

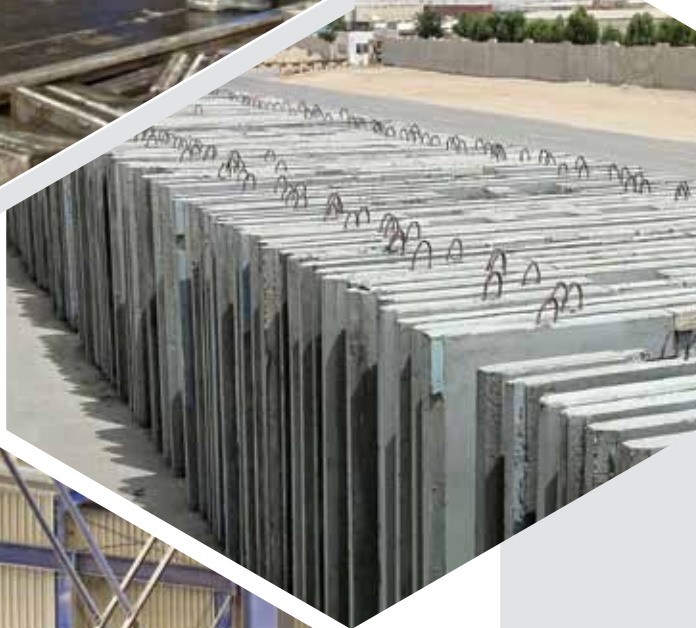


شركة الخليج للقوالب الخرسانية الجاهزة ذ.م.م.
GULF PRECAST CONCRETE CO. L.L.C.

WE BUILD YOUR VISION

Company Profile





To set the standard for excellence
leadership and integrity in the
Precast Industry.



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INTERNATIONAL PRESTRESSED
HOLLOWCORE ASSOCIATION



ISO 9001
ISO 14001
OHSAS 18001
BUREAU VERITAS
Certification



GENERAL INTRODUCTION

Gulf Precast is a UAE leader in Precast Manufacturing. It was incorporated in March 1984, in Abu Dhabi. Since then it has expanded its operations both in Abu Dhabi and Dubai, has diversified its Precast Products, has acquired main contracting licenses and constantly increased its market share.

With six precast manufacturing plants, four in Abu Dhabi and two in Dubai, the Company can produce up to 1,290 M³ per day, which is currently the largest precast capability in the UAE.

Gulf Precast operation follows strict safety and quality control procedures, that covers the whole process from detailing stage to handing over and maintain the high quality reputation of which we are proud, and for which we have received ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certification, as well as 7 distinguished awards (including One Diamond three Gold Awards) in the Sheikh Khalifa Industry Award Scheme.

Gulf Precast believes that expert Human Resources are the key to both Customer Satisfaction and Quality Products. Therefore, our employees (over 3,100 including more than 80 engineers) are regularly trained on both innovation techniques and quality issues.

Conventional Cast-In-Situ structures can be converted into Precast design by our expert Engineering team, thus generating substantial Value Engineering savings in both costs and time.

We offer our wide expertise in the fields of structural Design for total building systems, redesign from conventional to Precast structures, manufacturing of components in Precast and Prestressed Concrete, GRC and GRP, as well as site erection and Turnkey projects.

OUR PRODUCTS

- Cladding Panels
- Hollow Core Slabs
- Beams and Columns
- Boundary Walls
- Sandwich Panels
- Manholes
- Barriers
- Stairs
- Sleepers
- Tunnels and Culverts
- GRC and GRP
- Complete Building Systems
- Precast Dome
- Quay Walls



PRECAST CONCRETE

WHAT AND WHY?



Precast concrete is a type of construction material made with concrete cast in a reusable mold or "form" and cured in a controlled factory environment, then transported to the construction site and fixed into place. Our precast technology produces a wide variety of finished products, suitable for numerous architectural and structural applications, such as façade cladding panels, building superstructures, highway barriers, pre-stressed bridge girders, manholes and concrete piles. There are many different types of precast concrete forming systems for architectural applications, differing in size, function and cost.

