

Trust & Technology

**ABSOLUTE
MACHINE TOOLS**



Tongtai



Absolute

2012.02.01 Design by Tongtai Machine & Tool Co., Ltd

ULTRA-HIGH PERFORMANCE! EXCEEDING EXPECTATIONS!

TMV-720A

Rigid and compact structure design. X/Y/Z axis rapid traverse reaches 48 m/min. With various spindles, The TMV-720A allows different machining applications.

- ▶ TMV-720A is designed for high speed machining. The high speed 40 taper spindle with integrated spindle cooler allows long-term accurate machining. (Coolant through spindle optional)
- ▶ Long-neck type spindle decreases the interference range with 4th axis table. Furthermore, high rigidity machine structure ensures excellent positioning accuracy during high speed and precision machining.
- ▶ Arm type rapid automatic tool changer shortens the tool changing time and increases productivity.



Machine structure

Stroke (X/Y/Z axis):

720/480/530 mm
28.34/18.89/20.86 inch

Rapid traverse (X/Y/Z axis):

48/48/48 m/min

Wide Span Column

1140 mm
44.88 inch

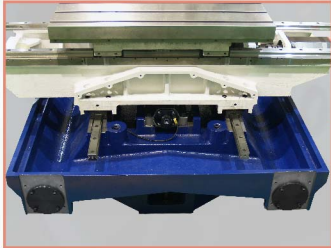
Chip-proof
telescopic cover



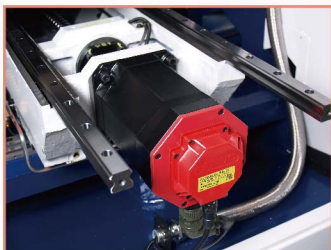
Ball screw &
rigid linear guide way



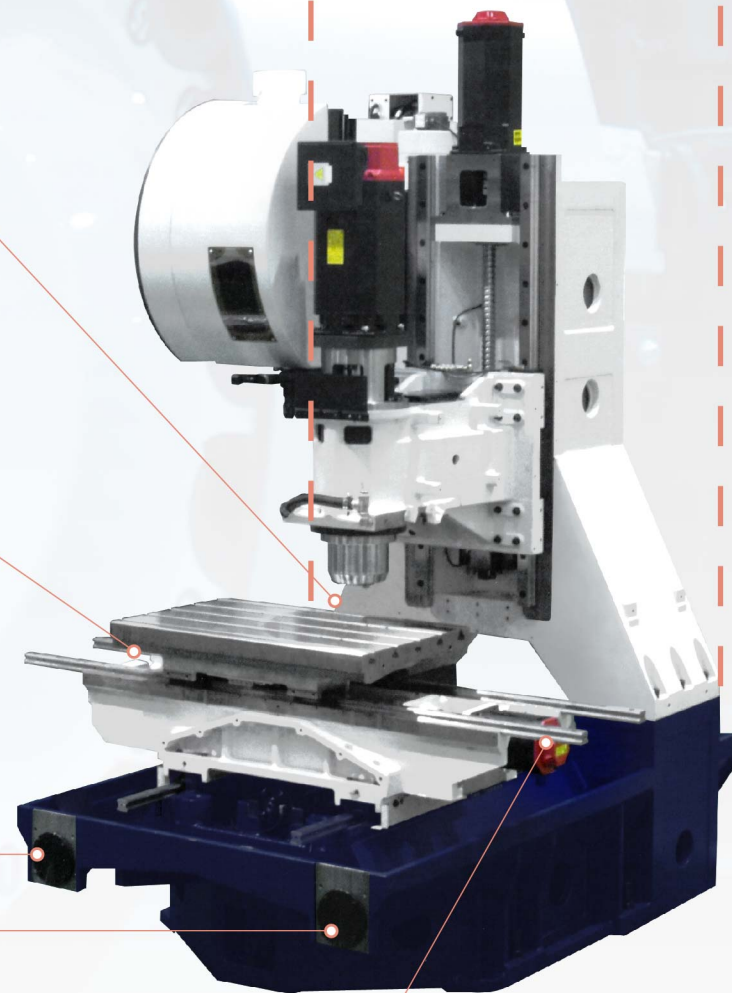
Dual-chip disposal design



Servo motor

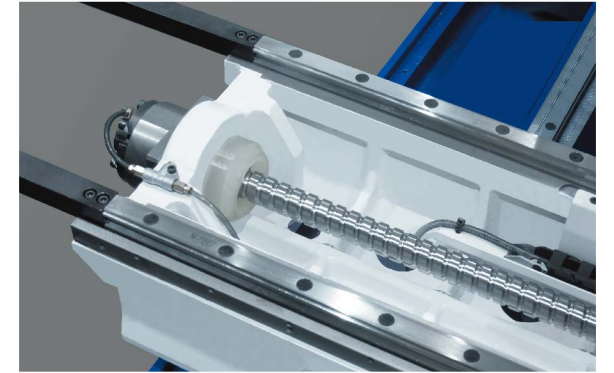


The servo motors are directly coupled with the ball screws. Rapid traverse reaches 48 m/min on all three axes.



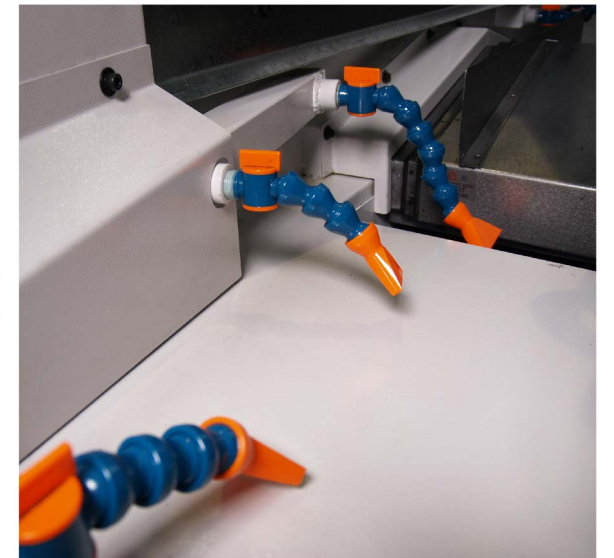
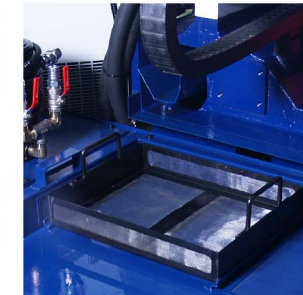
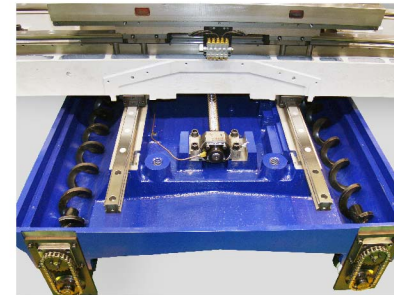
Ball screw preloaded

The preloaded ball screw reduces thermal distortion and ensures the machine's continuous performance and precision.



Chip removal design

Excellent dual-track chip disposal design with flushing system improves chip flow. The optional chip augers speed up the chip disposal and decrease the cleaning time.



Ergonomic design

The ergonomic design facilitates the operator in monitoring the production process during program editing. It reduces mistakes and improves the working efficiency.



