

MACHINE SPECIFICATIONS

MODEL		TS-45	TR-563S	TR-56S	TR-32 5AX
TRAVEL	X-Travel	mm	450	560	560
	Y-Travel	mm	320	400	400
	Z-Travel	mm	330	400	400
	A-Travel		-	-	+120°/-30°
	C-axis		-	-	360°
	Max. Swing	mm	-	-	ø320
	Spindle Nose to Working Table	mm	180~510	150~550	150~550
	Spindle Nose to Tilting Center AT 90°		-	-	150~550
Max. Work Area (90°)		-	-	Y axis 260MM	
TABLE	Table Size	mm	500x325x2PCS	600x425x2PCS	ø320
	Max.Loading Capacity	kgs	200x2PCS	200x2PCS	100
	Max.Workpiece Height		290	300	-
	T Slots	mm	14x100x3	M12	12
SPINDLE	Spindle Speed	rpm	10000	10000	8000
	Max. Tapping Speed	rpm	5000	5000	3000
	Spindle Taper	-	7/24 NO.30	7/24 NO.30	7/24 NO.40
	Transmission	-	Direct Drive	Direct Drive	Direct Drive
FEEDRATE	Rapid Traverse(G00)	m/min	48/48/60	48/48/48	48/48/48
	Rapid C/A Axis	rpm	-	-	25/16.6
	Machining Speed(G01)	mm/min	10000	10000	8000
ATC SYSTEM	Tool Shank	-	BT#30	BT#30	BT#40
	ATC Type	-	Armless	Arm	Arm
	Magazine Capacity	-	14	20+1	24+1
	Max. Tool Length	mm	200	200	250
	Max. Tool Diameter	mm	100	80	80
	Max. Tool Weight	kgs	2.5	3	4
	Tool Change Time				
MOTOR	X-axis(Mitsubishi/Fanuc)	kw	2.2/1.8	1.5/1.8	1.5/1.8
	Y-axis(Mitsubishi/Fanuc)	kw	1.5/1.8	1.5/1.8	1.5/1.8
	Z-axis(Mitsubishi/Fanuc)	kw	2.2/3.0	3.0/3.0	3.0/3.0
	Spindle	kw	3.7/2.2	3.7 / 2.2	7.5 / 5.5
MACHINE SPECIFICATION	WxDxH	mm	1755x3027x2523	2185 x 3328 x 2617	2320 x 3328 x 2617
	N.W.	kgs	4000	5300	5500
OPTIONAL ACCESSORIES	High Speed Spindle Upgrade		12K 15K 24K	12K 15K 24K	10K 12K 15K
	Armless Type 21T Magazine (21T with Servo Drive)		△	×	×
	Arm Type 30T Magazine (Servo Drive)		×	×	△
	HSK63 Magazine & Spindle		×	×	△
	CAT, 5K Magazine & Spindle		△	△	△
	Spindle Power Upgrade		5.5 kw	5.5kw	11 kw
	Work Table T Slots-14mm		●	△	×
	Connection For Table-Hydraulic		△	△	△
	Z Axis Travel Extra 120mm		×	△	△
	High Pressure Coolant Through Spindle		△	△	△
	Automatic Tool Length Measurement With Breakage Detection		△	△	△
	4th /5th Axis Rotary Table (Single or Dual)		△	△	×
	Three Axis Linear Scale		△	△	△
	A / C Axis Linear Scale		×	×	△
	Chip Conveyor Rear Type (Scraper/Chain/Filter Type)		△	△	△
	Workpiece Air Blow System		△	△	△
	Oil Mist Coolant System		△	△	△
	Automatic Door		△	△	△
	Oil Skimmer		△	△	△
	Mist Collector with Top Side guard		△	△	△
	Electric Cabinet Air Conditioner		△	△	△
	Transformer,Voltage regulator		△	△	△

● All specification, dimensions and design characteristics are subject to change without notice. ○:Standard △:Optional X:Not available

STANDARD ACCESSORIES	TS-45	TR-56	TR-32 5AX	STANDARD ACCESSORIES	TS-45	TR-56	TR-32 5AX
Spindle air blow device	●	●	●	Tool coolant system	●	●	●
Screw-type chip conveyor	×	●	×	One-piece dual layer insulated electric cabinet	●	●	●
Enclosure chip flushing system	●	●	●	Independent air connection for each work table	●	●	×
Work light (PL light)	● (Loading and Cutting area)	● (Loading and Cutting area)	●	Dual-color LED alarm light	●	●	●
				Tool kits and tools	●	●	●
Pressure detected automatic lubrication system and high efficiency lubrication oil filter	●	●	●	Spindle oil Chiller (BT#30 spindle speed 12K,including 12K)	△	△	△
				Spindle oil Chiller (BT#40 spindle speed 10K,including 10K)	×	△	△



