

[www.alstone-ks.com](http://www.alstone-ks.com)



Precast Catalogue

## Precast Elements

Wall Single | Wall Double | Slabs | Stairs | Balconies | Retaining walls

Perfect system for construction!







More than 20 years experience, leader in the field of concrete production, design and construction **Alstone Group** starts for the first time in Kosovo with the production precast concrete elements. Building with precast elements has numerous benefits, starting with the higher quality through production in the controlled environment of a precast plant, through to the time saved at the construction site.

Connection technology also plays a fundamental role. Whether in transport or during installation of the precast concrete elements safety and reliability are paramount.

Just as important as reliable connections is the reinforcement technology in the precast concrete elements. We **Alstone Group** know the extent of our responsibility in the reinforcement and connection technology industry.

We are aware that quality and performance are decisive. This not only involves the construction project itself. It is also about ensuring the safety of all concerned on the construction site, and the subsequent occupants and visitors to the building.

We incorporate all the acquired knowledge into the further development of our products.





Precast Concrete | Single Wall chapter 1



Single Wall  
Decorative Walls  
With Thermal Insulation  
Without Thermal Insulation

Precast Concrete | Double Wall chapter 2



Double Wall  
With Thermal Insulation  
Without Thermal Insulation

Precast Concrete | Semi Panel chapter 3



Flooring Concrete Slab  
Termo Concrete Slab

Precast Concrete | Stairs & Balconies chapter 4



Stairs  
Flat Steps  
Balconies

Precast Concrete | Facade Panel chapter 5



Facade Wall Panel



Precast Concrete | Industrial Walls chapter 6



With Thermal Insulation  
Without Thermal Insulation

Precast Concrete | Retaining Walls chapter 7



L Walls  
Massive Walls  
LEGO Walls  
T Walls  
Sloping Canals and City Sewers

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Stadium  
Bridge Shoulders - Underpasses  
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Precast Concrete | Precast Houses chapter 10



Precast Houses with Double Walls  
Precast Houses with Single Walls





# Precast Catalogue

## Why Us



### Alstone | Overview

#### Why should you choose a prefabricated Wall? For faster, safer and simpler construction

By choosing a project based on prefabricated concrete elements, you will have the support and backing of our design office, to define an overall solution for: concrete walls, insulation, prefabricated tiles etc. All these will be treated at the same time to ensure the simplest possible Site Management.

The flexibility of production in our factory is such that there is no need for series production: any element is manufactured according to your request. During the production of our products are taken take into account the specific characteristics of your project. In addition, you will manage to gain a quality higher than you would have if you were concreting on site.

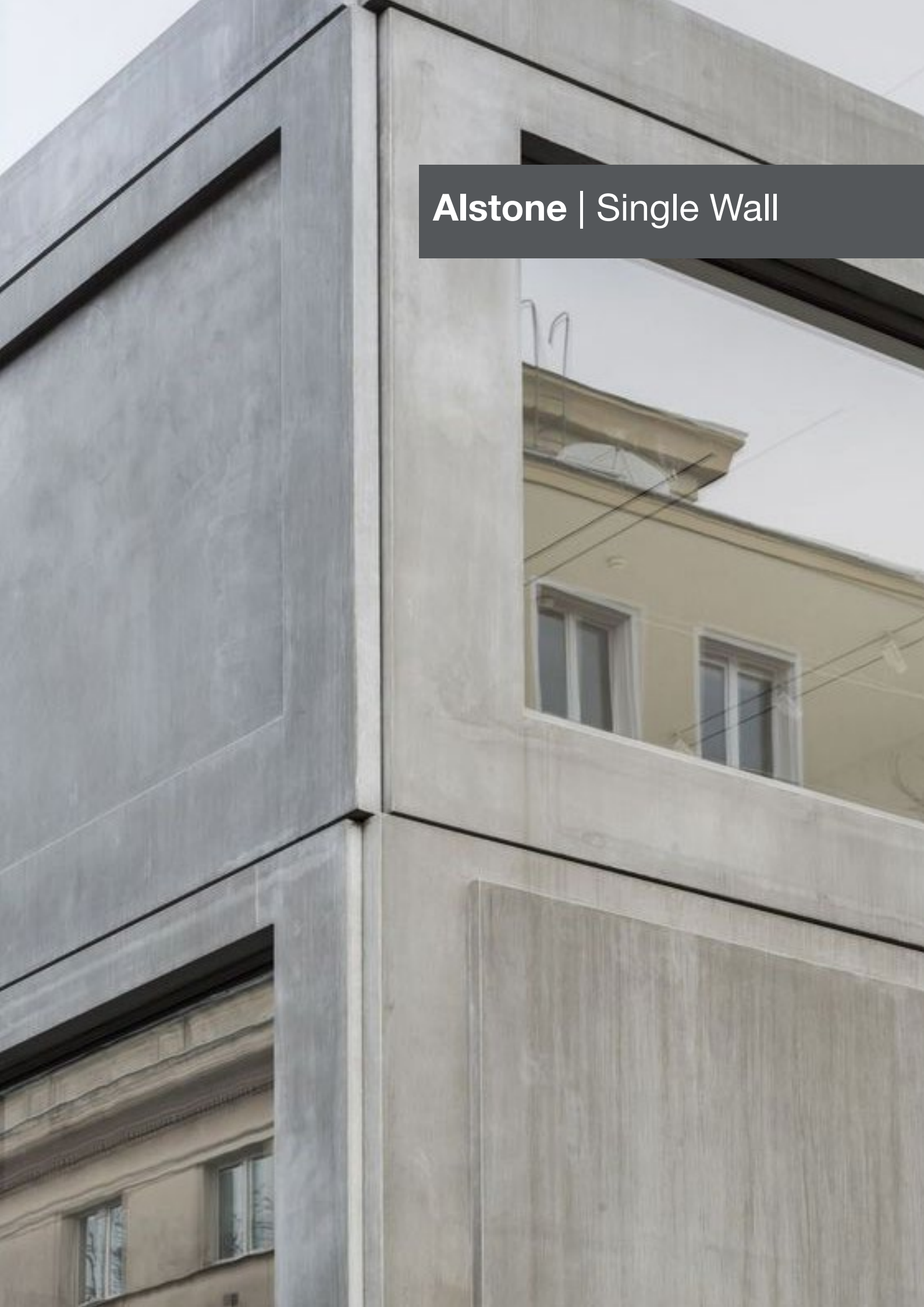
Using prefabricated elements will also allow you to reduce your construction time: thanks to the quick installation of course, but also the reduction in the number of workers required, making its much easier management by the lead contractor.

Less difficult installation work than for conventional concrete, higher safety, no emission of hazardous substances during installation and easier organization in place of construction, are all these factors that contribute to healthy working conditions for field workers. Therefore, prefabricated walls are the ideal solution, suitable for All configurations in construction site (Renovation, presence of neighboring buildings, extensions, etc.) and for sites in closed (urban environments, spots that are difficult to access).

- Shorter time*
- Easier management*
- Less heavy work*
- Suitable for all configurations*
- New constructions and renovations*







# Alstone | Single Wall

## Alstone | Single Wall

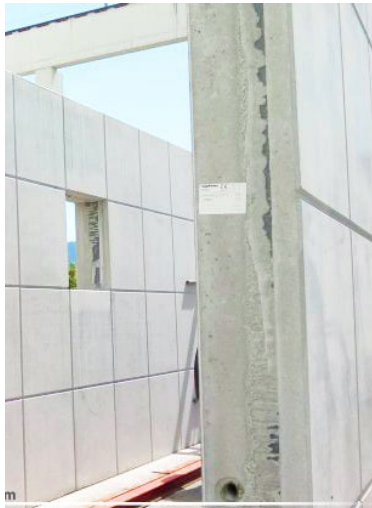
Prefabricated **non thermal** wall is a integrated wall in the mold consisting of two thin walls reinforced with iron beams and a gap in the middle for filling with ready-mixed concrete “in place”.

