AIRCRETE EUROPE

Company Introduction

New Age **AAC Technology**
for producing Fast & Easy Building Materials

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AIRCRETE
EUROPE
SECTION 1
ABOUT AIRCRETE EUROPE

The leading player in the AAC market based on proprietary flat cake technology

- Aircrete Europe is a Dutch, family-owned organization and a **leading player in the global Autoclaved Aerated Concrete (AAC) industry**
- Through its **Systems & Technology Holding**, the company focuses on fully integrated business solutions and with its flagship product, Aircrete Europe **designs and delivers turn-key AAC plants**
- As a result of activities in its **Investments Holding**, Aircrete Europe has been involved in the production of AAC in selected high-growth markets, allowing to company to combine production technology and process experience to become the only integrated player in the AAC industry

AIRCRETE EUROPE

Leading AAC player with proprietary technology and strong production process know-how

Long term technology partnerships
Since 1970 Aircrete Europe has established strong relationships with European DUROX, HEBEL and SIPOREX plants

International footprint through projects with 100+ factories worldwide
Over 40 years of technology expertise resulted in global reference projects with over 100 factories

Complete product portfolio provides comprehensive AAC building solution
Wide product range to target residential, social housing, industrial and mid- & high-rise construction segments

Unique Flat Cake Technology supplier
Proprietary technology allows for production of superior quality AAC products with an exceptional finishing

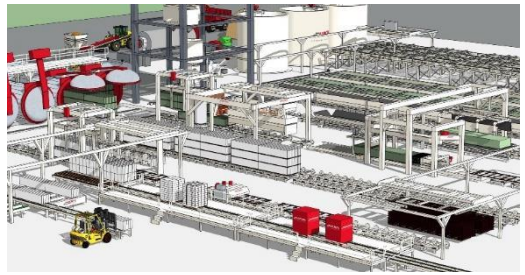
The only integrated player worldwide
Selected investments in AAC factories to be able to offer combination of production technology and process know-how

International focus embedded in the organization
Aircrete Europe is a highly international organization with 18 nationalities and 17 languages in-house

AIRCRETE EUROPE — **Systems & Technology Holding**

AIRCRETE INTERNATIONAL Strategic Investments — **Investments Holding**

- Turn-Key Projects → Turn-key delivery of greenfield plants, modernizations and selected systems & machines
- Plant Services → Maintenance & repair, spare parts & consumables delivery, training and production support
- Industry Solutions → Industry expertise & solutions, incl. plant designs, plant audits, building solutions and licenses



Turn-Key Projects
Aircrete Europe's flagship product is the complete design and construction of turn-key AAC factories

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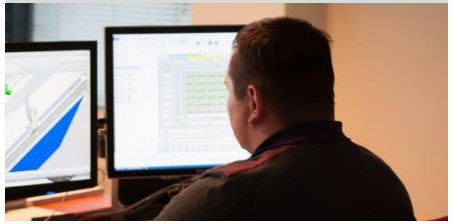
Your true technology partner supporting you with every step of the project

- Aircrete Europe will guide you through all the steps of planning, building and operating your Autoclaved Aerated Concrete plant as your long-term technology partner
- High level of customization is a key performance indicator when it comes to meeting local market needs, client requirements and product demand. Our unique AAC plant technology enables you to distinguish in your market, offering specific and innovative Aircrete products for your end consumers that meet local market demand

PHASE 1
Customized Project Design

- Every Aircrete project starts with a customized engineering phase to develop the optimal balance between technology, local process factors and investment expectations
- All Aircrete customized equipment is designed and engineered in-house



PHASE 2
Project Execution

- During the entire project, highly-qualified Aircrete engineers take care of the project management, planning, logistics and installation supervision
- Aircrete supports its customers in achieving an optimal balance regarding equipment that could be manufactured locally

PHASE 3
Project Commissioning

- During project commissioning, we give careful attention know-how transfer to the local staff
- The local operational staff receives intensive training programs on different production disciplines. At the end of this period, the local team is ready, authorized for operation and the new Aircrete plant can now start commercial production

PHASE 4
Service & Operational Support

- With the profound experience and professional network of our experts, we offer support to our customers for a longer period with specific operational support on site
- Furthermore, we provide full maintenance support as in technical site service and delivery of spare parts

Building Solutions and Market Developments

- Aircrete will support with defining the commercial strategy and clients are able to leverage on the sales and marketing materials and experience of Aircrete group companies that introduced AAC in virgin markets
- In addition, we can help in designing new solutions or converting existing building projects into an optimized AAC building system

Selection of reference projects

United States (2020)
Modernization
AERCON AAC

Mexico (2015)
Turn-Key factory
AIRCRETE MEXICO

Argentina (2018)
Turn-Key factory
BRIMAX

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H+H
Germany, 2005 - onwards
Turn-Key plant; technology partnership

TARMAC A CRH COMPANY
UK, 2007 - onwards
Technology partner modernizations

Celucon Concreto Celular Autoclavado
Brazil, 2015-2017
Turn-Key factory

H+H
Poland, 2006 - onwards
(Large) plants modernizations and services

China (2019)
Engine-Only

ЗАБУДОВА
Belarus, 2012
HEBEL plant upgrade

Alfa-Bank
Ukraine, 2008 - 2009
BMF, Turn-Key factory

SYC 주식회사 SYC
South Korea, 2013 - 2014
New cutting line; technology partnership

Australia (2019)
Turn-Key factory
CSR

China, 2018
New cutting line

Xella®
Europe, 2002 - onwards
Technology partner various Xella factories

AIRCRETE EUROPE

Aircrete technology allows for excellent product quality and widest portfolio

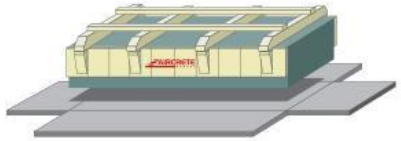
Our own technology is based on years of successful experience and innovations which allows Aircrete plant owners to be pioneers in their respective markets thanks to:

UNIQUE FLAT-CAKE PRODUCTION TECHNOLOGY

Limited cake handling and double-wired cutting technology result in superior AAC products

- **Flexible production process**
  Possibility of high volume production of reinforced panels (100% blocks are also possible)
- **Complete product portfolio**
  One-stop-shop concept can be utilized (panels of 50mm – 300mm thickness and up to 6m long)
- **Superior product quality**
  Minimum cake handling and double-wired cutting technology result in superior super smooth AAC products
- **Energy efficient plant operation**
  Strong focus on recycling of utilities and waste allows for zero (100% recycled) process related waste
- **Simplified machine infrastructure**
  Minimum cake handling results in simplified foundations and no requirement of overhead cranes

World's leading technology

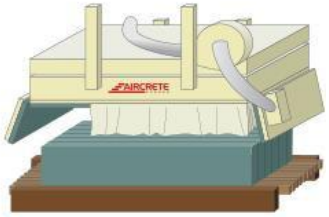


I. GRABBING CRANE

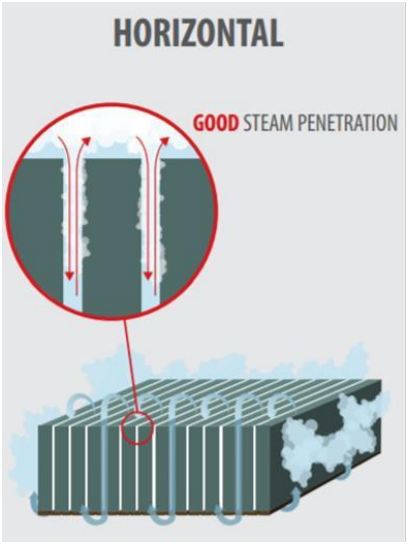
II. CROSS CUTTER

Proprietary Flat Cake technology allows for super smooth product surface

III. HIGH SPEED CUTTING FRAME



IV. VACUUM HOOD



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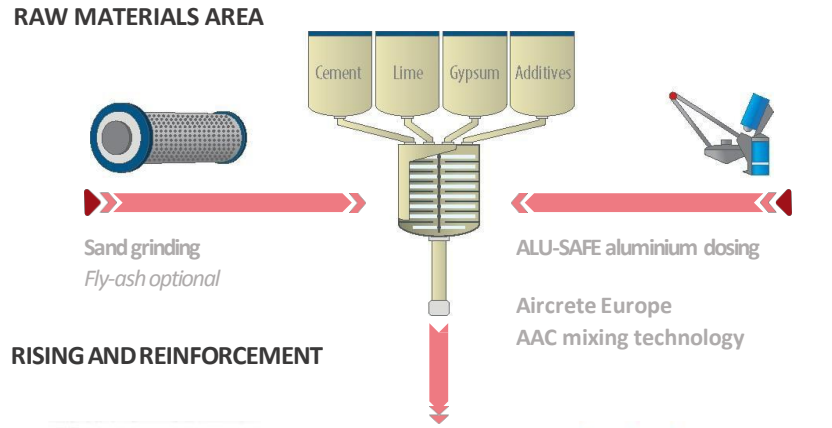
Unique AAC capabilities delivering best-in-class end products (1|3)

