

MT-500

Five Axes Mutli-function Machine



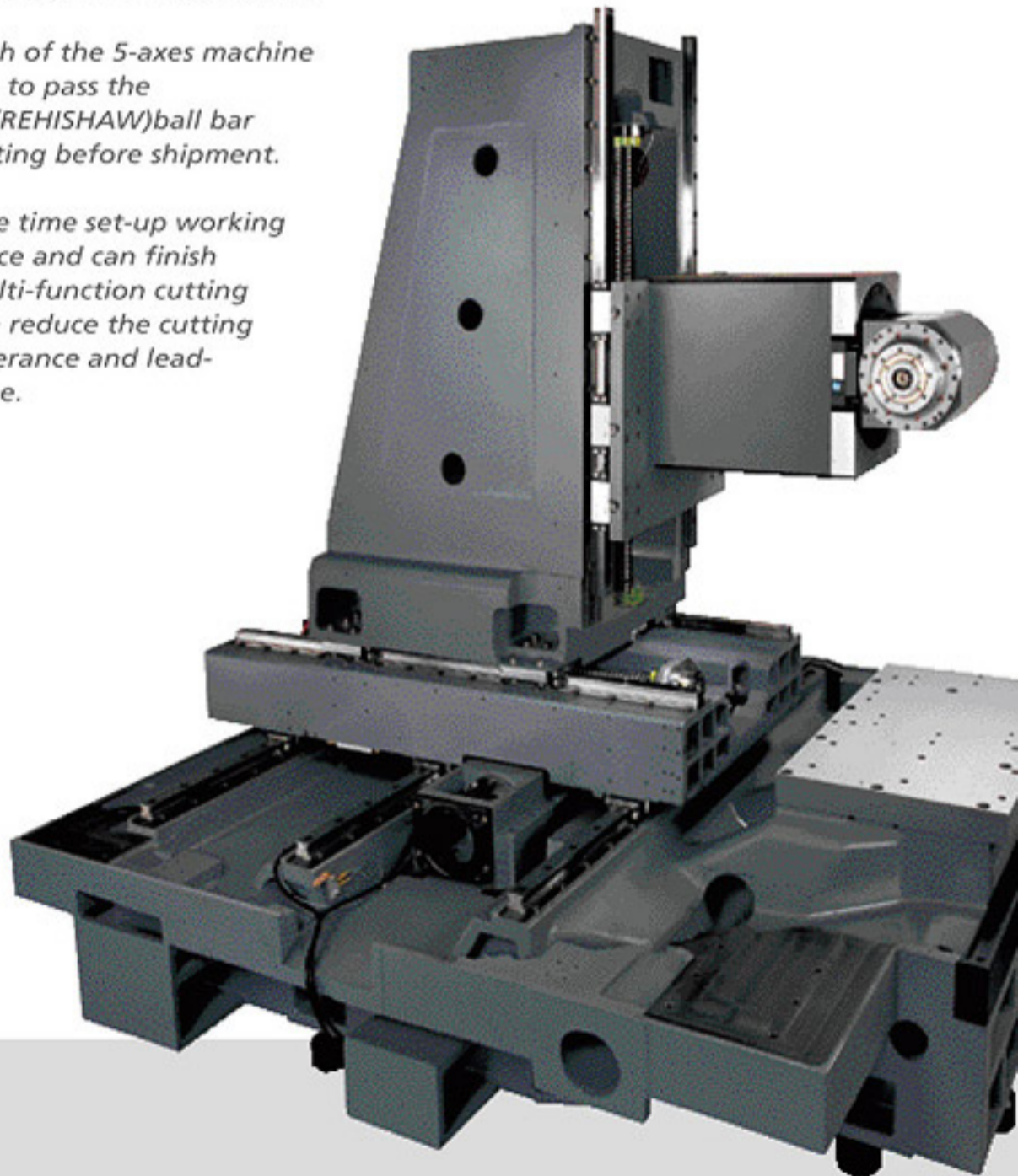
Swiveling Control Box
The 2-way swiveling control box provides easy access to CNC control at different operator positions.

