



# Built for the jobs others can't safely deliver

Specialist demolition methods  
for confined, live and  
structurally sensitive environments



Robotic Demolition | Hydrodemolition | Diamond Drilling & Sawing | Abrasive Cold Cutting



**Where conventional demolition creates risks, GNAT UK develops the method.**

Confined spaces.  
Live infrastructure.  
Restricted access.  
Sensitive structures.

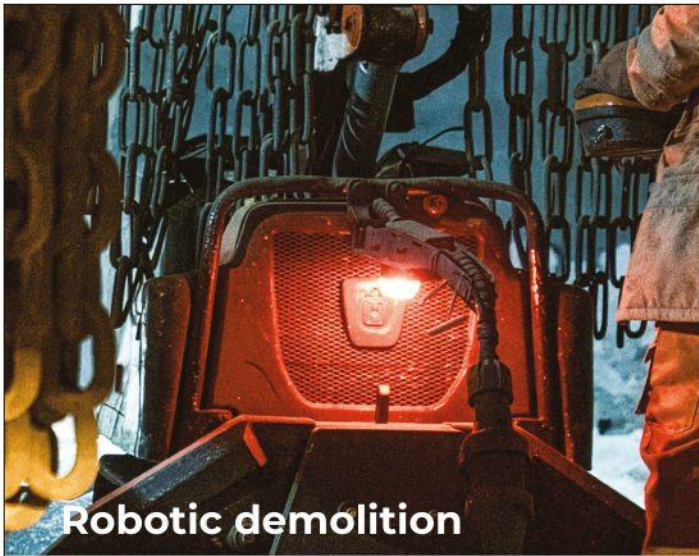
These are the environments where conventional demolition can increase exposure, disrupt surrounding operations and introduce unnecessary uncertainty.

GNAT UK develops specialist demolition and deconstruction methods around the actual constraints of the project.

Robotic systems, hydrodemolition, diamond cutting and abrasive cold cutting can be used individually or combined into one carefully planned sequence.

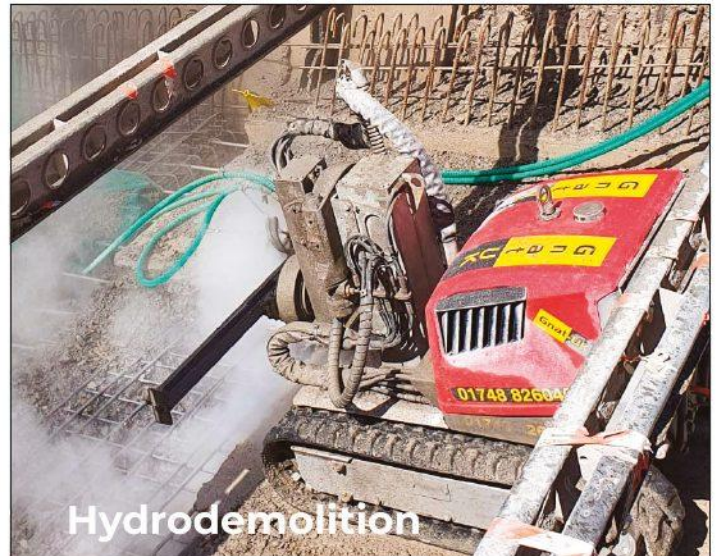
✓ **Confined access specialists**

✓ **Live operational environments**



### **Robotic demolition**

Remote-operated Brokk and Husqvarna systems deliver powerful, controlled demolition while separating operatives from the immediate workplace.



### **Hydrodemolition**

High-pressure water selectively removes defective concrete while preserving reinforcement and the surrounding sound structure.



### **Diamond drilling & sawing**

Wire, wall, floor and plunge sawing create accurate isolation cuts through heavily reinforced concrete, steel and composite structures.



### **Abrasive cold cutting**

Ultra-high-pressure water and abrasive media cut steel and lined materials without introducing the heat and sparks associated with hot work.

**Specialist methods, selected and combined around the project.**

✓ **Reduced manual handling**

✓ **Method-led delivery**



**Cut sections  
lifted clear**

**Specialist methods,  
working together**

**Isolation cutting**

**Core drilling and  
wire sawing to  
form apertures**

**Controlled  
hydrodemolition**

**Water treatment  
throughout – pH correction  
& slurry filtration**

**Defective concrete removed;  
reinforcement preserved**



# **Start with the constraint. Build the sequence around it.**

No two complex demolition projects present the same combination of access, structural and operational constraints.