The advantages of using precast concrete over traditional in-situ construction is the outstanding quality of the products, a significant reduction in waste generation and safety risks, and increased speed and reduced cost of construction. Other notable benefits of using Precast are:

- High thermal and acoustic insulation properties
- Reduced construction period
- Sustainable, long service use
- Deflection controlled through the use of pre-camber
- Low self weight due to optimized section properties
- Dimensional accuracy
- Reduction in formwork requirements
- Minimal dependency on weather conditions
- Consistent product quality
- Blast Resistance



1. Jumeirah Beach Residence Towers
2. Mhd. Bin Zayed Mosque, Abu Dhabi
3. Al Murooj Complex
4. Workers Village, Mussafah
5. Al Wathba Insurance Building
6. Adnoc - FOD Finance Building
7. The Dubai Mall
8. Ruwais Housing Complex
9. Burj Khalifa Development, South Ridge 6 Building
10. Sorbonne University, Reem Island

WALL PANELS

Significant progress in the field of architectural and structural Engineering has further enhanced the design of Precast Wall Panels, which are manufactured to suit the unique needs and requirements of each unique project.

If compared with other solutions, no other construction system combines as many benefits as the precast wall system: speed of Construction and Erection; high Quality and Durability; versatility and flexibility of implementation; as well as enhanced safety during construction and end-users utilization.

Gulf Precast allows a wide variety of Precast Wall Panels including external, internal, solid and sandwich panels which are suitable for most of the buildings.

CLADDING PANEL





Gulf Precast proposes an extremely wide range of finishes, shapes and colors that can match the requirements of the most creative architect, in terms of size, shapes, materials and finishes required for the project.

Critical Advantages

- Our large Engineering team performs in-depth studies of the characteristics of the project, whether originally meant for Precast construction or not, and proposes tailor-made value-engineered solutions meeting all the project requirements with optimized construction costs.
- Gulf Precast produces precast wall panels under strict Quality Assurance and Quality Control, complying with the ISO 9001 International Standards.
- The stringent quality controlled conditions under which the concrete is produced ensures that the dense precast concrete components have smooth surfaces that resist moistures penetration, fungus and corrosion.
- Fast construction means earlier completion. This, in turn, means earlier occupancy or use of the premises, and reduces the high cost of both onsite labor and interim financing.
- Factory production methods have also permitted Gulf Precast to vastly expand the design versatility of the product, including reveals, patterns and other architectural effects.
- Variation of sands, cement and coarse aggregates, and the use of chemical and mechanical treatment lead to strikingly rich and diverse varieties in color and texture.
- Stone, tile or other masonry materials can also be replicated during factory production, enabling designers to achieve the desired aesthetics of a much more expensive material at a fraction of its cost.
- High strength and durable product
- No plastering required
- Disaster and earthquake resistance
- Sound and thermal insulation
- Comply with Estidama and Leed
- Combining Quality, Economy, Speed and Flexibility, it is the building material of choice. No matter what type of Project you are interested in, Precast Concrete demonstrates its superiority.

BEAMS AND COLUMNS

In construction, time matters. Starting from design, manufacturing and construction, a Precast solution offers considerable time saving, in addition to flexibility of design, neat construction site and less manpower usage.

