

## MACHINE SPECIFICATIONS

		Unit	TR-100A	TR-120A
TRAVEL	X-AXIS	mm	1100	1200
	Y-AXIS	mm	600	600
	Z-AXIS	mm	550	550
	TABLE TO SPINDLE NOSE	mm	150~700	150~700
	SPINDLE CENTER TO COLUMN SLIDE FACE	mm	620	620
TRANSMISSION	SLIDE WAY TYPE	mm	Roller linear way	Roller linear way
	X-AXIS GUIDEWAY SPAN/WIDTH	mm	334/#35	334/#35
	Y-AXIS GUIDEWAY SPAN/WIDTH	mm	610/#35	610/#35
	Z-AXIS GUIDEWAY SPAN/WIDTH	mm	400/#45	400/#45
	X/Y/Z-AXIS BALL SCREWS	mm	Ø40*12	Ø40*12
	X/Y/Z-AXIS BALL SCREWS PRETENSION		○	○
TABLE	TABLE SIZE	mm	1200x550	1300x635
	T SLOT	mm	18x4x125	18x4x125
	MAX. LOAD	kgs	600	600
SPINDLE	SPINDLE SPEED	Rpm	60~8000	60~8000
	TRANSMISSION		Direct drive	Direct drive
	SPINDLE TAPER		7/24 NO : 40	7/24 NO : 40
FEED RATE	RAPID TRAVERSE(G00)	m/min	36/36/36	36/36/36
	CUTTING FEEDRATE	m/min	10	10
MAGAZINE	MAGAZINE TYPE		Arm type	Arm type
	TOOL SHANK		BT#40	BT#40
	TOOL CAPACITY	pcs	24	24
	TOOL WEIGHT	kgs	7	7
	MAX. TOOL LENGTH	mm	300	300
MOTOR	X/Y/Z-AXIS SERVO MOTOR	kw	2/3/3(MELDAS)	2/3/3(MELDAS)
	SPINDLE MOTOR	kw	11/7.5	11/7.5
	NET WEIGHT	kgs	6350	6500
OPTIONAL ACCESSORIES	30T MAGAZINE		△	△
	HIGH SPEED SPINDLE UPGRADE		△	△
	HIGH PESSURE COOLANT THROUGH SPINDLE		△	△
	HIGH SPEED SPINDLE UPGRADE		10K/12K/15K	10K/12K/15K
	SK-40,CAT-40,HSK-63 MAGAZINE & SPINDLE		△	△
	AUTOMATIC TOOL LENGTH MEASUREMENT WITH BREAKAGE DETECTION		△	△
	AUTOMATIC DOOR		△	△
	TRANSFORMER, VOLTAGE REGULATOR		△	△
	WORKPIECE AIR BLOW SYSTEM		△	△
	SPINDLE OIL MIST COOLING		△	△
	OIL MIST COOLING SYSTEM		△	△
	4th /5th AXIS		△	△
	SCRAPER OR FILTER TYPE CHIP CONVEYOR		△	△
	MIST COLLECTOR		△	△
	ELECTRIC CABINET AIRCONDITIONING		△	△

● All specifications, dimensions and design characteristics are subject to change without notice.

● Machine dimensions not include chip conveyor

○ : Standard △ : Optional X : Not Available

### STANDARD ACCESSORIES

- ▶ Fully enclosed guard
- ▶ Double layer fully enclosed electric cabinet
- ▶ Spindle air blow & air curtain
- ▶ Air gun & water gun
- ▶ Dual color LED alarm light
- ▶ Dual PL work lamp
- ▶ Tool kits and tools
- ▶ Movable control box
- ▶ Floor flush device (inside water tank)
- ▶ Surround flushing system



