6063 T5 ALUMINUM EXTRUSION PROFILES

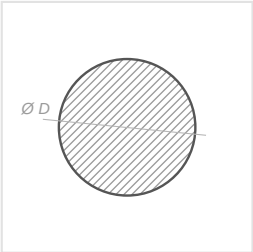
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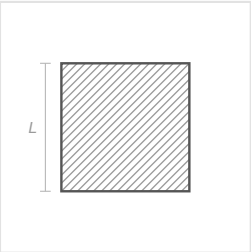
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6063 T5 ALUMINUM EXTRUSION PROFILES

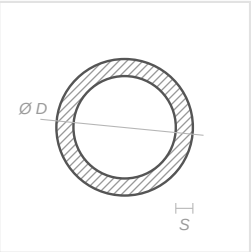
6063 T5 is the aluminum-magnesium-silicon alloy known as the architectural alloy: it is **cooled directly from the extrusion press and then artificially aged**. It combines a minimum tensile strength of **175 MPa** (EN 755-2, walls up to 10 mm) with a smooth surface ready for anodizing and very good corrosion resistance. All the profiles below can be extruded in **6063 T5** and in the **other alloys** we work with, with standard tolerances of **+/- 0.15 mm**.



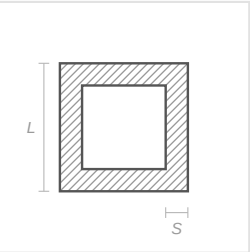
Aluminum round bars



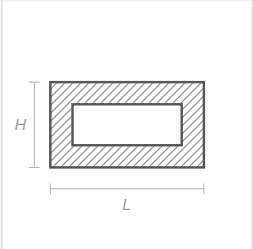
Aluminum square bars



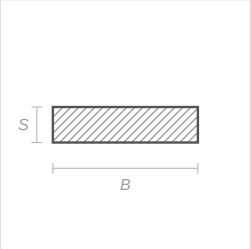
Aluminum round tubing



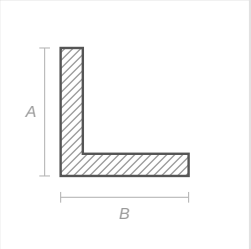
Aluminum square tubing



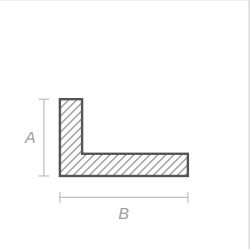
Aluminum rectangular tubing



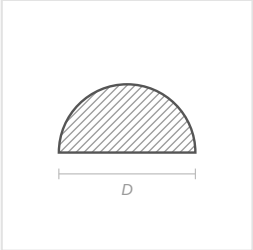
Aluminum flat bars



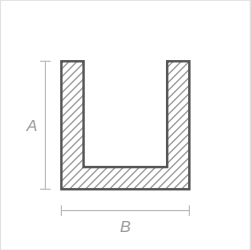
Aluminum corner extrusion with even sides



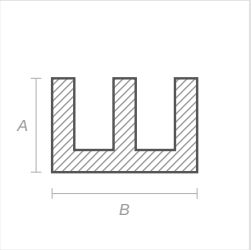
Aluminum corner extrusion with uneven sides



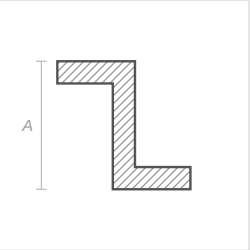
Aluminum semicircular elements



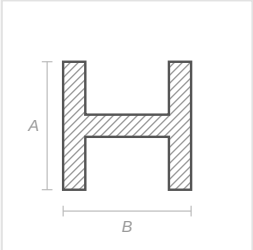
Aluminum U channel extrusions



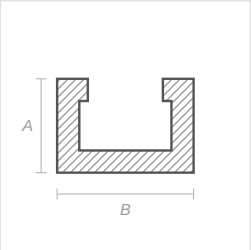
Aluminum double duct profiles



Aluminum Z bars



Aluminum H sections



Aluminum T-tracks

6063 T5 alloy: composition and properties

6063 belongs to the **6000 series**: magnesium and silicon combine into magnesium silicide (Mg2Si), which hardens the metal during aging. The **T5 temper** (EN 515) means the profile is cooled from the extrusion temperature and then **artificially aged in an oven**, with no separate solution heat treatment.