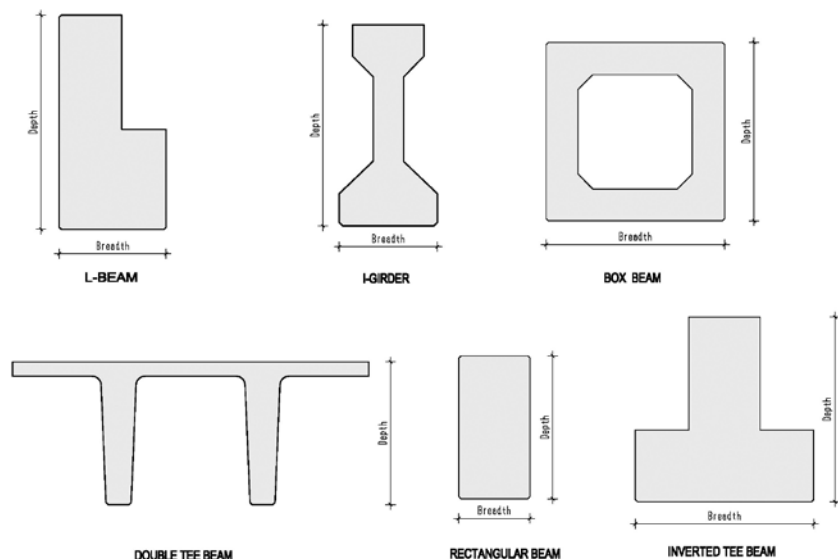
Precast beams and columns offer a perfect solution for fast track projects as well as for regular projects. Whether for a simple or complex structure, Precast beams and columns are flexible enough to suit all architectural and structural criteria.

Gulf Precast offers an extremely wide range of technical options for Precast beams in both conventional and prestressed (pretensioned) concrete.

Standard sections include rectangular shapes, I girders, L sections, inverted T sections, box girders and any other shape designed for low rise & high rise buildings, car parks, bridges and many other structures.

Gulf Precast Beams, in both conventional and prestressed concrete, are designed for optimum slenderness and economy. Also, wherever feasible, they are designed as a composite section by taking into account the concrete topping or screed of the slab on top. Connections are given optimum flexibility, whether conceived as hinged, semi-rigid or rigid.

Gulf Precast manufactures columns in different shapes and for different needs, whether rectangular, circular or even irregular. Precast columns can span vertically for up to 5 levels (18m height) in one run. They are elegant, easy to erect and reliable.



Advantages of using Precast/Prestressed beams and columns:

1. Off-site manufacturing means stricter quality and safety control, and therefore results in better Quality & more Durable products
2. Faster Construction time
3. Less formwork, site clutter, propping and temporary works, which in turn leads to better site management, lower costs and increased safety
4. Long spans especially for prestressed beams
5. High Loading Capacity
6. Less weather dependency



Typical applications

1. Multi-storey car parking garages
2. Large industrial buildings
3. Office buildings, schools, hospitals
4. Shopping malls
5. Warehouses
6. Stadiums, Gymnasiums



HOLLOWCORE

Hollowcore slabs are precast prestressed concrete elements extensively used for floor, roof slabs and wall panels. This success is owing to the combination of high efficiency of design, automated production technology resulting in remarkable low price, versatility in the selection of unit depth and capacity, its ready-to-paint smooth soffit as well as its high quality and durability.

The automated manufacturing process uses a combination of dry mix concrete and shear compaction, which considerably reduces the consumption of water if compared to the conventional process. This key sustainable advantage is recognized by the governmental authorities (such as DM, ADM, Estidama or Leed).

Hollowcore is manufactured using long line extruders which form continuous cores running through the slabs. The primary purpose of these cores is to decrease by 40% to 50% the weight of the slabs, which leads to significant



savings in the rest of the members in the building construction. They are also used as preexisting conduits in which to place electrical cables and pipes, thus reducing even further the overall construction time.

Hollowcore slabs from Gulf Precast are used horizontally in all type of structures such as villas, buildings, commercial & industrial structures, hotels, schools, shopping centers.

They may even be used vertically, as wall panel partitions and cladding, in industrial structures or in boundary walls.



Advantages of Hollow Core Slabs are numerous:

- Remarkably lower price, compared to other systems
- Automated production under strict Quality and Safety Control.
- Longer span and greater loads than conventional slabs of the same thickness
- No need for propping and scaffolding.
- Under side immediately ready for following trades
- Maximum design flexibility.
- High strength, lightweight, durable structure.
- Superior fire resistance
- Superior earth quake resistance
- Preexisting longitudinal holes that can be used as conduits.
- Speed and ease of construction.
- High thermal insulation properties.

