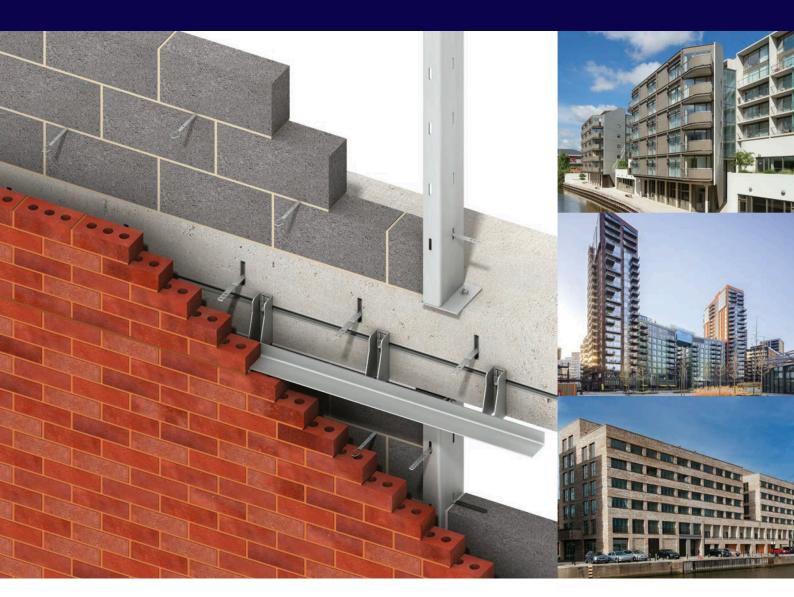


# **Product Overview**

Discover our range of branded products



UK & Ireland Edition

Imagine. Model. Make.



We imagine, model and make engineered products and innovative construction solutions that help turn architectural visions into reality and enable our construction partners to build better, safer, stronger and faster.

# Leviat is a world leader in connecting, fixing, lifting and anchoring technology.

From the build of new schools, hospitals, homes and infrastructure, to the repair and maintenance of heritage structures, our engineering skills are making a difference around the world. We provide technical design assistance at every stage of a project, from initial planning to installation and beyond.

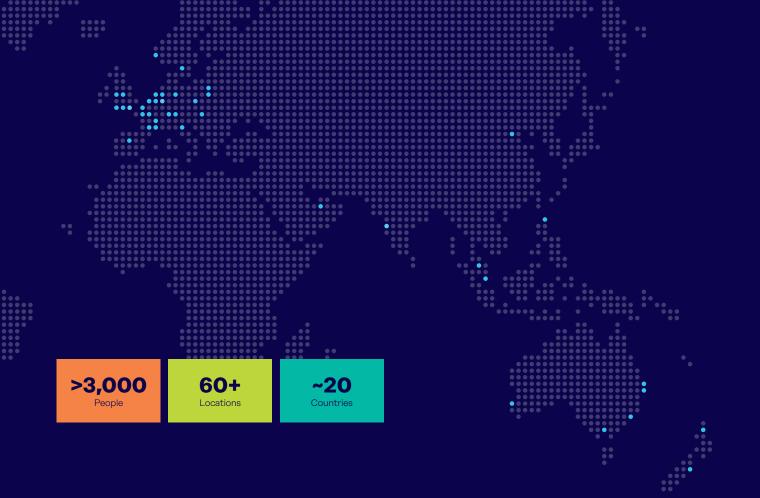
Our technical support services range from simple product selection through to the development of a fully customised project-specific design solution. Every promise we make locally, has the commitment and dedication of our global team behind it. We employ almost 3,000 people at 60 locations across North America, Europe and Asia-Pacific, providing an agile and responsive service worldwide.

Leviat, a CRH company, is part of the world's leading building materials business.









#### Our areas of expertise:



#### **Structural Connections**

Systems to form robust, efficient connections, and continuity of concrete reinforcement as necessary, between walls, slabs, columns, beams and balconies, providing structural integrity as well as enhanced thermal and acoustic performance.



#### **Lifting & Bracing**

Systems for the safe and efficient transportation, lifting and temporary bracing of cast concrete elements and tilt-up panels before permanent structural connections are made.



#### **Anchoring & Fixing**

Systems for fixing secondary fixtures to concrete, including anchor channels, bolts and inserts; also tension rod systems for roofs and canopies.



