

Pipeline Cleaning

An innovative method for blockage removal from pipelines with multiple bends



GIVING WATER THE CUTTING EDGE

RGL

RGL'S PIPELINE CLEANING

Overview

Cleaning pipelines choked with restrictions such as hard sludge, concrete, grout, resins, grease, wax or limescale can be a real challenge. Pipelines are often long continuous structures that are integrated with the rest of the plant. It may be extremely undesirable to cause disruption associated with cutting or disassembling the line.

RGL can usually overcome these challenges by using its Rotoream System, an innovative method using HP water jetting. This semi-automatic cleaning process cuts and flushes almost any unwanted material – without damaging the pipe so that it can be quickly returned to full bore and effective service.

Our Rotoream System is superior to conventional pipe cleaning equipment as it is capable of cleaning hundreds of meters from a single access point and can successfully negotiate multiple bends. This clever technology uses the energy from the rotating jetting head and hose to steer through tight bends, elbows and tee pieces whilst having enough power to remove blockages. Rotoream is suitable for use in almost any location including those involving hazardous atmospheres.

In summary, the Rotoream avoids the need for time consuming mechanical intervention, excavating or to split the pipework to create access point for cleaning – it can also help reduce operational down time.

Method

RGL initially undertake a site survey (sometimes using a CCTV camera) to identify the nature and location of the blockage and prepare a cleaning plan.

The blockage removal rate will be determined dependent on pipe diameter, blockage type, length of pipe, number of bends and whether pipes are horizontal or vertical.



Hose removal in progress

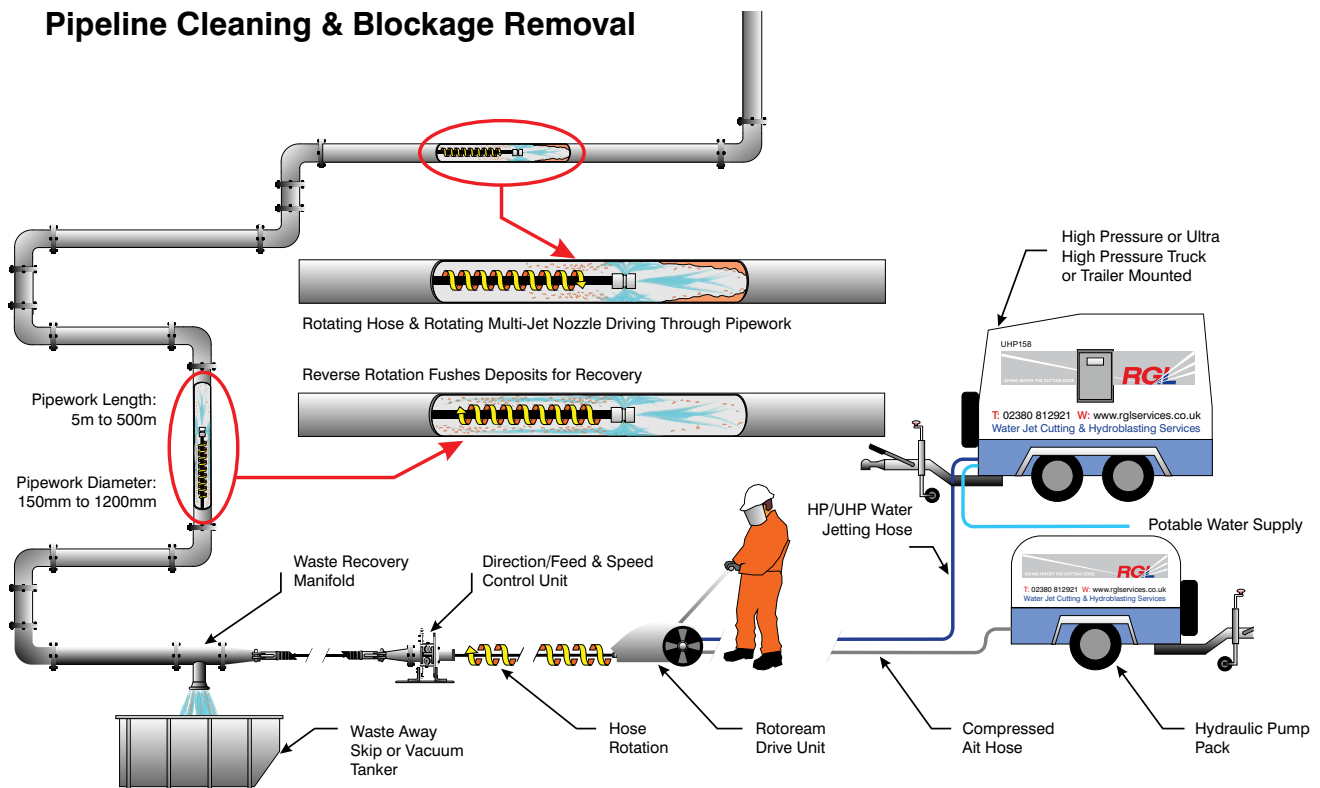
Industry	Example Applications	Type of blockage
Civil Engineering	Drain and Sewer Pipe Unblocking	Concrete or Grout removal
	Water main – Cleaning or lining removal	Silt/Cement/Epoxy
Petrochemical and Oil Refining	Slurry line cleaning	Catalyst Regeneration Products: heavy oil & gritty sludge/slurry deposits
	Descaling cooling water lines	Rust scale
Oil and Gas Exploration	Crude Oil Transfer Lines	Removal of sticky wax compounds NORM Scale
Utilities and Power Generation: Clean / Waste Water	De scaling Clean Water Pipe Lines Cooling Water Lines in Power Plants	Limescale Silt
Chemical Manufacturing	Process Pipe Work in Latex Rubber Manufacturing	Latex Rubber or un – polymerised product
Food and Drink Manufacturing	Process Pipe Work in Chocolate or Dairy Manufacturing Plants	Hard products



