

# Roda **ALU**

ALUMINIUM DIVISION





**Roda** **ALU**

ALUMINIUM DIVISION

pag. 2

**ALU** **WELD**

ALUMINIUM FOR WELDING

pag. 12

**ALU** **NECH**

ALUMINIUM FOR MECHANIC

pag. 16

**ALU** **DEOX**

ALUMINIUM FOR DEOXIDATION

pag. 20

# RodaALU

## ALUMINIUM DIVISION

RodaALU represents the innovation's essence of Rodasteel Corporation and its ability to look to the future. The Corporation has started a customized niche production, aimed at continuous improvement, which has always been Rodasteel Corporation's goal. This new production line represents a significant step towards industrial excellence.

Thanks to the group's know-how and experience in metal industry, RodaALU is a tribute to Rodasteel Corporation's successful history but also a symbol of its commitment to the future: a meeting point of tradition and innovation, through

which Rodasteel Corporation reaffirms its leading role in industry, projecting itself toward new horizons with the new aluminium production range.

The idea was conceived to meet the requirements of the Corporation's customers, offering them a growing and more complete range of solutions, and the need to adapt to the market's technical changes.

RodaALU vision extends to the search of new aluminium applications, with the aim to expand the group's presence in key sectors and emerging markets at the same time.

**6000** mq  
PRODUCTION  
FACILITY

**5**  
COLD  
DRAWING LINES

**1**  
SHAVING  
MACHINE

**1**  
FURNACE FOR  
HEAT TREATMENT

**3**  
PACKAGING  
MACHINES





## IN-HOUSE PRODUCTION

### MADE IN RODA

RodaALU has been developed through careful strategic planning and a substantial investment in advanced manufacturing technologies. The division is known for its use of cutting-edge equipment and the support of a skilled team dedicated to ensuring top-notch quality and performance at every step of production.

With 6000 square meters of covered area, the production unit houses 5 operational

drawing lines as well as a heat treatment furnace, this in order to follow the in-house manufacturing strategy, monitoring each production process phase and developing "tailor made" product aligned with the customer's needs.

Maintaining entire production allows the company to control the performance looking for the continuous improvement.









