



Customized CNC Machining Aluminium Profiles for Automated Robotic Arms / Mechanical Arm / Automation Equipment

Our Product Introduction

for more products please visit us on aluminumextrusion-profiles.com

Basic Information

- Certification: CE, ISO
- Minimum Order Quantity: 1,000
- Price: 4.99

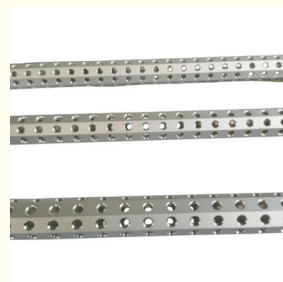


Product Specification

- Model NO.: Aluminium Mechanical Arm Profile
- Type: Industrial Aluminium Profile, Aluminum Profile System
- Shape: Octagonal
- Grade: 6000 Series
- Temper: T3-T8
- Window & Door Aluminium Profile: 60 Series
- Alloy: Alloy
- Surface Finishing: Anodic Oxidation
- Alloying Ingredient: 6063
- Polished Aluminum Profile: Chemical Polishing
- Surface Treatment: Sandblasting Anodized
- Service: OEM/ODM
- Color: Customized
- Logo: Printed



More Images



Product Description

Customized CNC Machining Aluminium Profiles For Automated Robotic Arms / Mechanical Arm / Automation

Equipment

Product Description

Specification

In the world of automation, every micron matters. Our custom CNC machined aluminum profiles are the foundational building blocks designed to elevate the performance, reliability, and efficiency of your automated production line. We transform high-grade aluminum alloys into complex, lightweight, and incredibly strong structural components tailored precisely to your design specifications.

Description :

Material 6063,6061,6060,6005,7075,7055,7150,2A12,2024

Temper T4,T5 ,T6,T66

Shape Octagonal ,we also can design according to your specific performance

Surface Powder Painting , Anodizing ,Brush ,Satin, Polish etc .

Machining Cutting ,Drilling ,Tapping , Punching , CNC Machining ,Bending , Welding etc .

Package Each product will be packed by EP foam , packed in cartons , and then packed in wooden cases . Or the packing will be according to the characteristics of the products .

Certificate ISO9001:2008,SGS.

Applications Automated Production Line Mechanical Arm /Robot Arm Beam/ Automation Equipment and so on .

Feature

- 1.This aluminum extrusion profile for assembly line is light in weight, yet it owns high strength and credible stability.
2. It performs with excellent resistance to corrosion, abrasion, acid and alkali, working for a long time without maintenance.
3. This product adopts the aluminum alloy that is the incombustible material, capable of resisting strong impact.
4. With the particular design, it is jointed tightly with other pieces, functioning excellent sound proofing effect.
5. The product used for the door and window is usually made in waterproof structure.

Applications:

Automated Production Line Mechanical Arm /Robot Arm Beam/ Automation Equipment and so on .

Why Choose Our Custom Aluminum Profiles for Your Automation Equipment?

1. Unmatched Precision & Repeatability

· Every profile is machined with state-of-the-art CNC equipment to exacting tolerances. This ensures perfect fitment for linear guides, bearings, sensors, and other critical components, eliminating alignment issues and guaranteeing the flawless, repeatable motion essential for precision tasks like assembly, welding, and pick-and-place.

2. Superior Strength-to-Weight Ratio

· Aluminum provides exceptional structural rigidity while remaining remarkably light. This reduces the overall mass of the robotic arm, leading to lower inertia, faster acceleration and deceleration, reduced motor strain, and higher overall energy efficiency.

3. Complete Design Freedom & Customization

· Our process allows for complete customization. We can machine complex geometries, intricate channels, precise mounting holes, cavities, and threads directly as your request .

4. Enhanced Durability and Corrosion Resistance

· Manufactured from high-quality alloys like 6061 and 7075, our profiles offer excellent resistance to wear, impact, and corrosion. A variety of surface treatment options, including anodizing, powder coating, and hard coating, further enhance durability and provide protection in demanding industrial environments.