AAC PRODUCTION PROCESS

- The production of AAC panels and blocks is a batch manufacturing process
- Aircrete Europe has developed a unique proprietary production technology by innovating the existing "flat-cake" AAC manufacturing process which, through industry consolidation, is currently dominated by the block-focussed "tilt-cake" manufacturing process
- Aircrete Europe's production process which generates panels and blocks of unparalleled quality comprises the following steps:
  - **Raw materials area:** mixing of raw materials according to precise formula design
  - **Rising and reinforcement:** the "green cake" is cast and rises through a chemical reaction
  - **Cutting:** Aircrete Europe's SUPER SMOOTH cutting technology cuts the different panels and blocks
  - **Autoclaving:** the product is cured for 10-14 hours by pressurized steam and hardens
  - **Packing:** after strapping and foiling the product is ready to be shipped

OVERVIEW PROCESS STEPS



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Unique AAC capabilities delivering best-in-class end products (2|3)

FLAT-CAKE (HORIZONTAL) VS. TILT-CAKE CUTTING TECHNOLOGY

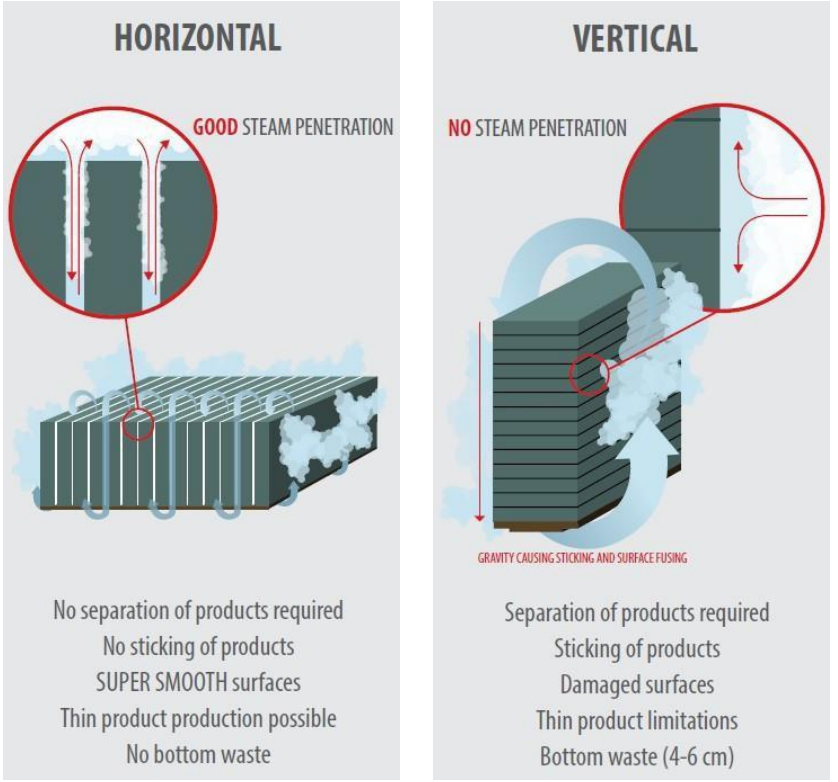
AAC cutting process

FLAT-CAKE	TILT-CAKE (white separator)	TILT-CAKE (green separator)
Positioning with crane	Tilting (90°)	Tilting (90°)
Cutting (horizontal cake)	Cutting (vertical cake)	Cutting (vertical cake)
		Back tilting
		"Green" bottom layer removal
Flat autoclaving	Vertical autoclaving	Flat autoclaving
	"White" product separation	
	"White" bottom layer removal	
Packaging	Packaging	Packaging
4 STEPS	6 STEPS	7 STEPS

- Less green cake handling
- No sticking problems or green / white separating requirements
- Better process flexibility due to the higher / longer cast-to-cut window
- Horizontal autoclaving and therefore better steam penetration through products
- Super smooth products allow for limited need for finishing

- In some cases more efficient for simple blocks production
- Easy green profiling and hand grips on the blocks
- Generally lower investment cost (but also limited portfolio of AAC products with little- or no panel capabilities)

STEAM PENETRATION AND SEPARATION



Horizontal autoclaving of Aircrete Europe technology has proven to be more efficient with steam penetration compared to a tilt-cake system, resulting in better product quality. Furthermore, the tilt-cake vertical position has a limitation on the product thickness (no thin panels) due to the gravity of each green slice on top of each other. Sticking and separating problems will have to be tackled resulting in quality issues and product damage

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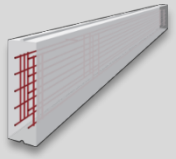
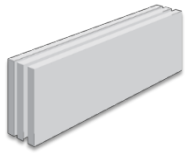
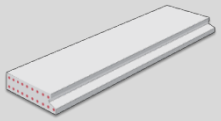
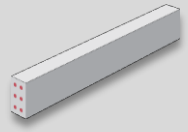
Unique AAC capabilities delivering best-in-class end products (3|3)

PRODUCT	CHARACTERISTICS	THICKNESS (mm)	LENGTH (mm)	HEIGHT (mm)	EXAMPLE APPLICATIONS
LARGE REINFORCED WALL PANELS 	▪ Perfect for the construction of large scale commercial and industrial buildings ▪ High load-bearing capacity ▪ Solution for industrial firewalls	150-500	≤8,000	600-750	 
PARTITION PANELS 	▪ Suitable of the entire non-load bearing structure of a building ▪ Easy drilling, sawing, nailing and time / cost effective installation ▪ Perfect in combination with steel frame structure	70-150	≤3,000	600-750	 
ROOF & FLOOR PANELS 	▪ Load-bearing reinforced roof and floor panels used in social and commercial construction ▪ Variable thickness with customised profiled side edges	150-300	≤6,000	300-625	 
FAÇADE / CLADDING PANELS 	▪ Exterior panels which can be installed directly on the outside of a concrete, steel or wood structure ▪ Extremely light; can be as thin as 35mm ▪ Customised surface design is optional	35-60	≤2,000	600	 
LINTELS 	▪ Structural beams to support the weight of walls (live, dead and wind) over window or door openings ▪ Lengths up to 3 meters with high load-bearing capacity	100-300	≤3,000	200-300	 
BLOCKS 	▪ Manufactured in different shapes and sizes depending on local market and demand ▪ Handgrips or tongue / groove profiling ▪ High accuracy version of the “traditionally” produced block	50-500	400-625	200-250	 

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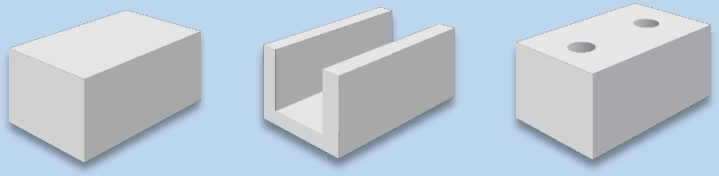
Complete product portfolio suitable to target wide range of business segments