## WHY RodaALU?



INTERNAL  
PRODUCTION



PRODUCT  
CUSTOMISATION



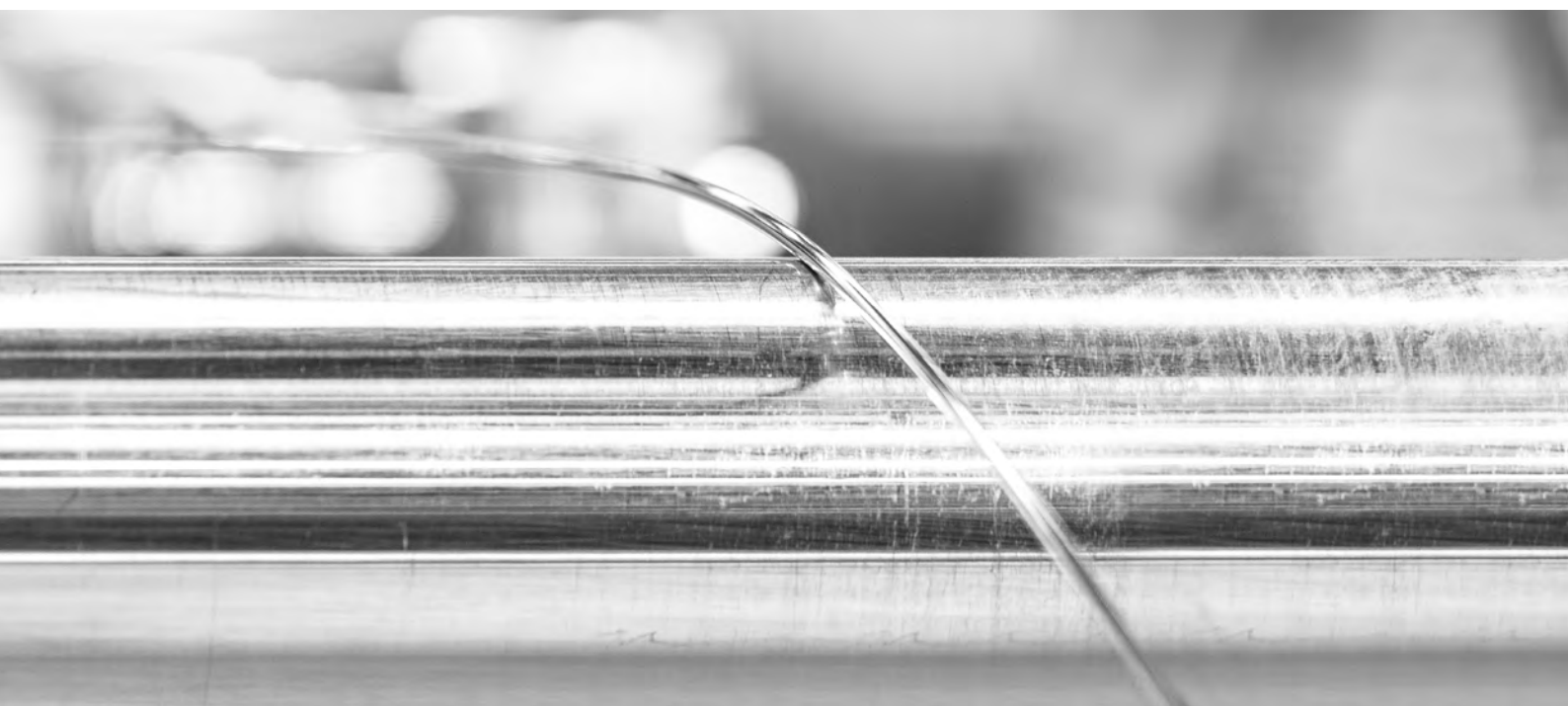
CUSTOMER SERVICE  
AND ASSISTANCE



QUALITATIVE  
CONSTANCE



QUALITY  
CONTROL



## PRODUCT CUSTOMISATION

One of RodaALU's strengths is precisely the essential and necessary customisation made possible by in-house product development and by **MADE IN RODA** production. The aim is to offer the market an innovative range of high-quality products, that can be customised according to the customer's end-use requirements and propose ad hoc solutions.

Thanks to a specialised R&D department and technical service, the company is able to offer a product that conforms to the customer's specifications and needs and provide continuous, high-level pre- and after-sales support. Versatility and competence ensure to follow the customer by proposing alternative solutions and becoming not just a supplier, but also an active development partner.

## SALES NETWORK



**Rodacciai**

Country: Italy  
N° of distribution centres: 6  
Cities: Bosisio Parini, Torino,  
Bergamo, Brescia, Padova, Bologna



**RodaSpecialtySteel**

Country: USA  
N° of distribution centres: 3  
Cities: Los Angeles, Chicago,  
New Jersey



