

Sustainable Inventions for Building Future



Advocating
Advanced Technologies
in Construction Industry

Superior Quality

Cost-effective

Speedy Execution

Better Results



**WE ARE A
GREEN PRODUCT**

Advantages of Precast Technology

Precast Technology

The rapid growth and development of urban centers today call for shorter time lines and reduced cost in the construction sector proven technologies ensuring the highest standards, and uniformity in quality. These are the need of hour that is now effectively met by precast technology.

The process that precast technology uses involve casting concrete in a reusable mould, which is then cured and transported to the construction site where it is lifted into place. The precise casting of concrete under controlled circumstances ensures adherence to the highest international standards of safety and production. The conventional method requires the pouring of standard concrete into specific forms on-site and lacks the requisite levels of quality control that precast technology ensures.

Precast technology is here to stay.

Quality

Precast technology, by virtue of the process of casting under controlled circumstances, adheres to the highest standards of quality control. Production in a precast plant ensures effective curing and monitoring, unlike on-site pouring, which is affected by factors like dust, humidity, fluctuating temperatures, unreliable material, quality and workmanship.

Cost-effective

Precast concrete reinforces the quality of construction and extends the life span of a building. Research has proven that precast elements can ensure more than a 100 year life cycle thereby reducing the life cycle costs of projects. With long spans, columns, and beams, requirements are minimized which minimize costs. With hollow core pre-stressed elements, structure weight will be reduced, thus economizes foundation requirement and costs.

Speed and Strength

Concrete elements arrived just in time for erection can be erected directly. The time required on rod bending, form work, concrete pouring can be saved. A single precast floor slab covering an area of 10 sq-m can be laid in minutes. Depending on size and site conditions, flooring for a number of units can be laid in a single day.

Long life and Low maintenance

Research has proven that precast elements can ensure more than a 100 year life cycle thereby reducing the life cycle cost of projects. Precast technology maintains uniform quality, eliminates problem of leakage and cracks, and reduces maintenance costs.

Weather and Fire resistant

Precast concrete is an all-weather construction material, which is equally effective in regions with freezing or scorching temperatures. It is also non-combustible, does not melt, and therefore, does not require additional fire proofing applications.

Water tight

Cement mortar used with Non Shrink chemicals make precast structure water tight.

Energy efficient and Green buildings

The thermal mass of Pre cast Concrete absorbs and releases heat slowly shifting air-conditioning and heating loads to smaller more efficient heating ventilation and air-conditioning solutions. The result savings are significant up to 30% on heating and cooling costs.

Easy installation

Precast concrete products are transported in final form and ready to install on-site and eliminate the need for machinery and man power normally required for pouring concrete, handling, and installing. Installation is quick and accurate, making the process more efficient and effective.

Flexible designs and Long spans

Precast concrete allows designer to create longer spans using less material that is concrete and steel than conventional design. A typical 300 mm Hollow core Slab can cover a span of 16 m without intermediate columns and beams.

Acoustic Performance

High thermal mass of Precast combined with sound insulation to reduces noise and provides an effective sound barrier between roads and urban noises.

Hollow core Slab Act as Ducting system

Hollow core Slabs can be used as ducting system to channel air around the building and longitudinal ducts in floor increase effectiveness of building mass as energy store and serve as heat exchangers as rooms and spaces have different temperatures.

About PRECA

With a firm conviction in the innovative and dynamic qualities of precast elements, Preca's efforts to bring proven technology and methods of construction to the Real Estate and infrastructure sectors, among others, are well underway. Team having successfully executed large-scale projects world wide, including Israel, Gulf region and Africa, Preca is now poised on the threshold of a golden age in Indian construction industry.

Backed by the biggest precast equipment manufacturer in Europe, Preca is now geared to bring about change with precast technology from Europe, Israel, and Gulf region to Indian industry. Firmly established as a specialist in its area of expertise, Preca is to make a difference in the development of various segments, such as commercial and retail, residential, hospitality, industrial, and warehousing.

Our Turnkey offering

Precast's contribution and involvement extends to the adoption of a complete service model offering turnkey services from design to installation on-site.