COMPLETE PRODUCT PORTFOLIO

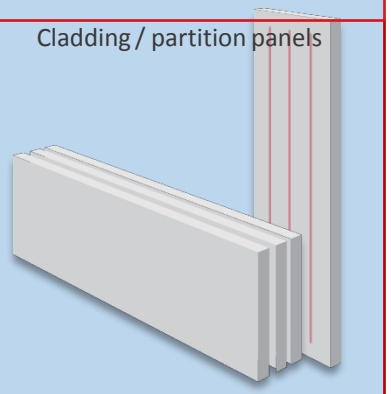
Non-reinforced products



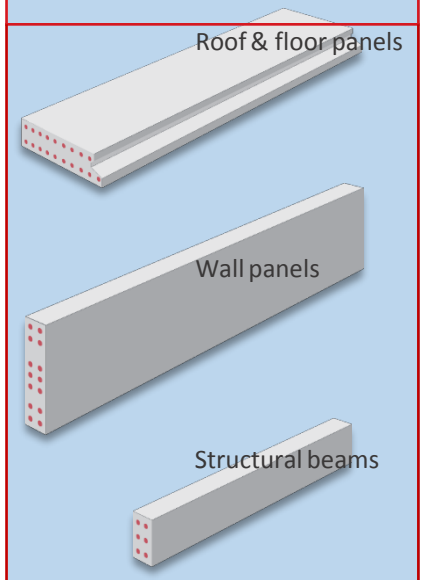
Blocks | U-Blocks | Single/Double Cored Blocks

Reinforced products

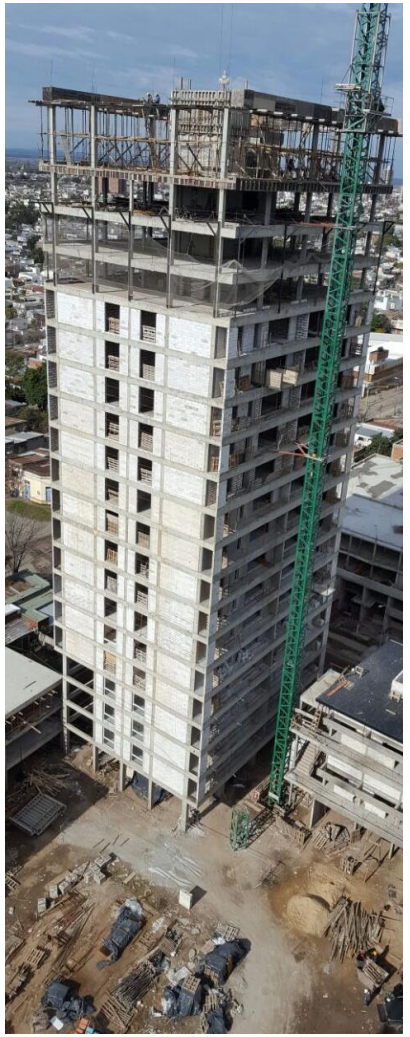
Light reinforcement



Heavy reinforcement



TARGETING A WIDE RANGE OF SEGMENTS WITH A TOTAL BUILDING SOLUTION



High-rise projects

Industrial projects

Social housing projects

Landmark buildings

Cladding & light steel framing

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All elements made in one Aircrete factory

BLOCKS

Durable and resistant, AAC blocks provide excellent thermal and acoustic insulation, structure and fire protection in one lightweight product.

LINTELS & U-BLOCKS

Aircrete lintels are special load-bearing reinforced products. They serve as beams to support the weight of the wall over window or door openings.

WALL PANELS

External wall and internal partition panels are the main elements of Aircrete Building System for fast and cost effective building requirements.

CLADDING PANELS

Aircrete cladding panels are unique AAC products for façade applications. The product is reinforced but remains extremely light due to 35-50mm thickness. Panels are suitable to be directly applied on the exterior of any building.

FLOOR & ROOF PANELS

Lightweight floor/roof panels are load-bearing elements, used in residential and commercial constructions.

Why Aircrete Europe?

YOUR TRUSTED TECHNOLOGY PARTNER TO DEVELOP NEW MARKETS TOGETHER

International team with 17 different nationalities

Sales in over 20 countries, on 6 different continents

Innovation & process driven

Cutting edge technology

Vertical market approach

Selective approach of 3-4 projects annually

Skin-in-the-game strategic investments

40+ years of industry experience with more than 100 plants

AIRCRETE EUROPE

SECTION 2

OPERATIONS

Lean and asset light organisational structure

EFFICIENT SOURCING, ASSEMBLY AND TESTING IN THE NETHERLANDS

1 ENGINEERING & SOURCING

- Aircrete designs and engineers its customised machinery in-house, after which machine parts and sub-assemblies are made to order by an extensive network of independent, high-quality suppliers
- Efficient outsourcing of separate parts and sub-assemblies ensures minimum dependency on own resources and minimises inventory levels, enabling the company to have an asset-light production process
- Ready-to-install parts are delivered to Aircrete Europe's external partner locations to be used for pre-assembly and testing

2 ASSEMBLY & TESTING

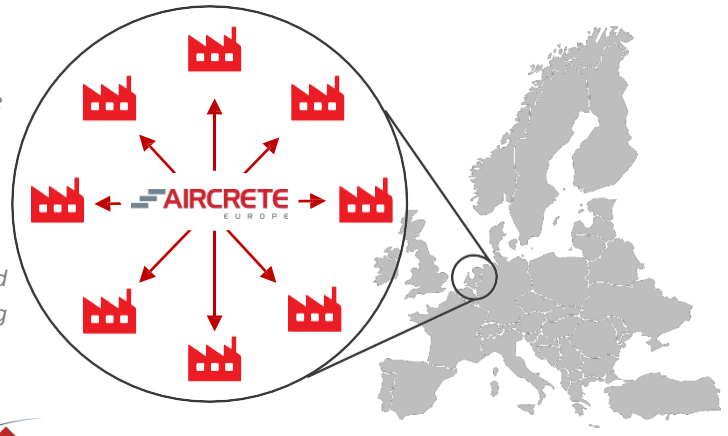
- A team of Aircrete Europe engineers, together with external engineers working on a project basis, assemble and test all new equipment at several multi-functional partner engineering facilities close to Oldenzaal
- Facilities are not fully dedicated to Aircrete Europe, providing flexibility in terms of occupancy of the assembly location
- Aircrete Europe has strong relationships with several engineering firms, providing flexibility to engage more engineers at different locations when unexpected new projects commence

1

Parts and sub-assemblies are made to order by several high-quality suppliers

2

Machines are assembled and tested at partner engineering facilities in the Netherlands



WORLDWIDE INSTALLATION AND PLANT COMMISSIONING ASSISTANCE

3 ON-SITE INSTALLATION

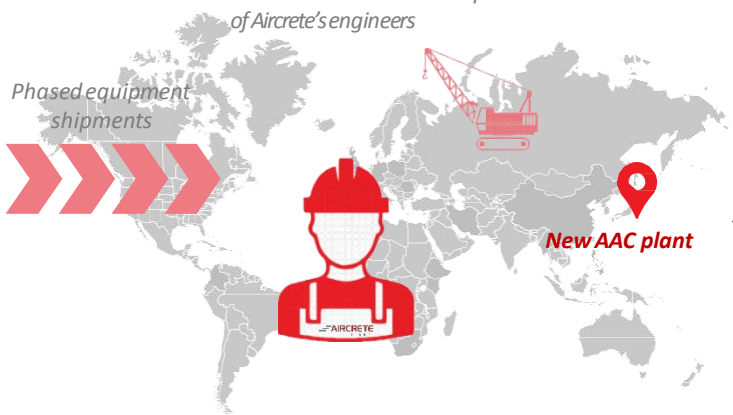
- After testing, the equipment is disassembled and shipped to the customer's building site
- A team of own and temporary personnel travels to the building location to supervise the machine assembly on-site
- The production line is installed in stages, one machine at a time, to enable optimal staffing and limited personnel down-time
- When the assembly of one machine is finished, staff is re-located to other active projects

