



STAKKAbox™ ULTIMA Connect Product Guide

The Only Scalable Network
Access Chamber System for
Underground Utilities Access



STAKKAbox™ ULTIMA Connect

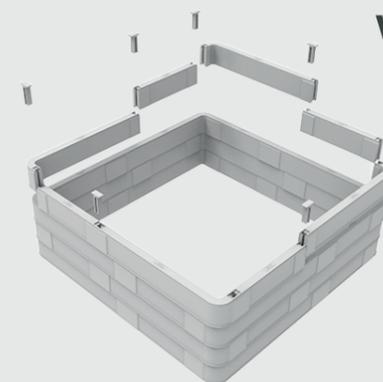
The next generation in network chamber access systems for a range of applications and sectors for jointing, bending and pulling utilities.

A truly modular solution that can be scaled to specification and site requirements with a range of connectable components and accessories.

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Significantly reduce in-situ construction times with STAKKAbox™ ULTIMA Connect



The ULTIMA connect chamber system is made up of a range of lightweight sidewall straights and hockey stick corner components. These parts are connected, together using jointing pegs to form a variety of chamber sizes to suit the requirements of the application.

CHAMBERS /

HOW IT WORKS



STAKKABOX™ ULTIMA CONNECT

ULTIMA Connect is manufactured in 150mm deep sections that stack one on top of each other to reach the desired depth. Each ring section is castellated to positively interlock with the ring sections above and below.

Variability in Size

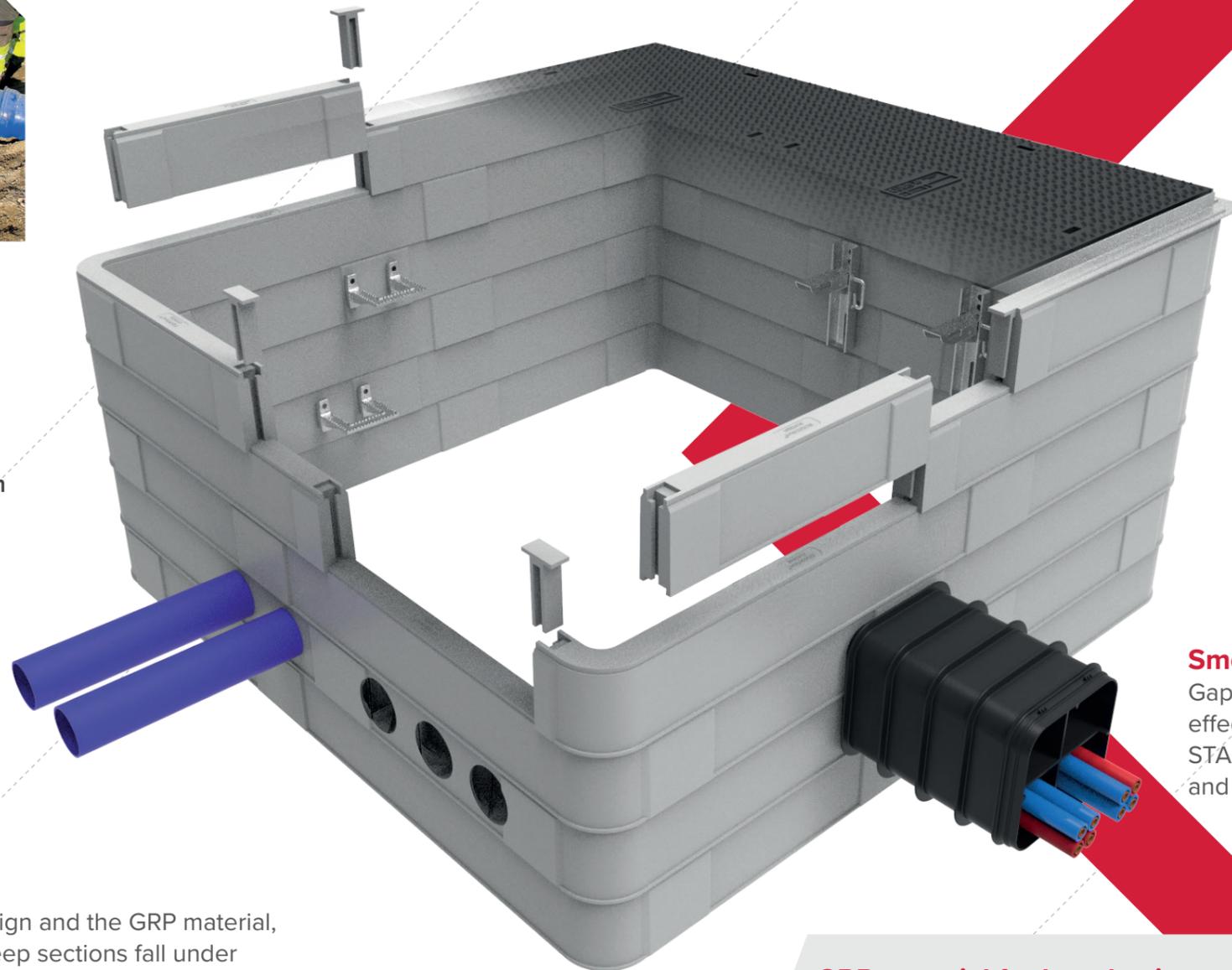
ULTIMA Connect offers a huge range of chamber dimensions thanks to the large number of standard sections and the variability offered by the ULTIMA Connect system.

