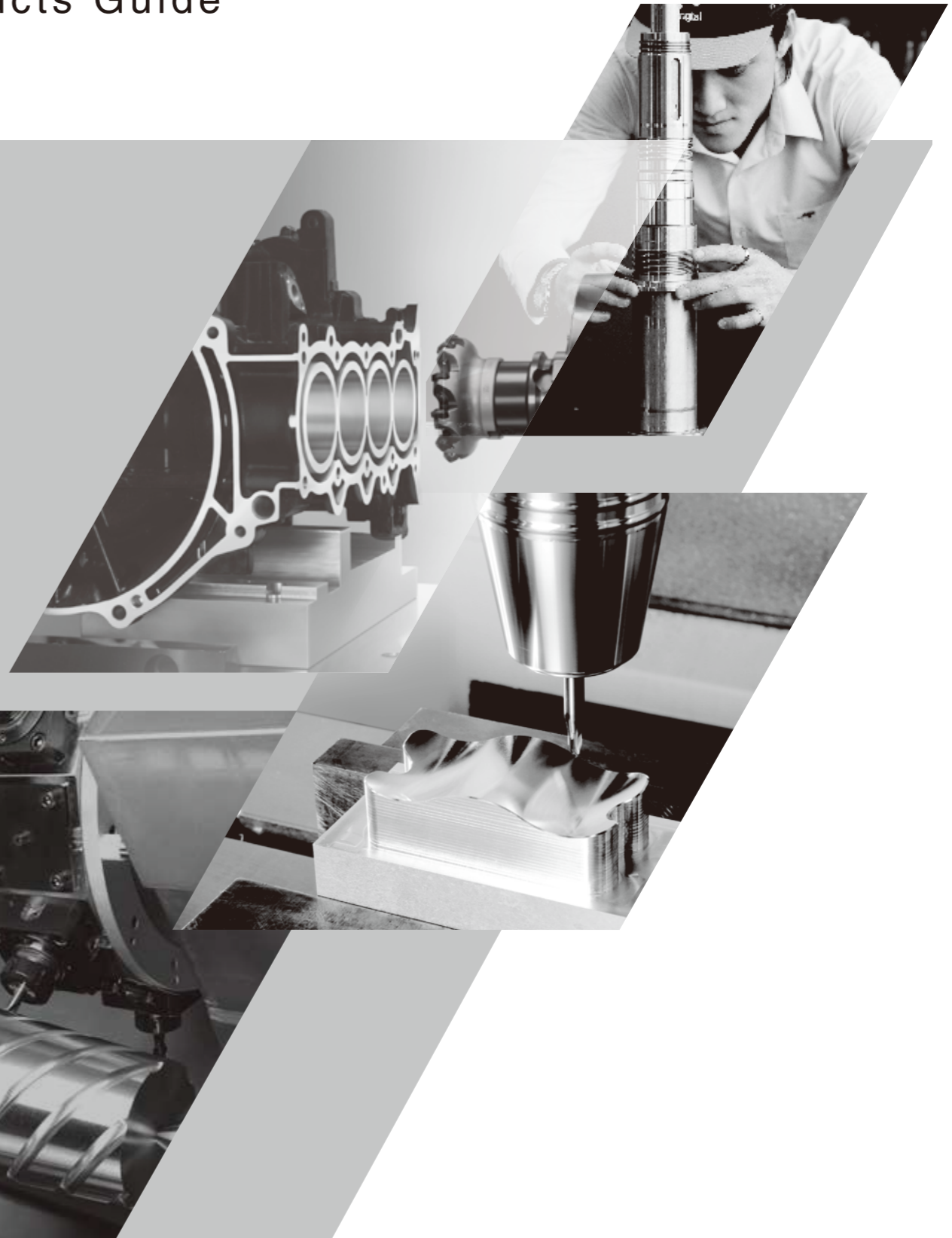


# TONGTAI

## Products Guide



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## Tapping Center

Specification	Unit	EZ-5II	EZ-7II
Table size(LxW)	mm	600x400	850x400
Max. loading capacity	kg	300	
X/Y/Z axis travel	mm	510/400/300	710/400/300
X/Y/Z axis rapid traverse	m/min	60/60/60	
Spindle taper		7/24 Taper No. 30	
Spindle speed	rpm	12,000 (24,000)	
Spindle motor	kW	5.5/3.7 (3.7/1.5)	
Tool capacity	pc	21	

### EZ-II Series

- Equipped with high speed tool changer, reducing the T-T time to 1.2 sec.
- Tool magazine is driven by servo motor, saving the time in tool selection.
- The spindle is driven by DD motor, allowing high acceleration/deceleration reactivity and rigid tapping achieves 6,000rpm.
- 3-axes rapid traverse up to 60m/min with acceleration up to 1.2G.
- Max spindle speed up to 24,000rpm.