MT-500

Five Axes Multi-function Machine

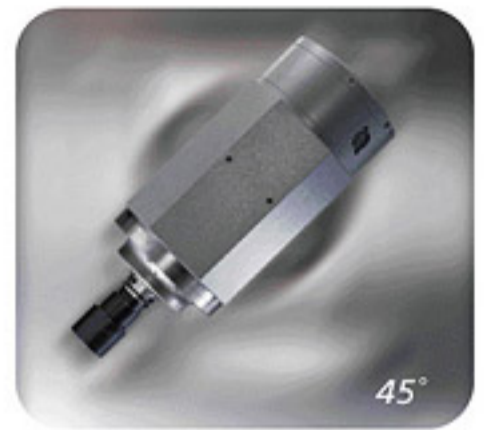
The Feature of the MT-500

- The machine is fully enclosed with splash guard and way covers. It is the green design that can recycle the cooling water and reuse the cooling and avoid people into the wrong and dangerous place.
- It is a machine with stability and accuracy. The positioning accuracy is within P0.02/1000 mm (VDI) for 3-axes.
- It is the machine without counter balance and with high respond.
- The cooling oil is circulated through ball screws for thermal control of the linear axes. The cooling oil is also circulated around the spindle to help control tool point accuracy.
- The machine with CAD/CAM edit on NURBS perfect curved backlash.
Can easy operator in the job shop.
- High rigidity whole body base can offer X & Y axes with high positioning accuracy when rapid travel.
- Each of the 5-axes machine has to pass the do(REHISHAW)ball bar testing before shipment.
- One time set-up working piece and can finish multi-function cutting can reduce the cutting tolerance and lead-time.