Enquire

Evaluate preliminary design for the most efficient solution to suit the needs

Engineering and Design

Study engineering to arrive at effective structural designs and quantities

Production

Manufacture under rigorous quality standards as per schedules

Delivery

Undertake on-site delivery as per erection schedule

Erection

Carry out complete erection of precast elements, including grouting



Buildings | Urban Infrastructure | Industrial and Warehouse | Stadiums



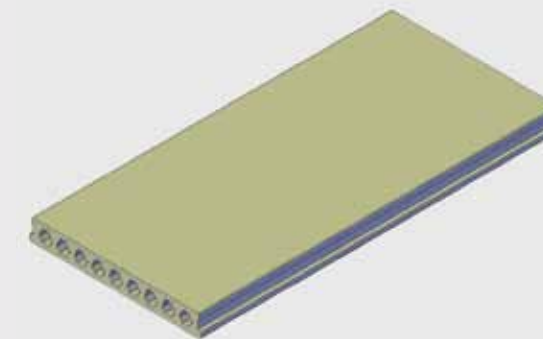
Wall panel



Function
Wide variety of wall panels can be used in Residential, Commercial, Educational, and Office buildings. These walls can be used as Load bearing walls, internal walls, Cladding walls, Retaining walls, Lift shafts, and Boundary walls. Easy-to-maintain Architectural requirements in elevation. Wide variety of finishes can be produced according to requirement of the project.

PRECA Advantage
No form work is required to install and the process is faster. Factory controlled production helps in achieving better quality. Any size and shape of panels can be produced according to design requirement. It reduces construction time and maintenance cost. Services conduits can be concealed while casting as per MEP requirement. Logos and pictures can be embedded while casting as per requirement.