Specification	Unit	VTX-5II	VTX-7II
Table size(LxW)	mm	600x400	850x400
Max. loading capacity	kg	300	
X/Y/Z axis travel	mm	510/400/300	710/400/300
X/Y/Z axis rapid traverse	m/min	60/60/60	
Spindle taper		7/24 Taper No. 30	
Spindle speed	rpm	12,000	
Spindle motor	kW	13/3.7(26/9)	
Tool capacity	pc	21	

### VTX-II Series

- Equipped with high speed tool changer to reduce T-T time to 1.2 sec.
- Equipped with high rigidity roller type linear guideway.
- The spindle is driven by DD motor, allowing for high acceleration/deceleration reactivity and rigid tapping achieves 6,000rpm.
- Shaft's optimum spindle radius (up to 50mm) enhances cutting rigidity.
- Max. torque of the spindle motor is up to 82Nm.



Specification	Unit	QT-II+APC	TMV-510+APC	TMV-510T+APC
Table size(LxW)	mm		600x360	
Max. loading capacity	kg		100x2	
X/Y/Z axis travel	mm	510/360/435	510/360/300	510/360/435
X/Y/Z axis rapid traverse	m/min		40/40/48	
Spindle taper			7/24 Taper No. 30	
Spindle speed	rpm	15,000 (20,000)	8,000 (4,000) (12,000)	
Spindle motor	kW	2.2/1.5 (9/5.5/3.7)	5.5/3.7	
Tool capacity	pc	20	10 (14)	20

### TMV Series

- Moving column design.
- Equipped with APC to improve production efficiency.
- Equipped with ATC to decrease tool change time to 0.9 sec.
- Equipped with BT-30 spindle that achieves 6,000rpm maintaining rigid tapping.
- Suitable for small parts processing and magnesium alloy machining in the 3C industry.



## Vertical Machining Center

Specification	Unit	VP-8	VP-10
Table size(LxW)	mm	900x510	1,070x510
Max. loading capacity	kg	500	
X/Y/Z axis travel	mm	820/510/535	1,020/510/600
X/Y/Z axis rapid traverse	m/min	48/48/36	36/36/36
Spindle taper		7/24 Taper No. 40	
Spindle speed	rpm	10,000 (15,000)	
Spindle motor	kW	11/7.5 (15/7.5)	
Tool capacity	pc	24 (30)	

### VP Series

- Direct-drive spindle and high rigidity structure design.
- Equipped with BBT-40 spindle, which supports dual contact tool holder.
- Excellent precision and machining performance.
- General purpose machine and suitable for most industrial customers.
- High Performance/Cost value.



Specification	Unit	QVM-610All
Table size(LxW)	mm	700x410
Max. loading capacity	kg	400x2
X/Y/Z axis travel	mm	610/410/510
X/Y/Z axis rapid traverse	m/min	36/36/30
Spindle taper		7/24 Taper No. 40
Spindle speed	rpm	8,000 (10,000)
Spindle motor	kW	11/7.5/5.5 (12/9.0/7.5)
Tool capacity	pc	24 (30)

### QVM-610All

- Moving column design.
- Equipped with APC which can improve production efficiency.
- Pallet changing time is only 4 sec., it saves idle time and improves the production efficiency.
- Triple-point clamping and supporting device (patented) assures the stability of machining precision.
- Max pallet load is up to 400kg x2.



Specification	Unit	TMV-720A	TMV-850QI	TMV-850QII	TMV-1050QI	TMV-1050QII
Table size(LxW)	mm	800x480	950x600		1,100x600	
Max. loading capacity	kg	500	800			
X/Y/Z axis travel	mm	720/480/530	850/600/530		1,050/600/530	
X/Y/Z axis rapid traverse	m/min	48/48/32	48/48/32	48/48/48	48/48/32	48/48/48
Spindle taper			7/24 Taper No.40			
Spindle speed	rpm	10,000	10,000 (15,000)	8,000 (10,000)	10,000 (15,000)	8,000 (15,000)
Spindle motor	kW	7.5/5.5	18.5/15/11	7.5/5.5 (9.0/7.5/15/11)	18.5/15/11	7.5/5.5 (9.0/7.5/15/11)
Tool capacity	pc	24	24 (30)			

### TMV Series

- Popular machine model, T-T time is 2 sec.
- High rigidity structure design.
- Uses high precision guideway and ballscrews, the 3-axes rapid traverse is up to 48 m/min.
- High machining efficiency with stable machining performance.
- Available for various customization applications, especially for the automotive industry.



Specification	Unit	TMV-920A	TMV-1100A
Table size(LxW)	mm	1,050x530	1,200x600
Max. loading capacity	kg	1,000	
X/Y/Z axis travel	mm	920/530/530	1,100/600/530
X/Y/Z axis rapid traverse	m/min	30/30/24	
Spindle taper		7/24 Taper No.40/No.50	
Spindle speed	rpm	BT-40 : 8,000 (10,000) BT-50 : 3,500 (6,000)	
Spindle motor	kW	BT-40 : 12/9.0/7.5 BT-50 : 18.5/15/11	
Tool capacity	pc	24 (30)	

### TMV Series

- Special structure design with the features of high rigidity and high vibration adsorption capacity.
- Adopts large-sized linear guideway and ballscrews.
- BT-50 spindle has excellent performance in heavy duty cutting (opt.).
- Available for various customization applications, especially for the automotive industry.
- Suitable for mass production lines and automated production line arrangements.