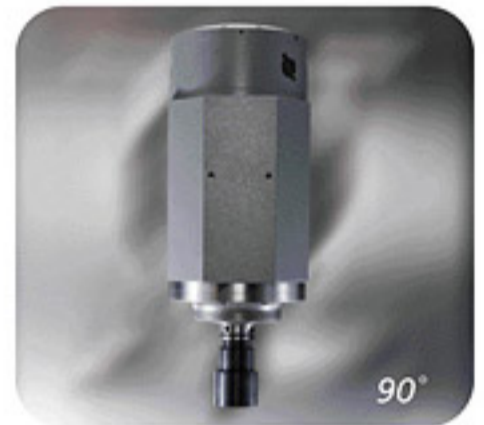


High Quality Assurance

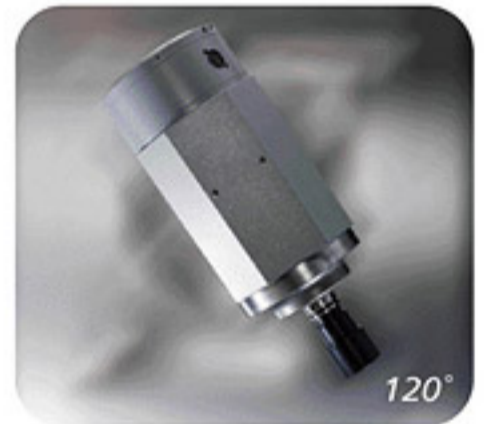
• Tool Change



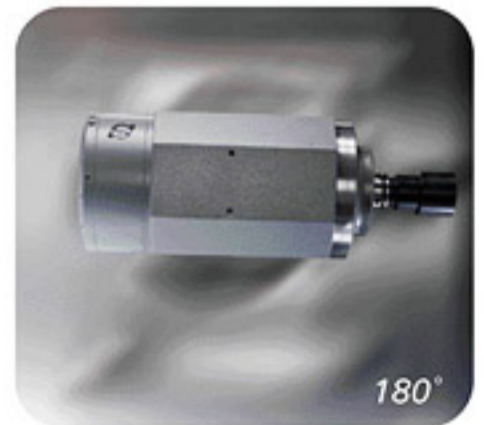
45°



90°



120°



180°



230°



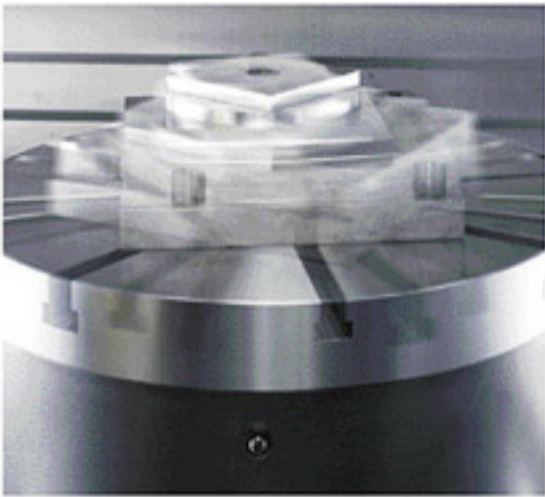
a.) Coolant Through Ball Screw



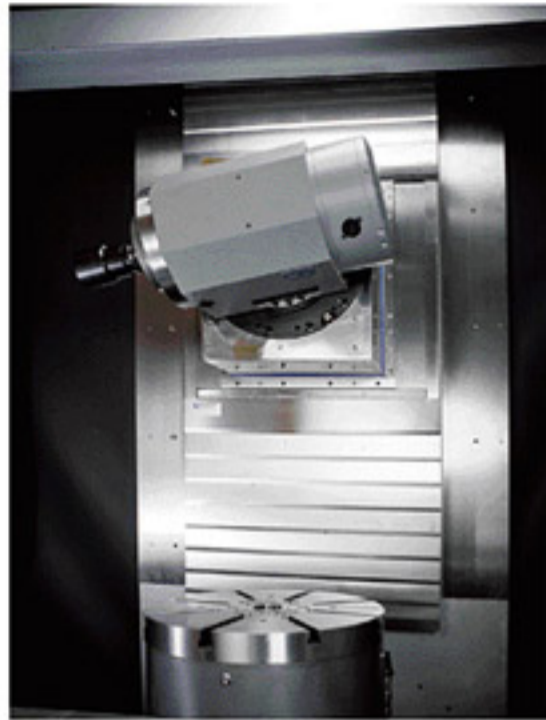
a.) Directly Coupled Servo Motors

a) The servo motors are connected to the ball screws with rigid shaft couplings. These couplings ensure that even under severe loading from sharp machining, precise interpolation is achieved. This design is superior to both belt driven and flexible shaft coupling designs (with pretension).

b.) Cooling oil is circulated through the three axes ball screws. Ball screws are pre-tensioned and combined with the use of double-nuts to reduce thermal strain and keep backlash to a minimum. Extremely smooth motion is assured, even under rapid traverse of 32 meters per minute.



