



## Custom Aluminum Extrusion Frame for LED Display / Monitor / Commercial Display

Our Product Introduction

for more products please visit us on [aluminumextrusion-profiles.com](http://aluminumextrusion-profiles.com)

### Basic Information

- Certification: SONCAP, ISO, RoHS, TUV
- Minimum Order Quantity: 500
- Price: 1



### Product Specification

- Alloy Grade: 6063, 6061, 6060, 6005, 6082
- Temper: T4, T5, T6, T66
- Surface Treatment: Anodizing, Electrophoresis, Powder Coating, PVDF Coating, Wood Grain Painting
- Profile Shape: Square
- Length Tolerance: 0.2mm
- Hole Tolerance: 0.05mm
- Max Outer Diameter: 350mm
- Max Extrusion Diameter: 600mm
- Tensile Strength:  $\geq 160\text{MPa}$  (6063-T5),  $\geq 205\text{MPa}$  (6063-T6),  $\geq 265\text{MPa}$  (6061-T6)
- Yield Strength:  $\geq 110\text{MPa}$  (6063-T5),  $\geq 180\text{MPa}$  (6063-T6),  $\geq 245\text{MPa}$  (6061-T6)
- Elongation:  $\geq 8\%$
- Package Dimensions: 30cm X 50cm X 50cm
- Package Weight: 15kg



### More Images



## Product Description

MetalPlus manufactures a wide range of high-quality, customized and standardized enclosures. Our electronic industrial enclosure portfolio includes aluminum profile housings, die-cast aluminum boxes, standard aluminum chassis, rack-mount housings and CNC precision machined parts.

One of our key advantages is custom aluminum profile housing. Using state-of-the-art CNC processing equipment, we manufacture enclosures to each customer's exact specifications and deliver finished products on time.

### Aluminum Extrusion Specifications for Electronic Enclosures

|                |                                                                                                                                                                                                                                                    |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Item           | Aluminum Extrusions for Electronics                                                                                                                                                                                                                |
| Material       | Alloy 6063, 6061, 6060, 6005, 6082, or according to customer's choice                                                                                                                                                                              |
| Temper         | T4, T5, T6, T66                                                                                                                                                                                                                                    |
| Surface Finish | Anodize (clear, satin, bronze, black, golden, silver, other multicolor), electrophoresis, powder coating, PVDF coating, wood grain painting, etc.                                                                                                  |
| MOQ            | 1 ton. Usually 12 tons for a 20-foot container; 24 tons for a 40-foot container.                                                                                                                                                                   |
| Profile Type   | Industrial aluminum profiles used in machinery, trailers, electronics, medical and other industrial fields                                                                                                                                         |
| Processing     | Aluminum profile extruding, precise cutting, straight rectification, bending, drilling, tapping, stamping, pulling, CNC milling, CNC lathe. For precision machining and cutting, length tolerance can be 0.2 mm and hole tolerance can be 0.05 mm. |
| Moulding       | 1. Using our existing moulds. 2. Producing new moulds according to customer's drawing.                                                                                                                                                             |
| Certificate    | ISO14001:2004, ISO9001:2000, RoHS, SGS                                                                                                                                                                                                             |
| Standard       | Meets China national standard GB/T6892-2006, Europe standard EN12020-1,2 (2001) and American standard AAMA611-98                                                                                                                                   |
| FOB Port       | Shanghai, etc.                                                                                                                                                                                                                                     |

### Product Components

| S/N | Part Name             | Qty | Material |
|-----|-----------------------|-----|----------|
| 1   | Extrusion profile     | 1   | AL6063   |
| 2   | Front and rear panels | 2   | AL       |
| 3   | Screws                | 4/8 | SS       |

### Design Features and Applications

Aluminum top and bottom plates with aluminum case design, suitable for rail transit, new energy, power equipment, meteorological testing, marine monitoring and other application fields.

The extruded aluminum frame and die-cast aluminum panels make the enclosure highly suitable for hostile environments where waterproofing and heat dissipation are essential.

PCBs or chassis can be mounted by sliding them horizontally into the inner-grooved body frame.

Suitable for measuring instruments, industrial control boxes, industrial camera housings, WiFi outdoor access points and outdoor IoT gateways.

### Our Advantages

Engineering design and technical support.

Deep processing of aluminum profiles: cutting, punching, drilling, milling and fabricating.

High-quality system with strict in-process inspection and full inspection before packaging.

Good performance with a 15-year product warranty.

OEM or ODM welcome. Beyond our existing products, we can arrange production according to customer requirements. If you have your own designs or samples, we can make molds and arrange production based on your product information.

## Typical Applications

Inverter, signal amplifier, video pusher, lithium-ion battery changer, mini host.

## Primary Technical Data

### 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  | 0.1  | 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      | 0.1  | 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  | 0.1  | 0.15     | Rest |

### 2) Mechanical Property

| Alloy | Temper | Tensile Strength | Yield Strength | Elongation |
|-------|--------|------------------|----------------|------------|
| 6063  | T5     | ≥ 160 MPa        | ≥ 110 MPa      | ≥ 8%       |
| 6063  | T6     | ≥ 205 MPa        | ≥ 180 MPa      | ≥ 8%       |
| 6061  | T6     | ≥ 265 MPa        | ≥ 245 MPa      | ≥ 8%       |

## Technical Support

Based on customer requirements, we help design the appearance of extruded profiles, provide CAD drawings and 3D models for customer confirmation, customize molds, and extrude aluminum profiles that meet the customer's requirements.

For customers with design capabilities, our professional R&D team analyzes and optimizes the design based on the customer's drawings and our extrusion processing experience, using the most reasonable design to reduce production costs and improve product performance.