## Vertical Machining Center

Specification	Unit	TMV-1350A	TMV-1600A
Table size(LxW)	mm	1,500x750	1,700x850
Max. loading capacity	kg	1,300	2,000
X/Y/Z axis travel	mm	1,350/750/700	1,600/800/700
X/Y/Z axis rapid traverse	m/min	20/20/15	15/15/12
Spindle taper		7/24 Taper No.50	
Spindle speed	rpm	3,500 (6,000)	
Spindle motor	kW	18.5/15/11	18.5/15/11 (25/18.5/15)
Tool capacity	pc	24 (32)	32 (40)

### TMV Series

- 3-axes adopts box-way design with the features of high rigidity and high vibration adsorption capacity.
- Y axis uses four box-ways to provide solid support to the saddle.
- BT-50 spindle (gearbox type) has excellent performance in heavy duty cutting (opt.).
- Z axis is equipped with a counterbalance system to reduce load on the Z axis motor.
- Available for various customization applications, especially for automotive industry.



Specification	Unit	TMV-1500A
Table size(LxW)	mm	1,600x762
Max. loading capacity	kg	1,869
X/Y/Z axis travel	mm	1,525/762/710
X/Y/Z axis rapid traverse	m/min	18/18/18
Spindle taper		7/24 Taper No.40
Spindle speed	rpm	8,000 (10,000)
Spindle motor	kW	18.5/15/11
Tool capacity	pc	24

### TMV Series

- Special structure design with the features of high rigidity and high vibration adsorption capacity.
- Adopts large-sized linear guideways and ballscrews.
- BT-50 spindle has excellent performance in heavy duty cutting (opt.).
- Y axis uses four linear guideways provide solid support to the saddle.
- Door opens up to 1,664mm to facilitate loading/unloading large workpieces.



Specification	Unit	VC-608	VC-610	VC-711
Table size (LxW)	mm	950x600	1,100x650	1,200x710
Max. loading capacity	kg	800		1,000
X/Y/Z axis travel	mm	850/610/530	1,050/610/530	1,100/710/710
X/Y/Z axis rapid traverse	m/min	24/24/24		
Spindle taper		7/24 Taper No.40		
Spindle speed	rpm	12,000 (15,000) (20,000)		
Spindle motor	kW	11/7.5 (15/7.5) (40/30)		
Tool capacity	pc	24 (30)		

### VC Series

- High dynamic rigidity for structure design.
- The spindle uses oil-air lubrication with the advantages of low heat generation and long-term usage.
- High speed & high precision functions.
- BBT dual contact tool holders.
- Suitable for the mold & die industry.



## Bridge Type Machining Center

Specification	Unit	MDV-812	MDV-1013
Table size (LxW)	mm	1,320x800	1,400x1,000
Max. loading capacity	kg	2,000	2,500
X/Y/Z axis travel	mm	1,200/800/500	1,320/1,040/610
X/Y/Z axis rapid traverse	m/min	30/30/30	30/30/24
Spindle taper		7/24 Taper No.40	
Spindle speed	rpm	12,000 (15,000) (20,000)	
Spindle motor	kW	11/7.5 (18.5/11/7.5) (40/30)	
Tool capacity	pc	16 (40)	20 (30) (40)

### MDV Series

- Machine structure adopts bridge type design, it provides the high stability in high speed machining.
- The spindle uses oil-air lubrication and has the features of low heat generation and long usage life.
- Max. spindle speech is up to 20,000rpm.
- Excelling surface machining precision.
- Suitable for the mold & die industry.



## 5-axis Machining Center

Specification	Unit	CT-350
Table size	mm	Ø350
Max. loading capacity	kg	200
X/Y/Z axis travel	mm	400/510/510
A/C axis travel	deg	+30° ~ -120° / ±360°
X/Y/Z axis rapid traverse	m/min	36/36/30
A/C axis rapid traverse	rpm	33.3/40
Spindle taper		7/24 Taper No.40
Spindle speed	rpm	15,000 (20,000)
Spindle motor	kW	18.5/11/7.5 (40/30)
Tool capacity	pc	24 (30) (40)

### CT Series

- Machining space is up to Ø380mm / H220 mm.
- Equipped with zero-backlash roller gear cam type A/C axis with the features of high precision and high rigidity.
- All machining tasks are able to be done in one time clamping.
- 5 axis machining center with excellent Performance/Cost value.



