



# HYDROCLEAN

Hydro Demolition | Structural Repairs





## ABOUT US

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Hydroclean Ltd are the only all Ireland company that offer a bespoke and tailored package for all repair and maintenance requirements of a wide range of structures.

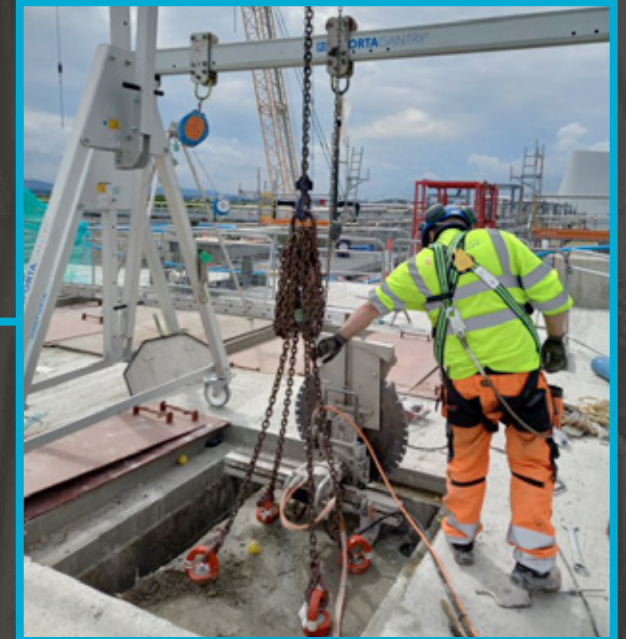
Our process includes site investigations to assess the condition and deterioration of structural concrete and the suitability for reconstruction or repair. We determine the requirements of the remedial works, offering cost effective solutions to address and resolve structural problems for our clients.

We are ISO 9001, ISO 14001 and ISO 45001 accredited, a Constructionline gold member and a Water Jetting Association Audited Member.

Hydroclean offers in-depth experience and knowledge of all aspects of structural remediation, from inception to completion. We have the experience, skill, ingenuity and resources to provide cost effective solutions for all your project needs. We offer a hands-on responsive service using our expertise to meet client specifications.

We have worked across the UK, Ireland & Europe, over the past 20 years on a range of private and public sector projects as both main contractor and specialised subcontractor. Our references and awards testify to the achievements of our committed, experienced and vastly skilled workforce.

Hydroclean demonstrates the highest standards in quality, safety and environmental performance throughout both our management systems and project delivery. We are certified in ISO 9001, ISO 14001 and ISO 45001 standards and are a Constructionline gold member.



# OUR CORE SERVICES

- Surveying & reporting on concrete & masonry structures
- Full design & build packages
- Hydro-demolition
- Concrete repairs
- Resin crack injection & leak sealing
- Resin injection/structural waterproofing systems
- Sprayed concrete
- Pressure grouting
- Steelwork repairs including abrasive blast cleaning and anti-carbonation painting
- Cathodic protection systems
- Specialist saw cutting & coring services
- Concrete, formwork and steel fixing
- Waterproofing and tanking systems



# RESIN INJECTION

This system was used to remediate the Iarnród Éireann owned railway tunnel at Kent Station in Cork City.

There was significant water ingress through the railway tunnel arch, which was causing damage to rail tracks and electrical equipment/control mechanisms.

MC-Injekt resin, a polymer- modified soft elastic, low viscosity, highly flexible injection resin for the outside sealing of tunnel linings, was injected above the arch ring to provide a waterproofing system.



*Photos showing resin injection works progressing at Cork tunnel Kent station, Cork.*

# ABRASIVE BLAST CLEANING

Abrasive blast cleaning is the most comprehensive method for the removal of dirt, coatings, corrosion and paint finishes on steel, masonry and concrete surfaces. The method involves the use of high-velocity abrasive particles from a jet stream of compressed air or centrifugal impellers to 'blast' clean the steel surface.



*Photos showing brickwork preparation at Donaghadee Gunpowder Store.*



*Photos showing an airtight encapsulated work area at Coolerry railway bridge, both during and post grit blast cleaning.*



# HYDRO-DEMOLITION

Hydrodemolition is a concrete removal technique which utilizes high-pressure water, often containing an abrasive material, to remove deteriorated and sound concrete as well as asphalt and grout.



*Photos showing robotic hydrodemolition machine demolishing a reinforced concrete deck, hydrodemolition operative cutting out a pocket on a new reinforced concrete wall and also removing dilapidated concrete from an old bridge soffit.*



# DIAMOND WIRE CUTTING

Wire saw cutting is a quick, efficient, and economical concrete cutting solution. Wire sawing is the ideal concrete cutting solution for structures that are too large or unwieldy for traditional saw cutting.

This precise cutting procedure ensures the integrity of adjacent structures such as existing steel work, mortar or stone structures is not compromised.

*Photos show diamond wire cutting at a recent project.*





# STRUCTURAL CONCRETE REPAIRS

Concrete Repair is the process of repairing an existing concrete surface or structure which has lost its integrity over time due to damage or environmental exposure.

Concrete Repair Services include:

- Survey of existing structures
- Removal of defective concrete surfaces (including cutting, breaking out and hydrodemolition)
- Treatment or replacement of steel reinforcement
- Reinstatement of concrete surfaces using sprayed concrete, flowable and trowelled repair mortars
- Application of protective coatings and treatments to new and existing concrete



*Photo shows application of chemical protective coating Brenntag, Belfast.*

*Photos showing Sprayed concrete works Secant Pile Wall, Royal Victoria Hospital, Belfast.*



# CATHODIC PROTECTION

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Cathodic protection is a method to control the corrosion of steel in contaminated concrete that works by making the embedded reinforcing steel cathodic. When the steel becomes cathodic, hydroxyl ions are accumulated around it making it passive for longer time. The reinforcing steel is electrically connected to another metal that becomes the anode with or without the application of an external power supply. The cathodic protection systems that work in the absence of an external power supply and in the presence of a less noble metal (like zinc) to act as anode are referred to as sacrificial passive systems.



# CORPORATE SOCIAL RESPONSIBILITY

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Hydroclean Ltd. Is an equal opportunity employer that strives to improve Equality and Diversity.

We aim to create a workforce that is free from prejudice and discrimination ensuring a more equal and diverse workplace.

We are committed to ensuring our buildings and spaces are well designed creating the right environment inclusive of all people who live and work in them.

We have prioritised the reduction of our Carbon Footprint with ambitious objectives for the next three years to reduce our waste, adopt a paperless office and lessen fossil fuel consumption. We have already reduced our energy consumption through the installation of a range of energy efficiency measures.

Furthermore, we support Local Communities by sourcing and purchasing our materials and supplies locally where possible. We engage with our local community and voluntary organisations and have volunteered and provided funding for several local events.





# HYDROCLEAN

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