Chemical composition (% by weight, EN 573-3)

ELEMENT	SYMBOL	CONTENT (%)
Silicon	Si	0.20 - 0.60
Iron	Fe	max 0.35
Copper	Cu	max 0.10
Manganese	Mn	max 0.10
Magnesium	Mg	0.45 - 0.90
Chromium	Cr	max 0.10
Zinc	Zn	max 0.10
Titanium	Ti	max 0.10
Other elements, each / total		max 0.05 / 0.15
Aluminum	Al	Remainder

Minimum mechanical properties (EN 755-2, extruded profiles)

WALL THICKNESS	Rm MIN (MPa)	Rp0.2 MIN (MPa)	A MIN (%)
up to 10 mm	175	130	8
over 10 to 25 mm	160	110	7

Physical properties

PROPERTY	VALUE
Density	2.70 g/cm³
Melting range	616 - 654 °C
Thermal conductivity	209 W/m·K
Electrical conductivity	about 55% IACS
Thermal expansion (20 - 100 °C)	23.4 µm/m·°C
Modulus of elasticity	68.9 GPa

Values for guidance only. Final specifications are confirmed in the order documentation.

Alloys and supply conditions

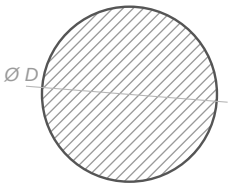
Every profile in this catalog is available in **6063 T5** and in the **other aluminum alloys** we extrude. Tell us the application and we will suggest the **alloy and temper** that fit your specification.

SERIES	ALLOYS	MAIN FEATURES
1000	1050, 1070	Purity of at least 99.5%, high electrical and thermal conductivity
3000	3003, 3103, 3004	Manganese alloys, high corrosion resistance, suited to brazing
6000	6060, 6063, 6005	Magnesium and silicon, easy to machine and weld, heat treatable

Supply conditions

ITEM	DETAIL
Standard tolerance	+/- 0.15 mm, tighter on request
Minimum order	300 kg in bar format
Production	Made to order, no warehouse stock
Lead time	Generally around two weeks
Finishing	Anodizing, RAL powder coating, cutting, drilling, milling, CNC machining
Shipping	Worldwide, including the United States

Aluminum round bars

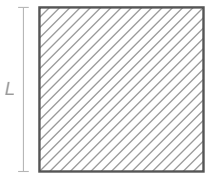


Aluminum round bars are solid profiles that can be extruded in **6063 T5** and in the other alloys we work with. The minimum size is **3.5 mm** in diameter and the standard dimensional tolerance is **+/- 0.15 mm**.

They are mainly used in the **mechanical, electromechanical, and furnishing** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-round-bar

Aluminum square bars

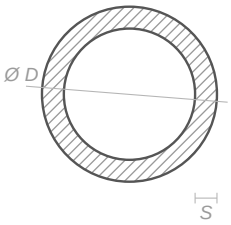


Aluminum square bars are solid profiles that can be extruded in **6063 T5** and in the other alloys we work with. The minimum size is **4 mm** per side and the standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **mechanical, electromechanical, and furnishing** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-square-bar

Aluminum round tubing



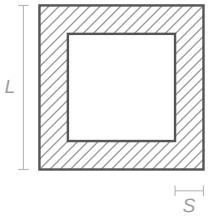
Aluminum round tubing can be extruded in **6063 T5** and in the other alloys we work with. The minimum size is **5 mm** outside diameter and the standard dimensional tolerance is **+/- 0.15 mm** in diameter.

It is mainly used in the **mechanical, electromechanical, construction, and furnishing** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-round-tubing

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Aluminum square tubing

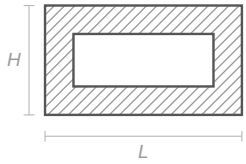


Aluminum square tubing can be extruded in **6063 T5** and in the other alloys we work with. The standard range goes from **8 to 40 mm** per side, with walls from **1 to 2.5 mm**, and a tolerance of **+/- 0.15 mm** on the side.

It is mainly used in the **mechanical, electromechanical, furnishing, and automotive** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-square-tubing

Aluminum rectangular tubing

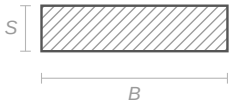


Aluminum rectangular tubing can be extruded in **6063 T5** and in the other alloys we work with. The size ranges from **12 mm to 80 mm** and the standard dimensional tolerance is **+/- 0.15 mm** on the side.