c.) C Axis



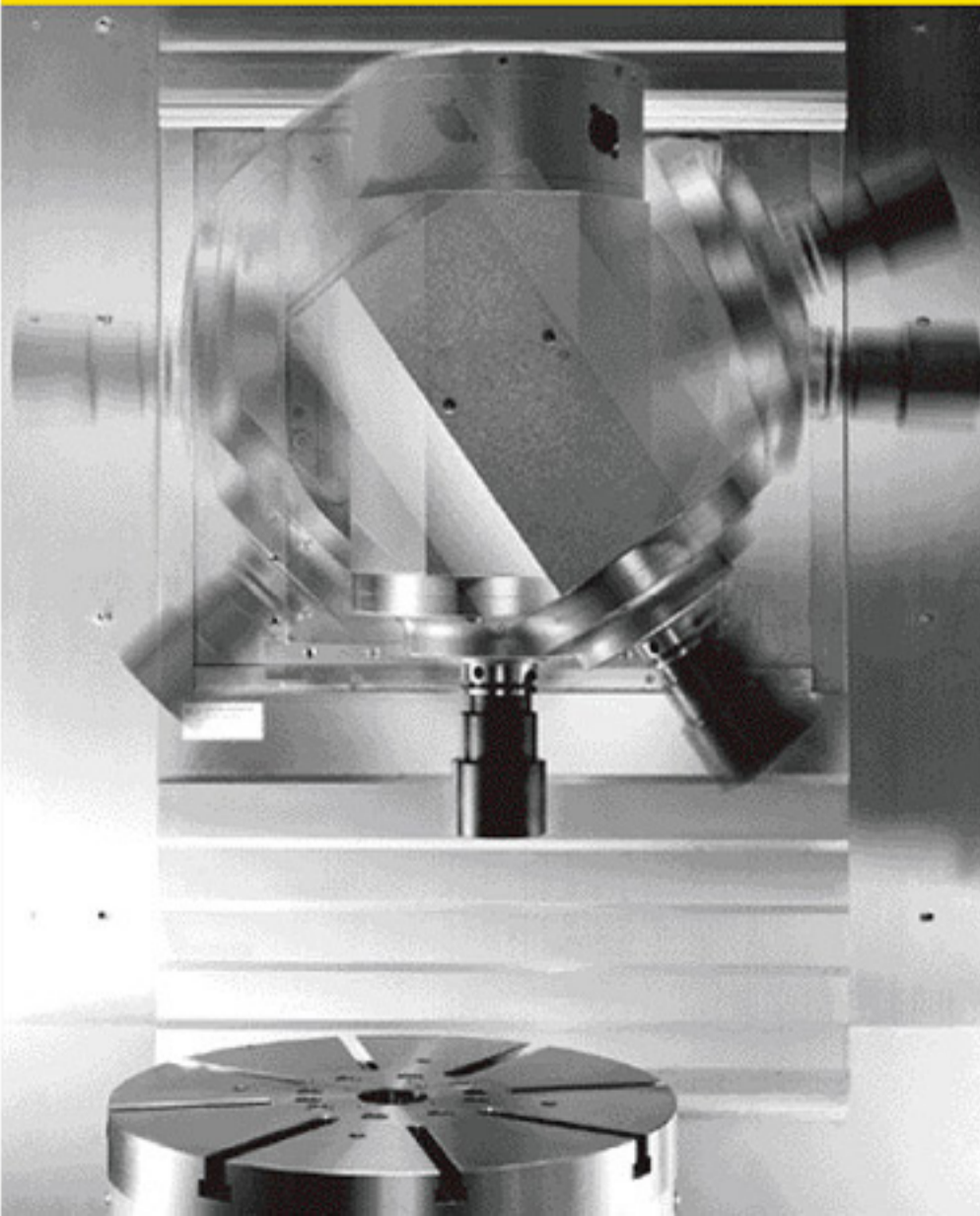
d.)



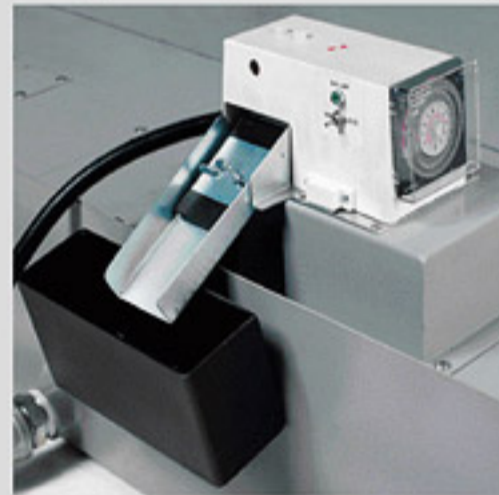
• ARM Type ATC 32 Tools

- c.) In the one machine can do a turning for $\phi 450$ working piece with 450 rpm, $\phi 450$ working piece with 5-axes curved surface cutting, $\phi 450$ working piece high speed cutting or 400x400, 5 faces drilling job.
- d.) The load and un-load area is different with cutting area, when machine is cutting you can doing load and un-loading job, it can increase the efficiency and accuracy for the cutting.

■ B axis travel 240° (-10°~+230°)



High Productivity (Options)



e.) Spindle Probe (option)



