

CONCRETE RESTORATION

THE STORY OF STRENGTH REBORN



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UAE

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Why? PFC Group

PFC Group offers a comprehensive range of concrete repair and protection solutions, partnering with world market leaders in concrete repair mortars, protective coatings for concrete, and special mortars for extreme and demanding applications. Our expertise also includes structural strengthening using carbon fiber technology, as well as concrete jacketing solutions to enhance structural capacity and durability.



CONCRETE REHABILITATION

01

Concrete provides resistance and stability to the structural elements of buildings, bridges, water retaining structures, sewage treatment plants, docks, and more. Therefore, it is very important to protect the concrete and any deterioration or damage should be repaired quickly so as not to affect the structure.

Repairs performed at an early stage will save on extremely expensive repair measures that may become necessary at a later stage. There are various techniques for repairing and restoring concrete structures to concrete damage and defects. These concrete repair techniques and materials are described.



1.1 CONCRETE PATCH REPAIR

PFC Group is a specialist in concrete patch repair, maintenance, and strengthening, and offers a variety of contracting services for all concrete repair requirements.

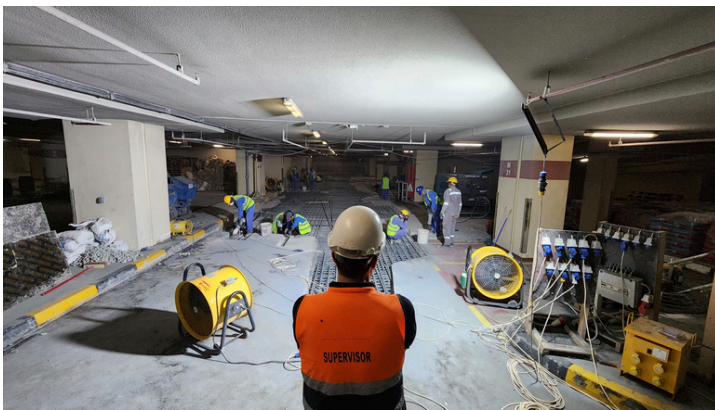
PFC conducts visual non-destructive examination of these reinforced concrete structures to identify, review, and evaluate items of specific concern. PFC's site team carries out various surveys such as visual surveys, acoustic sounding, crack depth measurements, half-cell potential, carbonation depth, etc. using conventional measuring equipment such as ultrasonic thickness meters, calipers, GPR radars and carpenter rules.



1.2 MICRO CONCRETE

PFC has a special team that undertakes hand-placed, sprayed, or flowable micro concrete repair solutions. As the concrete around the steel breaks down due to carbonation, the corrosive effects of the air and water rust the steel causing it to expand, spall, and crack. For which, micro concreting is specifically developed for repairing damaged reinforced concrete.

PFC's micro concrete methodology repair always ensures that the structure is restored safely. As part of the work, PFC looks into ways to obtain the highest levels of long-term durability and strength.



1.3 SHOTCRETE

PFC offers this highly effective technique to provide additional support to slopes of various compositions to prevent slippage or spalling. Shotcrete a perfect way of constructing the boundaries, damaged & and deteriorated concrete, strengthening walls, and encasing structural steel. The repair of structural members such as beams, columns, and connections are common for damaged structures.

PFC is a leading company specialist in concrete construction, with a focus on improvisation designs and advanced formwork solutions. PFC offers these services in addition to crucial site preparation skills in the areas of foundation, concrete strengthening, and stabilization, and delivering structural integrity.



1.4 EXPANSION & CONSTRUCTION JOINTS

PFC provides a variety of construction and expansion joint repair options. These include the use of epoxy resin adhesives to fix and seal either side of the expansion joint or fracture. PFC provides chemical-resistant repair methods that prevent water outflow and entrance while allowing for expansion to accommodate movement

PFC specifies a whole system consisting of a strong and flexible material that can readily fill the expansion joints and enable movement in the joints for the bridge's expansion joints. Where foot and vehicle traffic might be a concern, PFC will meet your needs by providing pourable & and bulk gun sealing solutions.



1.5 INFRASTRUCTURE REHABILITATION

PFC focuses on the structural restoration of infrastructure assets, particularly highways and railway lines, including bridges and tunnels, as well as hydropower plants, water supply systems, wastewater disposal, and treatment plants. PFC rehabilitates these buildings that were built to last between 60 and 80 years.

