High Precision Laser Cutting for Corrosion-Resistant Stainless Steel The Ideal Choice for Precision Metal Stamping Parts

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: PMS-XG-069
- 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

- Material: Copper, Stainless Steel, Aluminum, Brass, Etc.
- Surface Treatment: Hot Galvanized, Zinc Plating, Nickel Plating, Powder Plating, Anodize
- Process: Stamping, Punching, Bending, Punching Of Stamping Blanks, Stamping + CNC
- Application: Construction, Industrial, Used Widely Industry Auto, Mechanical Equipment, Auto Parts
- Service: OEM/ODM, OEM ODM Metal Stamping, Customized OEM OEM ODM, OEM Service
- Tolerance: 0.01mm, 0.05 Mm, +/-0.005, 0.003-0.05mm
- Oem: Available
- Quality: ISO9001
- Keywords: Custom Stamping Metal
- Packing: As Customers' Requirement

More Images

Our Product Introduction

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

Product Description

What We Can Provide

High Precision Laser Cutting for Corrosion-Resistant Stainless Steel The Ideal Choice for Precision Metal Stamping Parts

Description of High Precision Laser Cutting for Corrosion-Resistant Stainless Steel The Ideal Choice for Precision Metal Stamping Parts

Corrosion-resistant stainless steel, such as 304, 316L, and super austenitic grades like 904L, is widely used in industries requiring durability, hygiene, and resistance to harsh environments (e.g., medical devices, automotive components, aerospace parts, and food processing equipment). However, traditional stamping and cutting methods often struggle with material deformation, tool wear, and limited design flexibility. High-precision laser cutting has emerged as the superior solution, offering unmatched accuracy, efficiency, and adaptability for precision metal stamping parts.

Specification of High Precision Laser Cutting for Corrosion-Resistant Stainless Steel The Ideal Choice for Precision Metal Stamping Parts

Name	Custom OEM Laser Cutting Sheet Metal Fabrication Services Copper Stainless Steel Anodised Aluminum Metal Stamping bending Parts
Material	Zn-plating, Ni-plating, Cr-plating, Tin-plating, copper-plating, the wreath oxygen resin spraying, the heat disposing, hot-dip galvanizing, black oxide coating, painting, powdering, color zinc-plated, blue black zinc-plated, rust preventive oil, titanium alloy galvanized, silver plating, plastic, electroplating, anodizing etc.
Applications	Automotive, instrument, electrical equipment, household appliances, furniture, mechanical equipment, daily living equipment, electronic sports equipment, light industry products, sanitation machinery, market/ hotel equipment supplies, artware etc.
Packaging	Regular: Paper, Foam, OPP bag, Carton; Other: According to customers' requirements
Testing Equipment	Projecting apparatus, Salt Spray Test, Durometer, and Coating thickness tester
Tolerance	±0.01-0.05mm
Drawing	JPG, PDF, CAD, DWG, STP, STEP

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 High Precision Laser Cutting for Corrosion-Resistant Stainless Steel The Ideal Choice for Precision Metal Stamping Parts

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

Advantages

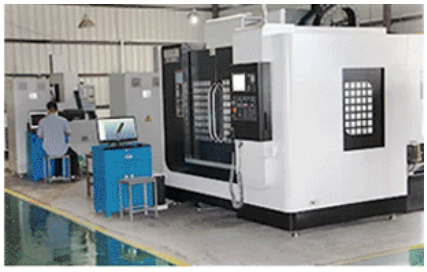
1. Unparalleled Cutting Precision (Micro-Level Accuracy)
Laser cutting achieves micron-level precision (±0.05mm or better), enabling the production of intricate geometries—such as fine holes, complex contours, and sharp edges—without secondary processing. This is critical for applications like medical implants, where tolerances are tighter than a human hair, or aerospace components requiring flawless fits.
Example: A 904L stainless steel part for chemical processing equipment demands 0.1mm-wide slots to resist corrosion while maintaining structural integrity. Laser cutting delivers this precision consistently, whereas mechanical stamping risks tool wear and dimensional drift.

2. Minimal Heat-Affected Zone (HAZ) and Material Integrity Preservation
Corrosion-resistant stainless steels derive their strength from chromium oxide layers. Traditional methods (e.g., plasma

cutting) generate excessive heat, disrupting these layers and creating micro-cracks that compromise corrosion resistance. Laser cutting's focused beam reduces HAZ to <0.2mm, preserving the material's anti-corrosive properties.
Example: In food-grade 316L stainless steel kitchenware, laser-cut edges remain smooth and oxide-free, eliminating bacterial traps and ensuring compliance with hygiene standards. Mechanical punching, by contrast, leaves rough edges prone to rust.