### TECHNICAL DATA

(NOTICE in accordance with TECHNICAL MANUALS)

Dimensions Max.	up to 10m x 4m
Wall thickness	from 16 to 50 cm
Wall thickness	from 4.5 to 7.5 cm
Concrete class	min. C 40/50
Average weight	from 280 to 350 kg / m2
Insulation	from 6cm to 20 cm: polyurethane, expanded polystyrene
concrete exposure classes;	XF1 XA3

Prefabricated **thermal** wall is an integrated wall consisting of two thin walls reinforced together and connected to each other by means of a connecting system (connectors consisting of anchors), with a layer of insulation on the outer wall making it provide external thermal insulation and a gap in the middle for filling “on site” concrete.





## Alstone | Double Wall

### Alstone | Double Wall

Prefabricated **non thermal** wall is a integrated wall in the mold consisting of two thin walls reinforced with iron beams and a gap in the middle for filling with ready-mixed concrete “in place”.

#### TECHNICAL DATA

(NOTICE in accordance with TECHNICAL MANUALS)

Dimensions Max.	up to 10 m x 4 m
Wall thickness	from 16 to 50 cm
Wall thickness	from 4.5 to 7.5 cm
Concrete class	min. C 40/50
Average weight	from 280 to 350 kg / m2
Insulation	from 6cm to 20 cm: polyurethane, expanded polystyrene
concrete exposure classes;	XF1 XA3

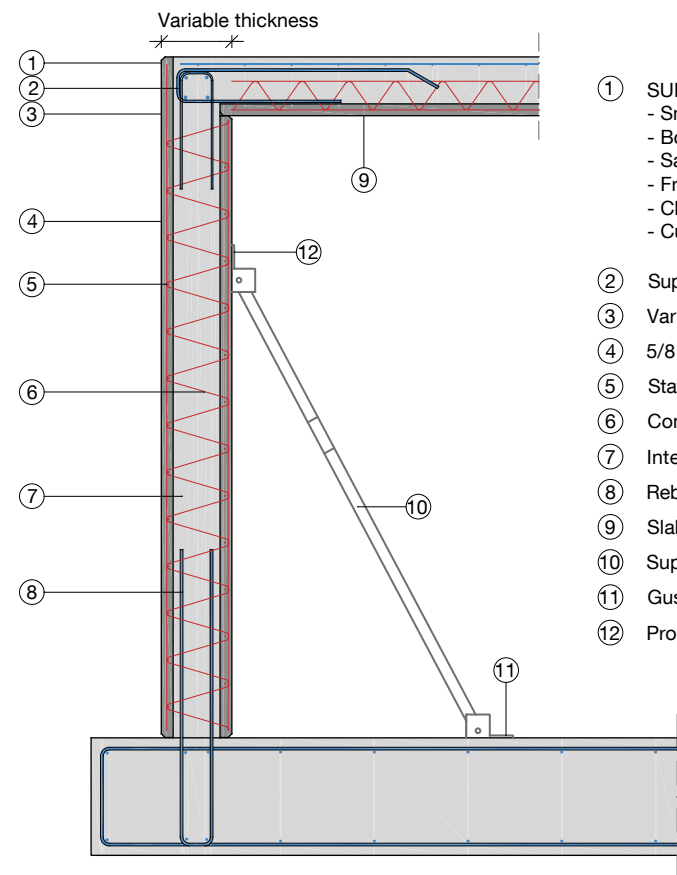
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### ADVANTAGES OF THE DOUBLE SLAB WALL:

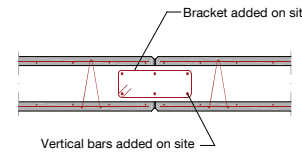
1. Elimination of carpentry works resulting in the reduction of construction costs;
2. Iron processing limited to simple foundation works as partially contained in the doubles plates;
3. Less labor in building site;
4. Order on site and elimination disarmament works;
5. Extreme lightness of the element prefab that can be handled with normal construction cranes from construction site or excavator;
6. Assembly speed;
7. Best scheduling of times construction site, unaffected by agents atmospheric;
8. Excellent degree of surface finish given the quality of the concrete prefabricated;
9. Can be tinted without the need for grouting or closing of holes;
10. Reduction of the use and costs of purchase and depreciation yard panels / timber;
11. Possibility of inserting frames for doors and windows;
12. Possibility of inserting cut-outs, pipes and conduits for plant engineering;



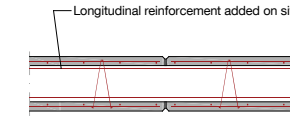
- ① SURFACE FINISH:
  - Smooth
  - Boards
  - Sandblasted
  - From rubber matrices
  - Clay brick
  - Custom silhouettes
- ② Supplementary reinforcement at the support
- ③ Variable H floor edge
- ④ 5/8 cm thick sheet
- ⑤ Static reinforcement inserted in the slab
- ⑥ Connecting truss
- ⑦ Internal casting of the double plates
- ⑧ Rebar from the foundations
- ⑨ Slab attic
- ⑩ Support
- ⑪ Gusset
- ⑫ Prop fixingx

### AMONG IN LINE PANELS:

Wall connection with closed bracket

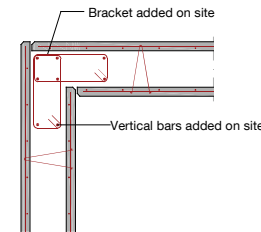


Connecting walls with longitudinal bars

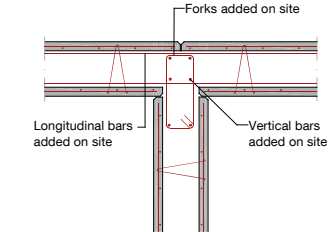


### IN THE CORNERS AND BETWEEN WALL AND WALL:

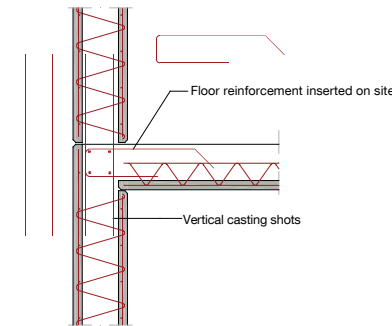
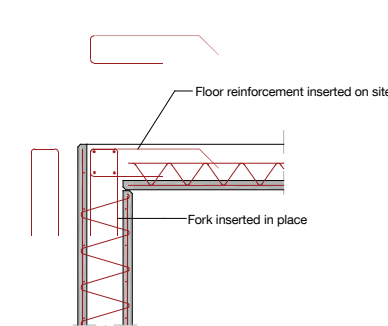
Corner knot with closed brackets



