# Discover the world of Fassa







# Our history is made up of values

Values that are eternal, unchanging, the basis of each and every development: respect, care, quality. For the environment, for people as 'doers', for culture. Values that since 1710, the year the presence of a member of the Fassa family in the building trade was first documented, have seen us become Italian leaders in the field of premixed plasters, with a complete range of innovative building solutions, 13 production sites and more than 1250 employees. These values will continue to guide us as we grow, respecting our own history.



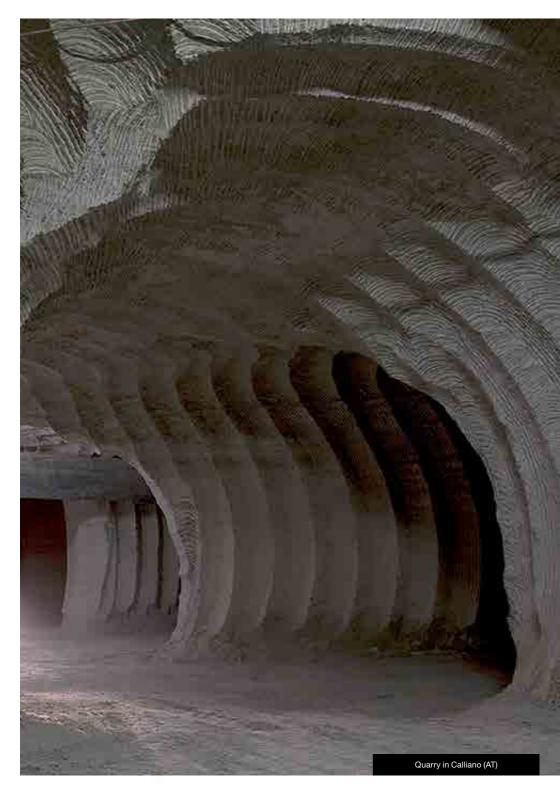


IMPRESA STORICA D'ITALIA



# The memory of the past is a stimulus for the future

An old factory from the early 1900s, formerly the Lazzaris works in Spresiano, today houses the Fassa Bortolo headquarters. Meticulous restoration has restored the spaces with philological care in order to preserve the memory of what was once an important centre of development, a place where work created not just economic, but also human wealth. For us, these buildings which fuelled our ancestors' dreams of progress and emancipation are today a powerful stimulus to conquer a new future.



# Our quarries. We have very deep ties with the environment

The environment gives us the raw materials that are essential in making our products: calcium carbonate and gypsum. In our quarries, both opencast and underground, we only use the most advanced quarrying technology. Meaning we care for the local territory and the environment, as well as the health of our workers. Currently, we directly operate limestone and gypsum quarries using techniques based on a strategy of environmental remediation and reuse of the quarry area at the end of its operation. Our philosophy is simple: everything like it was before. This is why we have developed a "quarrying culture" aimed at ensuring total respect for surrounding nature.

Our quarrying operations are designed to ensure equilibrium in terms of geomorphology, hydrogeology and the landscape, and consequently minimise the impact on the local environment.



Moreover, we constantly measure the dust and noise produced during processing, so as to ensure quality of both the working and outdoor environment at all times. Our opencast quarries are worked progressively downwards in horizontal levels, with each level being immediately remediated once the material has been extracted. Our quarries with underground crushing of the stone also involve less use of transport vehicles; the quarried material falls by gravity through a kiln into the storage area. The kiln is connected to the outside by a tunnel, where the primary crushing system is located. Conveyor belts then carry the mineral to the storage areas at the exit of the tunnel, where final processing is carried out.



## QUARRY LAYOUT



Diagram illustrating quarrying and environmental remediation in an opencast quarry