#### Formwork & Site Accessories

Non-structural accessories that complement our engineered solutions and help keep your construction environment operating safely and efficiently, including moulds for casting standard and special concrete elements and construction essentials such as reinforcing bar spacers.



#### Façade Support & Restraint

Systems for the safe and thermallyefficient fixing of the external building envelope, including brick and natural stone, insulated sandwich panels, curtain walling and suspended concrete façades, and also the repair and strengthening of existing masonry installations.

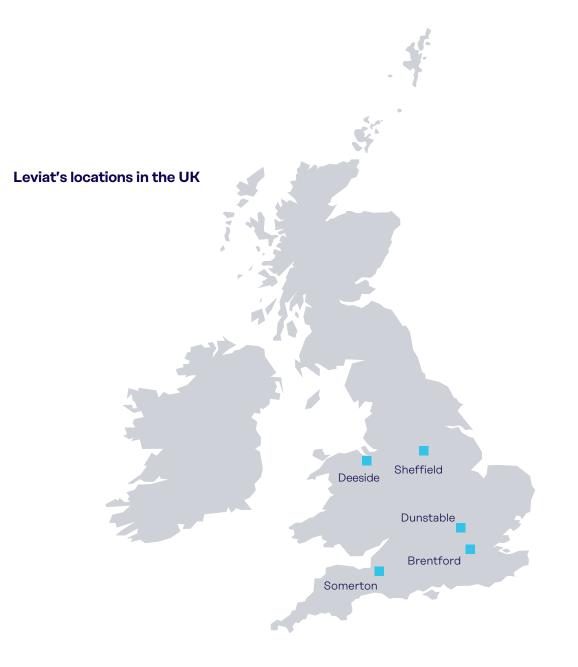


#### Industrial Technology

Mounting channels, pipe clamps and other versatile framing systems that provide safe fixing in a wide range of industrial applications.

#### Leviat product ranges:

Ancon I Aschwanden I Connolly I Halfen I Helifix I Isedio I Meadow Burke I Modersohn I Moment I Plaka I Scaldex I Thermomass



#### Leviat can assist with the specification, design, detailing and scheduling of a complete fixing solution for your project from our extensive range of trusted brands.

Our products are precisionmanufactured to perform in the most demanding concrete and masonry applications, and are trusted for their integrity, reliability and compliance.

Our experienced technical specialists work closely with developers, architects and structural engineers to ensure that our products meet the demands of today's most challenging construction programmes, while complying with new and emerging regulations.

The advanced manufacturing facilities that we operate from meet the requirements of ISO 9001. Our agile manufacturing processes enable us to respond quickly to fulfil urgent highvolume orders and meet challenging deadlines. Our business is structured around meeting customer requirements efficiently and cost effectively. Our customer service professionals and extensive distribution network enable us to deliver the products that customers need, just when they are needed.

Contact us for help with your project, from correct product selection to a fully customised design solution.

Tel: 0114 275 5224 Email: info.uk@leviat.com Leviat.com



#### Masonry & Façade Fixings

Ancon MDC masonry support systems combined with Ancon wall ties, windposts and lintels form a complete stainless steel fixing solution for aesthetic masonry cladding on new buildings. Helifix repair and reinforcement products, with their concealed non-disruptive installation techniques, help to preserve our built environment and strengthen existing masonry structures.



#### **Primary Structural Connections**

Our range of structural connectors includes high performance shear dowels, reinforcing bar couplers, reinforcement continuity systems, high integrity fireresistant balcony connectors, superior jointing systems for industrial concrete floors and innovative solutions for the connection of precast elements.



#### **Anchoring & Framing**

Leviat offers a wide range of intelligent fastening solutions as alternatives to drilling or welding. Our range provides the ideal channel for every application, whether for elevator shafts, tunnels, stadiums or precast concrete construction. Our Tension Bar Systems provide high load capacity whilst meeting the demanding aesthetic requirements of today's architectural applications.

