

MT-900

SPECIFICATIONS



MT-900 has a 5 axis milling head, two turrets, a tool magazine and twin spindle. The design layout allows to maintain a large work envelope for both lathe operations – turning and milling. All 6 sides of a part can be machined without an operator being needed to manually re-fixturing the workpiece. So nearly any part can be machined in an automated manner.

The element of automatic lubrication system for guide ways



X axis

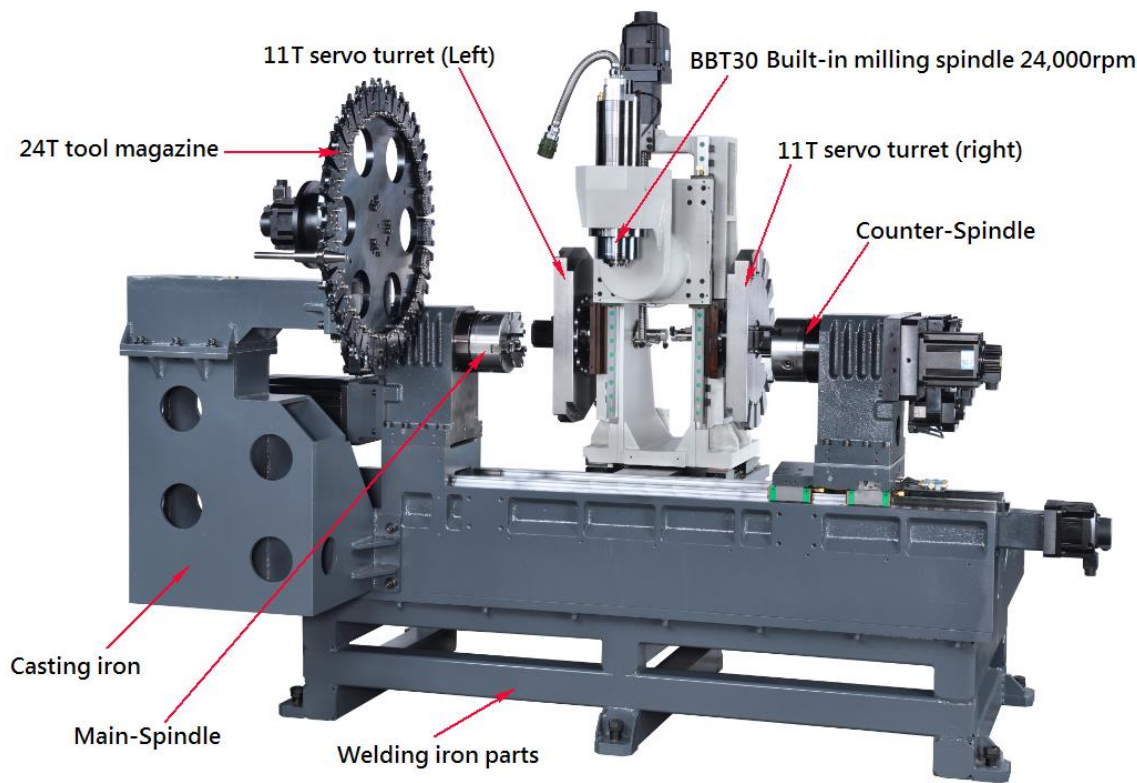


Y axis

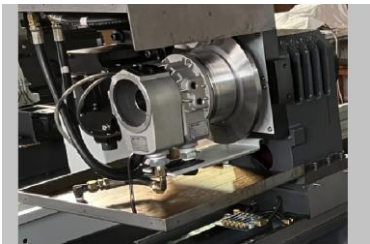


Z axis

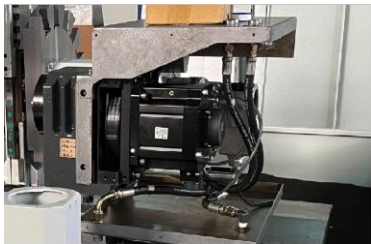
■ Mechanical structure



BBT30 milling spindle
 24,000rpm (B axis with
 Harmonic gear, swivel angle
 $\pm 105^\circ$)