Spindle

Belt type

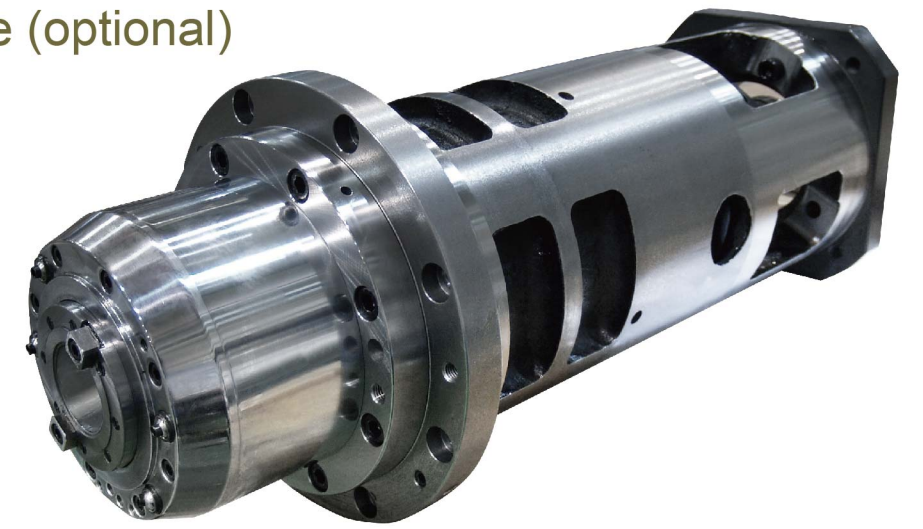
Standard
Belt type : **8,000** rpm

Optional
Belt type : **10,000** rpm



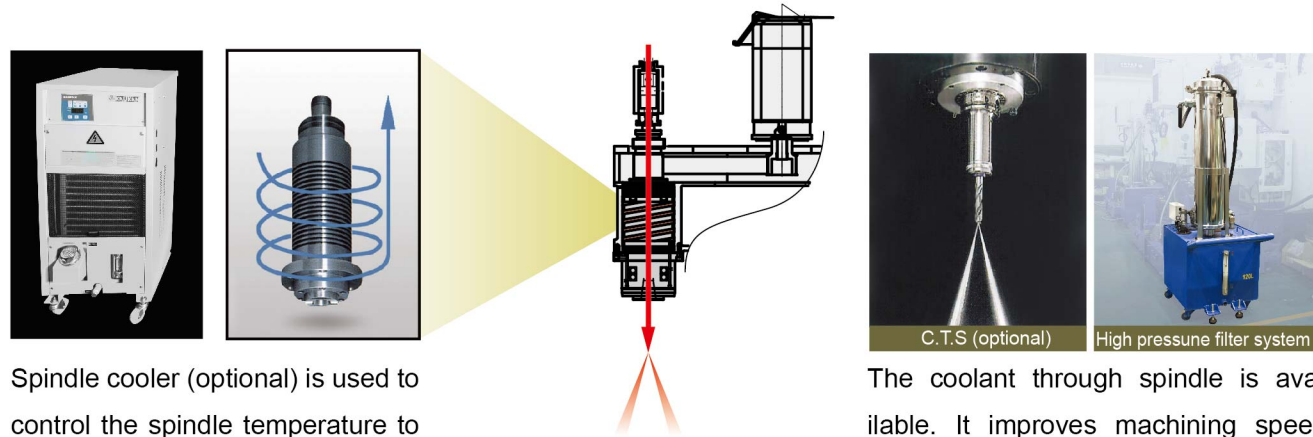
Direct-drive type (optional)

Optional
Direct-drive type :
10,000 rpm



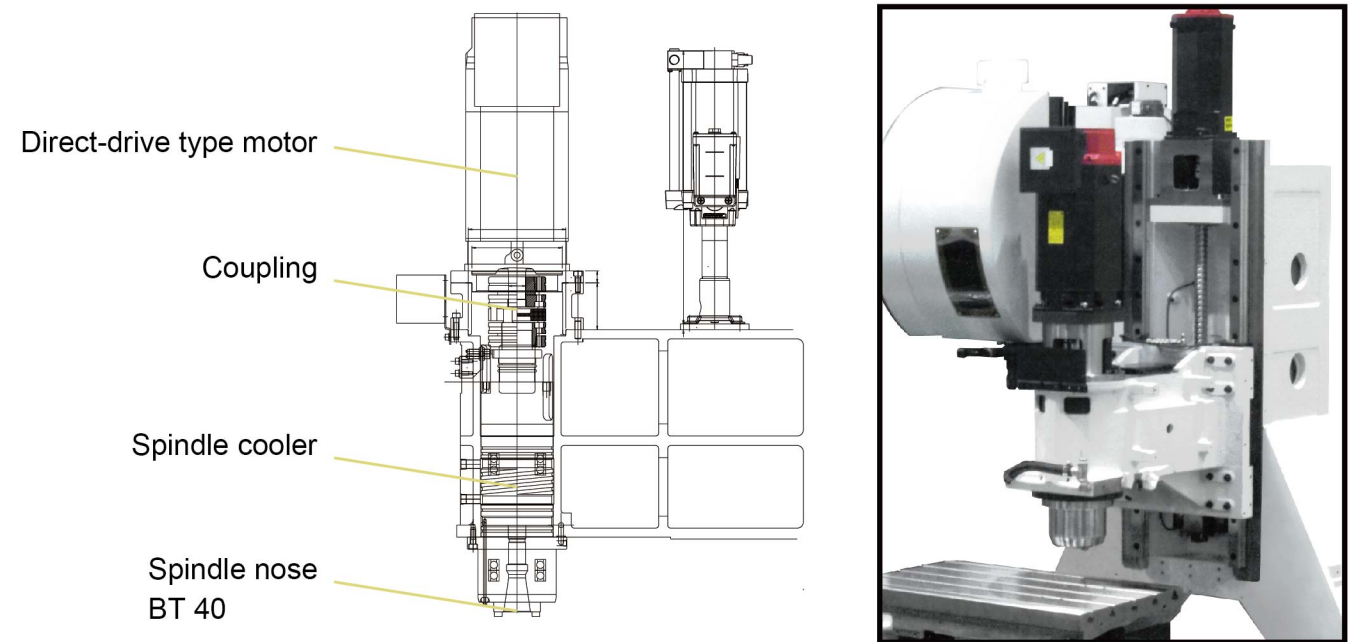
Belt type spindle (optional coolant through spindle)