TS-45/TR-56/TR-32 5AX Series

Column Traveling APC/ 5 AX Vertical Machining Center



TAIWAN MACHINE TOOL CO., LTD.
 No. 56, Sec. 1, Jinma Rd., Changhua City, 50089, Taiwan
 TEL:+886-4-7381008 FAX: +886-4-7387099

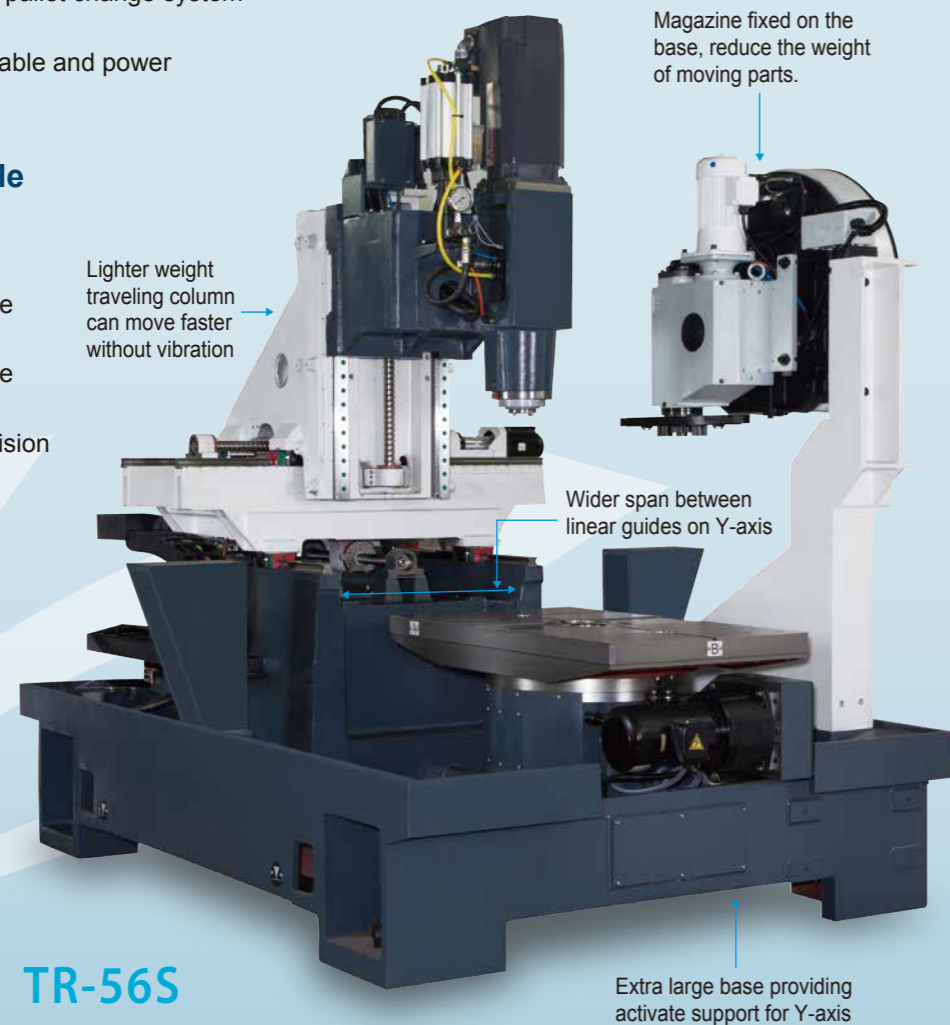
Ruggedly Constructed ! Outstanding Performance ! Is your best choice in drilling and tapping work.

High Precision, Fast Pallet Change

- The work table adopted the cam type 3-pieces coupling system.
- High speed 180° rotary pallet change system (4 sec.)
- Easier to install rotary table and power source for fixture.

Direct-drive spindle

- No noise, vibration and backlash problems.
- BT-30 maximum spindle speed 2400rpm(OP)
BT-40 maximum spindle speed 1500rpm(OP)
It can satisfy High-precision parts of machining requirements.
- Spindle air curtain, prevent moisture and chips to go into the spindle.



