

Technical Document

Name: Horizontal Machining Center (FANUC)

Model: JN-IH50

Date:



Party A: :

Party B: Jiangnan CNC Machine Tool Co., Ltd.

1. Company Profile



Jiangnan CNC Machine Tool Co., Ltd. is located in the beautiful coastal city of Wenzhou, China. It is a CNC machine manufacturing enterprise integrating research, design, manufacturing, and sales. The company was established in September 2006 and currently has a standardized plant covering an area of 85,000 square meters, with more than 180 excellent staff members. Among them, 90 employees have a college degree or above, accounting for 50% of the total staff; the company has 20 research and development personnel, accounting for 9% of the total workforce.

Adhering to the business philosophy of "technological innovation, win-win cooperation, integrity and efficiency, sincere service," and the quality policy of "quality first, customer foremost," the company provides customers with the most cost-effective products and comprehensive services, aiming to create the maximum value for customers. With advanced equipment including the world's most advanced large-scale CNC five-axis machining center and horizontal machining center, as well as contour grinding machines and high-precision Renishaw inspection equipment, the company strictly adheres to international standards. It has obtained ISO9001 certification and implements rigorous process inspections to ensure product quality.

The company mainly manufactures vertical Machining Centers, horizontal Machining Centers, drilling and tapping machine, gantry series, CNC lathes, and other series of products:

1. Vertical Machining Centers: JN-IV850, JN-NV856, JN-NV900, JN-NV1050, JN-IV1160, JN-NV1300, JN-NV1690, etc.
2. Horizontal Machining Centers: JN-H50, JN-IH50, JN-H63, JN-IH63, JN-H800, JN-H1810, etc.
3. Drilling and Tapping Machines: JN-T500, JN-T700, etc.
4. CNC Lathes: JN-CH106, JN-CH108, JN-CH108M, JN-CH108MY, JN-CH208, JN-CH506MSY, etc.
5. Gantry Series: JN-GL2013, JN-GL2015, JN-GL2518, JN-GL2720, JN-GL3023, JN-GL4023, JN-GL4027, JN-GL5030C, etc.

Our machine tools are popular in major provinces and cities in China, including Beijing, Shanghai, Chongqing, Tianjin, Hebei, Henan, Shanxi, Shandong, Jiangsu, Zhejiang, Guangdong, Anhui, Hubei, Fujian, and others, due to their excellent performance and first-class after-sales service. The company adopts a combination of direct sales and distributorship models and has cooperated with 100 distributors nationwide, covering major cities across the country.

Jiangnan CNC – A national brand, a national pride! We sincerely invite you to join with us to create a new era of high-tech machinery!

2.Introduction the Songyang Factory



Jiangnan Technology (Songyang) Co., Ltd., a wholly-owned subsidiary of Jiangnan CNC Machine Tool Co., Ltd., was established in August 2017. Located in the beautiful scenic city of Songyang, Lishui, it covers an area of 107.69 acres with a total construction area of 29,693 square meters. The company has a registered capital of 50 million yuan, with fixed asset investment of 300 million yuan and working capital investment of 70 million yuan. It has introduced multiple sets of high-precision equipment such as the Japanese DAIWA CNC gantry five-axis machining center and horizontal machining centers.

Building on the development foundation of its parent company, Jiangnan Technology actively promotes brand building and product serialization strategies. Internally, it implements ERP systems and information construction, optimizing business processes, and enhancing the company's management level and core competitiveness. Facing the challenges of economic globalization, Jiangnan will continue to focus on the CNC machining center industry, adhere to market-oriented business philosophy, and persist in the direction of "internationalization, technologicalization, and industrialization." It will vigorously introduce advanced equipment, technology, and talents, integrate resources, leverage strengths, and strive to shape "Jiangnan" into a well-known enterprise in the international CNC machining center industry.

