Engineering
Services



Company Profile

Established in 2017,is one of the leading service providing comapny in field of construction chemicals applications, such as Diamond Core Cutting, Epoxy Grouting, Cementitious Grouting,Crack Injection, Pressure Grouting, Stitch Core Cutting, Concrete Repair & Re-Strengthening and various othe specialized job related to contruction activies.

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Introduction

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Installation and various other specialized jobs related to constructio

The Karachi based company is providing services across Pakistan. The company enjoys rich experience and is engaged in providing services to the consultants, contractors working on the skyscrapers, sugar mills, textile mills, cement industries, barrages, dams, fertilizer plants, power plants and motorways etc.

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Misson Statements

The Philosophy of TJ Engineering Services is to provide its appropriate, innovative and affordable professional Engineering Services to thier valued customers. We aim for client satisfaction by ensuring that our work is accurate and completed on schedule as well as within the budget,

Our mission is to develop cost-effective solutions to meet the unique present and future requirements of our clients. To accomplish this, we investigate all resonable options. Such as adoption of new technologies, design customizes Engenieering tools and offer excellence in the design and delivery of engineering services.



Business Aims

. To compete with leading engineering services compnies in the country.
. Utalization and development if technoogy to achieve standards.
. Continous improvement of company's human resources.

Future Aims

. To become an independent firm in the field of engineering Services this can handle projects right from the designing to the execution of the projects.
. TJ Engineering Services shall employ knowledge experience and cpabilities to develop and set ou guidlines for the betterment of the company.

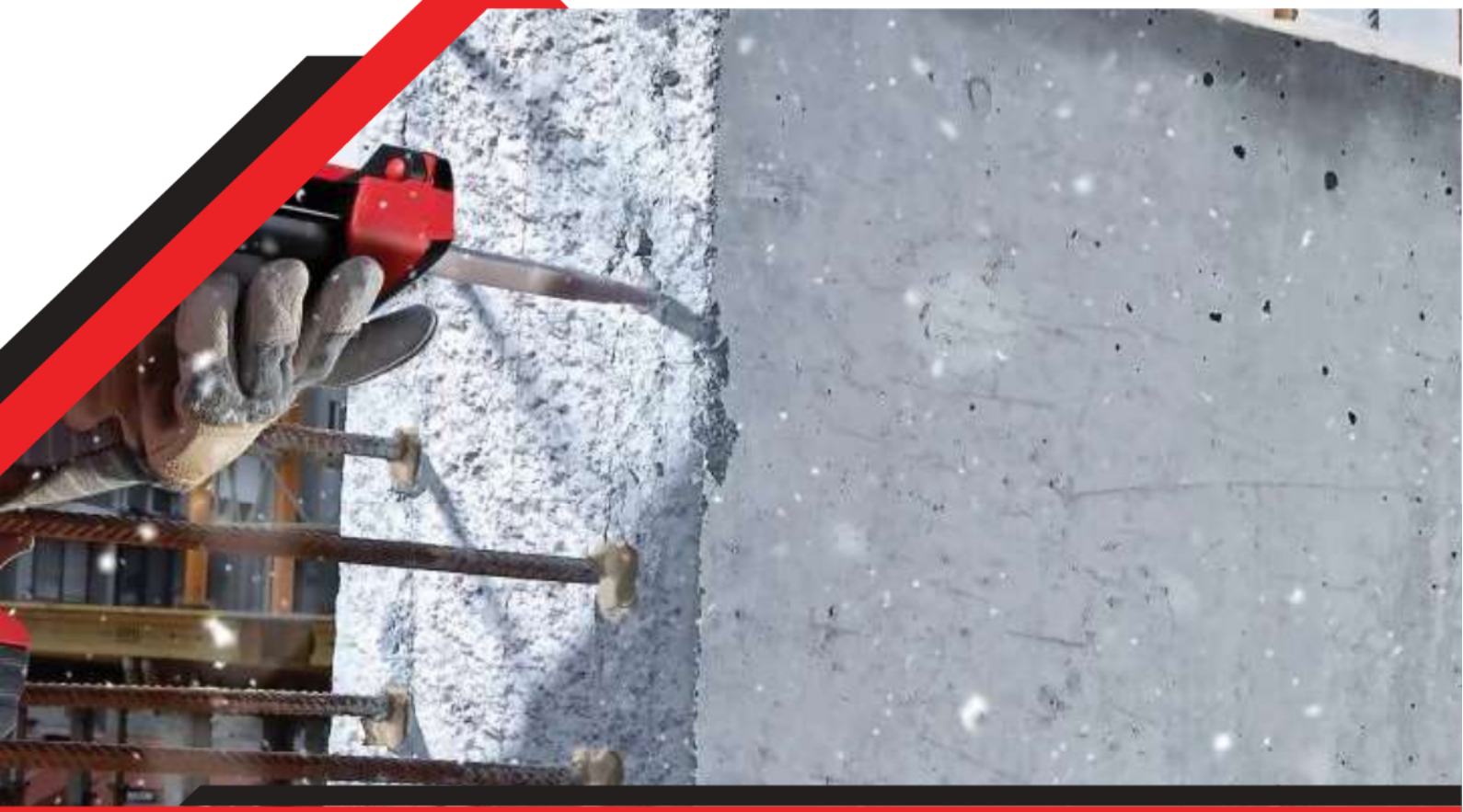
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Dowel Anchoring/Anchor Installa

