



Services For Marine Structures

## Innovative Water Jetting Solutions



GIVING WATER THE CUTTING EDGE

**RGL**



## TEN GOOD REASONS TO USE RGL'S SERVICES FOR THE MAINTENANCE OF MARINE

### 1 Focus on health, safety and quality

High pressure water jetting in marine environments can be very hazardous and for this reason we have invested very heavily in developing automated solutions to safely manage the hazards and minimise risk – the safety of our crews is always our top priority.

Our automated solutions also mean that the use of divers using hand held water jetting equipment is eliminated. Instead, divers are now used to position the automated equipment and move away safely prior to the water jetting process.

We are also fully compliant with the Water Jetting Association's 'blue' Code of Safety practice that requires full risk assessments for the method, conditions and type of equipment being deployed. All our site teams are accredited under CSCS (Construction Skills Certification Scheme).

RGL is accredited under quality standard ISO 9001:2008 and is fully insured for all types of civil engineering and marine projects and locations.

### 2 In depth experience of marine and freshwater structures

We have been in business for more than 30 years and have in-depth experience of working on a wide range of marine and freshwater structures made of concrete and/or steel that require hydrodemolition, surface preparation or abrasive water jet cutting.

Jetties, piers, quays, bridges, tidal defences, concrete caissons and underwater pipelines – you name it; we understand the typical challenges faced on most types of structure.

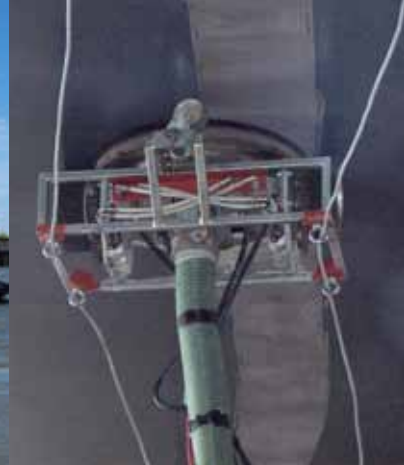
The Thames Barrier, Hunterston and Heysham nuclear power stations, Southampton and Swansea docks, Brighton marina and Canary Wharf are just some of the projects we have worked on for power generation companies, harbour authorities, Environment agency and civil engineering contractors.

### 3 Proven tools and techniques for marine environments

Repairing, maintaining or decommissioning concrete and steel structures in a marine environment poses some difficult technical challenges. What's more, many of these structures often have a high level of strategic importance or simply can't be out of action for too long.







## NE AND FRESHWATER STRUCTURES

Whatever the challenge we've got the plant, people and expertise to provide solutions that are effective and safe, irrespective of their size, complexity or whether they involve above water, underwater or sub-seabed operations. Most of our solutions are fully automated so you can be confident that our methodology, work sequence and productivity levels will ensure that the project will be completed within the agreed time frame, and on budget.

### 4 Expert crews and high specification equipment

We probably have the most experienced, productive crews in the UK.

Our crews are expert at deploying the correct combination of automated equipment, hand held safety guns and gimbal mounted lances – all linked to trailers or truck mounted pumps with an output range of 20-250 litres per minute and a working pressure up to 3000 bar.

The combination of expertise, controlled power and automation delivers high levels of efficiency and productivity.

### 5 Innovative water jetting services

**RGL offers four key services for marine structures:**

#### Concrete hydrodemolition

This is used primarily for preventative maintenance and repairing the effects of tidal/marine degradation and corrosion to the fabric of the structure.

We are one of the few service companies that undertake hydrodemolition with ultra high pressure water. This provides clients with precision cutting to any depth within very tight tolerances – and reinforcing steel can be either left undamaged or removed if required. The remaining structure retains its original integrity without suffering any damage or cracking and the surface finish created by our water jets provides the required substrate ready for subsequent repair works.

#### Abrasive water jet cutting

Most marine structures such as jetties and bridges sit on concrete and tubular steel piles. RGL have developed a unique automated method for the internal cutting of steel piles and a highly effective method of cutting external

concrete piles underwater or below seabed level. The process uses ultra high pressure water jets, combined with a fine abrasive which can cut any material above or below water, a technique that offers substantial cost savings over alternative methods such as diver operated processes.

