



Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

Our Product Introduction

for more products please visit us on cnc-metalmachining.com

Basic Information

- Place of Origin: China
- Brand Name: Xianheng
- Certification: ISO 9001:2015 SGS RoHS
- Model Number: MC-XG-15
- Minimum Order Quantity: 1 pcs
- Price: USD 0.1\$-2\$
- Packaging Details: Carton Wooden case
- Delivery Time: 5-8 days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 10 SET per week



Product Specification

- Material Capabilities: Stainless Steel, Aluminium, Copper, Brass
- Products: Metal Equipment Shell, Sheet Metal Cabinet Assembly Stamping Parts
- Process: Metal Casing, Metal Sheets Fabrication, Welding Cutting Punching Stamping
- Application: Carbinet, Parts: Cars, E-sports Hotel, Architecture, Furniture, metal Plastic Parts
- Place Of Origin: China Guangdong
- Tolerance: +/-0.02mm
- MOQ: 1 Piece
- OEM/ODM: Acceptable
- Equipment: Laser Cutter, CNC Bending Machine, Stamping Machine, Weld
- Surface Treatment: Galvanized, Anodizing, Powder Coated, Chrome Plating, Nickel Plating Etc.
- Craftsmanship: CNC Stamping, CNC Bending, Welding, Laser



More Images



What We Can Provide

Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

Description of Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

As a leading OEM in automotive manufacturing, we specialize in precision-engineered metal cabinet assemblies designed to meet the rigorous demands of modern automotive production. Our solutions integrate high-strength materials, modular customization, and cutting-edge inspection systems to ensure flawless storage, handling, and traceability of critical components—from delicate electronics to heavy-duty mechanical parts.

Specification of Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

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 Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

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 Customized Precision Metal Cabinet Assembly for Automotive Industry from Top OEM with Advanced Inspection Equipments

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

Why Choose Us

Advantages

1. Ultra-High Precision Engineering for Sensitive Components

Automotive parts such as ECUs, sensors, and precision-machined gears require storage environments that minimize vibration, static electricity, and contamination. Our cabinets feature:

CNC-machined shelving with tolerances of $\pm 0.05\text{mm}$ to prevent part misalignment.

Anti-static coatings and ESD-safe materials to protect electronic components.

Vibration-damping mounts to isolate sensitive parts from machinery noise.

A case study with a premium automaker showed a 99.9% reduction in part damage during storage and retrieval compared to traditional shelving.

2. Modular Customization for Diverse Part Profiles

No two automotive parts are alike—our cabinets adapt to this complexity with:

Adjustable dividers, sliding trays, and rotating carousels for irregularly shaped items (e.g., exhaust manifolds, suspension springs).

Quick-change tooling systems to reconfigure storage layouts in minutes, supporting rapid model changes.

Nested storage compartments for small parts like bolts, clips, and connectors, reducing clutter.

A Tier 1 supplier reported a 60% faster line-side replenishment after adopting our modular design, cutting downtime during production shifts.

3. AI-Powered Inspection Integration for Zero-Defect Quality

To ensure parts meet automotive industry standards (e.g., IATF 16949), our cabinets integrate real-time inspection technologies:

3D laser scanning to verify part dimensions before storage.

Machine vision systems to detect surface defects like scratches or corrosion.

RFID and blockchain tracking for end-to-end traceability, from supplier to assembly line.

In a pilot with an EV battery manufacturer, our system flagged 12 defective parts per 10,000 units—a 95% improvement over manual checks.

4. Smart Automation for 24/7 Efficiency

Our cabinets are built for Industry 4.0 environments, featuring:

AMR (Autonomous Mobile Robot) compatibility for automated part delivery to workstations.

Predictive maintenance alerts via IoT sensors to prevent equipment failures.

Voice-activated controls and HMI touchscreens for hands-free operation in cleanroom settings.

A leading EV assembler achieved a 35% increase in warehouse throughput by pairing our cabinets with their existing AGV fleet.