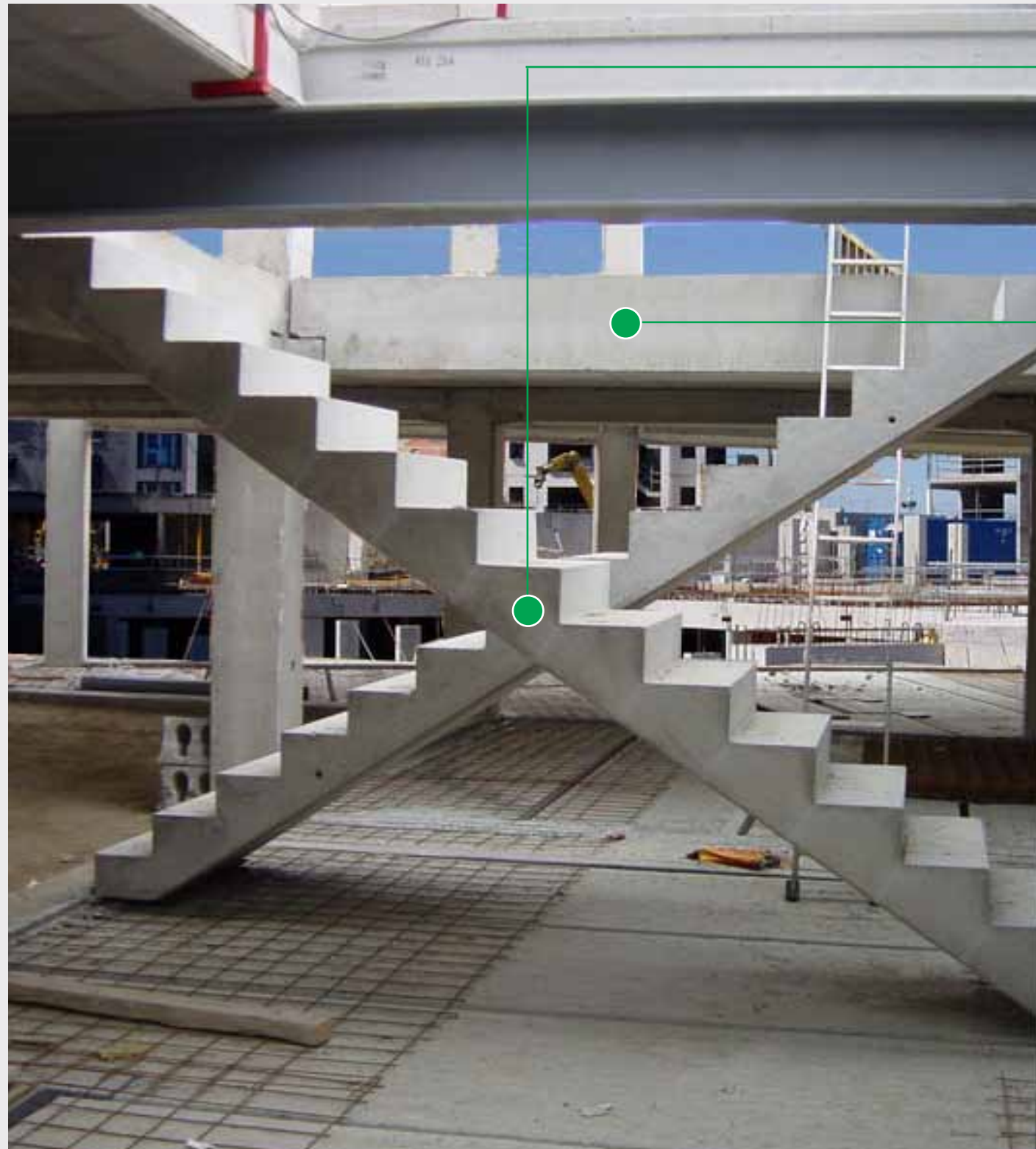
Hollow – Core Slabs



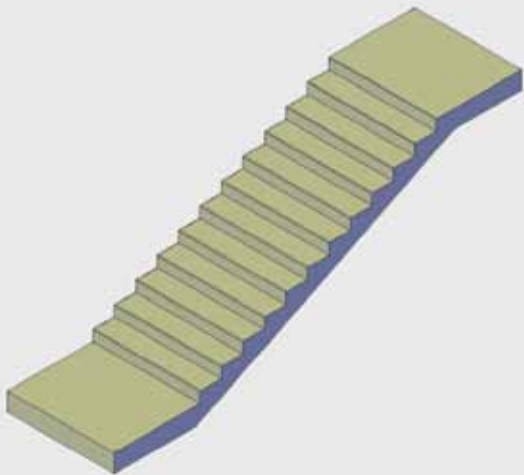
Function
They are available in standard width of 1200 mm and depths ranging from 150 to 300 mm. Ideal for all types of construction. Incredible speeds and high efficiency in completion of floor slabs and are 30% lighter than conventional slabs covering long spans. The prestressed 300mm thick slab can span up to 16 m without intermediate beams and columns.

PRECA Advantage
Offers instant dry working surface and totally eliminates gangs of manpower and shuttering works at site. A typical 10 square metre area of building can be completed in a minute, resulting in substantial savings on the foundation cost. Services like ducting and piping can easily be suspended on these slabs. Superior finish totally eliminates plastering at bottom of the slab.

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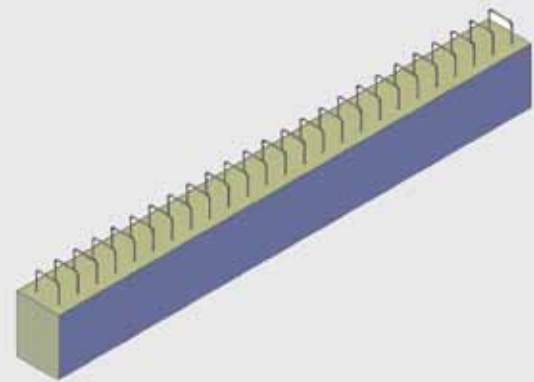
Stairs



Function
Most efficient and professional method of building stair cases in today's modern construction method. Eliminates expensive on-site scaffolding and shuttering. Ideal for Commercial, Residential, Shopping malls, Metro stations, etc.

PRECA Advantage
Unobstructed and safe access to building during construction time. Fast and easy to install. It can be utilized immediately after erection. Eliminates plastering and finishes.

