Utilities - Drain & Sewer

Drain and sewer obstruction removal

GIVING WATER THE CUTTING EDGE

Cut Larson Piles

Intruding Concrete Plug Removed

DRAIN AND SEWER OBSTRUCTION REMOVAL

Concrete Blockage Removal

This innovative method of using UHP water jetting to clear drains and sewers of restrictions and blockages is fast becoming recognised as a cost effective alternative to open cut excavation methods.

Blockages could include hard compounds such as, concrete, grout, lime scale and tree roots.

Method

- CCTV drain camera is used to identify nature and location of blockage.
- Physical entry into manholes is sometimes required, using confined space entry team.
- Access gained via conventional Manhole or excavated access point.
- Deployment of rotating high pressure water cutting nozzle and flexible high pressure hoses to the blockage.
- Undertake a cycle of; Cut, Flush, Removal of cut material.
- Use CCTV camera to ensure effective cutting nozzle position and to ensure damage to the pipe wall is minimised.
- Progressive removal of debris, backed up water/ sewage via pumps and vacuum tanker.
- Final inspection.
- Relining if appropriate (by others).

Typical Application

Removal/part removal of foundation piles that have penetrated drains/sewers.

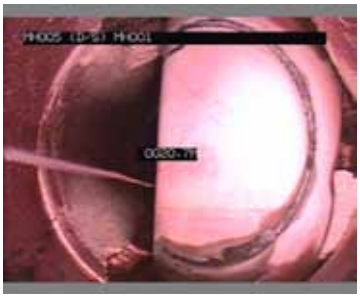
Steel Obstruction Removal

Our in-house design and manufacturing team have created an abrasive water jet cutting system that cuts any material known to man. We have successfully used this to cut obstructions such as steel piles and bars that have been driven through the pipe wall. Once cut the obstruction can be removed leaving the pipe clear for re use or relining by others.

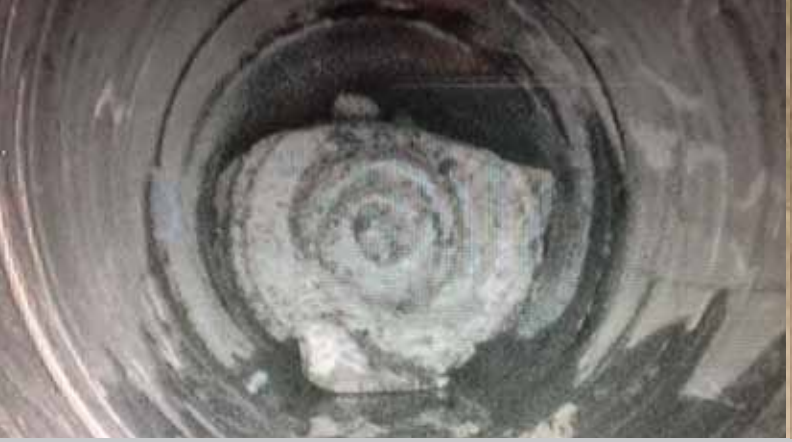
Our cutting equipment is ideally suited for pipes ranging in diameter from 200mm – 400mm, with the ability to upscale to large diameter pipes if required.

Technical Advantages

- Avoids the cost and disruption of excavating drains/ sewers.
- Restores facility quickly and effectively without the need for closure of highways, roads and pedestrian areas.
- Quickly restores drains to maximum flow capacity. CCTV process can be deployed to aid diagnosis and scope definition, also avoiding man entry and confined space working in many situations.
- Allows relining of pipe using trenchless technology.



Concrete Filled Steel Pile Casing (Partially Cut)



Partially removed Concrete (Note very limited damage to the HDPE Pipe)

Lined pipe after cutting was completed

Concrete Filled Steel Pile Casing Removed.

Safety and Environmental Advantages

- Reduced need for manned entry.
- Avoids hazards associated with open cut trenches.
- Minimised disruption to traffic / pedestrians

Descaling

Our Rotoream technology is capable of cleaning hundreds of metres of pipelines from a single access point and can successfully negotiate multiple bends.

This device enables a flexible hose with specialist nozzles to travel long distances inside pipes, drainage systems and outlets which are over 100mm internal diameter.

This clever technology uses the energy from the rotating jetting head to negotiate bends in pipes, whilst having enough power to blast away obstructions and flush the unwanted material out for recovery and disposal.

Technical Advantages

- Avoids the cost and disruption of excavation.
- Restores facility quickly and effectively without the need for closure of highways, roads and pedestrian areas.
- Portable equipment with small footprint.
- Quickly restores pipeline to maximum flow capacity.
- Often the pipe remains undamaged.

RGL cutting tool

RGL Experience

Concrete Blockage Removal

- **M27 Motorway** – 35m blocked with concrete in 600mm diameter concrete storm drain.
- **Coventry** – 20m blocked with concrete in 375mm diameter concrete foul sewer.
- **Cardiff** – 23m blocked with concrete in 450mm diameter HDPE plastic storm drain.
- **Greenwich** – 11m blocked with concrete in 600mm diameter concrete storm drain

Steel Obstruction Removal

- **Plymouth** – 250mm steel pile, 8mm wall thickness obstruction in 225mm diameter concrete sewer, located 8m and 17m from access points.
- **Birmingham** – grout filled steel pile obstruction in 375mm diameter concrete sewer, located at 35m and 60m from access points.
- **Codsall** – 230mm steel pile obstruction in 450mm diameter clay pipe, located 18m from access point.
- **Birmingham** – Larson pile obstruction in 300mm concrete pipe
- **Coventry** – 250mm concrete filled steel pile obstruction in 300mm diameter pipe, located 20m from access point

nqa ISO 9001 Registered Quality Management
nqa ISO 14001 Registered Environmental Management
nqa OHSAS 18001 Registered Health & Safety Management

WJA

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

"What we say ....we do"

Paultons Park, Ower,
Romsey, Hampshire SO51 6AL U.K.
South - T: +44(0)238 081 7160 F: +44(0)238 081 4016
London - T: +44(0)203 102 6840 North - T: +44(0)161 457 1215
E: enquiries@rglservices.co.uk W: www.rglservices.co.uk

RGL Company Registration Number: 01788078

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