4 COMMISSIONING & MAINTENANCE

- Aircrete Europe provides its customers with full plant commissioning support over the first few months of production
- During a test production phase, Aircrete Europe supervisors monitor the production process and optimise process variables
- Local staff of the customer receives extensive training to ensure full know-how transfer
- Additionally, Aircrete Europe provides a complete package of support services over the lifetime of a plant, including maintenance services and plant scans

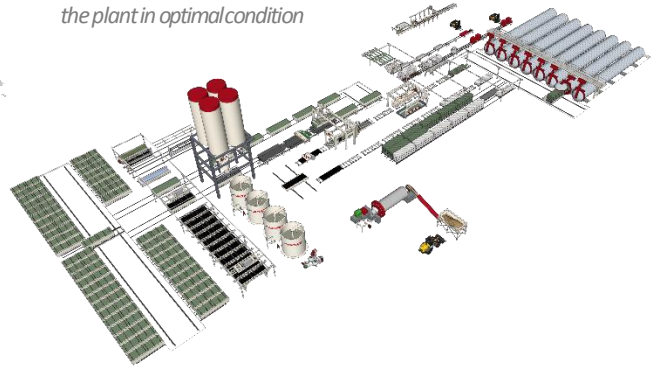
3

Plant is installed under the supervision of Aircrete's engineers



4

Aircrete's team provides support during the first months of production and offers maintenance services to keep the plant in optimal condition



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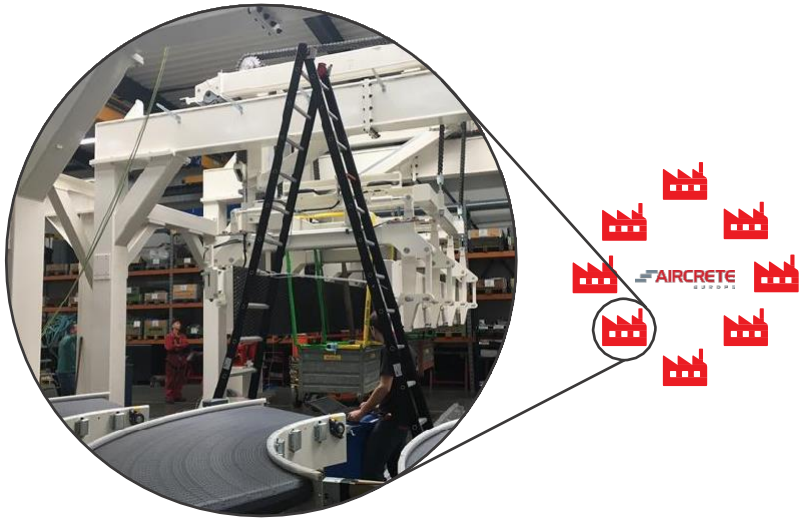
Case study | Assembly in NL

EXTENSIVE NETWORK OF PARTNER ENGINEERING FIRMS AND SUPPLIERS

- Aircrete Europe is structured as a lean project organisation with minimal contracted employees in order to remain flexible with respect to the timing and execution of projects
  - Flexibility allows Aircrete Europe to be able to quickly scale up when new projects commence
- The company's international team of engineers and project leads is supported by a network of highly skilled partner engineering firms which also accommodate the operations locations where the AAC production lines are assembled and tested
  - Utilization rate of assembly and testing locations is close to 100% as these are multi- functional engineering facilities where engineering projects of other companies are executed if Aircrete Europe does not need the space or support
- Furthermore, a significant number of non-core machine parts and sub-assemblies are made by external suppliers and do not require any involvement of Aircrete Europe's engineering team
- Aircrete Europe has longstanding relationships large number of partner firms (>10); sufficient capacity to scale up the number of projects in case a large number of the leads from the current pipeline are contracted and would like to accelerate

MULTI-FUNCTIONAL PARTNER ENGINEERING FACILITIES



# partner locations	>10
Total available m² operational space	5,500m²
Total # available external FTEs	c.45
Supplier relationships	> 15 years (avg.)

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Case study | Manufacturing steps

1. Part manufacturing

2. Machine assembly

3. Machine cabling/hydraulic/pneumatic

4. I/O testing

5. Functional testing (dry runs)

6. Quality control (FAT)

7. Disassembly and labelling

8. Packing

Case study | Assembly in NL

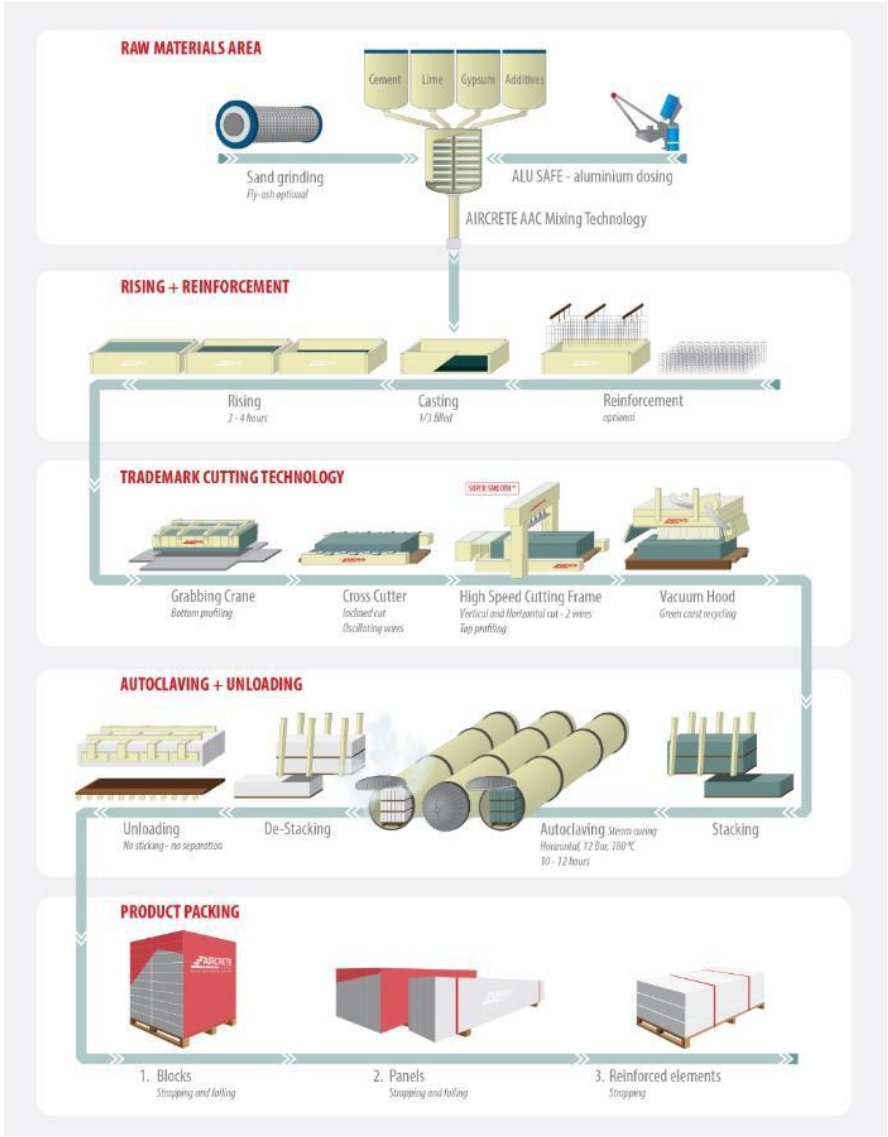
SECTION 3

PRODUCTION PROCESS DESCRIPTIONS

AAC PRODUCTION PROCESS

AAC is a batch manufacturing process. Aircrete Europe's cutting-edge "flat-cake" technology reduces handling, cake cracks, sticking and other damages as compared to classical "tilt-cake" solutions. The main process steps are depicted on the right and are explained in more detail on the following pages.

