



№: LB.TD.TA-EN.DSL2-6/6P<V3>

Dual-spindle Lathe with Double Gang Tool Carriers

TECHNICAL AGREEMENT

DSL2-6/6P

2024.12.30



Contents

1.Product Introduction	1
2.Working Conditions	2
3.Precision Standard	2
4.Technical Specifications	3
5.Safety Precautions	6



1.Product Introduction



Figure 1: Appearance Display (Pictures for Reference Only)

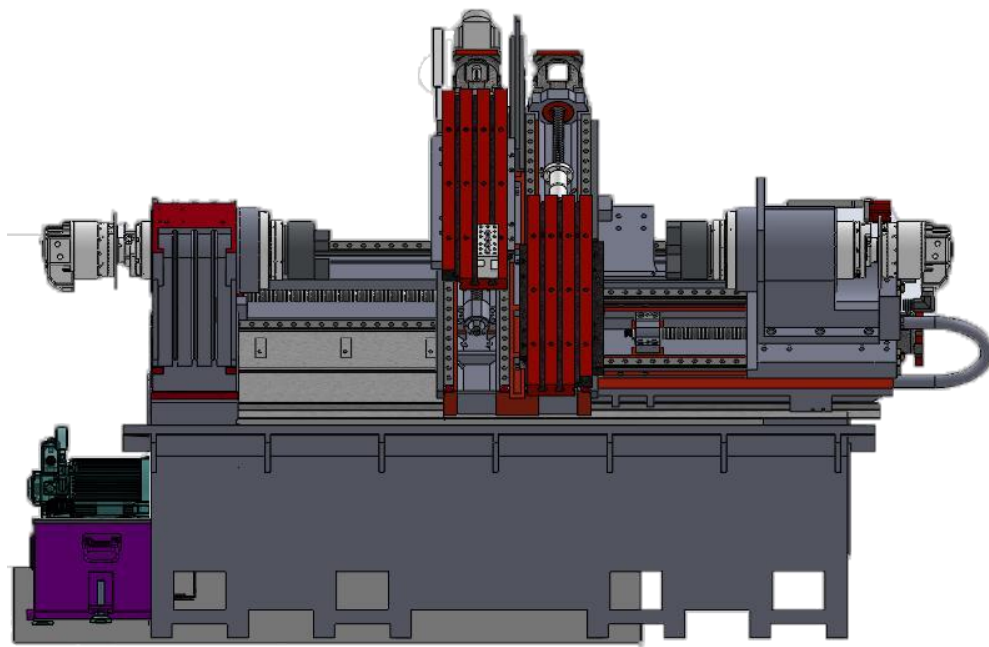


Figure 2: Mechanical Structure Display



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
	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	DSL-6/6P Dual-spindle Lathe with Double Gang Tool Carriers	
1	Max. Turning Diameter	mm	Φ160	
2	Max. Machining Length	mm	120	
3	Max. Swing Diameter	mm	Φ200	
4	Bar Feeding Diameter	mm	<Φ46	
5	Spindle Bore	mm	1st Spindle: Φ56; 2nd Spindle: Φ56	
6	Max. Spindle Speed	RPM	1st Spindle: 4500; 2nd Spindle:4500	
7	X-axis Travel	mm	X1: 1200	X2: 1200
8	Z-axis Travel	mm	Z1: 300	Z2: 200
9	Rapid Feedrate	m / min	22	
10	Voltage (3phase)	V	380±10%	
11	Frequency	Hz	50	
12	Power	kW	31	
13	Weight	kg	4000	
14	Size (Length × Width × Height)	mm	2950 × 1800 ×2000	
#	Configuration			
1	CNC		☐ FANUC 0I-TF PLUS(3)	
	Main-spindle Rated Power / Torque of the Servo Motor		11kW / 52Nm	
	Sub-spindle Rated Power / Torque of the Servo Motor		11kW / 52Nm	
	X1-axis Rated Power / Torque of the Servo Motor		1.2kW / 7Nm	
	X2-axis Rated Power / Torque of the Servo Motor		1.2kW / 7Nm	
	Z1-axis Rated Power / Torque of the Servo Motor		1.8kW / 11Nm	
	Z2-axis Rated Power / Torque of the Servo Motor		1.2kW / 7Nm	
2	\	Brand	Type / Spec	
	1st Spindle	LBIE Disc-type Motor Spindle	A2-5	
	2nd Spindle	LBIE Disc-type Motor Spindle	A2-5	

3	X1 / X2 Axis	Linear Guide Rail	HIWIN / Rexroth	35 Roller Guide		
		Lead Screw	PMI / NSK	32		
		Bearing	NSK	20TAC		
	Z1 / Z2 Axis	Linear Guide Rail	HIWIN / Rexroth	Z1: 3×35 Ball Guide Z2: 2×35 Roller Guide		
		Lead Screw	PMI / NSK	32		
		Bearing	NSK	20TAC		
4	Tool Carrier Form		2 × Gang Tool Carrier (Length: 600mm)			
5	Lubrication Form		Oil Lubrication			
6	Hydraulic System		Standard			
7	Fixture		<input type="checkbox"/> 2set Collect Chuck (46 Type) (Standard) <input type="checkbox"/> 2set Collect Chuck (6inch) (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		Type	Spec	Qty	
			Bore Tool Holder	Φ32	6	
			Radial Square Tool Holder	25*25	2	
			<input type="checkbox"/> Optional Available	10 Included for Any Type (Extra Available)		
12	Other Accessories		Item	Qty		
			Chuck Draw Tube	2pcs		
			Foot Switch	1set		
			Water Tank	1set		
			Installation Tool	1set		
			Machine Foot	8pcs		
13	System Operation Manual		E-manual			
14	Machine Tool Instruction Manual		E-manual			
15	Optional		<input type="checkbox"/> Chip Conveyor			
			<input type="checkbox"/> 2 Stations Driven Tool			
			<input type="checkbox"/> Y-axis Driven Tool			

	<input type="checkbox"/> Polygonal Turning Block
	<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.