3. Non-Contact Processing: No Tool Wear or Deformation
Laser cutting is a non-contact process, eliminating physical force on the material. This prevents:
Tool wear: Unlike stamping dies, lasers don't degrade, ensuring consistent quality over millions of cuts.
Material deformation: Thin stainless steel sheets (e.g., 0.5mm for electronic enclosures) remain flat, avoiding warping from mechanical pressure.
Example: A 0.8mm-thick 304 stainless steel automotive sensor housing requires burr-free edges to prevent electromagnetic interference. Laser cutting achieves this flawlessly, whereas stamping often leaves residual stress and burrs.

4. Rapid Prototyping and Customization for Low-Volume, High-Mix Production
Laser cutting excels in agile manufacturing, enabling quick design changes without expensive tooling. This is ideal for industries like:
Medical devices: Custom orthopedic implants with patient-specific geometries.
Consumer electronics: Iterative designs for smartphone casings or wearable tech.
Example: A startup producing customizable stainless steel bicycle frames can use laser cutting to adjust tube profiles and joint designs on-demand, reducing lead times from weeks to days compared to die-casting.



Multipe Machines

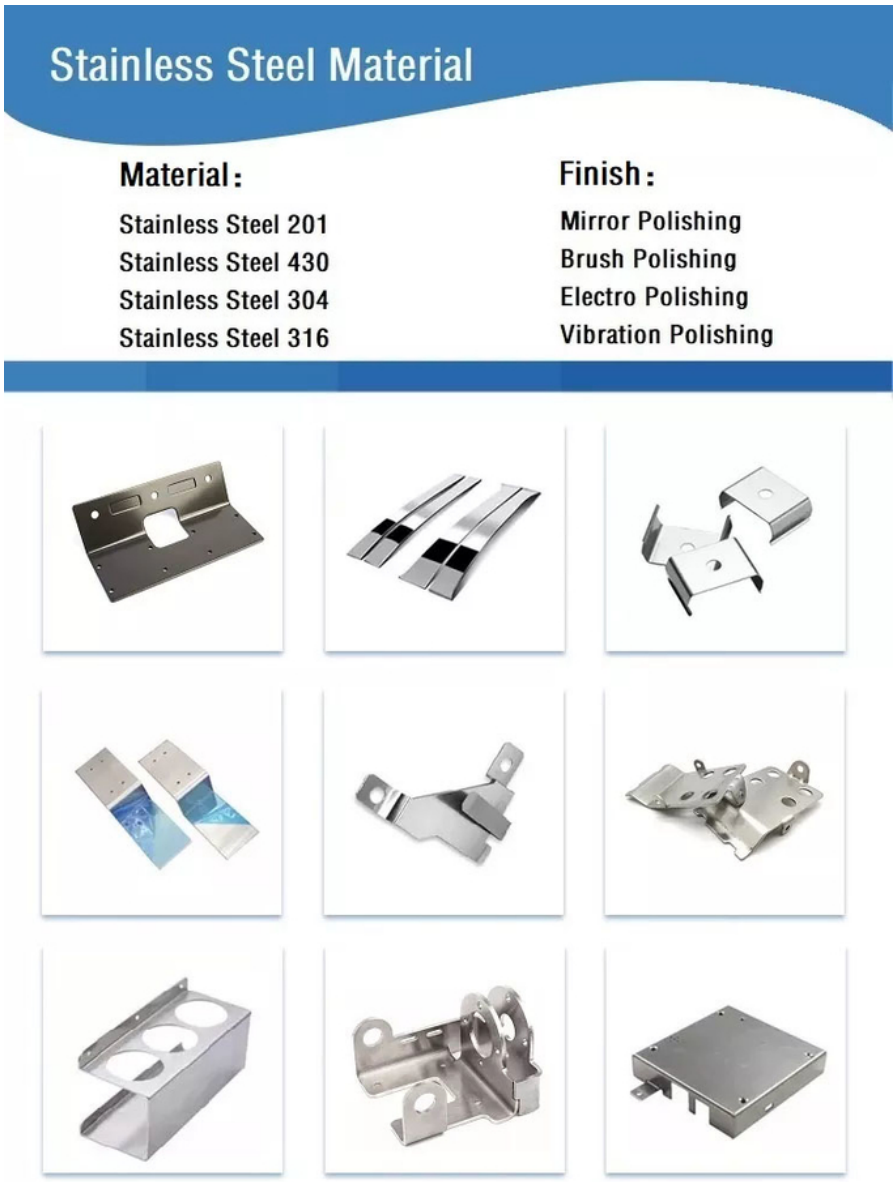
Professional machines, skillful workers, guarantee the quality and lead time.

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



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.

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