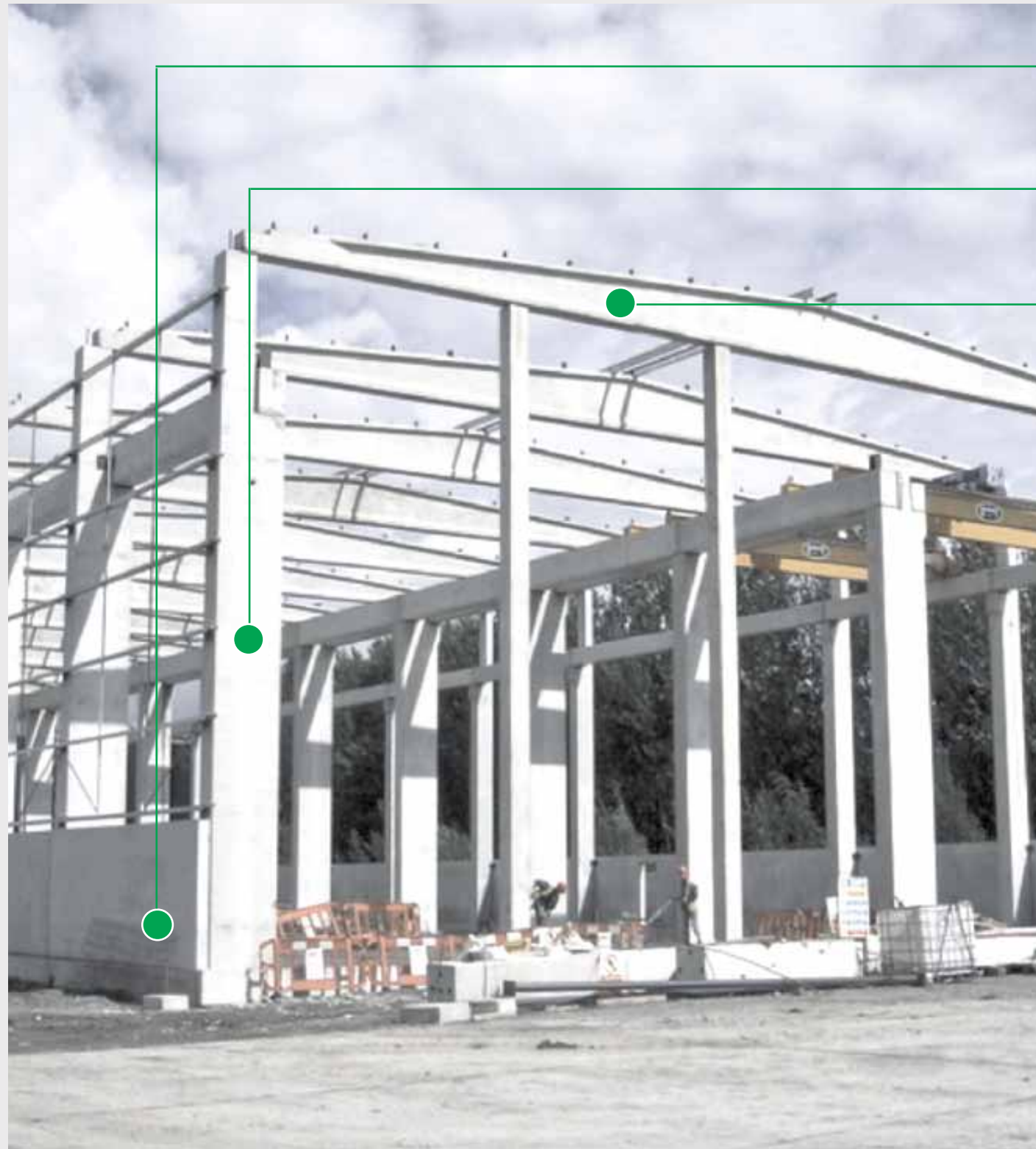
Beam



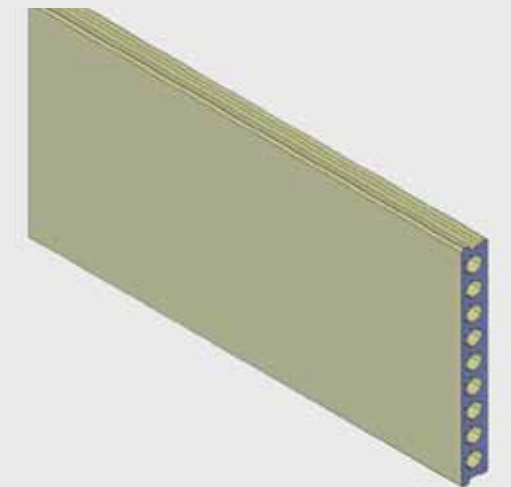
Function
They are capable of spanning greater distance at required depths. Beams can be cast either precast or prestressed as per the design requirement. It covers wide spectrum with multitude of applications, e.g., Spine, Edge, Balcony, Ideal for Commercial, Residential, Shopping malls bridges, Pedestrian bridges, etc.