Before selecting plant, GNAT UK considers how the work will be reached, isolated, cut, supported, removed and handed over for the next phase.

The result is a practical demolition sequence developed around the structure and the wider programme—not simply around the capability of an individual machine.

## **Our approach**

### **1. Understand the environment**

Access routes, live services, structural limitations, hazardous materials and surrounding operations are assessed.

### **2. Select the technique**

The method is chosen according to the required outcome: breaking, selective removal, precision separation or heat-free cutting.

### **3. Plan the sequence**

Temporary works, lifting, waste removal, water management and interfaces with other trades are incorporated.

### **4. Deliver with control**

Specialist equipment and experienced operatives carry out each stage in a planned and coordinated sequence.

### **5. Enable what follows**

The structure is left ready for lifting, repair, strengthening, reinstatement or further construction.

**Access. Structure.  
Sequencing. Risk.  
These define the solution.**



## **Remote power. Precise control.**

**GNAT UK operates an extensive fleet of Brokk demolition robots for work in confined, restricted and high-risk environments.**

**Remote operation keeps the operator away from the immediate workface, while high power-to-weight ratios deliver controlled demolition where conventional plant cannot safely operate or gain access.**

**Selected for the constraint — not just the output.**

# Hire Fleet

A scalable fleet — from restricted access to heavy-duty demolition



**Brokk 70**

Ultra-compact.  
Restricted access.



**Brokk 110**

Compact size with  
increased reach.



**Brokk 170**

Controlled demolition  
in tight environments.



**Brokk 200**

Versatile performance  
for demanding interiors.



**Brokk 300**

High-output demolition in  
confined environments.



**Brokk 500**

Heavy structural and  
industrial applications.



**Brokk 800**

Maximum power for major  
demolition and dismantling.

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**Attachments available to suit the task**, including breakers, crushers, grapples, shears and specialist tools. **Contract hire** with or without experienced operators.

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**The fleet provides the options.  
The project determines the machine.**

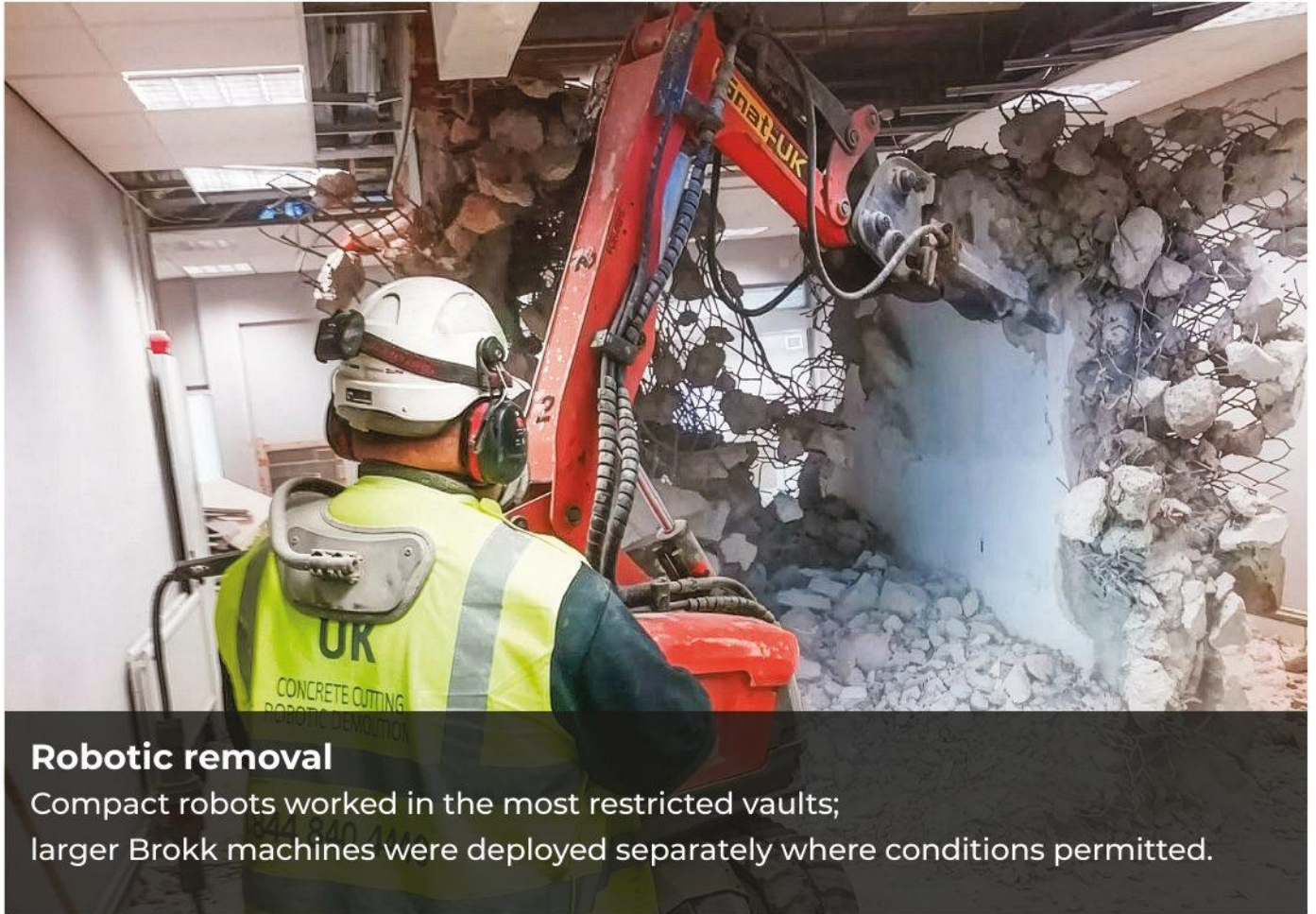
**Structures designed to resist force.  
Removed through precision  
and control.**