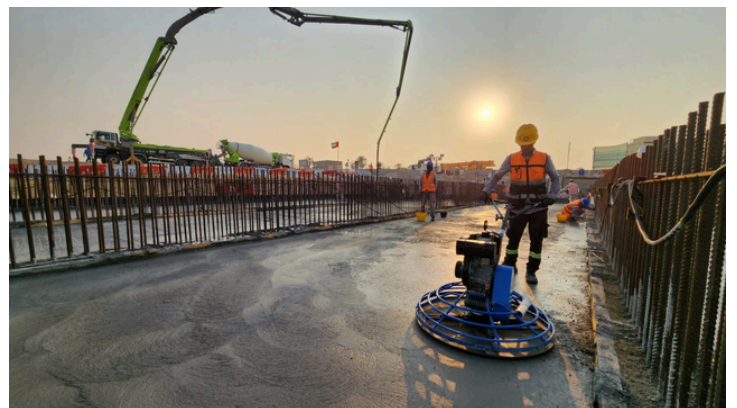
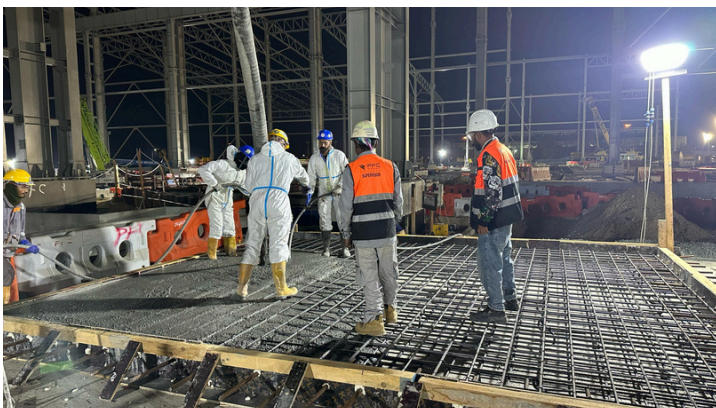
PFC is now a leader in combining repair and maintenance services, assisting industrial clients in increasing the durability of operation equipment assets while also increasing productivity. PFC offers a comprehensive variety of repair and maintenance services, including complete, value-added solutions.



1.6 INDUSTRIAL FLOORING & SCREEDS

PFC has expertise in floor screeding that is applied directly to the foundation floor to support the final flooring. The outcome depends on how well the floor screed is applied since it affects the overall quality and longevity of the floor.

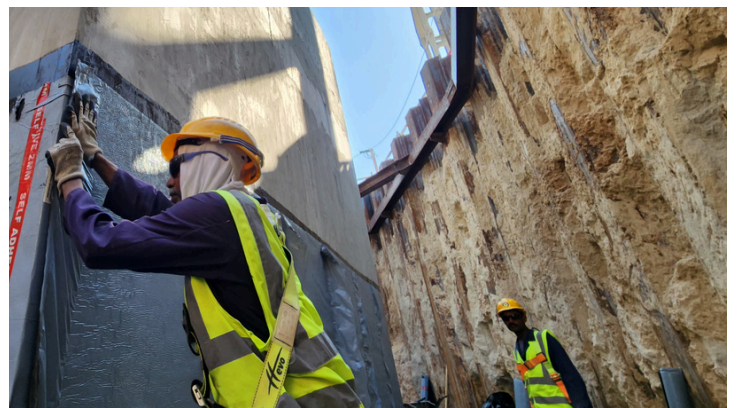
PFC uses innovative approach and proven expertise to create high-performance, on-time, and on-budget flooring solutions for Industrial Facilities, Commercial Venues, and more. Polymer flooring, antimicrobial and subfloor screeds, rapid cure MMA resins, seamless terrazzo, car park decking, and industrial resins are just a few of PFC's major working areas.



1.7 WATERPROOFING

PFC provides solutions for failures in the waterproofing system that can be disastrous and expensive to repair. Water penetration which will cause significant damage to the building if it is not stopped quickly. The stability of a building determines its service life, and this is what influences water entry.

PFC has been providing outstanding services in waterproofing sector for concrete decks, reservoir roofs, bunds, top of basement wall detailing green roofs, truck beds, ships hulls, and bridges over many years. PFC provide various type of waterproofing such as Cementitious, Liquid Applied, Cold Applied, Bitumen (Torch & Self Adhesive) Applied, Polyurethane Liquid membranes, etc.



1.8 TRAFFIC & EPOXY COATING

PFC offers flooring solutions for industry that are customized to the needs of each specific working environment. For the industrial and commercial sectors, Epoxy and polyurethane floor coatings are used in areas which require an aesthetic finish that is hard wearing, dust free, chemically resistant and allow for floor markings.

