

Xiamen Yangsen NC Equipment Co., Ltd

Technical Document

YST-700

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1. Corporate Culture Introduction

Xiamen Yangsen NC Equipment Co., Ltd. is a high-tech enterprise specializing in the development, design, production and manufacture of CNC machine tools and CNC machine tools. The company is based on Taiwan's manufacturing technology, and at the same time integrates many years of manufacturing experience from many equipment manufacturers, constantly absorbing domestic and foreign. With the advanced scientific research achievements in the same industry, it has developed into an exclusive manufacturer with complete production and assembly machining centers today.

The company's products include vertical machining center, high-speed machining center, high-speed drilling and tapping machine, gantry machining center, horizontal machining center, etc. The main customer groups are precision mold manufacturing, automobile manufacturing, electronic communication industry, precision parts Processing industry and aerospace industry, etc. The company has been operating with integrity. The business philosophy of sustainable innovation, with the most cost-effective products, perfect products and perfect services, provides customers with the best solutions, creates the greatest value for customers, and enhances the competitiveness of customers' products.

In the future, the company will continue to adhere to the high-quality policy of "customer first, market first; technology-based, quality wins: the concept, to create value for customers. Innovate research, keep improving, and wholeheartedly meet customer needs and expectations.

Main business: high-speed high-precision engraving and milling machine, vertical machining center series, high-speed drilling and tapping machine, gantry machining center series, horizontal machining center series. Enterprise service: To provide better products and services, we have been working hard and persevering forever. We aim to build a brand, be honest and trustworthy, and achieve mutual benefit and win-win. We help users use equipment better through continuous technological updates and perfect service system, because of our profession we keep improving.

Technical support: professional engineers come to solve equipment selection for customers. Solve the processing requirements of various products of customers, help users choose suitable and economical solutions, and make the products selected by users more cost-effective. Quality control: Our products have passed ISO9001 quality system and ISO14000 environmental management system certification

After-sales service: The after-sales service network all over the country is the guarantee for our products to be sold all over the country.



2. Machine Features:



3. YST-700 Drilling and Tapping Machine Features:

- 1. The maximum speed of the BT30 spindle is 20000r/min, and the power of the spindle motor is 5.5kw;
- 2. Equipped with 21T servo flying saucer tool magazine, the tool change time is only 1.8s;
- 3. The rapid displacement can reach 60/60/48m/min;
- 4. Rigid tapping speed can reach 6000r/min;

5. The parts of the whole machine include famous brands such as "Japan FANUC system", "Schneider electric components", "Point heat exchanger", "Japan SHOWA oiler" and so





er AirTac air source processing device



on. Schneider Electric Nikki LED lighting



Ouyi Exchanger



Bright LED warning light with buzzer

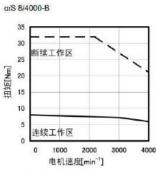


High power pump

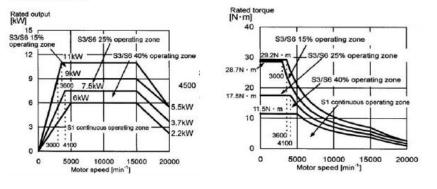


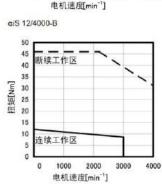
6. Three-axis motor and spindle motor torque:

系统	Oi-MF	额定功率ĸw	额定扭矩N.m	最大扭矩 _{N.m}
X轴	α <i>is</i> 8/4000-B	2.5	8	32
Y轴	ais 8/4000-B	2.5	8	32
Z轴	ais 12/4000-B	2.7	12	46
主轴SP	αil 2/20000-B	6	11.5	29.2



ail 2/20000-B





3. Optomechanical characteristics

YST-700 Optomechanical characteristics:

1. The bed of the machine tool is made of precision Meehanite HT300 high-grade cast iron. The stable material and high rigidity mechanism are the basis for the high-speed operation of the machine tool;

2. The guide rail has a large span, the bed is high-precision, and the machine tool weighs 3.4T;

3. The design of the "human"-shaped column is as stable as Mount Tai;

4. Each machine tool has undergone aging, and then passed the laser club inspection, and can only leave the factory after passing the test.