## Contents

Masonry &
Façade Fixings
Masonry Support Systems
Lintels
Brick-Faced Support Systems
Windposts & Parapet Posts
Masonry Reinforcement
Wall Ties & Restraint Fixings
Crack Stitching Systems
Lateral Restraint Systems
Mechanical Pinning Systems
Piled Foundation Systems

#### Primary Structural Connections

10

6

Shear Load Connectors Punching Shear Reinforcement Reinforcing Bar Couplers Reinforcement Continuity Systems Thermally Insulated Connectors Floor Joint Solutions Stud Connectors Precast Connectors

#### Anchoring & Framing 16

Tension & Compression Systems Cast-in Channels Fixing Anchors

# Masonry & Façade Fixings



AnconOptima Masonry Support

#### **Brick-Faced Support Systems**

The BBA approved family of Nexus® brick-faced soffit and lintel systems is a next generation solution that brings together a high integrity steel Ancon support system with engineered brick-faced units from Ibstock Kevington.

Its lightweight design sees weight cut by more than half when compared to traditional precast concrete alternatives, and its ease of handling ensures it can be installed without the use of specialist lifting equipment.

# **Horizontal Support**

#### **Masonry Support Systems**

Both AnconOptima and the Ancon MDC system provide a continuous angle in the external masonry leaf. AnconOptima is a standard system, available from stock. MDC systems are designed to suit specific applications. Brick support systems can be supplied with Thermal Breaks to minimise heat loss through cold bridging, and improve the energy efficiency of your building project. Ancon Thermal Breaks work by inserting a material with a lower thermal conductivity between the brackets and the frame. Stonework supports include corbel angles

and adjustable individual brackets.

#### **Channel & Bolt Fixings**

A wide range of channels and bolts are available to fix stainless steel masonry supports and restraints to any type of structural frame.



Channel & Bolt Fixings

#### Lintels

The Ancon lintel range suits the majority of wall constructions and load conditions. Special lintels can be manufactured to suit architectural features and nonstandard applications.



Ancon Lintel

Nexus XI Brick-Faced Support System

# Strengthening Masonry Panels

#### Windposts & Parapet Posts

Ancon Windposts span vertically between floors. Profiles include channel and angle sections.

They are designed to suit specific applications and are supplied complete with all end connections and wall ties. Designed to minimise thermal bridging in masonry cavity walls, the patented Ancon Thermal Windpost (TWP2) offers up to an impressive 70% reduction in thermal transmission through the span of the windpost.

Ancon WP3 Windposts

#### **Masonry Reinforcement**

Ancon AMR masonry reinforcement locates in the bed joint. The longitudinal wires are flattened to less than 3mm. Standard configurations suit a wide range of structural load conditions and wall widths. Thermal Windposts

Ancon TWP2

Ancon AMR Masonry Reinforcement

# Leviat<sup>®</sup>

# Masonry & Façade Fixings

## **Masonry Restraints**

#### **Wall Ties**

Ancon Wall Ties are available in a variety of lengths and types for restraining brick, block and stone. These restraints can be designed to fix to concrete and structural steel as well as any type of masonry.

The standard wall tie range includes solutions for traditional brick-to-block, thin-joint blockwork, cellular clay blockwork, timber frame and light steel studding.

The Ancon Teplo-BF is a composite wall tie manufactured from pultruded basalt fibres. This material is often selected for its low thermal conductivity value of 0.7W/mK, which can be used to reduce insulation thickness.



Ancon Teplo-BF Cavity Wall Tie

#### **Channel-Tie Restraint Systems**

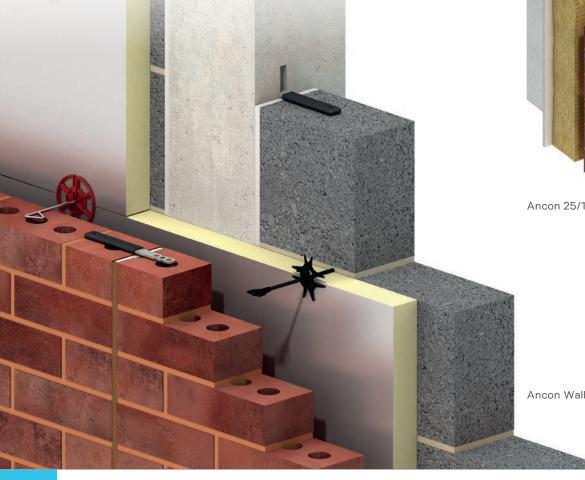
The Ancon 25/14 restraint system is designed to tie masonry to steel, timber or concrete frames through a layer of insulation.

Ancon 25/14 channel features prepunched holes at close centres to ensure a fixing position is always located near the end even when it is cut on site. Once the channel is installed, Ancon SD25 wall ties can be positioned at any point along its length and are built into the bed joints of the outer leaf of brickwork.