Main-Spindle (A2-5), speed
 3,000rpm+ CS axis



Sub-Spindle (A2-5), speed
 3,000rpm + CS axis



11T servo turret with
 Harmonic gear (left)



11T servo turret with
 Harmonic gear (right)



24T tool magazine

■ Specifications of machine

ITEM		Unit	MT-900
Capacity	Swing over bed	mm	Ø500
	Max. machining diameter	mm	Ø300
	Max. machining length	mm	922
Travels	X/Y/Z/B axis	mm	±150/420/900/±105
	C1/C2/A axis	°	360/360/360
	W-axis	mm	968
Main/ Sub-Spindle	Spindle speeds	rpm	3,000
	Spindle nose		A2-5
	Spindle bore diameter	mm	Ø56
	Front bearing inner diameter	mm	Ø80
	Draw bar diameter	mm	Ø45
	Chuck diameter	mm	6"
Milling Spindle	Tool shank		BBT-30
	Spindle speeds	rpm	24,000
	Spindle torque	Nm	7.8
	A-axis index	Arcmin	1
B-axis	Rotary angle	°	±105
	Index	Arcmin	1
	Max. speed	rpm	4,000
	Repeatability accuracy	Arcmin	±0.1
	Max. torque	Nm	1,080
C-axis (C1 & C2)	Rotary angle	°	360
	Index	Arcmin	1
	Max. speed	rpm	3,000
	Max. torque	Nm	49
Tool magazine	Tool capacity	pcs	24
	Max. tool diameter/ length	mm	Φ80 x 150
	Max. tool weight	kgs	3
	Tool change time(T-T)	sec	4.8
Turret (Left/Right)	Type		Servo
	Tool capacity	pcs	11
	Square tool shank	mm	20x20
	Boring bar shank	mm	Φ32
Motor	Main-spindle	kw	7
	Sub-spindle	kw	3
	Milling Spindle	kw	10
	X/Y/Z/B/W axis	kw	1*5
	Tool magazine	kw	1
	Turret(Left/Right)	kw	0.75*2
	Hydraulic oil pump	kw	0.75
	Coolant pump	kw	0.85
Power	Requirement	KVA	30
Machine size	L x W x H	cm	336x228x229
	Net weight	kg	5,000
Packing size	L x W x H	cm	394x230x254
	Gross weight	kg	5,284

■ Standard accessories:

1. Mitsubishi M830VS, 15" LCD	11. Wedge type tool clamping * 16pcs
2. BBT30 built-in spindle 24,000rpm	12. Boring bar bushings (Ø8, 10,12,16, 20,25) x φ32 * 2sets
3. 24 tools auto tool change	13. Taper sleeve MT no. 1, 2 x φ32 * 2sets
4. A2-5 spindle 3,000rpm (for Main-spindle & Sub-spindle)+CS with	14. Coolant system
5. 6" 3-jaw hydraulic chuck (for Main-spindle & Sub-spindle)	15. Leveling bolts and pads
6. Soft jaws * 2sets / Hard jaw * 2sets	16. Auto lubrication system
7. Servo encoder for C axis * 2sets	17. Foot pedal for chuck * 2sets
8. 11 tools servo turret (left & right)	18. Tool box
9. Boring bar holder * 3pcs	19. End of program indicator (3-colors)
10. Turning holder * 3pcs	20. Yida Manual

■ Optional accessories:

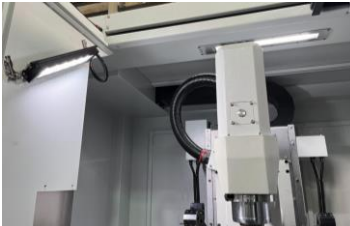
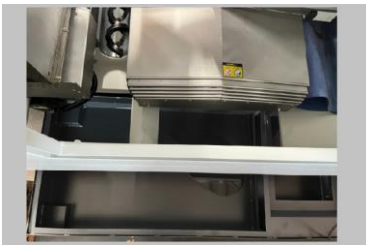
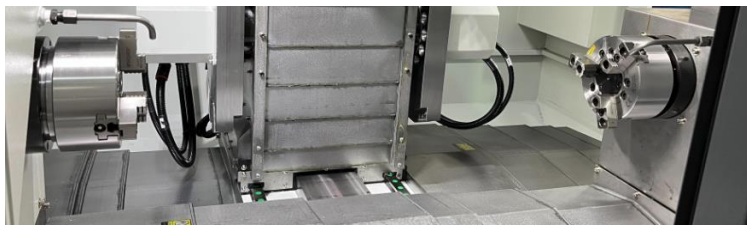
1. Duet 3D PC Touchscreen Control and CS axis with change Harmonic gear + manual chuck	8. Parts catcher
2. Heidenhain angle encoder for CS axis	9. Chain type chip conveyor + Cart
3. Oil skimmer	10. Air conditioner for electrical cabinet
4. Oil & mist collector	11. Tool setter
5. Coolant gun	12. Workpiece measurement
6. Bar feeder	13. Transformer
7. Interface for bar feeder	14. Stabilizer
	15. CE certificate

■ Applications

Create complex workpieces in one machining setup.



■ Pictures of standard accessories.

 Splash guard + Coolant system + screw type chip conveyor with chip tray	 Mitsubishi M830VS, 15" LCD controller system with Yida control panel + fixed MPG	 A2-5 Main-spindle & Sub-spindle
 3-jaw hydraulic chuck (2sets)	 Soft jaw (6pcs/2sets)	 Hard jaws (6pcs/2sets)
 Hydraulic unit	 Foot pedal for chuck	 Work lamps (2pcs)
		
Screw type chip conveyor + chip tray + coolant tank		
 Air blow for chuck (for main-spindle & sub-spindle)	 Oil cooler for milling spindle	



End of program light(three colors)



Tool kits



Air unit and lubricator



Chip flushing system (left side)

