



Custom Aluminum Extrusion Enclosure for Professional Audio Amplifier / Speaker

Our Product Introduction

for more products please visit us on 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
- Tensile Strength: $\geq 160-265$ MPa
- Yield Strength: $\geq 110-245$ MPa
- Elongation: $\geq 8\%$
- Length Tolerance: 0.2 Mm
- Hole Tolerance: 0.05 Mm
- Max Profile Diameter: 600 Mm
- Max Profile Length: 6 M
- Punching Pressure: 50-100 Tons
- Punching Thickness: Over 5 Mm
- Extrusion Lines: 44 Lines
- Anodizing Lines: 6 Lines
- Powder Coating Lines: 4 Lines
- CNC Machining Centers: 12 Units



More Images



Product Description

Custom Aluminum Extrusion Enclosure for Professional Audio Amplifier / Speaker

MetalPlus manufactures a wide range of high-quality, customized and standardized electronic industrial enclosures, including aluminum profile housings, die-cast aluminum boxes, standard aluminum chassis, rack-mount housings and CNC precision machined parts. A key advantage is our custom aluminum profile housing capability: state-of-the-art CNC processing equipment is used to manufacture enclosures to each customer's exact specifications, with finished products delivered on time.

Product Specifications

Item	Aluminum Extrusions for Electronics
Material	Alloy 6063, 6061, 6060, 6005, 6082, or according to customer's choice
Temper	T4, T5, T6, T66
Surface Treatment	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 drawings.
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 & 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 management system with strict in-process inspection and full inspection before packaging.

Reliable performance backed by a 15-year product warranty.

OEM and 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 produce according to your product information.

Typical Applications

Inverters, signal amplifiers, video pushers, lithium-ion battery changers and mini hosts.

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 confirmation, customize the 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 production, 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 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. Our own R&D team provides reasonable suggestions to help customers 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 the surface can withstand various weather conditions. The aluminum oxide layer also increases the product's hardness and wear resistance. MetalPlus has 6 anodizing production lines. Profiles processed in our anodizing lines feature uniform oxidation film thickness and color, giving them a beautiful appearance. Oxidized profiles come in various color options including silver, black, gold, champagne and imitation steel; other colors can be customized upon request.

All anodized products are 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 requirements, ensuring no color difference among each batch of products.

Anodized aluminum extrusion profiles with uniform color finish

Anodizing production line for aluminum profiles at MetalPlus

Painting

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

- Powder coating line for aluminum extrusion enclosures
- Powder sprayed aluminum profiles with durable color finish
- Gema spray nozzles on aluminum powder coating production line

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 for milling, drilling or tapping of profiles from different angles. They are especially suitable for long profiles up to 6 meters and can machine complex profiles with the simplest methods.

MetalPlus has fully automatic cutting machines from Wegoma that accomplish precise cutting with automatic and continuous material feeding, featuring low labor cost and high production efficiency. As a result, our cutting price 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, suitable for punching relatively thick profiles over 5 mm. There are also 10 stretch bending/bending machines that bend profiles to arcs or different angles with highly precise machining angles, plus 10 milling machines for machining different planes, bevels or grooves to satisfy different customer machining requirements.

- CNC machining center processing aluminum extrusion profiles
- Precision cutting and machining of aluminum profiles
- Punching and bending equipment for aluminum extrusion fabrication

Packing and Shipping

Finished products are packaged manually and prepared 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 — Recognized Brand of the Building Industry Material Market.
- 2006 — Certificate for Product Exemption from Quality Surveillance Inspection; ISO9001.
- 2009 — Advanced Company; Jiangsu Famous Brand Certificate; 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 baseboard heater products.
- 2019 — Cooperated with the world's largest heater manufacturers, supplying aluminum shells and earning a strong 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 honored to participate in the construction of this 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 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 through our optimization expertise.



We are glad that our local customer Dadn won the bid for a school project, and we supplied the aluminum legs for their 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 finished machining, powder painted the heaters and installed the products, creating superior products for our customer.



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