

## Introduction and Company Overview

BENDINI, with over 20 years of experience from its management team in the construction industry, began its journey in the design of aluminium architectural systems.

Collaborating with European business partners and a dynamic R&D team, BENDINI has become one of the leading designers of high-quality aluminium systems. The company is committed to ensuring that its products bring satisfaction and value to its customers.

BENDINI guarantees that it will meet the diverse and extensive needs of its clients across various industries related to aluminium profiles. By adhering to the highest technical standards and quality, BENDINI designs its products to be used in a wide range of industries, including construction, automotive, energy, and more. In keeping with the latest global innovations, the company not only focuses on engineering and technical aspects but also incorporates aesthetic principles and the specific requirements of each industry into its solutions.

## Message from the CEO

"At BENDINI, we combine innovation, precision, and quality to craft aluminium profiles that exceed technical standards and inspire confidence. With over 20 years of experience, we proudly serve diverse industries, delivering lasting value to every project. Our commitment to excellence is built on strong partnerships, a dedicated team, and the trust of our clients."

Babak Khakpuri  
Chief Executive Officer, BENDINI

## Contact Information

### BENDINI Offices:

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### Production Facilities:

Sanat Street, Haji Abad Industrial Town, Arak, Iran

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Technical Catalog



Website

## BENDINI Solar Energy Aluminium Profiles

Quality Profiles for Sustainable Solar Solutions



"BENDINI: The Backbone of Your Solar Solutions!"

# SOLAR



Italian Design

# BENDINI

## Aluminium Systems

*"Bendini, the backbone of your Solar Solutions"*





## Key Features and Benefits

● **Raw Materials quality:** We primarily use 6063 and 6061 aluminium alloys for manufacturing profiles across various applications, including solar energy systems. However, thanks to our advanced tilt furnace technology for melting and alloy production, we have no limitations in preparing any aluminium alloy. To ensure the highest quality, we utilize standard 99.85% pure aluminium ingots in our alloy production process.

● **Environmental Benefits:** Our products are designed to contribute to environmental protection. The use of aluminium, a highly recyclable material, reduces waste and promotes the reuse of natural resources. Additionally, our manufacturing processes are aligned with



minimizing environmental impact, and we are committed to reducing energy consumption and carbon emissions at all stages of production. By choosing our products, you not only enhance construction quality but also play a role in safeguarding our planet.

● **Technical Features:** The mechanical properties of 6063 aluminum alloy extruded profiles are outlined in the following table. This alloy is widely recognized for its excellent corrosion resistance, good weldability, and medium strength. The specific properties, including tensile strength, yield strength, elongation, and hardness, play a crucial role in determining the suitability of 6063 profiles for various applications in construction and engineering.

## 6063 Aluminium Mechanical Properties

PROPERTY	VALUE	RELATED STANDARDS
Alloy	6063	EN 573-3
	AlMgSi 0.5	DIN 1725
Specific Gravity	2.71 g/cm <sup>3</sup>	
Coefficient of thermal expansion (20-200°C)	23×10 <sup>-6</sup>	
Modulus of Elasticity (*)	7000 N/mm <sup>2</sup>	
Ultimate Tensile Strength (*)	160 N/mm <sup>2</sup>	EN 755-2
6063-T5 (t<3mm)		
Yield Strength (*)	130 N/mm <sup>2</sup>	EN 755-2
6063-T5 (t<3mm)		
Elongation A <sub>50 mm</sub> (%)	6%	EN 755-2
6063-T5 (t<3mm)		
Thickness of powder coating on visible surface	60 microns	QUALICOAT
Thickness of anodic oxide film (anodizing)	5 / 10 / 15 / 20 microns (According to exterior interior application of the extruded profile at the building)	QUALANOD

