

## DIAMOND DRILLING AND CUTTING

## Diamond Drilling Services

Diamond Drilling is the most versatile and efficient method of forming holes and openings in a wide range of hard materials, from Heavily Reinforced Concrete and Natural Stone to fragile Terrazzo Tiles, to almost unlimited profiles and depths.

At Core Cut we are proud of the speed at which we can undertake and complete even the most complex drilling operation and continue to evolve and develop techniques and equipment to solve any drilling problem.

Utilising and pioneering the latest technology, Core Cut are able to drill holes in a number of applications from New Build Housing Contracts to Complex Civil Engineering and Nuclear Decommissioning projects.

The versatile range of equipment can be Hand Held Electric, Rig Mounted, Self Contained Trailer Rig or Remotely Deployed and is lightweight and adaptable allowing even the most demanding projects to be undertaken with speed and precision. Where appropriate Core Cut can utilise Stitch Drilling, which is a technique of forming large and unconventional shapes by using a series of overlapping holes which are free from spalling and require little or no reinstatement.

This procedure can be used across the four plains of vertical, horizontal, angled and inverted.

### KEY FEATURES

Lightweight and versatile equipment

Hole sizes from 8mm – over 1500mm

Low noise output plus dust and vibration free drilling

The most precise method of drilling service penetrations

Dry drilling available where required

Range of power sources (electric, hydraulic, or compressed air)

High performance automated rigs

New slurry containment and re-cycling systems allows wet drilling in finished areas

Structural integrity maintained due to non-percussive techniques

# Floor Sawing Services

When you need to slice through Heavily Reinforced Concrete or Asphalt our range of High Output Precision Equipment gives clean edges and aids in the breaking out of unwanted sections. Ideally suited to horizontal surfaces such as roads, pavements and runways we can cut up to a depth of 800mm and achieve the result in a very short timescale.

As well as external Floor Sawing, Corecut also specialises in the cutting of internal floor slabs. Cutting depths of up to 600mm thick can be achieved in environments such as factories, supermarkets and hospitals where speed of operation and consideration of location are imperative.

We can also cut expansion joints up to 50mm wide quickly and accurately with our self-propelled joint cutting saws.



Dust free



Highly precise cutting of reinforced concrete and asphalt

High powered, low-emission turbo dieselengined equipment for external production floor sawing

Flectrically-powered equipment for internal use

Split saws featuring component interchangeability for inaccessible areas

Demolition cutting for refurbishment

Can be used to remove defective concrete

Loop cutting

Precision cutting of joints using compact self-propelled saws

Low level of vibration

Blade types to suit every application

# Wall Sawing Services

Using the latest in High Frequency Electric and Hydraulic Wall Saw technology, we can precisely cut openings for doors, windows, and ventilation units, as well as remove entire sections of structures in materials such as heavily reinforced concrete, brickwork, and stone. This is especially useful in buildings where access for conventional equipment is restricted, with cutting depths reaching up to 1000mm in the most demanding situations.

Our Wall Saws are highly versatile and lightweight, making them ideal for use in scenarios where heavier Floor Saws are not feasible. Additionally, they are remotely operated, which minimizes vibration and reduces noise levels for the operator.

Fume free



## KEY FEATURES

Precision cutting up to depths of 1000mm utilising blades of up to 2200mm diameter

Precise remedial works

Remote controlled operation for increased safety

Range of cutting including angle cutting, inverted cutting, stair cutting and flush cutting

Speed & versatility

# Wire Sawing Services

Wire Sawing was traditionally used for many years in the guarrying trade, however the technique has been perfected for use in the Concrete Cutting industry.

Using this technique, a diamond-impregnated wire is fed through a sequence of guide pulleys and passed through or around the section of concrete that needs cutting and then formed into a loop. The wire loop is then pulled continuously through the concrete section until the cut is accomplished.

Diamond Wire Sawing is the perfect technique when confronted with the issue of removing substantial areas of heavily reinforced concrete in complex situations where there is limited access such as a bridge deck or the removal of columns and beams, where depth and speed of cut are imperative.