- Spindle is connected with motor by belt

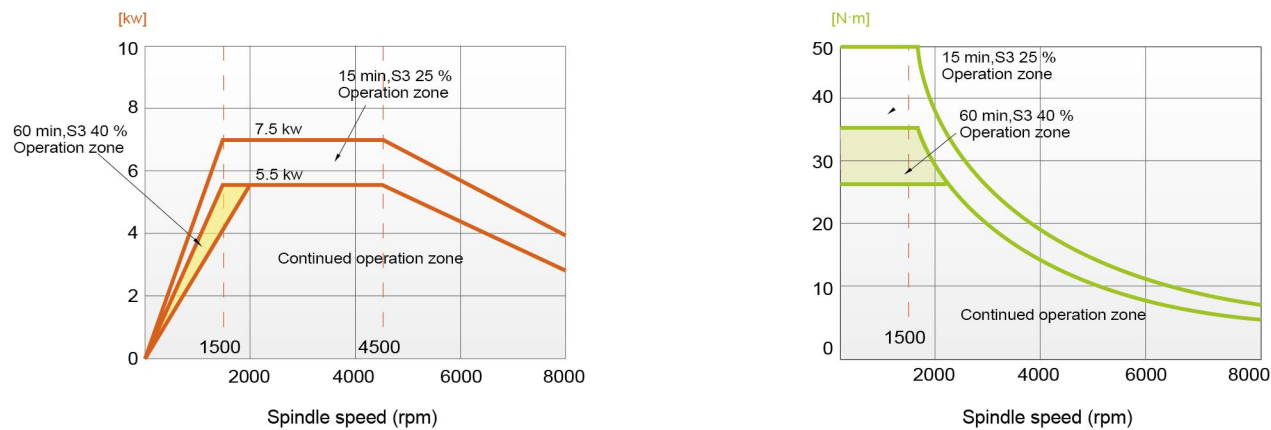


Spindle cooler (optional) is used to control the spindle temperature to match the machine temperature. This prevents the spindle from overheat, thus minimizing thermal distortion.

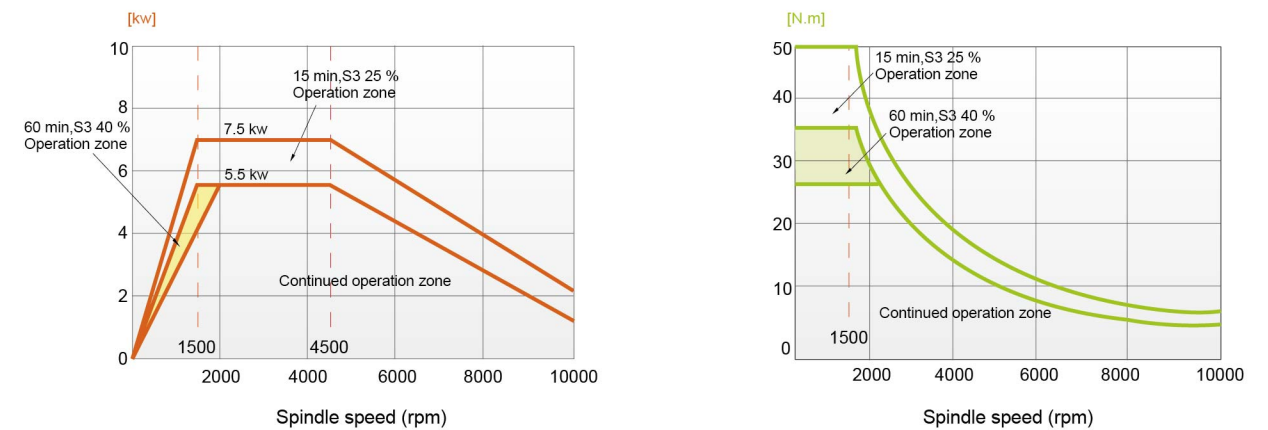
The coolant through spindle is available. It improves machining speed and extends the tool life. Moreover, it allows efficient metal chip removal during deep hole machining and improves the workpieces' precision.