Specification	Unit	GT-500	GT-630	GT-800E
Table size	mm	Ø500	Ø630	Ø800
Max. loading capacity	kg	400	600	800
X/Y/Z axis travel	mm	610/610/510	760/820/560	800/820/560
A/C axis travel	deg	+30° ~ -120°/±360°		
X/Y/Z axis rapid traverse	m/min	48/48/48		
A/C axis rapid traverse	rpm	25/25	50/100	
Spindle taper		7/24 Taper No.40		
Spindle speed	rpm	15,000 (20,000) (24,000)		
Spindle motor	kW	40/40 (40/30) (42/35)		
Tool capacity	pc	32 (40)	32 (40) (64) (80)	

### GT Series

- Machine structure adopts gantry type design. The moving axes are driven at the center of gravity and the dynamic performance is improved dramatically.
- 5-axis simultaneous machining function allows all machining tasks in one time clamping.
- High rigidity enclosed structure design.
- Gantry type movement method assures the feeding efficiency in three axes and avoids influence by weight of workpieces.
- The spindle uses oil-air lubrication and has the features of low heat generation and long usage life.
- A/C axis is driven by DD motor, which has the features of high accuracy and high speed.



## Horizontal Machining Center

Specification	Unit	SH-4000(P)	SH-4500(P)	SH-5000(P)
Table size (LxW)	mm	400x400	400x400 (500x500)	500x500
Max. loading capacity	kg	400	450	500
X/Y/Z axis travel	mm	510/510/510	630/630/730	730/730/830
X/Y/Z axis rapid traverse	m/min	60/60/60		
Spindle taper		7/24 Taper No.40		
Spindle speed	rpm	15,000		
Spindle motor	kW	37/26/18.5		
Tool capacity	pc	40 (60)		

### SH Series

- High rigidity machine structure with triple-point supporting design.
- Minimized the machine front width to benefit production line arrangement.
- APC (automatic pallet changing) is available as an option for optimizing production efficiency.
- Standard equipped with 15,000rpm built-in spindle, its maximum HP is 37kW and maximum torque is 250Nm.
- Suitable for aluminum alloy machining.





## Horizontal Machining Center

Specification	Unit	HA-400II	HA-500II
Table size(LxW)	mm	400x400	500x500
Max. loading capacity	kg	400x2	500x2
X/Y/Z axis travel	mm	610/580/580	710/680/680
X/Y/Z axis rapid traverse	m/min	60/60/60	
Spindle taper		7/24 Taper No.40	
Spindle speed	rpm	12,000	
Spindle motor	kW	25/22	
Tool capacity	pc	60 (90) (120)	

### HA Series

- High rigidity machine structure with triple-point supporting design.
- NC rotary table uses high rigidity full circumference hydraulic braking system.
- APC (automatic pallet changing) is available as an option for optimizing production efficiency.
- High precision, high rigidity, and high output.
- Suitable for the automotive industry.



Specification	Unit	HB-500II	HB-630	HB-800II
Table size (LxW)	mm	500x500	630x630	800x800
Max. loading capacity	kg	600x2	1,200x2	1,800x2
X/Y/Z axis travel	mm	800/710/710	1,050/850/970	1,400/1,200/1,300
X/Y/Z axis rapid traverse	m/min	60/60/60		
Spindle taper		7/24 Taper No.50		
Spindle speed	rpm	10,000	10,000	(6,000/8,000)
Spindle motor	kW	30/25	30/25	(22/18.5) / (26/22)
Tool capacity	pc	60 (90) (120)		

### HB Series

- Standard equipped 10,000 rpm built-in spindle, able to perform surged torque which can reach 420 N m while running to 500 rpm
- B-axis rotary table adopted with hydraulic jig fixture, ensuring powerful clamping for stable cutting
- Rotary table adopted with full circle brake, able to withstand heavy cutting with its large contact surface
- Adopt high efficiency automated pallet changer system
- Flexible manufacturing system available for option
- Suitable for heavy cutting machining for metallic materials



Specification	Unit	HG-800II	HG-1250
Table size(LxW)	mm	800x800	1,250x1,250
Max. loading capacity	kg	2,400	4,000
X/Y/Z axis travel	mm	1,550/1,500/1,250	2,000/1,400/1,250
X/Y/Z axis rapid traverse	m/min	15/15/15	20/20/20
Spindle taper		7/24 Taper No.50	
Spindle speed	rpm	6,000/8,000	
Spindle motor	kW	(22/18.5) / (26/22)	
Tool capacity	pc	60 (90) (120)	

### HG Series

- Machine structure is made by high-level casted iron.
- Three axes adopts box-way design for intensely stable machining quality.
- Powerful servo motor drives ballscrews directly to avoid the transmission errors.
- Three axes rapid traverse up to 20m/min.
- Gearbox type spindle adopts two-step gear reducer with maximum torque up to 1,319 N m.



