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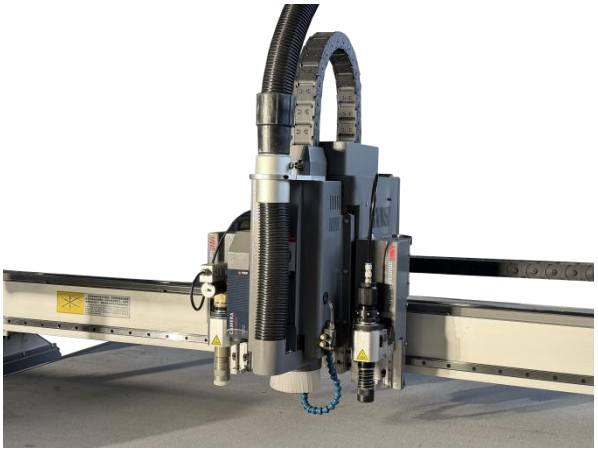
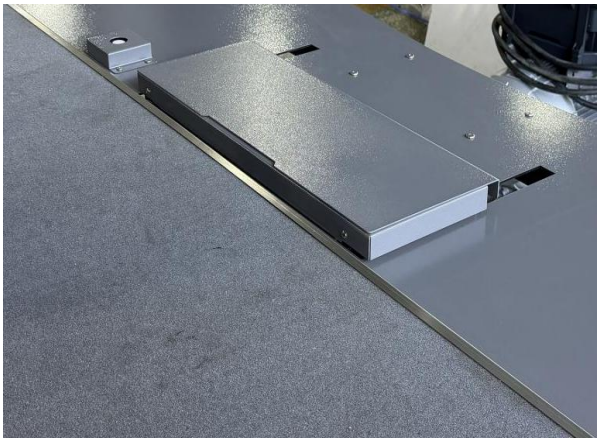
T7-3020ATC Technical Proposal

Actual Machine Photos





Hangzhou Joyhigh Intelligent Equipment Co., Ltd

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About us

Hangzhou Joyhigh Intelligent Equipment Co., Ltd.

Founded in 2010 and headquartered in Hangzhou, China, we specialize in designing and manufacturing premium CNC equipment for global markets. Our comprehensive product range includes:

- **High-Speed Vision-Guided Router Series**
- **High-Precision Machining Centers**
- **Multi-Functional Intelligent Cutting Systems**
- **Fiber Laser Cutting Machines**
- **CO_2 Laser Cutting Solutions**

Manufacturing Excellence

Operating from an **5,000 m² facility** in Yuhang Liangzhu, our vertically integrated production features:

- Sheet Metal Fabrication Workshop
- Precision Assembly Center
- Dedicated R&D Departments for:
  - ◆Software Development
  - ◆Mechanical Engineering
  - ◆Machine Tool Processing

Supported by **35+ skilled professionals**, we maintain an annual production capacity valued at **¥40 million** with streamlined manufacturing processes refined over a decade.

		
Factory	Showroom	Future factory
		
Precision testing instruments	Production room	Warehouse

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Technical Parameters (standard machine)

No.	Content	Specification		Notes
1	Cutting Area	X-axis	2,000mm	/
		Y-axis	3,000mm	/
		Z-axis	50mm	/
2	Machine Bed Indicators	Positioning accuracy	0.05mm/300mm	/
		Positioning repeatability	0.05mm/300mm	/
		Maximum speed	80m/min	/
		Maximum processing speed	35m/min	/
		N.W.	About 1000kg	/
		Power voltage	AC380V/50Hz/3Ph	/
3	Worktable	Electromagnetic valve adsorption	Tracked adsorption	/
		Load weight	500kg	/
4	CNC System	*MNT*	Transferred by cable	/
5	ATC	Linear-type	6 stations	/
6	Drive System	X-axis	*Delta* servo drive	/
		Y-axis	*Delta* servo drive	/
		Z-axis	*Delta* servo drive	/
7	Motorized Spindle (Frequency Conversion)	Spindle	Water-cooling	S&A 5,000
		Speed	40,000RPM	/
		Power	4kw	/
		Dynamic Balance Grade	G2.5	/
		Frequency Converter	MNT	/
8	Guide Rail	X-axis	Square guide rail (25)	LAPPING
		Y-axis	Square guide rail (25)	LAPPING
		Z-axis	Square guide rail	LAPPING
9	Transmission	X-axis	rack	LAPPING
		Y-axis	rack	LAPPING
		Z-axis	Ball screw	TBI
10	Single Edge Cutter	Ø3.175, Ø4, Ø6	/	/
11	Air Pump	250m³/H	1 pcs	7.5kw
12	Loading Dimension	3860×2300×2100mm		/

● Configurations

	Items	√ /O(option)	Notes
Machine	Servo motor & drive	√	Delta
	Guide rail	√	LAPPING
	Rack & pinion transmission	√	/
	Ball screw	√	/
	Electrical circuitry	√	/
	Machine frame	√	inline steel-structure bed, aluminum gantry
	Felt platform	√	/
	Auto-lubrication	√	/
	Camera	√	/
	Two universal modules	√	EOT & UCT
	Auto-alignment	√	
	Safety device (anti-collision)	O	/
	Emergency bottom	√	/
	Frequency converter	√	/
	ATC	√	6 stations
Operation	Software	√	MNT
	Auto-typesetting software	O	MNT
	Computer	O	/
Parts	Air pump	√	7.5kw
	Power transformer	O	/
	Dust collection	√	Collecter + holder + Pipe
	chiller	√	S&A 5000
Tools	Electrical oscillating tool	√	/
	Universal cutting tool	√	/
	Spindle	√	4kW
	Pneumatic oscillating tool	O	/
	Creasing tool	O	/
	V-cut tool	O	/
	kiss-cut tool	O	/
	Rotary tool	O	/
Others	Warranty	√	1 year for machine, software update for lifetime
	Training	√	online & on site
	After-sales service	√	online & on site

