



YOUR AAC TECHNOLOGY PARTNER
INNOVATION BUILT ON EXPERIENCE

TURN-KEY PLANTS

UPGRADE PROJECTS

SUPERIOR FLAT-CAKE TECHNOLOGY

PLANT SERVICES & INDUSTRY SOLUTIONS


E U R O P E



ABOUT AIRCRETE EUROPE

Aircrete Europe is the recognized global leading developer and manufacturer of Autoclaved Aerated Concrete (AAC) machinery and technology for the production of AAC panels and blocks. With an international team with decades of experience and sales on 6 different continents, we design and deliver the most innovative turn-key AAC plants and cutting-edge plant technology.

Our solutions include turn-key, core technology, plant services and industry solutions. As your long-term technology partner, we guide you through all the steps of planning, building and operating your AAC factory.



TURN-KEY PROJECTS



UPGRADES & MODERNIZATIONS



AFTER CARE & MAINTENANCE



CONSULTING & EXPERTISE



Unique Flat-Cake technology allows for superior quality with exceptional finishing



Long term technology partnerships with producers worldwide



International organization and footprint through projects with 100+ factories



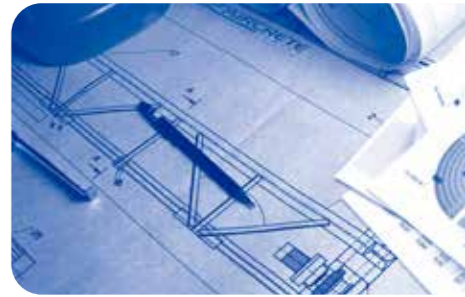
Vertical market approach for engineering, equipment, AAC production and AAC building solutions



Complete building solution for residential, commercial and industrial segments

OUR MISSION

“TO PROVIDE GREENER, FASTER AND BETTER BUILDING TECHNOLOGIES FOR THE WORLD OF TOMORROW.”





AUTOCLAVED AERATED CONCRETE

A PERFECT BUILDING MATERIAL

Autoclaved Aerated Concrete (AAC) is a lightweight, yet strong and durable building material. The first aerated concrete production started in 1929 in Europe and it has become one of the most used building products around the world since then. Produced all over the world, AAC is extensively used in residential, commercial and industrial constructions today.

AAC is an eco-friendly building material, made from natural raw materials such as sand (or fly-ash), cement, lime, gypsum, aluminium powder and water. This mix creates an aerated concrete that provides excellent insulation, structure and fire protection in one lightweight product.

ENERGY AND RESOURCES EFFICIENCY

Thanks to the air pores in the material, AAC is a great acoustic and thermal insulator. The thermal conductivity (λ) values are between 0,08 - 0,16 W/mK depending on density used.

This low thermal conductivity value allows around 30% savings on heating and cooling costs.



FAST AND EASY BUILDING SYSTEM

Autoclaved Aerated Concrete blocks and panels are lightweight and easy to handle; therefore, construction times are 2-5 times faster than other conventional methods.

AAC panels offer new possibilities for product applications beyond AAC blocks. In panel based systems, installation of prefabricated elements is quite fast and easy. As a result, the total time and cost of one installed m² is significantly reduced in terms of labour and overheads.

The SUPER SMOOTH surface of the blocks and panels adds to quick finishing of the total construction as the walls require less plaster, surface treatment and finishing materials.

FIRE PROOF AND SAFE BUILDINGS

All AAC products are well-suited to withstand fires, earthquakes, and other natural disasters.

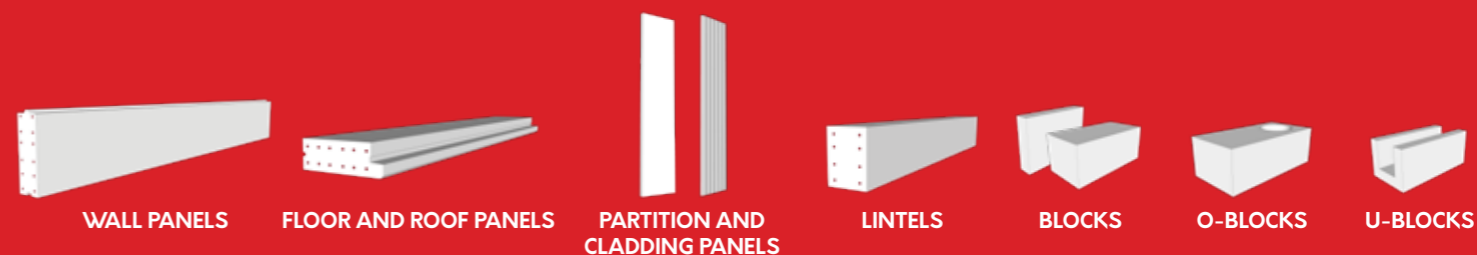
AAC achieves the highest possible level of fire safety and can withstand up to 4 hours of direct fire exposure. It is non-combustible and classified as Euroclass A1.