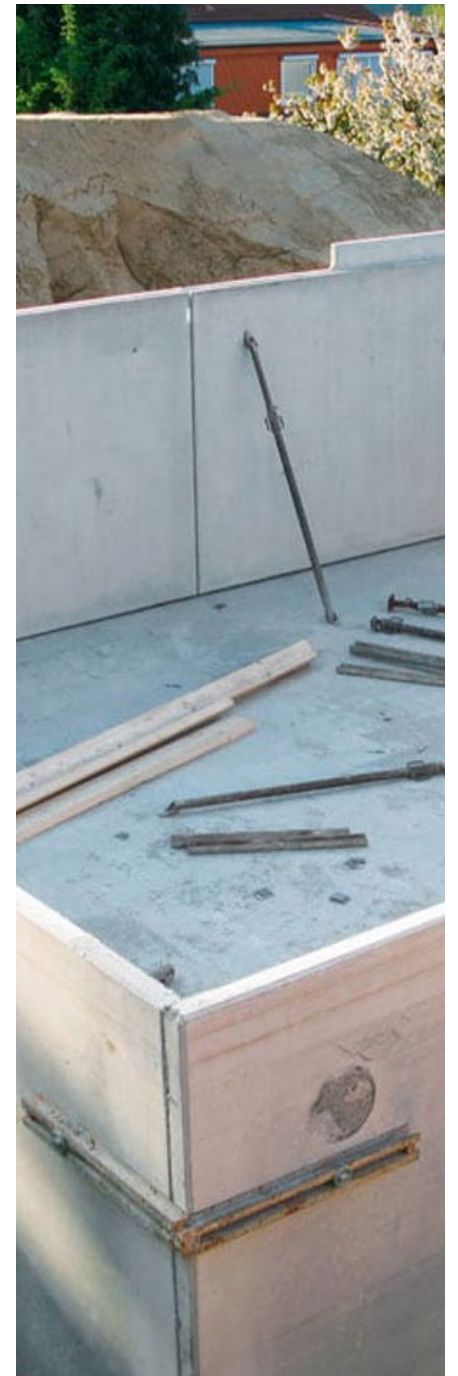
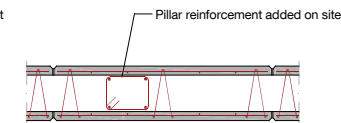
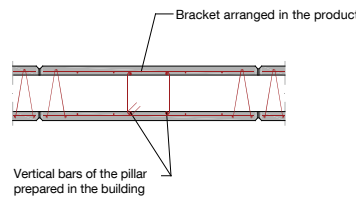
Crossing between walls with forks and running bars



### BETWEEN WALL AND FLOOR - BETWEEN FLOOR AND NEXT WALL:



### IN THE PRESENCE OF PILLARS:





## Alstone | Semi Panel

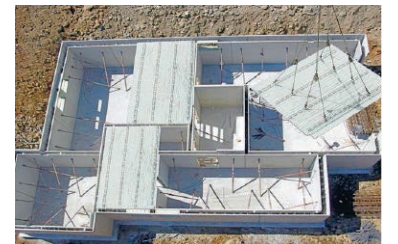
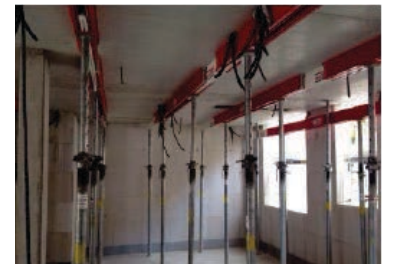
### Alstone | Semi Panel

Semi-prefabricated slabs are ideal for mezzanine constructions. They can withstand the loads of the floors of any mezzanine.

They can be produced in all forms with a thickness of 7 cm, the composition of both slab surfaces are of aesthetic and construction concrete. Semi-prefabricated slabs are reinforced with armature according to the account, reinforced with steel rods and caprice-shaped beams. The surface is flat and smooth at the bottom of them.

After placing the prefabricated tiles in the workshop, the installation of piping for various installations, and then reinforced with reinforcement according to the account in its upper part. Then the upper part of slab, where the required thickness is achieved.

Semi-prefabricated tiles perfectly convey the contour of the design, can be produced in various geometric shapes. Any space can be perfectly covered to order with semi-prefabricated tiles.





### Built-in parts

All built-in parts are pre-assembled in the right place. Provisions for electricity, sanitation, air conditioners, heating, etc. Can be built can simply be built inside.

### Stability

Wide boards from ALSTONE are professionally produced and comply with the most important standards: - optimal durability and environmental impact- and fire resistance.

The large surface area of the tiles means that there are few joints. The formed smooth side is also a base surface and suitable for facades. The end result is a monolithic rigid floor that provides good noise insulation and perfect load distribution on the floor. Wide slabs are the solution for fast, simple and durable constructions.

**Alstone** produces semi-prefabricated concrete slab by the most modern method using computer to control the production process, where the possibility of errors during production is smaller. Continuous controls guarantee high quality and flexibility during work. Permanent controls to achieve top quality is the goal.



### From transport to placement

#### Unloading

Semi-prefabricated slabs with the help of a crane are taken from the transport vehicle and immediately placed in the position where they are provided according to their placement plan. Crane hooks are caught on the diagonals (never in the corners of the plate!). The standard weight of semi-prefabricated tiles is approximately 125 kg / m 5 with a thickness of 5 cm.

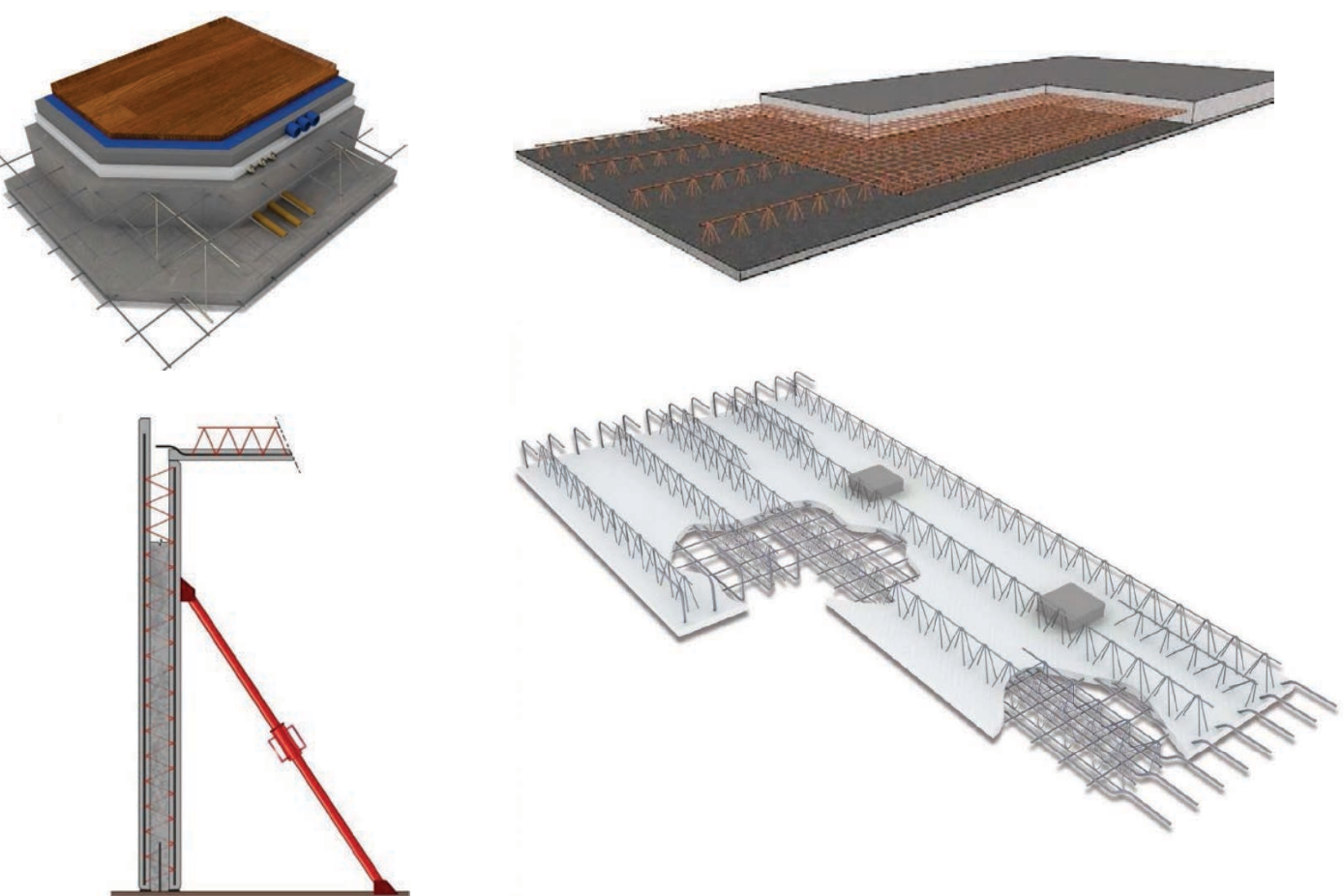
If the tiles are to be temporarily stored at the construction site, their placement should be done on a flat, stable and stable surface. To avoid damaging the flat part of the slab and the corners, the slabs rest on wooden beams, which are as long as the width of the slab. The beams are placed at a distance of 1/5 of the length of the slab rising from their angle.