4. Technical parameters:

Item	Spec	Units	YST-700	
	X/Y/Z axis	mm	700*400*350	
·	Spindle nose to table distance	mm	145-495	
Travel	Distance from spindle center to column track	mm	420	
	Track form		Linear guide	
	Table size (L*W)	mm	800*420	
Worktable	The Max. load capacity of the workbench	kg	300	
	T-slot	No/mm	3-14*125	
Spindle	Spindle taper hole (model/installation size)	mm	BT30	
Spinare	Spindle RPM	rpm	20000	
	Spindle drive mode		Direct Connection	
Feed	X/Y/Z axis rapid feed	m/min	60/60/48	
	Cutting feed	mm/min	10000	
	Tool change		Flying Saucer	
	Handle Specifications	type	BT30	
	Tool Capacity	tools	21	
Tool	Max. Tool Diameter (Proximity Tool)	mm	60	
Changer	Max. Tool Diameter (Without Proximity Tool)	mm	80	
	Max. Tool Length	mm	250	
	Max. Tool Weight	kg	3	
	Fastest tool change time	sec	1.8S	
	Spindle motor	kw	AiI2/20000	
Motor	3 axis servo motor	kw	Ais8/4000, Ais8/4000, Ais12/4000B	
	Cutting water pump motor	m/h-m	4-60	
Accuracy	positioning accuracy	mm	±0.005	
	Repeatability	mm	±0.003	
Power	power requirements	kva	15	
requirement	Air source requirements	Kg/cm	6~8	
Machine	L*W*H	mm	2000*2402*234	
size	Weight	Т	4.2	

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4. List of main accessories

NO.	Item	QTY	Brands Specification	
1	CNC system	1	Japan Fanuc	FANUC-OI-MF
2	Electric spindle	1	Japan Fanuc	AiI2/20000
3	X, Y, Z servo motor	1	Japan Fanuc	Ais8/4000, Ais8/4000,
		-		Ais12/4000B
4	Main shaft front bearing	1	Japan NSK	
5	Spindle rear bearing	1	Japan NSK	
6	X, Y, Z axis screw bearings	1	Japan NSK	25TAC62
7	X, Y, Z axis ball screw	1	Taiwan	Ø36*P16*C3 Level
/		1	PMI/HIWIN	030 110 C3 Level
8	X-axis linear guide	2	Taiwan	30
			PMI/HIWIN	
9	Y-axis linear guide	2	Taiwan	30
			PMI/HIWIN	
10	Z axis linear guide	2	Taiwan	30
10			PMI/HIWIN	
11	Spindle Unit	1	Ruiying	BT30
12	Tool Magazine (Optional)	1	Taiwan Sanjet	21T
13	Cutting fluid pump	1	YANGSEN	1350W high lift
14	Automatic lubrication system	1	Japan SKF	
15	Main pneumatic components	1	Taiwan AirTAC	
16	Main electrical components	1	Schneider	
17	X, Y, Z axis coupling	1 Each	Nobengr/MORGAN	
18	Heat exchanger	1	Ou Yi	
19	Oil cooler	1	Rico	

If any supplier cannot supply it, it will be replaced by a brand of the same quality.

-	8		
ITEM	Spec	ITEM	Spec
1	Fully Enclosure Guard	11	Rigid Tapping
2	Tool Box	12	Network Transmission
3	Spindle Coolant Nozzles	13	Hand Wheel
4	Coolant System	14	Spindle Nose Air Blow
5	Coolant Tank & Chip Tray	15	Air Gun
6	Safety Door	16	Auto Off
7	Heat Exchange for Electric Cabinet	17	Leveling Bolts and Pads
8	Work Light	18	21T Flying saucer tool magazine
9	Water Gun	19	
10	Warning Light	20	

6. Machine tool standard configuration

7. Machine Tool Selection and Configuration

NO.:	Items	NO.:	Items
1		9	
2		10	
3		11	
4		12	
5		13	
6		14	
7		15	
8			

If the user chooses other special configurations, please contact the technical department.