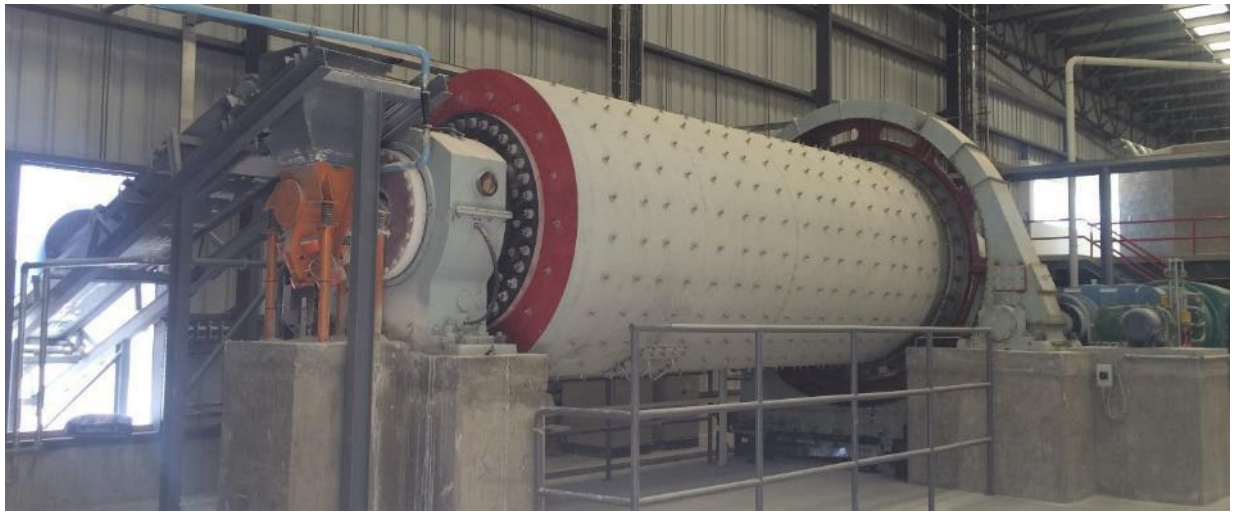
- **Raw Material preparation:** e.g. sand grinding with a ball mill
- **Mixing:** sand, cement, lime, gypsum and aluminium mix poured into moulds
- **Reinforcement:** steel reinforcement for load-bearing products
- **Pre-Curing**: chemical reaction results in rising and formation of porous "green" cake
- **Cutting**: cakes are cut into required dimensions with Aircrete Europe's special double wired high-speed cutting frame
- **Autoclaving:** the freshly cut products are hardened by pressurized steam
- **Unloading and Packing:** ready products are unloaded and packaged according to the type of product

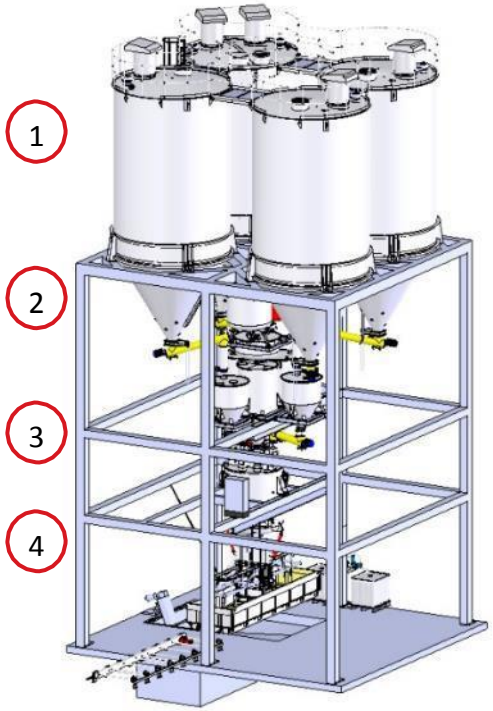


Raw materials preparation & mixing

RAW MATERIALS PREPARATION KEY STEPS

- Sand (or fly-ash) is ground with water in a ball mill to produce sand slurry
- Sand particle size is controlled before sand slurry is pumped from ball mill into slurry tanks
- Other dry materials (lime, cement, gypsum & additives) are transported to the silos located in the mixing tower
- Aluminium powder is dosed using an Aircrete ALU SAFE System for maximum safety and dosing precision





MIXING KEY STEPS

- A mechanical dosing system connected to every silo outlet discharges raw materials to the weighing and dosing level
- This unique 9 component system automatically weighs the liquids and solids by mass per batch. Measuring the mass with high precision and compensates variations in temperature for solids as well as densities in slurries
- Aircrete Low Speed Multi-Paddle mixes solids and liquids to right suspension
- Mixer outlet is lowered to pour slurry suspension bubble free into the mould. Vibration needles optimize slurry distribution and minimize air entrainment

Reinforcement & pre-curing

REINFORCEMENT KEY STEPS

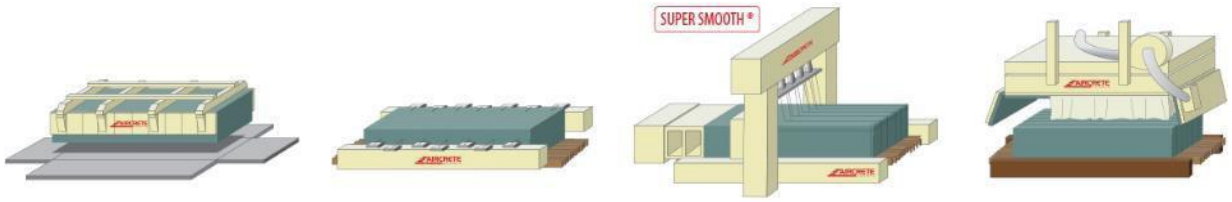
- If load-bearing AAC products are part of the product portfolio, a reinforcement station is installed
- Before introducing the steel reinforcement in the mix, an assembled steel mesh (for partition panels) or ready cage (for reinforced panels and elements) is dipped into anti-corrosion treatment
- After casting the steel reinforcement is automatically inserted into a mould by a needle crane
- Reinforcement frame stays inside the mould throughout the rising area until it reaches the end position