Spindle output and torque chart Standard-8000 rpm



Spindle output and torque chart Optional-10000 rpm



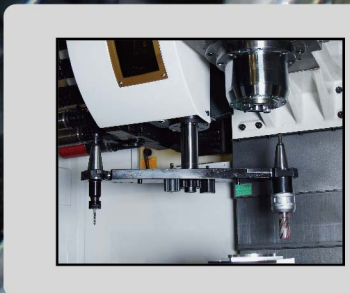


Automatic Tool Changer

Tool capacity **24** tools

Tool changing time T to T : **3.0** sec

C to C : **4.0** sec



The maximum capacity of tool magazine is 24 tools. It uses an arm type rapid tool changer to shorten idle time and achieves the goal of high efficiency machining.

Table

Table size

800×480 mm

34.49×18.89 inch

Working area (L×W×H)

720×480×530 mm

28.34×18.89×20.86 inch

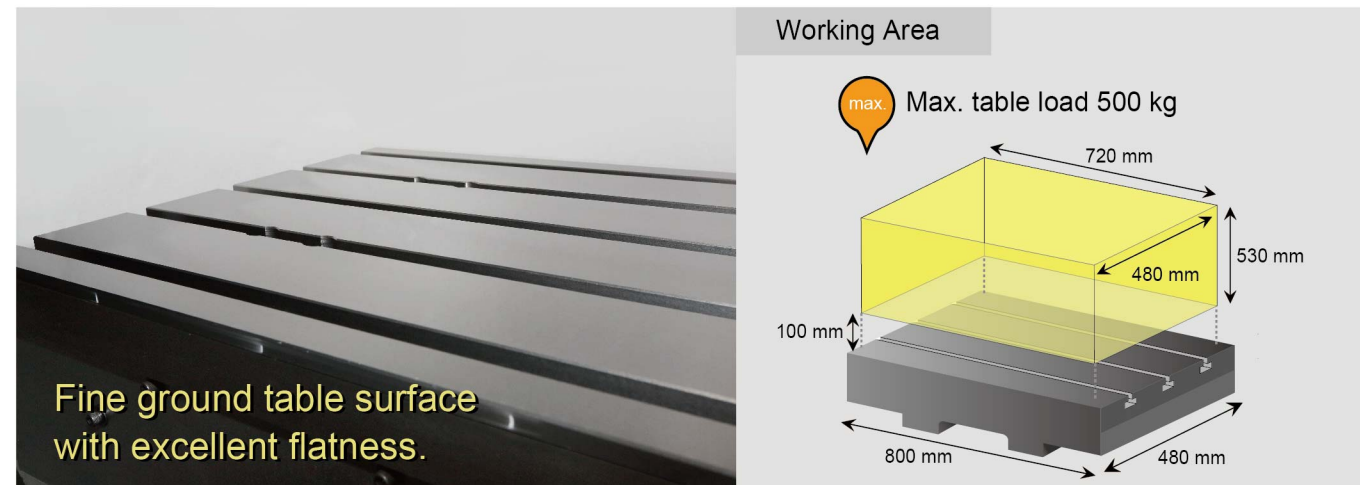
Maximum table load

500 kg

Table height from floor

900 mm

35.43 inch



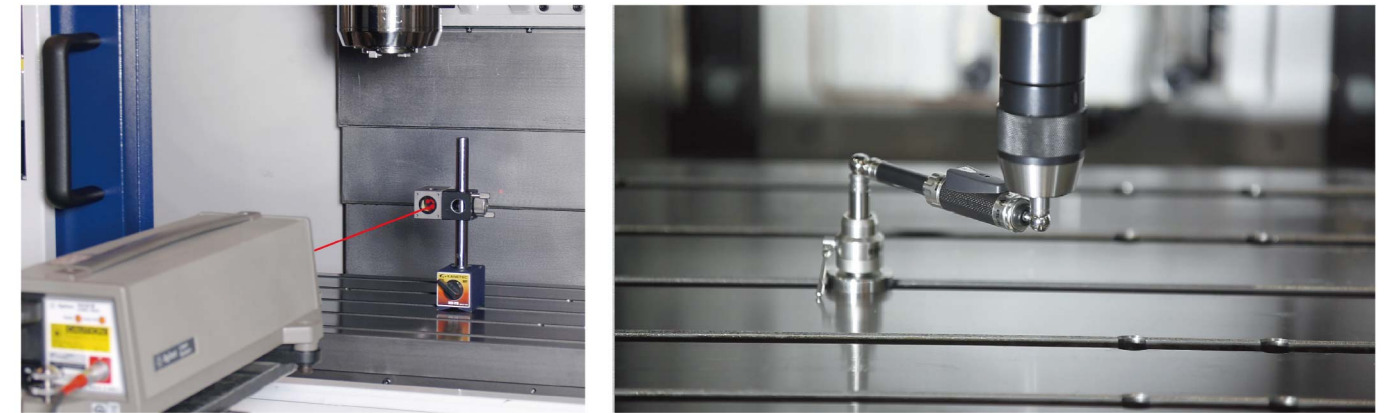
Ergonomic operation

