



High-Accuracy CNC Lathe Components: Tight Tolerance Manufacturing for Critical Engineering Needs

Our Product Introduction

for more products please visit us on cnc-metalmachining.com

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: TN-CNC-101
- Minimum Order Quantity: 1 pcs
- Price: USD \$0.1-\$1.99
- Packaging Details: Carton, As Customers' packaging requirements
- Delivery Time: Samples 7-10 days, Mass production 20-25 days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 10000 pcs per week



Product Specification

- Cnc Machining Or Not: CNC Machining
- Type: CNC Milling
- Material Capabilities: Copper, Aluminum, Bronze, Stainless Steel, Brass
- Surface Treatment: Anodized, Anodizing, Anodize/natural, Sandblast, Silk Screen
- Service: OEM/ODM, OEM ODM Metal Stamping, Customized OEM OEM ODM, OEM Service
- Tolerance: 0.01mm, 0.05 Mm, +/-0.005, 0.003-0.05mm
- Application: Machinery, Automotive, Laptop, Industrial Equipment, Engineering
- Color: As Per Customers' Requirement



More Images



Product Description

What We Can Provide

High-Accuracy CNC Lathe Components: Tight Tolerance Manufacturing for Critical Engineering Needs

Description of High-Accuracy CNC Lathe Components: Tight Tolerance Manufacturing for Critical Engineering Needs

High-accuracy CNC (Computer Numerical Control) lathe components are precision-engineered parts produced using advanced lathe machines programmed to operate within extremely tight tolerances—often measured in microns. These components are critical for applications where dimensional precision, surface finish, and material integrity directly impact performance, safety, or functionality. Industries such as aerospace, automotive, medical devices, and energy rely on such components to ensure seamless assembly, durability, and reliability under demanding conditions.

Specification of High-Accuracy CNC Lathe Components: Tight Tolerance Manufacturing for Critical Engineering Needs

CNC Capacity				
CNC Machining Center	3 / 4 / 5 axis CNC Machining Centers	40+ CNC Machines		
CNC Turning	φ0.5 - φ300 * 750 mm	DIN-2768-Fine +/-0.005 mm		
CNC Machining	1270×508×635 mm(max)	DIN-2768-Fine +/-0.005 mm		
CNC Stamping	1000 * 1000 mm(max)	DIN-2768-Fine +/-0.005 mm		
Drawing Format	IGS,STP,X_T ,DXF,DWG , Pro/E, PDF			
Inspection Equipments	Measurement Instrument, Projector, CMM, Altimeter, Micrometer, Thread Gages, Calipers, Pin Gauge etc.			
Material Available				
Stainless Steel	SS201,SS301, SS303, SS304, SS316, SS416, 17-4PH, etc.			
Steel	Mild steel, Carbon Steel, 4140, 4340, Q235, Q345B, 20#, 45# etc.			
Brass	HPb63, HPb62, HPb61, HPb59, H59, H68, H80, H90 etc.			
Copper	C11000,C12000,C12000 C36000 etc.			
Aluminum	AL6061, AL6063, AL6082, AL7075, AL5052, A380 etc.			
Iron	A36, 45#, 1213, 12L14, 1215 etc.			
Plastic	ABS, PC, PE, POM, Delrin, Nylon, Teflon, PP,PEI, Peek etc.			
Surface Finishing				
Aluminum Parts	Stainless Steel Parts	Steel Parts	Copper /Brass	Plastic Parts
Clear Anodized	Polishing	Zinc plating	Polishing	Painting
Color Anodized	Passivating	Oxide black	Passivation	Chrome plating
Sandblast Anodized	Sandblasting	Nickel plating	Galvanized	polishing
Chemical Film	Laser engraving	Chrome plating	Nickel Plating	Sandblast
Brushing		Carburized	Chrome plating	Laser engraving
Polishing		Heat treatment		
Chroming		Powder Coated		

Quality Control

1. Checking the raw material after they reach our factory----- Incoming quality control (IQC)
2. Checking the details before the production line operated
3. Have full inspection and routing inspection during mass production---In process quality control(IPQC)
4. Checking the goods after they are finished---- Final quality control(FQC)
5. Checking the goods after they are finished-----Outgoing quality control(OQC)

Application Of High-Accuracy CNC Lathe Components: Tight Tolerance Manufacturing for Critical Engineering Needs

1. Auto Components Hardware Parts Auto Parts
2. Communication Equipment
3. Industrial Equipment
4. Medical EquipmentsMechanical Parts
5. Ship Accessories
6. Electrical Equipment
7. Mechanical Equipment

Why Choose Us

Our Advantages

Enhanced Precision & Consistency

CNC lathes execute operations with sub-micron accuracy, ensuring every part matches design specifications identically. This eliminates variability common in manual machining, critical for components like turbine blades or surgical implants where even minor deviations can lead to failure.

Increased Efficiency & Productivity

Automated CNC processes reduce setup times, minimize human error, and enable continuous operation (24/7 production). High-speed machining capabilities accelerate throughput while maintaining quality, optimizing resource use and reducing lead times.

Material Versatility & Complex Geometry Support

CNC lathes handle diverse materials (e.g., titanium, stainless steel, composites) and intricate geometries—such as internal threads, tapers, or custom profiles—that are impractical for manual methods. This flexibility supports tailored solutions for specialized engineering needs.

Cost-Effectiveness & Long-Term Reliability

While initial setup costs are higher, tight-tolerance manufacturing reduces waste, rework, and assembly errors. Durable, precision-engineered parts extend product lifecycles, lower maintenance costs, and enhance safety, delivering long-term value for critical applications.

Factory Show

Factory Equipment



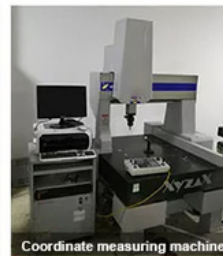
WEDM



Milling Machine



CNC Wire Cut



Coordinate measuring machine



CNC Bending Machine



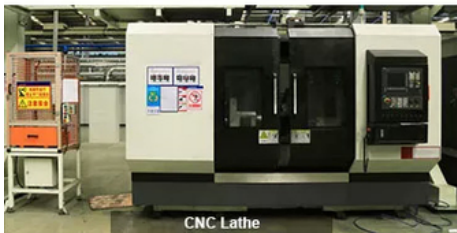
Hydraulic Press Machine



SLS/SLA Machine



5-Axis CNC



CNC Lathe



Laser cutting Machine



CNC Punching Machine



Injection Molding machine



FAQ

Q1: Where can I get product & price information?

A1: Send us inquiry e-mail, we will contact you as we receive your mail.

Q2: How long can I get the sample?

A2: Depends on your specific items, within 3-7 days is required generally.

Q3: What kinds of information you need for quote?

A3: Kindly please provide the product drawing in PDF, and will be better you can provide in STEP or IGS.

Q4: What are the payment terms?

A4: We accept 50% as payment deposit, when the goods is done, we take photos for your check and you then pay the balance.

Q5: Are you a trading company or factory?

A5: We are direct factory with 10 experienced engineers and more than 650 employees as well approximate 2,000 square ft. workshop area.

Q6: What shall we do if we do not have drawings?

A6: Please send your sample to our factory, then we can copy or provide you better solutions. Please send us pictures or drafts with dimensions (Length, Height, Width), CAD or 3D file will be made for you if placed order.



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