Specification	Unit	TMH-400	TMH-500
Table Size	mm	Ø400	Ø500
Max. Load Capacity	kg	350	700
X/Y/Z axis travel	mm	510/510/510	710/600/600
X/Y/Z axis rapid traverse	m/min	36/36/36	48/48/48
Spindle taper		7/24 Taper No.40	7/24 Taper No.50(40)
Spindle speed	rpm	8,000(10,000/12,000)	6,000
Spindle motor (50% ED)	kW	11/7.5(18.5/15)	11/15
Tool capacity	pc	24 (30)	

### TMH Series

- Compact machine structure with narrow width front design is suitable for production line arrangement.
- Excellent machining capacity brings high production efficiency.
- Depend on the requests of production line, it allows to add special devices such as storage rack or feeding unit for loading.



## 5-axis Horizontal Machining Center

Specification	Unit	HTT-1250
Table size (LxW)	mm	1,250x1,250
Max. loading capacity	kg	4,000x2
A/B axis travel	deg	+110°--20°/360°
A/B axis rapid traverse	rpm	5/5
X/Y/Z axis travel	mm	2,000/1,800/1,250
X/Y/Z axis rapid traverse	m/min	10/10/10
Spindle taper		7/24 Taper No.50
Spindle speed	rpm	6,000 (8,000)
Spindle motor	kW	21.5/18.5 (26/22)
Tool capacity	pc	60 (90) (120)

### HTT-1250

- 5 axes machining applications (Table-Table).
- Equipped with the APC system, the pallets do translational movements while changing.
- Box-way with air-floating design.
- High torque gear spindle design (1,319Nm).
- Suitable for aircraft engines, turbine blades, and other aerospace applications.



Specification	Unit	HTH-800
Table size (LxW)	mm	800x800
Max. loading capacity	kg	2,400
A/B axis travel	deg	+60°--105°/360°
A/B axis rapid traverse	rpm	10/5
X/Y/Z axis travel	mm	1,550 / 1,500 / 1,600
X/Y/Z axis rapid traverse	m/min	10/10/10
Spindle taper		7/24 Taper No.50
Spindle speed	rpm	6,000 (8,000)
Spindle motor	kW	36/30
Tool capacity	pc	60 (90) (120)

### HTH-800

- 5-axis machining application (Head-Table)
- Automatic pallet changer system
- Complete box way slide design with air floating system
- High torque gear type spindle design (1,084 N m)
- Suitable for aero engine, turbine and other aerospace industry applications.



## Horizontal CNC Lathe

Specification	Unit	HS-22	HS-22M
Max. swing diameter	mm	Ø220	
Chuck O.D.	inch	6" (8")	
Bar capacity	mm	Ø26 (Ø44) (Ø51)	
X/Z axis travel	mm	155/220	
X/Z axis rapid traverse	m/min	Box way · 20/20	
Spindle nose		A2-5 (A2-6)	
Spindle speed	rpm	6,000 (4,800) (4,500)	
Spindle motor	kW	15/11/7.5	18.5/15/11
Tool capacity	pc	12 (8)	VDI-40: 12

### HS-22

- Especially designed for medium and small sized workpieces machining.
- Box-way structure design.
- Power turret and C axis are available for satisfying the machining requirements of turning and milling.
- Equipped with the patented automatic loading/unloading and workpiece storage units. The workpiece changing time is only 4.8 sec.



Specification	Unit	Q5
Max. swing diameter	mm	Ø230
Chuck O.D.	inch	5" (4"Air chuck)
Bar capacity	mm	Ø26
X/Z axis travel	mm	220/220
X/Z axis rapid traverse	m/min	30/30
Spindle nose		A2-4
Spindle speed	rpm	6,000 (8,000)
Spindle motor	kW	7.5/5.5/3.7
Tool capacity	pc	2-5(Depends on workpiece)

### Q5

- Compact gang type CNC lathe.
- Allowable for various automation solutions.
- Allowable for different gang type tool holders.
- Based on the workpiece's shape to select proper robot arm and storage unit.
- Suitable for mass production in component parts.
- Symmetrical machine structure design to reduce the influences of thermal deformation.



Specification	Unit	A-1500
Max. swing diameter	mm	Ø300
Chuck O.D.	inch	6" (8")
Bar capacity	mm	Ø44 (Ø51)
X/Z axis travel	mm	320/400
X/Z axis rapid traverse	m/min	30/30
Spindle nose		A2-5(A2-6)
Spindle speed	rpm	4,800 (4,500)
Spindle motor	kW	15/11/7.5
Tool capacity	pc	2-5(Depends on workpiece)

### A-1500

- Compact gang type CNC lathe with front width of only 1,990mm.
- Allowable for various automation solutions.
- Allowable for different gang type tool holders.
- Based on workpiece shape, proper robot arm and storage units are selected.
- 60° slanted machine bed design ensures excellent chips disposal.



Specification	Unit	TNL-100T [L]	TNL-120T [L]	TNL-130T [L]
Max. swing diameter	mm	Ø400		
Chuck O.D.	inch	8" (10")	10" (12")	
Bar capacity	mm	Ø51	Ø64	Ø74
X/Z axis travel	mm	200/400 [600]		
X/Z axis rapid traverse	m/min	24/30		
Spindle nose		A2-6	A2-8	
Spindle speed	rpm	3,000 (4,500)	2,500 (3,500)	
Spindle motor	kW	18.5/15/11		
Tool capacity	pc	12 (8)		

### TNL T Series

- Integrated high rigidity machine structure.
- Vertical type machine bed design performs excellent chips disposal.
- High rigidity slide structure is suitable for heavy duty cutting.
- Short distance between the spindle/turret and the operator facilitates workpiece loading/unloading.