THE UNIQUE ADVANTAGES OF AAC OUTPERFORM CONVENTIONAL BUILDING MATERIALS

- LIGHTWEIGHT
- FIRE RESISTANT
- FAST CONSTRUCTION
- ENERGY EFFICIENT
- STRONG
- SOUNDPROOF
- NATURAL INSULATOR
- VERSATILE
- ACCURATE
- DURABLE

LARGE VARIETY OF AAC PRODUCTS



AAC product densities vary between 300 - 800kg/m³ and compressive strengths are between 2,5 - 7 N/mm². The finished product volume is 3x the volume of the raw materials used, making it an extremely resource-efficient and environmental friendly building material.

Besides, AAC is a non-toxic product and it is the perfect material for Leadership in Energy and Environmental Design (LEED) and Green Star certified buildings.



The lightweight, load-bearing structure and high compressive strength of AAC also contributes to be the perfect building material in earthquake and hurricane prone regions.



AIRCRETE PLANT

SUPER SMOOTH SURFACES

8 METER LONG PANELS

ULTRA THIN PRODUCTS

ZERO PROCESS WASTE

LOW-CARBON FOOTPRINT

MINIMUM FOUNDATION REQUIREMENTS

01 Ball Mill (sand grinding)

02 Slurry Tanks

03 Mixing and Casting

08 Autoclaving

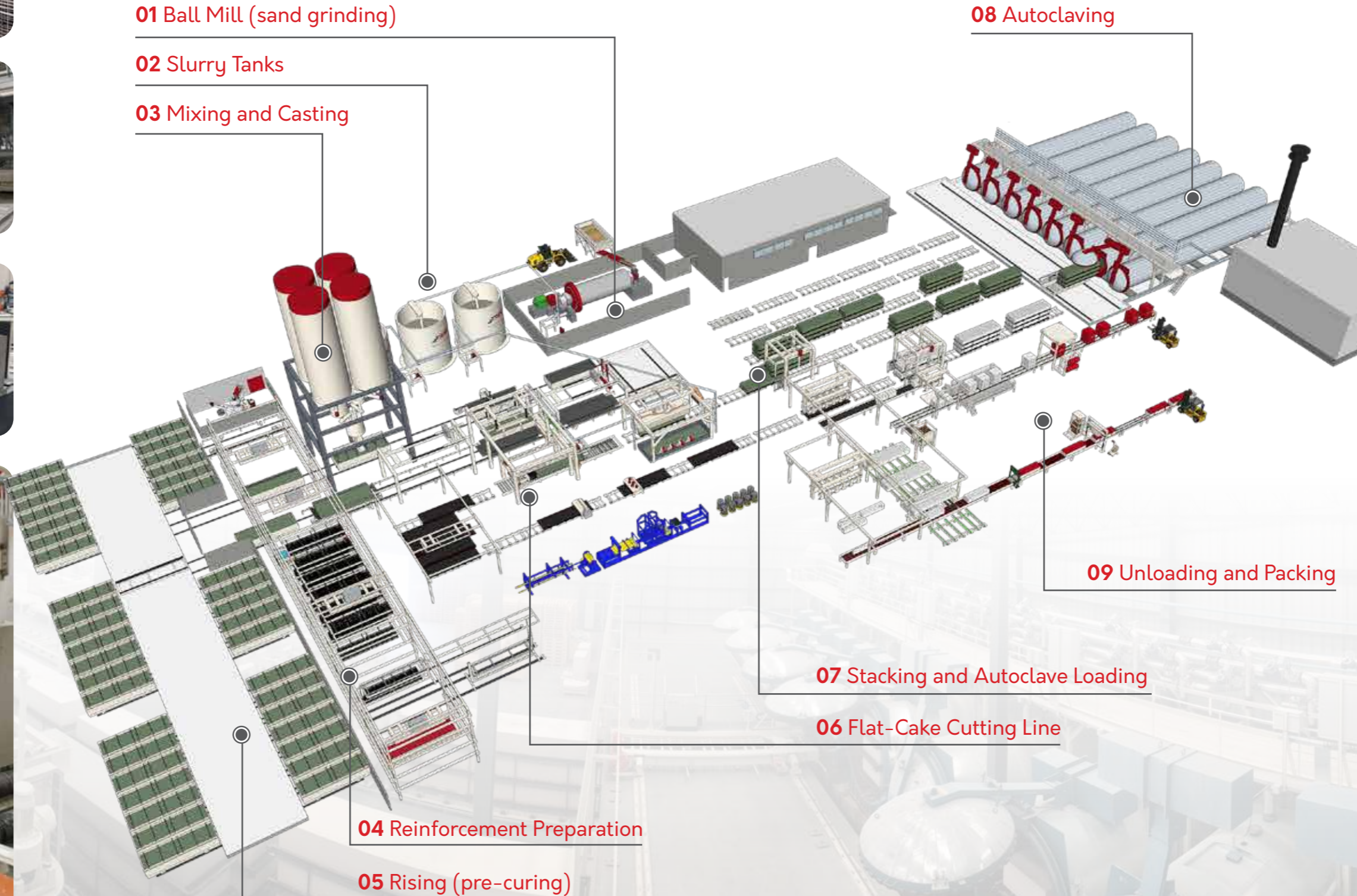
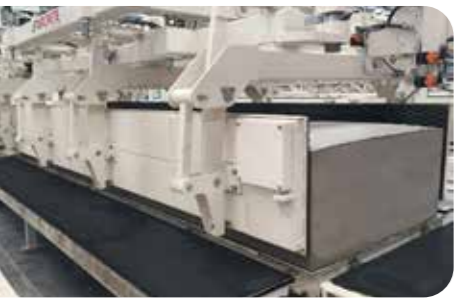
09 Unloading and Packing

07 Stacking and Autoclave Loading

06 Flat-Cake Cutting Line

04 Reinforcement Preparation

05 Rising (pre-curing)





TRADEMARK TECHNOLOGY OF AIRCRETE EUROPE

One of the most important innovations brought to the market by Aircrete Europe is the Flat-Cake Cutting Line which allows for production of superior quality AAC products with an exceptional finishing at optimized costs.