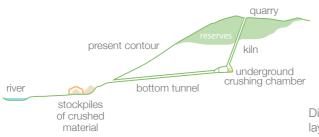
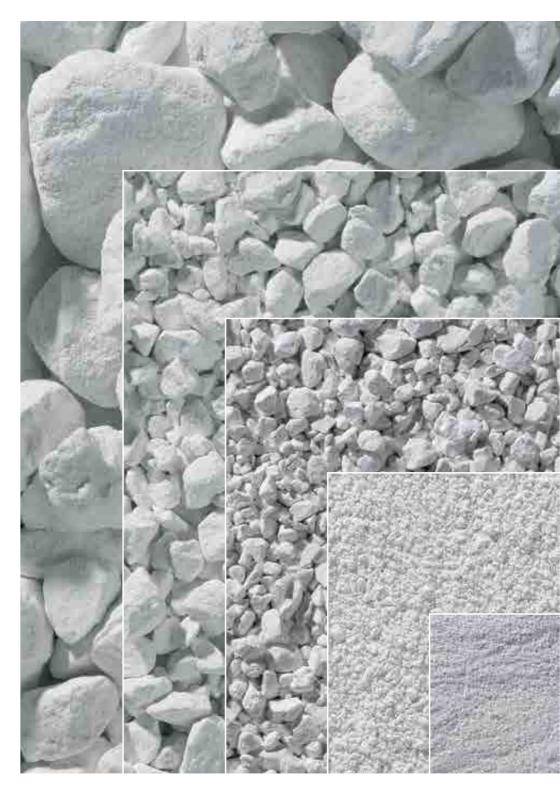


Diagram illustrating the layout of an underground quarry



# Lime. Natural material, element of life

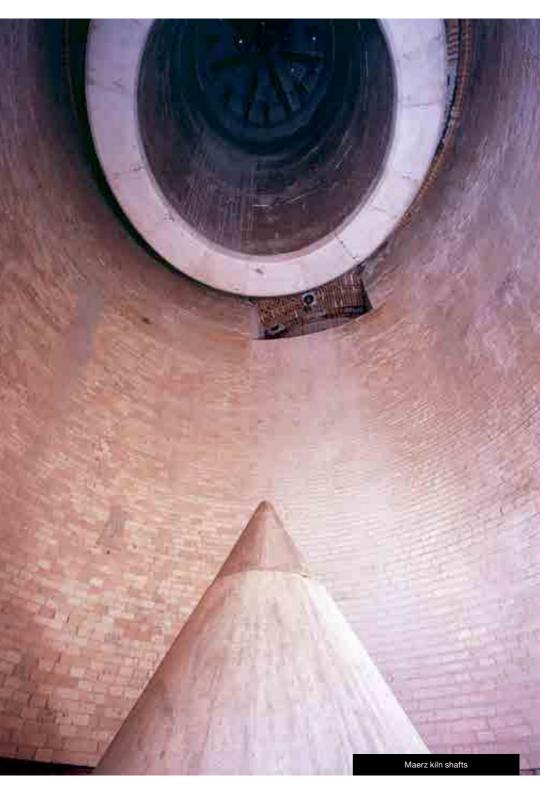
Lime is life. Fassa Bortolo, leaders in the field of mortars. plasters and premixed building products, started making this important material way back in 1710. Lime represents the basis of virtually all building work, and for Fassa Bortolo it is a fundamental component in all of its solutions. The company manufactures lime at two sites: Spresiano - Treviso, the company's original site, and Montichiari, in Brescia province. The material is processed using the latest-generation kilns, turning out a total of up to 1000 tonnes per day and also running on alternative fuels to natural gas, such as wood waste. This fuel is sulphur-free and consequently significantly reduces polluting emissions into the atmosphere, while at the same time finding a use for the waste produced by local wood and timber processing companies. A commitment to the environment that has always formed the basis of the Fassa Bortolo philosophy:

respecting the environment in order to constantly improve the quality of life.



Lime is renowned to be a very adaptable material, being suitable for numerous applications in different sectors. Not everyone knows, for instance, that lime is an essential raw material in the production of steel. Quicklime, both calcium and dolomite, is used in various different compositions and grain sizes for smelting and refining steel. Premium quality lime is used to manufacture special steels, stainless steel and low carbon steels.

Increasing public awareness of environmental issues has led companies operating in a variety of sectors to exploit lime, a natural and environmentally-compatible product. Lime is indeed the ideal environmentally-friendly additive used as a reagent in treating industrial and civil wastewater, stabilising and disinfecting sludge, and cleaning exhaust gas from incinerators and power plants.







