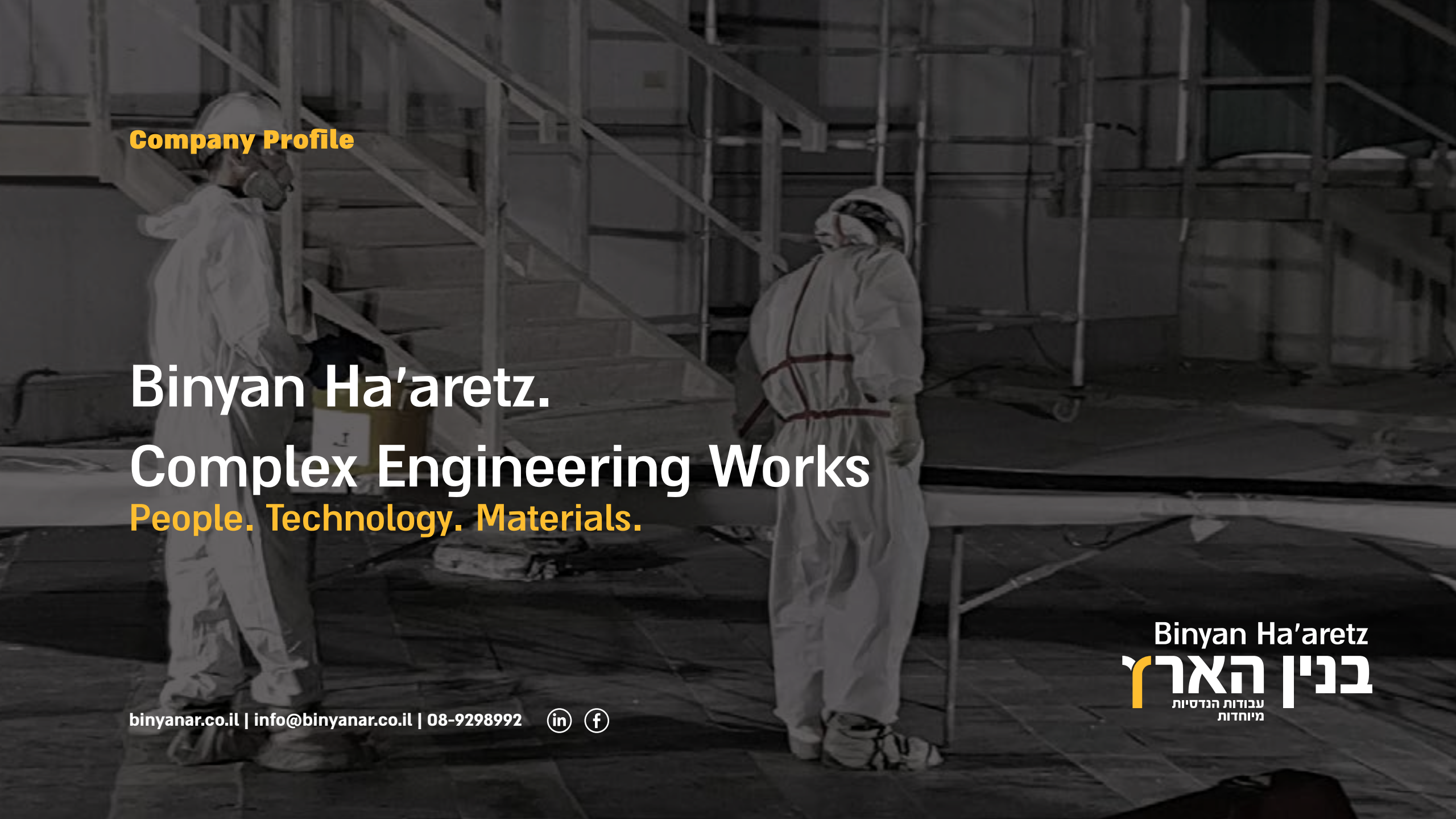


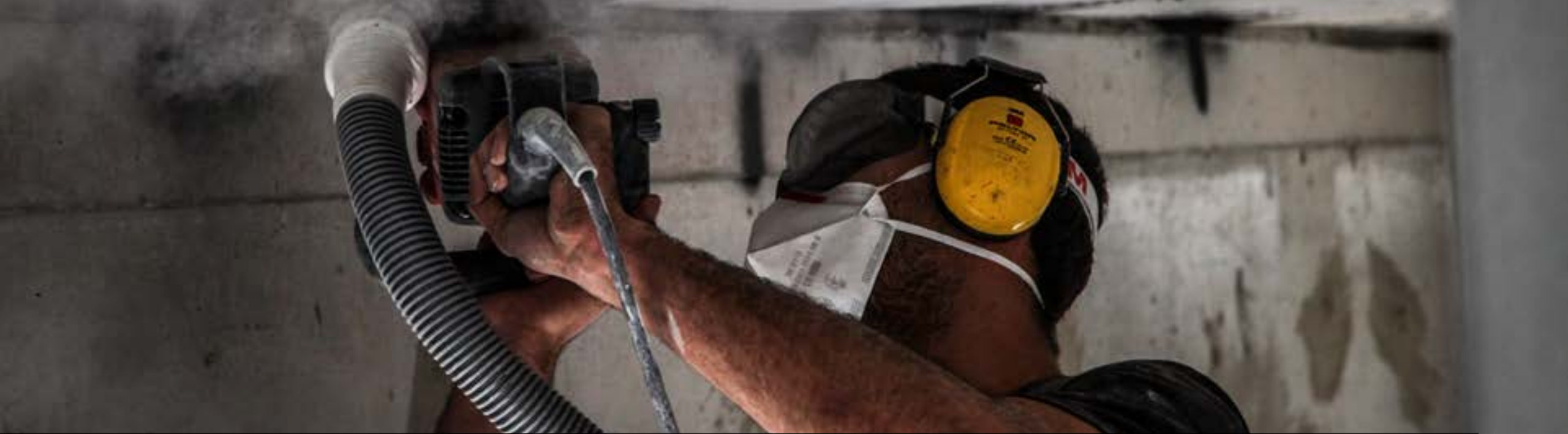
Company Profile

Binyan Ha'aretz.
Complex Engineering Works

People. Technology. Materials.

binyanar.co.il | info@binyanar.co.il | 08-9298992

Binyan Ha'aretz
בנין הארץ
עבודות הנדסיות מיוחדות



Reinforcement, conservation and maintenance of existing structures is a business requiring specific specialization. This field poses multiple challenges for those engaged in this work. It requires highly-developed capabilities to understand