## **HIGH-SECURITY VAULT ALTERATIONS · LONDON**

Across a series of London bank vaults, heavily reinforced construction and restricted working conditions demanded diamond wall sawing and remote-controlled demolition working together.

# Two methods. One controlled approach.



## Robotic removal

Compact robots worked in the most restricted vaults; larger Brokk machines were deployed separately where conditions permitted.



## Precision wall sawing

Saw cuts defined each opening and isolated the concrete from the retained structure.

**Precision cutting. Controlled removal.  
Multiple vaults opened for conversion.**

# Defective concrete removed from a steep reinforced reservoir sluice



# Remove the defect. Preserve the structure.

On this reservoir sluice in Wales, deteriorated concrete had to be removed without damaging the underlying reinforcement or surrounding sound material. Hydrodemolition provided selective, non-percussive removal while preserving the retained structure.



AquaJet system positioned to work safely along the steep sluice.



High-pressure water removed deteriorated concrete without impact vibration, leaving the reinforcement intact.

# Cleanly prepared. Ready for reinstatement.

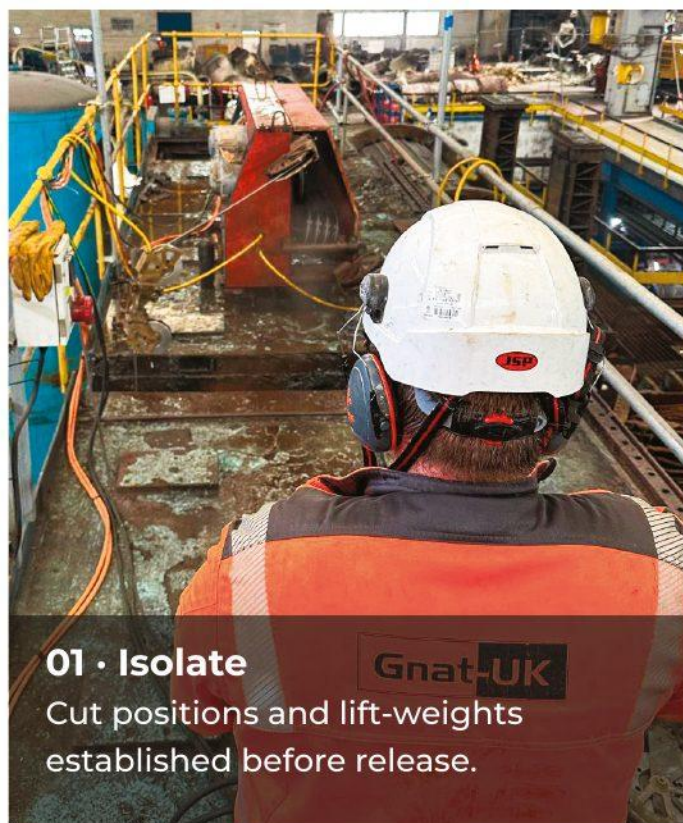
Reservoir sluice · Wales · Steep access · No impact vibration · Reduced airborne dust

# Heavy plant dismantling inside a live turbine hall

Precision wire sawing allowed boilers, condensers and associated steelwork to be separated into liftable sections for controlled removal.



