



Ultra-Precision CNC Machining Parts Manufacturer Sub-Micron Tolerances for Electronics

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: CNC-XG-091
- 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

- Application: Automotive, Aerospace, Medical, Etc.
- Drawing Format: CAD, PDF, JPG, Etc.
- Inspection: 100% Inspection Before Shipment
- Lead Time: 7-15 Days
- MOQ: 1 Piece
- Material: Metal
- Package: Carton Box, Wooden Box, Etc.
- Payment Term: T/T, L/C, PayPal, Etc.
- Process: CNC Machining
- Size: Customized
- Surface Treatment: Polishing, Sandblasting, Anodizing, Etc.
- Tolerance: $\pm 0.005\text{mm}$
- Transport: By Air, By Sea, By Express, Etc.



More Images



Product Description

What We Can Provide

Custom CNC Machining Solutions Factory Agile Production for Individualized Component Needs

Description Of Custom CNC Machining Solutions Factory Agile Production for Individualized Component Needs

This specialized manufacturer leverages advanced CNC technology to produce electronic components with sub-micron tolerances (± 0.0001 – 0.0005 inches), critical for high-performance applications like microchips, PCBs, sensors, and precision connectors. Utilizing multi-axis CNC milling/turning centers, laser scanning, and coordinate measuring machines (CMMs), the process ensures micron-level accuracy and superior surface finishes (below $0.05\mu\text{m Ra}$) while maintaining strict compliance with ISO 13485, AS9100, and GD&T standards.

Material Of Custom CNC Machining Solutions Factory Agile Production for Individualized Component Needs

Processing	CNC Turning, CNC Milling, Laser Cutting, Bending, Spinning, Wire Cutting, Stamping, Electric Discharge Machining (EDM), Injection Molding
Materials	Aluminum: 2000 series, 6000 series, 7075, 5052, etc.
	Stainless steel: SUS303, SUS304, SS316, SS316L, 17-4PH, etc.
	Steel: 1214L/1215/1045/4140/SCM440/40CrMo, etc.
	Brass: 260, C360, H59, H60, H62, H63, H65, H68, H70, Bronze, Copper
	Titanium: Grade F1-F5
	Plastic: Acetal/POM/PA/Nylon/PC/PMMA/PVC/PU/Acrylic/ABS/PTFE/PEEK etc.
Surface Treatment	Anodized, Bead Blasted, Silk Screen, PVD Plating, Zinc/Nickel/Chrome/Titanium Plating, Brushing, Painting, Powder Coated, Passivation, Electrophoresis, Electro Polishing, Knurl, Laser/Etch/Engrave etc.
Tolerance	$\pm 0.002 \sim \pm 0.005\text{mm}$
Surface Roughness	Min Ra 0.1~3.2

Application Of Custom CNC Machining Solutions Factory Agile Production for Individualized Component Needs

1. Computers and Laptops: Skived heatsinks are widely used in computer processors, graphics cards, and other internal components to dissipate heat generated during intense computing tasks. They help prevent overheating and maintain optimal performance.
2. LED Lighting: LED lights generate heat, and efficient cooling is essential to maintain their longevity and brightness. Skived heatsinks are used in various LED lighting applications, including residential, commercial, and automotive lighting systems.
3. Audio Amplifiers: High-power audio amplifiers generate significant heat during operation. Skived heatsinks are employed to cool down the amplifier circuitry, ensuring stable performance and minimizing distortion.

Features Of Custom CNC Machining Solutions Factory Agile Production for Individualized Component Needs

1. Efficient Heat Dissipation: Aluminum is a highly efficient conductor of heat, and skived heatsinks are designed to maximize the surface area for heat dissipation. The skived fin structure enhances the heatsink's ability to transfer heat away from the electronic components.
2. Thin and Lightweight: Skived heatsinks are manufactured using a precision machining process that allows for the creation of thin and lightweight fins. This design makes them suitable for applications where space and weight are critical considerations.
3. Customizable Fin Geometry: The skiving process allows for the creation of intricate and customizable fin geometries, which can be tailored to specific thermal requirements and airflow conditions. This flexibility ensures optimal performance for various applications.

Why Choose Us

Advantages

Unmatched Precision for Signal Integrity

Sub-micron tolerances ensure minimal signal loss in micro-scale circuitry (e.g., 5G RF connectors, IoT modules). For instance, gold-plated contacts machined to ± 0.0001 " eliminate micro-gaps, enhancing EMI/RFI shielding and thermal management in high-power electronics.

Complex Geometry Adaptability

CNC machining supports intricate designs like micro-fluidic channels, 3D-stacked heat sinks, and MEMS components. Multi-

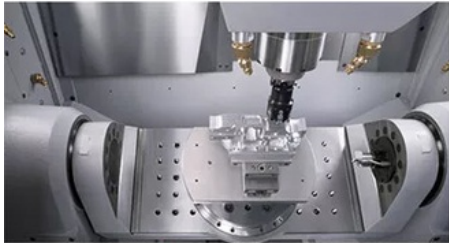
axis systems (5-axis/7-axis) enable single-setup machining of complex angles, reducing assembly errors by 40% compared to conventional methods.

Material Versatility & Compliance

Processes accommodate exotic alloys (titanium, Inconel), engineering plastics (PEEK, LCP), and composites. Sub-micron control ensures material integrity—e.g., thermal expansion coefficients matched to silicon wafers in semiconductor tools, preventing warping during operation.

Accelerated Time-to-Market

Rapid prototyping (3-day turnaround) and scalable production (1–10,000 units) reduce R&D cycles. Automated toolpath generation and 24/7 machine operation cut lead times by 30%, while AI-driven quality checks ensure first-article success rates >99%.



High Precision

**5-Axis CNC & Imported machines
with accuracy ± 0.02 -0.10mm**



Fast Lead Time

**Multiple CNC machines, skillful
workers, guarantee fast lead time**



Strictly Confidential

**We will protect the customers' design
and the customer can request a
confidentiality agreement**



Quality Inspection

**We have a strict quality inspection
process to ensure the quality of our
products**

Factory Equipment



WEDM



Milling Machine



CNC Wire Cut



Coordinate measuring machine



CNC Bending Machine



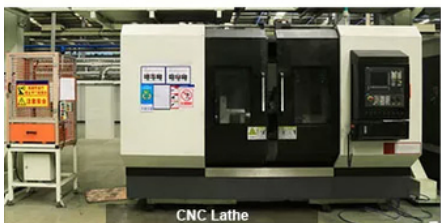
Hydraulic Press Machine



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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