the complexities of the work, to comply with the design guidelines and it also has to take into consideration the needs of the structure itself and its tenants. As a leading company specializing in complicated engineering projects, Binyan Ha'aretz is committed to delivering efficient, creative and proven solutions to complicated challenges while allowing plenty of maneuvering space in the project design.

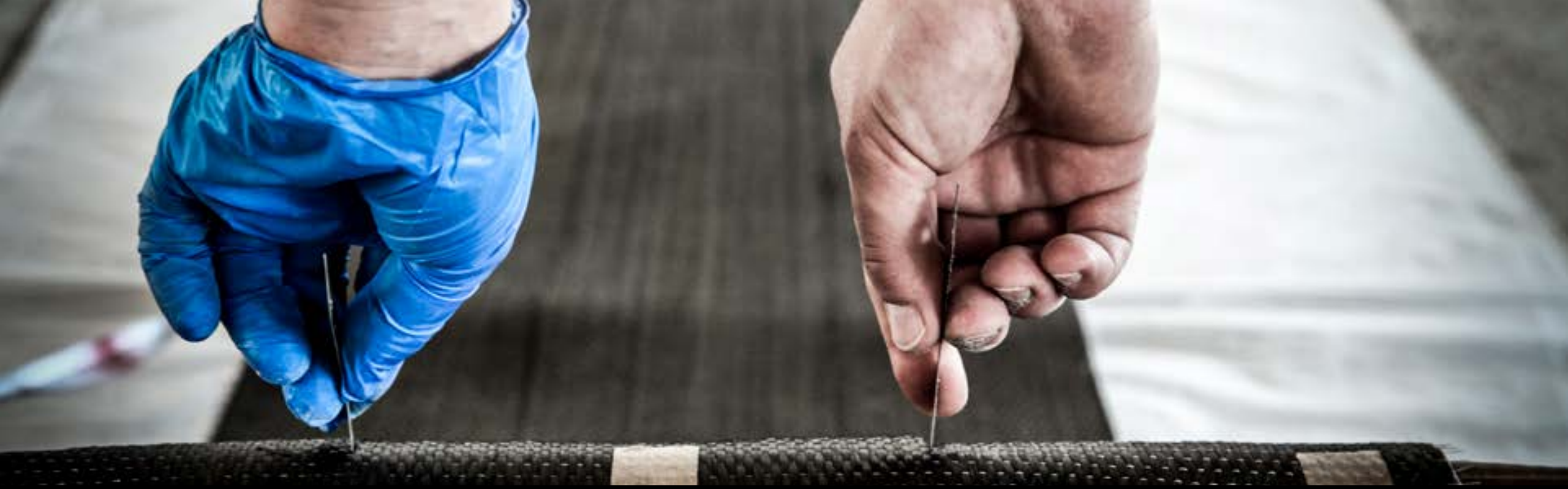
Binyan Ha'aretz: creative solutions to complicated problems