Friendly machine design provides the operator with an ergonomic operation environment by door opening width 800 mm. The height of table from floor is 900 mm and the minimum distance from the table to the front guard is only 185 mm.



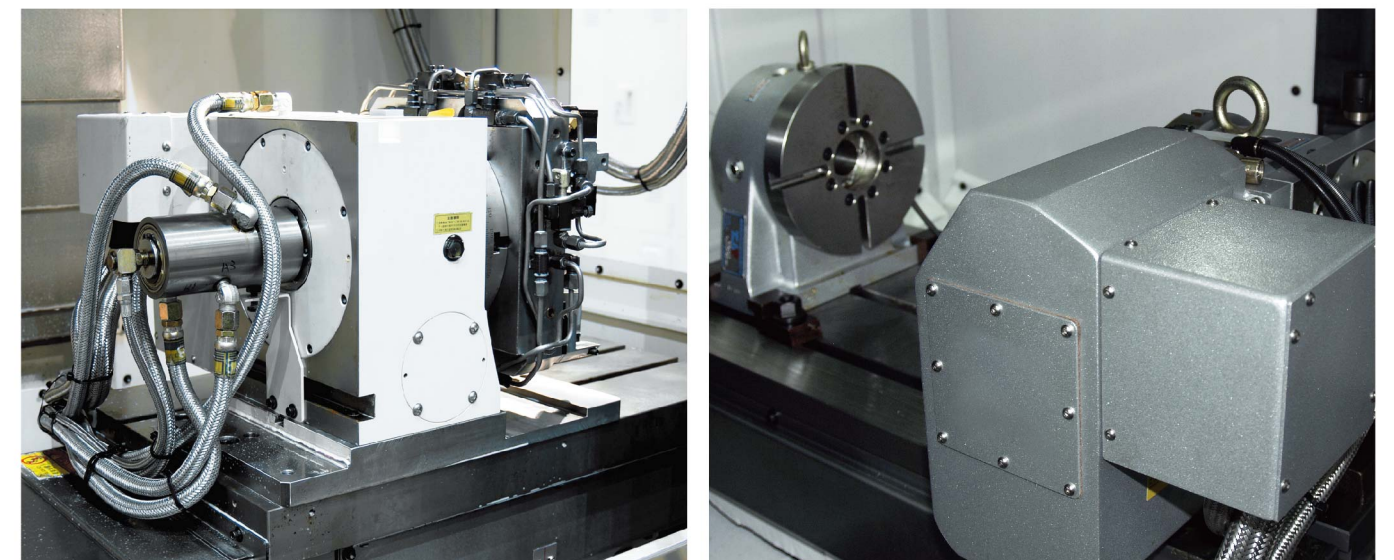
Unit : mm (1 inch = 25.4 mm)

Precision testing



For assuring assembly precision, Tongtai not only sets internal controls through standard operating procedures, but also has established self-checking lists for each machine assembly. Engineers can follow the lists to enforce setting and testing tasks for approving the quality of products.

Customization (optional)



With an excellent R&D team, Tongtai is able to offer customization with optional solutions.