Dowel Anchoring & Anchor Installation has become an everyday occurrence of the building construction &industries as well. It may raise initial construction cost but this procedure has been proven to be a secure andsafer procedure over the long period of time. Both the two procedures are reliable and are used for differentapplications.

The invention relates to fixing threaded anchor rods & dowels in concrete, rock and the like. Typically, forproducing anchored rod/dowels in concrete surface, a bore hole is made epoxy insert into the hole withdispensing gun & static mixture as per manufacturer's standards and then fixing the required anchor/dowel.

The objective of the invention is to increase the bearing capacity and safety level of such anchors/dowel,another advantage in chemical anchoring to achieve maximum strength with shorter depth.



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Diamond Core Cutting

Diamond Core Cutting system is performed by using rotary core cutting machine with a diamond core bitattached in order to create precisely measures holes. Diamond is one of the hardest naturally occurringmaterial in the world, it is ideal for creating openings in a Concrete. Diamond Core Cutting is a precisioninstrument, creating clean, accurate holes with diameters of between 8mm to more than 1500mm alongwith depth of 4000mm.

It is a non-percussive technique; therefore structural integrity is maintained during this operation. Thismethod runs water through the driving shaft to ensure that the workspace remains free of dust. It canbe operated in either a vertical or horizontal direction depending on the requirements.

Diamond Core Cutting is a cost-effective cutting technique that decreases both time to project completionand labor costs. Other advantages include:

. No-to-low noise pollution
. No vibration means no damage to nearby structures
. An environmentally-friendly, debris-free

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Water Proofing

In building construction, waterproofing is a fundamental aspect of creating a building envelope, which is acontrolled environment. The roof covering materials, siding, foundations, and all of the various penetrationsthrough these surfaces must be water-resistant as well as waterproof.

Following are the major types of Waterproofing Systems:

. Cementitious/Crestline WaterprooÞng
. Liquid WaterprooÞng Membrane
. Bituminous WaterprooÞng
. Acrylic WaterprooÞng System
. Elastomeric Coating System
. Bituminous Membrane WaterprooÞng Method

A leaky ceiling or wet basement is harmful for RCC Structure. It can lead to structural damages. Dampnesswill also attract wood rot and termites. Water proofing methods are used to prevent water entering intovarious sections of building structures like tanks, roof, walls and floor or expansion joints.

Water Proofing Neccesary For

. Water Treatment Plants
. Sewage Treatment Plants
. Bridges
. Dams
. Railway & Subway Systems
. Marine Cargo Ports & Docks
. River Locks/Channels & Concrete Dykes
. Parking Structures & Lots
. Tunnels



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Protective Coatings

It has been a long-term felt necessity of chemical, textile & pharmaceutical industries, such a coatingcompound that can offer a promising protection to their plant flooring against intense corrosive & etchingcaused by various acids, alkalis and such other corrosive chemicals of organic & inorganic origin. To meetthis crucial demands of chemical industries.

Reinforced concrete is a composite material. Its structural performance is realized only when concrete andsteel act in unison during the service life of the structure. The compressive and tensile loads are carried byconcrete and steel respectively. Steel protects concrete from cracking under tensile loads and concreteprotects steel from corrosion by providing an alkaline environment around it. So long as this happens, thereinforced concrete structures perform satisfactorily. Even though the concrete can be a very strongmaterial, it is also subject to deterioration. Concrete can be porous so that chemicals can penetrate thepores and attack the paste.

The paste and aggregate can also be worn down by physical impact and abrasion. Water can penetrateconcrete, freeze and expand inside it when the temperature drops, and ultimately weaken the concretefrom within. In addition, if the concrete has reinforcing steel bar (rebar) to impart additional strength andother properties, the rebar can corrode if moisture, oxygen and chloride ions penetrate the concrete.Corrosion or rebar contributes to the deterioration of concrete.

Various external hostile environmental substances, such as, water, carbon dioxide, oxygen, chlorides,sulfides and biological organisms are transported from the atmosphere into the concrete and attack steeland concrete in different mechanisms causing premature deterioration of reinforced concrete, challengingits durability and resulting in premature failure of the structures. The entry of the harmful agents can berestricted and or avoided by providing the barrier surface coatings on the concrete. Thus conservation ofstructural integrity can be achieved during service life.

