



№: LB.TD.TA-EN.BG2000-10ZYDW<V1>

Orthogonal Y-axis Turning and Milling Machine Tool

TECHNICAL AGREEMENT

BG2000 - 10ZYDW

2025·02·12



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1.Product Introduction



Figure 1: Appearance Display (Pictures for Reference Only)

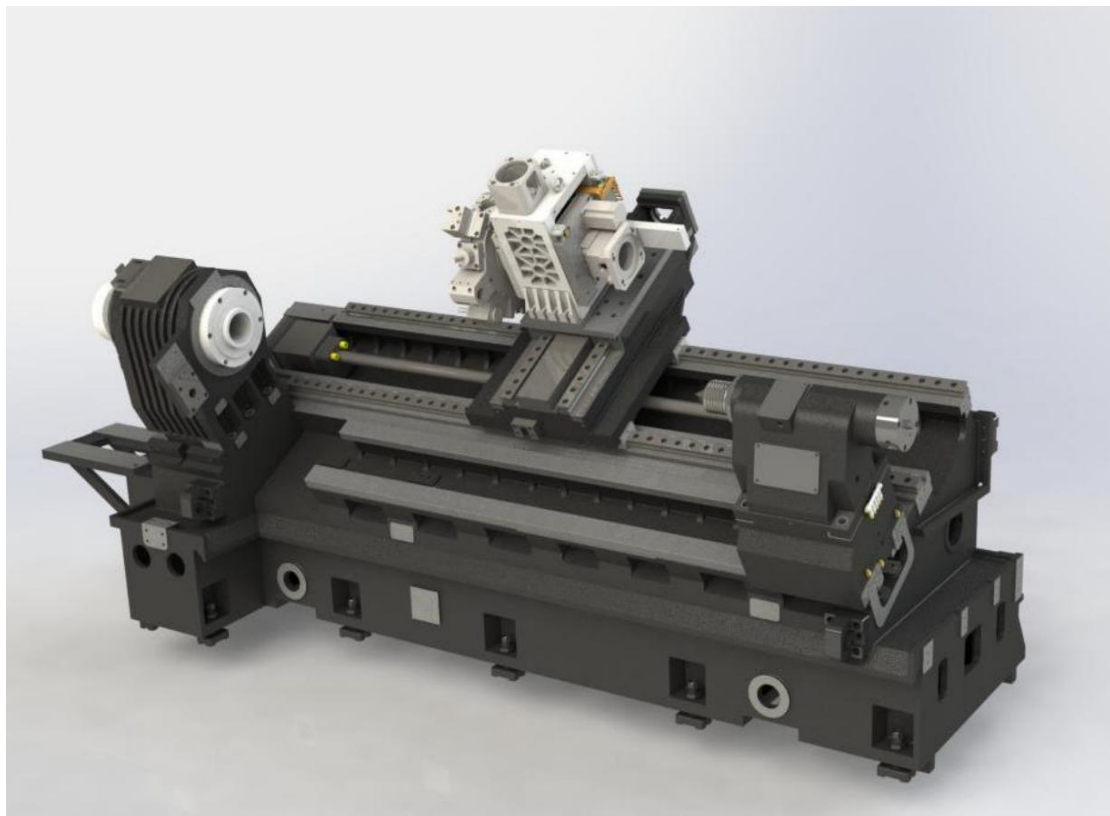


Figure 2: Mechanical Structure Display



2. Working Conditions

- (1) Power supply: AC380V \pm 10%, 50HZ \pm 1HZ three-phase AC.
- (2) Operating temperature: 5°C - 40°C.
- (3) Optimal environmental temperature: 15°C - 25°C.
- (4) Relative humidity: 40 - 75%.

3. Precision Standard

Precision	GB Standard	Company Standard
The Level of Machining Accuracy	IT6	IT6
Machining Roundness Accuracy	0.003mm / Φ 70mm	0.003mm / Φ 70mm
Machining Straightness Accuracy	0.010mm / 150mm	0.010mm / 150mm
Machining Flatness Accuracy	0.008mm / Φ 100mm	0.006mm / Φ 100mm
Machining Roughness Accuracy	Ra1.6 μ m	Ra0.4 μ m Parameter Reference: Material: Al; Spindle Speed: 2200RPM; Feed Rate: 0.06mm/rev; Tool: PCD R0.2
Spindle End Face Runout	0.01mm	0.003mm
Spindle Radial Runout	0.008mm	0.003mm
Axial Positioning Accuracy	X-axis0.016mm	X-axis0.008mm
	Y-axis0.016mm	Y-axis0.008mm
	Z-axis0.020mm	Z-axis0.008mm
Axial Repeatability Positioning Accuracy	X-axis0.007mm	X-axis0.004mm
	Y-axis0.007mm	Y-axis0.004mm
	Z-axis0.008mm	Z-axis0.004mm
Turret Indexing Repeatability Positioning Accuracy	Y-Z Direction0.01mm	Y-Z Direction0.006mm
	Z-X Direction0.01mm	Z-X Direction0.006mm