PRECA Advantage
Reduction in size of beam and reinforcement because of higher grades of concrete. Factory-controlled quality casting ensures Smooth finish totally eliminating plastering and shuttering works at site.

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Hollow-core wall



Function
They are of standard width 1200 mm and depths ranging from 150 to 300 mm. Ideal for all types of construction requiring speed and efficiency. These walls are Light weight and cover long spans.

PRECA Advantage
Offers instant dry working surface and hardly requires manpower. No need for shuttering, plastering works at site.

Column



Function
Standard offerings are Rectangular and Circular with various finishes and sizes. Columns of wide variety, including lengths and shapes can also be offered according Customer requirements.

PRECA Advantage
Saving on cost and time as scaffolding and shuttering is eliminated. Production in factory controlled environment, better quality than In situ. Monolithic casting can be done for longer length.

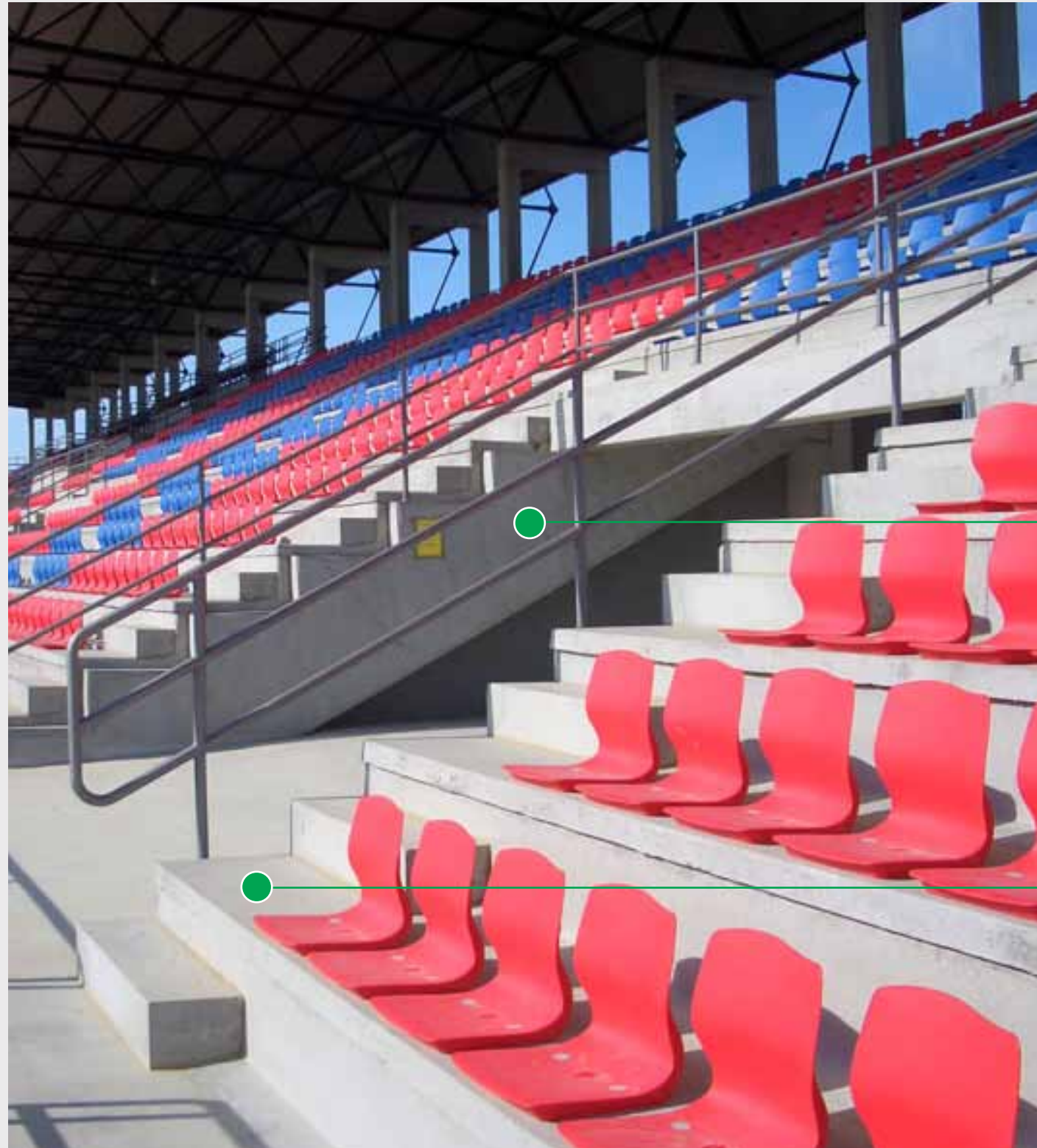
Precast Girder Beam



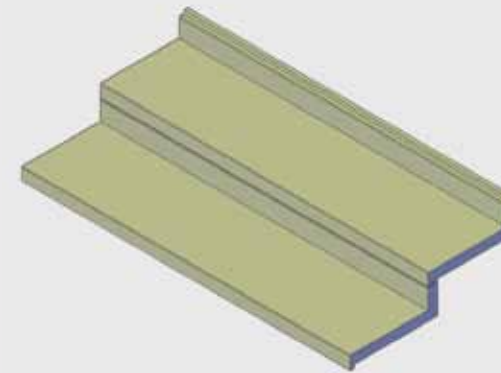
Function