Ancon 25/14 Restraint System

Ancon Wall Ties



# **Masonry Repair Systems**

#### **Strengthening and Stabilising Masonry**

HeliBar is a helical stainless steel reinforcing bar, with substantial tensile properties, used for strengthening and stabilising masonry in both new build and remedial situations. Helibars can be used to form masonry beams that secure large areas of masonry, distributing the structural loads and overcoming various problems caused by foundation movement.



#### **Crack Stitching Systems**

The Helifix Crack Stitching system repairs and stabilises cracked masonry using stainless steel HeliBars bonded into cut slots with HeliBond grout for a quick, simple, effective and permanent solution.



#### **Lateral Restraint Systems**

Remedial wall ties are installed to tie masonry leaves together or veneers to internal structural frames. The Helifix range offers a solution for all situations and materials including ResiTies and BowTies. BowTie HD is a long stainless steel retrofit helical tie for stabilising bowing/ bulging walls, without any external plates, by securing and anchoring them to internal floor and ceiling joists. BowTie HD's are recommended when installing into joist sides.





**Mechanical Pinning Systems** 

Helifix DryFix is a versatile and rapidly installed mechanical pinning and remedial tying system that requires no resin, grout or mechanical expansion. DryFix ties are installed directly into the brick leaves.

#### **Piled Foundation Systems**

Helifix Dixie Micro-Pile circular hollow section piles provide rapid and reliable structural support to a building's foundations following subsidence and can also act as a piled foundation system for either permanent or temporary newbuild construction.

# **Primary Structural Connections**



Ancon Lockable Dowel

Ancon DSD Shear Load Connector

# **Accommodating Shear**

#### **Shear Load Connectors**

Installed at expansion and contraction joints, Ancon shear load connectors are more effective at both transferring load and accommodating movement than plain dowel bars. Each connector is a two-part assembly, comprising a sleeve and a dowel component. Products are available for joints in ground bearing and suspended slabs. Free design software is available.

The range includes a unique 'Lockable Dowel' designed for use at temporary movement joints in post-tensioned concrete frames.

#### **Punching Shear Reinforcement**

Ancon Shearfix and Halfen HDB consist of double-headed studs welded to flat rails. They can be used within a slab to provide additional reinforcement around columns, protecting the slab from the effects of punching shear.

Halfen HDB-Z is suitable for use in foundation slabs and single foundations, enabling thinner in-situ concrete slabs and precast foundations. Use of the system offers material and time savings during excavation and construction.

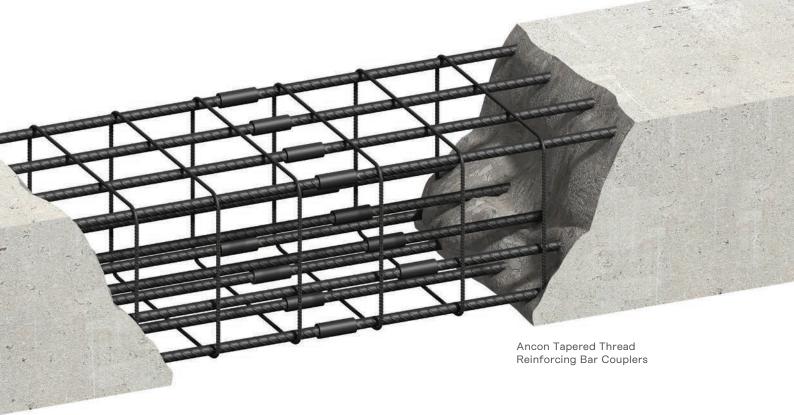
Free design software is also available for this product.



Halfen HDB Punching Shear Reinforcement



Halfen HDB-Z Punching Shear Reinforcement



# **Continuity of Reinforcement**

#### **Reinforcing Bar Couplers**

Mechanical couplers can be used to replace long bars and lapped joints, simplify design details, reduce rebar congestion and accelerate the speed of construction. The Ancon range includes parallel threaded, tapered threaded, mechanically bolted and grouted couplers. Couplers for stainless steel and cryogenic-grade rebars are also available.



Ancon KSN Threaded Anchor and Ancon Bartec Plus Continuation Bar

Ancon Tapered Thread Starter Bar System

#### **Reinforcement Continuity Systems**

Leviat manufactures a wide range of products which simplify continuity of reinforcement at slab-to-wall construction joints in concrete.