TR-56S



TS-45

Increasing the height of the casting base

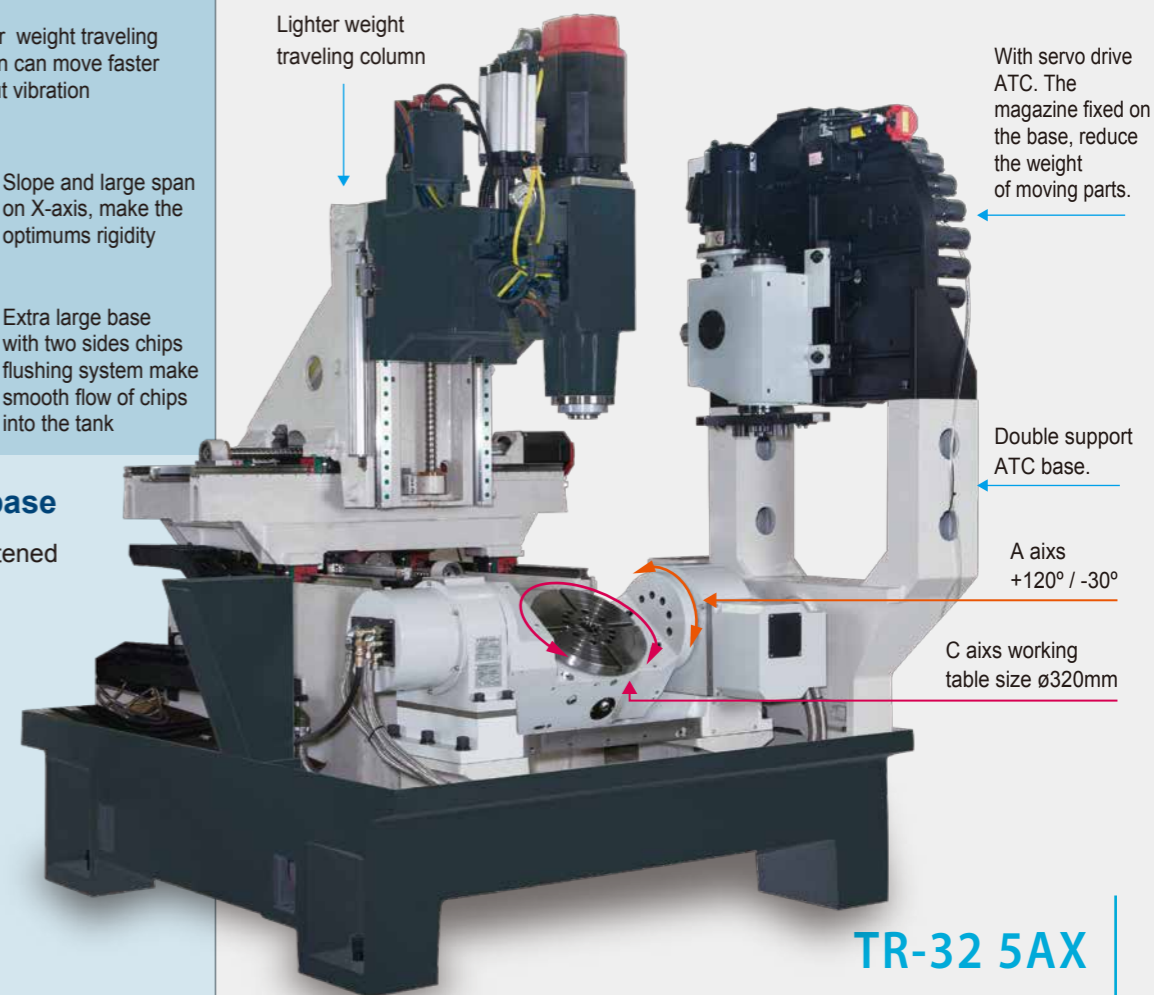
- Spindle nose and blocks on linear ways are shortened results in optimal rigidity during cutting.

Precise, Fast rotary table

- Good at complicated and high accuracy demanded work.
- Drum brake system, rotating center does not offset during braking, Minimum positioning error.
- Large hole diameter allows for mounting multi-port oil distributor.
- Integrated radial and axial bearing.

