Custom Aluminum Alloy CNC Milling Parts with 5-axis Precision Machining and ±0.005mm Tolerance

Basic Information

Brand Name: Industrial Man

Model Number: OEM Minimum Order Quantity: 1PC

• Price: Negotiable

Packaging Details: As the requirement of customer

• Payment Terms: L/C,D/A,D/P,T/T,Western Union,MoneyGram



Product Specification

Quotation: According To Your Drawings (size, Material,

Thickness, Machining Features, Tolerance,

Required Technology).

Drawing Formats:
 PRO/E, AutoCAD, SolidWorks, UG, CATIA,

CAM, CAE, PDF, STEP, IGES.

• Tolerance / Surface ± 0.01 mm $- \pm 0.005$ mm Ra0.2 - Ra<math>3.2

Roughness: (customizable).

• Processing Service: CNC Milling (3-axis / 4-axis / 5-axis), Drilling,

Tapping, Deburring.

Additional Services: Laser Cutting, Bending, Welding, Wire EDM

Cutting, Assembly, Surface Finishing,

Packaging.

• Manufacturing Capability: Rapid Prototyping, Small Batch Production,

OEM & Custom Mass Production.

• Quality Control: 100% Inspection (dimension, Appearance,



More Images





Product Description

Custom CNC Milling Parts Aluminum Alloy OEM Precision Machining Service

Our CNC Milling Machining Parts are manufactured using advanced 3-axis, 4-axis, and 5-axis CNC milling equipment, providing stable and high-precision machining for OEM aluminum alloy components. We support complex geometries, multi-surface cutting, tight-tolerance functional

parts, and small-batch custom production

With professional engineering support, full drawing evaluation, material selection guidance, and strict dimensional control, we ensure every custom aluminum part meets your functional, structural, and assembly requirements. Whether you need rapid prototyping or mass OEM production, we deliver consistent accuracy, clean surface finishing, and fast turnaround.

Technical Specifications

Quotation	According to your drawings (size, material, thickness, machining features, tolerance, required technology)
Drawing Formats	PRO/E, AutoCAD, SolidWorks, UG, CATIA, CAM, CAE, PDF, STEP, IGES
Tolerance / Surface Roughness	±0.01mm - ±0.005mm Ra0.2 - Ra3.2 (customizable)
Processing Service	CNC milling (3-axis / 4-axis / 5-axis), drilling, tapping, deburring
Additional Services	Laser cutting, bending, welding, wire EDM cutting, assembly, surface finishing, packaging
Manufacturing Capability	Rapid prototyping, small batch production, OEM & custom mass production
Available Materials	Steel: Carbon steel, alloy steel, stainless steel (304 / 316L / 201 / 410) Aluminum: 6061, 6082, 7075, 2024, 5052, 6063 Stainless Steel: 201/301/304/316/316L Brass / Copper: C2680, C3604, C1100, C2801, C3770 Plastics: ABS, PC, POM, PA, UHMW, PTFE, PEEK
Surface Treatment	Aluminum: Clear anodized, color anodized, hard anodized, sandblasting, brushing, powder coating Stainless Steel: Brushing, polishing, passivation, sandblasting, laser engraving Steel: Zinc plating, nickel plating, black oxide, chrome plating, carburizing Plastic: Painting, plating (ABS), silk-printing, laser engraving
Quality Control	100% inspection (dimension, appearance, functionality) before shipment
Lead Time	3-7 working days for samples; batch orders depend on quantity and processing complexity
MOQ	1 piece (custom prototype accepted)
Service Type	OEM / ODM / Custom machining
Inspection Reports	Full measurement report, material report, hardness test (optional)
Workflow	CNC machining → Deburring → Surface finishing → Final inspection → Packaging & delivery
Support	24-hour online technical support, fast quotation, engineering feedback

Application Fields

Widely used in industrial machinery, automation equipment, automotive components, electronic devices, aerospace tooling, communication housings, medical instruments, robotics parts, precision fixtures, mechanical assemblies, consumer electronics, energy equipment, structural frames, laboratory devices, testing jigs, customized machinery parts, semiconductor equipment, smart home products, commercial equipment, and various OEM custom engineering projects.

Frequently Asked Questions

Q1: What materials can you mill for OEM custom parts?

A1: Mainly aluminum alloys (6061, 7075, 6082, 2024), brass, copper, stainless steel, and engineering plastics.

Q2: What tolerance can you achieve for CNC milling?

A2: We offer tight tolerances of ± 0.005 -0.01 mm, depending on geometry and material.

Q3: Can you work with customer drawings?

A3: Yes. We accept PDF, STEP, IGES, STL files and provide drawing evaluation before production.

Q4: How fast can you ship prototype parts?

A4: Standard sample lead time is 3-7 days. Urgent orders are available upon request.

Q5: Do you support surface finishing for aluminum parts?

A5: Yes — including anodizing, sandblasting, powder coating, brushing, and polishing.



Shenzhen Industrial Man Product RP&M Co., Ltd