Examples of application



Specification

Optional accessories

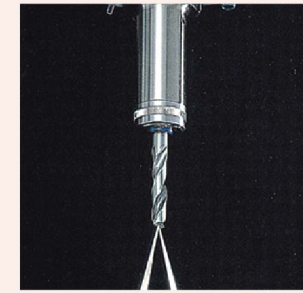
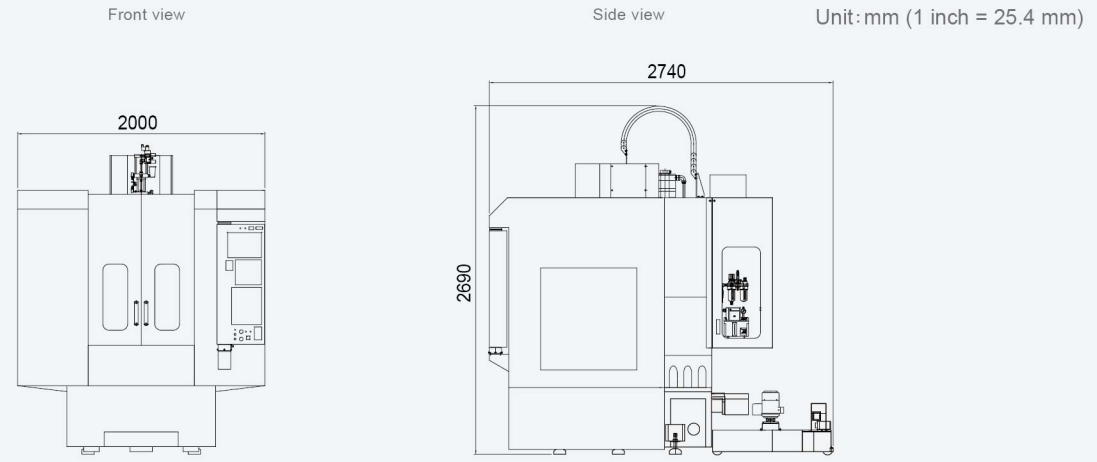


TMV-720A

Item	Specification	Unit	TMV-720A
Table	Table size (L×W)	mm (inch)	800×480 (31.49×15.74)
	Max. table load	kg	500
	Table height from floor	mm (inch)	900(35.43)
	T-slot (size × No.)	mm (inch)	18×5 (0.70×5)
Spindle	Spindle taper		7/24 Taper No.40
	Spindle speed	rpm	8000 (opt. 10000)
Stroke	X/Y/Z axis stroke	mm (inch)	720/480/530 (28.34/18.89/20.86)
	Spindle nose to table	mm (inch)	100-630 (3.93-24.80)
Feed	X/Y/Z axis rapid traverse	m/min	48/48/48
	Cutting feedrate	mm/min	1-10000
ATC	Tool shank		BT-40
	Tool capacity	pc	24
	Max. tool diameter	mm (inch)	Ø80 (Ø3.14)
	Max. tool diameter (w/o adjacent tool)	mm (inch)	Ø125 (Ø4.92)
	Max. tool length	mm (inch)	250 (9.84)
	Max. tool weight	kg	7
Motors	Spindle motor (50% ED)	kw	7.5/5.5
	X/Y/Z axis servo motor	kw	1.8/1.8/3.0
	Coolant motor	kw	0.55
Controller			FANUC 0i-M (opt. 31i)
Machine size	L×W×H	mm (inch)	2740×2000×2690 (107.87×78.74×105.90)
	Weight	kg	4400

© SPECIFICATIONS MAY BE CHANGED WITHOUT PRIOR NOTICE

• TMV-720A



Coolant through spindle



Spindle cooler



4th axis



Tool breakage detector



Oil skimmer



Chip conveyor



Tri-color warning light



Oil mist collector



Coolant gun



A/C for electrical cabinet



Transformer



Sub-operation box

Your best partner for metal-cutting total solutions



Tongtai emphasizes providing an excellent investment strategy to our clients with high cost-performance ratio. We give our customers supreme machine performance with reasonable prices.

Our management team and the members of all five of its departments will ceaselessly search for innovative solutions for your processing needs. All your sales and after sales concerns will be satisfied! That means, when you purchase our machines, the service never stops!

Our company slogan "Trust & Technology" is always backed with passion for our product improvements and responsibility for our service to you.



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