

CNC Lathe (JN-CH208)

Technical Document

By Jiangnan CNC Machine Co., Ltd.

By Jiangnan Technology (Songyang) Co., Ltd.



The picture is for reference only, the actual appearance may vary slightly due to selected configurations.

Party A: :

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

Date :

Date :

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、Machine technical specifications

1. Main features of machine tools

JN-CH208CNC lathes are full-featured CNC lathes with high speed, high precision, and high rigidity. They can widely meet the high-efficiency processing needs of small and medium-sized precision parts in various industries such as automobiles, electronics, home appliances, aerospace, molds, medical equipment, and instrumentation.

Spindle: The spindle adopts a high-power, high-torque, high-speed, high-precision spindle structure. It is equipped with Japanese NSK P4 grade high-precision bearings and Taiwan Thousand Island chuck cylinder to ensure good processing accuracy and efficiency.

Turret: The 8-position drum-shaped turret tool adopts servo motor indexing, rat wheel positioning, and hydraulic locking structure to ensure the tool changing speed, accuracy and rigidity.

X/Z drive: The X/Z axis adopts PMI (Taiwan PMI) C3 precision ball screw drive, and cooperates with PMI (Taiwan PMI) P level linear roller guide, which has good dynamic characteristics. The rapid traverse speeds of the X-axis and Z-axis are 30m/min and 36m/min respectively.

Bed structure: The machine bed is designed as a one-piece cast, with a 30° step-up ladder inclined bed structure. The internal reinforcement ribs of the bed are arranged in a cross "m" pattern, which has stronger bending and torsion resistance, ensuring that the machine tool Overall dynamic rigidity and stability.

Energy saving and environmental protection:

The screw and guide rails are all lubricated with centralized oil, which reduces lubricating oil consumption and greatly improves the life of the cutting fluid.

The fully enclosed structure protective cover avoids the spillage of chips and smoke and does not cause pollution to the working environment.

When the machine tool is in standby mode, the compressed air consumption is zero. After a period of standby, the machine tool will automatically turn off the NC display to reduce the power consumption of the entire machine.

System configuration: The machine tool control system adopts Japanese FANUC 0I-TF plus CNC system.

The quality of the processed and assembled finished products of all parts of this machine tool complies with the product drawings and related technical requirements, complies with the relevant provisions of GB15760-1995 "General Technical Conditions for Safety Protection of Metal Cutting Machine Tools", and complies with JIS B 6330:1985 "General Principles of Test Methods for CNC Machine Tools" and Relevant provisions of JIS B 6331:1986 "Testing and Inspection Methods for CNC Lathes".

3. Machine specifications

Standard host specifications

Processing range and capabilities	Maximum rotation diameter	500mm
	Maximum processing diameter	330mm
	Maximum processing length	350mm
Travel	X-axis travel	190mm
	Z-axis travel	370mm
Spindle	Output power (30min/continuous)	11/15 kw
	Spindle end form	JISA2-6
	Spindle speed★1	10-4500rpm
	chuck	8 inch
	Spindle through hole diameter	62mm
Dota	Tool capacity	8 Set
	Tool indexing time	0.2 Sec/Post
	Turning tool body size	25mm×25mm
	Maximum boring tool diameter	∅40mm
Feed	X-axis rapid forward speed	30000mm/min

	Z-axis rapid forward speed	36000mm/min
cooling system	volume	150L
Others	Power source (continuous)	18KVA
	Covered area	2118(L) ×1585(W) ×1770(H)
	Machine tool net weight	3500Kg
	Power requirements	380V +10% ~ -15%
	ambient temperature	0 ~ 40°C
	ambient relative humidity	≤85%

★ 1: When using different chucks, the maximum spindle speed will change.

4.Machine tool configuration (single machine tool)

(1)Standard host configuration:

NO.	Content	Quantity
1	Spindle unit (through hole diameter ϕ 62mm, taper A2-6 S1 working power 11/15 kw)	1
2	Turret unit [8D turret, Delta key motor, boring hole ϕ 40mm, tool square 40mm]	1
3	Saddle unit (30 degrees)	1
4	Base basic unit (11/15KW belt spindle system)	1
5	X-axis drive unit (Fx ϕ 28×P10 30m/min)	1
6	Z-axis drive unit (Fz ϕ 32×P12 36m/min)	1

7	Hydraulic system (equipped with 8-inch hollow cylinder chuck)	1
8	Standard cooling system (0.75KW)	1
9	Lubrication system (standard oil lubrication)	1
10	Electric control cabinet unit	1
11	heat exchanger	1
12	Standard water tank (150L)	1
13	Standard nameplate	1
14	8 inch hollow chuck cylinder	1
15	NC CNC system (FANUC 0i-TF Plus)	1
16	MPG panel	1
17	Spindle orientation	1
18	Fully protective sheet metal inside and outside the machine tool	1
19	safety door switch	1
20	flashlight	1
21	Three color signal light	1
22	Foot switch	1
23	8 inch soft claw	1
24	Standard tool holder package	1

25	USB interface	1
26	Network Interface	1
27	Maintenance tool box	1
28	Machine tool rain and snow packaging bag	1

5、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、 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.

5、 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).

6、 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.
- 5.3.3. After-Sales Service Contact Information Our company's after-sales service hotline: 18957736620, 18968800655.