#### Higher flexibility

Due to the semi-prefabricated Alstone tiles can be produced in all geometric format, you save on labor power, time and reduction of working equipment.

#### Greater stability

The thickness of the prefabricated slab as well as the thickness of the concrete placed in the work after their placement, you will concrete a rigid slab, the operating loads are distributed more evenly, it limits cracks





## Alstone | Stairs

### Alstone | Stairs

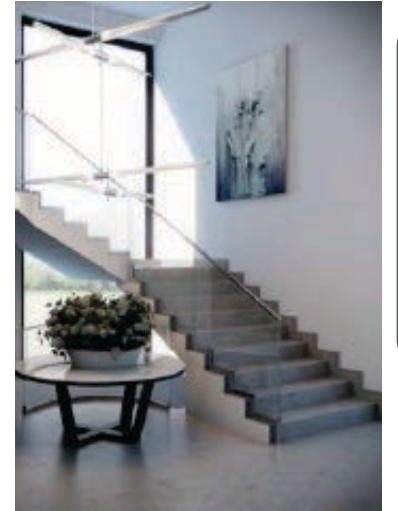
**Alstone** manufactures ladders and other conductive elements

Alstone manufactures a wide range of prefabricated concrete products. All prefabricated stairs and resorts are designed and manufactured with reinforced concrete to suit individual customer requirements. Provide secure vertical access between floors in multi-storey buildings. Prefabricated stairs can be used in a variety of projects, including residential and commercial complexes, industry sector etc.

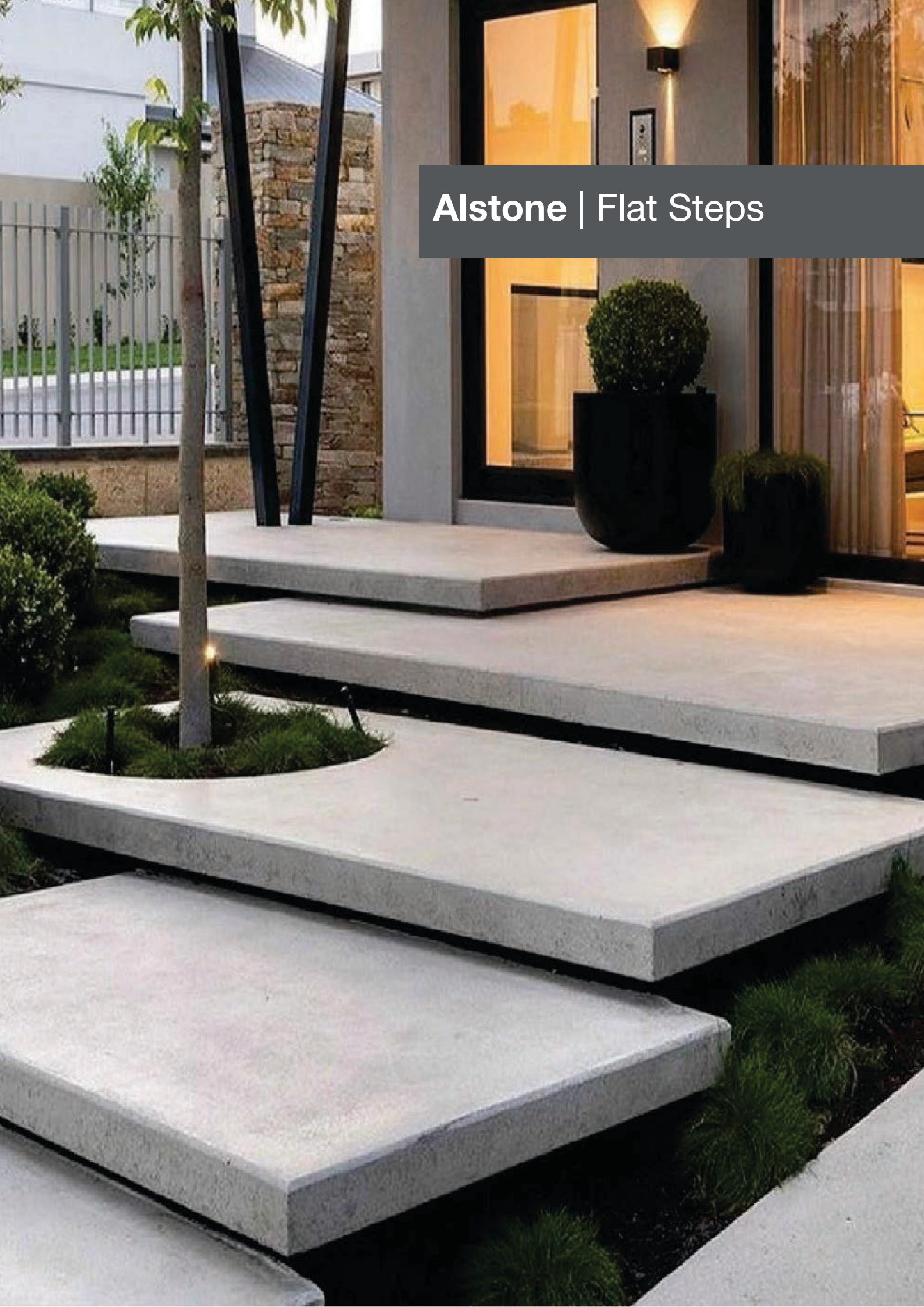
Stairwells have always represented a serious “unknown factor in construction” both in terms of timing and in terms of cost and quality. In current construction sites, few are now the operators able to carry out the tracing and construction of a staircase in an autonomous and decent way. From today with the use of prefabricated stairs e of the related rooms, on construction sites, the construction of stairwells is no longer a problem and it is not even important to have highly skilled labor.

The prefabricated stairwells of our production are composed thanks to the combined use of double-slab walls and monolithic prefabricated stairs. The flexibility of the double slab allows you to easily create custom-made walls in addition to the “pockets” and “notches” for the landing and / or ramp coupling to the wall. With the internal completion jet the double sheets are blocked at the same time walls and stair ramps / landings.

Thus a single and united body is formed.







## Alstone | Flat Steps

### Alstone | Stairs

Precast concrete steps are a staple of **Alstone** Concrete Products due to their durability, custom dimensions, and timely production process. With over 100 different size configurations, you will find the right precast concrete steps and stairs here at Shea. No matter what kind of precast concrete steps you need, we'll meet your requirements and exceed all expectations.