Factory Equipment



WEDM



Milling Machine



CNC Wire Cut



Coordinate measuring machine



CNC Bending Machine



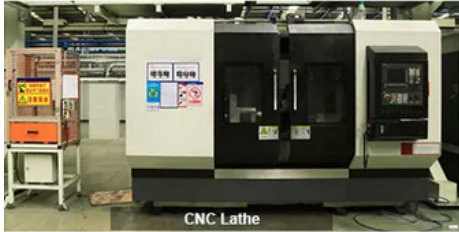
Hydraulic Press Machine



SLS/SLA Machine



5-Axis CNC



CNC Lathe



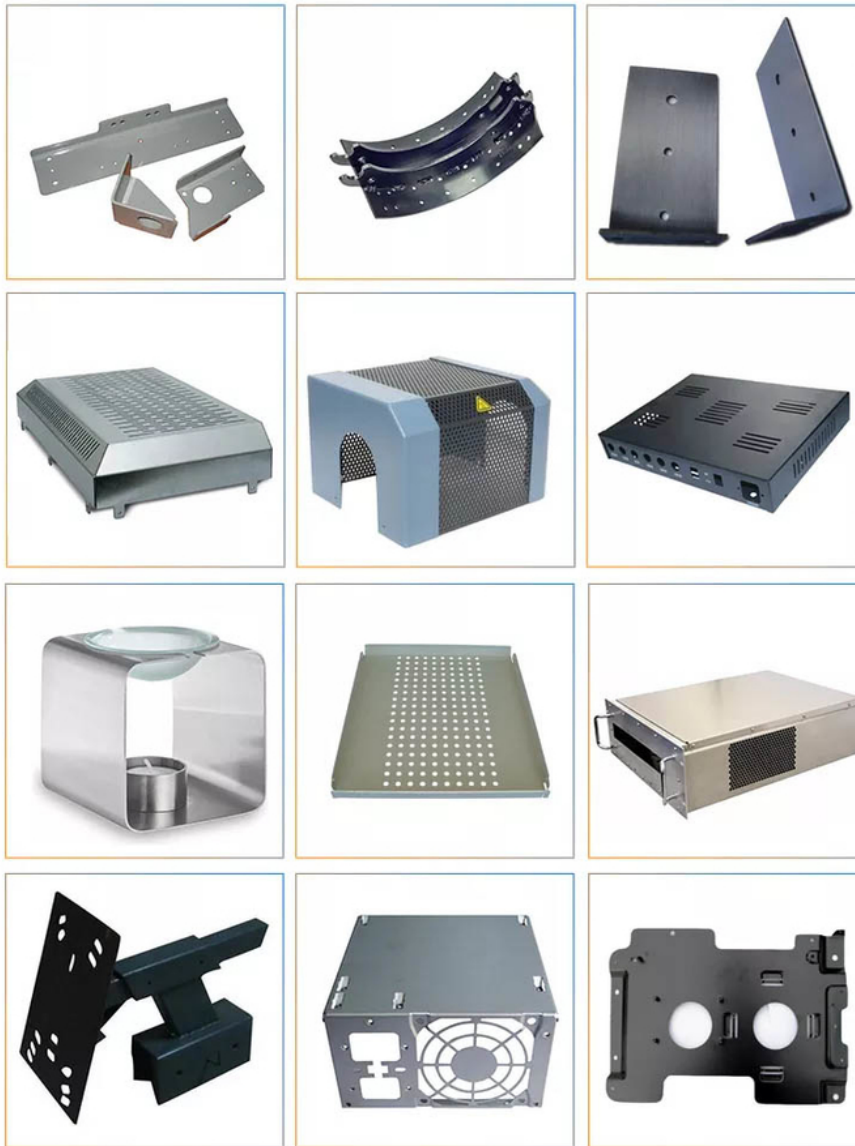
Laser cutting Machine



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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