Custom CNC Metal Machining Parts Lightweight Corrosion-Resistant Aluminum Components Precision Engineering

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: CNC-XG-078
- 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: ±0.005mm
- Transport: By Air, By Sea, By Express, Etc.
- Highlight: **Corrosion-Resistant CNC Metal Machining Parts** , **Precision Engineering CNC Metal Machining**

More Images

Our Product Introduction

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

Product Description

What We Can Provide

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Description Of Custom CNC Metal Machining Parts Lightweight Corrosion-Resistant Aluminum Components Precision Engineering

Custom CNC Metal Machining Parts, particularly those crafted from aluminum, represent a blend of advanced manufacturing techniques and material science that cater to diverse industrial needs. These precision-engineered components leverage the unique properties of aluminum, including its lightweight nature and corrosion resistance, making them ideal for a wide range of applications.

1. Lightweight Construction:
Aluminum is approximately one-third the density of steel, making it an excellent choice for components that require reduced weight without compromising strength. This lightweight characteristic is particularly advantageous in industries such as aerospace, automotive, and robotics, where reducing overall weight can lead to improved fuel efficiency, enhanced performance, and reduced operational costs.

2. Corrosion Resistance:
Aluminum naturally forms a protective oxide layer when exposed to oxygen, which provides it with inherent corrosion resistance. This makes aluminum components suitable for environments where exposure to moisture, chemicals, or saltwater is a concern. Custom CNC aluminum parts can be further treated with anodizing or other surface coatings to enhance their corrosion resistance and durability.

3. Precision Engineering:
CNC (Computer Numerical Control) machining enables the creation of aluminum components with exceptional precision. The process involves using computer-aided design (CAD) software to program the CNC machine, which then removes material from a solid block of aluminum to achieve the desired shape and dimensions. This results in parts with tight tolerances, smooth surfaces, and intricate features, ensuring they fit and function perfectly within their intended applications.

Material Of Custom CNC Metal Machining Parts Lightweight Corrosion-Resistant Aluminum Components Precision Engineering

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	±0.002 ~ ±0.005mm
Surface Roughness	Min Ra 0.1~3.2

Application Of Custom CNC Metal Machining Parts Lightweight Corrosion-Resistant Aluminum Components Precision Engineering

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 Metal Machining Parts Lightweight Corrosion-Resistant Aluminum Components Precision Engineering

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.

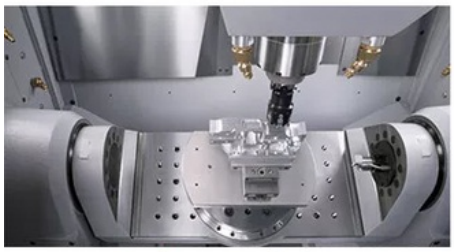
Why Choose Us

Our Advantages

1. Weight Reduction:
Aluminum's lightweight nature significantly reduces the overall weight of components, which can lead to improved fuel efficiency, enhanced performance, and reduced operational costs in industries such as aerospace, automotive, and robotics.

2. Corrosion Resistance:
The natural oxide layer that forms on aluminum provides inherent corrosion resistance, making these components suitable for environments where exposure to moisture, chemicals, or saltwater is a concern. Additional surface treatments can further enhance their durability.

3. Precision and Accuracy:
CNC machining ensures exceptional precision and accuracy in the production of aluminum components. This results in parts with tight tolerances and smooth surfaces, which are crucial for proper fit and function within their intended applications.



High Precision

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

Fast Lead Time

Multipe CNC machines, skillful workers, guarantee fast lead time

Strictly Confidential

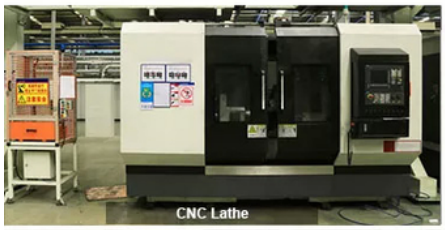
We will protect the customers'design and the customer can request a confidentiality agreement

Quality Inspection

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

Factory Show

Factory Equipment



FAQ

1. How can I get the price? - We usually quote within 24 hours after we get your inquiry (except weekend and holidays). If you are urgent to get the price, please email us or contact us in other ways so that we can offer you a quote.

2. Can I buy samples? - Yes. Please feel free to contact us.

3. What is your lead time? - It depends on the order quantity and the season you place the order. Usually we can ship within 7-15 days for small quantity, and about 30 days for large quantity.

4. What is your payment term? - T/T, Western Union, MoneyGram, and Paypal. This is negotiable.

5. What is the shipping method? - It could be shipped by sea, by air, or by express (EMS, UPS, DHL, TNT, FEDEX etc). Please confirm with us before placing orders.

6. How do you make our business long-term and good relationship? - We keep good quality and competitive price to ensure our customers benefit. Furthermore, we respect every customer as our friend and we sincerely do business and make friends with them, no matter where they come from.

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