



№: LB.TD.TA-EN.XL-4P<V1>

CNC Lathe

# **TECHNICAL AGREEMENT**

*XL-4P*

2024.12.30



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## 1.Product Introduction



*Figure 1: Appearance Display (Pictures for Reference Only)*



## 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 / $\Phi$ 70mm	0.003mm / $\Phi$ 70mm
Machining Straightness Accuracy	0.010mm / 150mm	0.010mm / 150mm
Machining Flatness Accuracy	0.008mm / $\Phi$ 100mm	0.006mm / $\Phi$ 100mm
Machining Roughness Accuracy	Ra1.6 $\mu$ m	Ra0.4 $\mu$ 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
	Z-axis0.020mm	Z-axis0.008mm
Axial Repeatability Positioning Accuracy	X-axis0.007mm	X-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	XL-4P CNC Lathe	
1	Max. Turning Diameter	mm	Φ200	
2	Max. Machining Length	mm	200	
3	Max. Swing Diameter	mm	Φ280	
4	Bar Feeding Diameter	mm	<Φ26	
5	Spindle Bore	mm	Φ36	
6	Max. Spindle Speed	RPM	5000	
7	X-axis Travel	mm	680	
8	Z-axis Travel	mm	200	
9	Rapid Feedrate	m / min	25	
10	Voltage (3phase)	V	380±10%	
11	Frequency	Hz	50	
12	Power	kW	9	
13	Weight	kg	2000	
14	Size (Length × Width × Height)	mm	1950 × 1500 × 1700	
#	Configuration			
1	CNC		<input type="checkbox"/> FANUC 0I-TF PLUS(3)	
	Spindle Rated Power / Torque of the Servo Motor		5.5kW / 26.3Nm	
	X-axis Rated Power / Torque of the Servo Motor		1.2kW / 7Nm	
	Z-axis Rated Power / Torque of the Servo Motor		1.2kW / 7Nm	
2	\	<b>Brand</b>	<b>Type / Spec</b>	
	Spindle	<input type="checkbox"/> LBIE Belt Spindle (OEM by HAOZHI) (Standard) <input type="checkbox"/> Guangzhou HAOZHI Motor Spindle (Optional) <input type="checkbox"/> Taiwan KENTURN Belt Spindle (Optional)	A2-4	
3	X-axis	Linear Guide Rail	HIWIN / PMI / INA	25 Ball Guide
		Lead Screw	PMI	25
		Bearing	NSK / FAG	20TAC

	Z-axis	Linear Guide Rail	HIWIN / PMI / INA	25 Ball Guide	
		Lead Screw	PMI	25	
		Bearing	NSK / FAG	20TAC	
4	Tool Carrier Form		Gang Tool Carrier	Length: 520mm	
5	Lubrication Form		Oil Lubrication		
6	Hydraulic System		Standard		
7	Fixture		<input type="checkbox"/> 25 Type Collect Chuck (Standard) <input type="checkbox"/> 4inch Hydraulic Chuck (Optional)		
8	Coolant Pump Power		370W ( <input type="checkbox"/> Optional Available:_____)		
9	Main Electrical Components Brand		Schneider		
10	Electronic Door Lock		Standard		
11	Fixed Tool Holder		<b>Type</b>	<b>Spec</b>	<b>Qty</b>
			Bore Tool Holder	Φ25	3
			Radial Square Tool Holder	25*25	2
			<input type="checkbox"/> Optional Available	5 Included for Any Type (Extra Available)	
12	Other Accessories		<b>Item</b>	<b>Qty</b>	
			Chuck Draw Tube	1pcs	
			Foot Switch	1set	
			Water Tank	1set	
			Installation Tool	1set	
			Machine Foot	4pcs	
13	System Operation Manual		E-manual		
14	Machine Tool Instruction Manual		E-manual		
15	Optional		<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"/> Polygonal Turning Block		
			<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.