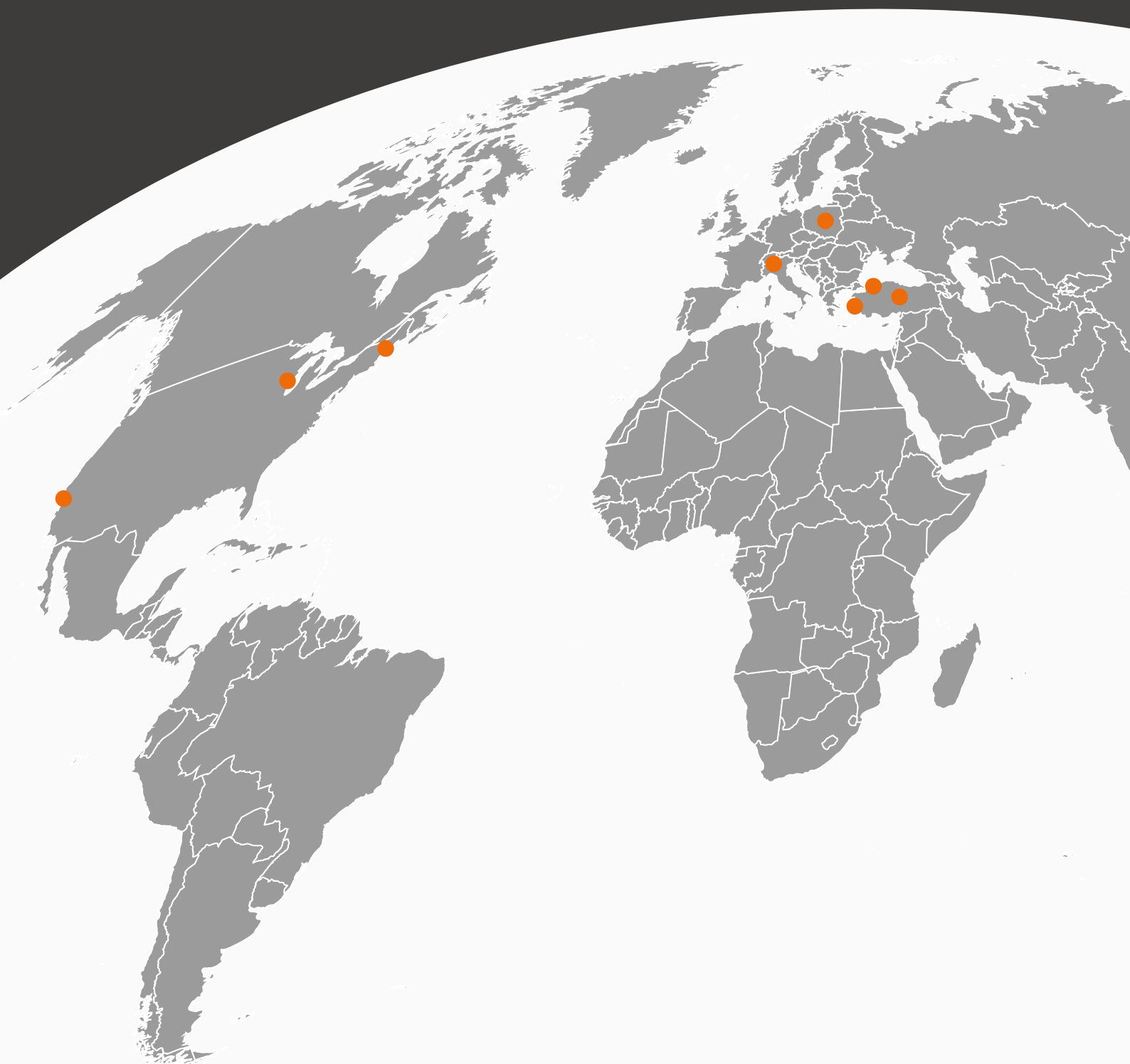
**Rodastal PL**

Country: Poland  
N° of distribution centres: 1  
City: Gliwice



**BİMEKS ÇELİK**

Country: Turkey  
N° of distribution centres: 3  
Cities: Istanbul, Ankara, Izmir





## CUSTOMER SERVICE

RodaALU, thanks to the strenght, flexibility and dynamism of Rodasteel Corporation and to a large sales network, can offer to its customers a big range of products in a timely manner. The several distribution plants guarantee a rapid availability of the product, satisfying the requirements of an immediate supply supported by an efficient and decisive on-site service.

Moreover, the headquarter offers a high level of technical service also offers a high level of technical support, with specialists who not only adhere to product standards and track performance, but also create customized solutions for each customer's specific needs.



## QUALITY CONSTANCY

In order to guarantee high quality constancy, the company's strategy focuses on two indispensable points: the scrupulous selection of raw materials and centralised production. The group's strength allows to choose only the best in terms of available resources and reliable suppliers selected according to high company standards, guaranteeing excellent performance and quality.