Binyan Ha'aretz specializes in executing complex engineering works: structural reinforcement using composite materials, reinforcing Pal-Kal structures, application of injection technologies, building conservation and restoration and specialized drilling works.

The in-depth engineering competency, flexible thinking, extensive experience and knowledge the Company has accrued over the years allow us to cope with complicated problems, to offer solutions tailored to the unique complexities of each project.

Binyan Ha'aretz: People and technology

Binyan Ha'aretz stands out in the construction company landscape. It is managed to standards common to the high-tech industry. We employ unique work methodologies, which include specialized work methods, excellent materials and meticulous process control mechanisms. The Company employs a highly-skilled, professional workforce, all with security clearance. It employs advanced technological solutions and makes use of Command & Control systems, most of which have been developed in-house, to ensure the quality of the workmanship and of the final result while remaining within precise deadlines.



Why Binyan Ha'aretz

360 degrees

Design, planning, management and execution - support throughout the project lifecycle

Cost savings

Tailored solutions and precision, efficient surgical execution

Workmanship

Meticulous work methodologies and built-in process control

Flexible thinking

Creative solutions to complicated problems

People.
Technology.
Materials.

Main Specializations

Carbon Fibers | Pal-Kal | Structural conservation and rehabilitation | Diamond drilling | Waterproofing and reinforcement using injection technology

Reinforcing structures with carbon fiber-reinforce polymers (CFRP)

Carbon fibers belong to the family of composite materials. They are unique in combining exceptionally light weight with extreme tensile and structural strength.

The main advantages of using carbon fibers are in the material's properties, the aesthetic appearance of the resulting work and the preservation of existing spans and spaces without having to add columns or beams.

Use of carbon fiber sheets for structural reinforcement is an efficient solution suitable for a broad range of deficiencies and problems:

- Reinforcing ceilings, columns and beams to facilitate increased structural loads (adding floors, redesignation, etc.
- The need to remove columns or retaining walls or to open walls, when redesigning spaces.
- Compensating for shortage of rebars due to a design or execution deficiency.
- Reinforcing structures with a confined geometry, for example reinforcing parking garage ceilings.
- Reinforcing structures against earthquakes.
- Restoration, reinforcing and conserving structures of historical value without altering the structural schema.
- Strengthening of water infrastructure and piping due to concrete or steel abrasion.
- Reinforcing and creating new openings in prestressed concrete slabs.

Reinforcing with carbon fibers requires a high degree of professional skill, a careful work methodology and built-in process control. Binyan Ha'aretz cooperates with the world's leading carbon fiber manufacturers and users. The company is certified by Sika, StressHead and Tradeecc.

Our extensive experience in application includes 100 thousand square meters of sheets, 80 thousand meters length of laminates.

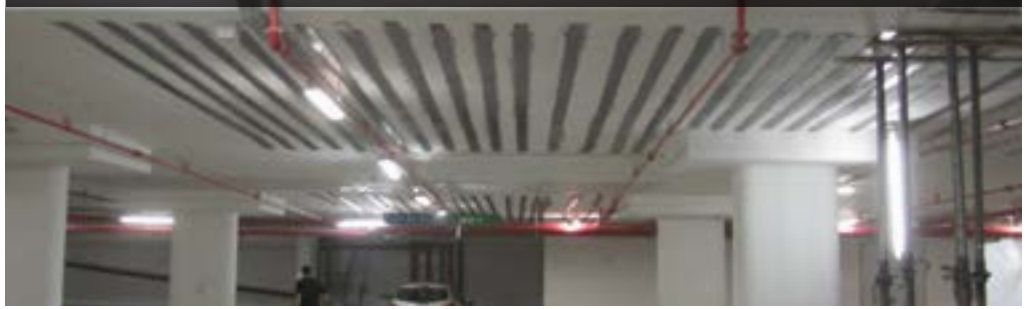
Reinforcing structures with carbon fibers | Sample projects

