



Ultra-Precision Multi-Slide Stamped Aluminum 7075-T6 Brackets for Satellite Structural Frames with Electroless Nickel Plating and Cryogenic Performance Certification

Our Product Introduction

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

Basic Information

- Place of Origin: Shenzhen China
- Brand Name: Xianheng
- Certification: ISO9001:2015
- Model Number: PMS-XG-085
- 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

Ultra-Precision Multi-Slide Stamped Aluminum 7075-T6 Brackets for Satellite Structural Frames with Electroless Nickel Plating and Cryogenic Performance Certification

Description of Ultra-Precision Multi-Slide Stamped Aluminum 7075-T6 Brackets for Satellite Structural Frames with Electroless Nickel Plating and Cryogenic Performance Certification

This component is a high-precision, lightweight structural bracket engineered for satellite frames. It is manufactured via multi-slide stamping, a technique that enables complex geometries with tight tolerances ($\pm 0.01\text{mm}$) through synchronized tool slides. The base material, Aluminum 7075-T6, is a high-strength, heat-treatable alloy renowned for its exceptional strength-to-weight ratio, critical for space applications where weight savings are paramount. The bracket is coated with electroless nickel plating, which provides uniform corrosion resistance, wear protection, and electrical conductivity while maintaining dimensional stability. Additionally, it is cryogenically certified to operate reliably at temperatures as low as -196°C , ensuring structural integrity in the extreme cold of space environments.

Specification of Ultra-Precision Multi-Slide Stamped Aluminum 7075-T6 Brackets for Satellite Structural Frames with Electroless Nickel Plating and Cryogenic Performance Certification

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	$\pm 0.01-0.05\text{mm}$
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 Ultra-Precision Multi-Slide Stamped Aluminum 7075-T6 Brackets for Satellite Structural Frames with Electroless Nickel Plating and Cryogenic Performance Certification

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

High Strength-to-Weight Ratio

Aluminum 7075-T6 offers superior strength (tensile strength $\sim 570\text{ MPa}$) while being significantly lighter than steel, reducing launch mass and enabling fuel-efficient satellite deployment.

Precision Manufacturing for Complex Geometries

Multi-slide stamping allows for the production of intricate bracket shapes with minimal material waste and consistent quality, essential for tight assembly tolerances in satellite frames.

Enhanced Durability and Corrosion Resistance

Electroless nickel plating creates a uniform, pore-free barrier against harsh environmental factors (e.g., atomic oxygen, moisture, thermal cycling) and prevents galvanic corrosion in multi-material assemblies.

Cryogenic Performance Certification

Rigorous testing ensures the bracket maintains mechanical properties (e.g., dimensional stability, fracture toughness) at cryogenic temperatures, critical for thermal management and structural reliability in orbit.



Multiple Machines

5-Axis CNC & Import Professional machines, skillful workers, 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

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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