Specification	Unit	MT-1500[M]	MT-2000[M]
Max. swing diameter	mm	Ø210	
Chuck O.D.	inch	6"	8"
X/Z axis travel	mm	155/155	
X/Z axis rapid traverse	m/min	30/30	
Spindle nose		A2-5	A2-6
Spindle speed	rpm	4,500 (6,000)	4,500 (3,000)
Spindle motor	kW	11/7.5/5.5	15/11/7.5
Tool capacity	pc	12 (8) [12 (VDI-40)]	

### MT Series

- Independent spindles and working areas are separated into two zones.
- Individual bed structure eliminates the resonance effect of processing dual area simultaneous turning.
- Standard equipped with gantry type 3 axis robot arm driven by servo for rapid feeding speed.
- Compared with traditional small-sized CNC lathes, one compact MT lathe uses its two machining areas to process turning tasks simultaneously to save floor space.
- Maximum floor utility and minimum manpower required.



Specification	Unit	TCS-1500	TCS-1500II	TCS-2000L	TCS-2000LII	TCS-2500L	TCS-2500LII
Max. swing diameter	mm	Ø520					
Chuck O.D.	inch	6"				8"	
Bar capacity	mm	Ø44		Ø51		Ø64/Ø74	
X/Z axis travel	mm	170/400		170/400 [600]			
X/Z axis rapid traverse	m/min	30/30					
Spindle nose		A2-5		A2-6		A2-8	
Spindle speed	rpm	4,800		4,500 (3,000)		2,500 (3,500)	
Spindle motor	kW	9/7.5		15/11			
Tool capacity	pc	12 (8)					

### TCS Series

- Machine structure is optimized by finite element analysis (FEA) with the features of high dynamic rigidity and stability.
- High efficient turning capacity.
- Servo driven turret has the feature of rapid tool changing to reduce the non-cutting time.
- Excellent Performance/Cost ratio.





## Horizontal CNC Lathe

Specification	Unit	TNL-130AII-1.0M [0.7M/1.5M/30"]	TNL-160AII-1.0M [0.7M/1.5M/30"]
Max. swing diameter	mm	Ø620	
Chuck O.D.	inch	10" (12")	12" (15")
Bar capacity	mm	Ø75	Ø90
X/Z axis travel	mm	285 (260+25) /1,000 (700/1,600/2,000)	
X/Z axis rapid traverse	m/min	20/24(24)	
Spindle nose		A2-8	A2-11
Spindle speed	rpm	3,500 (2,500)	2,500
Spindle motor	kW	22/18.5/15 (26/22/18.5)	
Tool capacity	pc	12 (8)	

### TNL Series

- Adopts box-way and powerful spindle designs allow the excellent performances in heavy duty cutting.
- Slanted machine bed ensures the high machine stability and benefits chips disposal.
- Spindle adopts angular contact ball bearings and double-row roller bearing design to provide the high rigidity in machine.
- The external reducer is able to provide high torque output in low spindle speed (opt.).



Specification	Unit	THL-620[M]	THL-620L[M]	THL-620XL[M]
Max. swing diameter	mm	Ø780		
Chuck O.D.	inch	15" (18")		
Bar capacity	mm	Ø90 (Ø116)		
X/Z axis travel	mm	365/1,200	365/2,000	365/3,000
X/Z axis rapid traverse	m/min	20/20		
Spindle nose		A2-11		
Spindle speed	rpm	2,500 (2,000)		
Spindle motor	kW	45/37/30		
Tool capacity	pc	12 [12 (BMT-75)]		

### THL Series

- 37kW spindle motor uses deceleration gear reducer, the maximum spindle torque is up to 1,477Nm.
- Integrated machine bed and box-way design.
- Max. turning diameter is up to 620mm.
- C axis and BMT-75 power turret are available for satisfying requirements of turning and milling.
- Max. Z axis travels up to 3,000mm. For long workpieces, the steady rest (opt.) strengthens the support force.



