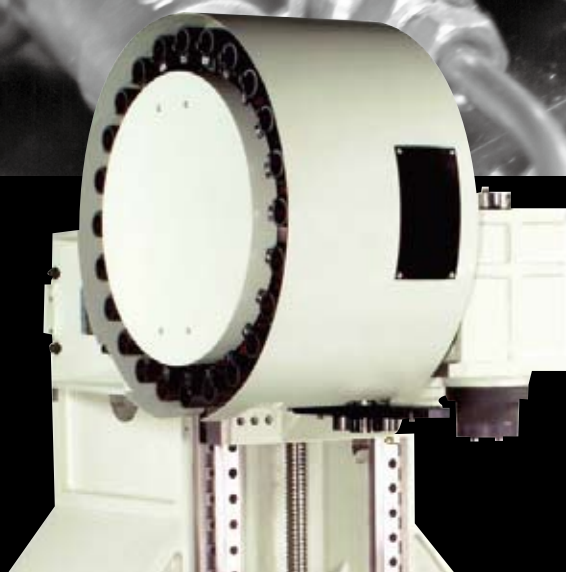
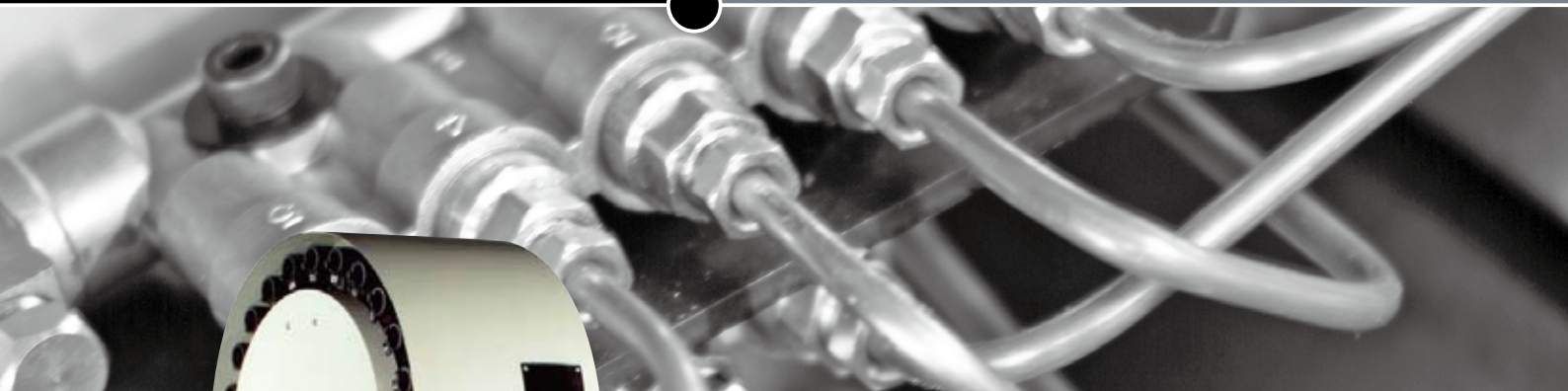
HEAVY DUTY LINEAR GUIDE WAYS

- Linear guide ways are in roller bearing type. (X: 45mm, Y/Z:55mm)
- Blocks with automatic central lubrication system



SPINDLE CHILLER

Spindle cooling system dissipates running induced heat generation in order to maintain accuracy and prolong life.



