Custom Metal Manufacturing Advanced CNC Technology for Stainless Steel CNC Parts for Medical Devices and Electronics

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: ST-CNC-078
- 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: 10000 pcs per week

Product Specification

- Cnc Machining Or Not: CNC Machining
- Type: Milling, Turning, Machining
- Material Capabilities: Copper, Aluminum, Bronze, Stainless Steel, Brass
- Surface Treatment: Anodized, Anodizing, Anodize/natural, Sandblast, Silk-screen
- Application: Machinery, Automotive, Laptop, Industrial Equipment, Engineering
- Tolerance: 0.01mm, 0.05 Mm, +/-0.005, 0.003-0.05mm
- Service: Customized OEM
- Keyword: Stainless Steel Milling Parts
- Quality Control: 100% Inspection Berore Shipment, 100% Full Inspection

More Images

Our Product Introduction

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

Product Description

What We Can Provide

Custom Metal Manufacturing Advanced CNC Technology for Stainless Steel CNC Parts for Medical Devices and Electronics

Description of Custom Metal Manufacturing Advanced CNC Technology for Stainless Steel CNC Parts for Medical Devices and Electronics

Advanced Computer Numerical Control (CNC) technology has revolutionized custom metal manufacturing, particularly for stainless steel components used in medical devices and electronics. By integrating high-precision machining, multi-axis capabilities, and smart automation, modern CNC systems enable the production of complex, durable parts with tight tolerances, superior surface finishes, and biocompatible properties.

Specification of Custom Metal Manufacturing Advanced CNC Technology for Stainless Steel CNC Parts for Medical Devices and Electronics

Custom Metal Solutions

Candle Holders/Cups	Medical Containers	Metal End Covers	Mobile Phone Shells
Crafts Stamping Parts	Tablewares	Aluminum Lids	Cabinet Enclosures
Lighting Stamping Parts	Filters/Strainers	Cosmetic Caps	Furniture Accessories
Metal Brackets/Stands	Protective Shields	Essential Oil Caps	Door&Window Fittings
Electronic Components	Sheet Metal Panels	Perfume Caps	Shafts/Sleeves/Gears
Electrical Connections	Cooling Fins	Wine Bottle Caps	Fasteners
Metal Structures	Metal Contact Clips	Jar Caps	Machinery Parts
Car Spare Parts	Motor Spare Parts	Glass Bottle Caps	Pipe Fittings/Elbows

Application Of Custom Metal Manufacturing Advanced CNC Technology for Stainless Steel CNC Parts for Medical Devices and Electronics

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

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

Advantages

1. Ultra-High Precision & Tight Tolerances
Advanced CNC machines (e.g., 5-axis, Swiss-type lathes) achieve micron-level accuracy (±0.001mm), crucial for medical and electronic components.
Medical Applications:
Orthopedic implants (e.g., hip replacements) require precise threading and surface finishes to ensure proper bone integration.
Surgical tools (e.g., endoscopic graspers) need intricate geometries for minimal invasiveness.
Electronics Applications:
Micro-connectors and RF shields demand exact dimensions for reliable signal transmission.
Heat sinks must have optimized fin structures for efficient thermal management.
CNC Advantage:
Real-time feedback systems and closed-loop control minimize errors during machining.
High-speed spindles reduce tool wear, ensuring consistent precision over long production runs.

2. Complex Geometries & Customization Flexibility
Modern CNC technology enables rapid prototyping and customization without expensive tooling changes, accelerating product development.

Medical Applications:
Patient-specific implants (e.g., cranial plates) can be machined from CT/MRI scans for perfect anatomical fit.
Minimally invasive instruments with micro-channels or serpentine shapes improve surgical outcomes.
Electronics Applications:
Custom enclosures with integrated cooling channels or EMI shielding enhance device performance.
Flexible PCB connectors with ultra-thin walls (≤0.1mm) require precision CNC milling.
CNC Advantage:
Multi-axis machining allows for undercuts, helical grooves, and 3D contours in a single setup.
CAD/CAM integration streamlines design-to-production workflows, reducing lead times.

3. Superior Surface Finish & Biocompatibility
Stainless steel CNC parts can achieve mirror-like surface finishes (Ra ≤ 0.2μm), essential for medical sterilization and electronic reliability.
Medical Applications:
Surgical instruments must be electropolished to resist bacterial adhesion and ensure easy cleaning.
Implantable devices require passivated surfaces to prevent corrosion in bodily fluids.
Electronics Applications:
Connector pins with smooth finishes reduce friction and wear, improving longevity.
Housings with matte or brushed finishes minimize glare and improve aesthetics.
CNC Advantage:
High-speed cutting (HSC) reduces burr formation, minimizing post-machining deburring.
In-process inspection (e.g., laser scanning) ensures surface quality meets ISO 13485 (medical) or IPC-A-600 (electronics) standards.

4. Cost-Effective Production & Scalability
Advanced CNC technology optimizes material usage, cycle times, and automation, reducing costs for both low-volume prototyping and high-volume manufacturing.
Medical Applications:
Custom surgical tools can be produced economically in small batches (1–100 units) for niche procedures.
Mass-produced implants benefit from automated cell systems with robotic loading/unloading.
Electronics Applications:
Consumer electronics housings can be machined at scale while maintaining precision.
Micro-components (e.g., SIM card ejectors) leverage high-speed Swiss machining for efficiency.
CNC Advantage:
AI-driven process optimization reduces scrap rates and energy consumption.
Modular CNC systems allow quick reconfiguration for different part geometries.

Factory Show

Factory Equipment


WEDM


Milling Machine


CNC Wire Cut

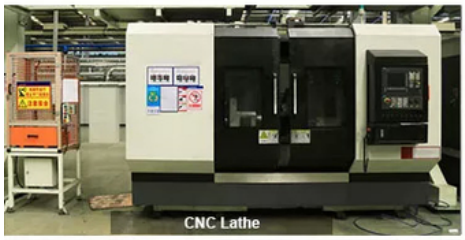

Coordinate measuring machine


CNC Bending Machine


Hydraulic Press Machine


SLS/SLA Machine


5-Axis CNC


CNC Lathe


Laser cutting Machine


CNC Punching Machine


Injection Molding machine

FAQ

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, Hight, Width), CAD or 3D file will be made for you if placed order.

0086-13682614486 shawn@xianheng-tech.com cnc-metalmachining.com

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