Specification	Unit	TE-2000[M]	TE-2000B	TE-2000MB[C]	TE-2500[M]	TE-2500B	TE-2500MB[C]	TE-2500 wheel machine
Max. swing diameter	mm	Ø700						
Chuck O.D.	inch	8" (10")			10" (12")			Finger chuck (opt.)
Bar capacity	mm	Ø51			Ø64/Ø74			-
X/Z/B axis travel	mm	230/600/-	230/600/630		230/600/-	230/600/630		245/600/-
X/Z/B axis rapid traverse	m/min	30/30/-	30/30/30		30/30/-	30/30/30		30/30/-
Spindle nose		A2-6			A2-8			
Spindle speed	rpm	4,500 (3,000)			3,500 (2,500)			2,500
Spindle motor	kW	18.5/15/11						
Sub-spindle nose		-	A2-5		-	A2-5		-
Sub-spindle chuck O.D.	inch	-	6"		-	6"		-
Sub-spindle speed	rpm	-	5,000		-	5,000		-
Sub-spindle motor	kW	-	7.5/5.5		-	7.5/5.5		-
Tool capacity	pc	8/12[12(16)]	8/12(BMT65)	12(16)	8/12[12(16)]	8/12(BMT65)	12(16)	8[12]

### TE Series

- Machine structure adopts 75° slanted design. It drops down the machine's center of gravity to improve structure rigidity of the machine.
- Standard equipped with a servo turret with 8 tools. Power turret is another option and allows the maximum tool capacity for 16 tools.
- The sub-spindle is selectable for customers. It allows a single machine to complete whole machining procedures for both sides of the parts.
- The maximum machining size is 18" motorcycle wheel.

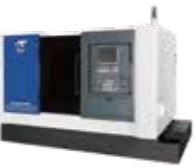


## Multi-tasking Turning Center

Specification	Unit	TD-2000Y [BC]	TD-2500Y [BC]	TD-1500Y
Max. swing diameter	mm	Ø700		Ø280
Chuck O.D.	inch	8"(10")	10"(12")	6" (8")
Bar capacity	mm	Ø51	Ø64 (Ø74)	Ø26 (Ø44) (Ø51)
X/Y/Z/B axis travel	mm	230/±51/600/- [630]		155/±35/250
X/Y/Z/B axis rapid traverse	m/min	30/15/30/- [30]		30/15/30
Spindle nose		A2-6	A2-8	A2-5 (A2-6)
Spindle speed	rpm	4,500(3,000)	3,500 (2,500)	6,000 (4,800) (4,500)
Spindle motor	kW	18.5/15/11		
Sub-spindle nose		A2-5		-
Sub-spindle chuck O.D.	inch	- [6"]		-
Sub-spindle speed	rpm	- [5,000]		-
Sub-spindle motor	kW	- [7.5/5.5]		-
Tool capacity	pc	12(16)		16 (12)

### TD Series

- Standard equipped with a 12 stations power turret.
- 75° slanted machine bed design benefits chips disposal.
- High rigidity structure with low center of gravity.
- X/Y/Z axis are orthogonal to each other, allowing for high straightness accuracy and precise and positioning.
- Available for various automation devices, including: bar feeders, workpiece turnover units, and joint type robot arms.



Specification	Unit	TMT2000-T2	TMT2000-T2Y1	TMT2000-T2Y2	TMT2000-T3Y2
Max. swing diameter	mm	Ø720			
Chuck O.D.	inch	8"			
Bar capacity	mm	Ø65 (Ø51 Built-in type)			
X1/X2/X3 axis travel	mm	230/205/-		230/-/230	230/205/230
Y1/Y2/Y3 axis travel	mm	-	±51/-/-	±51/-/±51	
Z1/Z2/Z3/B axis travel	mm	600/600/-/680	600/600/-/680	440/-/440/680	440/600/440/680
X/Y/Z/B axis rapid traverse	m/min	30/15/36/30			
Spindle nose		A2-6			
Spindle speed	rpm	4,500 (6,000 Built-in type)			
Spindle motor	kW	18.5/15/11			
Sub-spindle chuck O.D.	inch	8"			
Sub-spindle speed	rpm	6,000			
Sub-spindle motor	kW	18.5/11			
Tool capacity	pc	12 (16)×2		12 (16)×3	

### TMT Series

- Two spindles, two Y axes, and three power turrets.
- All machining procedures are able to be done in one time clamping, including turning, milling, tapping, etc.
- Allowable for various automation solutions, including bar feeders and robot arms.
- Three power turrets are able to process the turning tasks together or separately. It shortens the machining time and improves efficiency.



Specification	Unit	TMS-2000[5][A1]	TMS-2500[5][A1]	TMS-3000[5][A1]	TMS-3800[5][A1]
Max. swing diameter	mm	Ø660			
Chuck O.D.	inch	8"	10"	12"	15"
Bar capacity	mm	Ø51	Ø72	Ø95	
X1/Y axis travel	mm	-125~600/±125		-150~575/±150	
Z1 axis travel	mm	1,000			
X2 axis travel	mm	-[ ] [200]		-[ ] [200]	
Z2 axis travel	mm	-[ ] [820]		-[ ] [1,500]	-[ ] [1,500]
W axis travel	mm	1,000		1,500	
X/Y/Z/W axis rapid traverse	m/min	40/40/40/30			
Spindle nose		A2-6	A2-8		A2-11
Spindle speed	rpm	5,000	3,500		2,500
Sub-spindle chuck O.D.	inch	-[8"] [8"]		-[12"] [12"]	
Sub-spindle speed	rpm	-[5,000] [5,000]		-[3,500] [3,500]	
Machining spindle travel	deg	240°(-30°~120°)			
Machining spindle speed	rpm	12,000			

### TMS Series

- 75° slanted machine bed design not only benefits accessibility and excellent chips disposal, but also lowers the machine's center of gravity to enhance the entire structure rigidity.
- The TMS series is able to be applied for multi-process machining. With the functions of swing B axis and 5 axes simultaneous motion controller, it is able to process complex curve surface contouring.
- Standard equipped with 40 tools chain type ATC tool magazine. For further applications, 80 tools is also available.