■ Pictures of optional accessories



Due 3D PC Touchscreen Control



Air conditioner for electrical cabinet



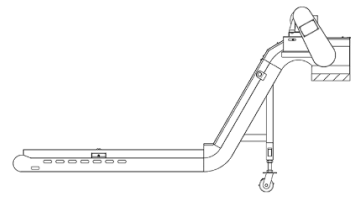
Oil & mist collector



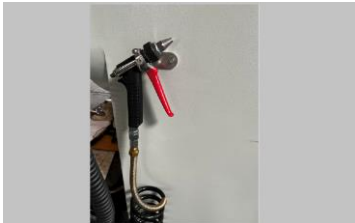
Oil skimmer



Heidenhain angle encoder for CS-axis



Chain type chip conveyor with chip cart



Coolant gun



Renishaw OMP60 workpiece measuring device

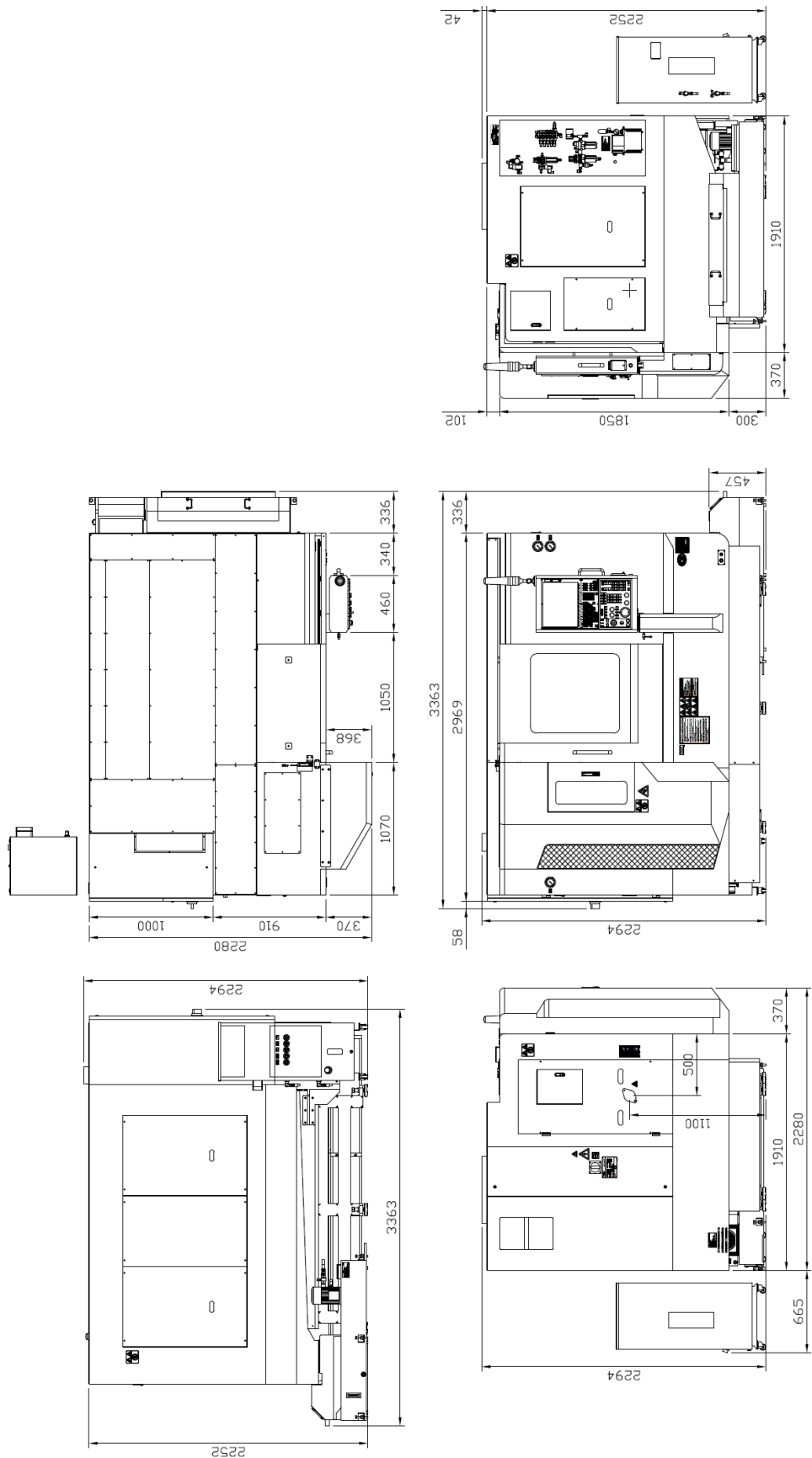


Renishaw TS27R tool setter

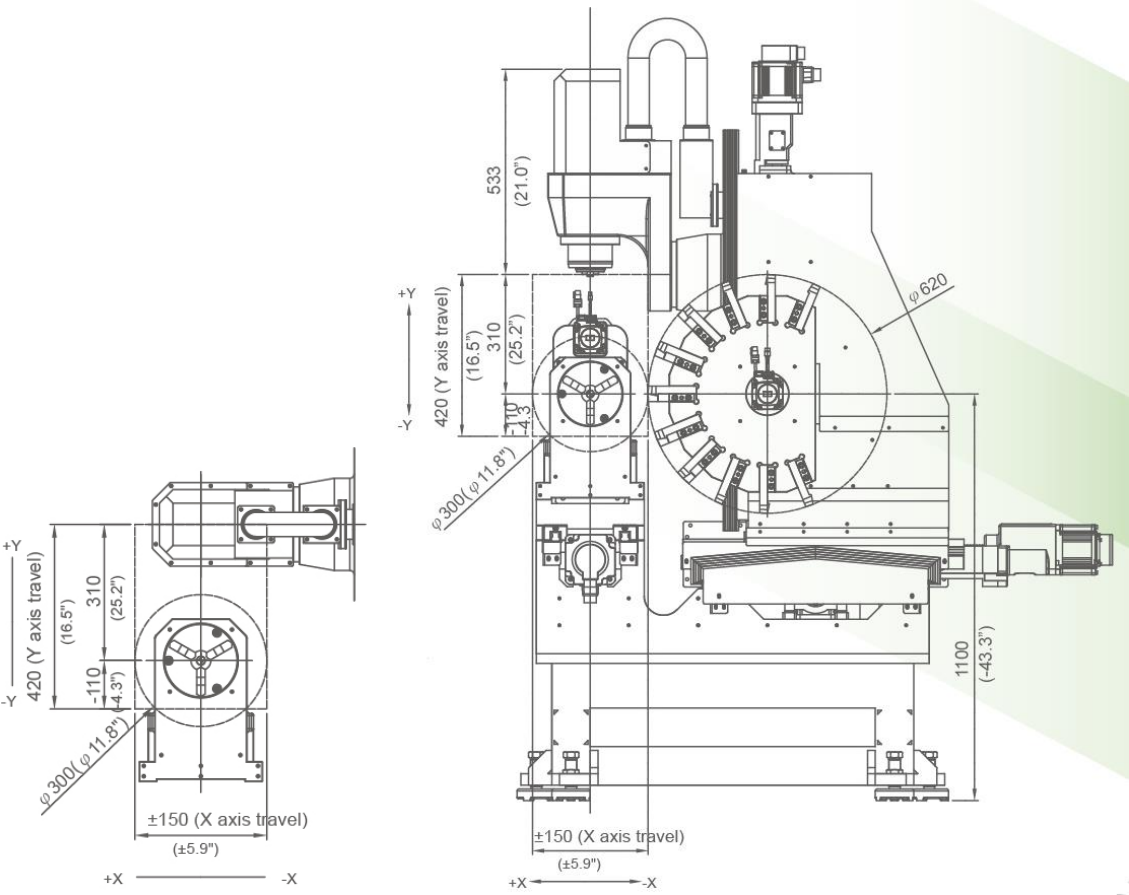
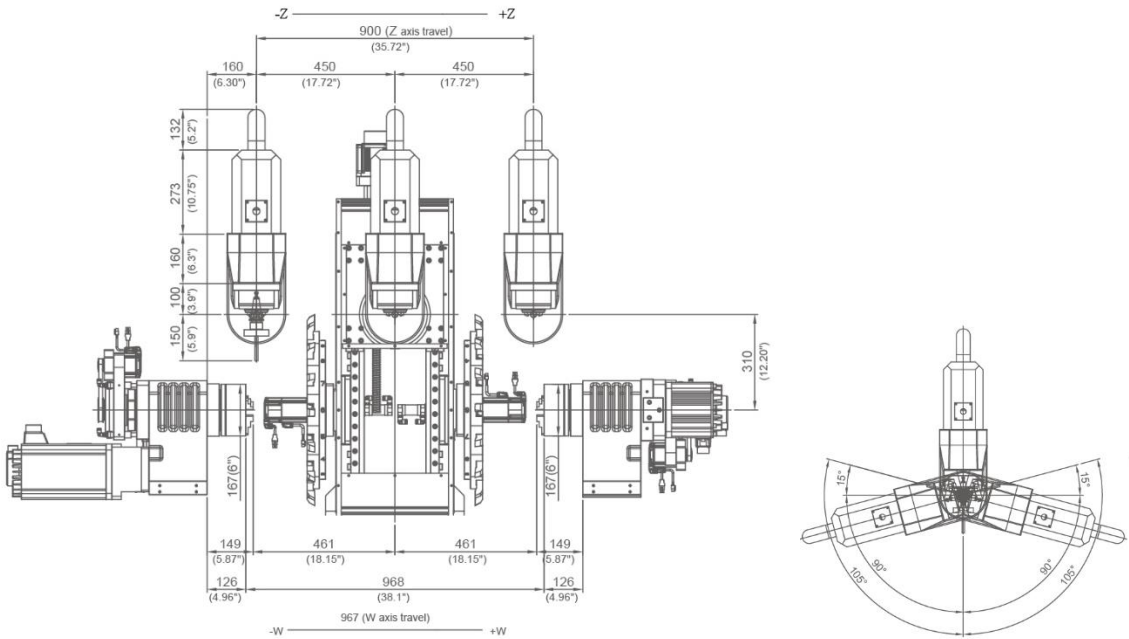