4. Technical Specifications

#	Parameter	Unit	BG2000-10ZYDW Orthogonal Y-axis Turning and Milling Machine Tool
1	Max. Turning Diameter	mm	Φ520
2	Max. Machining Length	mm	2000
3	Max. Swing Diameter	mm	Φ600
4	Bar Feeding Diameter	mm	<Φ75
5	Spindle Bore	mm	Φ86
6	Max. Spindle Speed	RPM	2500
7	X-axis Travel	mm	260
8	Y-axis Travel	mm	±50
9	Z-axis Travel	mm	2005
10	Tailstock Travel	mm	1900
11	Morse Taper	mm	65(5#)
12	Rapid Feedrate	m / min	22
13	Max. Driven Tool Speed	RPM	4000
14	Voltage (3phase)	V	380±10%
15	Frequency	Hz	50
16	Power	kW	29
17	Weight	kg	6800
18	Size (Length × Width × Height)	mm	7500 × 2050 × 2150

#	Configuration Table	
1	CNC	<input type="checkbox"/> FANUC 0I-TF PLUS(3)
	Spindle Rated Power / Torque of the Servo Motor	15kW / 143Nm
	X-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm
	Y-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm
	Z-axis Rated Power / Torque of the Servo Motor	3kW / 20Nm
	Driven Tool Rated Power / Torque of the Servo Motor	<input type="checkbox"/> 2.7kW / 12Nm (Standard) <input type="checkbox"/> 4.3kW / 22Nm (Optional)

	\	Brand	Type / Spec		
2	Spindle	<input type="checkbox"/> LBIE Belt Spindle (OEM by HAOZHI) <input type="checkbox"/> Taiwan KENTURN Belt Spindle (Optional)	<input type="checkbox"/> A2-8 (Standard) <input type="checkbox"/> A2-11 (Spindle Bore: Φ 105mm; Bar Feeding Diameter: $<\Phi$ 92mm, Match 12inches Chuck; Recommended to Upgrade the Motor) (Optional)		
3	X-axis	Linear Guide Rail	HIWIN / PMI		45
		Lead Screw	HIWIN / PMI / THK		40
		Bearing	NSK / NACHI		25
	Y-axis	Linear Guide Rail	Supplied by the Turret Supplier		Supplied by the Turret Supplier
		Lead Screw			
		Bearing			
	Z-axis	Linear Guide Rail	HIWIN / PMI		45
		Lead Screw	HIWIN / PMI / THK		40
		Bearing	NSK / NACHI		25
4	Tool Carrier Form	Turret	Brand	Taiwan TCSM	
			Driving Type	Servo Motor	
			Locking Type	Hydraulic Locking	
			Model / Station	<input type="checkbox"/> BMT55-12 (Standard) <input type="checkbox"/> BMT65-12 (Optional) (Z-axis Travel is Shortened by 20mm)	
5	Tailstock Form	Servo Tailstock			
6	Lubrication Form	Oil Lubrication			
7	Hydraulic System	Standard			
8	Fixture	<input type="checkbox"/> Taiwan JIAHE Hydraulic Chuck (10inch) (Standard) <input type="checkbox"/> Taiwan JIAHE Hydraulic Chuck (12inch) (Optional)			
9	Coolant Pump Power	<input type="checkbox"/> 5Bar (Standard) <input type="checkbox"/> 50Bar (Optional)			
10	Main Electrical Components Brand	Schneider			
11	Electronic Door Lock	Standard			
12	Fixed Tool Holder	Type	Spec	Qty	
		Bore Tool Holder	Φ 32	3	

		Radial Square Tool Holder	25*25	3
		Axial Square Tool Holder	25*25	1
		<input type="checkbox"/> Optional	7 Included for Any Type (Extra Available)	
13	Driven Tool Holder	Spec	Qty	
		0°	1pcs	
		90° Unidirection	1pcs	
		<input type="checkbox"/> Optional		
14	Other Accessories	Item	Qty	
		Chuck Draw Tube	1pcs	
		Foot Switch	1set	
		Water Tank	1set	
		Installation Tool	1set	
		Machine Foot	12pcs	
15	System Operation Manual	E-manual		
16	Machine Tool Instruction Manual	E-manual		
17	Optional	<input type="checkbox"/> Hydraulic Steady Rest		
		<input type="checkbox"/> Steady Rest Tool Following Function		
		<input type="checkbox"/> Chip Conveyor		
		<input type="checkbox"/> Renishaw Tool Setter		
		<input type="checkbox"/> Automatic Catcher		
		<input type="checkbox"/> Oil Mist Collector		
		<input type="checkbox"/> Automatic Door		
		<input type="checkbox"/> Collision Avoidance System		
		<input type="checkbox"/> Machine IoT Remote Monitoring		



5.Safety Precautions

(1) Always follow the manufacturer's guidelines and instructions for safe operation.

(2) Ensure proper training and qualification of personnel operating the machine tool.

(3) Use appropriate personal protective equipment (PPE) as required.

(4) Regularly inspect and maintain the machine tool to ensure its optimal functioning.

(5) Keep the work area clean and organized to prevent accidents or injuries.

This technical description provides an overview of the key features, capabilities, specifications, and safety precautions associated with the Machine Tool. It serves as a useful reference for understanding the machine's functionality and characteristics in technical documentation.