To further increase their strength, the slabs are reinforced longitudinally with a number of wire steel strands (the number and diameter of which are calculated during the engineering stage), which are prestressed for optimal resistance.

Hollowcore is the product of choice in structures that require sound barriers between floors, excellent fire and earthquake resistance, heat insulation characteristics, long spans, and is therefore widely used in hotels, schools, multi-storey car parks, high rise buildings and upscale residential and commercial complexes.

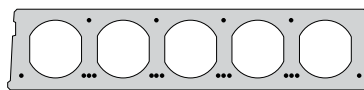
Hollow Core slabs are available in a range of seven depths; 150, 200, 265, 320, 400, 450 and 500mm slabs. The longer span can reach up to 18m.

Depending on the project requirements, in particular the desired span and loading performance, Gulf Precast Engineering department proposes and designs the most adequate and economical Hollowcore solution for the project.

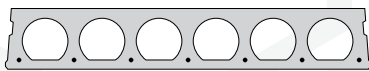
TYPICAL CROSS SECTIONS OF PRE STRESSED HOLLOW CORE UNITS



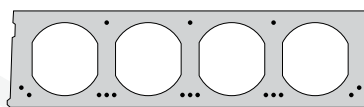
HOLLOW CORE SLAB 150mm Thick



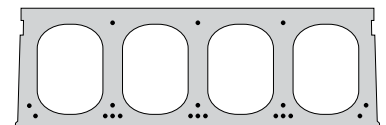
HOLLOW CORE SLAB 265mm Thick



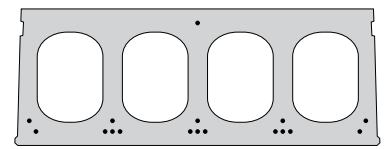
HOLLOW CORE SLAB 200mm Thick



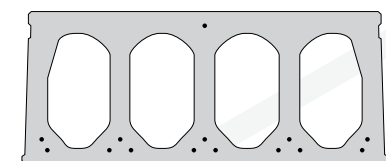
HOLLOW CORE SLAB 320mm Thick



HOLLOW CORE SLAB 400mm Thick



HOLLOW CORE SLAB 450mm Thick



HOLLOW CORE SLAB 500mm Thick



GLASS REINFORCED CONCRETE (GRC)

GRC is a material which provides a significant contribution to the construction industry worldwide. It fuses Technology and Aesthetics and is one of the most innovative construction materials available.

This environmentally friendly composite, with its low requirement for energy consumption and the use of natural raw materials, can be shaped into a great variety of products and has won firm supporters amongst designers, architects, engineers and end users for its versatility, performance, appearance and cost effectiveness.

The low weight of GRC decreases the loads on the building's structural frame, therefore providing opportunities for creative and virtually limitless architectural designs.

GRC panels can be produced in many colors or textures, such as smooth finish, granite-like finish, or sculptural decorative finish.

Glass Reinforced Concrete is a cement-based composite with alkali resistant glass fibers which serve a purpose similar to that of reinforcing steel in other Precast products. Because the glass fiber add flexural, tensile and impact strength, the resulting material allows the production of strong, yet lightweight, architectural cladding panels.



GLASS FIBRE REINFORCED POLYESTER (GRP)

GLASS REINFORCED POLYESTER, known as GRP or Fiberglass, is one of the world's most adaptable materials with myriad of uses in building and industrial applications. It is Ideal for domes, vaults, minarets or car parks.

In addition to manufacturing according to pre-set specifications, Gulf Precast offers a comprehensive consultancy, design, installation and commissioning service.

The many outstanding features which make Gulf Precast GRP the product of choice for decorative cladding and curved long span include:

- Lightness
- Ease of transportation and installation
- Weather Resistance
- Color Fastness
- Impact Resistance
- Adaptability to long spans and curvatures
- Potential translucence



BOUNDARY WALL

With the increasing demand for boundary walls in the UAE, Gulf precast has developed complete engineering solutions, advanced and economical for all types of boundary walls for palaces, villas, residential complexes, private and public gardens, farms and other facilities.