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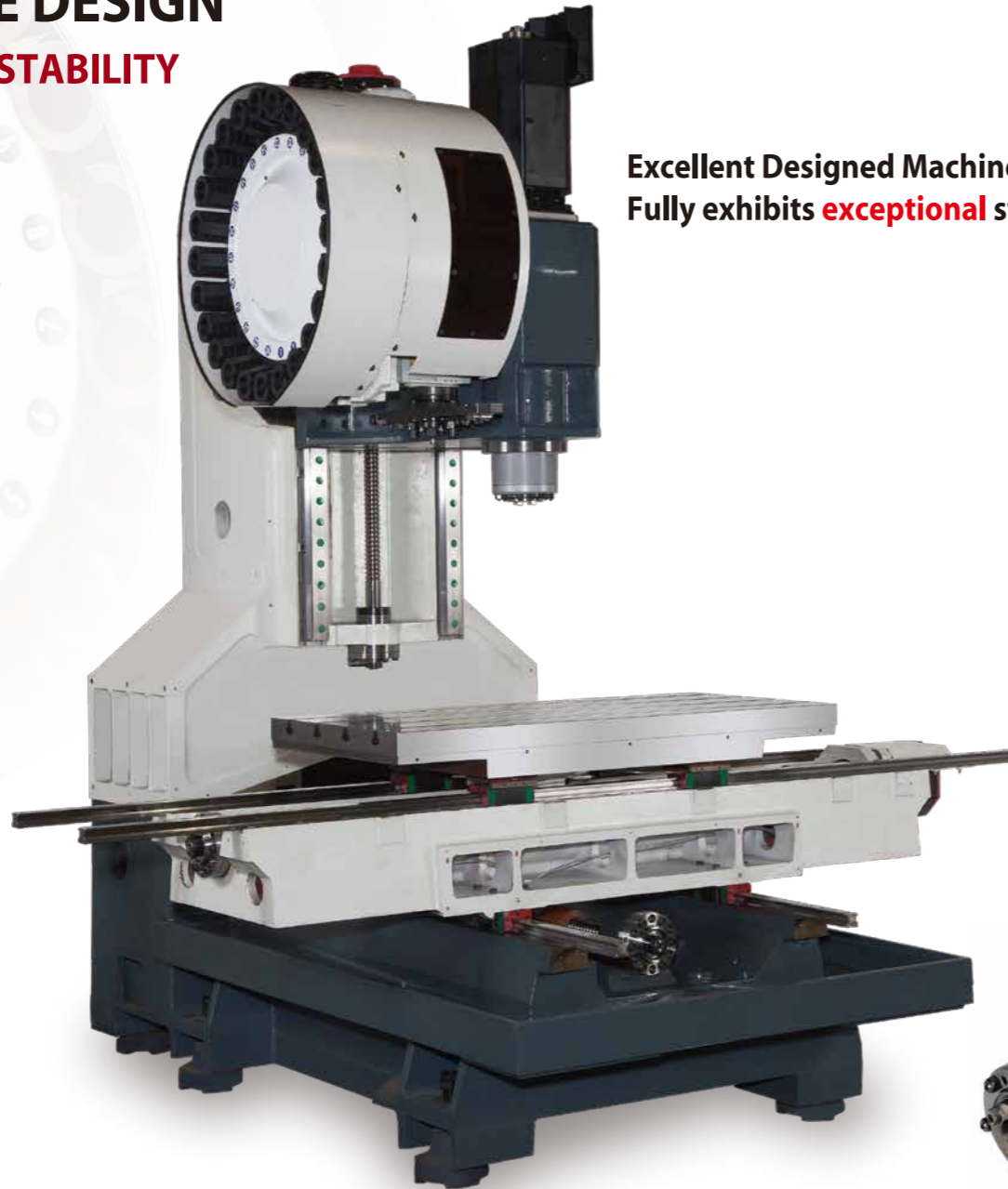
# TR-100 series CNC VERTICAL MACHINING CENTER

