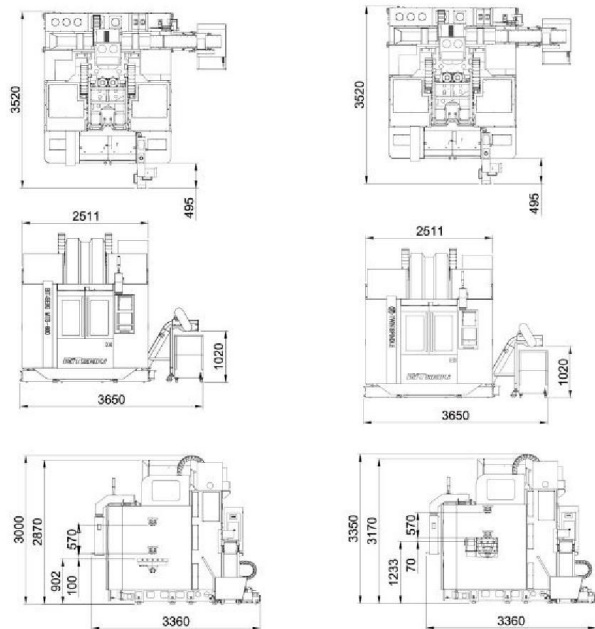




Attentive in-process management, combined with rigorous quality inspection, equates to maximum operational dependability.



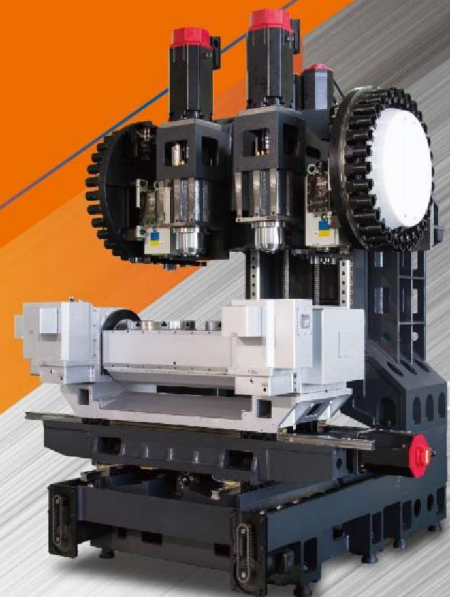
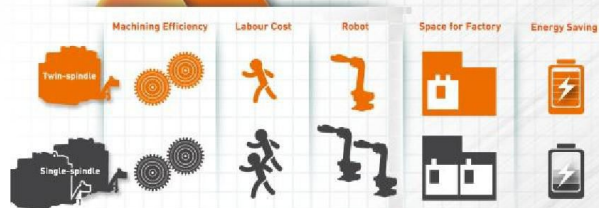
Compact Mechanical Design
Double Profit and Efficiency



Twin-spindle



Single-spindle



MTS-500 . MTS-5A

VERTICAL MACHINING CENTER
Twin Spindle Twin Magazine



INNOVATIVE INVENTION

DOUBLE EFFICIENCY DESIGN

Twin spindle tool can
independence compensation.

Patented

twin-spindle CNC milling machine

Taiwan 1586463

USA 9610668

China 201720114824.0

Germany 202018100217

MTS-500 · MTS-5A

VERTICAL MACHINING CENTER

Twin Spindle Twin Magazine

The **MTS-500** vertical machining center is specially designed with twin spindle and twin magazine (Enclosed cover disk type). It not only creates double machining efficiency and double throughput, but also helps customer to save significant investment costs of machine and labor requirement. In today's competitive business environment, **MTS-500 · MTS-5A** is your right choice for creating competitiveness.



Twin 5-axis

- Twin Spindle
- Twin Magazine
- Double efficiency



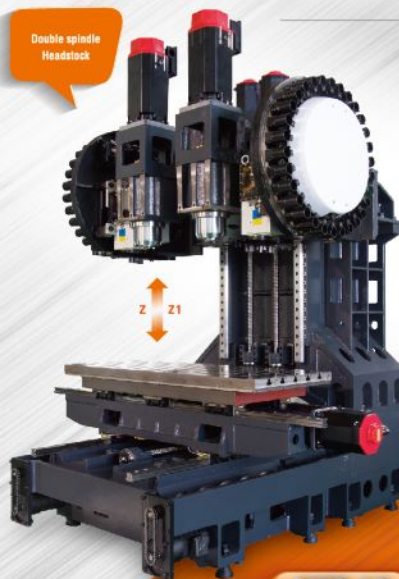
Disk type

- Fast tool change
- T to T 1.5sec with arm type
- The magazine is designed with frequency inverted brake without parts wearing problem.
- Heavy tools are changed horizontally at a low speed for safety.



Touch screen (Opt.)

- Malfunction display
- For reading operation instructions
- Current machining status monitoring function(optional)
- High expandability makes it suitable for flexible machining system.



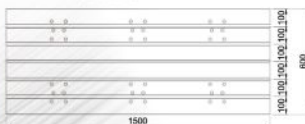
Double spindle
Headstock

TWIN SPINDLE HEADS

- Twin spindles are directly driven by servo motors. (No counterweight)
- Twin spindles can be operated simultaneously.
- Twin spindle can perform tool offset.
- Highly rigid machine structure
- The structural parts of the machine are manufactured from high quality cast iron, featuring high rigidity and no deformation.