CUTTING TECHNOLOGY CHARACTERISTICS

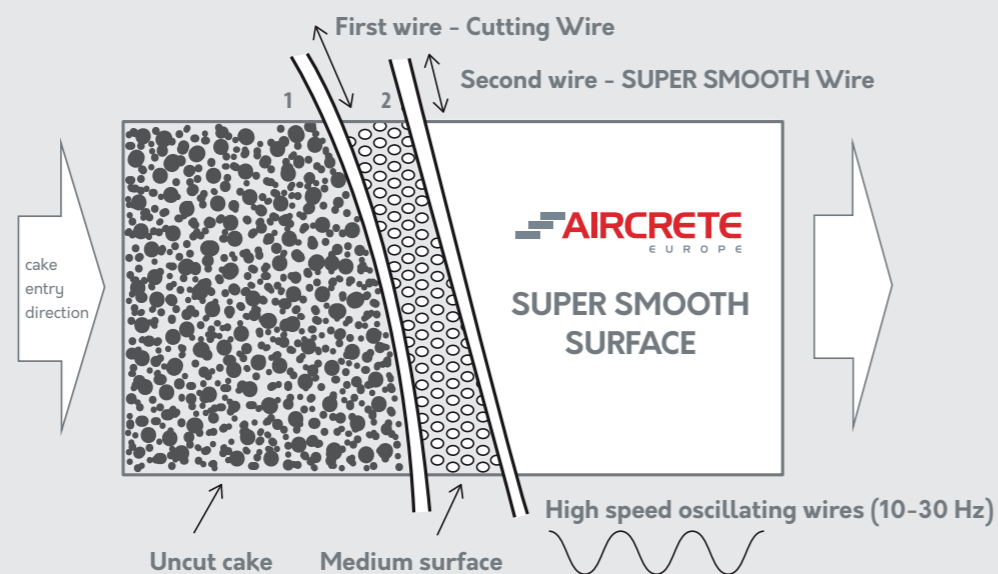
SIMPLIFIED PROCESS AND HIGH FLEXIBILITY OF THE PRODUCTION LINE

- **Minimum cake handling** – limiting material/capacity loss
- **No tilting of the cake** – and no tilting back
- **No product surface sticking** – no separation needed
- **Double oscillating wires** – in the High Speed Cutting Frame
- **Mould opens up fully with hinged doors** – easy to clean
- **Accurate profiling in green stage** – for tongue and groove



UNIVERSAL AIRCRETE CUTTING SYSTEM

- European engineering and quality
- Capacity from 300 m³/day to 2000 m³/day
- Easy extensions of capacity and product range
- Blocks and panels with thicknesses of 40mm – 500mm
- The only technology to make 8 meter long panels



EXCLUSIVE TECHNOLOGY - DOUBLE OSCILLATING WIRES

The first cutting wire is followed by a second smoothening wire for precision and SUPER SMOOTH surfaces.

TURN-KEY PROJECTS

Aircrete Europe as your technology partner will guide you through all the stages of planning, building and operating an AAC plant.

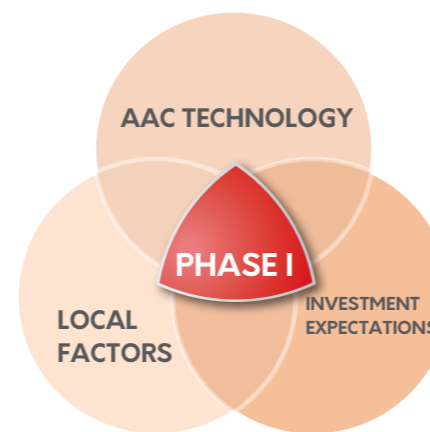
TURN-KEY PLANTS

Aircrete's turn-key approach combines experience and customer focus as our project teams work on all aspects of a new AAC plant. Looking beyond complete systems supply, installation and commissioning we assist you to ensure reliable day-to-day production.



