№：LB.TD.TA-EN.TF-6/6ZYD/D<V1>

Guangdong Longbang Intelligent Equipment Industry Co., Ltd

Dual-spindle Dual-turret Turning and Milling Machine Tool

TECHNICAL AGREEMENT

TF-6/6ZYD/D

2024 • 03 • 15

Contents

1.Product Introduction

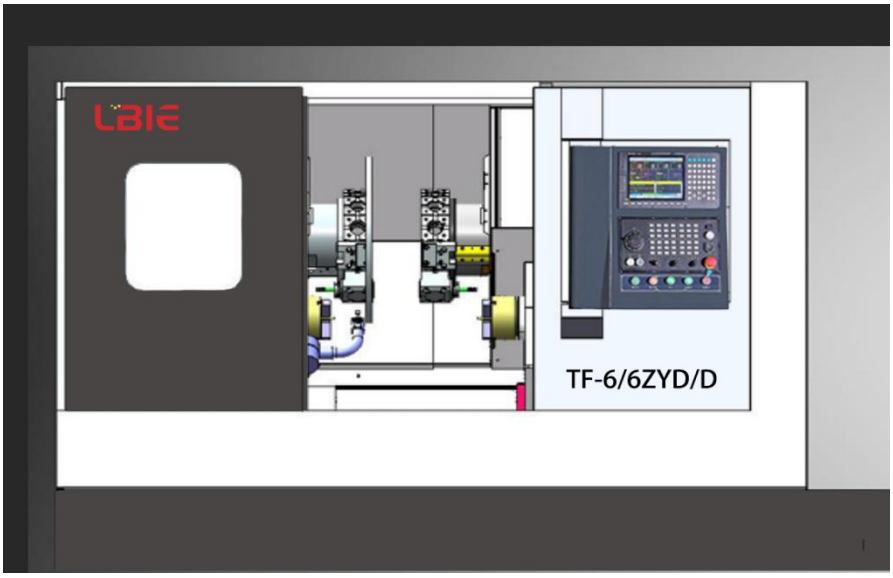

Figure 1: Appearance Display (Pictures for Reference Only)

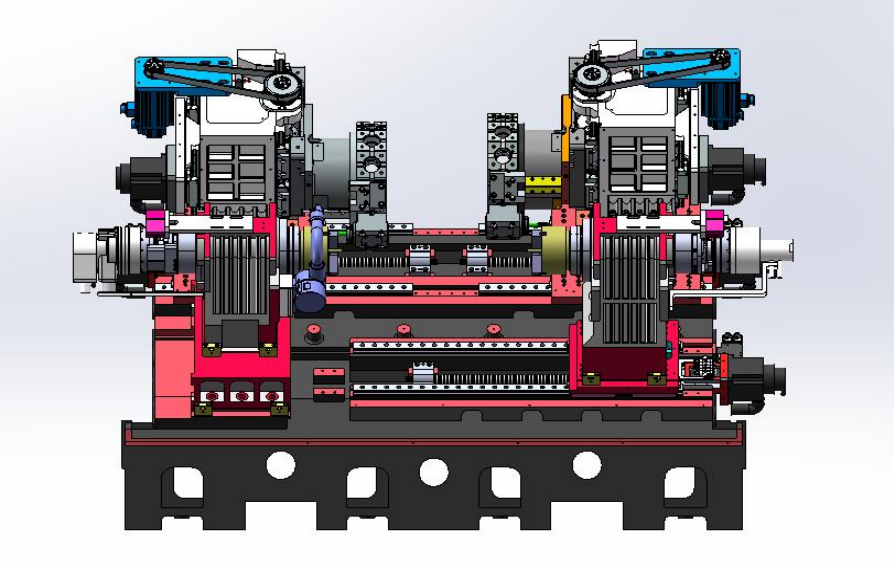

Figure 2: Mechanical Structure Display

2.Working Conditions

（1）Power supply: AC380V ± 10%, 50HZ ± 1HZ three-phase AC.

（2）Operating temperature: 5 ℃ -40 ℃.

（3）Optimal environmental temperature: 15 ℃ -25 ℃.

（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 / Φ70mm	0.003mm / Φ70mm
Machining Straightness Accuracy	0.010mm / 150mm	0.010mm / 150mm
Machining Flatness Accuracy	0.008mm / Φ100mm	0.006mm / Φ100mm
Machining Roughness Accuracy	Ra1.6μm	Ra1.6μm
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 direction 0.01mm	Y-Z direction 0.006mm
	Z-X direction 0.01mm	Z-X direction 0.006mm