#### Advantages

Unlike concrete steps poured on site, our precast concrete steps are manufactured within our production plant. These hollow units are lighter, which makes them less likely to settle. We make sure the treads, risers and landings of our stairs are made as one solid piece. This means there are no mortar joints or gaps for water to seep into, unlike natural brick or stone steps.

The weight of Shea's precast concrete stairs is distributed evenly to the blocks set under each corner, which significantly minimizes movement. In those rare instances where settling does occur, precast concrete steps are easily manipulated and reset largely because of their lighter weight. The applied facings on our precast stairs are protected by a 1 1/2" overhang.





## Alstone | Balconies

### Alstone | Balconies

**Alstone** precast concrete balconies are designed by our expert in-house design team and are manufactured, delivered and installed to the highest standards. We are well equipped to design and build a range of precast balcony variations. When creating concrete floors for a project, our design team can consider precast balconies as an additional extra to the latest industry standards.

#### **Cost-effectiveness**

Our precast concrete balconies can be erected with floor units before pouring screed, saving on installation time.

Our premade balcony products are precisely made to the desired specifications. This contrasts to an on-site casting which can be inaccurate and where finishes are prone to be affected by adverse weather conditions, sometimes requiring additional remedial work.

Prefabricated concrete balconies can be erected swiftly, ensuring the project programme is maintained.

#### **Floor Safety**

Erecting precast balconies at the same time as the concrete floor gives a complete and safe working platform for follow-on trades.

#### **Design Flexibility**

Rainwater outlets can be incorporated into the concrete balcony design by our in-house design experts.

Cold bridging can be solved by implementing a thermal break system as part of the concrete balcony construction.





## Alstone | Facade

### Alstone | Facade Wall Panel

Want to give your architects free reign to build creative facades while reducing the physical footprint of fully sealed and thermally insulated facade systems, allowing you to maximize costly urban square meters? Our full facades enable architects to explore different forms, colors and textures while benefiting from the durability, watertightness, strength and mineral expression that only Alstone can provide. But it's Alstone technical properties that bring a truly sustainable dimension to your architecture.

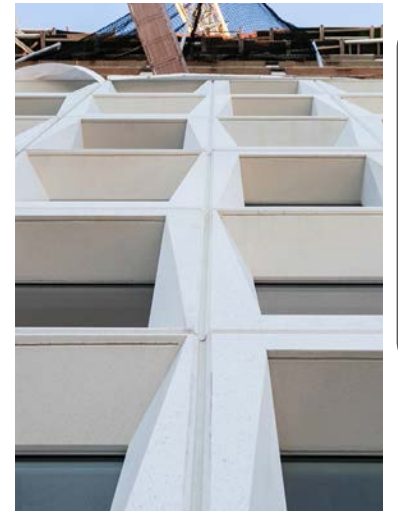
These lightweight panels offer:

**Easier manufacturing and installation on buildings covering large surface areas**

**Exceptional energy efficiency when combined with insulation systems**

**Resistance to environmental abuse, durability and low maintenance requirements ensure favorable Life Cycle Assessments (LCA)**

**Maximize floor space (square meters or footage) with our efficient solution (when compared to conventional systems that stretch 25-30 cm)**





## Alstone | Industrial Walls



### Alstone | Industrial Walls

In Europe, industrial and commercial buildings are built in precast. Reasons for this are a short construction time, a long useful life, a high safety of the construction elements and large spans that allow a flexible utilization of the building.

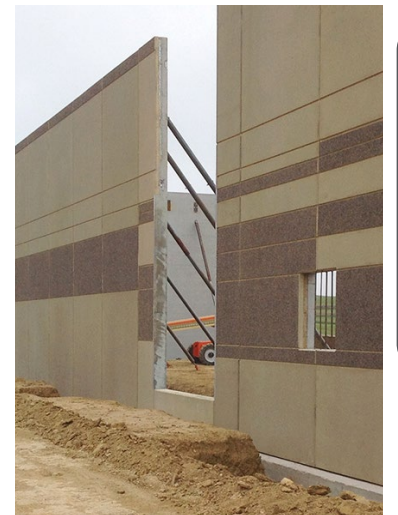
#### Short construction time and high quality due to prefabrication

The entire building is erected with precast concrete elements, starting with the foundation, the columns, beams and walls. Prefabrication is optimally suited for solid construction elements like columns and beams.

Long curing times for the concrete delay the construction progress significantly when building with in-situ concrete. In order to shorten the curing time, expensive additives need to be used. This is not necessary for precast concrete elements because they are produced in the plant and transported to the building site when they are finished.

Double slab wall placed on top to a finished floor on building industrial where there was the need for divide two departments / work areas.

- Quick
- Easy
- Clean
- No use of equipment
- No reinforcement panels







# Industrial Walls



Already been around the block on traditional construction methods? Quick to install, ergonomic, fully adaptable: the Precast wall prefabricated wall is the high-tech alternative you have been waiting for.

The most advanced prefabricated concrete wall in the world consisting of two thin reinforced concrete shells, joined and separated by metal wales, the Precast wall precast wall integrates its own custom formwork for maximum ease of installation.

ALSTONE commitment is to guarantee you exceptional manufacturing standards on all our products and all our ranges.

Continuous quality-control during the production process, custom-made products, reliability of mechanical performance, systematic inspection of finishing, timely delivery...

Our Precast wall products are no exception: they meet the most demanding quality standards in the industry.





## Alstone | Retaining Walls

### Alstone | Retaining Walls

We have been manufacturing specialist bespoke precast concrete retaining walls for a range of clients across sectors including residential and commercial construction, rail, agriculture, industrial and waste management. Use our retaining walls over a variety of specifications including; soil retention, storage, cladding, security and landscaping. They achieve this due to the fact they form both retaining and containing structures.

- Ideal for soil retention, storage, cladding, security and landscaping
- Available in varying heights, widths and loading surcharges to suit your project specifications
- Designed in-house to relevant Euro standards
- Manufactured in a controlled off-site factory environment

Hanson precast concrete panels are an economical, aesthetically pleasing and durable solution for highway, residential and commercial applications. We can provide walls in the following sizes:

**T walls - W- 1-3m, H- 1-2m**

**L walls - W- 1m, H- 1-3m**

**Lego - W- 1m, H- 0.5m, Th-0.5**

The range of barrier panels accommodates for a change in grade or to fill holdbacks. Our concrete panels don't require footings; the weight of the dirt anchors the panels in place.







# Retaining Walls



## Decorative & Architectural Finishes

If your retaining wall requires a more aesthetical or decorative appearance, the modular precast concrete retaining walls, have the option of adding a decorative RECKLI pattern to the external face of the wall.

The modular retaining walls are also manufactured with tongue and groove interlocking system and chamfered edges. The units can also be painted with masonry paint once installed, to achieve a contemporary look.