Gulf Precast boundary wall systems allow the architect full freedom in developing distinctive designs whether traditional or modern, simple or complex, to suit the owner's requirements.

Gulf Precast designs adorn many large-scale projects spread over hundreds of kilometers in different soil types, strong and weak

Gulf Precast boundary wall system includes the following:

1. Precast boundary walls with different heights and appearances, using isolated or strip footing according to soil bearing capacity.
2. Hollow core boundary wall which is an economical alternative suitable for industrial activities or farms.
3. Combination between GRC and concrete where ornate architectural design is required.

Advantages of using Gulf Precast boundary walls:

1. High quality since our product is produced under very strict quality assurance and quality control in a closed factory environment.
2. No limitation for the architect ,any shape, color and required height could be achieved
3. Durable product
4. Low maintenance
5. Speed of accomplishment: Our team of expert designers and erectors will complete boundary wall jobs in record time.



STAIRCASE

Precast stairs are ideal for contractors as they substantially reduce time and efforts of the overall construction development.

Gulf Precast designs and installs stairs for all kinds of projects, such as high and low rise buildings, villas, shopping centers, industrial and commercial facilities. Depending on the project, stairs are manufactured with flight and landing as one element or as separate elements, either straight or spiraled. They are suitable for buildings using a precast system as well as for those with a conventional casting system. The installation and fixing method is flexible, effortless and safe



Precast stairs from Gulf Precast offer the following advantages:

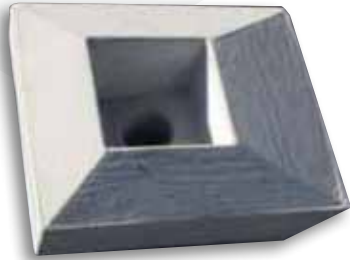
1. The off-site manufacturing process eliminates the need for formwork, site-poured concrete and the potential for delays.
2. Stairs are designed with a variety of landings, thread and riser size to suit individual project requirements
3. Once the precast stairs installed, the remaining construction activities can proceed with enhanced accessibility and safety.
4. Superior quality
5. Cost, time, labor and material savings
6. No topping or screed required
7. Multiple flights and landings can be installed within a day



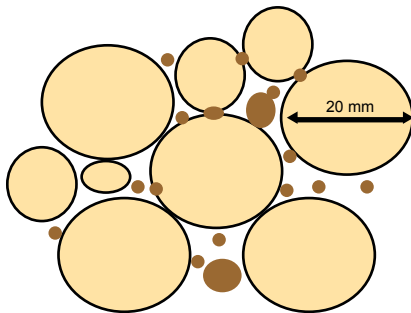
What is Ultra High-Performance Concrete?

UHPC is a family of concretes offering a combination of material and performance characteristics that create products with:

- Ductility: ability to support tensile loads even after initial cracking
- Ultra high compressive strength (up to 200 MPa/29,000 psi)
- Extreme durability; low water to cementitious material (w/cm) ratio
- Self-consolidating and highly moldable mixtures
- High-quality surfaces
- Flexural/tensile strength (up to 40 MPa/5,800 psi) through fiber reinforcement
- Thinner sections; longer spans; lighter weight
- New graceful product geometries
- Chloride impermeability
- Abrasion and fire resistance
- No steel reinforcing bar cages
- Minimal creep and shrinkage after curing

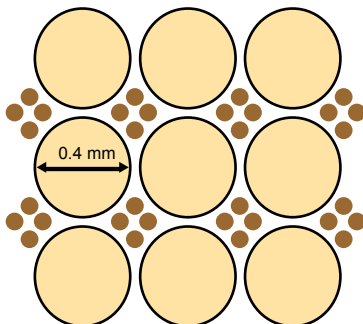


NORMAL CONCRETE



shear + no place for fibers

UHPC



Modified compact grading

UHPC is one of the latest advances in concrete technology and it addresses the shortcomings of many concretes today: low strength to weight ratio, low tensile strength, low ductility, and volume instability. It has a compressive strength 2 to 3 times greater than conventional concrete and a flexural strength 2 to 6 times greater. These mechanical properties of UHPC make it ideal for prestressing applications. In addition to achieving high compressive strengths in excess of 25,000 psi (sometimes greater than 30,000 psi), UHPC is also nearly impermeable.