All Aircrete projects start with a customized engineering called Phase I. Together with the investor we design the optimal balance between technology, local factors and investment expectations.

In-depth understanding of your project requirements is key to success when designing a profitable AAC plant. To prepare a solid technical and financial foundation we offer:

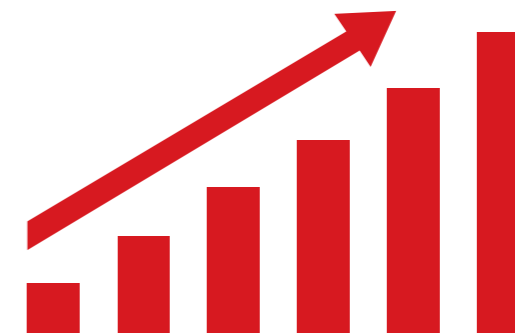


- Raw materials testing
- Formula design and optimization
- Product portfolio design
- Equipment scope design
- Full investment scope overview
- Financial performance model
- Production cost calculations

TURN-KEY UPGRADES

Aircrete provides customized upgrade packages for existing AAC factories on a turn-key basis. We specialize in modernizing AAC plants from different technologies by applying latest equipment and innovations.

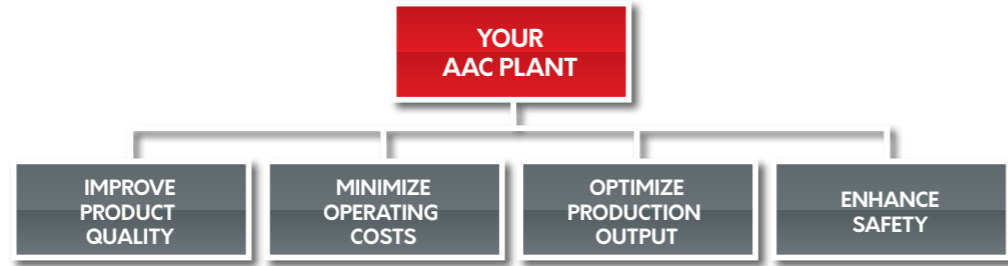
- HEBEL
- SIPOREX
- YTONG
- DUROX
- STEMA
- TILT CAKE





PLANT SERVICES

Plant Services are offered to existing AAC plants. Our engineers have a long track record in customized projects, improving operational efficiency, product quality and automation of existing AAC plants.