8. List of attached tools and materials

No.:	Item	Specification	QTY	Remarks
1	Allen Wrench	1.5-10	1 Set	
2	Screwdriver	Slotted	1 Each	
3	Screwdriver	Phillips	1 Each	
4	Raw Tape		2 Rolls	
5	Glass Glue	Porcelain white	1 Bottle	
6	Electronic Handwheel		1 PCs	
7	Card Reader		1 PCs	
8	Memory Card		1 PCs	
9	Cable	5 Meters, 20 Meters	2 Pieces	
10	Snap Ring		1 PCs	

		r	
11	Screw	1 Package	
12	Machine Tool Ground	1 Stick	
13	Bellows Connector	1 PCs	
14	Toolbox	1 PCs	
15	Floor Mat	1 Set	
16	Operation Manual	1 PCs	
17	Certification	1 PCs	

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9. Installation, commissioning, training and acceptance

1. Installation and commissioning: After the machine tool arrives at the customer's factory, our service engineer will go to the customer's factory in time to carry out installation and commissioning and on-site training.

2. Customers can choose to send operators to our company to be responsible for the preliminary training for about a week, and then our company will conduct on-site training at the customer's place during installation and commissioning.

3. Acceptance: Accuracy acceptance, according to the ex-factory accuracy inspection table provided by the supplier, inspect the items that are conditionally inspected at the customer's place, and test the inspection items that do not meet the inspection conditions, such as positioning accuracy, spindle taper hole accuracy inspection stick test etc., no testing shall be carried out at the buyer's place, or the buyer shall send personnel to the supplier's factory for inspection and acceptance through negotiation between the two parties.

10 Xiamen Yangsen NC Equipment After-sales Commitment Letter

1. Pre-sales service: Janssen's sales team will provide users with the best processing solutions, including machine tool selection, option configuration, tool and fixture selection, lubricating oil, cutting fluid management and other series of services. And can provide turnkey projects.

Maintenance response time: Our company has a service team of up to 50 people and is equipped with a complete service vehicle. After receiving the user's notification of failure, we will respond within 8 hours.
Parts inventory: Janssen has a special production workshop and parts inventory in Xiamen, with strong strength and complete inventory. There are commonly used parts inventories in each office to provide users with the fastest repair parts.

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4. Machine tool maintenance: All machine tools within the warranty period enjoy free maintenance services, and machine tools outside the warranty period can purchase maintenance services at an economical and reasonable price. And PCs can plan equipment management and maintenance processes according to customer needs.

5. Maintenance charges after the warranty period: The charging standard is clearly marked and the real price is charged, only the cost is charged, and the user is served with the concept of openness, fairness and fairness. After the maintenance period, our company is responsible for providing spare parts at preferential prices for a long time, and the maintenance service fee time is not more than 48 hours;6. Ad hoc old user service department: closely track the use of machine tools, and deal with maintenance

complaints in a timely manner.

7. Maintenance supervision: the general manager also serves as the director of the after-sales service department, supervises the quality of maintenance services in real time, and protects the rights of customers.8. Warranty: From the date of acceptance of the equipment, a one-year warranty period is provided. During the warranty period, our company is responsible for free maintenance for equipment failures caused by users. If the fault is caused by improper use by the user, the cost fee will be charged after the service.

11. Machine Tool Working Conditions

- 1. Three-phase AC power supply: 380V±10%, -15%; 50Hz±1Hz
- 2. Ambient temperature: $8 \sim 40 C^{\circ}$
- 3. Relative humidity: $\leq 80\%$
- 4. Air pressure: $0.6 \sim 0.8$ MPA

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The company's products are constantly being developed and improved, and specifications may be changed

without notice. Some images in this document may contain optional items.

The pictures in this document are for reference only, and the actual product shall prevail.