## Precast Concrete Installation

In addition to the design and supply of precast retaining walls, we also offer a full construction and precast installation service. Our dedicated contracts team are capable of delivering complex retaining wall construction, our services include:

- Site Surveys
- Foundation Design
- Construction Drawings
- Foundation Construction
- Precast Installation
- Joint Sealing



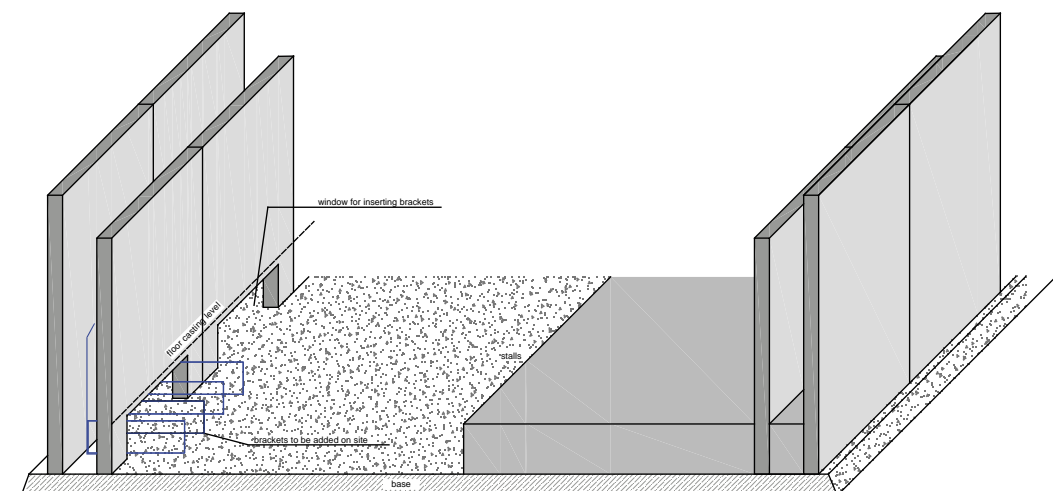
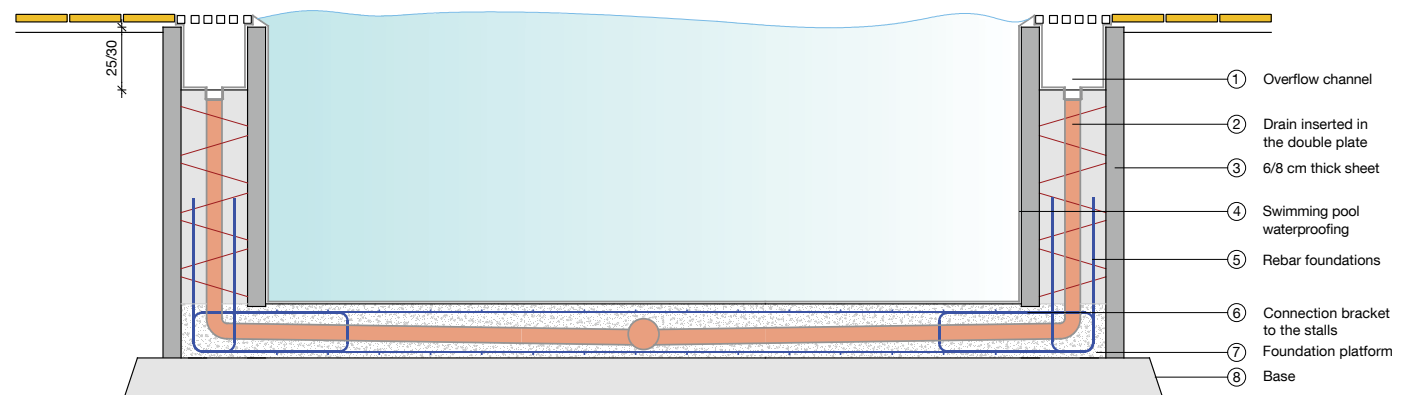


## Alstone | Pool

### Alstone | Pool

Building a swimming pool with the use of double slab walls offers Multiple Advantages:

1. Maximum simplicity in pipe management thanks to possibility of being able to operate inside the walls and inside to the foundation slab, before the additional casting.
2. Simplicity of construction of the perimeter collection channel of the overflow water which is then conveyed through the pipes pre-inserted in the double plates to the compensation tank and to the pumps; from the practical side it is enough to throw less internally to double sheets and the channel is automatically obtained.
3. Speed of construction and No labor required specialized;
4. No construction crane is needed for handling panels and / or construction site tools;
5. Ease of assembly thanks to careful design both of the concrete parts and of the parts hydraulic;
6. Ability to manage multiple levels;
7. Possibility to manage curvilinear modules.
8. They are much cheaper than pools built in operates with traditional method.
9. Possibility to customize the thickness of the walls with maximum simplicity being able to make walls from 20 to 50 cm., a depending on how high the perimeter duct is to be enlarged overflow.





## Alstone | Garage

### Alstone | Garage

Outdoor facilities / garages: There is a huge selection of prefabricated garages, on the one hand as prefabricated steel garages and also as prefabricated concrete garages. Whereby the word prefabricated garage implements that you get an already completed garage. This is also the case. However, similar to the prefabricated house, the customer today has considerable influence on the individual planning and the realization of his requirements with regard to the attractiveness of his garage with the prefabricated garage.

Weather-independent production Seamless reinforced concrete construction made from one piece Punctual delivery through forward-looking scheduling (fixed date) Complete garage production from a single source, only one contact person Up to 15% more space than with a brick garage Fast and uncomplicated assembly Fixed price can be agreed in good time Around 30 percent cheaper than a brick garage Location change possible.





## Alstone | Stadium

### Alstone | Stadium

#### Precast Concrete Stadiums

We design stadium walkways for optimal spectator movement in between and at the bottom of the terracing. Milbank design, manufacture and supply concrete walkways along with balconies, balcony walls and a variety of other specialist units made-to-order for areas such as disabled access and seating, to be installed at the same time as the other terracing elements. These units are often one-off shapes and sizes which our manufacturing facility can easily produce to your requirements.

Additionally, outside of the sporting sector, our precast concrete framed structures comprising of terracing units, beams, columns, walls, floors, stairs and other elements can be used for a wide variety of applications including multi-storey car parks, multi-screen cinemas, retail and leisure developments, offices, schools, hospitals, hotels, student accommodation and residential blocks.