PRE-CURING KEY STEPS

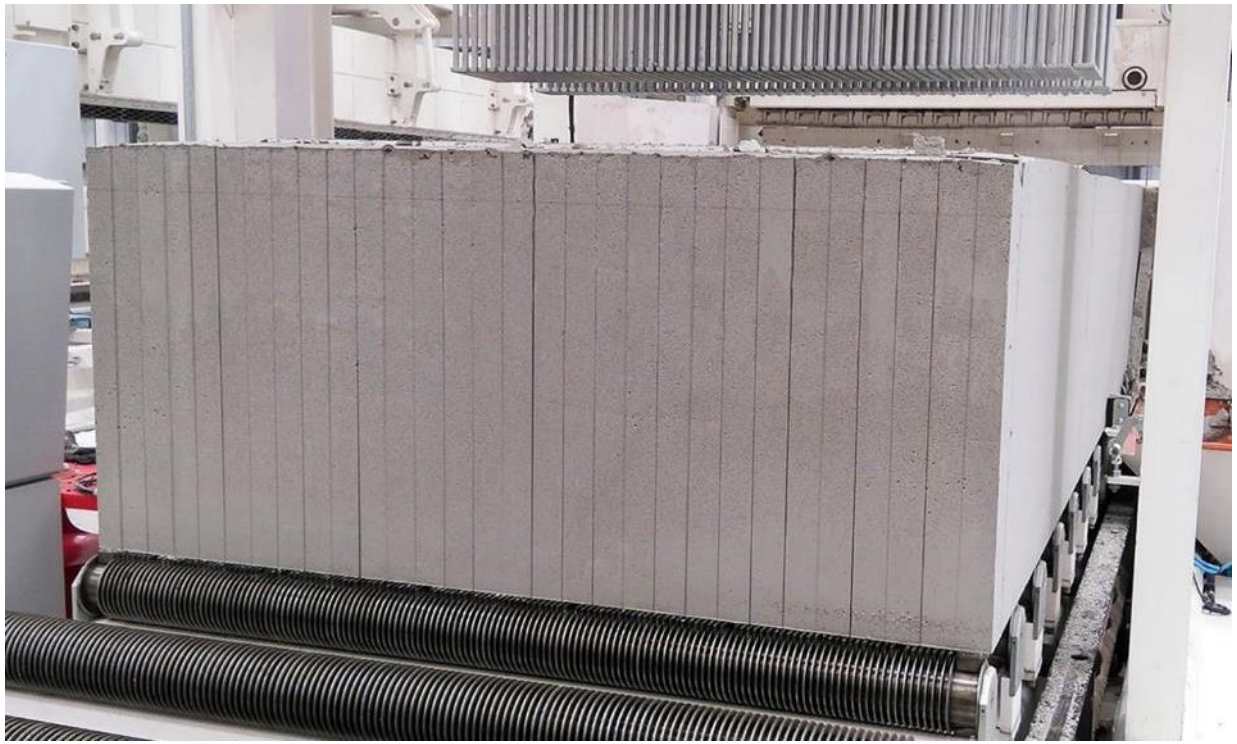
- The casted mould is moved to the curing area by a traverser car
- After the cake had risen and reached an adequate hardness (about 3-4 hours), the cake is ready for cutting
- The moulds are automatically opened and the cake is lifted with a grabbing crane into the cutting line
- After removing the cake the mould is automatically cleaned and oiled in every cycle. After automatic closing the mould is ready to be filled with slurry again

CUTTING KEY STEPS

- The cutting line represents the heart of an Aircrete plant, defining its product portfolio and ensuring high-quality of the AAC products. Aircrete's innovative cutting process involves a horizontally positioned cake
- Once the cake is ready for cutting, the mould opens from all sides and the grabbing crane picks up the entire green cake. This is the only step in our process where the cake is mechanically handled; limiting the risk of its damaging and eliminates tilting-related problems
- The cross cut is made with oscillating and pneumatically spanned steel wires resulting in a precise cut. A recent innovation is the inclined cross cut frame
- After the cross-cut, the 'pusher' advances and gently rolls the cake on its frame bars (or strip bed) towards the High Speed Cutting Frame (HSCF)
- The Aircrete cutting system uses two wires (which oscillate at high speed. Thanks to this unique technology the final AAC products have a SUPER SMOOTH surface
- Simultaneously an oscillating horizontal wire cuts the cake to required height
- Since the products are cut in a flat/horizontal position, openings between the products are created, eliminating sticking problems observed in tilt-cake systems. No separating or tilting machines are used in Aircrete plants
- The top of the cake can be also profiled with special knives. The outermost vertical wires remove the green cake's side waste, leaving a smooth surface
- Once cut, the cake is rolled under the vacuum crane, where the top, front and end side crust are removed and 100% recycled back into the production process



I. GRABBING CRANE | II. CROSS CUTTER | III. HIGH SPEED CUTTING FRAME | IV. VACUUM HOOD



Curing & unloading

CURING KEY STEPS

- The cake leaves the cutting line already on an autoclaving frame
- The curing frames with cakes are stacked vertically (2 or 3 high) and transported directly to the autoclaves
- Cakes are cured in the autoclaves at a steam pressure of approximately 12 Bars. The complete curing cycle takes between 10 to 14 hours
- Applying Aircrete's autoclave control system, steam is transferred between autoclaves to minimize energy consumption and costs
- After the curing process is completed, the double/triple stack is removed from the autoclaves and the white cakes are de-stacked

UNLOADING KEY STEPS

- In the unloading area a semi-automatic crane takes the complete white cake and transfers it one-by-one from the frame onto a dedicated packing line depending on a type of praoduct
- Elements are automatically placed on the pallets and transported by a conveyor system to the quality inspection and sorting place
- After unloading from frames the pallets are ready for final packaging e.g. stretch hood, shrink hood of foil, or strapping
- After-treatment such as sawing or surface milling is done on separate machines in the after-treatment area

PANEL SAWING KEY STEPS

- In case custom sizes or profiling for singular reinforced panels is required an automatic Aircrete sawing unit and/or milling bridges are used, located in a separate After Treatment Hall.

Sawing line

- This station is used to saw 'white' panels to customized dimensions. Panels from 1.2m to 8m can be sawed with any chosen increment (encoder driven)
- Multi axis (three) sawing portal is CNC controlled. Rest pieces are transferred to the end of the outfeed line and picked up separately (eg. forklift or suction unit)
- Sawing blade specifications: blade with diamond tips (ø1000 mm blade, thickness <300 mm)

PANEL MILLING KEY STEPS

Milling line

- This station is used to mill the edge profiling (eg. floor/roof panels, grooves, etc.) on the flat-lying panels. This unit is integrated in the Sawing Line and is placed between the Infeed and the sawing bridge
- Two milling heads carefully create most accurate profiles on the panel edges while the panel is traveling horizontally
- Aircrete applies dry method of milling (i.e. no water spraying) in “white”, meaning that dust and small particles of AAC are generated and need to be collected. The dust is collected in big bags of 1m^3 volume

