Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: AL-CNC-068
- 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

Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

Description of Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

A high-precision CNC manufacturing specialist produces custom aluminum components tailored for OEM (Original Equipment Manufacturer) applications requiring ultra-tight tolerances and exceptional dimensional accuracy. Utilizing advanced 5-axis CNC machining, multi-axis turning, and micro-milling technologies, this manufacturer delivers intricately engineered parts for industries such as aerospace, medical devices, semiconductor equipment, robotics, and high-end electronics.

Specification of Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

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 Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

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 Custom Aluminum CNC Parts for OEM Applications with Tight Tolerances and Precision Machining Techniques

1. Good corrosion resistance
2. High strength and hardness
3. High thermal conductivity
4. Good finishing characteristics

Why Choose Us

Our advantages

1. Unmatched Precision for Critical Applications
Enables micro-feature machining (e.g., threads, channels, pins) for medical implants, optical components, or fluidic systems.
Ensures interchangeability in high-performance assemblies (e.g., engine parts, semiconductor fixtures) where even minor deviations cause failure.

2. Enhanced Performance & Reliability
Tight tolerances reduce friction, wear, and vibration in moving parts (e.g., gears, bearings, actuators).
Consistent dimensional accuracy improves assembly efficiency, minimizing rework and scrap rates.

3. Cost & Time Savings Through Efficient Production
Eliminates costly post-machining adjustments (e.g., hand-fitting, grinding) by achieving target specs first-time.
Reduces inspection & validation time with built-in quality control (e.g., laser scanning, CMM checks).
Supports lean manufacturing via just-in-time delivery and scalable batch production.
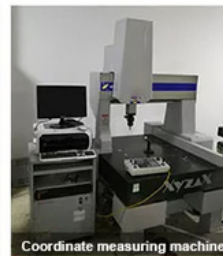
Factory Show

Factory Equipment

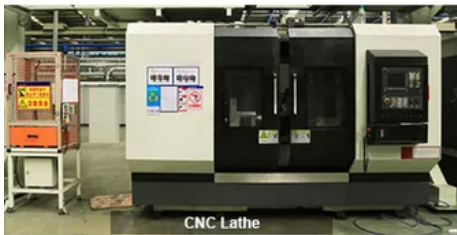|			
WEDM	Milling Machine	CNC Wire Cut	Coordinate measuring machine
CNC Bending Machine	Hydraulic Press Machine	SLS/SLA Machine	5-Axis CNC
CNC Lathe	Laser cutting Machine		
CNC Punching Machine	Injection Molding machine		

CNC Brass Parts

CNC SS Parts

CNC Aluminum Parts

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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