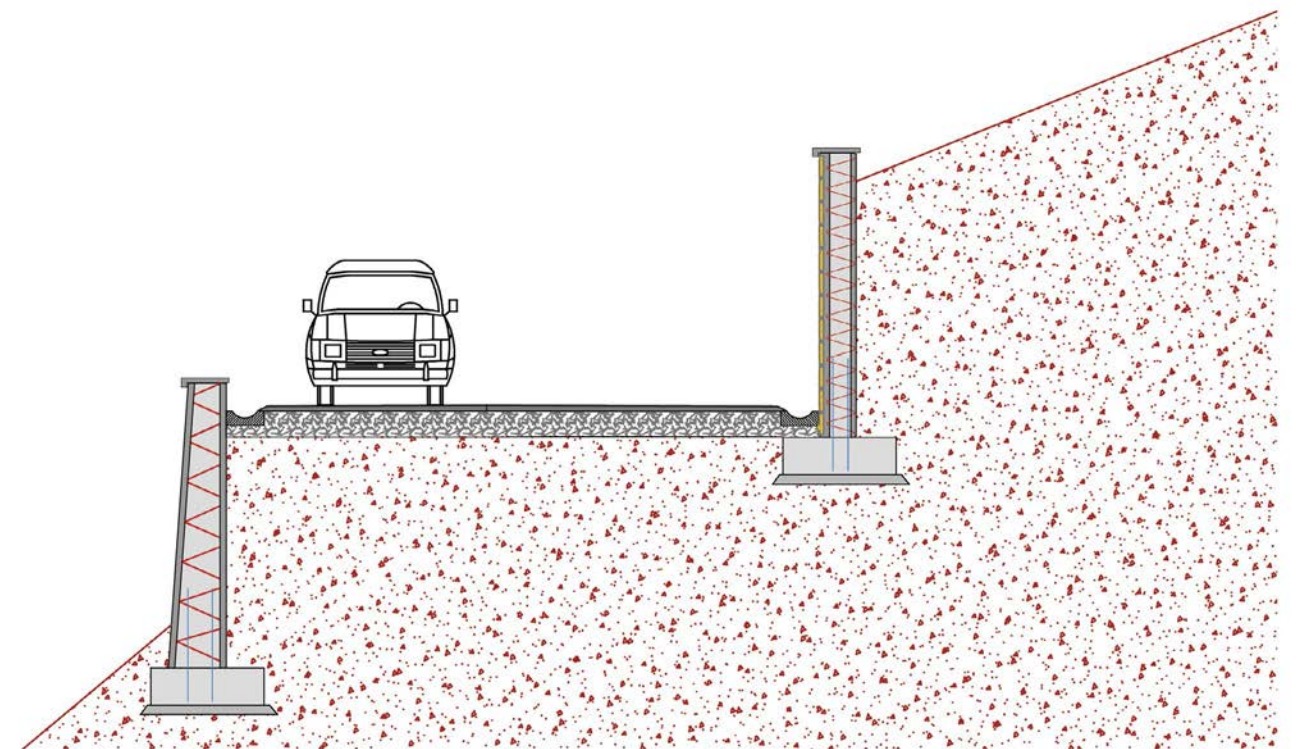


## Alstone | Bridge Shoulders

### Alstone | Bridge Shoulders - Underpasses

Underpass made with double slab walls.

Prestressed system in precast concrete increases effectiveness and efficiency in cost and time in bridge and flyover construction. As one of the pioneering manufacturers of concrete girder in Kosovo, Alstone can produce concrete bridge girder with various cross section profile, as per customer requirement.





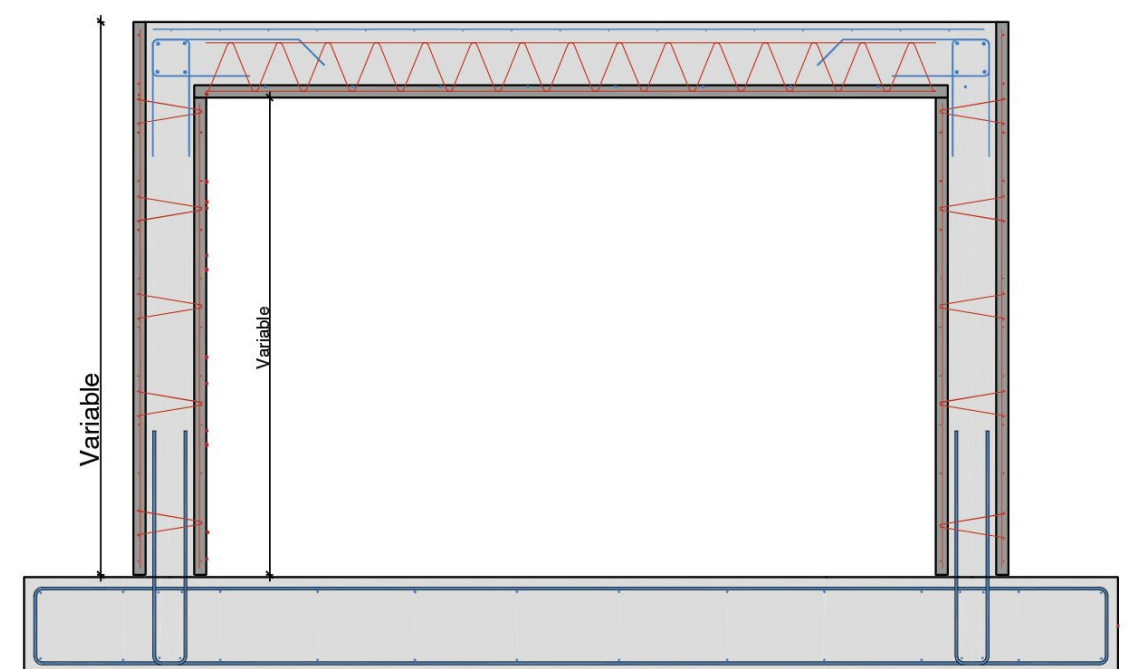
## Alstone | Tunnels

### Alstone | Tunnels for Subservices

Alstone produces Slab Walls Tunnels for Subservices. The tunnel is a structure/tunnel that allows water to flow under a road, railroad, trail, or similar obstruction from one to the other side. The Tunnel can also be used as a longer artificially buried watercourse. Alstone tunnels are produced using the Dry-cast as well as the Wet-cast method. This means the concrete is either damp (near to dry) or wet and fluid when poured in the mould. Both methods have unique benefits, like time to delivery, strength and efficiency. Besides these characteristics, we also take requirements regarding the superimposed load and matching reinforcement into account.



Cross Section Tunnels / Box





## Alstone | Precast channels

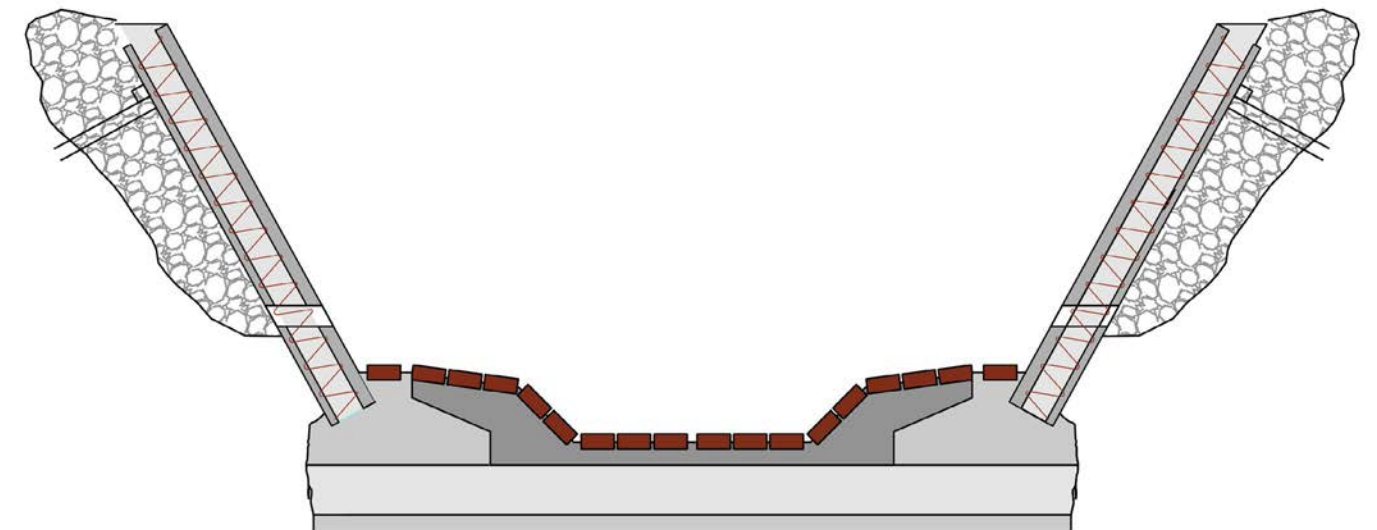
### Alstone | Precast channels

Precast concrete channels are cast with a smooth, class A, mould finish, which allows slurry and other liquids to flow freely. Manufactured under factory-controlled conditions and delivered to site ready for installation, precast channels are a fast alternative to site poured bases and side walls.

#### Precast Channel Installation

Concrete channels should be installed onto a suitable foundation. The type and size of this will vary depending on the ground bearing capacity and the loads that will be applied to the channel.

For situations when vehicles will be driven over the channels and channel covers, it is likely that a reinforced concrete foundation will be required under the precast units to adequately support them when under load.