Facebook offices, Azrieli Sarona Towers

Reinforcement of a level to increase service loads.
Scope: 4,000 meters length of CFRP laminates
Planner: David Engineers

Parking garage, Ness-Ziona

Reinforcing the roof of the parking garage in a 4-storey building under construction.
Scope: 7,000 meters length of CFRP laminates
Planner: Doron Shalev Engineering. Customer: Danya Cebus

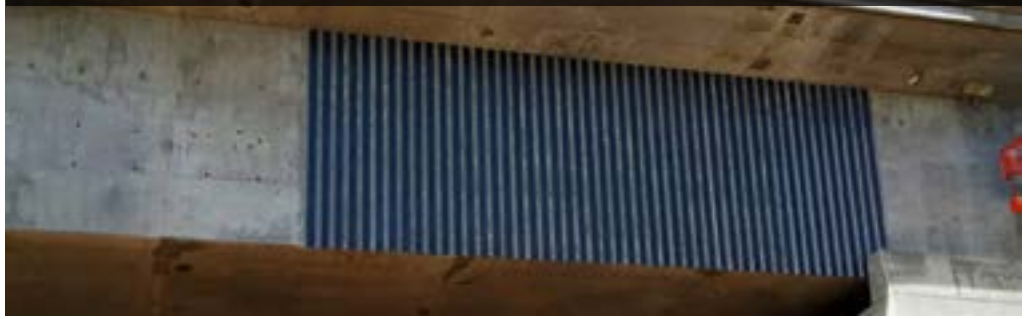


Intel, Kiryat Gat

Reinforcement of a structure to increase loads and to strengthen against earthquakes without disrupting routine activity.
Scope: 12,000 sq.m. of CFRP sheets. Planner: Yaron Offir Engineers

Railway bridge, Israel Railways

Reinforcing prestressed cables on a bridge without disrupting routine work.
Scope: 2,000 meters length of CFRP laminates
Planner: PAKATZ Engineering



Unique method for reinforcing Pal-Kal structures

Binyan Ha'aretz has been a leader in reinforcement of the Pal-Kal structures for over a decade. To date it has reinforced many structures, totaling approximately 200 thousand sq.m. of Pal-Kal ceilings. The ceiling reinforcement is based on a complete geometric characterization of the ceiling using special, proprietary technology developed by the Company, providing the planner of the reinforcement a detailed, precise three-dimensional AS MADE plan to assist in comprehending the real state of the ceiling. The reinforcement is done by inserting concreting rods to achieve shearing forces to the centers of the ribs and anchoring or prestressing them as necessary. The work is done surgically while providing a tailor-made solution to the problems and requirements of the structure, avoiding disruption of the working routines in it while the works are in progress. The method has been tested and approved by the Ministry of Interior's Pal-Kal Staff.

Advantages of the method

- A proven, approved engineering solution for the Pal-Kal problem
- Surgical, precision and clean intervention
- Relatively short work time, suited to the daily routine in the structure
- Does not require evacuating the building or interrupting work
- Substantial cost savings

Reinforcing Pal-Kal structures | Sample projects

Meuhedet Health Fund, Jerusalem

Design and build reinforcements to an active Pal-Kal structure including topping up a shortage of rebars using carbon fiber sheets without disrupting work in the building.
Scope: a six-level structure at Meuhedet Health Fund, Haturim Street, Jerusalem