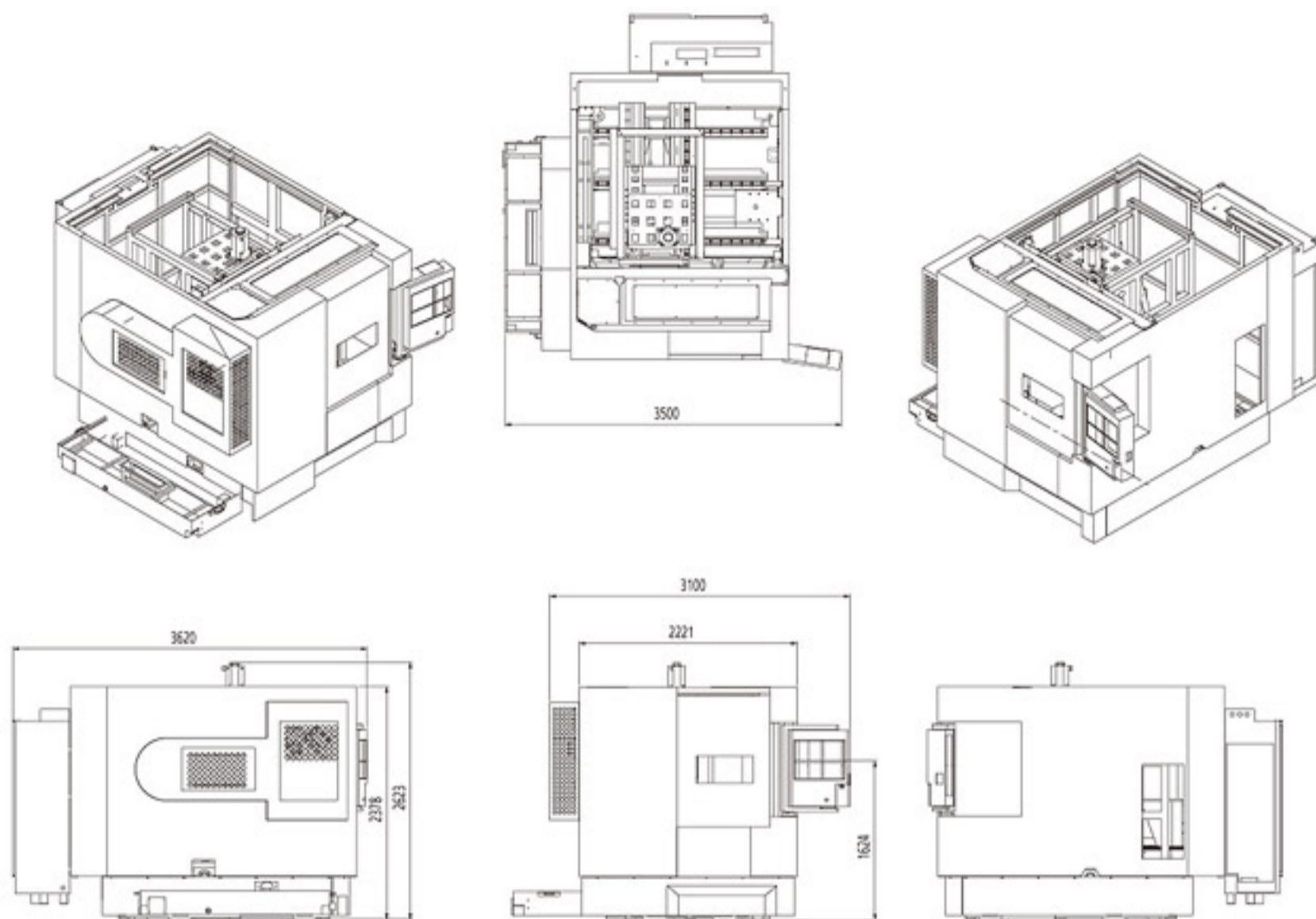
f.) Oil Skimmer (option)

- e) LEADWELL's spindle probe option uses a spindle probe and custom macros. This option simplifies workpiece setup by automatically storing work offsets to the machine offset register. The spindle probe option, in conjunction with macro programs, is capable of performing rapid first part inspection, in process reporting, and unmanned machining operations.

- f) Designed for collecting the oil dust in the coolant tank for reclamation and meeting environmental protection requirements.

