

OEM CNC Machining Service for Custom Aluminum Parts with ±0.01 mm Tolerance and 5-Axis CNC Centers

Basic Information

Brand Name: Shenzhen 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 Basis: Evaluated From Drawings: Machining

Features, Material Type, Tolerances,

Finishing & Quantity.

• Supported Formats: STEP, IGES, STP, DWG, DXF, PDF,

SolidWorks, ProE/Creo, UG/Unigraphics.

• Machining Operations: CNC Milling, Turning, Boring, Tapping,

Chamfering, Drilling.

• Material Options: Aluminum 6061/6082/7075/5052/6063,

 $Brass,\,Copper,\,Steel,\,Stainless\,\,Steel,\,$

Engineering Plastics.

• Tolerance Capability: Typical ±0.01 Mm; Enhanced Precision Up

To ±0.005 Mm On Request.

• Surface Options: Anodizing, Bead Blasting, Brushing,

Polishing, Powder Coating, Chemical

Conversion Coating.



More Images



Product Description

OEM CNC Machining Service for Custom Aluminum Parts

Our OEM CNC Machining Service specializes in producing customized aluminum parts through precision milling and turning processes. Equipped with large-scale machining centers, automated turning lines, and dedicated quality inspection facilities, we support projects from rapid

prototyping to long-term mass production.

Engineering Process & Quality Assurance

Upon receiving your 2D/3D drawings, our engineering team conducts comprehensive manufacturability analysis, identifies machining features, reviews potential risks, and provides optimized processing recommendations. Every component is manufactured under controlled workflows to ensure consistent dimensional accuracy, stable surface quality, and reliable mechanical performance.

Service Strengths

Large-Scale Factory Capacity: Over 50+ CNC units including 3-axis, 4-axis, and 5-axis machining centers for fast production turnaround

Aluminum Machining Expertise: Extensive experience with 6061/6082/7075/5052 alloys for structural components, lightweight frames, housings, and precision brackets

Industrial-Grade Precision: CNC milling and turning with stable tolerance control for assemblies requiring repeatability and strict fitting

Comprehensive Engineering Support: DFM review, machining strategy planning, process routing, surface finishing, and quality reporting

Flexible Production Models: Support for prototypes, small batches, repeat orders, and long-term OEM partnerships

Technical Specifications

O I I D	
Quotation Basis	Evaluated from drawings: machining features, material type, tolerances, finishing requirements, and quantity
Supported Formats	STEP, IGES, STP, DWG, DXF, PDF, SolidWorks, ProE/Creo, UG/Unigraphics
Machining Operations	CNC milling, turning, boring, tapping, chamfering, drilling
Material Options	Aluminum 6061/6082/7075/5052/6063, brass, copper, steel, stainless steel, engineering plastics
Tolerance Capability	Standard ±0.01 mm; enhanced precision up to ±0.005 mm available upon request
Surface Finishing	Anodizing, bead blasting, brushing, polishing, powder coating, chemical conversion coating
Inspection Methods	Caliper, micrometer, height gauge, CMM, custom inspection fixtures
Sample Support	Prototype machining available
Lead Time	3-7 days (samples), 8-18 days (production depending on complexity)
OEM/ODM Service	Custom machining, surface finishing, and optional assembly services
Manufacturing Workflow	

Frequently Asked Questions

Do you only machine aluminum or other materials as well?

While we specialize in aluminum machining, we also support stainless steel, brass, copper, carbon steel, and engineering plastics based on project requirements.

What information do you need to start a quote?

We require 3D/2D drawings, material specifications, surface finishing requirements, quantity, and any special tolerance requirements.

Can you follow customer-specific inspection standards?

Yes, we can perform inspections according to your QC checklist or provide comprehensive measurement reports.

What is your capability for complex geometries?

Our 4-axis and 5-axis CNC centers enable efficient machining of curved surfaces, deep cavities, angled features, and multi-face operations in single setups.

Do you provide batch repeatability for long-term OEM orders?

Absolutely. Our process control systems and digital production tracking ensure consistent quality across all repeated shipments.



Shenzhen Industrial Man Product RP&M Co., Ltd



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