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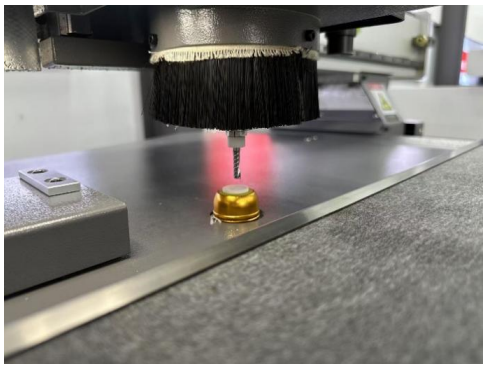
Details

ITEM	PICTURE	DESCRIPTION
Aviation Aluminum Gantry		1.Adopts high-quality aviation aluminum material with integral extrusion molding process. 2.The finished crossbeam features high strength and excellent mechanical properties. 3.Extruded aluminum comes with low internal stress, resisting deformation during long-term operation. 4.It delivers high precision, light weight and superior dynamic response.
Air Pump		7.5kW aluminum turbo vacuum pump delivers stable negative pressure for the vacuum adsorption table of CNC engraving machines, ensuring machining accuracy, improving clamping efficiency, with wide compatibility, low energy consumption and maintenance-free operation.
Guide Rail		High-precision ground guide rails deliver high-precision smooth transmission for CNC engraving machines, ensuring positioning and machining accuracy, with wear resistance, low friction, stable operation and long service life.
Reducer		Low energy consumption, fast acceleration, superior performance, reducer efficiency up to 95%; minimal vibration, noise-free operation, maintenance-free.

Servo System		1. Delta servo motor features fast response, high precision and strong torque. 2. Adopts stable and reliable closed-loop control. 3. Supports multi-axis synchronous operation. 4. Ensures high-speed & high-precision machining and long-term stable operation of engraving machines.
Chiller		1. S&A CW-5000 chiller provides efficient temperature control and heat dissipation. 2. It suppresses thermal deformation to ensure high-precision machining. 3. Supports long-term continuous operation and extends component service life.
ATC System		6-station ATC automatic tool magazine enables fast automatic replacement of milling cutters, no manual tool changing required. It adapts to multi-process continuous machining and greatly improves processing efficiency.
Tools Calibrating Device		Automatic tool setter enables fast and precise tool setting, avoids manual setting errors, improves accuracy and efficiency, and suits automated continuous production.

Dust Collection		1.European standard professional dust collector It instantly removes dust and debris from engraving work. 2.Adopting strong suction, multi-layer filtration, low noise and energy-saving design, it meets European environmental protection standards. 3.It purifies workshop air, protects operators' health, reduces dust buildup on equipment, keeps the processing area clean, and improves finished product quality.
Independent Computer Operation		1. Integrated emergency stop button and mouse-operated HMI. 2. User-friendly interface supports quick parameter setting for cutting processing. 3. Reserved dedicated installation space for industrial PC.
Electromagnetic valve adsorption table		1. Integrated design of four-zone independent solenoid valve and tracked adsorption 2. Supports zone start/stop on demand with even and stable suction 3. Compatible with various plate materials, no warping or displacement during processing

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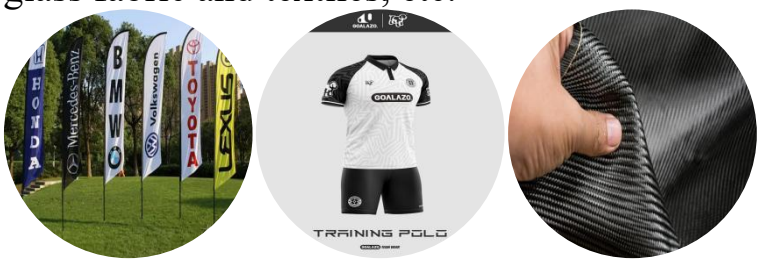
- **Tools and Applications**

Tools	Applications
Ultra-frequency electric oscillating tool EOT (standard)	All kinds of corrugated, cardboard, KT board, gray board, composite materials, etc 
Universal cutting tool/Drag tool UCT (standard)	Flexible materials less than 3mm thickness. 
Milling tool (standard)	Acrylic, aluminum composite panel and MDF, etc within 20mm thickness. 
Ultra-frequency pneumatic oscillating tool POT (optional)	various soft and composite materials such as sponge foam, multi-layer leather, non-woven fabric, rubber and KT board,etc. 
Wheel cut tool	Flexible materials such as UV fabric, carbon fabric,

(optional)	glass fabric and textiles, etc. 
Multi-angle V-Cut tool (optional)	Can make V-cut angles of 15º,22.5º,30º and 45º for cardboard less than 20mm thickness. 
Creasing tool (optional)	Used in packaging industry for making cartons and boxes of corrugated board, cardboard and pp hollow board, etc. 
Kiss-cut tool (optional)	All kinds of stickers, vinyl, engineering reflective film, etc.