Aluminium Dunkerque

VIRTUOUS ALUMINIUM

FOR A SUSTAINABLE PLANET

Aluminium Dunkerque

OUR RAISON D'ÊTRE

Sustainably producing **low carbon** aluminium in **France** for new consumer modes and mobility to **create a world that is more respectful** of the planet and those who live on it.

Aluminium a strategic metal for the environmental transition

Demand for aluminium products **continues to grow year on year**. Aluminium is gradually replacing other materials thanks to a unique combination of properties that make it a strategic component for environmental transition.

LIGHTWEIGHT

Three times lighter in weight than steel or copper, aluminium makes it possible to considerably reduce product weight, especially of motor vehicles, **while contributing to lowering their CO_2 emissions.**

A CONDUCTOR

Aluminium is also a good conductor of both heat and electricity.
Thermally, it is used in many cooling systems (heat exchangers, heat pumps, etc.) and in high voltage electricity lines over long distances.
Malleable, it can be worked at low temperatures and shaped without breaking, making it possible to give it a wide variety of shapes.

STRONG

Very strong mechanically, and naturally protected from corrosion, aluminium is also completely leak tight, even when very thin.
Odourless and tasteless, it provides a **strong, lightweight, leak tight** casing that is highly appreciated, especially by the food packaging sector.

RECYCLABLE

Finally, **aluminium is 100% recyclable without any loss of its properties.**
Recycling, which requires only **5% of the energy used to produce it as a primary metal,** is perfectly in line with the development of a low-carbon circular economy.

Aluminium Dunkerque is the last major aluminium plant project to be developed in France.

A major producer of primary aluminium in Europe

From the outset in 1991, Aluminium Dunkerque was at the cutting edge of technology, but also in terms of work organisation and respect for the environment. The plant is innovating and designed to minimise its impact. It contributes to the **revitalisation of the Dunkirk area industrial sector** in which it continues to **develop jobs and exports alongside a significant decarbonisation project for its activities.**

A shareholder-partner solidly rooted in the industrial economy

American Industrial Partners (AIP) is a private equity firm founded in 1989 that focuses on buying and improving industrial companies operating in domestic and international markets.

The AIP team is deeply rooted in the industrial economy and manages around 10 billion dollars of private equity for financial institutions.

Committed to corporate responsibility, AIP integrates financially relevant social and environmental considerations throughout the life cycle of each investment.

A constantly expanding **production site**

Aluminium Dunkerque occupies 65 hectares in the heart of the Grand Port Maritime de Dunkerque and close to the Gravelines nuclear power station which meets the company's strategic needs for decarbonised energy.
Aluminium Dunkerque regularly invests to optimise its technology and has thus **increased its production capacity by over 40% since it began producing.**

ALUMINIUM DUNKERQUE
CERTIFIED EXPERTISE

ISO 50001 BUREAU VERITAS Certification
IATF 16949 BUREAU VERITAS Certification
ISO 14001:2015 BUREAU VERITAS Certification
ISO 9001:2015 BUREAU VERITAS Certification
asi CERTIFIED PERFORMANCE
asi CERTIFIED CHAIN OF CUSTODY

The Dunkirk port area is an excellent decarbonisation laboratory in which Aluminium Dunkerque is a committed stakeholder as a founding member of the CO2 collective.

The strengths of an advantageous geographical location:

A **deep water port** for raw material supply

A set of **communication routes** (sea, rail, road)

Qualified human resources

A well established **industrial tradition**

The proximity of the **Gravelines nuclear power station**, which produces low-carbon electricity

The site has three main production zones and a specific maintenance sector.

1/ THE CARBON SECTOR

This sector produces the anodes used on site during the smelting process. The materials used include pitch and coke as well as recycled anodes.

The anodes are produced by 3 workshops: Paste workshop, Furnace, Embedding workshop.

2/ THE SMELTING SECTOR

This sector produces the primary aluminium that is processed into slabs and ingots.

The aluminium is produced in 264 smelting tanks inside two 850 metre long halls.

3/ THE FOUNDRY SECTOR

This sector receives molten aluminium from smelting and produces slabs using the Continuous Vertical Casting method for the rolling industry and alloy ingots for the foundry sector.

4 casting machines and 7 furnaces (300 kt/year capacity) slabs (80%) and ingots (20%)

4/ THE MAINTENANCE SECTOR

The Maintenance sector maintains and operates the site utilities:

Unloading of raw materials, gas process operation, substation operation, energy supplies (electricity, air, water), regulatory compliance of equipment, IT and control system management, design and implementation of industrial projects, ...