Diamond Wire Sawing that uses High Cycle Electric or Hydraulic Equipment is by far the quickest and most flexible method of

cutting concrete that has been heavily reinforced. The Wire Saw is able to cut even the thickest sections of all construction material.

Corecut's team of Wire Sawing experts can achieve cutting rates in excess of 4sqm per hour and can also cut circular openings up to 2500mm diameter producing clean, straight and smooth cut surfaces with no damage to the remaining structure.





## **KEY FEATURES**

- Non-percussive, fumeless and quiet
- Smooth cut face
- Unlimited cutting depth
- Horizontal, vertical and angled cutting of circular openings up to 2500mm diameter

- openings to be formed
- for increased safety
- Cutting rates in excess of 4sqm per hour

Flexible and quick

Plunge cutting facility which allows blind and rebated

Remote controlled operation



SPECIALISTS IN CONC CONTROLLED

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## **Controlled Demolition Services**

Corecut is the UK's leading Remote-Controlled Demolition contractor and have over 45 years' experience of providing expert solutions to the construction industry. The company have worked on some of UK's most well-known projects and through our Robolition brand, we specialise in providing unique solutions to complex requirements.

Jobs that might once have seemed impossible are now within your reach with Robolition. This compact Electric, Fume-Free Remote-Controlled machine climbs stairs with ease and can be manoeuvred, lifted or hoisted up to the most exposed positions. It works over twelve times harder and faster than a man with a jackhammer – and a lot more safely. With its astonishing power to weight ratio, Robolition handles tools that normally require a carrier at least twice as heavy. You can equip it with Hydraulic Breakers, Concrete Crushers, Drilling Equipment, Wall Saws or Buckets to perform many functions.

Its flexibility is phenomenal. Thanks to the three-part robotic arm, the machine's working radius is immense. The low centre of gravity and strong support legs keep it steady, even when the arm is fully extended.

## KEY FEATURES

#### SAFE

- Remote-controlled use from up to 30m
- Remote-controlled operation removes risk of hand/arm vibration syndrome

#### HIGHLY MANEUVERABLE

- Works in combined spaces and can pass through standard doors
- Climbs stairs with ease
- Long reach in excess of 6 metres

#### ENVIRONMENTALLY FRIENDLY

- Electric/fume free
- Works in existing buildings without noise or vibrations

### POWERFUL

- Ability to hydraulically crunch reinforced concrete up to 700mm thick
- Equivalent power to conventional machines 5 times its weight

### **HIGHLY VERSATILE**

- Equip with hydraulic breakers, concrete crushers, drilling equipment, wall saws, or buckets to perform many functions
- Three-part robotic arm



# Hydraulic Bursting Services



Hydraulic Bursting is one of the safest and most efficient methods of removing Reinforced or Mass Concrete, Brickwork, or Natural Stone.

Hydraulic Bursters are placed in pre-drilled holes and expanded to induce controlled cracking of the material. Thus reducing it to manageable sections for removal.

What's more, the equipment can be used in confined spaces without risk. Indeed, Core Cut have used this technology to remove Heavily Reinforced Concrete up to 5m thick in structures such as Dams, Bridges and Nuclear Power Stations where a precise, controlled system of removal was required.





## KEY FEATURES

- Non-percussive
- Dust Free
- Bursting Power Ratios of Over 1000 tonnes
- **Electric, Diesel and Petrol Options**
- Low Noise
- Easily Accesses Sensitive and Inaccessible Areas
- Full Range of Case Studies Available
- Fully Trained CSCS Accredited Operators
- Fully Equipped Mobile Workforce Covering the UK and Europe

# Hydraulic Crunching Services

Hydraulic Concrete Crunching is an extremely effective way to carry out Controlled Demolition of a variety of materials that is also friendly to the environment.

The jaws of the breaker are placed on the open edge of the concrete structure and hydraulic pressure is applied to force the jaws to close, crushing the concrete into rubble. As the procedure is non-percussive there is limited risk of damage to nearby structures and the low levels of noise minimises disruption.