Ever since ancient times, lime has been used by farmers as a fertiliser to ensure healthy and sturdy crops. Even now, this natural product is widely used in agriculture, with advances in technology offering increasingly specific limebased products for different requirements, ensuring plants are properly nourished. Construction of roads, railways, airports and viaducts requires large quantities of quarry aggregate, which is very expensive and hard to source. Using lime, even in small quantities, reduces the need for traditional aggregate, replacing this with various types of soil that otherwise would be considered unsuitable and dumped in landfill. Mixed with low percentages of lime, limey-clay soils, sand and gravel with high clay content and pozzolanic soils, can all be stabilised and become excellent materials for use as roadbed, base and paving. Lime can completely or partly replace the raw calcium carbonate used for production of soda lime glass and fibreglass, bringing numerous benefits.



# Gypsum. Ancient and modern, essential and irreplaceable

One of the oldest known building materials, gypsum is the basis of the most modern building technology: it is in fact used in the production of plasterboard, for acoustic and thermal insulation, for renders and skim coats. It is an irreplaceable material, whose qualities are essential in ensuring maximum performance. As a result, Fassa Bortolo has committed significant resources, starting in the 1990s, to the quarrying of this material, identifying important gypsum reserves, in terms of both size and guality, in Moncalvo, a town in the Monferrato area. The company has subsequently developed a technologically advanced guarry with completely underground operations, providing very high quality gypsum for the Fassa Bortolo production site. This guarry uses the most modern guarrying and abatement systems, rarely used in other gypsum Italian guarries. Many aspects of the Moncalvo guarry make it Fassa Bortolo's "pride and joy": care paid to the compatibility of quarrying operations with the surrounding territory, highly automated processes



(in the past these were only carried out manually), and studies on mineral reserves with ongoing geological prospecting, allowing the size of the site to be extended. The new guarry in Calliano (Asti province) uses the same guarrying methods and technology, applying a particularly interesting solution to minimise environmental impact: a 250 metre long tunnel, with conveyor belt, that connects the guarry directly to the production facilities. This means the mineral is transported without using any outdoor vehicles! Another gypsum guarry, in Moncucco Torinese, has also been acquired by Fassa Bortolo. Here, the very high quality raw materials are used to make premium gypsum-based products. Today, Fassa Bortolo owns and operates gypsum guarries in the Piedmont and Abruzzo regions, as well as abroad, above all in Spain. To continue offering the building market the quality that has always distinguished Fassa Bortolo products.

# We go deep down to find the highest quality.



## For us, research is a fundamental asset

Investing in research is essential for any company that wants to constantly improve its performance. This is why we operate our own Research Centre, an advanced laboratory with a wide range of instruments and equipment, including fluorescence and X-ray diffraction, electron microscopy and laser particle analysis. The objective is to analyse materials at a microscopic level and identify their chemical-physical properties, so as to be able to select the formulations that best guarantee the quality of our products, and predict, using specific tests, their behaviour in a variety of environmental conditions. The attention we dedicate every day to research has also been recognised by ISO 9001:2008 certification. Just another demonstration, for us, of the superior quality we offer the building sector in this area too.

# Certified quality for the building sector

### For us, research is a fundamental asset

Intense research work in our laboratory (ISO 9001 certified) goes into developing increasingly advanced formulations and technologies. This tradition and these investments mean the company can provide a vast variety of gypsum-based products, including our innovative Gypsotech plasterboard.

### Construction Products Regulation CPR 305/2011 CE marking and DoP

All Fassa products comply with EC standards and regulations, satisfy all the performance requisites for building products (CPR 305/2011) and bear CE and DoP marking. The DoPs (Declarations of Performance) for Fassa Bortolo and Gypsotech products can be downloaded from our websites: www.fassabortolo.com and www.gypsotech.it. All technical documentation bears special logos highlighting possession of these requisites, while others confirm compliance to the criteria and classification methods specified in European standards and regulations.

### ClimateHouse

Being a ClimateHouse partner means having recognised technical skills and a constant commitment, through our products, to energy efficiency in new and renovated buildings, in respect of the environment.

## European Technical Approval (ETA) and safety in all components

The quality and safety of every component in the Fassatherm External Thermal Insulation Composite System (ETICS) is decisive in guaranteeing optimum efficiency and durability. From insulation to adhesive/skim coat, anchors and reinforcing bars, all elements in the Fassatherm<sup>®</sup> External Thermal Insulation Composite System are submitted to the strictest controls possible. The Fassatherm<sup>®</sup> External Thermal Insulation Composite System has obtained European Technical Approval (ETA) that attest its technical suitability for thermal insulation applications.