MTS-500

Table size



Width of T-slot T

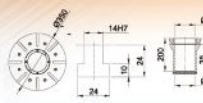


MTS-5A

- Double servo with swing axis
- Driven by non-backlash roller cam



Tool Interference Diagram

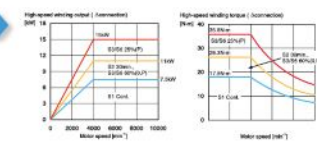
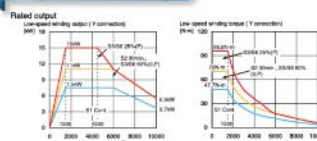


Center-hole diameter



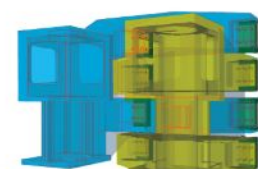
Axial Travel Range

Spindle motor rated output



Roller type linear ways on 3 axes

The X,Y,Z-axis are all mounted with #45 roller type linear ways, featuring outstanding loading capacity and fast and smooth feed.



Design Patent

The patented crossover design of the spindle heads, realizes the large span of the column rail and increases the geometrical rigidity of the structure.

Specification

MTS-500		MTS-5A	
SPINDLE		SPINDLE	
Spindle Speed	10000rpm	Spindle Speed	10000rpm
Spindle Motor Power	7.5~11 kw	Spindle Motor Power	7.5~11 kw
Spindle Taper	BT40	Spindle Taper	BT40
Distance Between Spindles	500mm	Distance Between Spindles	500mm
Inside Diameter Of Spindle Bearing	ø70	Inside Diameter Of Spindle Bearing	ø70
TRAVEL		TRAVEL	
X-axis Travel	500mm	X-axis Travel	500mm
Y-axis Travel	600mm	Y-axis Travel	600mm
Z/Z1-axis Travel	570mm	Z/Z1-axis Travel	570mm
Spindle Nose to Table Surface	100~670mm	A-axis Travel	±110°
TABLE		TABLE	
Table Sizes	1500x600mm	Table Sizes	φ350mm (Single Disk) * 2
T-Slots (No.XWXP)	5x18x100	T-Slots (No.xW)	8X14 (Single Disk) * 2
Max. Table Load	700kg	Max. Table Load	150kg(Single Disk) * 2
FEED		FEED	
Rapid Traverse Rates On X/Y/Z/Z1-axis	36 / 36 / 30 / 30 m/min	Max. Cutting Force	Disk Surface Positive Force 1800 kg
Cutting Feed Rate	1~20000 mm/min	(when A, C-axis is Clamped)	Disk Surface Axial Force 230kg-m
Servo Motor Power On X/Y/Z/Z1-axis	4 / 4 / 7 / 7 kw		Disk Surface Radial Force 115kg-m
Ball Screw Specification	ø40 * P12		Allowable Cutting Torque 80kg-m
Linear Guide Way Specification	45mm		230/115kg-m
AUTO TOOL CHANGER		AUTO TOOL CHANGER	
No. Of Tools	24+1(T) (30+1T)	A, C-axis Max. Locking Force	
Tool Weight	7kg	FEED	
Max. Tool Size	ø75	Rapid Traverse Rates On X/Y/Z/Z1-axis	36 / 36 / 30 / 30 m/min
Max. Tool Size (without adjacent tool)	ø150	Max. Speed On A, C-axis	16.6/25 rpm
Max. Tool Length	300mm	Cutting Feed Rate	1~20000 mm/min
Tool Change Method	Arm Type	Servo Motor Power On X/Y/Z/Z1/A/C-axis	4 / 4 / 7 / 7 / 2.7 X 2 / 3 kw
Tool Selection	Random Memory	Ball Screw Specification	ø40 * P12
Tool Change Time (T-T)	1.5 sec	Linear Guide Way Specification	45mm
MACHINE DIMENSIONS / WEIGHT / OTHERS		MACHINE DIMENSIONS / WEIGHT / OTHERS	
Space Occupied	3650(W) x 3520(D) x 3000(H)mm	No. Of Tools	24+1(T) (30+1T)
Net Weight Of Machine	8400kg	Tool Weight	7kg
Air Pressure Required	7kg/cm ²	Max. Tool Size	ø75
Power Source Required	45KVA	Max. Tool Size (without adjacent tool)	ø150
		Max. Tool Length	300mm
		Tool Change Method	Arm Type
		Tool Selection	Random Memory
		Tool Change Time (T-T)	1.5 sec
		MACHINE DIMENSIONS / WEIGHT / OTHERS	
		Space Occupied	3650(W) x 3520(D) x 3350(H)mm
		Net Weight Of Machine	9500kg
		Air Pressure Required	7kg/cm ²
		Power Source Required	50KVA

STANDARD EQUIPMENT

- Tool Box
- Working Lamp / Fluorescent Lamp /
- Warning Lamp
- Coolant System
- Fully Enclosed Splash Guard
- Spindle Air Blast
- Air Curtain For Spindle
- Coolant Jets Around Spindle
- Spindle Side Coolant
- Spindle Side Air Blast
- Automatic Lubrication System
- Guard on 3 Axes

OPTIONAL EQUIPMENT

- Safety Door Lock
- CE
- Automatic Front Door
- Linear Scale
- Spindle Oil Cooler
- Oil Mist Collector
- Coolant Through Spindle (20~70bar)
- Coolant Through Tool Holder
- Chip Conveyor
- 4th-axis Rotary Table
- Tool Length Measurement Device
- Workpiece Measurement Device
- Oil Mist Coolant System
- Column Raised by 300mm (MTS-600 only)
- Oil Fluid Separator
- Touch Screen