MAINTENANCE

Aircrete's highly experienced team of field service engineers and technicians provide regular maintenance and emergency service assignments globally.

SPARE PARTS & CONSUMABLES

We deliver crucial components and materials for continuous production of high quality AAC products. Aircrete stays at the forefront of innovation and process improvements.

RECIPE OPTIMIZATION

Each production plant has its own unique formula where the raw materials have an influence on the end product.

We analyze, test and optimize recipes and help to develop better formulas to fulfill each plant's unique requirements. We examine the raw materials and, in close cooperation with the customer, we develop different recipes in order to correspond to each special factory and their preferences.

TRAINING & MANAGEMENT

Aircrete's mechanical, electrical, software and chemical engineers are available to support and train production teams of new or existing AAC plants. We also provide operational support through interim production management based on our sample experience in AAC operations.

PLANT IMPROVEMENTS

We offer individual or combined improvements for specific areas within the existing AAC production lines. Our custom engineered solutions maximize facility performance and overall productivity.

- Aircrete ALU SAFE Dosing System
- Aircrete Multi Paddle Low Speed Mixer
- Plant control systems upgrades
- Cutting line technology
- Reinforcement area extension
- Unloading and packing area improvements
- Panel after treatment - sawing and milling



INDUSTRY SOLUTIONS

Aircrete Europe, as your technology partner, offers global best practices and expertise so that you reach the full potential of your AAC business. Our team is available to advise and assist you beyond machines supply, throughout the entire AAC value chain.

AAC BUSINESS INSIGHTS

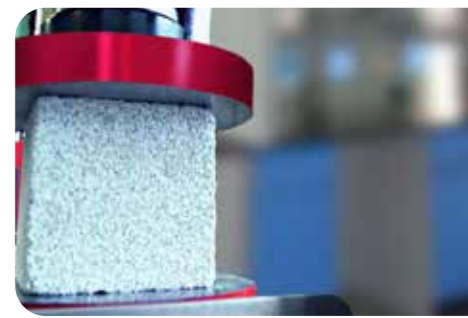
To share industry knowledge and experience with you, we offer:

- Plant Scanning
- Technical Audits
- Plant Operation Manuals
- New Product Applications
- Market Development Strategies
- Production Licenses

AIRCRETE BUILDING SYSTEM

AAC panels offer a range of new possibilities for product applications. Aircrete supports development of your local market through design of panel-based innovative buildings systems suited for industrial, commercial and social housing construction.

All AAC elements are made in one plant and the dimensions of the panels are standardized to fit the optimal product portfolio of Aircrete plants. Application of an Aircrete Building System results in direct time and cost savings.



LINTELS

- High load-bearing capacity
- Versatile application

NORMAL BLOCKS

- Light weight
- Easy handling
- Good workability

WALL PANELS

- Excellent fire resistance
- Exact fit on site (no waste)

SUPER SMOOTH surface

SUPER SMOOTH surface

SUPER SMOOTH surface

CLADDING PANELS

- Extra light facade structure
- Thickness 50mm
- Customized pattern design


FLOOR AND ROOF PANELS

- Superior natural insulation
- Light and strong (load-bearing)

PARTITION PANELS

- Time and cost efficient installation
- Easy finish (grouting for cables)

SUPER SMOOTH surface



With decades of experience in over 100 different AAC plants and clients in over 60 countries on 6 different continents, Aircrete Europe is the recognized global leading developer and manufacturer of Autoclaved Aerated Concrete (AAC) machinery and technology for the production of AAC panels and blocks.

We design and deliver the most innovative turn-key AAC plants and cutting-edge plant technology around the world. Being your long-term exclusive project partner, we guide you through all the steps of planning, building and operating your AAC factory. We are a full technology partner, not just a machine supplier, resulting in maximum value creation.

Together we build your success!



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