**MADE IN RODA** production, additionally, allows internal control and monitoring of the production cycle.

Product development is based on a statistical analysis plan in which each phase is entered in order to obtain a high-performance product and to process immediate corrective actions.

## QUALITY CONTROL SYSTEM



Our quality control system is designed in order for each production batch of RodaALU to meet the highest productive standards. Through the implementation of rigorous controls in every phase of the production process, starting from the raw material to the finished product, the group commits to keep a constant quality level. The certification and the conformity to the international standards are a tangible sign of our commitment towards excellence.

**IGQ** IGQ ISO 9001:2015 System Certification



## LAB & QUALITY CONTROL

The internal laboratory can boast modern equipment for quality control and materials' analyses, qualified experts conduct in-depth testing to determine the chemical and mechanical properties of aluminium, thus ensuring that every product respects the technical specifications and performance requirements.











## ALUMINIUM: PRODUCTION AND CHARACTERISTICS

At RodaALU, a process combining tradition and technological innovation characterizes the production of aluminium. Thanks to the only use of high quality raw materials and investment in state-of-the-art machines, the company is able

to obtain a product that excels in resistance and workability. Such characteristics makes it ideal for a wide range of applications: spanning from the automotive industry to mechanics to the production of consumer goods.



CORROSION  
RESISTANCE



STRENGTH AND  
RESISTANCE



WORKABILITY



ELECTRICAL AND  
THERMAL CONDUCTIVITY



RECYCLABILITY

## THE VERSATILITY OF ALUMINIUM: TENSILE AND SUSTAINABILITY

The group vision is focused on the development of products that significantly contribute to the reduction of energy consumption and  $\text{CO}_2$  emissions, especially in sectors like automotive and transportation. The mechanical tensile of aluminium, combined with its corrosion resistance, make it ideal to reach for durable and high-quality applications. Sustainability is at the heart of RodaALU's productive philosophy.

Aluminium, thanks to its natural recyclability and to its excellent properties, plays a crucial role in the promotion of eco-compatible productive practices.

The company commits to minimize our environmental impact by means of optimized processes, we promote the use of recycled aluminium and we invest in technologies capable of curbing the emissions and reducing energy consumption.

The logo for ALUWELD, featuring the word 'ALU' in orange and 'WELD' in grey, with a large, faint 'ALUWELD' watermark in the background.

## ALUMINIUM FOR WELDING

ALUWELD, the line dedicated to welding applications, is designed to offer maximum strength and reliability. With an optimized composition, to facilitate the welding process and ensure high quality results, ALUWELD is perfectly suited to various welding methods, making it ideal for industrial applications and projects that require precision and durability.