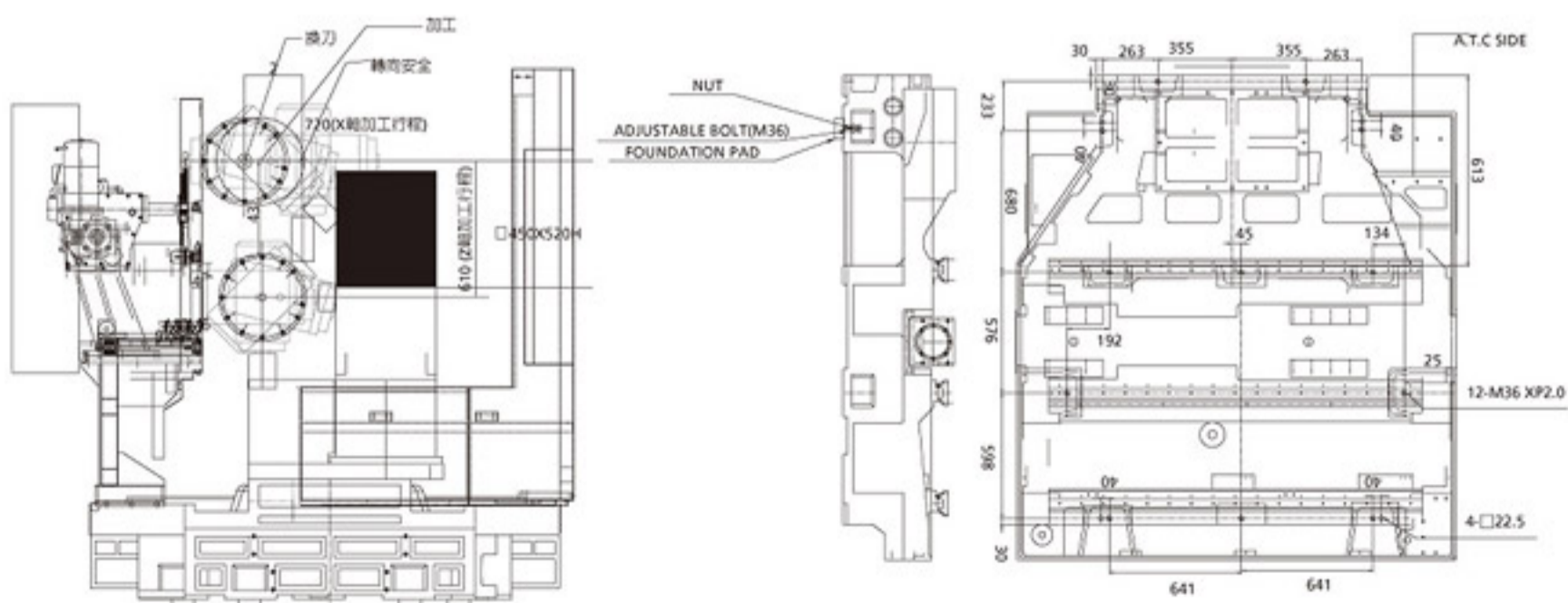
MACHINE DIMENSIONS

Unit:mm



FOUNDATION DRAWING

Unit:mm



MACHINE SPECIFICATIONS

ITEM	MODEL	MT-500
CAPACITY		
	Unit	
X axis travel	mm(in)	720
Y axis travel	mm(in)	500
Z axis travel	mm(in)	610
B.C-axis travel	degrees	240° (-10° ~ +230°)/360°
PALLET (TABLE)		
Size of working surface 3D	mm(in)	ø450X520
Permissible mass of workpiece	kg(lbm)	400
SPINDLE		
Spindle speeds	min ⁻¹	12000RPM
Spindle nose (nominal size, NO.)		HSK-63
Max. spindle torque	N.m (ft.lbf)	103
FEEDRATE		
X,Y/Z Rapid traverse	m/min (ft/min)	32/28
Rapid traverse	R.P.M	30/450
A.T.C		
Tool shank (nominal size, NO.)		HSK-63
Tool storage capacity		32
Max. tool diameter (with adjacent tools)	mm(in)	80
Max. tool diameter(without adjacent tools)	mm(in)	125
Max. tool length	mm(in)	200
Tool change time (tool to tool)	sec	1.8
Tool change time (chip to chip)	sec	4
POWER SOURCES		
Electrical power supply	KVA	65
Hydraulic oil tank	ℓ	400
Coolant tank	ℓ	350
MACHINE SIZE		
Floor space	mm (in)	3320 x 3800 x 2700
Mass of machine	Kg (lb)	11500
MISCELLANEOUS		
Positioning accuracy	mm	±0.005
Repeatability	mm	±0.005

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※ All performance are based on 220V/3PH/60HZ. Specification are subject to change without notice.

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