They are capable of spanning greater distance at required depths. Cover wide spectrum with multitude of applications. Ideal for Commercial, Bridges, Pedestrian bridges, etc. Wide variety of sizes and shapes are available based on requirement of project.

PRECA Advantage
Reduction in size of beam and reinforcement using higher grades of concrete. Totally eliminates the shuttering and plastering works at site.

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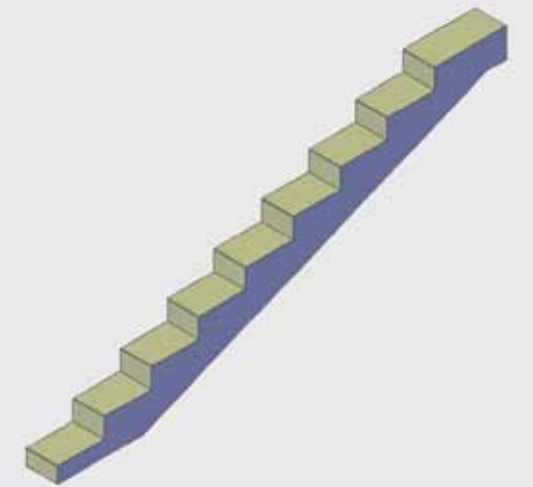
Stadium Seating



Function
They are capable of covering long spans. Ideal for stadiums, view galleries, cineplexes, etc. Cover wide spectrum of finishes based on specific project requirement.

PRECA Advantage
Reduction in size and reinforcement because of higher grade of concrete. The top surfaces are very Smooth with highly accurate levels for fixing of external seating arrangement.

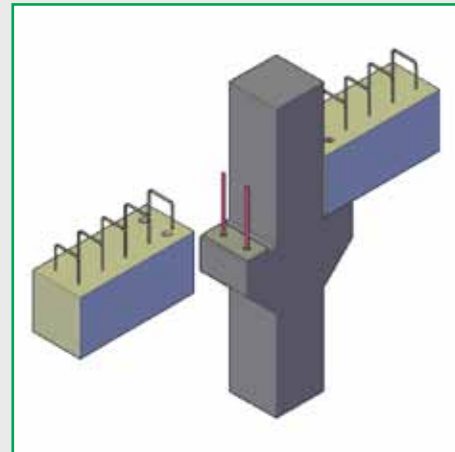
Support Beams



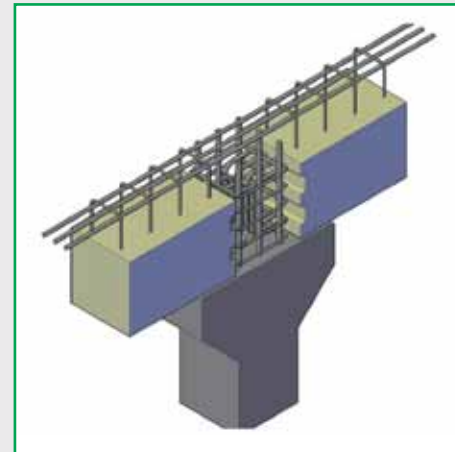
Function
They are capable of spanning greater distance at required depths. Cover wide spectrum with multitude of applications, e.g., Spine, Edge, Balcony, Ideal for Commercial, Bridges, Pedestrian bridges etc.

PRECA Advantage
Reduction in size of beam and reinforcement because of higher grades of concrete eliminates the shuttering and plastering works.