## British Board of Agrément (BBA)

The British Board of Agrément (BBA) has awarded certification to the Fassatherm External Thermal Insulation Composite System. BBA certification was a necessary requirement to extend the offering of the Fassatherm External Thermal Insulation Composite System, already with European Technical Approval (ETA), specifically to the British market.











## ANAB (Associazione Nazionale Architettura Bioecologica) and ICEA (Istituto per la Certificazione Etica e Ambientale) quality certification

This represents important recognition for our bio-ecological products, certifying maximum care paid to the environment and complete compliance with the strictest bio-architecture criteria. Fassa Bortolo's Bio-Architecture line was the first line in Europe to obtain certification with KB 13, the first plaster certified in 1999, setting the standards in the sustainable architecture sector.

## GEV EMICODE

Voluntary mark certifying the emission of volatile and semivolatile organic compounds (VOC and SVOC) issued by GEV (the Association for the Control of Emissions in Products for Floor Installation, Adhesives and Building Materials), applied to the products in the System for Laying Floor and Wall Coverings. Following stringent tests, the very low emissions of Fassa products earned them EC1 Plus certification.

## LEED certification - Leadership in Energy and Environmental Design

This certification confirms that buildings are environmentally sustainable, both as regards energy usage and consumption of environmental resources during construction. LEED<sup>®</sup> is a unique system, in that it rates every aspect involved in the design of buildings, from the choice of the construction site, to site management, reduced consumption of drinking water, efficiency of the shell and the systems, the use of renewable energy, the use of partly recycled materials, and the quality and the comfort of the indoor environment.

## Indoor air quality

All products in the Fassa Bortolo Paint System respect the parameters established by European Union regulations and standards aimed at limiting the emission of organic compounds. They therefore comply with the provisions of Italian Legislative Decree no. 161 of 27/03/2006 (implementing Directive 2004/42/EC), identifying the maximum content of Volatile Organic Compounds (VOCs) in paints and paste coatings.

## NF certification

Most of the Gypsotech® plasterboards have obtained NF certification, a fundamental requisite for the French market. NF certification is issued by CSTB Paris, in accordance with NF certification regulation 081 specified by AFNOR, the French standards organisation. Certification is only issued following audits and sampling by CSTB, which then tests the specimens in its laboratories.

## French Label - Etiquetage sanitaire

A classification and labelling system applied to emissions of volatile organic compounds (VOCs) from construction and decoration products and indoor paints.











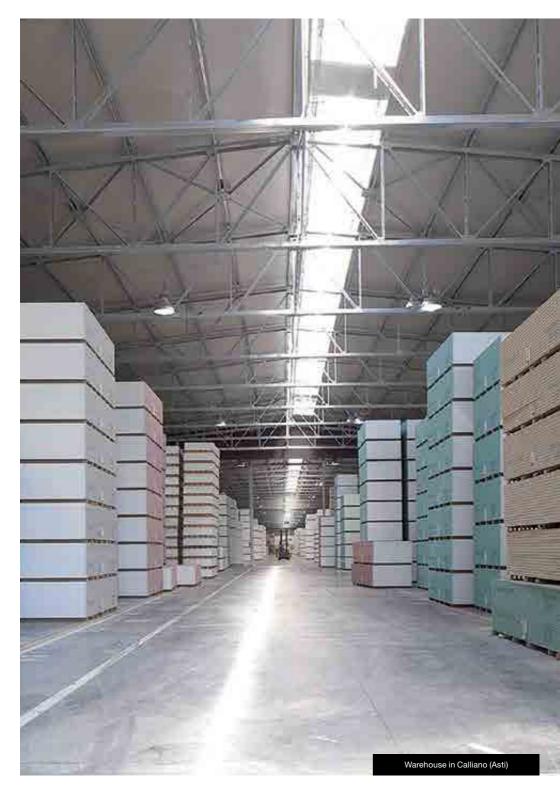




# This is where our paints are born

The Fassa Bortolo paint factory is completely automated, in every department, allowing operators to devote all of their time to quality control of the manufacturing process. This is an important guarantee for all painting professionals, who can thus count on constantly high quality products. Furthermore, the paint mixing systems available at all Fassa Bortolo sites mean every colour of paint can be created even in individual tins, allowing customers to reduce minimum order quantities down to single units while ensuring uniform colour across the same lot.





