



5-Axis Synchronization Crafting Complex Geometries with CNC Precision Milling Service Supplier

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: ML-CNC-082
- 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 Precision Customized CNC Milling Plastic Metal Parts for Industrial and Motorcycle Usage

Description of High Precision Customized CNC Milling Plastic Metal Parts for Industrial and Motorcycle Usage

This refers to the advanced CNC milling technology where five-axis synchronized motion (combining three linear axes: X, Y, Z, and two rotational axes: A/B/C) enables the cutting tool to approach the workpiece from multiple angles simultaneously. A precision CNC milling service supplier leverages this technology to manufacture parts with intricate geometries—such as curved surfaces, undercuts, and complex organic shapes—in a single setup, eliminating the need for repositioning. This capability is critical for industries like aerospace (turbine blades, structural components), medical (implants, prosthetics), automotive (custom parts), and mold-making, where high precision, tight tolerances, and complex designs are non-negotiable. The supplier's role includes optimizing workflows, ensuring material compatibility, and maintaining end-to-end quality control from prototyping to mass production.

Specification of High Precision Customized CNC Milling Plastic Metal Parts for Industrial and Motorcycle Usage

Product Name	High Quality Copper Steel Stainless Brass Material CNC Milling Parts Services
Material	Aluminum, Stainless Steel, Copper, Brass, Titanium, Galvanized, Nylon, ABS, POM etc.
Surface Treatment	Zinc Plating, Painting, Mirror Polished, Brush Polished, Powder Coating, Electroplating, Anodizing, Sandblasting etc.
Processing	Laser Cutting, Precision Stamping, Bending, CNC Punching, Threading, Riveting, Drilling, Welding, Painting, Assembly etc.
Drawing Format	3D/CAD/DWG/IGS/STEP/PDF/JPG
OEM Service	Accept

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 Precision Customized CNC Milling Plastic Metal Parts for Industrial and Motorcycle Usage

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

Advantages

Unmatched Complex Geometry Capability

Five-axis synchronization allows the tool to access hard-to-reach areas and machine complex 3D contours (e.g., freeform surfaces, deep cavities, angled features) that are impossible or inefficient with 3-axis machines. This unlocks design freedom for engineers, enabling the production of parts like turbine wheels, medical implants, and precision molds with minimal compromise.

Enhanced Efficiency & Reduced Cycle Time

By completing multi-face machining in a single setup, five-axis systems eliminate repeated clamping and repositioning, cutting setup time by up to 50% compared to 3-axis processes. This reduces labor costs, minimizes human error, and accelerates production—critical for both prototyping and high-volume manufacturing.

Superior Precision & Surface Quality

The synchronized motion maintains optimal cutting angles throughout the process, reducing tool vibration, material deformation, and surface roughness. This results in tighter tolerances (often ± 0.01 mm or better) and smoother finishes, meeting stringent requirements for aerospace, medical, and high-performance automotive components.

Cost-Effectiveness & Scalability

Five-axis milling reduces material waste and scrap rates by minimizing setup errors and over-machining. Its flexibility supports seamless transitions from small-batch prototypes to large-scale production, while its ability to handle diverse materials (metals,

composites, plastics) and operations (drilling, tapping, milling) in one machine lowers overall operational costs and improves ROI.

Factory Show

Factory Equipment



WEDM



Milling Machine



CNC Wire Cut



Coordinate measuring machine



CNC Bending Machine



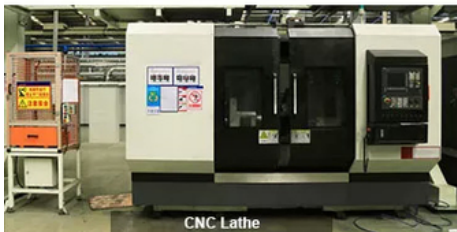
Hydraulic Press Machine



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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