AUTOMATIC TOOL CHANGER

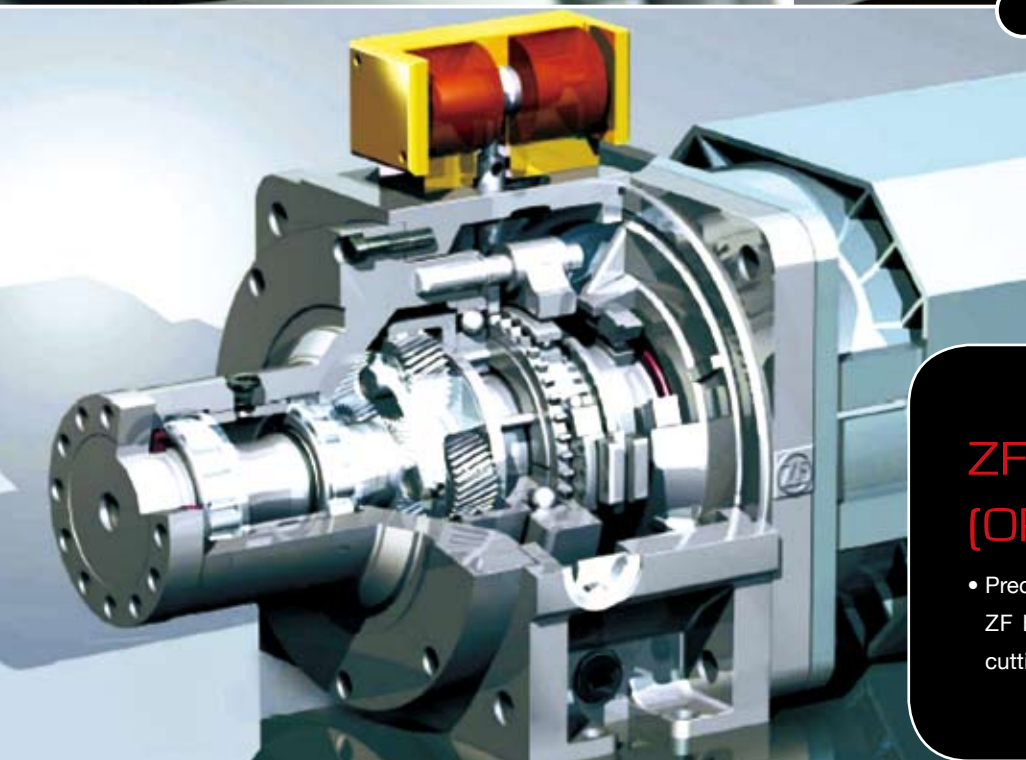
With Standard Arm-type 24 tools magazine provides rapid, stable and reliable tool change, also it is controlled by PLC software for quicker tool selection to reduce non-cutting time.



**HEIDENHAIN LINEAR
SCALE (OPTION)**



COOLANT GUN



**ZF GEAR BOX
(OPTION)**

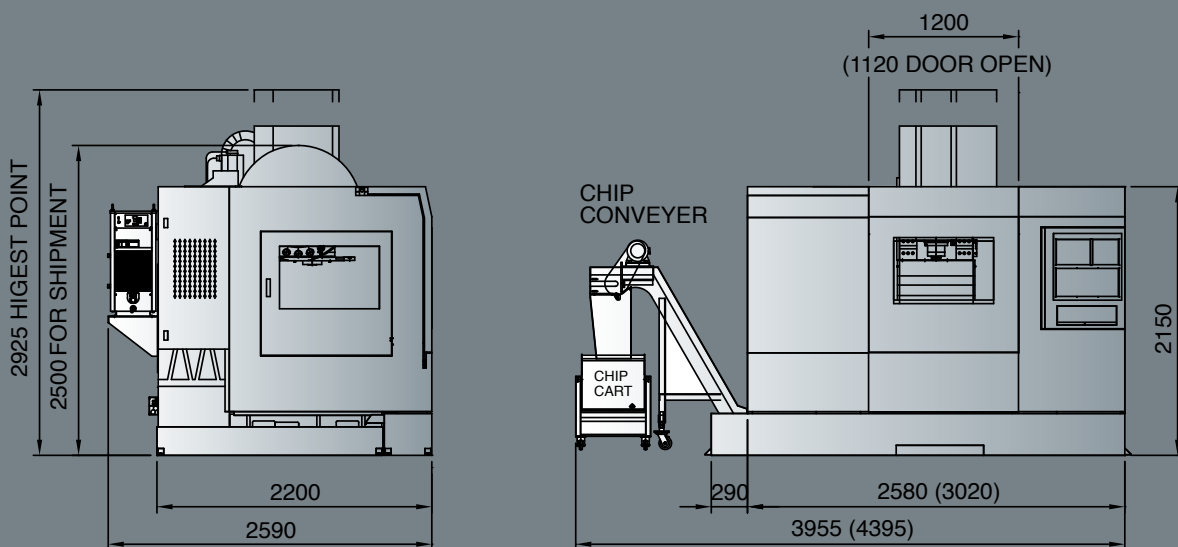
- Precision and powerful German ZF brand gear box for heavy cutting solution.