# Plasterboard. Fassa Bortolo's latest manufacturing achievement

Plasterboard represents Fassa Bortolo's latest addition to the range of products it offers the building sector. Our very high quality Gypsotech plasterboard is manufactured at the new production plant in Calliano, Asti province. A plant where the latest technology is combined with the strictest environmental regulations. The production plant has been designed down to the smallest detail, from preventive analysis on the landscape and the geomorphological context, to the colours of the buildings, agreed on with the local heritage protection agency and other authorities so as to blend in with the surrounding environment. The continuous manufacturing cycle is monitored at all times, so that each and every plasterboard is simply perfect. Following the heating stage, the gypsum is mixed with the other components, ready to become the "core" of a Gypsotech board, using special 100% recycled paper.

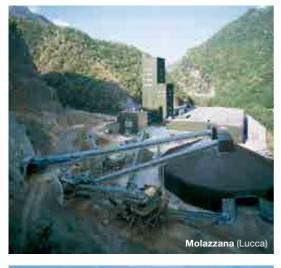


# Our production sites



Extensive local presence is Fassa Bortolo's true strength: twelve production sites in Italy, testimony to the company's constant and focused development in the country, plus one in Portugal, in Batalha near Fatima, the first important step in the internationalisation process that will see the company establish a presence on the European market. The company also has three sales offices in Italy, three in Switzerland, one in France, one in Spain and one in the United Kingdom.















## The Gypsotech plant in Calliano.

A plant in Asti province where the latest technology is combined with the strictest environmental regulations. The production plant has been designed down to the smallest detail, from preventive analysis on the landscape and the geomorphological context, to the colours of the buildings, agreed on with the local heritage protection agency and other authorities so as to blend in with the surrounding environment.

## **Production sites**

## Italy

- 1 Spresiano (Treviso)
- 2 Artena (Rome)
- 3 Mazzano (Brescia)
- 4 Ravenna
- **5** Moncalvo (Asti)
- 6 Bagnasco (Cuneo)
- 7 Molazzana (Lucca)
- 8 Popoli (Pescara)
- 9 Sala al Barro (Lecco)
- 10 Montichiari (Brescia)
- **11** Bitonto (Bari)
- 12 Calliano (Asti)

## Portugal

**13** São Mamede (Batalha)

13

## Sales offices

## Italy

- Bolzano
- 2 Altopascio (LU)
- 3 Sassuolo (MO)

## Switzerland

- 4 Mezzovico (Lugano)
- **5** Aclens
- 6 Zurich

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## France

**Spain** 1 Lyon

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## **United Kingdom**

Slough

# Ever greater resources to be ever closer to needs

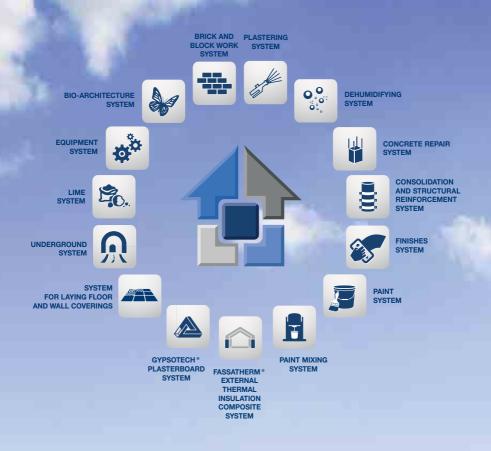
Extensive coverage is another of Fassa Bortolo's strengths. A well-developed network has always been a priority for the company, to be ever nearer the customer and guarantee a swift response.

# Integrated System

Some solutions solve problems, while others offer even more: new opportunities, scenarios that were previously only imagined. This is the added value of the Fassa Bortolo Integrated System, which provides partners an exclusive advantage: a one-stop-shop for any type of building work.

With three centuries of experience in the building sector, Fassa today offers a complete variety of solutions, which combine the reliability of traditional building materials with the new possibilities offered by plasterboard, the most effective and advanced solution to separate different environments, create new spaces, improve thermal and sound insulation, and furnish in style. Resilient, safe and certified products, the result of advanced quarrying and manufacturing processes and constant research by an expert and highly qualified team.

