



High Precision Stamping Solutions Supplier Achieving Structural Integrity in High-Stress Components

Our Product Introduction

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Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: PMS-XG-084
- 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



Product Description

What We Can Provide

High Precision Stamping Solutions Supplier Achieving Structural Integrity in High-Stress Components

Description of High Precision Stamping Solutions Supplier Achieving Structural Integrity in High-Stress Components

A High Precision Stamping Solutions Supplier specializes in designing and manufacturing metal components that maintain structural integrity under extreme mechanical stress, thermal load, or dynamic forces. This is achieved through advanced stamping technologies tailored to materials like high-strength steel, titanium, or specialized alloys (e.g., Inconel, maraging steel). The supplier employs precision die engineering, finite element analysis (FEA) for stress simulation, and multi-stage stamping processes to ensure components withstand fatigue, deformation, or fracture in critical applications—such as aerospace engine brackets, automotive chassis parts, or industrial machinery linkages. Key innovations include adaptive die geometries for stress distribution optimization, in-process heat treatment for material hardening, and automated quality verification (e.g., coordinate measuring machines, 3D scanning) to validate dimensional accuracy and material properties at each production stage.

Specification of High Precision Stamping Solutions Supplier Achieving Structural Integrity in High-Stress Components

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 Stamping Solutions Supplier Achieving Structural Integrity in High-Stress Components

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

Enhanced Fatigue Resistance & Durability

Components engineered with controlled grain structures and surface finishes (e.g., shot peening, polishing) to resist cyclic stress-induced cracking, extending service life by 2–5x compared to standard stamping.

Example: Aircraft landing gear components withstanding 10,000+ load cycles without micro-crack propagation.

Stress-Optimized Geometry Design

Leverages topology optimization and additive-stamping hybrid processes to create lightweight yet robust structures (e.g., lattice-frame inserts, rib-reinforced profiles) that minimize material usage while maximizing load-bearing capacity.

Reduces part weight by 15–30% for aerospace and automotive applications, enhancing fuel efficiency without compromising

safety.

Material-Specific Process Customization

Tailors stamping parameters (e.g., press force, lubrication, die clearance) to the mechanical properties of each material—such as springback compensation for stainless steel or thermal management for heat-treated alloys.

Ensures consistent mechanical performance across batches, critical for medical implants (e.g., hip joint prosthetics) requiring biomechanical compatibility.

Real-Time Quality Assurance & Traceability

Implements IoT-enabled monitoring systems to track stamping parameters (e.g., pressure, temperature, stroke speed) in real time, with data logged for end-to-end traceability.

Automated defect detection (e.g., surface cracks, dimensional deviations) reduces inspection time by 40–60%, while ensuring zero-defect delivery for high-reliability sectors like nuclear power or autonomous vehicle systems.



Multiple Machines

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

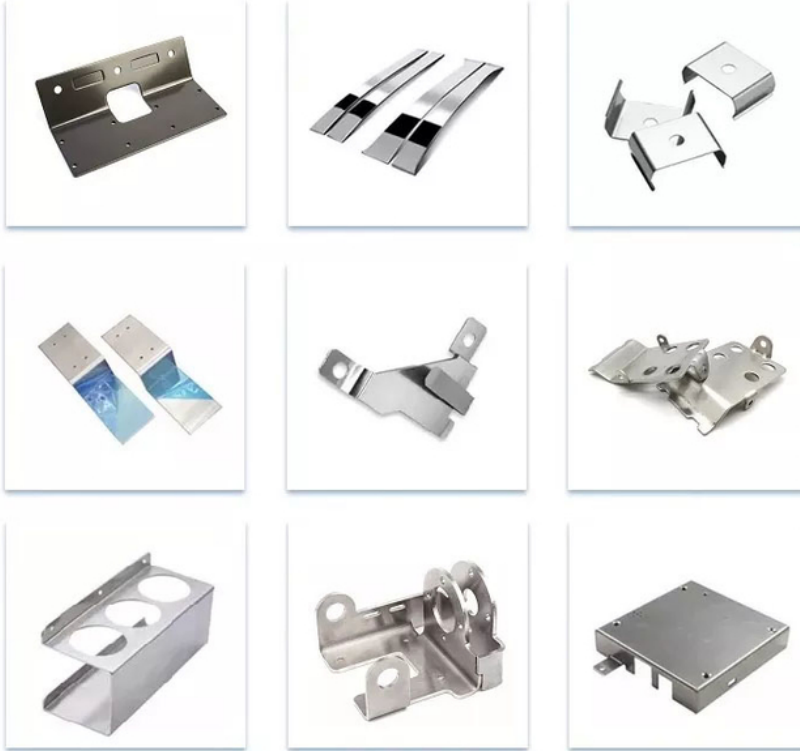
Stainless Steel Material

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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