IN-HOUSE MODERN MANUFACTURING FACILITIES

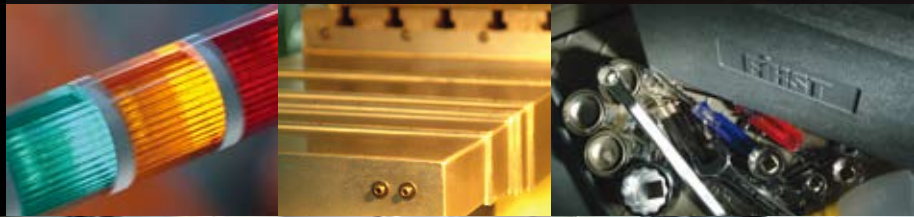
We have OKUMA 5-face machining center TOYODA ,TOSHIBA ,MITSUI SEIKI Horizontal machining centers with pallet changers,OKUMA CNC lathes,Wanner ,OKUMA and TOYODA CNC grinders for building the best machines ,whole critical and precision parts are done in house.

MACHINE DIMENSION

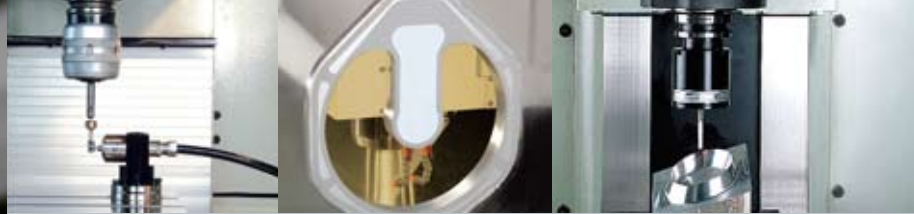


STANDARD ACCESSORIES

- Arm type ATC (24 tools)
- Fully enclosed splash guard
- Chip flush system
- Coolant system
- Spindle chiller
- Flat type chip conveyor
- Coolant tank & chip collector
- Automatic lubrication system
- Telescopic covers
- Portable electronic handwheel (FANUC)
- Working light
- Alarm light
- Tool box
- Operator's manual and parts list
- Leveling bolts, pads and nuts



OPTIONAL ACCESSORIES



- #40: Arm type ATC (32 or 40 tools)
- #50: Arm type ATC (30 or 40 tools)
- #40: High-speed spindle 15,000/20,000rpm
- #50: 8,000rpm spindle
- Bigger spindle motor
- Coolant through spindle system
- Air blow system for dry cutting
- 4th or 4+5th axis rotary table
- High precision linear scale
- Working piece measurement system
- Tool length measurement system
- Heat exchanger on electrical cabinet
- Power transformer
- CE (Safety door interlock)
- ZF Gear box