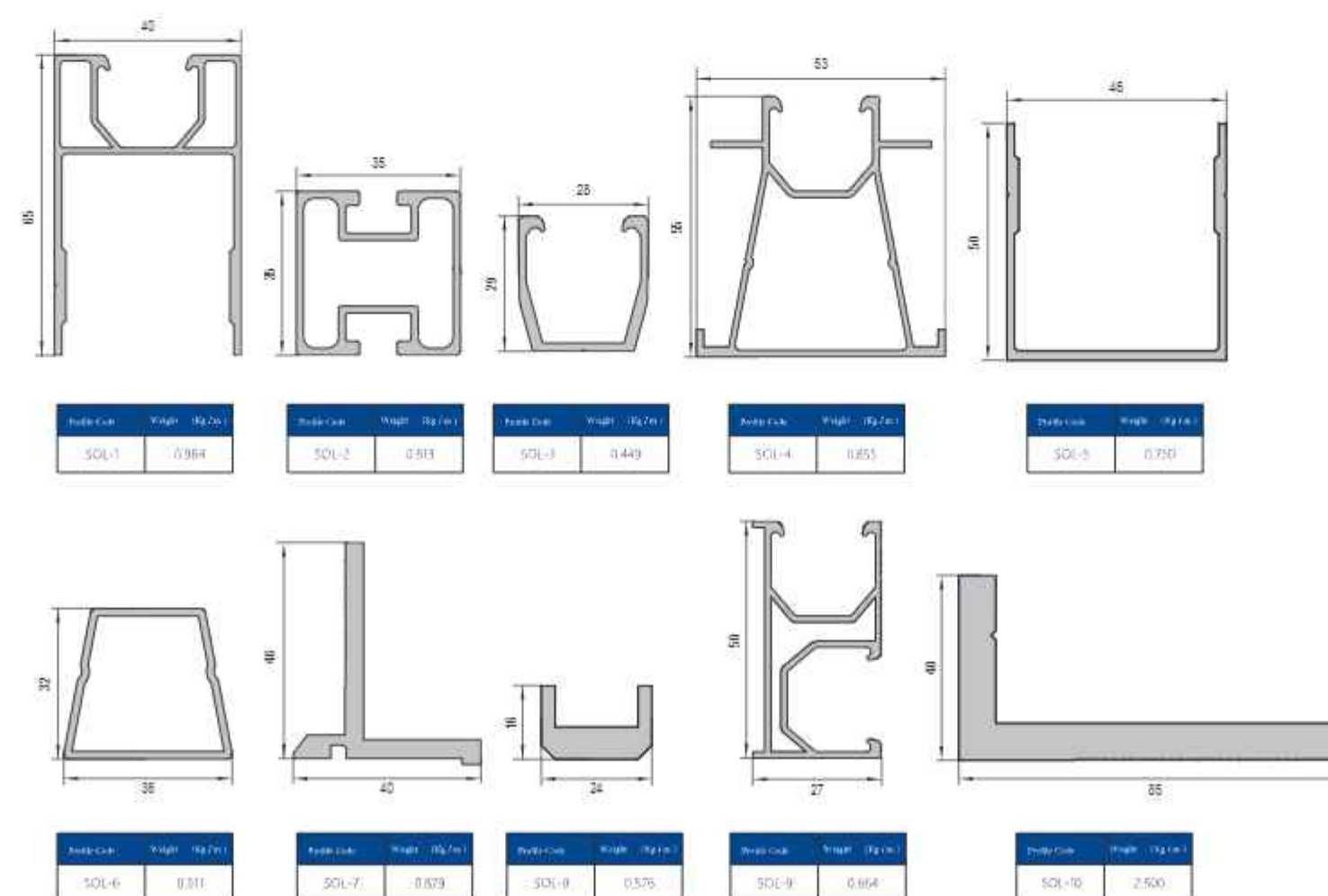
(\*) Mechanical property limits vary according to the thickness of the profile (EN 755-2)

## Aluminium Profiles for Solar Systems

- Aluminium profiles are a key component in the supporting structures of solar systems. Due to their lightweight nature, high corrosion resistance, excellent mechanical strength, and ease of installation, they have become an ideal choice for photovoltaic installations. Their engineered design ensures the stable and secure mounting of solar modules under various environmental conditions.
- By utilizing advanced technologies and high-quality aluminium alloys, we manufacture profiles that not only guarantee long-term durability but also fully meet the technical requirements of solar projects.



## “Key Product Features”



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