3. The technical parameters of the JN-IH50

	Item	Unit	Specification
Worktable	Table size	mm	400
	Indexing angle	°	0.01°
	Max. swing diameter	kg	0° 200/ 90° 100
Travel	Table load	mm	900/630/650
	X/Y/Z axis travel	mm	150-800
	Spindle nose to table center	mm	50-680
Worktable	Spindle center to table surface		BT40
	Spindle taper	rpm	12000
	Spindle speed		Direct link
Travel	Spindle drive method	kw	11-15
	Torque		torque52.5N.m, 60min torque70N.m, 15mintorque95.5N.m
Worktable	X/Y/Z cutting feed	mm/min	1~10000
	X/Y/Z rapid feed	mm/min	36000/36000/36000
Travel	Positioning accuracy	mm	0.008

	Repeat positioning accuracy	mm	0.005
	A 回转台分度精度	sec	15
	A 回转 axis 重复精度	sec	4
	B 回转台分度精度	sec	50
	B 回转 axis 重复精度	sec	8
Automatic Tool Change System (Optional)	Tool magazine capacity	T	24
	Tool change mode		Randomization
	Max. tool diameter	mm	Φ125 (Φ250Adjacent vacant)
	Max. tool length	mm	300
	Max. tool weight	kg	7
	Toolholder type(Pocket spec)		BT40
	Tool change time	s	3 (T-T)
Others	Air pressure demand	kg/cm ²	6
	Cooling pump	w	1270
	Power requirement	kva	25
	Machine weight	kg	7800
	Machine size	mm	3224*3620 (Chip removal machine with water tank)

4、Detailed supplier of main components

Name		Specification	Brand Origin	Manufacturer
CNC Control System		0I-MF (Follow with the tip of a knife)	Japan	FANUC
Spindle Motor		Bil12/12000		
Servo Motor	Xaxis	Bis22/3000		
	Yaxis	Bis22/3000		
	Zaxis	Bis22/3000		
	Aaxis	Bis12/2000		
	Baxis	Bis22/3000		
Ball Screw	Xaxis/Yaxis/Z axis	40	Taiwan	PMI
Linear Guide	Xaxis/Yaxis/Z axis	45	Taiwan	PMI/ HIWIN

Screw Coupler	Xaxis/Yaxis/Z axis	BK3/Φ28-Φ35	Taiwan	JANETECH
Ball Screw Bearing			Japan	NACHI
Spindle		BT40/12000rpm	Taiwan	POSA
Tool Magazine		BT40/24T	Taiwan	RELIB
Five-Axis Rotary Table		FHR-400CF	Taiwan	TJR
Transformer		30KWA	Joint Venture	LUHO
Cooling Pump			Taiwan	STAIRS
Electrical Components			France	SCHNEIDER
Pneumatic Components			Japan	SMC
Lubrication System			Joint Venture	HERG
Telescopic Cover			Taiwan	ETEK
Chip Conveyor		Rear Chip Flushing	China	CHNCIT

If a supplier can not supply, will be replaced by the same quality brand.

7. Machine Mechanical Indicators

1、 Machine Structure

Machine Structure The main structural components of the machine tool are made of high-tensile cast iron, optimized in design for high static rigidity. The spindle features a high-rigidity structure, high mechanical efficiency, suitable for high-precision heavy cutting machining. The spindle motor adopts AC servo technology, enabling stepless speed regulation in both forward and reverse directions. The three-axis ball screw and servo motor drive directly, with no transmission cumulative error, ensuring high repeatability and positioning accuracy. Automatic tool changing structure, quick and smooth tool changing operation. All machine components and various measurement units comply with international (ISO) standards.

2、 Machine Protection

Machine Protection The machine protection device is safe, complete, and reliable. Machine noise: in compliance with national standards, 75dB. Electrical control cabinet sealed to prevent dust and water, IP65 rating.

3、 Lubrication System

Lubrication System Adopts TZ electric lubrication device to quantitatively lubricate all sliding surfaces and ball screws. Adjustable lubrication time intervals and amounts to ensure 100% lubrication at all lubrication points. Machine displays an alarm in case of low oil level (oil shortage). Uses 68# guide rail lubricating oil. Lubrication tank capacity: 2 liters. Lubrication pump voltage: 220V, motor output power: 25W, maximum pressure: 2.5MPa, discharge flow rate: 110ml/min.