PFC provides polyurethane and epoxy resin flooring services. Because of their reliability and longevity, resin systems installed by PFC such as Industrial ESD Flooring, Anti-Static Flooring, Gravel Epoxy Floor, Flaked Epoxy Floor, Solvent Based Epoxy Floor, and Terrazzo Epoxy Floor are ideal flooring options for chemical manufacturers, industrial, and commercial establishments.

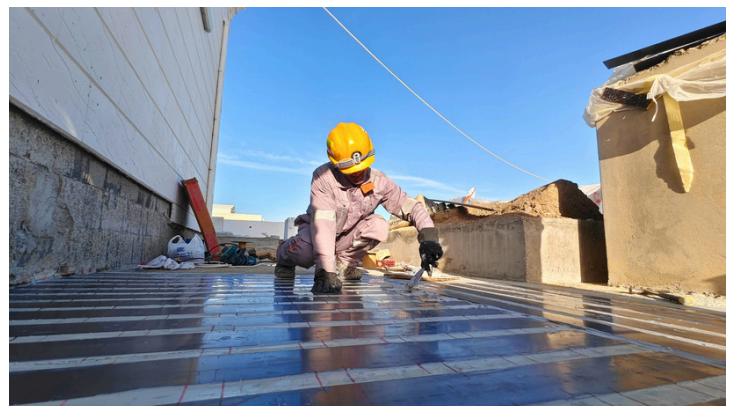
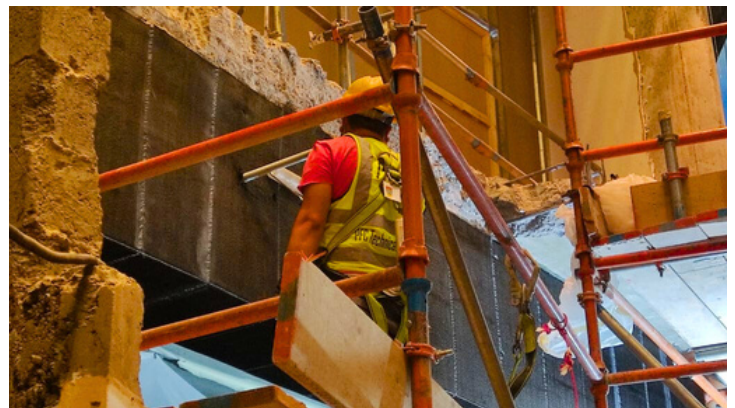


STRUCTURAL STRENGTHENING

02

Structural strengthening is the process of upgrading a structure to improve performance under existing loads or to increase the strength of structural members to support additional loads. Structural reinforcement needs are often caused by building codes, deterioration, change of use, or defects caused by design and/or construction errors.

The use of a building or civil engineering structure may change throughout its life, for example, its functionality may change, loads may increase, or building standards may be higher. becomes necessary and the structure must be implemented accordingly.



2.1 RETROFITTING / JACKETING

PFC, one of the leading structural strengthening service providers, in concrete jacketing which is designed and executed to improve the stability of the structure and increase the integrity of the structure. In order to rehabilitate by improving its performance characteristics, extending the service life of the structure retrofitting/Jacketing are carried out.

PFC offers latest technology to develop innovative ways for restoring or increasing capacity of the bridges, buildings, parking garages, silos, and other structures. Detailed investigations, well specified techniques, expert execution, and systematic quality control are all provided by PFC for the rehabilitation, strengthening, and protection of concrete structures.



2.2 CARBON FIBER REINFORCED POLYMER

PFC provides design and installation service for Carbon Fiber Reinforced Polymer (CFRP) composite strengthening utilizing both pultruded plates and wrap systems that include innovative strengthening methods and materials which complies with current international standards. CFRP latest technique used for structural strengthening, maintenance and repair. Buildings, marine constructions, bridges, pipelines, and other industrial infrastructure are all repaired and improved by this methodology.

As concrete repair contractors, PFC propose CRFP systems that are capable of enhancing the structural capacity of existing structural elements including seismic retrofit, pipe rehabilitation, structural preservation and environmental protection.



2.3 GLASS REINFORCED PLASTIC

PFC is a well-known GRP lining specialist. With an extensive expertise, PCP have a vast experience to provide clients with customized waterproofing solutions. PFC provides services for RCC tanks, swimming pool drainage systems, manholes, and mild steel tanks from any form, size, depth, or design.