High added value products

A major European primary aluminium production player with 300,000 tonnes of annual aluminium production, Aluminium Dunkerque is specialised in the production of slabs and ingots **in a wide variety of alloys** for high added value application in the automotive, transport and packaging sectors in particular. Aluminium Dunkerque produces two types of products:

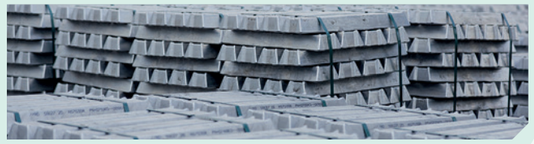
1/ Our slabs

They mainly supply:

- **the packaging sector**: yoghurt lids, pet food cans, beverage cans, coffee capsules, household aluminium, medication blisters, ...
- **the transport sector**: external and internal bodywork, heat exchangers, electric vehicle battery electrodes, tanks, ...
- **the construction and public works sector**: lighting, architecture, signage, ...
- **the consumer goods market**: luggage, razor blades, tanks, ...

Slabs represent 80% of the company's production, i.e. 240,000 tonnes of aluminium per year.

2/ Our alloy ingots



Alloy ingots of which **100% are for the automotive sector** to produce wheels, cylinder heads, electric motor casing, axle parts, brake callipers, electric vehicle battery housings, ...

Ingots represent 20% of the company's production, i.e. 60,000 tonnes of aluminium per year.

Dynamic markets

Rolling mills and foundries, Aluminium Dunkerque's customers supply the most dynamic markets in the automotive, packaging, and industrial product sectors.

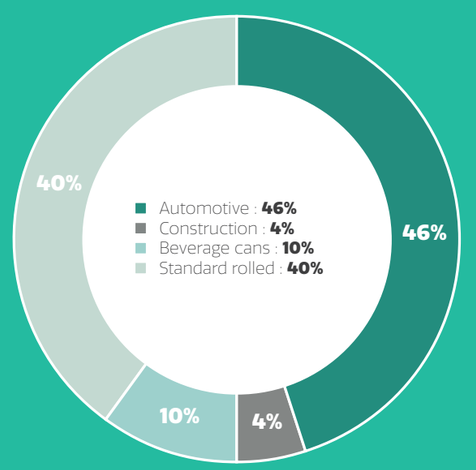
We regularly work with them to develop new alloys to meet the increasingly sophisticated needs of their customers in constantly evolving markets.

We are attentive to their technical needs to find the most innovating solutions, and we also support them on the path to decarbonisation.

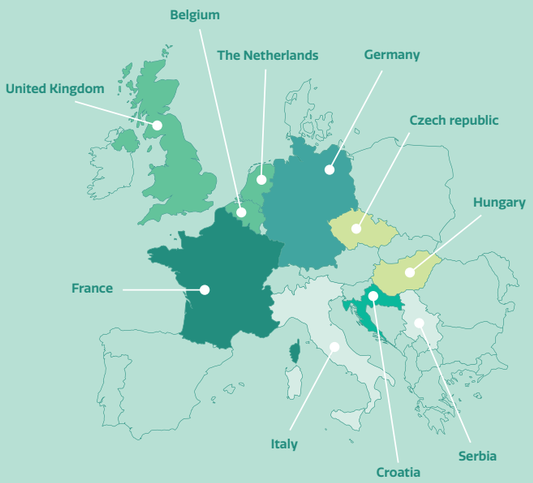
Our raw materials arrive mainly by ship and more than half of our production is shipped by rail, the least carbon-intensive means of transport.

Aluminium Dunkerque is proud of its IATF certification.
This particularly demanding international automotive industry standard assesses the manufacturing quality of the products and production processes.

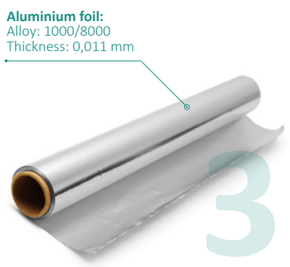
By sector of activity

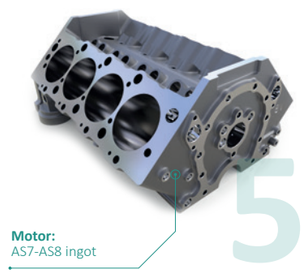


By country



A few examples of how our slabs and ingots are used:





A company watchful of its environmental impact since its foundation

An industrial company strongly rooted in its territory, Aluminium Dunkerque has always been **especially attentive to societal challenges**.
In environmental terms, Aluminium Dunkerque takes special care to **limit its water consumption, protect air quality, and recycle its waste**.

Water

Water is a precious resource and Aluminium Dunkerque has set itself a target of **reducing its consumption by 30% between 2019 and 2030**. The company accurately measures and controls its consumption, constantly checking for leakage and wastage, and recycles its process water.

Emissions

Aluminium Dunkerque has acquired the **best available techniques** to control its atmospheric emissions and takes care to **maintain excellence** in the quality of its operations.

Waste

0 non-recycled waste is the ambitious target the company has set itself **for 2050**. To do that, it is working on **reduction at source** and is looking for **new recycling activities**.

Biodiversity

Beyond those challenges, Aluminium Dunkerque takes care to **protect biodiversity**. Actions have been implemented to **minimise and compensate the impact of our activities on the** surrounding ecosystems.

