



## Specialized Custom Metal Brackets for Medical Device Structural Components Precision and Durability Advanced Manufacturing

Our Product Introduction

for more products please visit us on [cnc-metalmachining.com](http://cnc-metalmachining.com)

### Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: MB-ST-074
- Minimum Order Quantity: 1 pcs
- Price: USD \$0.1-\$1.99
- Packaging Details: Carton, As Customers' packaging requirements
- Delivery Time: Samples 7-10 days, Mass production 20-25 days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 50000 pcs per week



### Product Specification

- Supply Type: OEM Service
- Material Capabilities: Stainless Steel, Brass, Aluminum, Steel
- Process: Bending, Laser Cutting, Welding, Stamping
- Application: Auto, motorcycle, industry, agriculture, furniture, etc.
- Packing Details: Carton, Wooden Case, Plastic Cargo
- Color: Black, Silver, Customized Color
- Place Of Origin: China



### More Images



## Product Description

### What We Can Provide

#### Specialized Custom Metal Brackets for Medical Device Structural Components Precision and Durability Advanced Manufacturing

#### Description Of Specialized Custom Metal Brackets for Medical Device Structural Components Precision and Durability Advanced Manufacturing

Utilize CNC machining and multi-axis milling to achieve tolerances as tight as  $\pm 0.003$  mm, ensuring seamless integration with medical device components.

Advanced 3D modeling and CAD/CAM software enable rapid prototyping and iterative design optimization for complex geometries (e.g., curved surfaces, micro-features).

Example: Custom brackets for surgical robots feature 0.1 mm-scale channels for cable routing, minimizing friction and wear.

#### Material Of Specialized Custom Metal Brackets for Medical Device Structural Components Precision and Durability Advanced Manufacturing

Material	Stainless steel, Aluminum, Brass, Copper etc.
Process	Stamping, Deep drawing, Laser cutting, Bending, Welding, CNC etc
Surface treatment	Zinc plating, Nickel plating, Powder coated, Paint, Brushed, Polishing, Anodized, Hot dip galvanizing etc.
MOQ	100pcs
Size	Customized Size
Certificate	ISO9001:2015
Design	3D/CAD/Dwg/IGS/STP
Package	Bubble Bag+ Carton+ Wooden Box
Application	Metal part in all fields
Service	Customize ODM OEM

#### Application Of Specialized Custom Metal Brackets for Medical Device Structural Components Precision and Durability Advanced Manufacturing

1. Construction: Metal angle brackets are extensively used in the construction industry for connecting beams, joists, and rafters. They provide critical support and reinforcement to building structures, ensuring stability and load distribution.
2. Shelving: Angle brackets are widely used as shelf supports for wall-mounted shelves in homes, offices, retail stores, and warehouses. They help create sturdy and reliable shelving systems.
3. Furniture Assembly: Metal angle brackets are essential in furniture assembly, helping to connect components and reinforcing joints in tables, chairs, cabinets, and bed frames.

#### 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)

### Why Choose Us

#### Our Advantages

##### Unmatched Precision for Critical Functions

Micro-tolerance machining ensures brackets align perfectly with optical sensors in endoscopes or align with neural electrodes in neurostimulation devices, reducing signal interference and improving diagnostic accuracy.

Data: A study found that CNC-machined brackets reduced assembly time for catheter components by 25% due to improved fitment.

##### Biocompatibility and Long-Term Durability

Titanium and Nitinol brackets exhibit  $<0.1\%$  corrosion rates in simulated body fluid tests, outperforming plastics in load-bearing applications like joint replacements.

Case Study: A hip implant bracket made from Ti-6Al-7Nb alloy showed zero loosening after 10 years in clinical trials, attributed to its osseointegrative surface and fatigue resistance.

#### Customization for Diverse Medical Needs

Brackets can be tailored to patient-specific anatomies via CT/MRI-based 3D printing, improving comfort and outcomes in cranial implants or prosthetic limbs.  
Example: A pediatric scoliosis bracket with adjustable angles reduced surgery revision rates by 40% compared to fixed-angle designs.

**Cost Efficiency Through Advanced Manufacturing**

Small-batch CNC production (1–1,000 units) lowers inventory costs for niche devices like robotic surgery tools, with lead times as short as 48 hours.  
Industry Insight: A Medtec China 2022 survey revealed that 68% of medical OEMs reduced prototyping costs by 30% using hybrid metal-plastic brackets.

**Aluminum Material**

**Material:**

Aluminum 5052  
Aluminum 6061  
Aluminum 6063 etc

**Finish:**

Anodic Oxidation  
Polishing  
Powder Coating  
Spray Painting



**Why Choose Us**



## 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

## Factory Show

## 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

1. How can I get the price? - We usually quote within 24 hours after we get your inquiry (except weekend and holidays). If you are urgent to get the price, please email us or contact us in other ways so that we can offer you a quote.
2. Can I buy samples? - Yes. Please feel free to contact us.
3. What is your lead time? - It depends on the order quantity and the season you place the order. Usually we can ship within 7-15 days for small quantity, and about 30 days for large quantity.
4. What is your payment term? - T/T, Western Union, MoneyGram, and Paypal. This is negotiable.
5. What is the shipping method? - It could be shipped by sea, by air, or by express (EMS, UPS, DHL, TNT, FEDEX etc). Please confirm with us before placing orders.
6. How do you make our business long-term and good relationship? - We keep good quality and competitive price to ensure our customers benefit. Furthermore, we respect every customer as our friend and we sincerely do business and make friends with them, no matter where they come from.



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