# integrated system





# Bio-architecture System

A system of environmentally-friendly products made from absolutely natural resources — based on hydrated lime— are used in construction of buildings for healthier living. Because underlying the Fassa Bortolo philosophy is the need to

build sites where natural life prevails, where the building itself is an integral part of the surrounding environment, where nature is cherished and preserved through the use of harmless and breathable building materials and finishes. To rediscover the balance between man and environment.





# Dehumidifying System

Whatever the type of masonry and whatever the requirements, the Fassa Dehumidifying System always offers the most appropriate solution. From the Classic line, an "historic" all-rounder, to the PuraCalce line, the best solution for nature lovers, through the Ex Novo line for restoration of historic buildings, ideal for restorations and renovations using biocompatible products, to RisanaFacile, which brings together two functions in one, revolutionising and greatly simplifying working procedures, Fassa Bortolo offers solutions that are certified, selected and thoroughly tested at the Fassa Bortolo Research Centre.





# Concrete Repair System

Fassa Bortolo has created a new line of products called GEOACTIVE, an ACTIVE and EFFECTIVE solution for repairing damaged concrete. The new GEOACTIVE line is the ideal solution for many different types of work: structural repair or cortical restoration of concrete, normal or fast setting products, thixotropic or pourable, protection of reinforcing bars, protective and waterproofing treatments. A complete range of products, guaranteed by the extensive experience of Fassa Bortolo.





# Paint System

Fassa Bortolo has always devoted special attention to its Paint System: a vast and continually evolving range of very high quality products for exteriors and interiors, able to fulfil all requirements. With a vast assortment of tints, the Paint System products use only the latest, most advanced technology to ensure best performance in terms of breathability and water repellency, aesthetic finish, longlasting protection and flexible application. Whatever your need, the Fassa Bortolo Paint System is always the right choice.



# Fassatherm® External Thermal Insulation Composite System

The Fassatherm® External Thermal Insulation Composite System (ETICS) is a true thermally-insulating coating for buildings, safely guaranteeing protection against both heat and cold, improving indoor comfort, saving on energy costs and reducing environmental impact. Fassatherm<sup>®</sup> is available in three solutions: a basic system, called Fassatherm Classic, for insulation that responds to the most common standards; a more evolved solution, called Fassatherm Plus, for greater protection; and a natural system. Fassatherm Eco, for those who are looking for an environmentally-friendly solution. The three systems then come with a vast selection of adhesives, skim coats and renders. accessories and coatings in various colours. The Fassatherm<sup>®</sup> External Thermal Insulation Composite System has obtained European Technical Approval (ETA), attesting its technical suitability for guaranteeing optimum efficiency and durability in thermal insulation applications. More than a simple product, Fassatherm<sup>®</sup> is a complete and unique system for insulating your home.





# System for Laying Floor and Wall Coverings

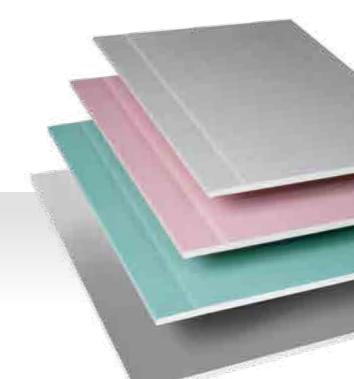
To offer building professionals a vast range of solutions for substrates, adhesives, waterproofing and grouts. The System for Laying Floor and Wall Coverings provides a solution for all possible applications, with qualitatively excellent products, selected and tested at the Fassa Bortolo Research Centre to offer installers and builders the best solution and guarantee that the work is always performed correctly and with certified quality. The adhesives in the Floor and Wall Coverings System have obtained prestigious GEV EMICODE EC1 Plus certification, a voluntary mark that certifies low volatile organic compound (VOC) emissions, while the products in the four lines respond to strict LEED<sup>®</sup> green building certification criteria (Leadership in Energy and Environmental Design).





# Plasterboard System **GYPSOTECH**°

The plasterboard market in Europe currently represents the fastestgrowing segment of the building industry, due to the numerous possible applications of this product, including DIY. Until the arrival of Fassa Bortolo, this strategic market was dominated by a small number of large continental manufacturers. The company brought to the sector its know-how in the production of gypsum, and above all its philosophy of strict environmental protection.



# integrated system

# Discover all our Systems at **www.fassabortolo.com**





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### **PRODUCTION FACILITIES**

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