As an industry leader in GRP Products, PFC designs, supplies, and installs a diverse range of water tanks, panel tanks, chemical storage tanks, septic tanks, storm water/sewerage tanks, ladders, manholes, flower pots, waterfalls, gratings, covers, and ladders, among other industrial and decorative products. PFC has advanced machinery that enable it to perform moulding as a professional supplier.



CRACK INJECTION

03

Cracks should only be treated when they pose a potential threat to the strength of the reinforcement or cause unacceptable leaks. Injections should not be used for cracks caused by corrosion of reinforcement. There is a lower limit of about 0.1mm on the crack width that can be successfully injected, depending on the type of resin injected. Polymers used for crack injection include epoxies, acrylics, polyesters and polyurethanes.

The concrete surface is first cleaned along the crack to remove debris and dirt. The crack itself is blown with clean, dry air so that the resin can flow freely into and along the crack. The resin is then injected under pressure into inlet holes that have been glued to the concrete surface above the crack, or through holes drilled to intersect the crack.



3.1 DRY CRACK INJECTION

PFC offers a wide range of applications, including crack injection treatments with mechanical packers, crack injection treatments with surface packers, and curtain injection treatments. A lot of damage to concrete structures occurs as a result of cracks and cavities that allow pollutants to penetrate the structure.

The objective of crack filling is to prevent corrosive elements from penetrating concrete and steel. PFC's highly trained staff can perform injection treatments using epoxy, polyurethane, acrylic resins and gel injection. PFC also offers a range of high-quality Injection Hose system, Polymer grouting's, Fiber Reinforced injection grouting, and Sulfo-Aluminate grouting that can be used for a number of crack injection repair applications.



3.2 WET CRACK INJECTION

PFC provides the latest crack injection, concrete injection, and water leak repair injection works. Leaking concrete structures can have a greatly reduced service life due to steel corrosion and concrete damage. These leaks can be completely sealed and waterproofed by injection, avoiding the high expenses of structural repairs or water-damaged interior finishes, furniture, or other items.

PFC offers the right tools for your leakage concerns such as PU Injection, Gel Injection, Epoxy Injection, High-Pressure Pile Injection, Soil Stabilization, Curtain Wall Injection, and many more. PFC provides a variety of curtain injection/grouting services, including fracture & and compensation grouting, rock curtain grouting, jet grouting, seepage control or interception grouting, hot bitumen grouting, and soil stabilization grouting.



3.3 CONCRETE CURTAIN INJECTION METHODOLOGY

PFC provides specialized concrete curtain injection solutions to permanently control water ingress and seal underground concrete structures exposed to groundwater and hydrostatic pressure, commonly applied in basements, VDC pits, lift pits, tunnels, and other sub-grade elements where conventional waterproofing has failed. The curtain injection system creates an impermeable barrier behind or through the concrete by injecting high-performance chemical grouts, effectively blocking water pathways, reducing hydrostatic pressure on the structure, and preventing further leakage, seepage, and long-term concrete deterioration.

PFC utilizes advanced PU, gel, epoxy, and microfine cement grouts selected based on site conditions and leakage behavior, with the injection process carried out through controlled drilling and staged injection to ensure full penetration, uniform distribution, and structural safety, all under strict quality control measures including injection pressure monitoring and post-injection inspection to deliver a durable, long-term waterproofing solution.



CATHODIC PROTECTION

04

Corrosion is the main cause of premature failure of metal structures. Operators can extend the life of their facilities and equipment by installing cathodic protection systems and checking them regularly.

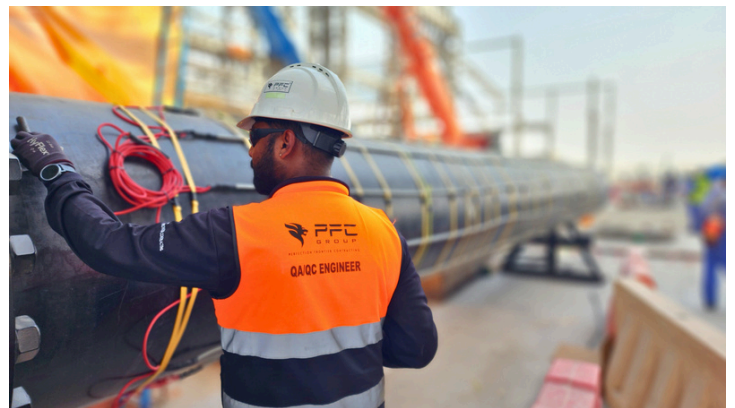
A wide variety of residential and industrial applications have used these systems to resist corrosion for many years. They are typically installed during initial construction, expansion, or major upgrades. Cathodic protection (CP) is an electrochemical method for protecting structures from corrosion. This condition is caused by corroded steel beams which can lead to cracking of the stone facade. It's unsightly at best, but excessive cracking can lead to catastrophic failure.