Multi orifice cutting nozzle

RGL Rotoream

Pipeline Cleaning & Blockage Removal



RGL Rotoream Equipment

At the heart of this process lies RGL's Rotoream technology. This is a highly effective, proven method of using rotating HP water cutting nozzles and flexible high pressure hoses to cut and clear blockages and restrictions.

Rotoream comprises of a portable trolley device which requires hydraulic power to drive the hose rotation motor.

Jetting Pump performance of 125-250lpm flow @ 1000-1500 bar working pressure.

This power enables a flexible hose with specialist nozzles to travel long distances inside pipes and outfalls. It uses the energy from the rotating jetting head to negotiate tight bends, elbows and tee pieces bends whilst having enough power to blast away obstructions and flush the unwanted material for recovery and disposal.

The cutting and flushing process is undertaken at a carefully metered rate. Thus ensuring high levels of cleanliness. CCTV can be used to verify this.

Sequence of Operations:

- Preparation of detailed methodology and Risk assessment.
- Deployment of portable high pressure jetting equipment to site and setup.
- Implement a cycle of cutting and clearing cut debris whilst using CCTV to monitor progress and ensure a complete clean is achieved and the pipe integrity is maintained.
- Repeat cycle of flush removal of material and CCTV pipe inspection until the blockage is removed.
- Careful, progressive removal of waste or backed up water/sludges via pumps and or vacuum tanker may also be implemented.

Safety and Environmental Advantages

- Operators are remote from rotating hoses and high pressure jet heads.
- Semi-automatic operation means a far reduced likelihood of muscular/skeletal strain.
- Avoids the need for excavation of the pipe to create access points.
- Water/material blockages are contained and recovered without polluting the environment.



Liquid & product recovery in progress

Advantages of working with RGL

RGL have built up considerable knowledge of using this technology in a wide variety of applications.

Each pipeline cleaning challenge is thoroughly evaluated so that we can advise on feasibility and create effective task specific methodology.

- A complete turnkey service
- Simple procurement
- Total project management
- Industry leading technology
- Highly competent multi-disciplined crews
- Assured quality control



“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

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