# Cut in sequence. Lifted under control.

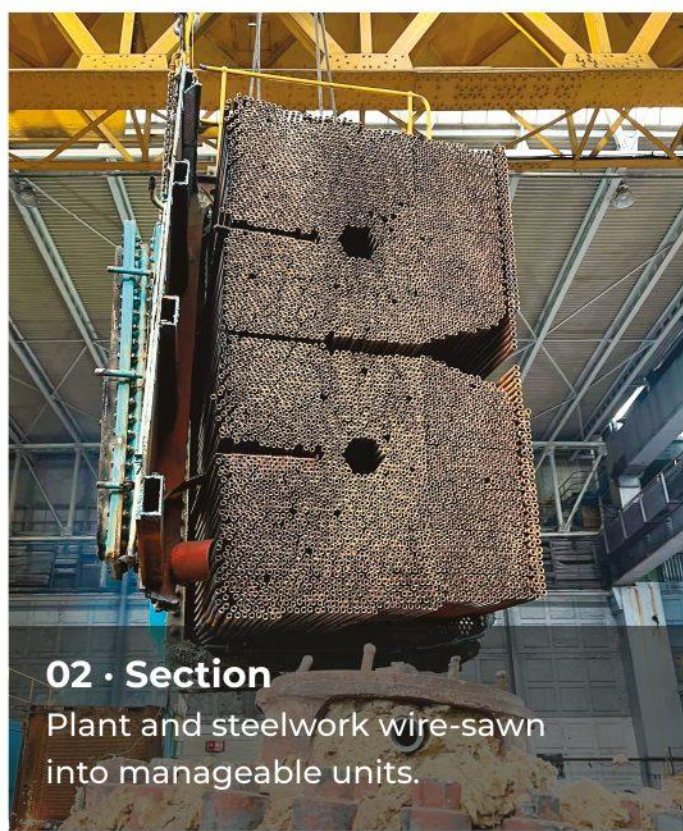


## 01 • Isolate

Cut positions and lift-weights established before release.

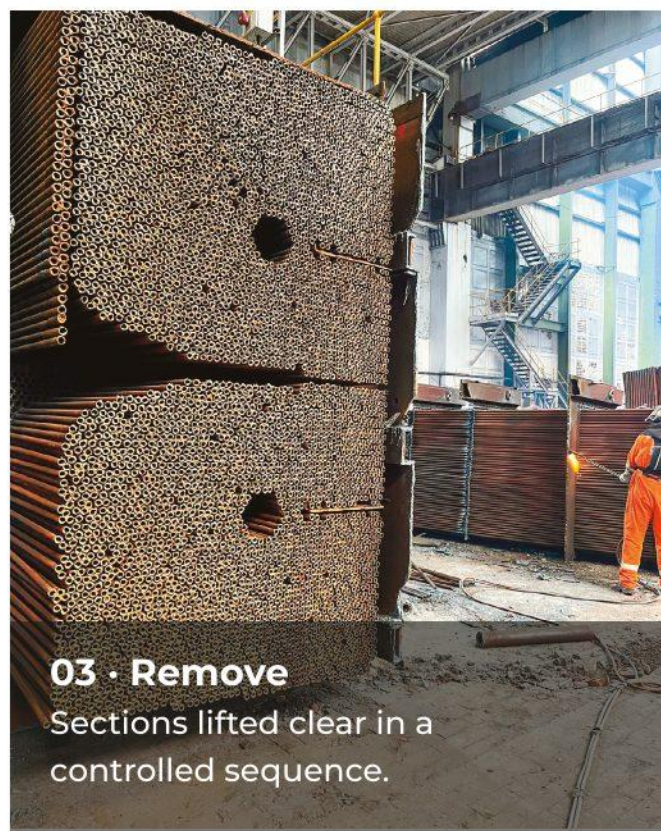
Within the constrained turbine hall, GNAT UK planned the dismantling sequence around restricted access, available lifting capacity and surrounding plant.

HILTI wire sawing provided clean, predictable cuts with no percussive impact and minimal vibration.



## 02 • Section

Plant and steelwork wire-sawn into manageable units.



## 03 • Remove

Sections lifted clear in a controlled sequence.