4.1 CATHODIC PROTECTION

Cathodic protection applications include: onshore, onshore and submarine pipelines, offshore steel platforms, piers, jetties and coastal structures, aboveground storage tanks, buried and disturbed tank mixer, the well casing, the water box, the equipment, the reinforced concrete structure

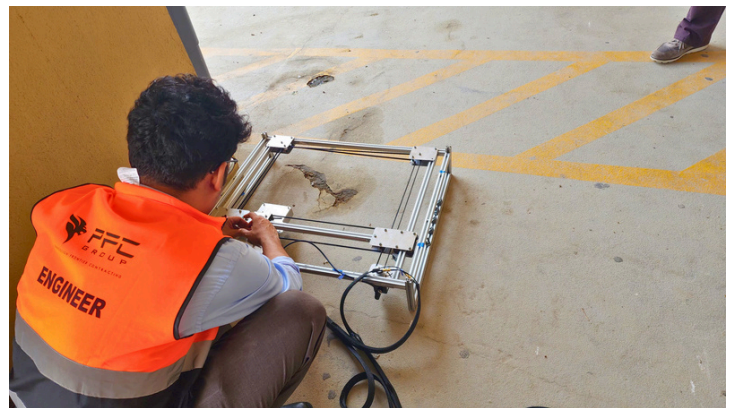
PFC's employees are trained on how to repair and safeguard reinforced concrete buildings regularly using Impressed Current Cathodic Protection (ICCP) and Sacrificial Anode Protection (SAP). PFC collaborate with renowned product manufacturers to provide our clients with the best possible solutions for their projects.



SCANNING, CORING & CUTTING

05

The latest technology of Concrete scanning is very useful in several construction project situations. It is the most popular and successful way of determining what's beneath a concrete slab before any repair is performed. A concrete scan is vital during construction because it simplifies drilling, cutting, and coring, reduces the danger of damaging utilities, rebar, post-tension cables, pipelines, and conduits, and maintains the structural integrity of the concrete.



5.1 CONCRETE SCANNING

PFC offers a wide range of concrete scanning techniques including Ground Penetrating Radar (GPR) surveys, Cover Meter surveys, Half-Cell Potential Tests, Ultrasonic Pulse Velocity Tests, Concrete Resistivity Meter Surveys, Ferroscan Surveys, etc. PFC specializes in the application of Ground Penetrating Radar concrete scanning in the construction and civil engineering sectors providing rebar location, rebar mapping, concrete imaging and floor thickness imaging.

PFC provides 2D and 3D GPR rebar detector concrete imaging, offering easy-to-interpret 2D and 3D pictures that enable non-destructive testing. PFC scanning technology can detect rebars, tendons, metal and plastic conduits, glass-fiber cables, voids, and wood in dry concrete constructions up to 300mm deep.



5.2 CONCRETE CUTTING

PFC provides a vast range of large-diameter sawing services for civil & structural project requirements. PFC provides specialist saw-cutting solutions for any requirements through walls, floors, and other concrete or masonry structures or road surfaces. PFC utilizes modern saw cutting equipment producing minimal vibration for the safety and comfort of our operatives.

PFC makes sure to offer cutting of concrete with extreme precision and secure procedure and further transporting it from the construction site which always remains a problem for most drilling professionals. We can cut through any reinforced concrete wall or floor to an impressive depth using high-quality diamond blades.



5.3 CONCRETE CORING

PFC offers diamond drilling, concrete cutting, and controlled demolition services throughout the UAE. PFC provides the installation of pipework, power cables, telephone cables, ventilation equipment, location holes for barriers, machine base fixings, and core samples.

PFC has an electric or hydraulic rotary drill motor mounted on a drill rig using a diamond-tipped core bit to cut through reinforced concrete and other construction materials, such as masonry, brick, and blockwork. Core drilling is a quick and easy approach to making core holes for service penetrations in walls and floors of various diameters.



A LEGACY OF EXCELLENCE

PFC's legacy is not written on paper but etched in every structure we have restored. We are a family of engineers, technicians, and visionaries united by one belief: Concrete restoration is not repair – it is renewal.