Product Parameters

1) Chemical composition

| Alloy | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Impurity | Al |
|-------|---------|---------|----------|----------|----------|-----------|------|------|----------|------|
| 6063 | 0.2-0.6 | 0.35 | 0.1 | 0.1 | 0.45-0.9 | 0.1 | 0.1 | 0.15 | Rest | |
| 6061 | 0.4-0.8 | 0.7 | 0.15-0.4 | 0.15 | 0.8-1.2 | 0.04-0.35 | 0.25 | 0.15 | 0.15 | Rest |
| 6060 | 0.3-0.6 | 0.1-0.3 | 0.1 | 0.35-0.6 | - | 0.15 | 0.1 | 0.15 | Rest | |
| 6005 | 0.6-0.9 | 0.35 | 0.1 | 0.1 | 0.40-0.6 | 0.1 | 0.1 | 0.15 | Rest | |

2) Mechanical property

Alloy Temper Tensile strength Yield strength Elongation

| | | | | |
|------|----|----------|----------|------|
| 6063 | T5 | ≥ 160Mpa | ≥ 110Mpa | ≥ 8% |
| | T6 | ≥ 205Mpa | ≥ 180Mpa | ≥ 8% |
| 6061 | T6 | ≥ 265Mpa | ≥ 245Mpa | ≥ 8% |

Packaging &

Shipping

Packaging: standard export package, we can also accept other requirements from client.

Shipping:

1. The sample will be shipped by express, like FEDEX, DHL, UPS and EMS. And the freight should be paid by clients.
2. FOB Shanghai for mass production. The freight will deal with you for the concrete condition.
3. Delivery Time: 3 weeks after confirming all informations.

Company

Profile

MetalPlus invested in an express extrusion machine with a 3600 ton extrusion force in 2007, enabling our factory to produce a heat sink with a maximum diameter of 600mm.

Shapes can also be customized based on customer requirements and the project specifications.

We specialize in a variety of aluminum extrusions for construction and industry. Depending on the client's needs, we can make moulds, extrude, provide surface treatment, and fabricate.



Certifications

Company History

IN 2004 "THE RECOGNIZED BRAND OF THE BUILDING INDUSTRY MATERIAL MARKET"

IN 2006 "CERTIFICATE FOR PRODUCT EXEMPTION FROM QUALITY SURVEILLANCE INSPECTION " AND "ISO9001"

IN 2009 "ADVANCED COMPANY "

IN 2009 "JIANGSU FAMOUS BRAND CERTIFICATE "

IN 2009 "CERTIFICATE FOR CREDIBLE PRODUCT OF QUALITY IN JIANGSU PROVINCE"

IN 2012, ESTABLISHED THE BUSINESS RELATIONSHIP WITH PANASONIC, LG.

IN 2015, BE AN INNOVATIVE PRODUCER AND SUPPLYING PARTNER FOR EUROPE CLIENT.

IN 2017, DEVELOPED THE NEW PRODUCTS OF BASEBOARD HEATERS .

IN 2019, COOPERATE WITH THE WORLD'S LARGEST HEATER MANUFACTURERS , AND SUPPLY THE ALUMINUM SHELLS FOR THEM

.WON A GOOD REPUTATION !

IN 2023, WE WILL CONFIDENCE TO DEVELOP OVERSEA DISTRIBUTOR , TO EXPAND MARKET FOR WIN-WIN BENEFITS .

Project

The Soccer City Stadium, in Johannesburg is one of the major project of south African, the 94 000 seat stadium is the largest capacity stadium in Africa.

We are very honored to participate in the construction of the project as the main supplier of aluminum!

The Soccer City Stadium won unanimous praise after it was built!

Lobster Trailers is a Nordic trailer giant ,we are very proud to cooperate with them.

Our professional R&D team analyze and improve upon Lobster's designs and then process them with our excellent processing equipment, exquisite technology.

We minimize production costs and improve product performance thanks our optimization proficiencies.

We are very glad that our local customer Dadn won the bid of the school project, and we supplied the Aluminum Legs of the school desks for them.

With our strong design and mature technics, we will help more customers to get the tender.