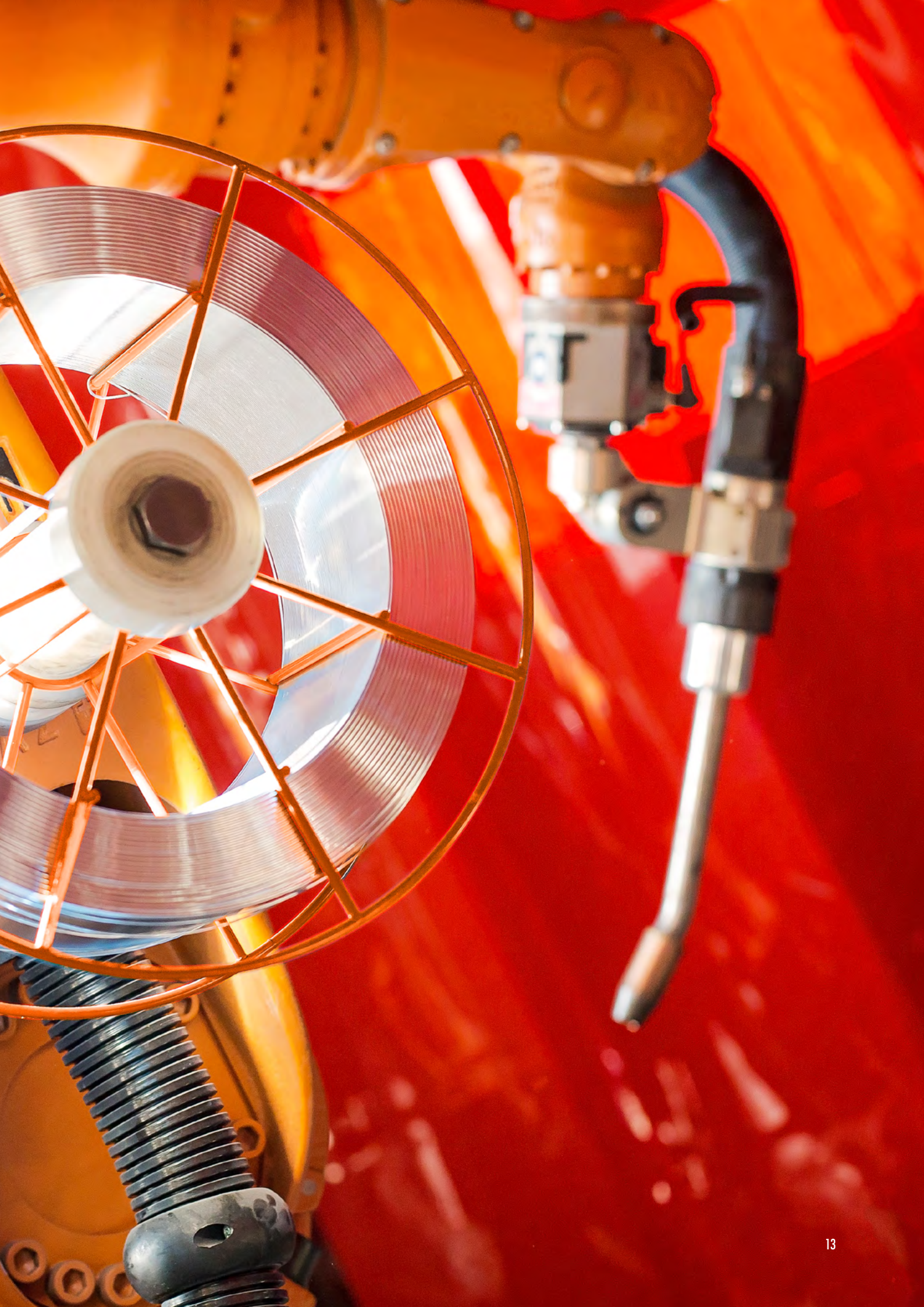
ALUWELD applications range goes from the automotive industry, where it is essential for the production of lightweight but robust components, to the railway and naval industries, offering solutions for structures exposed to extreme environmental conditions. Its versatility also makes it the preferred choice for architectural structures and renewable energy projects, where corrosion resistance is essential.