# Heavy plant dismantled. Programme protected.

Live turbine hall • Heavy boilers and condensers • Restricted access • HILTI wire sawing

# Removing steelwork from a live Glasgow sewer.

GNAT UK was commissioned to remove redundant 1.6m-diameter steel flumes from within a live Glasgow sewer. The 25mm-thick steelwork had to be cut and extracted while the sewer continued operating at approximately 60% flow.



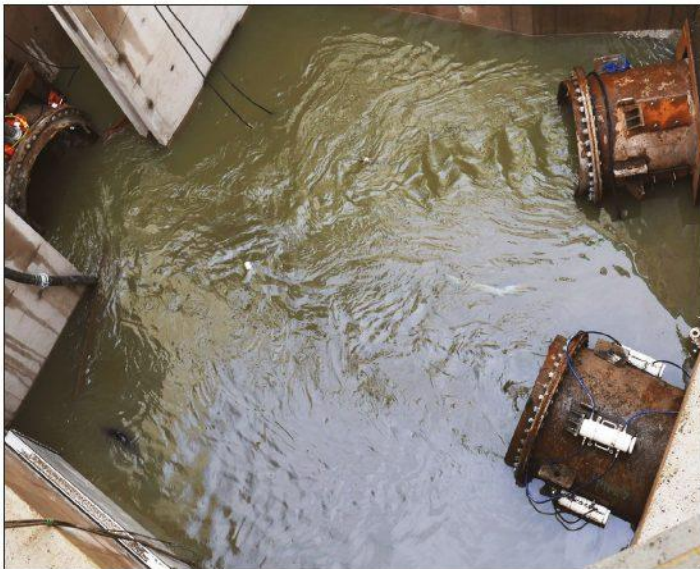
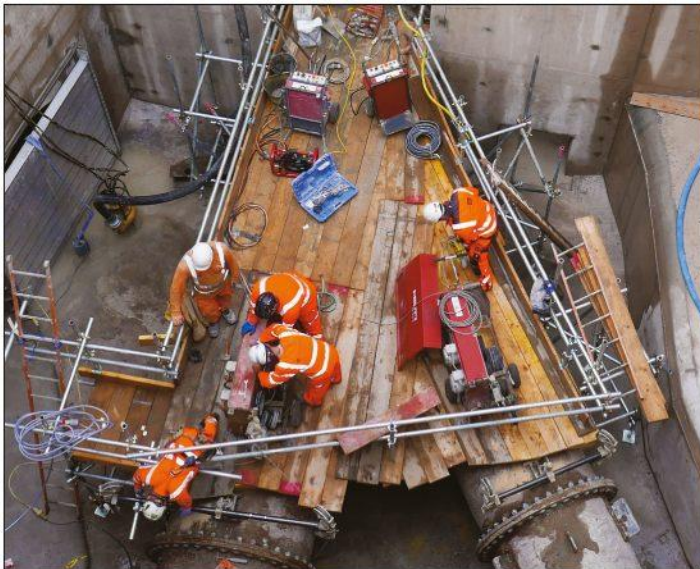
# Cutting and extracting the flumes.

## The constraint

The 1.6m-diameter flumes occupied a restricted working area within the sewer, limiting access, movement and the size of equipment that could be deployed.