The higher strengths afforded to UHPC could allow increased girder spans while maintaining similar or smaller cross-sectional areas. Costs may be reduced as the lower span to depth ratio of UHPC bridges require less embankment fill while providing more aesthetically pleasing profiles.

Increased span lengths mean fewer support structures such as piers which can lead to improved safety when traveling under overpasses and lower environmental impact in water crossings.

Additionally, beam spacing can be increased allowing for faster construction times, lower transportation costs, and increased material efficiency.





Where is UHPC used?

- Shells & Canopies
- Architectural Cladding
- Restoration
- Sun Shades & Louvers
- Lattice Panels
- Perforated Panels
- Decorative Art
- Urban Furniture
- Stairs
- Stainless Steel & Black Steel Replacement
- Anchor Blocks
- Piling Applications
- Pedestrian/Bicycle Bridges
- Highway Bridges

Advantages and challenges to the use of UHPC:

- Strength and Flexibility
- Longer Spans
- Taller, thinner, lighter structures
- Innovative, slender new profiles
- Reductions in foundations
- Faster Construction
- Reduced Maintenance
- Increased Usage life
- Improved seismic performance
- Resistance to impact
- Dimensional Stability
- Freeze/Thaw Resistant
- Abrasion Resistance
- Very low permeability

Green innovation and the future UHPC:

While the current LEED (Leadership in Energy and Environmental Design) rating system lacks credits for ranking the numerous green benefits of precast concrete, points can often be achieved through the "Innovation in Design" UHPC can further promote green benefits with CO₂ emission reductions. In addition, UHPC presents the opportunity for potentially lower embodied energy due to significant material reduction (up to 40 percent less weight) in optimized members. Long-term service life and expected minimal maintenance are material characteristics that lend themselves to reduced life cycle costs for structures. This enhanced durability needs to be factored into sustainable solutions to offset the currently higher costs of UHPC.

UHPC has important advantages over conventional and high-performance concretes, especially in the production of smaller and lighter sections and the potential elimination of passive mild steel reinforcement.



1. Al Barari - Dubai
2. Al Qaala Villas
3. Al Barari Development - 310 Villas
4. Ruwais Housing Complex
5. Expo 2000, Hannover, Germany
6. East Corniche
7. East Corniche
8. East Ring Road, Abu Dhabi, P. Sun Shelter & Towers
9. Al Falah Community Project - 2069 Villas

TOTAL PRECAST SYSTEM

Total precast systems are becoming a popular choice for numerous types of structures, including villas, labor accommodations, retail developments, offices and industrial buildings.

Architectural and structural precast and prestressed concrete components can be combined to fit the entire building. This design approach uses and combines different precast components to produce two different possible systems:

- **The Precast Skeleton system:** a complete Precast structure made of precast columns and beams, precast slabs and stairs, as well as decorative panelized cladding in concrete or light-weight GRC.
- **The Precast Wall system:** combining external insulated sandwich panels, load bearing and non-load bearing walls, precast slabs and stairs, as well as decorative light-weight GRC elements.

The use of total precast in a structure combines the benefits of high thermal insulation, fast construction, superior quality, and fire and earthquake resistance.

Gulf Precast uses total precast system for a large number of projects, such as repetitive villas and labor and staff accommodations.

We construct villas that are weather sealed and water tight, using external insulated precast panels, internal solid panels, Hollowcore flooring and roof, as well as precast staircases. Decorative elements, such as balustrades or claustras, are made of GRC.