4、 cooling system Cooling system volume 240L cooling pump, motor power P1:1030W, P2:760W, flow 5m³/h, Hmax: 37.5m cutting cooling for the universal nozzle spray coolant

5、 Pneumatic System

Pneumatic System Pneumatic system, pressure switches, solenoid valves, etc., realize pneumatic tool changing, pressure: 6-8KG/C m², flow rate: 220L/MIN, can clean the working area.

6、 Electrical System

Electrical System The standard system has complete and reliable interlocking, safety protection, and fault self-diagnosis alarm functions. Equipped with RS232 standard communication interface, can use computer floppy disk for program storage. (Other systems can be provided according to user requirements).

7、 Chip removal device

Chip flushing and chip removal in the rear

8、 Product Services

1. Installation and Commissioning
 - 1.1. Before equipment installation, Party A should prepare the site, power supply, air supply, and related supporting measures in advance.
 - 1.2. After the equipment arrives at Party A's location, Party A is responsible for the foundation, unloading, and hoisting of the machine tool, and should promptly notify Party B. Party B will send installation and commissioning personnel to Party A's site upon receiving notification.
 - 1.3. Upon delivery of the machine tool, our company will dispatch engineers to the customer's site for free installation and commissioning of the equipment. Party A

should designate operators and maintenance personnel for the machine tool and assign dedicated personnel to assist with installation and commissioning.

2. Training

Training Provide customers with training on machine tool operation and routine maintenance knowledge, and guide operators in troubleshooting simple faults and related techniques.

3. Product Technical Services

Product Technical Services Our company can provide customers with technical consulting and after-sales technical support. As long as it is related to machine tool technology and operation issues, our company can handle customer inquiries.

4. Acceptance Methods

4.1. Acceptance will be conducted at Party A's site.

4.2. Appearance inspection: Personnel from both parties visually inspect the appearance of the machine tool, and tools and accessories are checked and accepted according to the contract and attachment.

4.3. Mechanical accuracy acceptance: When the machine tool is delivered from Party B to Party A, relevant qualification certificates and factory accuracy inspection reports should be provided. Acceptance will be conducted at Party A's site, and the machine tool accuracy acceptance should be based on the static accuracy provided in the qualification certificate from Party B. The inspection tools required for acceptance will be provided jointly by both parties.

5. After-Sales Service Commitment

5.1. Warranty Period and Scope

The warranty period is one year from the date of shipment of the machine tool, but lifetime maintenance is provided.

During the warranty period, if there are any quality issues with components, our company will provide free repair or replacement.

5.2. Exclusions from Free Warranty during the Warranty Period

5.2.1. Equipment damage caused by natural disasters such as earthquakes, floods, fires, lightning, typhoons, etc.

- 5.2.2. Human factors caused by Party A's personnel disassembly, modification, and improper operation.
- 5.2.3. Equipment damage caused by prolonged storage.
- 5.2.4. Equipment relocation, secondary training, etc.
- 5.3. Outside the warranty period, our company will also provide timely repairs. Cost of parts replacement will be charged, while related labor costs will be negotiated between both parties.
 - 5.3.1. After-Sales Service Content Upon receiving a customer's repair call, our company will respond by phone within half an hour; if personnel are needed on-site, our company will arrange for maintenance personnel to arrive at the site within 24 hours for locations within the province and within 48 hours for locations outside the province, with special circumstances subject to confirmation through mutual agreement.
 - 5.3.2. Other Commitments in After-Sales Service (Regular Inspection, etc.) When customers require our company to service or maintain the machine tool, our company will send maintenance engineers for on-site service through negotiation, and conduct regular inspections of the machine tool.

After-Sales Service Contact Information Our company's after-sales service hotline: 18957736620, 18968800655.