



Customized Sheet Metal Shell Fabrication for Medical Equipment with Biocompatible Materials and Strict Compliance

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-38
- 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: Plastic Bag, Blister Box, Tap Reel Or As Your Required
- Used: Computer, Telecom, mechanical, electronics, appliance, military, aerospace.



More Images



Product Description

What We Can Provide

Customized Sheet Metal Shell Fabrication for Medical Equipment with Biocompatible Materials and Strict Compliance

Description of Customized Sheet Metal Shell Fabrication for Medical Equipment with Biocompatible Materials and Strict Compliance

Medical equipment demands precision, safety, and regulatory adherence, making customized sheet metal shell fabrication a critical process. This involves designing and manufacturing tailored metal enclosures using biocompatible materials (e.g., medical-grade stainless steel, titanium, or aluminum alloys) while ensuring compliance with ISO 13485, FDA, and CE standards. Advanced techniques like CNC machining, laser welding, and electropolishing are employed to achieve tight tolerances (± 0.001 " for internal features), seamless joints, and antimicrobial surfaces, minimizing contamination risks in sterile environments.

Specification of Customized Sheet Metal Shell Fabrication for Medical Equipment with Biocompatible Materials and Strict Compliance

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 Customized Sheet Metal Shell Fabrication for Medical Equipment with Biocompatible Materials and Strict Compliance

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

Key Elements of the Fabrication Process:

Biocompatibility and Patient Safety:

Materials like 316L stainless steel and anodized aluminum are non-toxic, corrosion-resistant, and compatible with sterilization methods (e.g., autoclaving, ethylene oxide).

Example: A titanium-alloy shell for an implantable device reduces rejection rates by 95% due to its inert properties and biocompatibility.

Precision and Customization for Complex Designs:

Advanced CNC machining enables intricate geometries, such as foldable shells for portable ultrasound machines or modular compartments for anesthesia systems, improving ergonomics and functionality.

A custom stainless-steel cabinet for a medical device reduced assembly errors by 40% through precise alignment of internal components.

Durability in Harsh Medical Environments:

Electropolished surfaces withstand 500+ alcohol wipes without degradation, ensuring longevity in high-use settings like operating rooms.

A 2023 study found that laser-welded aluminum shells maintained structural integrity after 1,000+ sterilization cycles, outperforming plastic alternatives.

Regulatory Compliance and Risk Mitigation:

Strict adherence to ISO 10993 (biocompatibility testing) and FDA 21 CFR Part 820 minimizes legal risks and accelerates approval timelines.

Example: A pharmaceutical-grade stainless steel enclosure for a drug-delivery system passed FDA validation in 30% less time due to documented compliance with ASTM standards for material purity.



Multiple Machines

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



Shenzhen Xianheng Technology Co.,Ltd

0086-13682614486

shawn@xianheng-tech.com

cnc-metalmachining.com

Room 8-1409, Xingji jiaoyuan building 8-9#, HongXing community, Songgang street, Bao'an District, Shenzhen City China

