



SPECIALIZED
CONCRETE
SOLUTIONS

Company Profile



Specialized Concrete Solutions (Pty) Ltd (SCS) was established in 2013, we are based in Durban and have a satellite office in Port Elizabeth, from these two offices we service all areas of South Africa.

Our specialty services are as follows:

1. Concrete Assessment, Investigations and Repair Plans
2. Concrete Repairs, Rehabilitation, Protection and Post-Strengthening
3. Concrete Coring and Cutting
4. Innovative Concrete Solutions

We assess and investigate concrete structures using the latest non-destructive testing equipment to compile results into a detailed technical document. We do integrate a certain amount of destructive testing to verify and correlate our equipment to achieve accurate information.

In addition we formulate a concrete repair plan (CRP) based on the results of the assessment / investigation with various concrete repair systems available in the industry.

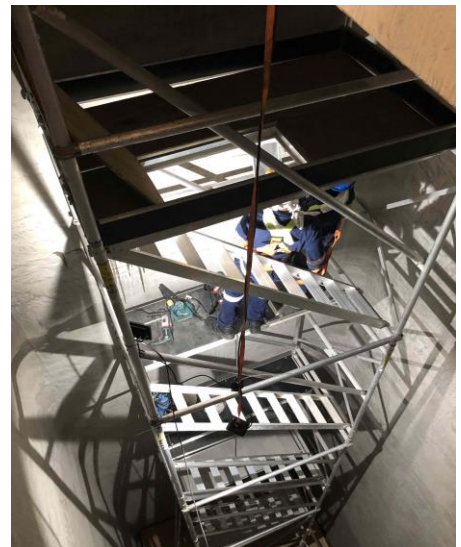
As a turnkey solution our team has extensive knowledge and experience in following through with the repair of the concrete structure thus offering the client full project integration.

Our innovative concrete concepts collaborate with industry to offer tailor-made solutions for overcoming challenges faced in our building environment.

We assist professionals in putting together project specifications ensuring that the best product is put forward in order to protect the client's assets in turn benefiting the client maximum return on investment.

We are not easily swayed by challenging work environments and will pursue all avenues to engineer a way forward in getting the work executed successfully.

Our workmanship carries a warranty on all our turnkey projects with maintenance plans and extended warranties on request.



Project Showcase

The pictures above were taken during a concrete repair project. The scope of work included specialist injection work and a protective coating on the exterior of a silo structure.

Access was one of our major challenges as a large part of the injection work had to be performed in the interior of the silo bins - total depth of the silo bins was 16,5 meters. Working platforms were engineered to suite the tapered chutes at the base of the bins that locked into the chutes without fixtures. A tower of light-weight scaffolding was then erected on the build platform to give access to the work areas.

Concrete: Assessment, Investigations and Repair Plans

We are grateful to have a large selection of technologically advanced equipment to assist us in collecting information from concrete structures. Our non-destructive testing software

capabilities allow us to generate and record accurate data of reinforcements and overall condition of a structure for consulting engineers to make well informed decisions.

With our innovative concept of on-site permeability testing for durability, corrosion analysis, carbonation depth, chloride profile testing, we are then able to forecast the longevity of a structure and formulate a preventative maintenance concrete repair plan using this data.

We collaborate with civil engineering laboratories for destructive testing methods such as core sample strength testing. We try minimizing destructive testing methods by correlating sample data results into our instruments for more accurate non-destructive testing on-site.

Based on the consulting engineer's specification and scope of work we compile a comprehensive technical document using all collected and interpreted data.

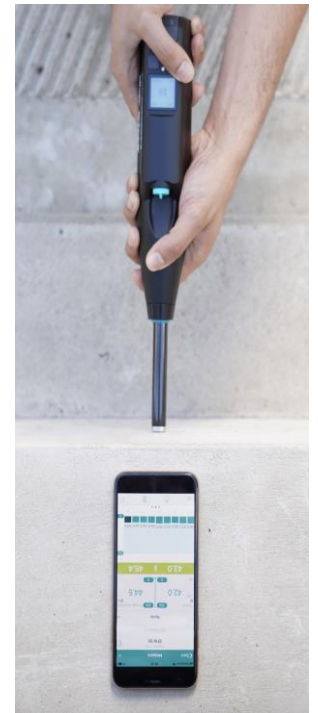
Our services include the following:

- ✦ Rebar mapping including cover and rebar measuring
- ✦ Flaw detection in concrete such as honeycombing, de-lamination and voids using enhanced ultrasonic pulse echo technology
- ✦ Corrosion analysis, concrete resistivity and durability testing including on-site chloride profiling
- ✦ Compressive strength testing using two methods namely rebound testing with correlated custom curves to parent material and ultrasonically using the SONREB method
- ✦ Detection of soil conditions below concrete surfaces such as voids using ground penetrating radar

Concrete: Repairs, Rehabilitation, Protection and Post-Strengthening

We have vast experience in formulating complete concrete repair plans using the data from the assessment and investigation results whereby we address the problems with the correct information.

We further offer the services of following through with the actual repair, giving the client confidence that the correct methods and products are used for the relative repair work applied by our experienced application team, this elevates any loss of communication and or misinterpretation of the scope of work.



Quality is our priority and ensures that the professional team is well informed at all times by means of a control plan.

We collaborate with all the leading suppliers for the most effective solutions, we further research new technologies local and abroad keeping up with the latest advancements in the repair industry.

Our turnkey projects come with workmanship warranty's and in most cases a back-to-back warranty with the manufacturer.

Our services include the following:

- ✦ Conventional Concrete Repair methods of addressing corrosion of rebars and spalling repairs
- ✦ Structural injection of concrete for the repair of honeycombing / voids
- ✦ Injection of concrete for sealing cracks caused by construction error or structural defects
- ✦ Injection for Seawall Repair: remediate, seal leaks and stabilize surrounding soil
- ✦ Injection to stabilize soil conditions under pavements or retaining wall 'wash-out' applications
- ✦ Specialist cementitious and epoxy grouts for general and precision grouting applications
- ✦ Retaining and Wastewater systems - complete refurbishment and protection
- ✦ Concrete Protective by means of coatings both penetrating, surface applied coatings and cathodic protection
- ✦ Post strengthening of concrete structures for re-purposing applications with the use of carbon fiber technology



Concrete: Coring and Cutting

To offer a complete package to our clients, we also offer the services of coring and cutting concrete elements.

With the use of our technologically advanced instruments, we are able to accurately mark out core positions and core through concrete slabs that are reinforced with post-tension cables.

We are also mindful of the method that is used to core or cut concrete structures minimizing the risk of damaging any key reinforcements in the structure.

Our strong belief in comprehensive surface preparations is of paramount importance to any successful repair of a concrete structure, we therefore cater for this need with equipment fit for purpose.

Our services include the following:

- ✦ General core drilling
- ✦ Precision core drilling
- ✦ Cutting of joints
- ✦ Joint reaming
- ✦ Floor cutting
- ✦ Wall cutting
- ✦ Floor grinding
- ✦ Scabbling
- ✦ Breaking
- ✦ Water jetting
- ✦ Rigging of cut sections



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