Across the UAE, Bahrain, and the UK, we continue to protect the built environment with passion and precision.

Every project we touch stands as a monument to trust, endurance, and innovation. Because at PFC Group, we don't build walls – we rebuild confidence.



LICENSES AND ACCREDITATIONS

PFC Group holds full contracting licenses in the UAE, Bahrain, and the United Kingdom, enabling us to perform civil, structural, industrial, and MEP works. We are certified for ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 45001 (Occupational Health and Safety).

Our compliance systems are regularly audited and continuously improved, ensuring transparency and governance in every project. These accreditations represent our promise to clients – to deliver work that meets the highest global standards of safety, responsibility, and professionalism.

ISO CERTIFICATIONS



LICENSES



OUR RECENT TEAM BUILDING ACTIVITES



Anniversary Celebrations



Honoring Exceptional Performance — Burj CEO Awards



Internal Football Tournaments



Celebrating the First CCL Championship Title



Celebrating Excellence in Performance — Rashid Award by RGA



Honored with Recognition for EGA Olympics Sponsorship



Building Team Spirit Through Cricket Tournaments



Kicking Off at the Yearly Mapie Middle East Games



Smashing Performances on the Badminton Court

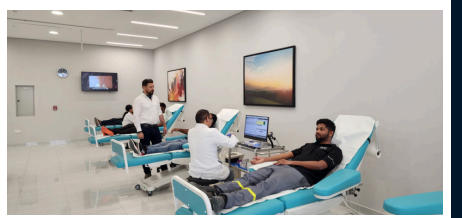
OUR RECENT COMMUNITY SUPPORT ACTIVITES



Campus Placement Drive at Amity University



Supporting Education Through Action Care



Committed to Saving Lives Through Blood Donation



Supporting Schools with Essential Supplies



Supporting Communities in Need: Aid to Palestine



Bringing Food and Hope to Underprivileged Villages



Humanitarian Support for Earthquake Survivors



Prioritizing Employee Health with Regular Check-Ups



Providing Flood Relief Aid to Pakistan

OUR RECENT ENVIRONMENTAL ACTIVITIES



Spreading Green Awareness on Environmental Day



Beach Cleanup Campaign to Protect Aquatic Life



Tree Plantation Drive Celebrates UAE National Day



Enhancing Worksite Hygiene Through Cleanup Efforts



Greening Initiatives in Collaboration with Tata Group



Building Green Partnerships with EGA



Celebrating 10,000 Trees Planted in UAE



Environmental Responsibility in Action with Clients



Staff Unite for Environmental Responsibility

OUR RECENT AWARDS FROM CLIENTS



Rashid Award



Appreciation from LAING O'ROURKE



Appreciation from Amity University



Appreciation from SAEED



Appreciation from CEO Club Network



Appreciation from EGA

REVIVING CONCRETE: OUR PROJECT STORIES



Address Hotel- Emaar



Rehabilitation of Casting Pits- Kezad



Concrete Scanning (Ground Penetrating Radar)- EGA



Utility Plant Crack Injection- AD Ports



Residential Building Demolishing Works- Dubai Properties



Concrete Rehabilitation Works- EGA



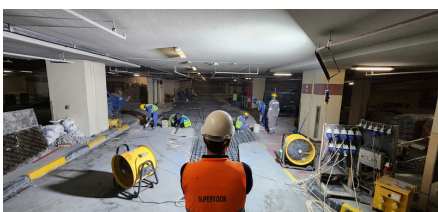
Foundation Strengthening Works- IKK Group



Rehabilitation of Water Tank- AD Ports



Surface Restoration Work- Al Mazaya



Concrete Repair Works- Dubai Properties



Glass Reinforced Plastic Works- Majid Al Futtaim



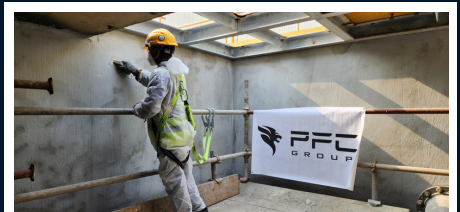
Structural Rehabilitation Works- DEWA



Chemical Injection Works- AD Ports



Joint Sealant Works- EGA



Industrial Reservoir Structural Restoration- EGA



Fiber Reinforced Polymer Wall Replacement- EGA



Industrial Floor Breaking Works- EGA



Concrete Coring Works- Jumeirah Group





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