### PRODUCTION RANGE

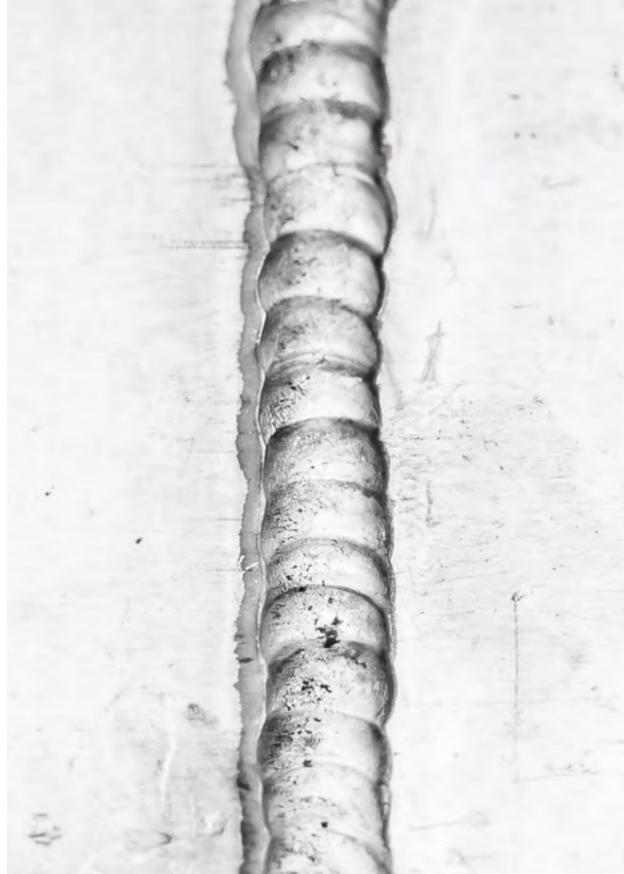
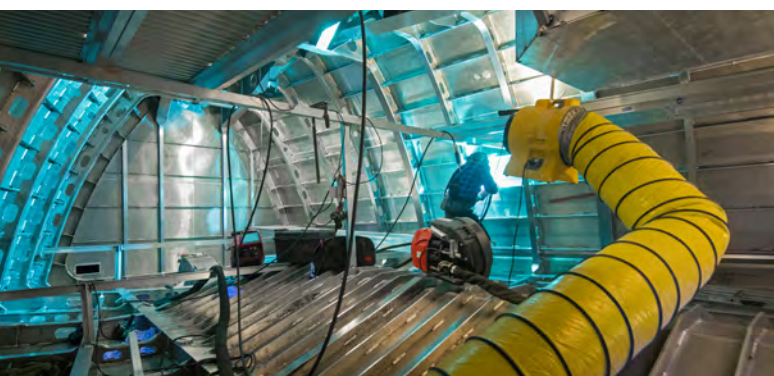
LEGA *	RANGE (mm)	AWS A5.10	ISO 18273	W.Nr
ALUWELD 4043	1,00÷4,00	ER4043 - R4043	4043 (AlSi5)	3.2245
ALUWELD 5183	1,00÷4,00	ER5183 - R5183	5183 (AlMg4,5Mn0,7(A))	3.3548
ALUWELD 5356	1,00÷4,00	ER5356 - R5356	5356 (AlMg5Cr(A))	3.3556

\* Other alloys on request.









### **AUTOMOTIVE INDUSTRY**

The main applications include components for body in white, chassis, interior car panels, electrical motor vehicles and maintenance and fixing operations.

### **PUBLIC TRANSPORT**

Aluminium is largely used also in the production of public and turistic road trasports, for instance busses.

### **RAILWAY INDUSTRY**

The welding of aluminium plays a crucial role in lightweight components, as the cassis and the the body of train carriages.

### **SHIPBUILDING**

Aluminium can be used in this sector mainly for hull structures and components, superstrutures, bridges and engine casing protectors.

### **TANKS / CONTAINERS**

The material is widely used in the production of tanks fuel, potable water or gas tanks and stocking vessels for different sectors.

### **TRAILERS**

Aluminium is widely used to manufacture ramps, integrated storage trailers, tipper chassis and trailers. Thanks to aluminium, the operational efficiency and the resistance are increased.

# Roda **ALU**WELD

## STANDARD PACKAGING

### MIG STANDARD PACKAGING - EN ISO 544 \*

Here below our standard options for wire packaging:



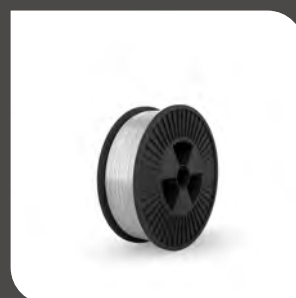
FROM Ø 1,00 UP TO Ø 1,60  
Basket spool BS300 - 7 kg max