Globalium Building, Lod

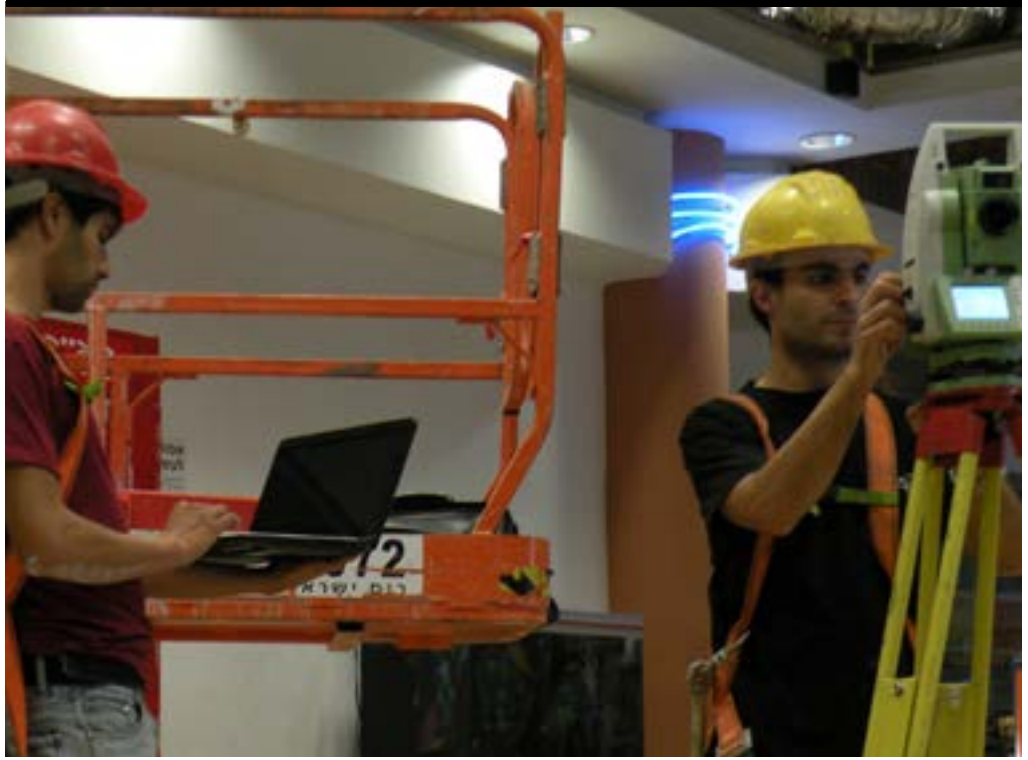
Design and build reinforcements to a Pal-Kal structure and topping up a shortage of rebars using carbon fiber without disrupting work in the building.
Scope: a 10,000 sq.m. building in five levels

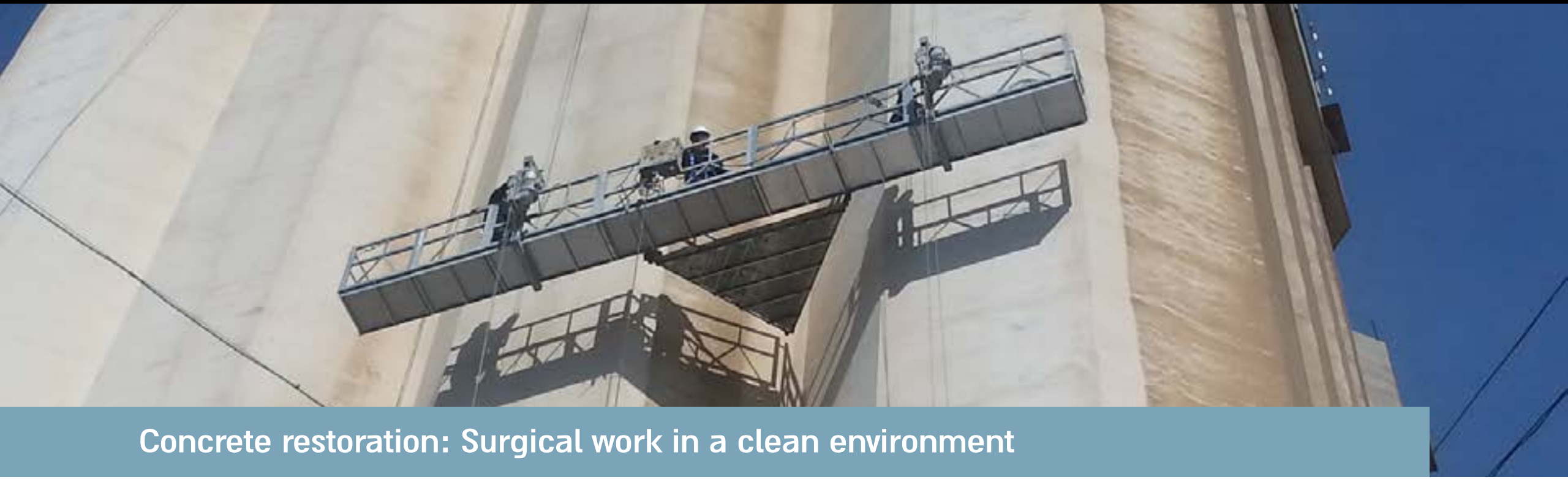
Corex Building, Herzliya

Design and build reinforcements and increase loads in an active Pal-Kal structure without disabling it and without disrupting the work routine in the structure.
Scope: a 15,000 sq.m. in Maskit Street in Herzliya Pituach Engineering supervision: David Engineers