Ancon Eazistrip consists of pre-bent bars housed within a galvanised steel casing. Once installed, the protective cover is removed and the bars are straightened.

Ancon CB Coupler Boxes allow engineers to design slab-to-wall connections without the traditional restrictions on bar length and bar diameter of re-bend/ pull-out continuity systems and help contractors to eliminate manual bar straightening on site.

Ancon CB CouplerBox

Parallel Threaded Coupler

Ancon Bartec

Ancon Starter Bars are supplied fixed to an Ancon coupler. Once cast in concrete, the coupler's end cap is removed and a tapered thread continuation bar is installed with a calibrated torque wrench to complete the connection.

The Ancon KSN Threaded Anchor minimises congestion in a wall and is a quicker, easier, and above all safer continuity system. Connection to the anchor is with Bartec Plus parallel threaded bar.





# Primary Structural Connections

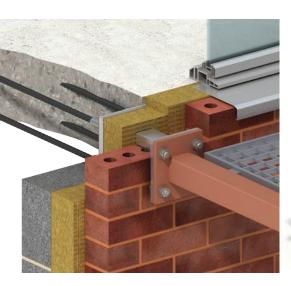
Ancon Isotec Balcony Connectors

# **Thermally Insulated Connections**

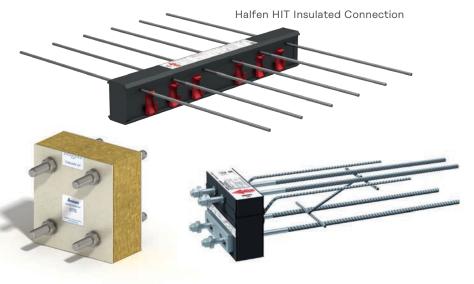
#### **Insulated Balcony Connectors**

Leviat's range of thermally insulated connectors have undergone comprehensive thermal modelling, proving their ability to reduce heat loss and eliminate condensation risk. They provide a thermal break by inserting a material with a low thermal conductivity between elements with a higher conductivity and most also provide local insulation at the joint. In addition to providing structural integrity and thermal efficiency to a building, they have also been tested to a range of fire safety compliance. As a critical structural component, they transfer moment, shear, tension and compression forces.

Standard solutions from the Ancon range are available for concrete-toconcrete (Isotec), steel-to-concrete (STC/STCS) and steel-to-steel (STS/ STSS) interfaces. Halfen HIT Insulated Connections provide a versatile and innovative range of products to meet a number of different project requirements. The Halfen HIT can be used in a wide range of concrete-toconcrete installation situations. Halfen HIT-SDV steel-to-concrete connections are also available for a number of steel structures, steel balconies, solar shading systems and more.



Ancon STC Balcony Connectors



Ancon STS Balcony Connectors

Halfen HIT-SDV Insulated Connection

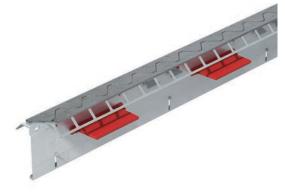


## **Floor Joint Solutions**



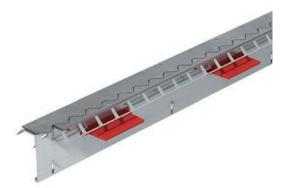
#### Isedio ArmourJoint

ArmourJoint is a leave-in-place formwork, load transfer and edge protection joint system suitable for heavy duty industrial concrete floors.



#### Isedio GuardJoint

Guard Joint adds to the Armour Joint features, with a disruptive face top plate and continuous anchor wings, providing silent, smooth wheel travel across joint openings up to 25mm. Suitable for heavy duty industrial concrete floors.



#### Isedio ShieldJoint

Building on the value of GuardJoint, ShieldJoint adds a sealant-free joint design to the list of features, making it the ultimate in slab edge protection. Suitable for heavy duty industrial concrete floors.



#### Isedio SteelDeckJoint

SteelDeckJoint is a revolutionary floor joint solution, which solves many of the complexities and time consuming elements of more traditional methods of forming a construction joint using timber formwork.