## Vertical CNC Lathe

Specification	Unit	TVL-40 [ M ]	TVL-40 [ RM ]
Chuck O.D.	inch	12" (15")	
Max. swing diameter	mm	Ø700	
X/Z axis travel	mm	285/390 [500/600]	
X/Z axis rapid traverse	m/min	20/24 (Box way: 16/16)	
Spindle nose		A2-8	
Spindle speed	rpm	2,250	
Spindle motor	kW	26/22/18.5	
Tool capacity	pc	8 [VDI-50: 12]	

### TVL Series

- Excellent heat dissipation for long-term heavy duty cutting.
- Integrated machine structure allows better vibration-absorption.
- Vertical type machine bed design allows the operator closer proximity to facilitate workpiece loading/unloading, tool adjustments, and chips disposal.



## Vertical Wheel CNC Lathe

Specification	Unit	TVW-22DT	TVW-22T	TVW-26DT	TVW-26T	TVW-28DT	TVW-28T
Wheel size	inch	O.D.:14"-22" Height: 12"		O.D.:14"-24" Height: 6"-12"		O.D.:14"-28" Height: 6"-16"	
Spindle nose		A2-11					
Spindle speed	rpm	2,500			2,000		
Spindle bearing dia.	mm	Ø160					
Tool capacity	pc	6+6		6+6		6+6	
X/Z axis travel	mm	450/450		500/525		540/750	
X/Z axis rapid traverse	m/min	20/20					
Spindle motor	kW	55/45	45/37	55/45	45/37	75/60	45/37

### TVW Series

- Single turret type and double turret type vertical CNC lathes are especially designed for wheel turning.
- Large size box-way design maintains high rigidity and high reliability.
- Huge chip disposal exit allows a large volume of chips to flow out during wheel turning.
- Suitable for the production line of various types of wheels.



## Vertical Wheel Machining Center

Specification	Unit	TMV-850W	TMV-1050W	TMV-1100W
Wheel size	inch	O.D.:14"-22" Height: 4"-10.5"		O.D.:14"-26" Height: 4"-12.5"
Spindle taper		7/24 Taper No.40		
Spindle speed	rpm	10,000 (15,000)		
Tool capacity	pc	24		
X/Y/Z axis travel	mm	850/650/610		1,050/650/610
X/Y/Z axis rapid traverse	m/min	48/48/48		30/30/20
Spindle motor	kW	18.5/15/11 (18.5/11/7.5)		

### TMV Wheel Series

- Especially designed for wheel machining.
- Suitable for machining wheel ribs, PCD holes, valves, and stud holes.
- Heightened column design allows setup of the 4th axis for further applications.
- Equipped with four chip augers to ensure chips disposal efficiency.



## Horizontal Wheel CNC Lathe

Specification	Unit	HS-36WIIG	HS-40WG
Wheel size	inch	13"-22"	14"-24"
Spindle nose		A2-11	
Spindle speed	rpm	2,000	
Spindle bearing dia.	mm	Ø160	
Tool capacity	pc	10	8
X/Z axis travel	mm	350/740	385/750
X/Z axis rapid traverse	m/min	20/20	16/20
Spindle motor	kW	45/37	

### HS Series

- Heat dissipation technology for spindle headstock eliminates heat accumulation during long-term turning.
- Built-in spindle has the feature of low vibration suitable wheel polishing.
- Integrated machine bed has high rigidity that benefits high turning precision.
- Suitable for wheel production lines.



## Ultrasonic Assisted Machining Center

Specification	Unit	VU-5
Table size (LxW)	mm	850x410
Max. table load	kg	250
Spindle taper		7/24 Taper No.30
Spindle speed	rpm	20,000
X/Y/Z axis travel	mm	510/400/350
X/Y/Z axis rapid traverse	m/min	48/48/48
Tool capacity	pc	20 (30)
Spindle motor	kW	3.7/2.2

### VU-5

- Ultrasonic control technology automatically completes frequency scanning and power settings.
- Tool vibrates periodically (15~45 kHz), reducing cutting resistance and enhancing surface quality.
- 24,000 rpm high speed spindle, supports standard BBT-30 tools.
- Ultrasonic assisted machining reduces cutting resistance and temperature rise, to extend tool life.
- Ultrasonic assisted machining reduces roughness from processed surface, to reduce polishing time.
- Reduces burrs arising from processing hard and brittle material.
- Allowable for the micro-hole processing for hard and brittle material.

