



Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

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: AL-CNC-081
- 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: Milling, Turning, Machining
- Material Capabilities: Copper, Aluminum, Bronze, Stainless Steel, Brass
- Surface Treatment: Anodizing, Brush, Anodized, Painting/Powder Coating/Sandblast/Color Anodize/Polish/Oxidation
- Application: Machinery, Automotive, Laptop, Industrial Equipment, Engineering
- Keyword: Aluminum Enclosure Box
- Tolerance: 0.01mm, 0.05 Mm, +/-0.005, 0.003-0.05mm
- Service: Customized OEM
- Sample: Acceptable



More Images



Product Description

What We Can Provide

Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

Description of Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

Our aluminum CNC machining services deliver high-performance components tailored to OEM requirements across aerospace, automotive, robotics, and industrial sectors. Utilizing cutting-edge 5-axis CNC milling, turning, and Swiss-type machining, we achieve micro-level precision (tolerances down to ± 0.0005 inches) while optimizing production workflows for cost efficiency. Advanced techniques like dynamic milling, cryogenic cooling, and in-process inspection ensure superior surface finishes, tight geometric accuracy, and reduced thermal distortion. By integrating Industry 4.0 technologies—such as AI-driven toolpath optimization and predictive maintenance—we minimize downtime and material waste, enabling OEMs to secure premium-quality parts at competitive prices without compromising on delivery speed or scalability.

Specification of Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

| 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 | | |

Application Of Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

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

Feature Of Precision Engineered Aluminum CNC Parts for OEMs with Advanced Machining Techniques and Competitive Pricing

1. Good corrosion resistance
2. High strength and hardness

3. High thermal conductivity
4. Good finishing characteristics

Why Choose Us

Our advantages

Unmatched Precision for Critical Applications

Multi-axis CNC systems with nanoscale positioning control and adaptive tooling ensure flawless execution of complex geometries, such as thin walls, deep pockets, and intricate contours. This precision is vital for safety-critical components like aircraft fittings or surgical device housings, where even minor deviations can compromise performance.

Cost Reduction Through Smart Manufacturing

AI-optimized toolpaths reduce machining time by up to 40%, while cryogenic cooling extends tool life and eliminates the need for costly coolant systems. Combined with lean inventory management and bulk aluminum procurement, we offer OEMs savings of 20–35% compared to conventional machining suppliers.

Scalability from Prototypes to High-Volume Production

Our modular CNC setups and quick-change tooling allow seamless transitions between low-volume prototyping and mass production (1,000+ units/month). This flexibility accelerates product development cycles and supports just-in-time manufacturing, reducing inventory costs for OEMs.

Material Performance and Weight Optimization

Specialized aluminum alloys (e.g., 2024-T351, 6082-T6) are selected based on application-specific demands for strength, thermal conductivity, or corrosion resistance. Our heat treatment and anodizing capabilities further enhance durability, enabling OEMs to replace heavier metals like steel without sacrificing structural integrity.

Factory Show

Factory Equipment



WEDM



Milling Machine



CNC Wire Cut



Coordinate measuring machine



CNC Bending Machine



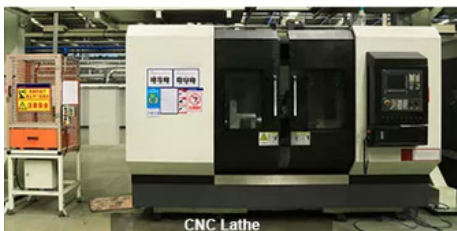
Hydraulic Press Machine



SLS/SLA Machine



5-Axis CNC



CNC Lathe



Laser cutting Machine



CNC Punching Machine



Injection Molding machine



FAQ

Q: How can I customize my products ?

A: Please describe your project. Include the following information so that we can provide an accurate quote: Part Name, 3D CAD Drawing, Quantity, Material, Color, Finishing.

Q: How can I know my products going on ?

A: We will offer a detailed production schedule and send weekly reports with digital pictures and videos which show the production process.

Q: Can You sign a confidentiality greement ?

A: We can sign a confidentiality agreement according to your needs.

Q: What is your terms of payment ?

A: 30% in advance ,70% balance before shipment. Other terms negotiable.

Q: Are you a trading company or factory?

A: We are direct factory with 20 experienced engineers and more than 80 employees as well approximate 3,000 square meters workshop area.

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

A: 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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