



Precision Sheet Metal Shell Fabrication for Medical Equipment Customized High-Tolerance Solutions

Our Product Introduction

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

Basic Information

- Place of Origin: China
- Brand Name: Xiange
- Certification: ISO 9001:2015 SGS RoHS
- Model Number: MF-XG-31
- Minimum Order Quantity: 1 pcs
- Price: USD 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
- Process: Metal Sheets Fabrication, Welding Cutting Punching Stamping
- Application: Electronic Equipment Sheet Metal Shell, Custom Control Box Cabinet Chassis Shell
- OEM/ODM: Acceptable
- Equipment: Precision Nonstandard Parts
- Surface Treatment: Powder Coated, Hot Galvanized, Painting, Polishing, Spray Coating, Brushing, Cathaphoresis, Sandblasting, Electroplate Chrome/Zinc/Nickel Plating/Anodize/Electronic Polish, Silk-screen Etc;
- Package: Platic Bag ,Blister Box ,Tap Reel Or As Your Required
- Used: Computer, Telecom, mechical ,electronics, appliance, military, aerospace.



More Images



Product Description

What We Can Provide

Precision Sheet Metal Shell Fabrication for Medical Equipment Customized High-Tolerance Solutions

Description of Precision Sheet Metal Shell Fabrication for Medical Equipment Customized High-Tolerance Solutions

Precision sheet metal shell fabrication is a specialized manufacturing process tailored to create high-quality, durable enclosures and structural components for medical equipment. This method involves cutting, bending, and assembling thin metal sheets—typically stainless steel, aluminum, or titanium—into precise shapes that meet the stringent requirements of medical applications. The process is characterized by its ability to achieve customized designs with exceptionally tight tolerances, ensuring compatibility with sensitive electronics, sterile environments, and ergonomic user needs. Advanced techniques like CNC punching, laser cutting, and robotic welding are employed to maintain consistency, while finishing processes such as anodization, powder coating, or electropolishing enhance biocompatibility and corrosion resistance.

Specification of Precision Sheet Metal Shell Fabrication for Medical Equipment Customized High-Tolerance Solutions

Product	Custom Sheet Metal Fabrication Laser Cutting Bending Sheet Metal Stamping Parts
Material	Stainless Steel, Carbon Steel(Q235), Aluminum(6061,6063, 5052), Copper, Brass etc.
Process	Bending, Stamping, Welding
Finish	Zinc Plating, Mirror Polished, Brush Polished, Paint, Anodic Oxidation, Powder Coated
Package	Plywood Box + Plywood Pallet, Plywood Box
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 Precision Sheet Metal Shell Fabrication for Medical Equipment Customized High-Tolerance Solutions

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

Our promise

Unmatched Precision for Critical Components

High-tolerance fabrication ensures components fit seamlessly into medical devices, minimizing gaps or misalignments that could compromise functionality or sterility. This precision is vital for enclosures housing delicate instruments like MRI machines, surgical robots, or diagnostic equipment, where even microscopic deviations can affect performance.

Material Durability and Biocompatibility

Medical-grade metals (e.g., 316L stainless steel, grade 5 titanium) resist corrosion, chemicals, and repeated sterilization cycles. Electropolishing or antimicrobial coatings further enhance safety, making shells suitable for long-term use in hospitals without degrading or harboring pathogens.

Customization for Diverse Applications

Fabricators can tailor designs to specific device requirements, whether creating lightweight portable casings for handheld tools or robust, ventilated enclosures for laboratory equipment. This flexibility accelerates product development and supports innovations like wearable medical tech or modular imaging systems.

Cost-Efficiency Through Scalability and Automation

While initial setup costs may be higher, CNC automation and lean manufacturing practices reduce waste and labor expenses over large production runs. Consistent quality also minimizes rework and recalls, lowering long-term costs for medical device manufacturers.



Multiple Machines

5-Axis CNC & Imp Professional machines, skillful workers, machines, skillful
with accuracy of guarantee the quality and lead time. guarantee fast lead time



Strictly Confidential

We will protect the customers' design
and the customer can request a
confidentiality agreement



Quality Inspection

We have a strict quality inspection
process to ensure the quality of our
products

Stainless Steel Material

Material:

Stainless Steel 201
Stainless Steel 430
Stainless Steel 304
Stainless Steel 316

Finish:

Mirror Polishing
Brush Polishing
Electro Polishing
Vibration Polishing



FAQ

Q1: Where can I get product & price information?

A1: Send us inquiry e-mail, we will contact you as we receive your mail.

Q2: How long can I get the sample?

A2: Depends on your specific items, within 3-7 days is required generally.

Q3: What kinds of information you need for quote?

A3: Kindly please provide the product drawing in PDF, and will be better you can provide in STEP or IGS.

Q4: What are the payment terms?

A4: We accept 50% as payment deposit, when the goods is done, we take photos for your check and you then pay the balance.

Q5: Are you a trading company or factory?

A5: We are direct factory with 10 experienced engineers and more than 650 employees as well approximate 2,000 square ft. workshop area.

Q6: What shall we do if we do not have drawings?

A6: 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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