Gulf Precast villa system offers the following advantages:

1. High thermal and acoustic insulation properties
2. Faster construction time. Erection on site is considerably reduced as the major parts of the construction cycle is off-site
3. High quality and durability of products
4. Increased Safety. The majority of the construction time is spent in a well-controlled factory environment, with only minimal on-site activities.
5. Less maintenance
6. Environmentally friendly. Less waste, less noise and use of recyclable material
7. Fewer labor requirements
8. Provide specific advantages to architects, matching any aesthetic requirements, such as color, shape, or finish.





9



7



8



5



6

17

INFRASTRUCTURE

Gulf Precast Concrete Co. L.L.C. Products, services and solutions portfolio is diverse and ranges from water and wastewater to utilities management, precast infrastructure and marine works, providing a number of unique products and solutions tailored to our clients needs.

We have a strong track record of delivering high-end precast infrastructure solutions in the UAE, adhering to the highest quality standards.

ISO 9001 certified, Gulf Precast has been instrumental in setting size and quality benchmarks for precast products regionally.

Our products range comprise the following:

1. Sanitary and Storm Manholes
2. Standard Drainage Products
3. Septic Tanks and large containers
4. Telephone and Electric box
5. Box Culverts and Tunnel
6. Special and Custom Products
7. Bridge I-Girder
8. Substations
9. Pipe Jacking
10. Sewerage segmental channels
11. Sleepers (Railway)
12. Well Cellars
13. Precast concrete retaining and sound barrier wall
14. Foundation
15. Retaining Walls
16. Quay Walls
17. Concrete Block



QUALITY, ENVIRONMENTAL, HEALTH AND SAFETY POLICY



Gulf Precast proactively implements Quality, Environmental and Occupational Health and Safety (QEHS) practices within all its business operations.

We are committed to provide the highest possible quality of products and services to all our customers, to minimize the waste of materials and reduce emissions to land, air and water, and to provide a safe working environment for all.

Our management system complies with the ISO 9001; ISO 14001 and OHSAS 18001 international standards, and our processes are continually reviewed and improved to enhance our performance in this regard.

Gulf Precast believes that the promotion of Quality, Environmental, Health and Safety is a positive investment in the wellbeing of its Employees, its Clients and the Community in which it operates. We ensure that all relevant legal and other obligations are taken into consideration and implemented.

We proactively seek best practices and fine-tune our system to achieve and enhance the Quality of our products and services, to identify potential safety and environmental hazards and to minimize and control them. We believe that training our employees and involving them in this strive for Excellence is a critical success factor of our performance.

Honouring our pledge to Quality, Environment, Health and Safety is the responsibility of everyone involved in Gulf Precast's operations, and is at the core of our business practices.



Awards

As part of its continuous effort to promote Excellence and Quality in the Precast Industry, Gulf Precast Concrete Co. is an active member of both the Precast Prestressed Concrete Institute, USA (PCI) and Glassfibre Reinforced Concrete Association International (GRCA). For its outstanding achievements, Gulf Precast has also received ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 certifications, as well as 8 distinguished awards (including three Gold Awards) in the Sheikh Khalifa Industry Award Scheme between 1997 and 2012.



This is

PRECAST

the Gulf Precast way.



PERFORMANCE:

Our passion for everything connected to performance drives our approach to how we do business, from the design to the handing over of our products.

RESPONSIBILITY:

We recognize our social and ethical responsibility and we consistently fulfill the promises given to our Customers and Employees.

EXCELLENCE:

We deliver world class Quality products and services, achieving excellence each passing day.

CAPABILITY:

We offer to our Clients our Capability, built up over years of experience and learning.

ACCOUNTABILITY:

We acknowledge that our actions influence our customers, fellow employees, and the community in which we operate. We are committed to protecting the environment.

SAFETY:

We believe that injuries are preventable and we manage business operations to make it so.

TEAMWORK:

We are strongly committed to working together for mutual benefit and coordinated efforts.

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