## OPTIMAL STRUCTURE DESIGN

### GUARANTEED RIGIDITY AND STABILITY

#### A Perfect Combination Of Precision And Efficiency

- ◆ MEEHANITE high quality casting iron assures permanent rigidity and accuracy.
- ◆ Finite Element Analysis (FEM) demonstrates rigid structure and approves excellent accuracy machining.
- ◆ Three axes movement drive by C3 level precision ball screws was treated by pretension in order to eliminate backlash issue and ensure feed accuracy and stability.
- ◆ The Y-shaped column construction effectively increases rigidity and stability of the machine. The three axes solid ways are mounted with precision linear ways that ensure high smoothness of traveling. Suitable for high speed machining demand.
- ◆ Laser unit to inspecting positioning accuracy for calibration reference. Inspection is based on Germany VD 3441 standards. In addition, a ball bar is for inspecting static \ dynamic circularity accuracy \ servo error and geometric error.
- ◆ The machine is equipped with a pressure relief oil distributor incorporated with bronze tubes to ensuring the best lubrication performance and long lifetime.



Excellent Designed Machine Structure Fully exhibits **exceptional** stability



#### SYMMETRICAL SPINDLE HEAD LAYOUT

The spindle head layout completely symmetrical, eliminating the spindle head tilting problem D during machining. Another benefit is to prevent instability caused by heat transfer from spindle motor.

#### COOLANT JETS AROUND SPINDLE

The coolant jets around spindle are designed to solve interference problem in the cutting area caused by conventional nozzles. It also may upgrade cooling effect for the workpiece.

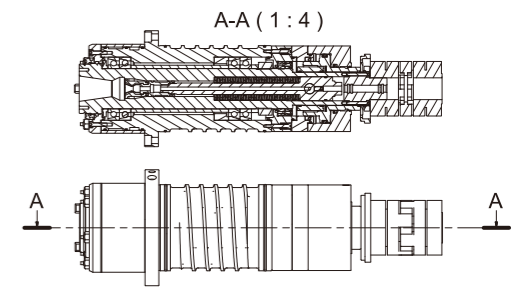
#### HIGH EFFICIENT MAGAZINE

New inverter motor ATC will shorten the tool change time with high reliability



#### DIRECT DRIVE SPINDLE

- ◆ Excellent for automobile components machining and precision mold engraving.
- ◆ The spindle features floating locking
- ◆ Well-designed ring to prevents coolant or dusts from entering into the spindle to extend the lifetime.
- ◆ Coolant through spindle (optional).



### CONTROL SPECIFICATIONS

	Mitsubishi			Fanuc	
	M70-VB	M70-VA	M720-VS	Oi-MATE-D	Oi-MF
CPU	64 bit			32 bit	
Max. Controlled Axes	9	11	12	5	9
Max. Simultaneous Axes	4	4	4	4	4
Program Storage Length	512K	512K	512K	1280*(512K)	
Macro Variables Common	400	400	400	400	600
Tool Offset Sets	400	400	400	400	400
Conversational Programming	○	○	○	○	○
Display	8.4" TFT LCD		10.4" TFT LCD	8.4" TFT LCD	
Multi-Language Display	○			○	
Servo System With ABS. Encoder	○			○	
Memory Card	○			○	
Ethernet	○			○	
High Speed And Accuracy Machining Code	G05.1 Q1	G05 P10000	SSS	G05.1 Q1	
RS-232 Interface	○			○	
Toolpath Simulation	○	3D		○	
Handwheel Feed Program Simulation	○			×	
Program Buffer Correction	○			×	

○:STANDARD ×:NONE

### QUALITY CONTROL

#### ● TEST REPORT (CIRCULARITY)



- The positioning accuracy is inspected by using Agilent laser unit P
- Positioning accuracy in full travel is less than 0.010mm H
- HEIDENHAIN grid encoder is applied for circular servo adjustment.D
- Diameterφ100, F=3000,circularity<0.010mm.

### DIMENSIONS

#### T-SLOT DIMENSION



#### TABLE SIZE

MODEL	A	B
TR-100A	1200	550
TR-120A	1300	635