## The method

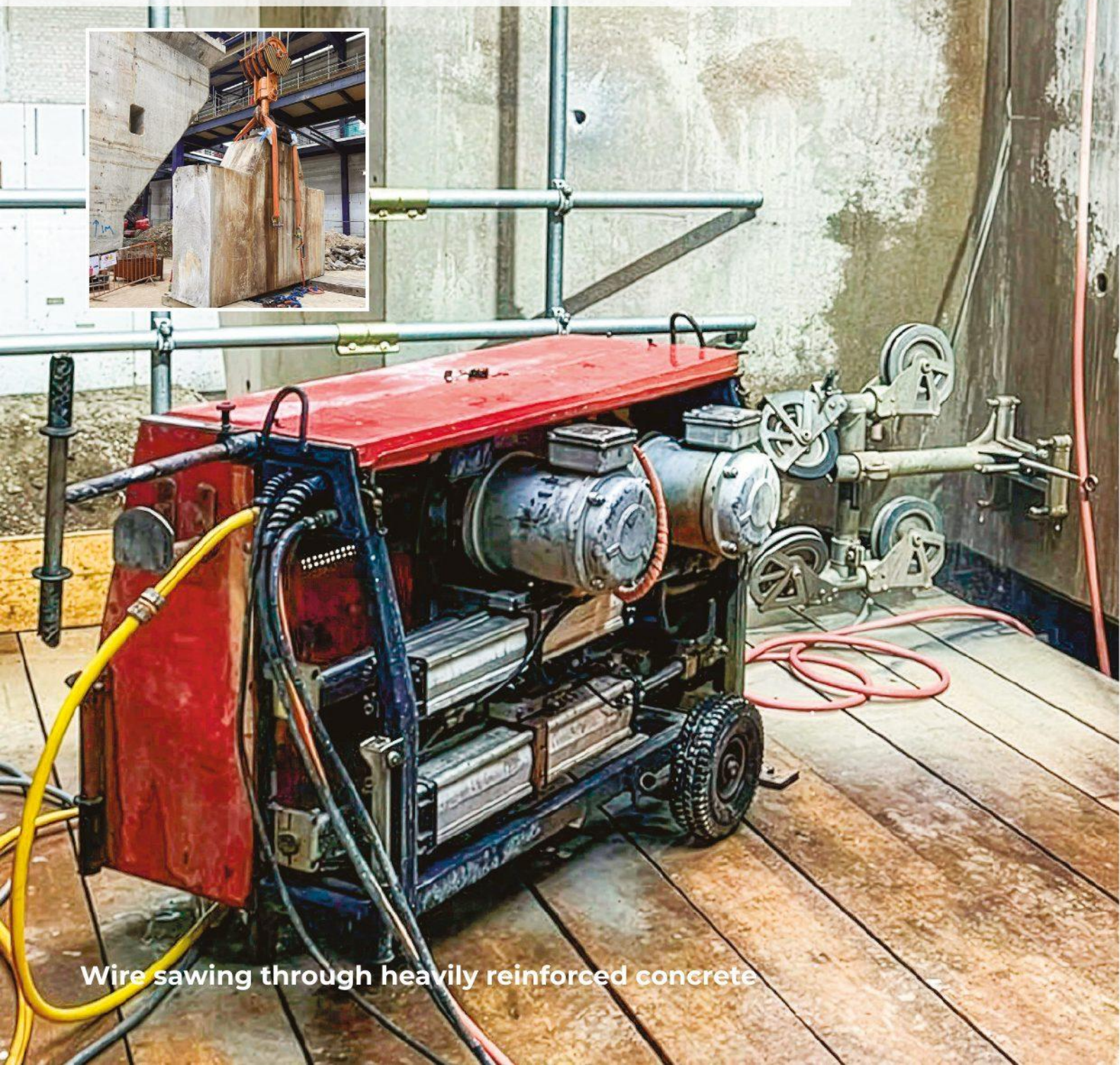
HILTI wire saws divided the 25mm-thick steel into sections that could be safely handled and lifted from the chamber.



**Steelwork removed. Sewer service maintained.**

## Precise cuts. Controlled removal.

From small service penetrations to major structural openings, GNAT UK uses diamond drilling, wall, floor and wire sawing to cut cleanly through heavily reinforced concrete, isolating only the sections that need to be removed.