Our company adopts a "one-stop" service and production model covering product design, customized molds, aluminum bar melting and casting, extrusion profiling, precision machining and surface treatment. We effectively control the alloy composition of raw materials and maintain product accuracy throughout the production process, providing you with high-quality products.



## Factory Equipment

### Extrusion

Equipped with 44 aluminum extrusion lines, MetalPlus is capable of producing various standards of commercial aluminum profiles and industrial aluminum profiles with a maximum outer diameter of 350 mm.

MetalPlus has 44 aluminum profile extrusion lines equipped with PLC control systems and precise molds. The largest extruder in the MetalPlus factory is a 6800-ton unit, used for the production of industrial profiles in various shapes with a maximum diameter of 600 mm. This allows us to satisfy the different requirements of our various customers. Some of the aluminum products produced by MetalPlus include radiators, industrial fan blades, motor enclosures, solar cell frames, doors and windows.

MetalPlus can produce custom molds according to customer requirements. We have the ability and experience to produce aluminum profiles with complex structures. We have our own R&D team, so we can provide reasonable suggestions for our customers in order to create superior products at affordable prices.



### Anodizing

Anodizing is a process in which a layer of aluminum oxide is formed on the surface of aluminum alloy products when they are placed in an electrolyte solution and an electrical current is applied. Oxidized aluminum profiles feature improved corrosion resistance so that the surface can withstand various weather conditions. Meanwhile, the aluminum oxide also increases the product's hardness and wear resistance. MetalPlus has 6 anodizing production lines. The profiles processed in our anodizing lines feature uniform oxidation film thickness and color, giving them a beautiful appearance. The oxidized profiles come in various color options including silver, black, gold, champagne and imitation steel. Other colors can be customized upon request.

The anodized products are all inspected by highly trained professional inspectors. Defective products that cannot be re-processed are directly scrapped. Products with uneven color are de-coated and re-anodized until they meet the requirements. This ensures there is no color difference among each batch of products.

|                                                                                |
|--------------------------------------------------------------------------------|
| Anodized aluminum extrusion profiles in various colors after surface treatment |
| Anodizing production line for aluminum alloy profiles at MetalPlus             |

## Painting

Our factory is equipped with 4 powder spraying lines, all using high-quality spray nozzles from Gema Switzerland. MetalPlus only uses safe and environmentally friendly paint with strong adhesive force and durable color retention.

|                                                                   |
|-------------------------------------------------------------------|
| Powder coating line for aluminum profiles with Gema spray nozzles |
| Powder painted aluminum extrusion profiles in various colors      |
| Finished powder coated aluminum profiles ready for assembly       |

## CNC Machining

MetalPlus is equipped with highly advanced machining equipment sets. All fine machining processes are accomplished by technicians with rich industry experience. Strict industrial standards are adopted during production to ensure fine machining precision and product quality.

MetalPlus has 12 PRATIC machining centers which can be used for milling, drilling or tapping of profiles from different angles. They are especially suitable for the production of long profiles up to 6 meters. The equipment sets can realize machining of complex profiles with the simplest methods.

MetalPlus has fully automatic cutting machines from Wegoma which can accomplish precise cutting with automatic and continuous material feeding, meaning the machines feature low labor cost and high production efficiency. Therefore, the cutting price of MetalPlus is significantly lower than that of other enterprises in the industry.

We have 30 punching machines with punching pressure ranging from 50 to 100 tons. They can be used for punching relatively thick profiles with a thickness over 5 mm. There are also 10 stretch bending machines/bending machines which can bend profiles to arcs or different angles with highly precise machining angles. The factory is also equipped with 10 milling machines, realizing machining of different planes, bevels or grooves so that we can satisfy different machining requirements of our customers.

|                                                                  |
|------------------------------------------------------------------|
| CNC machining center processing long aluminum extrusion profiles |
| Automatic cutting machine for precise aluminum profile cutting   |
| Punching and bending equipment for aluminum profile fabrication  |

## Packing and Shipping



Finished products are packaged manually and ready for delivery. MetalPlus adopts strict warehouse management procedures; the finished product warehouse is divided into sections to store specific products, all in-and-out transactions are recorded, and each product is examined before delivery.

## Certifications



## Company History

|      |                                                                                                                           |
|------|---------------------------------------------------------------------------------------------------------------------------|
| 2004 | "The Recognized Brand of the Building Industry Material Market"                                                           |
| 2006 | "Certificate for Product Exemption from Quality Surveillance Inspection" and "ISO9001"                                    |
| 2009 | "Advanced Company"                                                                                                        |
| 2009 | "Jiangsu Famous Brand Certificate"                                                                                        |
| 2009 | "Certificate for Credible Product of Quality in Jiangsu Province"                                                         |
| 2012 | Established business relationships with Panasonic and LG                                                                  |
| 2015 | Became an innovative producer and supplying partner for a German client                                                   |
| 2017 | Developed new products for baseboard heaters                                                                              |
| 2019 | Cooperated with the world's largest heater manufacturers and supplied aluminum shells for them, earning a good reputation |
| 2023 | Confidently developing overseas distributors to expand the market for win-win benefits                                    |

## Project References

The Soccer City Stadium in Johannesburg is one of the major projects in South Africa. 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, and we are very proud to cooperate with them. Our professional R&D team analyzes and improves upon Lobster's designs and then processes them with our excellent processing equipment and exquisite technology. We minimize production costs and improve product performance thanks to our optimization proficiencies.

We are very glad that our local customer Dadn won the bid for the school project, and we supplied the aluminum legs for the school desks. With our strong design and mature techniques, we will help more customers win tenders.

MetalPlus' professional R&D team assisted our Canadian customer SmartLux in designing the heater enclosure. We then produced custom molds, extruded the profiles, arranged the finished machining, powder painted the heaters and installed the products, creating superior products for our customer.



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