Machine Specification	V33		V43	
Travel				
X-Axis	850 mm (33.5")		1,100 mm (43.3")	
Y-Axis	600 mm (23.6")			
Z-Axis	600 mm (23.6")			
Spindle nose to table	120~720 mm (4.7~28.3")			
Table				
Table size	1,050 x 600 mm (41.3 x 23.6")		1300 x 600 mm (51.2 x 23.6")	
Floor to table	855 mm (33.7")			
Max. table loading capacity	1,000 kgs (2,200 Lbs)			
T-slot (number x width x pitch)	6 x 18 mm x 100 mm (6 x 0.7" x 3.9")			
Spindle center to column	600 mm (23.6")			
Feed system				
Rapid traverse speed	32 M/min (1259.8"/min)			
Feed motor (FANUC)	X/Y: 3.0kW (12 Nm) , Z: 7.0kW (30 Nm)			
Ball screw diameter & pitch	X, Y : 45 mm (1.8") Z:50 mm (2.0") / 12mm (0.5")			
Cutting feed rate	1 ~ 10,000 mm/min (0.04 ~ 393.7"/min)			
Type of transmission	Direct Drive			
Spindle				
Type of tool shank	BT 40 / CAT 40 / DIN 69871A	BT50 / CAT50 / DIN69871A	BT 40 / CAT 40 / DIN 69871A	BT50 / CAT50 / DIN69871A
Max. spindle speed	10,000 / 15,000 or 20,000 rpm (Op)	6,000rpm / 8,000rpm (Op)	10,000 / 15,000 or 20,000 rpm (Op)	6,000rpm / 8,000rpm (Op)
Spindle motor	11/15 KW / 7.5/11kW or 15/18.5kW (Op)	15/18.5kW / 22/26kW (Op)	11/15 KW / 7.5/11kW or 15/18.5kW (Op)	15/18.5kW / 22/26kW (Op)
Type of transmission	Belt / Direct drive or Build-in (Op)	Belt	Belt / Direct drive or Build-in (Op)	Belt
ATC				
Tool storage capacity	24Tools / 32 or 40 Tools (Op)	24Tools / 30 or 40Tools (Op)	24Tools / 32 or 40 Tools (Op)	24Tools / 30 or 40Tools (Op)
ATC type	Arm type			
Max. tool diameter	95 / 76 / 76 mm (3.7 / 3.0 / 3.0 ")	110 / 127 / 127 mm (4.3 / 5 / 5")	95 / 76 / 76 mm (3.7 / 3.0 / 3.0 ")	110 / 127 / 127 mm (4.3 / 5 / 5")
Without adjacent tool	185 / 127 / 127 mm (7.3 / 5.0 / 5.0 ")	200 / 228 / 228 mm (7.9 / 9 / 9")	185 / 127 / 127 mm (7.3 / 5.0 / 5.0 ")	200 / 228 / 228 mm (7.9 / 9 / 9")
Max. tool length	300 mm (11.8")	350 mm (13.8")	300 mm (11.8")	350 mm (13.8")
Max. tool weight	7 kgs (15 Lbs)	15 kgs (32 Lbs)	7 kgs (15 Lbs)	15 kgs (32 Lbs)
Tool changing time (Tool to Tool)	1.8 / 1.5 / 1.5 sec	2.9 sec	1.8 / 1.5 / 1.5 sec	2.9 sec
Tool changing time (Chip to Chip)	5.5 sec	6 sec	5.5 sec	6 sec
Method of tool selection	Random selection			
	Bi-directional magazine rotation			
Tool display	Yes			
Special tool management	Yes			
Coolant system				
Coolant tank size	445L		486L	
Coolant capacity	105 L / min			
Chip Flush capacity	125 L / min			
Machine size				
Machine height	2,920 mm (115.0")			
Floor space	3,955 mm (155.7")(W) X 2,250 mm (88.6") (D)		4,395 mm (173.0") (W) X 2,250 mm (88.6")(D)	
weight	8,200 kgs (18040 Lbs)		8,500 kgs (18700 Lbs)	
Power source				
Electrical power supply	25 KVA / 3PH , 220V 50/60HZ			
Compressed air supply	6.0 kgf/cm ² (85psi)			
Controller				
	FANUC / HEIDENHAIN / SIEMENS			

* Specifications may different according to option accessories and are subject to change without notice.

Edition / A07



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