#### Coatings removal/surface preparation

Whether it's damaged or degraded concrete slabs, piles or beams, corroded steel or bitumen coated surfaces that need to be refurbished, RGL can offer semi automatic equipment and water jetting techniques. In particular our limpet crawler system is ideal for preparing substrates for new coatings or concrete repair mortars.

#### Underwater pipeline maintenance

For oil, gas, sewage, wastewater outfalls or cooling water intakes we can use specialist hydrodemolition techniques to remove the cement jacket or linings. For external surface preparation prior to re-coating or disinvestment. For internal cleaning of bore from marine encrustations, corrosion or sediment build up.

### 6 A nationwide network

Our crews are located throughout the UK and managed by our head office in Hampshire to ensure we offer an accessible, convenient and cost effective international service.

### 7 Resources for both planned support or emergency solutions

#### RGL services are available for both:

**Planned maintenance:** RGL can assist civil engineers undertake exploratory inspections and surveys and help define the scope of work that needs to be undertaken. For any planned maintenance we can work closely with your team to ensure our proposals dovetail into your detailed work programme. However, we recognise that project timescales can change and we're very flexible in ensuring that you get the right crew and plant exactly when you need it.

**Emergency interventions:** Marine structures are exposed to damage from storm, tides and marine accidents - and when a problem arises you need to repair it fast. We can



usually make available our crews at short notice to undertake time critical corrective work.

8

## Understanding and delivering your requirements

You can be assured that we will use all our experience to fully understand your requirements and provide you with job specific risk assessments and method statements based on detailed site surveys, drawings, photos, sketches or verbal descriptions. Once agreed, our contract managers will be on hand to ensure the job goes exactly to plan.

9

## Management of the project environment.

Whether its water availability, site access, noise, rubble and waste water removal and disposal, site safety, day or night – you can rely on RGL to successfully work with you to fully manage the project environment and deliver a service to suit your specific requirements.

We are particularly sensitive to the demands of working in a marine or freshwater environment and all our processes have little or no environmental impact. For abrasive water jet cutting we use an inert rock; for hydrodemolition we can recover concrete arisings if required. Waste water can be collected filtered and treated if necessary before release back into the environment.

In addition our ultra high pressure techniques use between 10-50% less water than most of our competitors which offers significant cost savings.

10

## Minimal breakdowns

RGL directly employ a full time maintenance team to ensure our equipment is meticulously maintained. We have a programme of scheduled preventative maintenance which means that we are able to change out components before they fail and cause delays. Our team also ensure routine servicing to manufacturer's recommendations is undertaken to engines, pumps and all ancillary equipment. All equipment is pre-delivery inspected and tested to full working pressure prior to every new job start. Records are meticulously kept of maintenance tasks undertaken.

This focus on maintenance helps us minimise breakdowns by continuous improvement and thus enables us to ensure we deliver our projects without slippage during critical outage periods.



Water Jetting Association Member



“What we say  
....we do”

In summary, we will do our utmost to deliver complete satisfaction to you by:

- responding quickly to your enquiries
- working with you to fully understand your requirements
- providing you with the benefit of our experience
- preparing detailed site safety, quality and environmental plans, including method statements and risk assessments
- providing competitive quotations
- delivering on what we promise for project start and duration
- deploying experienced crews and proven, correctly maintained equipment
- working within site safety rules and regulations
- managing the project environment including waste water treatment and filtration
- managing each project through to completion
- COSHH Assessment and measures to avoid adverse environmental impact

Paultons Park, Ower,  
Romsey, Hampshire SO51 6AL U.K.  
T: +44(0)23 8081 2921 F: +44(0)23 8081 4016  
E: [enquiries@rglservices.co.uk](mailto:enquiries@rglservices.co.uk) W: [www.rglservices.co.uk](http://www.rglservices.co.uk)

RGL Company Registration Number: 01788078

**RGL**