It is mainly used in the **construction, furnishing, electromechanical, and mechanical** fields.

Sizes, codes and weights: www.profall.com/en/extruded-aluminum-rectangular-tubing

Aluminum flat bars

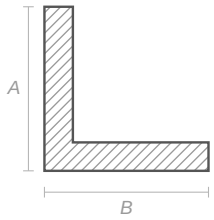


Aluminum flat bars can be extruded in **6063 T5** and in the other alloys we work with. The size ranges from **5 mm to 100 mm** and the standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **mechanical, furnishing, electromechanical, and construction** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-flat-bar

Aluminum corner extrusions with even sides

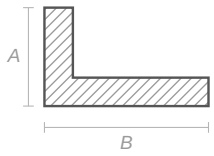


Aluminum corner extrusions with even sides are L profiles that can be extruded in **6063 T5** and in the other alloys we work with. Their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **electronics, furnishing, robotics, and construction** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-corner-extrusion-with-even-sides

Aluminum corner extrusions with uneven sides

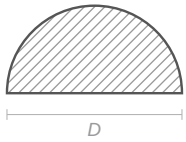


Aluminum corner extrusions with uneven sides are L profiles with legs of different length, extrudable in **6063 T5** and in the other alloys we work with. Their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **mechanical, construction, electromechanical, and domestic** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-corner-extrusion-with-uneven-sides

Aluminum semicircular elements

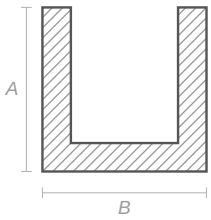


Aluminum semicircular elements are half-round profiles that can be extruded in **6063 T5** and in the other alloys we work with. Their standard dimensional tolerance is **+/- 0.15 mm** in diameter.

They are mainly used in the **construction, mechanical, electromechanical, and furnishing** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-semicircular-elements

Aluminum U channel extrusions

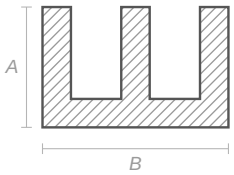


Aluminum U channel extrusions can be extruded in **6063 T5** and in the other alloys we work with. Their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **electronics, electromechanical, automation, furnishing, construction, and domestic** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-u-channel-extrusions

Aluminum double duct profiles

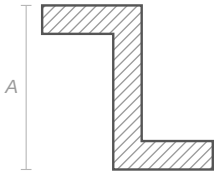


Aluminum double duct profiles can be extruded in **6063 T5** and in the other alloys we work with. The size ranges from **11 mm to 24.5 mm** and the standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **electronics, electromechanical, automotive, furnishing, construction, and domestic** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-double-duct-profiles

Aluminum Z bars

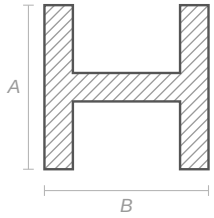


Aluminum Z bars can be extruded in **6063 T5** and in the other alloys we work with. They can have **equal or unequal bases** and their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **mechanical, electronics, construction, domestic, and automotive** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-z-bar

Aluminum H sections

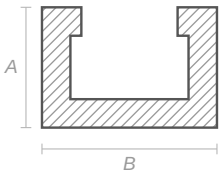


Aluminum H sections can be extruded in **6063 T5** and in the other alloys we work with. They can have **equal or unequal sides** and their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly employed in the **engineering, mechanical, electromechanical, and construction** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-h-section

Aluminum T-tracks



Aluminum T-tracks are C-shaped profiles with inward lips, extrudable in **6063 T5** and in the other alloys we work with. Their standard dimensional tolerance is **+/- 0.15 mm** on the side.

They are mainly used in the **mechanical, electronics, construction, domestic, and automotive** fields.

Sizes, codes and weights: www.profall.com/en/aluminum-t-track-extrusion

Custom aluminum profiles

Is the shape you need missing from this catalog? **We extrude it from your technical drawing.** 90% of our production is dedicated to **special profiles**, including complex cross-sections and tolerances that are hard to find on the market.

Once the feasibility of the project is confirmed, we proceed with **prototyping**, **pre-series production** and delivery, with the same supply conditions as the standard range.

CONTACTS	
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Configurator	www.profall.com/en/profile-configurator

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