## Alstone | Tanks for Rain

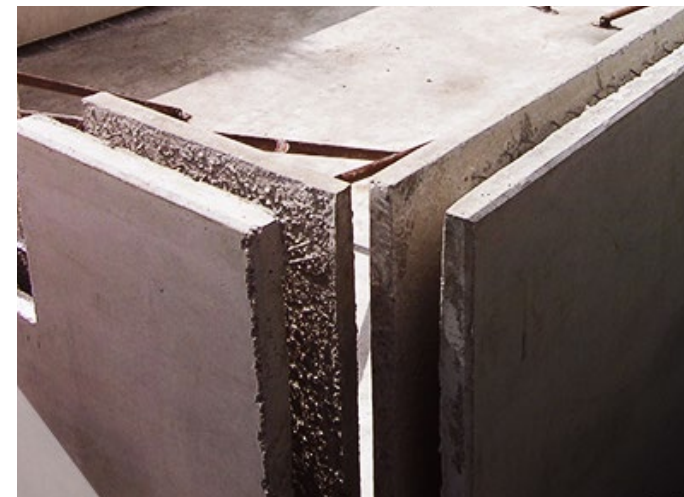
### Alstone | Tanks before Rain

Water management has become today one of the primary objectives to protect the environment and receiving water bodies.

Temporary accumulation of the waters of first rain, in prefabricated tanks, has the objective of reducing e attenuate the spikes of flood caused by the rains “ water bombs “, to be then slowly release in the following hours.

We make tanks a measure with the system of double plate patrets, in how much these allow dimensional flexibility, scope, location, various forms, and simplicity executive.

Underground tank for sewage collection, made with double slab walls with module 250 cm. and thickness 35 cm. (5 + 25 + 5)





## Alstone | Precast Houses

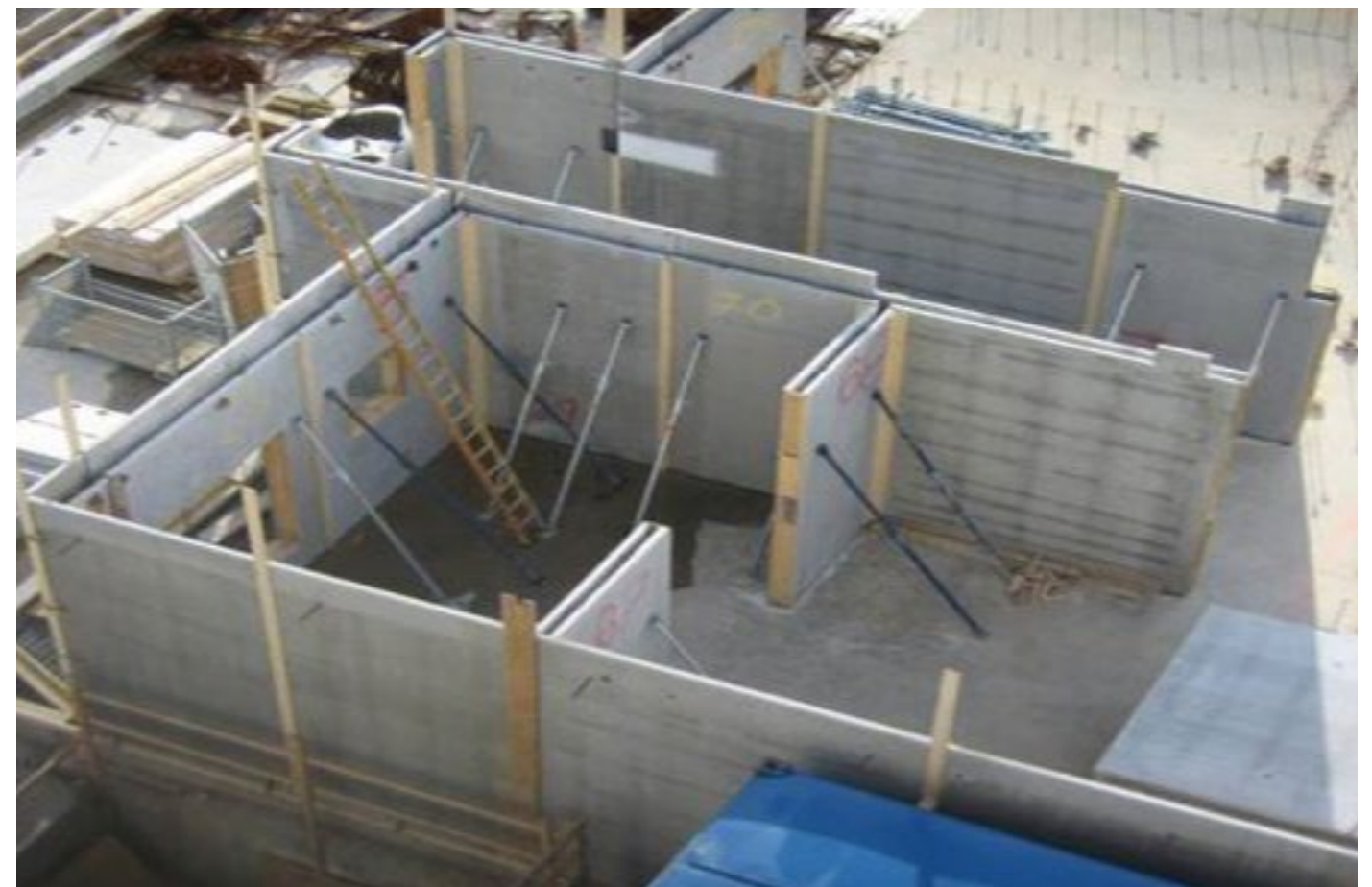
### Alstone | Precast Houses

The external walling panels are manufactured in a quality-controlled factory environment. These are manufactured to exact customer requirements with all electrical and plumbing services cast into the panel. The thermo-panel is significantly lighter than standard dense concrete. This allows the panel to be transported to the site and placed in under an hour. Panels are then fixed together and, depending on the type of roofing required, gable-ends can be added. The structure can accept any standard roofing system.

No wind, water, weather, or temperature variations are able to get to the concrete during its creation, meaning that possible design flaws present in other types of concrete are rendered impossible. This guaranteed strength also makes it the perfect building material for homes.

Precast concrete also gives the construction team the ability to finish the project more rapidly than if the structure were being built on-site from traditional building materials. The precast home is able to be placed into a mold and then later delivered to the site where it is placed in the proper location and adequately sealed into the foundation space. The overall structural safety of houses is also greatly improved when using precast concrete.

Alstone Precast Houses can be in two variation with single walls and with double walls.





## Alstone | Precast Hauses

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**Alstone Prefabricated Houses** are not only a home but also a contemporary, technological and healthy life style. Our prefabricated houses produced with cutting edge technology are preferred based on such facts that they are affordable and have long service life and low maintenance cost. We've been carrying on our activities inland and abroad either unique projects specific to individuals or collective housing projects. Our vision is not only manufacturing houses but also offering a new life style.

#### • Advantages of Prefabricated Houses

- Prefabricated houses are flexible and light structures and resistant to earthquakes and all kinds of natural conditions.
- Necessary structural and thermal insulation calculations are carried out depending on the climatic conditions of the region where prefabricated house will be located.
- Prefabricated houses can be designed according to the required architectural conditions.
- Construction costs of prefabricated houses are more economic than concrete and other buildings.
- Manufacturing and installation times of prefabricated houses are short.
- Maintenance costs of prefabricated houses are low.
- Prefabricated houses can be disassembled and moved to another place whenever you wish.
- Facade cladding material used in the prefabricated houses is A1 class fireproof, water-resistant and have no substance hazardous to environment and human health.
- Decorative works introducing wood pattern, stone and brick texture to facade cladding can be performed.







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