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Non-Shrink Grouting

Grout is a viscous material that is used to fill the space between two elements for bonding them or to createa water-tight sealing existing structures. Grouts are used in a variety of applications such as repair of cracks,water–stopping in submerged structures such as canals, tunnels, etc., fill seams between tiles, and forstabilizing soil. Here we have briefed about types of grouts used in the repair of cracks. Grout is distinguishedby its low viscosity and lack of lime (added to mortar for pliability), additionally, grout is thin so it ßows readilyinto gaps. Grout varieties include tiling grout, ßooring grout, resin grout, non-shrink grout, structural grout andthixotropic grout.

Cementitious Grouting

The mixing of Grout with water produces a fluid suspension which can be poured under base plates or intofoundation pockets. Setting and hardening are the important processes which affect the performance ofcement grout. Moreover, presence of excessive voids would also affect the strength, stiffness & permeabilityof grout. It is versatile in application of filling voids and gaps in structures.

Epoxy Grouting

Epoxy grout consists of epoxy resin, epoxy hardener and Fillers/aggregates. In fact, there are various types ofresin used in construction industry like epoxy, polyester, polyurethane etc. Though epoxy grout appears to implythe presence of cement material by its name, it does not contain any cement at all. On the other hand, epoxyhardener serves to initiate the hardening process of epoxy grout. It is commonly used for repairing hairline cracksand cavities in concrete structures and can be adopted

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Crack Injection

This method can be used to repair cracks in foundations, basements, beams, columns, slabs, walls and otherconcrete structures as narrow as 0.5 mm up to 10 mm.

The method generally consists of drilling holes at close intervals along the cracks, installing entry ports,and injecting the epoxy under pressure.

Epoxy injection has been successfully used in the repair of cracks in buildings, bridges, dams, foundationsand other types of concrete structures. If the crack is active and it is desired to seal it while allowingcontinued movement at that location, a Polysulfide /Polyurethane sealant shall be used that allows thecrack to function as a joint.