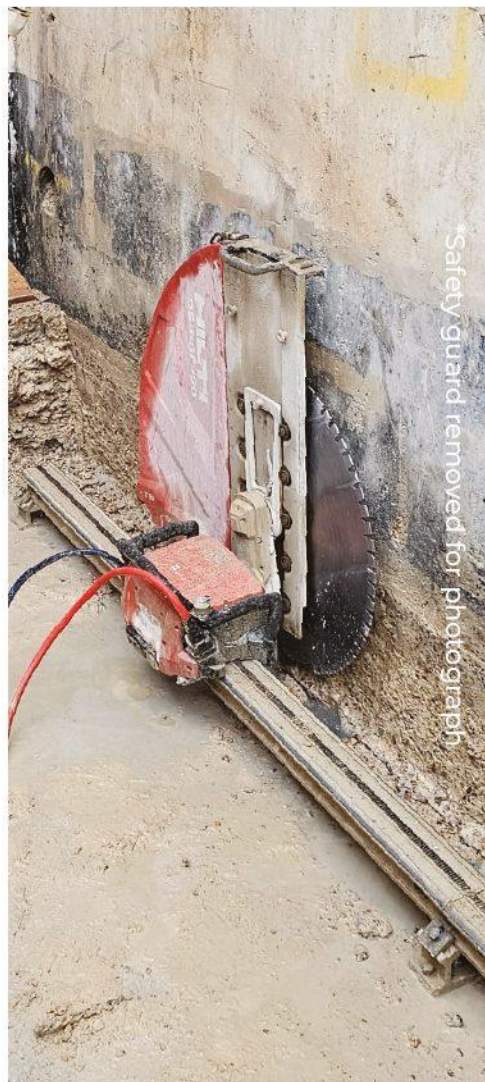


Wire sawing through heavily reinforced concrete

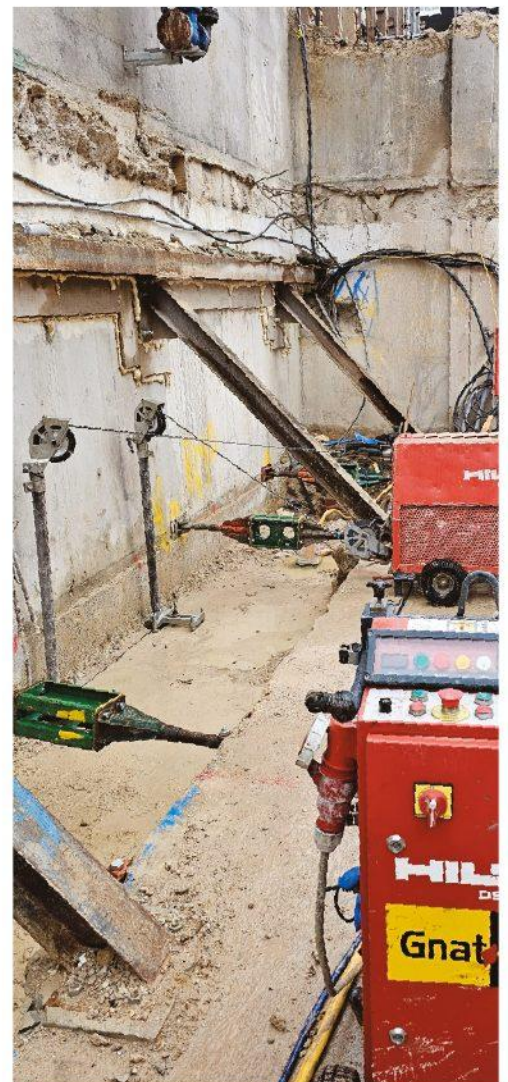
# Access does not have to dictate the cut.

Where the rear face cannot be reached, one-sided plunge wire sawing allows substantial sections to be cut entirely from the accessible side.

Angled and flush cuts can also be formed in confined spaces and unusual structural configurations.



Floor sawing isolates the concrete foundation before plunge cutting



One-sided plunge wire sawing completes the cut from the accessible face

## Diamond Drilling & Sawing

# Cutting where hot work is not an option.

Abrasive cold cutting combines ultra-high-pressure water with an inert abrasive to cut steel without an open flame, electric arc or heat-affected zone.



# Stainless steel pressure vessels. Top-tier COMAH petrochemical site.

GNAT UK used customised cutting manipulators to form precise access openings in a number of isolated vessels. The vessels were then divided into manageable sections and lifted clear by crane.