FROM Ø 1,00 UP TO Ø 1,60  
Spool D300 - 7 kg max



FROM Ø 1,00 UP TO Ø 1,60  
Spool D200 - 2 kg max



FROM Ø 1,00 UP TO Ø 1,60  
Spool D100 - 0,5 kg max

\* Further diameters and customization options upon request



# ALUMECH

## ALUMINIUM FOR MECHANICS



ALUMECH is a range of product designed to each the best performances in terms of tensile and precision, making it suitable for the production of mechanical components, parts of machinery and structures requiring a reliable and long-lasting material. ALUMECH finds application in a different range of mechanical

applications, components for automotive industry, fasteners sector (rivets, screw nuts, punches, screws) and parts and components produces with cold heading technology. Moreover, some material is dedicated to the packaging industry.

**The material is certified 3.1**

### MECHANICAL WIRE PRODUCTION RANGE

#### SERIES 1000

GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUMECH 1050	2,40÷9,90	1050A (Al99.5)	3.0255
ALUMECH 1070	2,40÷9,90	1070A (Al99.7)	3.0275
ALUWELD 1100	2,40÷9,90	1100 (Al 99,0Cu)	-
ALUWELD 1370	2,40÷9,90	1370 (Al99.7)	-

## SERIES 2000

GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUMECH 2011	2,40÷9,90	2011 (AlCu6BiPb)	3.1655
ALUMECH 2017	2,40÷9,90	2017A (AlCu4MgSi)	3.1325
ALUMECH 2024	2,40÷9,90	2024 (AlCu4Mg1)	3.1355

## SERIES 5000

GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUMECH 5005	2,40÷9,90	5005A (AlMg1)	3.3315
ALUMECH 5019	2,40÷9,90	5019 (AlMg5)	3.3555
ALUMECH 5051	2,40÷9,90	5051A (AlMg2)	3.3326
ALUMECH 5052	2,40÷9,90	5052 (AlMg2.5)	3.3523
ALUMECH 5056	2,40÷9,90	5056 (AlMg5)	3.3555
ALUMECH 5054	2,40÷9,90	5154A (AlMg3.5)	3.3536
ALUMECH 5554	2,40÷9,90	5554 (AlMg2.7Mn)	3.3538
ALUMECH 5754	2,40÷9,90	5754 (AlMg3)	3.3536

## SERIES 6000

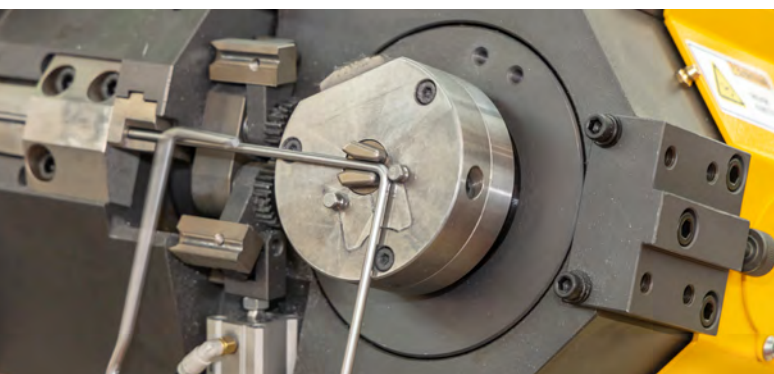
GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUMECH 6056	2,40÷9,90	6056 (AlSiMgCuMn)	-
ALUMECH 6061	2,40÷9,90	6061 (AlMgSi)	3.3211
ALUMECH 6063	2,40÷9,90	6063 (AlMg1Si)	3.3206
ALUMECH 6082	2,40÷9,90	6082 (AlSi1MgMn)	3.2315
ALUMECH 6101	2,40÷9,90	6101 (AlMgSi1Mn)	3.3207

## SERIES 7000

GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUMECH 7075	2,40÷9,90	7075 (AlZn5.5MgCu1.5)	3.4365

\* Other alloys on request.





### **AUTOMOTIVE INDUSTRY**

Aluminium for automotive mechanical applications is intended for components, including tire nails, rivets and small metal parts.