4.Technical Specifications

#	Parameter	Unit	TF-6/6ZYD/D Dual-spindle Dual-turret Turning and Milling Machine Tool	
1	Max. Turning Diameter	mm	Φ200	
2	Max. Machining Length	mm	300	
3	Max. Swing Diameter	mm	Φ200	
4	Max. Bar Through Diameter	mm	Φ45	
5	Spindle Bore	mm	1st Spindle: Φ56; 2nd Spindle: Φ56	
6	Max. Spindle Speed	RPM	1st Spindle: 4000; 2nd Spindle: 4000	
7	X-axis Travel	mm	X1: 250	X2: 250
8	Y-axis Travel	mm	Y1: 90	Y2: 90
9	Z-axis Travel	mm	Z1: 300	Z2: 200
10	B-axis (Tailstock) Travel	mm	620	
11	Rapid Feedrate	m / min	22	
12	Max. Driven Tool Speed	RPM	4000	
13	Voltage (3phase)	V	380±10%	
14	Electric Frequency	Hz	50	
15	Power	kW	42	
16	Weight	kg	6000	
17	Size (Length × Width × Height)	mm	3000 × 2300 × 2100	

#	Configuration	
1	CNC	☐ FANUC 0I-TF PLUS(5)
	C1-axis Rated Power / Torque of the Servo Motor	11kW / 52Nm (Motor Spindle)
	C2-axis Rated Power / Torque of the Servo Motor	11kW / 52Nm (Motor Spindle)
	X1-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm
	X2-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm
	Y1-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm
	Y2-axis Rated Power / Torque of the Servo Motor	1.8kW / 11Nm

	Z1-axis Rated Power / Torque of the Servo Motor			1.8kW / 11Nm
	Z2-axis Rated Power / Torque of the Servo Motor			1.8kW / 11Nm
	B-axis Rated Power / Torque of the Servo Motor			1.8kW / 11Nm
	A1 Driven Tool Rated Power / Torque of the Servo Motor			2.7kW / 12Nm
	A2 Driven Tool Rated Power / Torque of the Servo Motor			2.7kW / 12Nm
2	\	**Brand**		**Type / Spec**
	1st Spindle	Guangzhou HAOZHI Motor Spindle		A2-5
	2nd Spindle	Guangzhou HAOZHI Motor Spindle		A2-5
3	X1-axis	Linear Guide Rail	HIWIN / PMI	35 Roller Guide
		Lead Screw	HIWIN / NSK	32
		Bearing	NSK / NTN	20TAC
	X2-axis	Linear Guide Rail	HIWIN / PMI	35 Roller Guide
		Lead Screw	HIWIN / NSK	32
		Bearing	NSK / NTN	20TAC
	Y1-axis	Guide Rail	\	4 Linear Guide Rails + 2 Hard Guides
		Lead Screw	HIWIN / PMI	32
		Bearing	NSK / NTN	25TAC
	Y2-axis	Guide Rail	\	4 Linear Guide Rails + 2 Hard Guides
		Lead Screw	HIWIN / PMI	32
		Bearing	NSK / NTN	25TAC
	Z1-axis	Linear Guide Rail	HIWIN / PMI	35 Roller Guide
		Lead Screw	HIWIN / NSK	32
		Bearing	NSK / NTN	20TAC
	Z2-axis	Linear Guide Rail	HIWIN / PMI	35 Roller Guide
		Lead Screw	HIWIN / NSK	32
		Bearing	NSK / NTN	20TAC
	B-axis	Linear Guide Rail	HIWIN / PMI	35 Roller Guide
		Lead Screw	HIWIN / NSK	32
		Bearing	NSK / NTN	20TAC

4	Tool Carrier Form	Driven Tool Turret	**Brand**	Power Well	
			Driving Type	Servo Motor	
			Locking Type	Hydraulic Locking	
			Model / Station	☐ 2×BMT55-12 (Standard) ☐ 2×BMT45-15 (Optional)	
5	Tailstock Form		Sub-Spindle		
6	Lubrication Form		Oil Lubrication		
7	Hydraulic System		Standard		
8	Fixture		Hydraulic Chuck (1st: 6inch ; 2nd: 6inch)		
9	Coolant Pump Pressure / Power		**Type**	**Spec**	**Qty**
			Machining Water Pump	☐ 5Bar (Standard) ☐ 20Bar (Optional) ☐ 50Bar (Optional)	2pcs
			Chip Flushing Pump	2Bar	1pcs
10	Chip Conveyor		Standard		
11	Main Electrical Components Brand		Schneider		
12	Static Tool Holder		**Type**	**Spec**	**Qty**
			Boring Tool Holder		14 Included for Any Type (extra available)
			Outer Diameter Turning Tool Holder		
			End Face Turning Tool Holder		
			☐ Optional Available		
13	Driven Tool Holder		**Spec**	**Qty**	
			0°	2pcs	
			90° Unidirection	2pcs	
			☐ Optional Available		
14	Other Accessories		**Item**	**Qty**	
			Chuck Draw Tube	2pcs	
			Foot Switch	1set	
			Water Tank	1set	
			Installation Tool	1set	

		Machine Foot	6pcs
15	System Operation Manual	E-manual	
16	Machine Tool Instruction Manual	E-manual	
17	Optional	☐ Renishaw Tool Setter	
		☐ Automatic Catcher	
		☐ Oil Mist Collector	

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.