Harel Mall, Mevaseret Zion

Design and build reinforcements to an active Pal-Kal structure without disabling it and without disrupting business in the mall.
Scope: Mall, 25 thousand sq.m. floor area in Mevaseret Zion
Customer: Harel Mall and Melisron





Concrete restoration: Surgical work in a clean environment

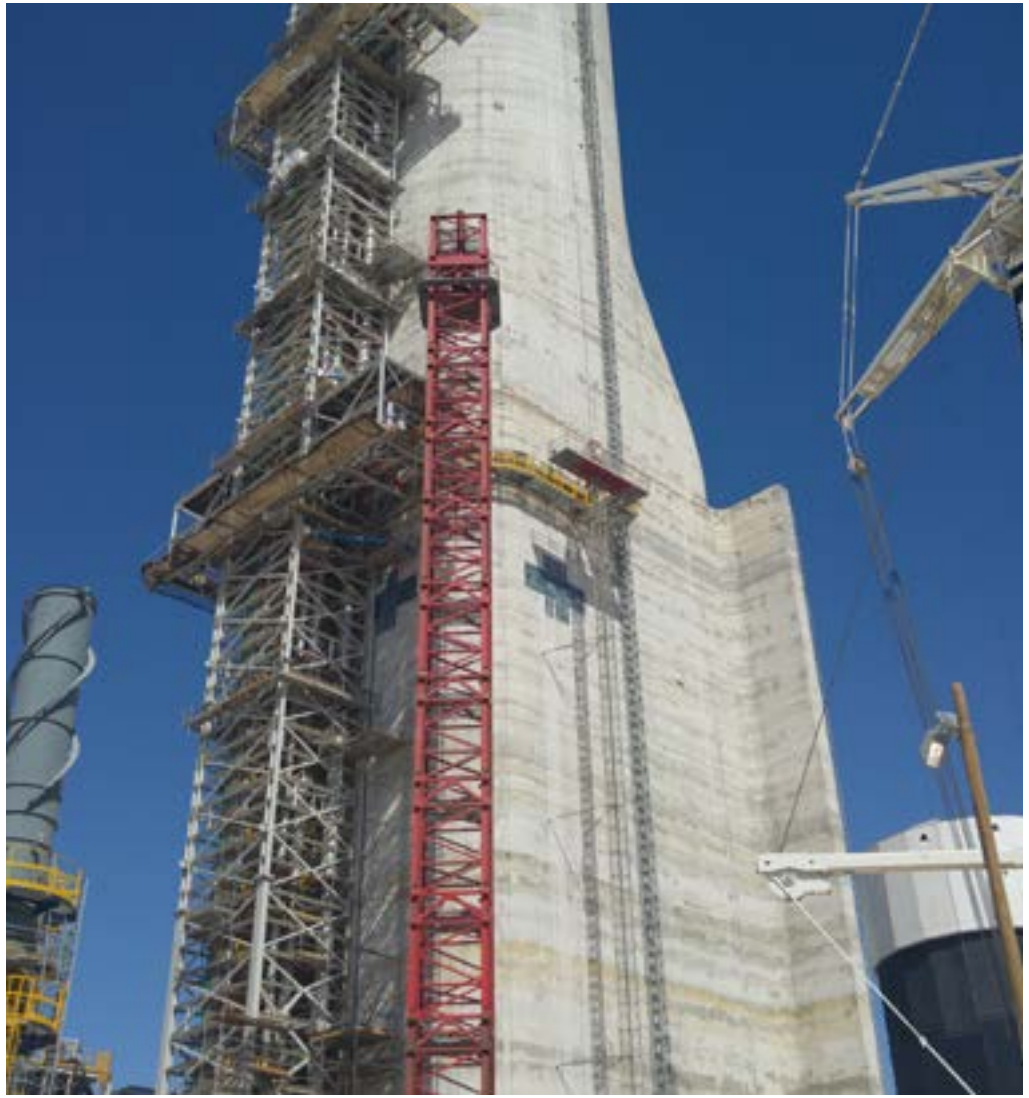
The sight of crumbling concrete and exposed rebars is typical of old buildings and of structures close to the sea and of water tanks and water towers. Sometimes even new structures need have their concrete restored due to defects in the construction process.