At Corecut we have a comprehensive range of Concrete Crunching machines that enable us to perform a wide range of functions. From our most powerful crunchers that have an impressive crushing force of 45 tons to

hand crunchers which are perfect for refurbishment projects, especially where there is limited access or the area is particularly sensitive.

Furthermore, our range of concrete crunching machines keep noise, dust and vibration levels to a minimum, whilst remote operation enables increase operator safety.

Corecut are experts at using hydraulic crunchers to demolish floors, walls, and staircases up to 350mm thick - quickly, silently, and with very little dust or vibration.









## KEY FEATURES

Non-percussive

Dust Free

Bursting Power Ratios of Over 1000 tonnes

Electric, Diesel and Petrol Options

Low Noise

Easily Accesses Sensitive and Inaccessible Areas

Full Range of Case Studies Available

Fully Trained CSCS Accredited Operators

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## **Surface Preparation** Services



## **Anti-Slip Grooving** Services

Corecut offers the full range of Surface Preparation and concrete treatment services from machine mounted micro planing to super polishing of decorative concrete slabs to create HTC Superfloor type finish. Utilising the most sophisticated Surface Preparation technology available, fully trained CSCS accredited operators can give you the finish required in any application.



## **KEY FEATURES** Diamond Grinding Scabbling Planing Captive vacuum shot blasting Coatings removal High spot removal Slab level reduction Floor finish restoration Bridge deck membrane removal Concrete polishing

Latex and adhesive removal

The movement of animals and mechanical machinery on concrete surfaces produces through time, a slippery and dangerous surface both to livestock and humans. Valuable cattle sometimes have to be disposed of, as a result of a fall or torn muscles caused by slipping on these floors.

Our purpose built machines use diamond blades to smoothly and precisely cut grooves into slats and concrete, unlike other grooving methods our machines leave a clean square edge with no damage to the surrounding concrete providing unparalleled levels of grip, resulting in increased safety for both your herd and you.

Grooves are placed at approximately 60mm centres and generally orientated perpendicular to the direction of travel. Grooves should be cut in two directions and can be either 90 degrees or diagonal to each other i.e. chess board

Depending on the quality of the concrete and the level of trafficking most grooved surfaces should maintain levels of grip for up to 10 years at which point the process can be repeated.

Our compact self propelled equipment allows us to access most areas including passageways, pens, loading areas and slats for dairy and beef farms.

We can offer very fast response times and with outputs in the region of 50m<sup>2</sup> per hour most jobs can be completed within a day with minimal disruption.













## **Concrete Scanning** Services



Corecut in conjunction with the very latest Ferroscan technology from Hilti are at the forefront of structural surveying and the analysis of the steel reinforcement in reinforced concrete structures.

The Ferroscan PS1000 system detects reinforcing bars, preand post-tensioning tendons. metal and plastic pipes and electric and glass-fiber cables quickly even over a wide area. It is equipped with three radar antennas and can find concealed objects at depths of up to 300mm.

The verification of reinforcement is vital in today's modern building techniques and Reinforcement Surveys can aid in a variety of situations.

The specially designed PC software permits further processing, evaluation, exact analysis and documentation of all the data recorded.



## **KEY FEATURES**

- Verification of reinforcement
- Checking of cover
- Avoiding rebar hits
- Scans large areas quickly
- Provides a viewable image of the reinforcement
- Extended PC evaluation and document possibilities
- Reinforcement shown as clearly visible grey-scale image
- Single scans up to 30m
- Dust and water splash proof

## **Kwikblast** Wet Blasting

Corecut uses Quill Falcon's industry leading Kwikblast Wet Blasting System. This unique system, which combines water, blast media and air to provide an efficient, yet gentle method of abrasive blasting.

#### How it works

Wet abrasive blasting, also known as vapour abrasive blasting, removes coatings, contaminants, corrosion, and residues from hard surfaces. It's similar to dry sandblasting. The main advantage of vapour abrasive blasting over dry sandblasting is that it reduces dust, allowing for better visibility and better operational precision.