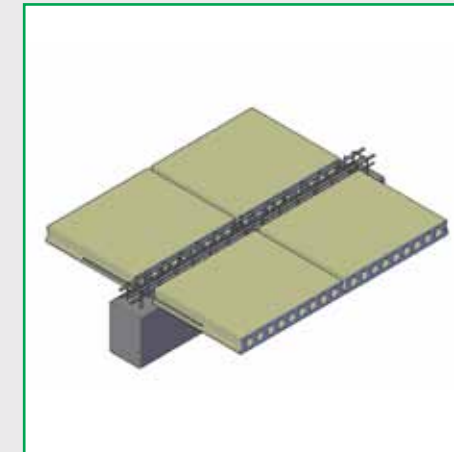
Connection Methodology



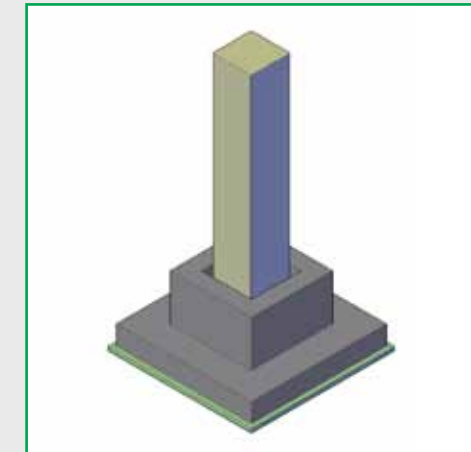
Column to Beam



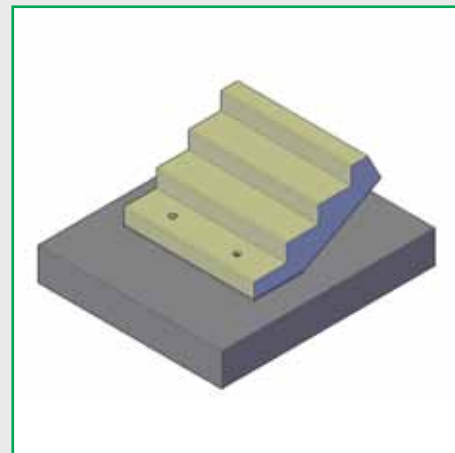
Column to Beam



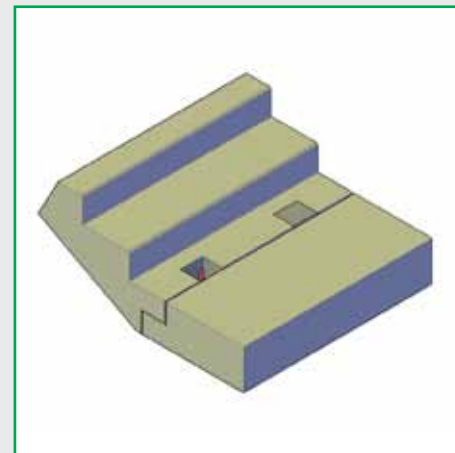
Beam to Hollow Core Slab



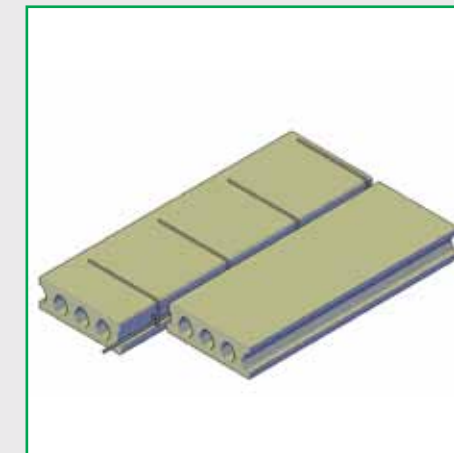
Pocket footing to Column



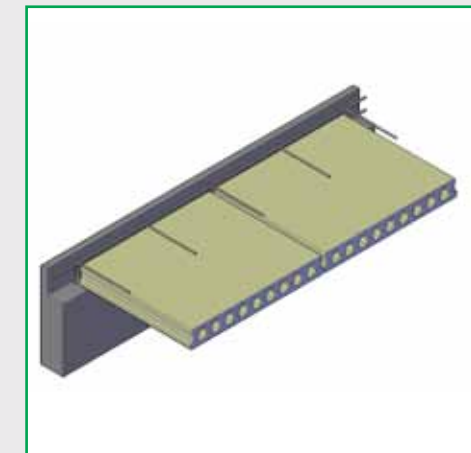
Grade slab to precast stair



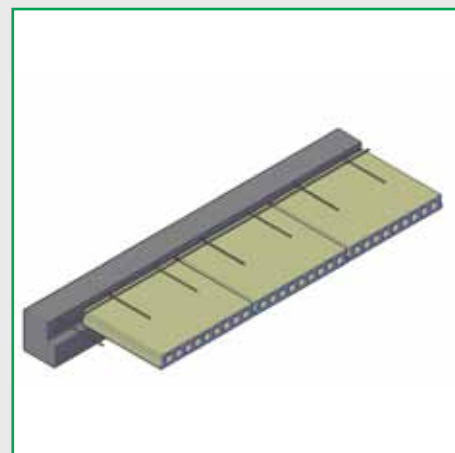
Stair flight to Landing slab



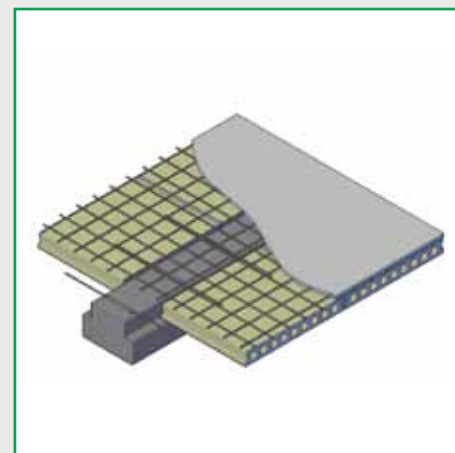
HCS to HCS slab for Diaphragm



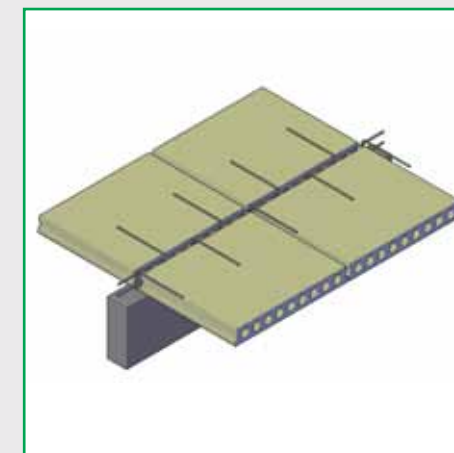
Wall panel to Hollow Core Slab



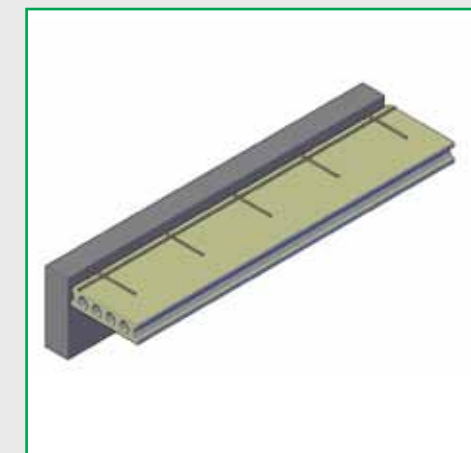
Beam to Hollow Core Slab



Beam to Hollow Core Slab



Wall panel to Hollow Core Slab



Wall panel to Hollow Core Slab

Production Facility

State of the Art Facility

PRECA state of art Pre stressed, Precast production facility from technology Partners Prensoland, Spain, pioneers with more than 1000 satisfied customers and have installed equipment in more than 48 Countries of 5 continents. Our automated plant has installed capacity of casting 2000 square metre per day supported by batching plant having imported mixture from Germany delivering 70 cubic metre per hour.



Precast Structures

Proven Structures

Precast history dates back to 1950 with construction of Wall Nut lane Bridge, an impressive first Precast Structure in the U.S., 160-ft main-span and 74-ft end span. Since then Technology has gained a huge success in U.S. Europe, Middle East, and rapidly spreading to other parts of globe finding vast applications in areas of commercial, residential, infrastructure, industrial, educational area etc.

Some of the renowned structures built using the technology.





PRECA  TM
PRESTRESSED CONCRETE PRODUCTS

Technology Partners



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Barcelona, Spain
(Since 1961)

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