Concrete restoration is a complicated task requiring the highest degree of professionalism and also use of special tools and machines. Incorrect execution will necessitate recurrent treatment over the years.
Binyan Ha'aretz is highly experienced in concrete restoration processes. It also offers an end-to-end warranty of its workmanship.

Structure conservation

Structures designated for conservation require that the facade be restored to its original state while taking into consideration structural stability and while adapting it to comply with the current construction standards.
Binyan Ha'aretz has the professional experience and skill to execute such projects.

Concrete restoration | Sample projects



SHAFDAN - IGUDAN

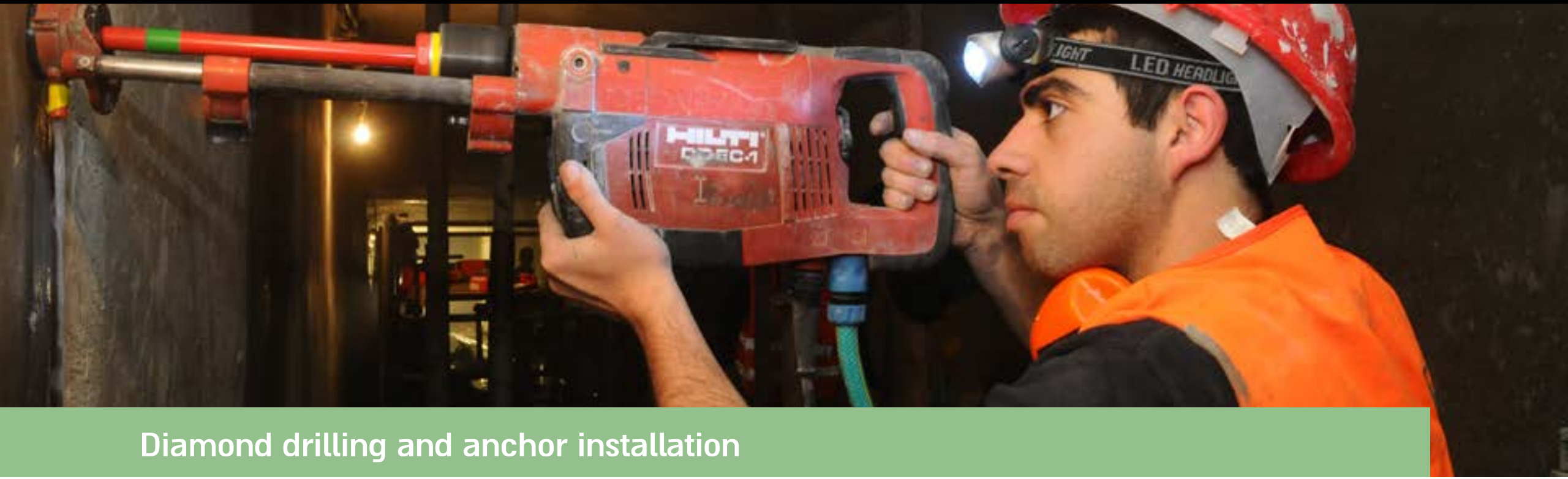
Digester restoration at the SHAFDAN sewage treatment plant, combining several methods: carbon sheets, epoxy injection, complex diamond drilling and pouring concrete with steel fibers.
Planner: Doron Shalev Engineering and S. Engel engineers

Flour mill, Kiryat Gat

Restoration of concrete in the 70-meter-high flour silos using special equipment.
Planner: S. Engel engineers

Zel Harim Hotel, Dead Sea

Restoration of the metal corrosion damage and renovation of the concrete surfaces of the hotel ceilings.
Planner: Ravitz Engineers