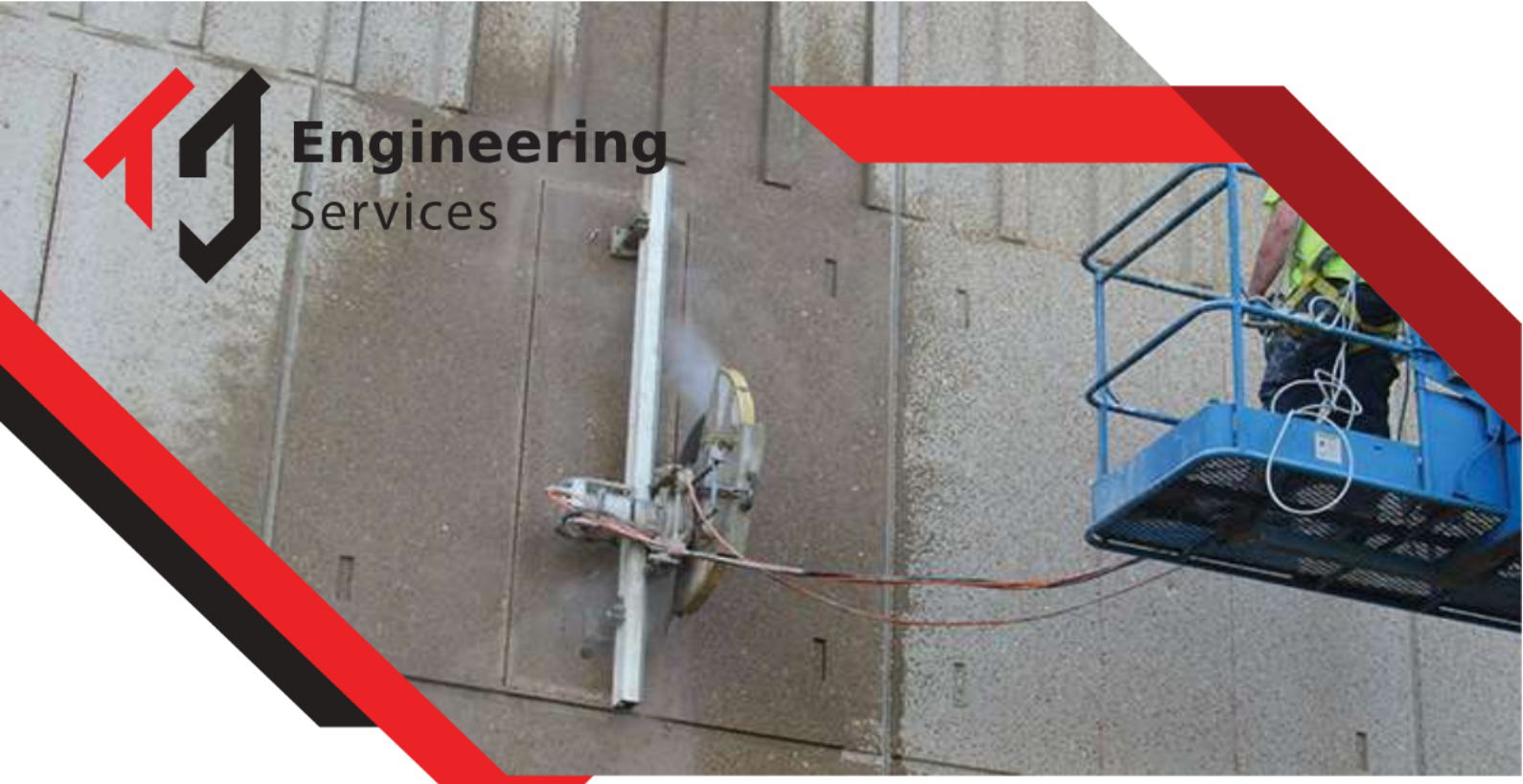
Stitch Core Cutting

Stitch core Cutting system is used to form slots and opening through wall and floor where others methods ofcutting are not practical or accessible. This method is predominantly used in restricted areas. Stitching isalso used extensively in areas with close proximity to “clean or controlled” environments as this methodbrings the benefit of significantly reduced cutting are far easier to control & contain.

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Wall Sawing

Wall Sawing Using a diamond blade mounted on a track we can cut concrete walls both horizontally andvertically to create accurate openings for a range of applications. wall saws are extremely versatile andtheir small size and lightweight nature mean they can be used in situations where heavier floor saws arenot feasible. Find out more about Wall Sawing Services.

Key Features Of Wall Sawing.

. Precision cutting up to depths of 1000mm utilizing blades of up 2200mm diameter
. Precise remedial works
. Remote controlled operation for increased safety
. Range of cutting including angle cutting, inverted cutting, stair cutting and
Bush cutting
. Speed & versatility

Water Proofing Necessary For

Floor Sawing is ideal for cutting reinforced concrete or asphalt. Using the latest technology our specialistteam of concrete cutters can cleanly cut depths of up to 700mm in horizontal surfaces such as runways,roads and pavements.



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Diamond Wire Sawing

This technique uses a diamond impregnated wire which is fed through a series of pulleys to form a cut whereother methods are not practicable. Diamond Wire Sawing is the perfect technique where there is a need toremove considerable areas of heavily reinforced concrete in complex situations where there is limited access.Examples include a concrete sawing of bridge deck or the removal of columns and beams, where depth and speed of cut are imperative.

Key Features Of Wire Sawing

. Non-percussive, fumeless and quiet
. Smooth cut face
. Unlimited cutting depth
. Horizontal, vertical and angled cutting openings up to 2500mm diameter
. Flexible and quick
. Plunge cutting facility which allows blind and rebated openings to be

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Slab Sawing

Concrete slab sawing—also known as flat sawing—is a quick and efficient diamond method used for cuttinghorizontal surfaces such as concrete slabs, floors, bridge decks, and pavement. Slab sawing gainedpopularity in the concrete cutting industry because it is versatile, practical, and cost efficient. Slab sawsare typically powered by gasoline, diesel, electric, or hydraulic engines. Compared to jack hammering,slab sawing is faster, quieter, and less stressful to structural areas. The applications for slab sawing are virtuallyendless, and the procedure can be performed on a variety of structures, both indoors and outdoors.

Common Application for Slab Sawing

. Cutting reinforced concrete ßoors
. Cutting expansion and control joints
. Cutting sidewalksControlled demolition
. Cutting plumbing and electrical trenches in slabs
. Construction of structural foundations
. Road and street repairs
. Residential and commercial improvements
. Broken water pipe and sewer line repair

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Our Valuable Clients

TJ ENGINEERING SERVICES has earned a reputation for developing innovative solutions and qualityproducts to our customers. The following projects are samples. Each project, we worked on, wereunique and presented a speciÞc set of problems, call for an integrated approach by tailor blend ofpeople's skills and experiences. Brisk Engineering has been at the forefront of using the latesttechnologies to deliver a quality satisfaction back up with full regulatory compliance. Although nosingle Brisk Engineering Services Project captures the breadth of our capabilities.

NOVARTIS PHARMACEUTICALS

SOORTY DENIMKIND

YUNUS TEXTILES FOR LIFE

MUGHAL CONSTRUCTION

ABASEEN CONSTRUCTION CO. (PVT) LTD

ACC

FEROZE 1888 MILLS PVT.

TOTAL CONSTRUCTION

AGHA STEEL INDUSTRIES LIMITED

PARAGON CONSTRUCTORS (PVT) LTD.

standard chartered

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