SECTION 4

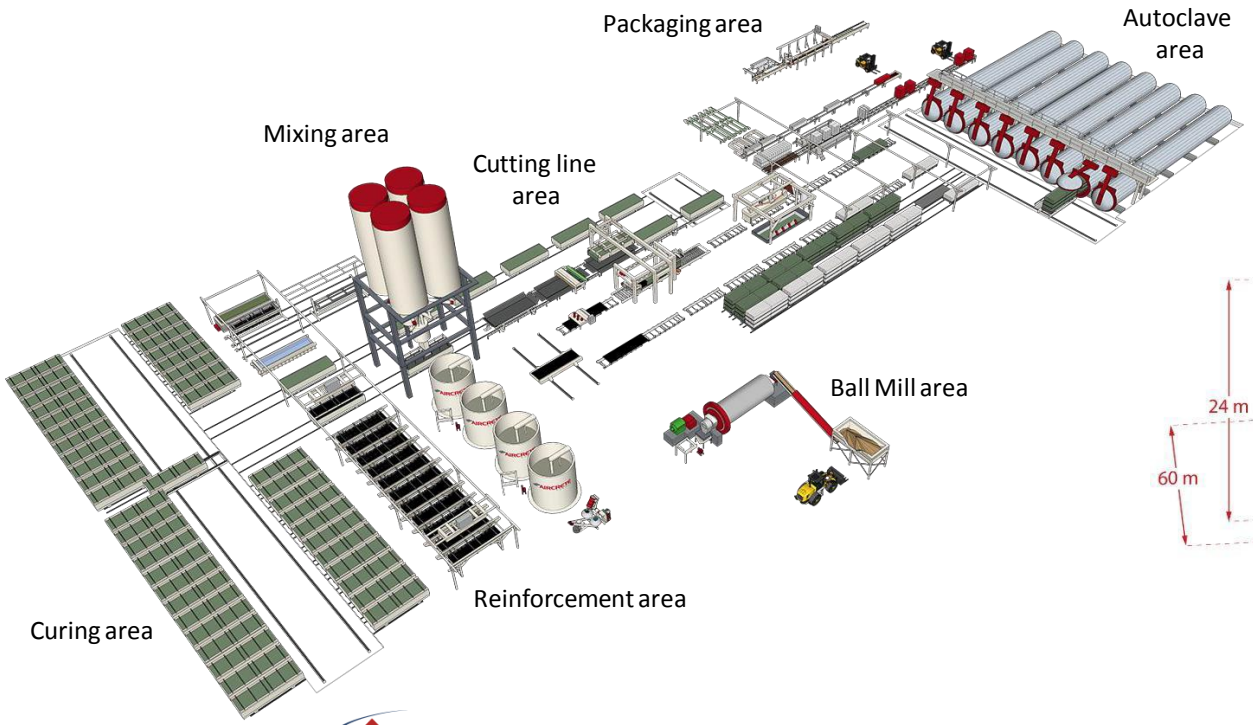
AIRCRETE PROJECT OVERVIEW

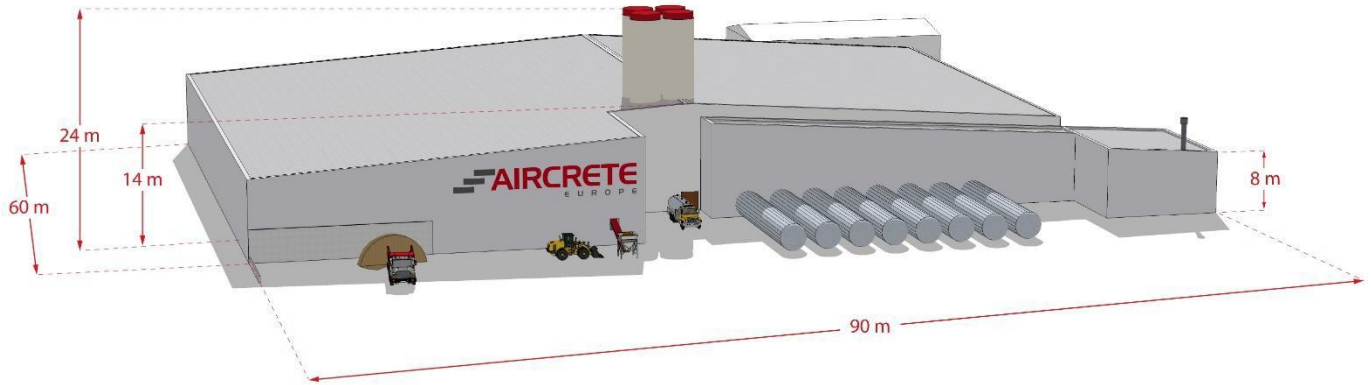
Main infrastructure requirements

- Key infrastructure requirements:

Production Hall:	ca. 6,000 m2
Stock yard (hardened):	ca.25,000 m2
Total Land Plot:	ca. 35,000 m2
Installed Electricity:	1 MW
Installed Energy:	Boiler (Gas)

- During the Phase I process, detailed plant layout, foundation, utilities and P&ID will be supplied by Aircrete Europe





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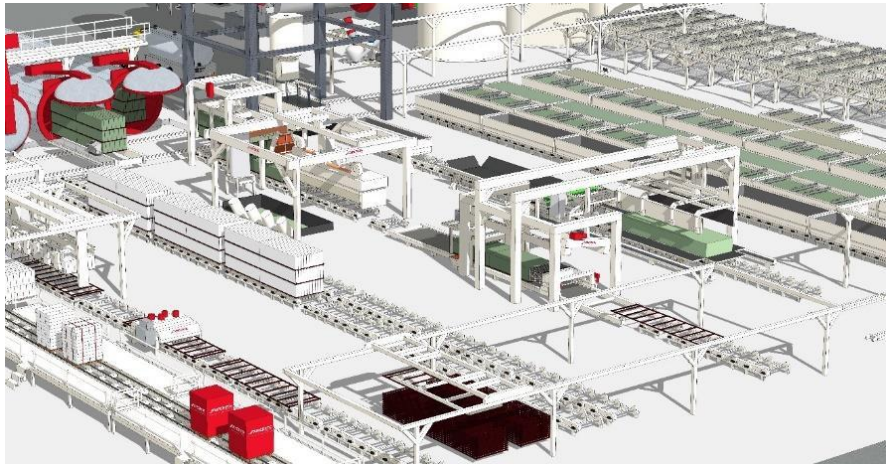
Project scope

- The capacity of the plant depends on the investment budget and the sales expectations and could range from **100,000m³ to 450,000m³ annually**
- An Aircrete AAC factory can be designed to produce the entire AAC products range and can be delivered **with or without reinforcement station**. The reinforcement area is required to manufacture AAC Panels and Lintels
- The total Aircrete Europe project scope may include **engineering, turn-key equipment delivery, project management, documentation, transport, installation supervision, commissioning and training** of local operators and management
- The **equipment scope** is preliminary divided between Aircrete (Europe) and Local/Asia sourcing to **optimize the value-for-money requirements**. All core equipment is based on cutting-edge European technology with Local/Asia sourcing for non-core equipment
- The final plant capacity, product range, level of automation, equipment sourcing, total project budgets, financial modeling, raw material testing requires a **Phase I Technical and Financial Plant Design**



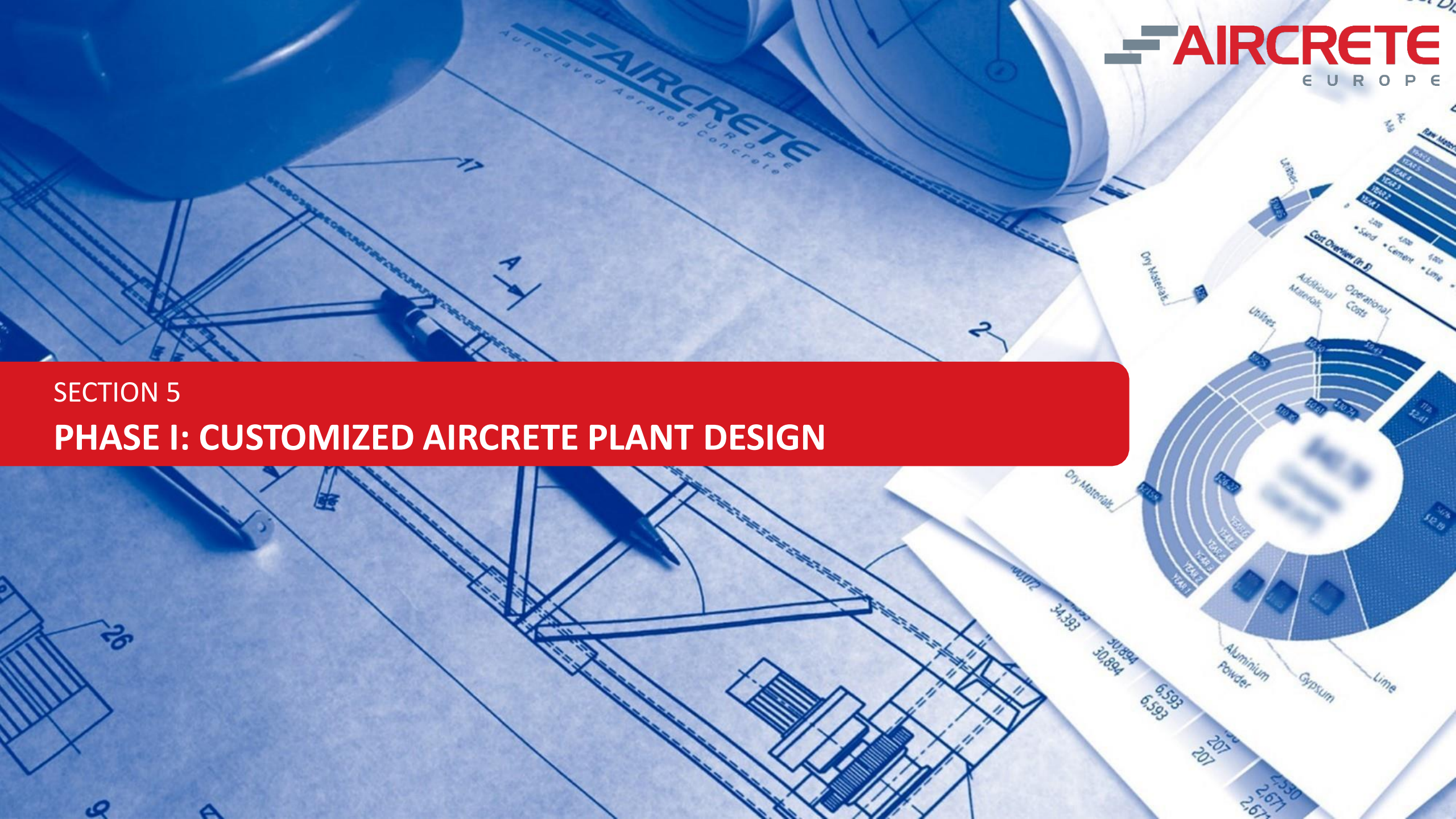
PROJECT SCOPE & UNIQUE ADVANTAGES

Our customers are market pioneers providing top quality products for innovative and sustainable building solutions to their local market. Owners of Aircrete plants enjoy their competitive advantage based on the following technology characteristics:

- **Innovative** and **optimized plant design**, based on the unique flat cake technology
- Cutting-edge product quality with **SUPER SMOOTH surfaces** (reduced plastering)
- **Minimum energy and utility consumption** due to optimal process technology and recycling
- **Minimum operation cost** and **limited waste levels** of <1%
- **Highest product accuracies** (<1mm)
- **Flexible formula design**, resulting in lower raw material consumption

Potential AAC partnership prospects

	Cement producers	Building material players	Builders & Developers	Financial investors	Other
Description of player	Producers of cement (the most valuable raw material input in the production of AAC products)	Producers and/or distributors of building materials like concrete products, bricks and timber products. In addition, importers of building material products	Developers and constructors of (large) residential, commercial and industrial projects. In addition, importers of building material products	Financial investors (private equity), real estate funds, family funds and wealthy individuals that have an invested stake in, or affinity with, the construction sector	Other players like machine manufacturers and other industrial players
Rationale to invest in an AAC factory	Cement producers could benefit from diversifying into AAC thereby expanding their offset markets while accommodating the demand for more sustainable building materials. In addition, these players have experience with running a manufacturing facility	These players could expand their product portfolio by adding AAC products. In addition, these players would have the sales infrastructure in place to sell the AAC product	These players are actually the only players that can guarantee that the AAC product will be accepted by the market, since they could supply the product their own construction projects (captive demand)	Financial investors could be interested in the attractive financial returns of an AAC factory and a short payback period of the investment. Furthermore, their construction network could be used to fuel the sales of AAC products	Machine manufacturers could be interested since they would vertically integrate (ensure captive supply) and benefit from attractive financial returns
Contribution – Capital	✓	✓	✓	✓	✓
Contribution – Mkt expansion	✓	✓			
Contribution – Captive demand			✓		
Contribution – Comm. network	✓	✓			
Contribution – Manuf. expertise	✓	✓			✓



SECTION 5

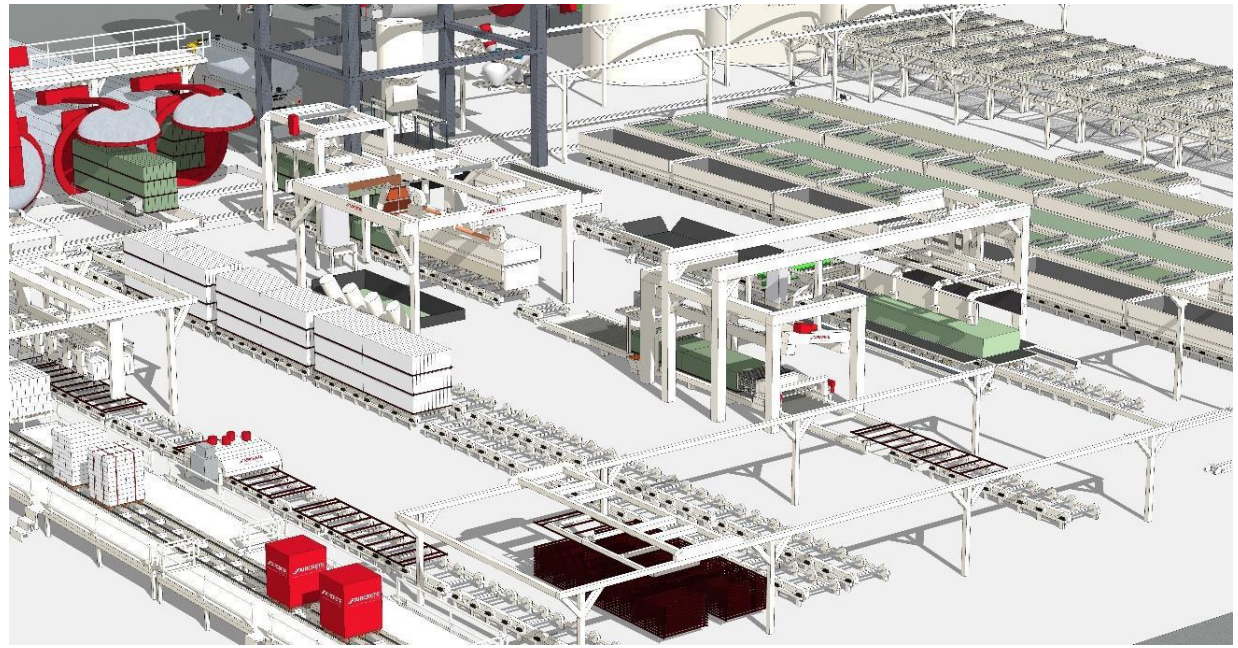
PHASE I: CUSTOMIZED AIRCRETE PLANT DESIGN

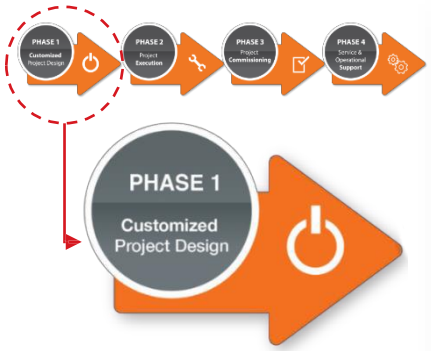
AIRCRETE PHASE I PROJECT DESIGN

- Aircrete Europe is keen to assist customers in designing a state-of-the art AAC production facility based on its SUPER SMOOTH cutting line technology

- We recommend to start this project with a **technical and financial project design (Phase I)** in order to determine the optimal balance between technical scope, sourcing, local factors, product requirements and investment expectations. This approach will:
  - Define the suitability of raw materials suitability and their expected consumption
  - Define the investment figure for the turn-key project
  - Model the expected financial performance of the plant, based on local factors

- Phase I will provide customer with a detailed technical and financial plan for the Aircrete AAC factory serving as foundation for the execution (delivery & installation) phase (Phase II) of the plant development





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Phase I Objectives & Deliverables

PHASE I OBJECTIVES

- Find optimal balance between European, local and low-wage country sourcing
- Engineering of the factory layout to design optimal factory and production efficiency
- Investment overview for a fixed-price, turn-key Aircrete plant, including machine scope, installation, transportation, tools and pre-operating budgets
- Future plant performance modelling to create detailed overview of financial plant performance in future the years post start-up
- Create organizational structure and detailed HR plan
- Determine reliable project planning / timeframe for project execution phase (Phase II)
- Work out required product portfolio and expected product applications in full detail

PHASE I DELIVERABLES

- Detailed equipment list including recommended sourcing
- Detailed factory layout design
- Fixed-price, turn-key equipment investment overview
- Key financial and operational model outputs
- HR plan, including plant organogram and work shift planning
- Detailed Phase II project timeline and overview of pre-operative tasks & responsibilities
- Raw materials laboratory analysis and advice

PHASE I POTENTIAL EXTENSIONS

In order to extent the scope of Phase I, the following additional services (not included in customary Phase I) are available:

- Sample castings
- Infrastructure engineering
- AAC building design
- Market research
- Bankable financial model
- Sample house project
- Plant simulation

AIRCRETE
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