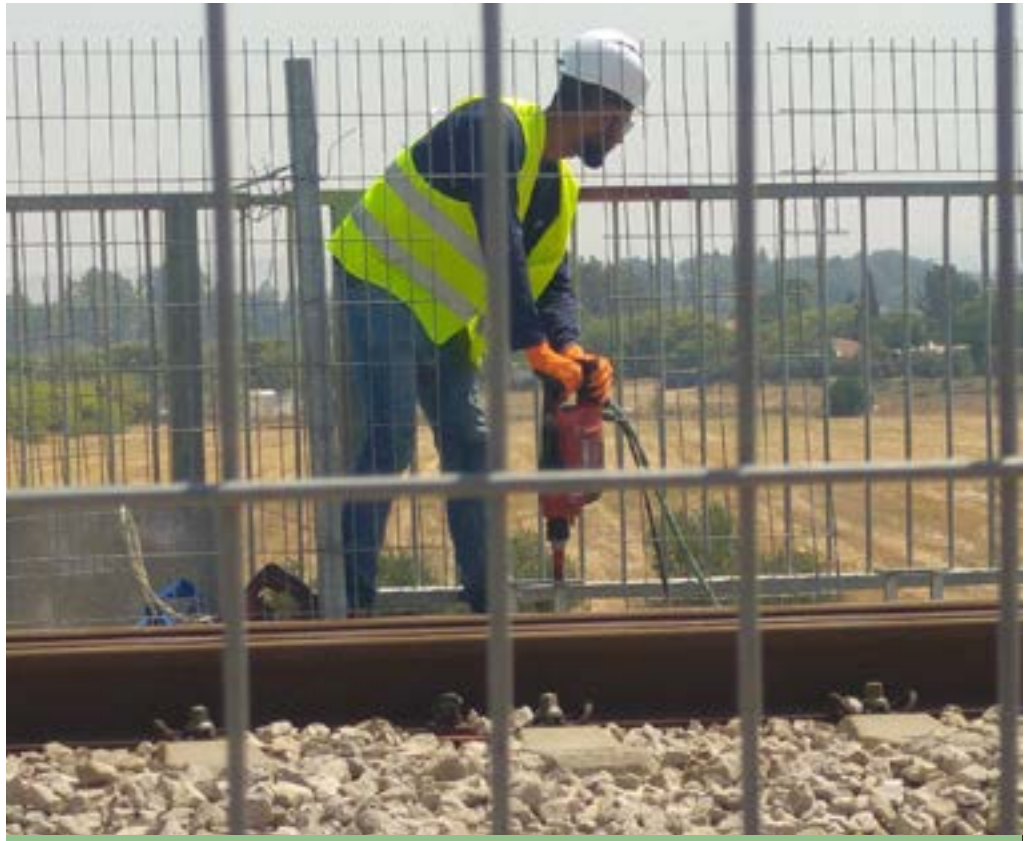
Diamond drilling and anchor installation

Diamond drilling is a good, effective method for drilling hard surfaces such as concrete walls, residential secure spaces, steel, floors, and rocks - as well as fir drilling structural elements within buildings, where surgical intervention is necessary without causing harm to the structure. Diamond drilling is used for creating openings in prestressed concrete slabs, guiding electricity and water pipes, drilling in bridges and for installing elements, fixing anchors and opening roofs.

Binyan Ha'aretz is a leader in diamond drilling and installation of chemical and mechanical anchors in complicated projects where accessibility is a problem and where timetables are tight. The Company uses advanced means of steel detection and also advanced measurement devices enabling execution of the drilling to the highest degree of accuracy. The Company's engineering teams, assisted by the laboratory staff, achieves a high degree of accuracy, which enables the work to be accomplished without harming structural elements within the building.

The Company owns a large fleet of HILTI diamond drills, ensuring large-scale projects can proceed uninterrupted.

Diamond drilling | Sample projects



Israel Railways

Complicated diamond drilling to install anchors on bridges and railway tracks while maintaining accuracy and without harming the steelwork. The work proceeded under especially tight timelines over three shifts, 24 hours a day.
Customer: Semi

Restoration of the National Water Carrier, Eshkol Site

Complex diamond drilling and steel reinforcements within the National Water Carrier channel. The work proceeded under especially tight timelines over three shifts, 24 hours a day.
Customer: Mekorot

Ministry of Defense

Drilling and structural installation for a classified MOD project.
Customer: Solel Boneh

Waterproofing and reinforcement using injection technology

Epoxy injections are usually required to repair cracks which form in concrete as a result of structural movement, defective workmanship or planning, loads on beams and ceilings, earthquake damage or in the seams between new pourings. Injections are also used for waterproofing.

Epoxy injection and waterproofing injections are complicated tasks that must be carried out by skilled, specializing teams using the right instrumentation, materials and equipment.

Binyan Ha'aretz is very experienced in this field. It owns injection machines, including machines for injecting dual-component materials, enabling injection of dual-component polyurethane and epoxy materials.

Injection technology is used in numerous projects as part of the total scope of works being done.

Binyan Ha'aretz.

Complex Engineering Works

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