# **Primary Structural Connections**

## Reinforcement Connections

#### Halfen HSC Stud Connector

The Halfen HSC Stud Connector is an approved reinforcement anchor, optimised for anchorage in concrete and suitable for use in highly reinforced areas such as corbels and beam to column connections. Full reinforcement anchorage can be achieved with minimum transmission lengths. By using the Halfen HSC, the amount of reinforcing bar required is considerably reduced and the reinforcement layout is simpler. In addition to saving time and money, the stud connector also offers a highly reliable connection.



## **Precast Connections**

#### Halfen HCC System

The Halfen HCC System comprises the HCC Column Shoe and HAB Anchor Bolt and is an efficient and economical method of installing precast columns. It provides a handy solution for either connecting columns to foundations or linking columns together. The column shoes are cast into the precast columns, while the anchor bolts are cast into the foundations on site. They are joined by load bearing nuts during assembly.





#### Halfen HEK Precast Coupler

The Halfen HEK Precast coupler is an innovative and versatile solution for fast and easy connection of precast concrete elements. Cast-in Halfen Demu fixing anchors i.e. T-Fixx, transfer the tension and shear force into the precast element. The main advantage of the system is the fast and efficient positioning of precast elements. The connection can be subjected to load immediately after installation, which results in a substantial improvement in construction time.

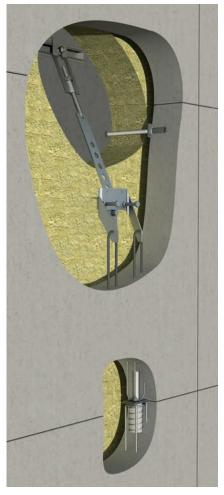




#### Halfen FPA Panel Anchors

The Halfen FPA Precast Panel Anchor and DS Spacer Bolt are used for the fixing of prefabricated suspended concrete façades. They are available in different variants and load ranges. The panel anchors transfer the vertical loads (dead load) and the spacer bolts transfer the horizontal loads (e.g. wind load). All system components are manufactured from corrosion resistant stainless steel.





# **Anchoring & Framing**

# **Architectural Tension Systems**

#### **Tension & Compression** Systems

In addition to providing a high load capacity, these stylish systems meet the demanding aesthetic requirements of today's architectural applications. Ancon systems are available in stainless steel in a variety of sizes and finishes including hand polished. Halfen Detan systems are available in galvanised steel. Components combine to create fixing solutions for staircases, canopies, timbers and large areas of glazing. Tension Systems comprise high strength bar, fork connectors, locking nuts, couplers and anchor discs.

Compression Systems comprise high strength tubes, fork connectors and locking nuts.







Halfen Detan Tension Rod System

Ancon Satin-polished **Tension System** 



# **Cast-in Channels**

#### Halfen Cast-in Channels

When fixing to concrete, Halfen Cast-in Channels provide almost unlimited adjustment along the line of the channel and can eliminate expensive site drilling. The Halfen range offers the ideal channel for every application, whether for elevator shafts, tunnels, stadiums or precast concrete construction, to name just a few uses. They are available in hot dip galvanised steel or stainless steel, depending on the level of corrosion resistance required.



#### Halfen HTA Cast-in Channels

Halfen HTA Cast-in Channels, used in conjunction with Halfen HS T-Bolts, resist tension loads and shear loads in the direction perpendicular to the longitudinal axes of the channel. Halfen HTA Cast-in Channels hold a European Technical Assessment and comply with EN 1992-4.



#### Halfen HZA Cast-in Channels

Halfen HZA Toothed Cast-in Channels, used in conjunction with Halfen HZS T-Bolts, provide resistance in all directions including the longitudinal axes of the anchor channel. Halfen HZA Toothed Cast-in Channels comply with EN 1992-4.





Halfen HZS T-Bolts



Elevator Guide Rail Connected using Cast-in Channels

# **Anchoring & Framing**

## **Fixing Systems**

#### Halfen HUC Universal Connection

The Halfen HUC Universal Connection System is a range of components that together provide an effective solution for the transfer of high structural loads into concrete. The components of the HUC system include the HSC-B Concrete Steel Connection System and the HSCC Steel Corbel System. The load range and adaptability of these components enables the HUC system to offer a huge range of connection applications. These include connections for steel beams, steel corbels, and anchor points for both Halfen Detan Tension Rods and cable bracing systems.





#### **Halfen Fixing Anchors**

Halfen Demu fixing anchors offer a safe and permanent anchorage for fixing into concrete. Anchors are available a variety of materials and finishes, including stainless and hot dip galvanised steel, up to a thread size of 42mm.



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