Reflection

The impact of climate change on our activity **has been a concern for several years.** Currently, the **thought processes have been expanded to our customers and suppliers** through a global prospective study.

Means of transport

Finally, our raw materials mainly arrive **by ship**, and over half of our production **is shipped by rail, the least carbon intensive means of transport**.

Aluminium Dunkerque has set up an environment management system (ISO 14001), an energy management system (ISO 50001) and a CSR management system (ASI).
These systems guarantee the continuous improvement of our environmental practices.

Electricity, **an essential challenge**

Electricity is the primary source of energy used by Aluminium Dunkerque and represents on average **97 % of our energy bill**. The company uses almost 4TWh of electricity per year,**making it the biggest single-site consumer of electricity in France**.

Thanks to this collective effort, Aluminium Dunkerque is now one of the most energy-efficient aluminium production sites in the world, and has one of the lowest kWh consumed per tonne of aluminium produced. Furthermore, the carbon content of our electricity is much lower than that of most of our international competitors.

Aluminium Dunkerque operates in a sector in which international competition is intense and in which not all players are subject to the same regulations, particularly in terms of the environment.

> Access to decarbonised electricity at a **competitive price** is therefore **a major strategic challenge**.

A collective, inclusive and territorial dynamic **for a sustainable planet**

On the social and societal levels, Aluminium Dunkerque is **highly attentive to all its stakeholders** and takes care to integrate into its ecosystem with respect and commitment.

The company has made safety its **absolute priority** and conducts projects to improve employee working conditions every year. **The know-how, experience and development of each employee are also major challenges**. Professional training and the passing on of knowledge are crucial levers.

Aluminium Dunkerque applies **volontarist diversity and professional equality policies and promotes women in all sectors of activity**.

To contribute to increasing employability in the Dunkirk area, Aluminium Dunkerque takes part in many forums, regularly organises job dating events, and **recruits around thirty work-study programme students and about fifty permanent employees every year**.

Aluminium Dunkerque is fully integrated in its territory and partners many local players, non-profits and events. Its patronage policy covers **2 themes in line with its main strategic challenges**:

- **The professional integration of young people.**
- **Projects promoting decarbonisation.**

Finally, listening to and taking into account our external stakeholders, the first and foremost of which are the local residents is essential to us. As part of our proactive approach, we maintain an ongoing dialogue to solve problems so that we can **live in harmony with the surrounding communities**.

Low carbon aluminium

Decarbonisation is a major challenge for the protection of our planet and its inhabitants' quality of life.
It is vital to develop industrial capacity and production techniques in line with this challenge. Our business is **at the heart of this objective**, because aluminium is a **key resource for the energy transition**.

Aluminium Dunkerque is a **world leading low carbon aluminium producer**,

- The company has **lowered its emissions (scope (1 and 2) by 17%** since 2013.
- It releases **4 times less** greenhouse gases than the world sector average.

Based on those achievements, we intend to play a major role in the European production of low-carbon aluminium for the benefit of our customers and our communities. That is why, in line with COP21 objectives, we are accelerating our energy and environmental transition by adopting a road map for 2050 called:

Low Carbon Aluminium
Aluminium Dunkerque
LOW CAL
Local Aluminium

Aluminium Dunkerque signed its Ecological Transition Contract on 22 November 2023 with Roland Lescure, The French Minister for Industry, in the presence of Bertrand Ringot, the Mayor of Gravelines.

An **ambitious** low carbon trajectory

The Aluminium Dunkerque decarbonisation plan has **3 phases**:

2025 IMPROVE

The first phase in our roadmap consists in **carrying on existing efforts to optimise our operational excellence and energy performance** by mobilising our teams, our customers, and our suppliers.
We are also significantly increasing our volumes of products made using recycled aluminium.

> At the end of this phase we expect to have reduced our emissions by **5%.**

2030 ACCELERATE

This acceleration will include **increased energy flexibility and a further significant increase in our recycling activity** but also the adaptation of carbon capture technology to our industry.

> In 2030, we are aiming for an additional **30%** reduction in our emissions.

2050 ACCOMPLISH

This final phase mainly consists in **deploying a new smelting series using inert, non carbon-emitting anodes**.
This ground-breaking technology is still only in the development stage.
We will also undergo a further increase in our recycling activity.

> Our emissions, all scopes included, will then have dropped by over **70%**.

Aluminium Dunkerque

Our key figures

over **700**
EMPLOYEES

TURNOVER
over **800** m€

300,000 tonnes
OF ANNUAL ALUMINIUM PRODUCTION OF WHICH

240,000 tonnes
ROLLING SLABS

60,000 tonnes
ALLOY INGOTS

SURFACE AREA
65ha

INVESTMENTS, APPROXIMATELY
over **50** m€ ANNUAL

EXPORTS TO
over **10 countries**

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