Access openings · vessel sectioning · crane removal

# When the machine didn't exist, we built it.

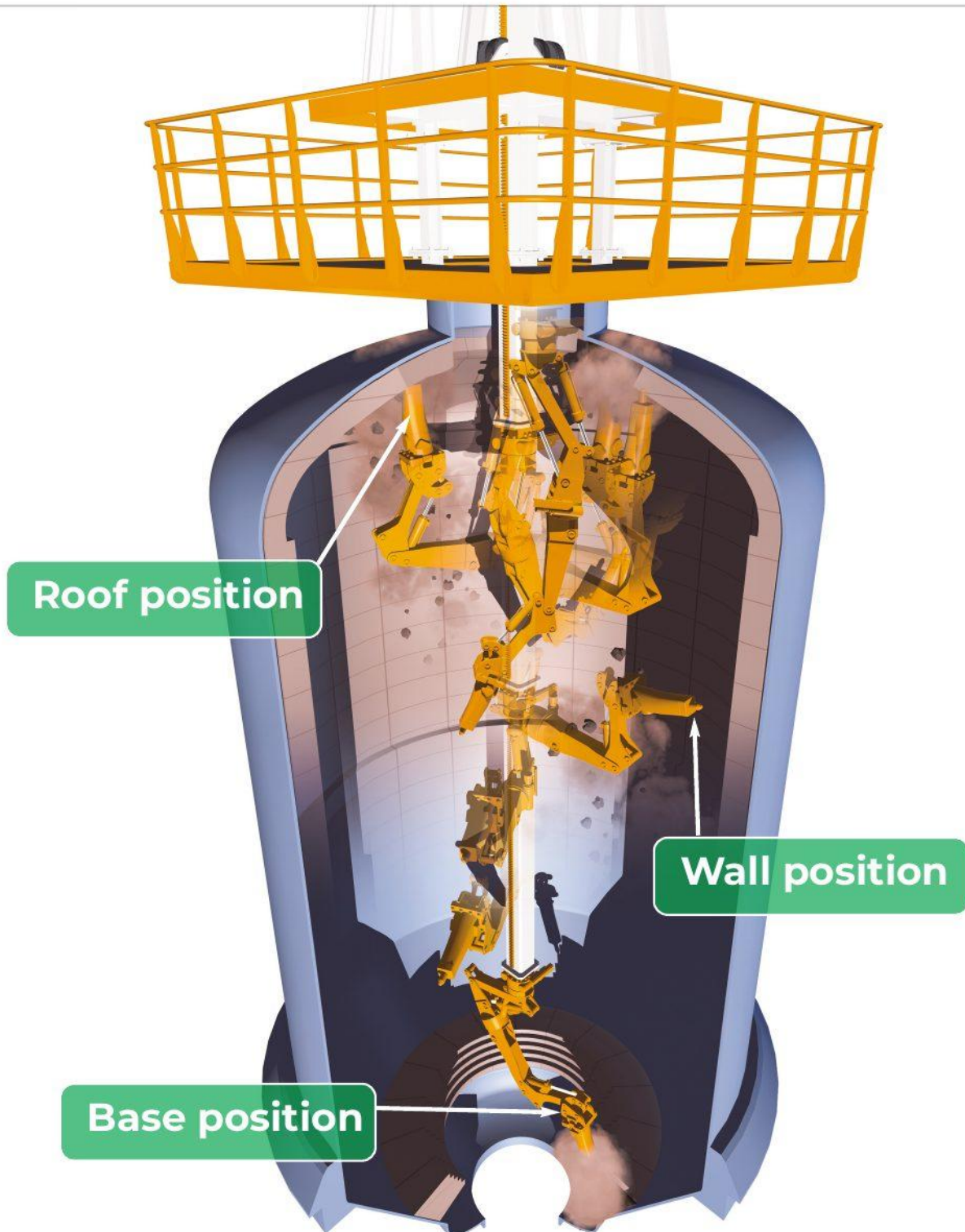
Refractory vessel de-lining · Bespoke remote operation



**Purpose-built manipulator  
working inside the vessel**

# Engineered for the vessel.

Conventional equipment could not reach every area of this large refractory vessel. GNAT therefore designed and fabricated a remotely operated manipulator specifically for the project—providing controlled removal from the roof, walls and base while keeping personnel away from the active workspace.



**Decades of specialist  
problem-solving, applied  
to the constraints of each project.**

Brokk 330 · Manchester Arndale Centre

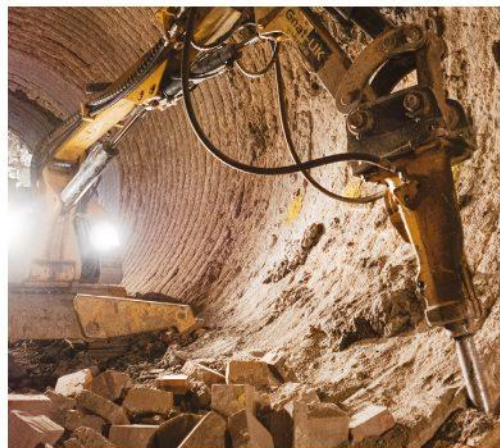


One of GNAT UK's earliest  
Brokk demolition robots.

# Experience built in challenging environments.

GNAT UK was among the first UK contractors to adopt remote-controlled demolition for refractory work.

That experience now supports specialist projects across water and utilities, industrial and process plant, power and nuclear, transport infrastructure and sensitive commercial structures.





# Built for the jobs others can't safely deliver

**Confined. Live. Structurally sensitive.  
Controlled methods make the difference.**

Early engagement reduces risk and removes uncertainty.

## Request a Method Proposal

Speak directly with a GNAT specialist — 01748 826046



Scan to get your method proposal

UK-wide delivery — supporting complex demolition  
across infrastructure, industrial and live environments

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