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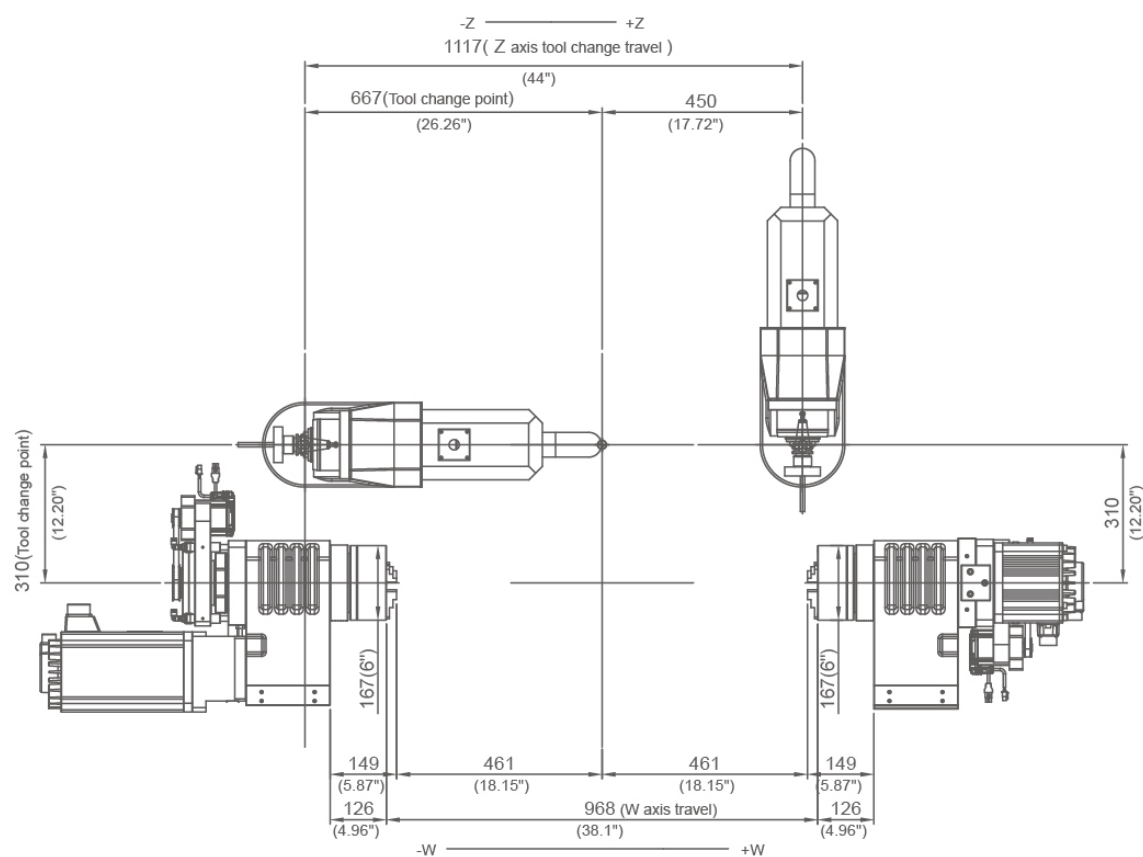
Dimension of machine

MT-900



Work envelope & tool interference diagram





- Machine's pictures reference

View below videos of MT-900

 Making a Full Steel Fork Part $\Phi 65$ S45C cutting

 Making a handguard