Vapour abrasive blasting can also be known as wet blasting, wet abrasive blasting, vapour blasting, slurry blasting, and wet sandblasting.

Wet abrasive blasting can substitute for dry sandblasting for virtually any application, but there are surfaces, conditions, and environments for which wet blasting is especially advantageous.

Wet blasters can operate effectively at lower PSI, removing coatings without damaging the underlying substrate. Vapour abrasive blasting is a preferred method for blasting antique, fragile surfaces, and soft surfaces (including wood). In addition, the presence of lubricating water reduces heat due to friction that can warp metal surfaces.

Ideal for road line removal, exposing aggregate or reinforcing in concrete, removing tacky coatings, the removal of heavy corrosion and coatings, as well as the more delicate removal of coatings from aircraft panels, car panels and graffiti removal with soda. The Quill Falcon is intrinsically safe for the petrochemical industry and is ideal where conventional blasting is not possible or practical.







- Environmentally friendly graffiti removal
- Wet blasting = reduced dust
- Road marking removal
- Coating removal
- Concrete cleaning
- Brick cleaning
- Stone cleaning
- Concrete texturing

# **Specialist Sawing Services**



## **More Specialist** Services

Core Cut also offer a full range of Specialist Sawing alternatives which can be used in conjunction with our conventional Floor, Wall and Wire Sawing techniques. These specialist saws such as Electric Hydraulic and Petrol Chain and Ring Saws and Hydraulic Zohrro Sword Saws allow square or rectangular openings to be formed with no over cutting at the corners to a depth of up to 1000mm across a wide range of materials.







## KEY FEATURES

- No over cutting on corners (i.e. square edges)
- Cutting depth up to 1000mm
- Low noise output
- Non-percussive
- No dust due to wet cutting
- Multi-functional
- Flexible power sources (petrol, electric, or hydraulic)
- Full range of case studies available

#### **ROTARY PERCUSSIVE DRILLING**

Our fully automatic Rotary Percussive Drills allow holes to be drilled for fixings, starter bars and anchors achieving high levels of output in a variety of applications and situations without exposing the operator to the dangers of hand arm vibration syndrome.

### THERMIC LANCING

Where extremely heavily reinforced concrete, steel, or cast iron needs to be cut, then Thermic Lancing can offer the solution.

### WALL CHASING

Utilising the very latest in dust free Wall Chasing technology, Corecut are able to form concealed channels for cables, pipes, and conduits in bricks, block, reinforced concrete, and masonry.

### MICROTRENCHING

Microtrenching is a dry cutting technique where narrow, shallow trenches are cut, typically on one side of an asphalt road. Trench sizes can range from 10mm - 130mm wide and up to 600mm deep. Dust is removed from the worksite during cutting by a vacuum system connected to the cutter wheel, ensuring cleanliness of the site.

### **GROUTING AND STRUCTURAL** REPAIRS

Corecut offer a wide range of Grouting services that range from Machine Base Grouting to the infilling of cavities behind walls tunnel linings, from the lining of tunnel to the bulk infilling of disused sewers. Corecut's expert Grouting team have even conducted repairs to hydroelectric power stations and reservoirs.

### HELICAL PULLDOWN MICROPILE

The proven and reliable system for correcting foundation problems.

The Helical Pier Foundation System offers a technically superior and cost efficient alternative to other remedial systems.

The concept operates on the principal of turning a helical (screw) pier into stable subsoil strata until the torque applied indicates that the necessary load capacity has been achieved. Adjustable brackets are then attached to the base of the foundation walls connecting the piers to the foundation.

The weight is then shifted to the piers allowing repositioning which retains any further movement.

This system, which is backed by over 80 years of structural engineering experience, contrasts with other methods which use the structure's weight to force pipes and concrete cylinders down into the ground. Such costly and time consuming methods require extensive excavation which can disturb site features such as walkways and landscaping.







Constructionline













## Locations

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