Efficient Magazine

- TR-56/TR-32 series are equipped with inverter ARM type magazine, Induction is fast, stable and no noise.
 - BT-40 ARM type (24/30 tools) · T-T 1.7 sec.
 - BT-30 ARM type (20 tools) · T-T 1.2 sec.
- TS-45 is equipped with ARMLESS type magazine, Strong and accurate clamping, provides stable and reliable tool change.
 - BT-30 ARMLESS type (14/21tools) · T-T 1.5 sec. (14 tools)



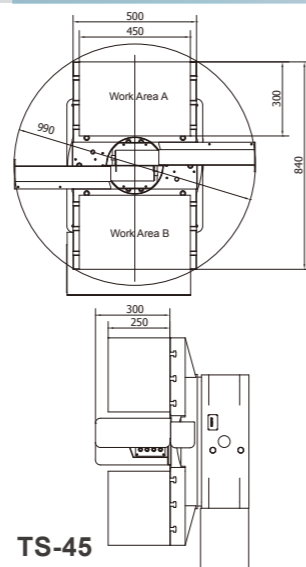
TR-32 5AX

Control Specifications

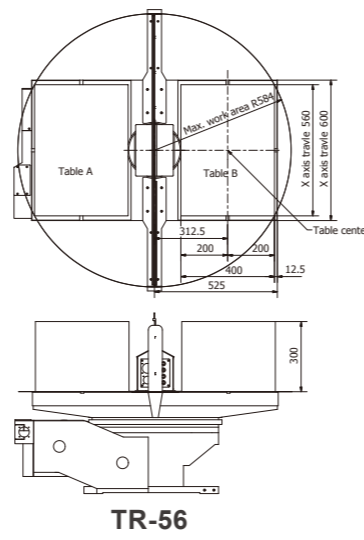
	Mitsubishi			Fanuc	
	M80-VB	M80-VA	M830S	Oi-MF(P3)	Oi-MF(P1)
CPU	64 bit			32 bit	
Max. Controlled Axes	9	11	16	6	9
Max. Simultaneous Axes	4	4	4	4	4
Program Storage Length	512K	512K	512K	512K	512K
Marco Variables Common	700	700	700	700	700
Tool Offset Sets	400	400	400	400	400
Coversational Programming	○	○	○	○	○
Display	8.4" TFT LCD		10.4" TFT LCD	8.4" TFT LCD	
Multi-Language Display	○			○	
Servo System with ABS. Encoder	○			○	
Memory Card Front-loading	○			○	
Ethernet	○			○	
High Speed And Accuracy Machining Code	SSS	SSS	SSS	G05.1 Q1	
RS-232 Interface	○			○	
Tool Path Simulation	3D			○	
Handwheel Feed Program Simulation	○			×	
Program Buffer Correction	○			×	

○: Standard ×: None

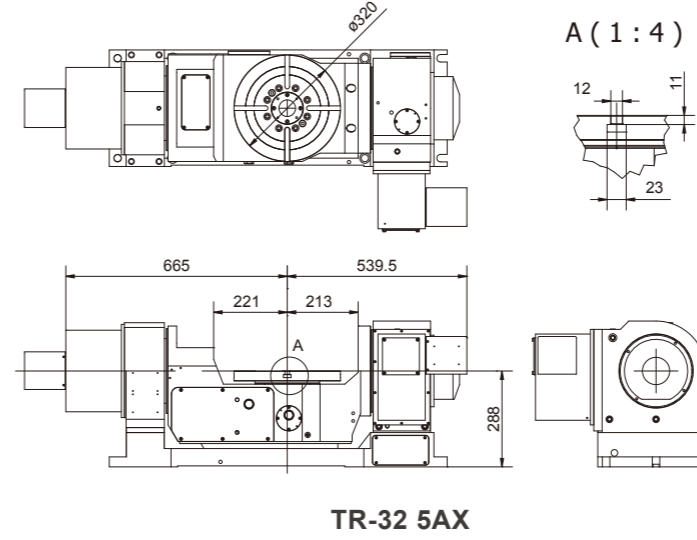
Work Table Size



TS-45

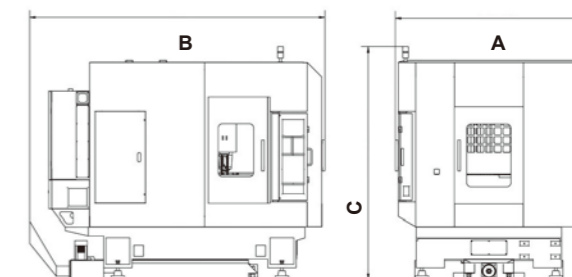


TR-56



TR-32 5AX

Machine Dimensions



Model	A	B	C
TS-45	1755	3027	2523
TR-563S	2185	3328	2617
TR-56S	2320	3328	2617
TR-32 5AX	2277	4120	2745