ALUMECH technology and experience aims to propose new solutions for automotive engineering.

### **BUILDING AND CONSTRUCTION**

Aluminium for mechanics can be used in civil and industrial building.

### **FASTENERS**

ALUMECH develops and offers products aimed at the creation of mechanical applications, such as: rivets, screws, bolts, and wire and spirals.

### **DURABLE CONSUMER GOODS**

Wire is used in various consumer goods: in fashion and luxury components, in the most complex bent wire processes, in household appliances and kitchen utensils, clips for food.

# Roda **ALUMTECH**

## STANDARD PACKAGING

See below our standard wire packaging options: \*



FROM Ø 2,40 UP TO Ø 9,90  
Coil - layer winding



FROM Ø 2,40 UP TO Ø 9,90  
Coil - random winding



FROM Ø 2,40 UP TO Ø 9,90  
Coil on spider



FROM Ø 2,40 UP TO Ø 9,90  
Coil on pallet

\* Further diameters and customization upon request.



# ALUDEOX

## ALUMINIUM FOR DEOXIDATION



Aluminium is a highly effective deoxidizer, as it reacts strongly with oxygen to form aluminium oxide ( $\text{Al}_2\text{O}_3$ ), which helps remove oxygen very efficiently from the steel. It is frequently used in the production of grain-refined steels, needed for

automotive and aerospace applications, as well as in low-carbon and high-strength alloy steels. RodaALU developed his RodaAlu Deox dedicated to this application, in two finishing: wire-rod and cold-drawn wire.

### WIRE PRODUCTION RANGE

GRADE *	Ø RANGE (mm)	ISO 573-3	W.Nr
ALUDEOX 1070A	11,5	1070A (Al99.7)	3.0255
ALUDEOX 1070A	12,2	1070A (Al99.7)	3.0275







**RodaALUDEOX 1070A - COLD-DRAWN WIRE****Al 1070 / EN-AW1070A**REFERENCE STANDARDS: **EN-AW1070A****RANGE:**

mm.	11,5	+/- 0,3 mm
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**CHEMICAL COMPOSITION OF THE WIRE (wt.-%):**

	Si		Fe		Cu		Mn		Mg		Cr		Zn		Ti		Other each		Al min
Al min	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
EN-AW 1070A	-	0,20	-	0,25	-	0,03	-	0,03	-	0,03	-	0,03	-	0,05	-	0,03	-	0,05	99,70

**MECHANICAL PROPERTIES:**

Tensile strength (Rm)	Roda ALUDEOX																		
	Typical values (*)																		
	105-130 [MPa]																		

**RodaALUDEOX 1070A - WIRE ROD****Al 1070 / EN-AW1070A**REFERENCE STANDARDS: **EN-AW1070A****RANGE:**

mm.	12,2	+/- 0,3 mm
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**CHEMICAL COMPOSITION OF WIRE ROD (wt.-%):**

	Si		Fe		Cu		Mn		Mg		Cr		Zn		Ti		Other each		Al min
Al min	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
EN-AW 1070A	-	0,20	-	0,25	-	0,03	-	0,03	-	0,03	-	0,03	-	0,05	-	0,03	-	0,05	99,70

**MECHANICAL PROPERTIES:**

Tensile strength (Rm)	Roda ALUDEOX																		
	Typical values (*)																		
	105-130 [MPa]																		

# RodaALUDEOX

## STANDARD PACKAGING

See below our standard wire packaging options:



### VERTICAL DECOILING

Weight 2000 - 2200 kg  
Strapped in four points with Metallic frame.  
Placed and bound to a wooden or iron pallet.  
Wrapped in plastic film.



### HORIZONTAL DECOILING

Weight 2000 - 2200 kg  
Strapped in four points with Metallic frame.  
Placed and bound to a wooden or iron pallet.  
Wrapped in plastic film.

\* Further diameters and customization upon request.





[www.rodaalu.com](http://www.rodaalu.com)

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