Lightweight

Due to the sectional twinwall design and the GRP material, most ULTIMA Connect 150mm deep sections fall under 25kg in weight, making it suitable for a single person lift under manual handling regulations.

Material

Glass-reinforced plastic (GRP), is a composite material, fibre-reinforced polymer made of a plastic reinforced by fine fibres made of glass.



Strength

ULTIMA Connect offers the ability to offset joints between sections to provide a strong brickwork effect improving side wall performance.

Fast and Easy to Install

ULTIMA Connect chambers are significantly faster to install than conventional alternatives, with complete installations typically taking up to one hour. This results in reduced costs for the installer. Only the largest sizes in the range require specialist equipment or plant in order to install the chamber.

Chemical Resistance

GRP outperforms traditional construction methods for chemical resistance during its buried life, resulting in a product that offers longer installed life.

Smooth Outer Walls with Lip to 'Key In'

Gaps in the outer wall will negatively impact the effectiveness of compaction around the chamber. STAKKAbOX™ chambers have smooth outer walls and an outer lip which keys into the backfill.

GRP material for long lasting toughness, durability and strength

ULTIMA Connect chambers can achieve unsupported 60 tonne vertical load test results. Side loads are comparable to that of concrete chambers. ULTIMA Connect sections are twin walled and complete chambers feature horizontal and vertical ribs.



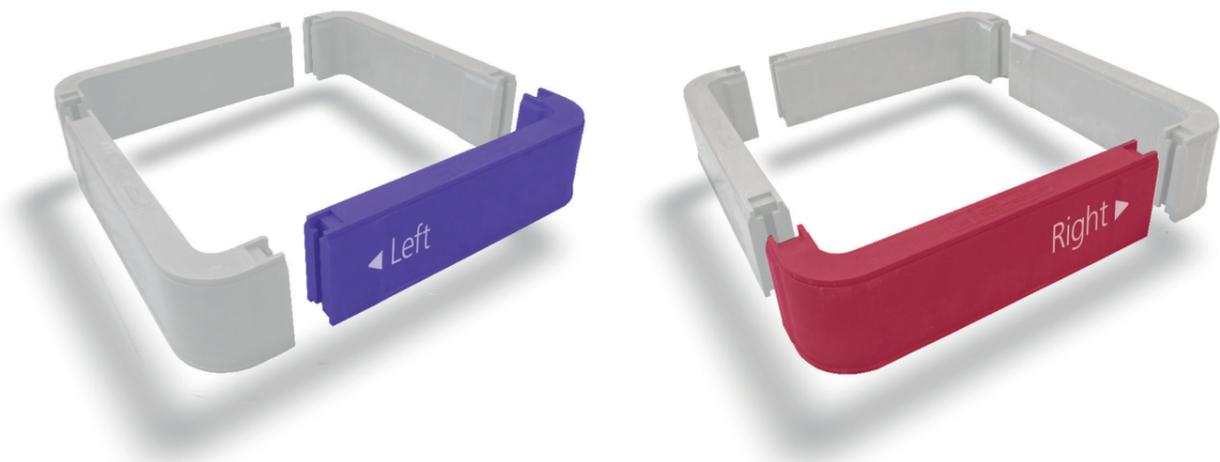
HOW IT'S BUILT



ULTIMA Connect corner pieces are manufactured in left and right 'handed' designs, which offer the ability to offset joints between sections in order to provide a brickwork design. This offers strong sidewall performance to the installed chamber.

When constructing an ULTIMA Connect chamber you must remember to start with a full ring section of either left or right corner pieces. You can then build up from this using alternative corner pieces per ring section, until the specified height of the chamber is reached.

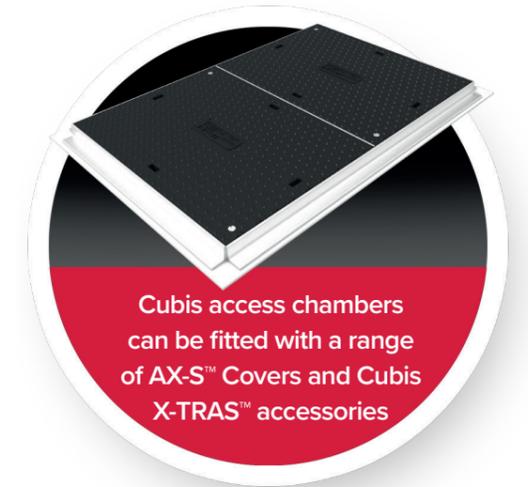
Jointed Pegs are inserted at each intersection to securely connect each component



It is possible to differentiate between a left-handed and right handed corner piece when both parts are placed beside each other as the left-handed corner piece looks like an 'L'.

COMPONENTS

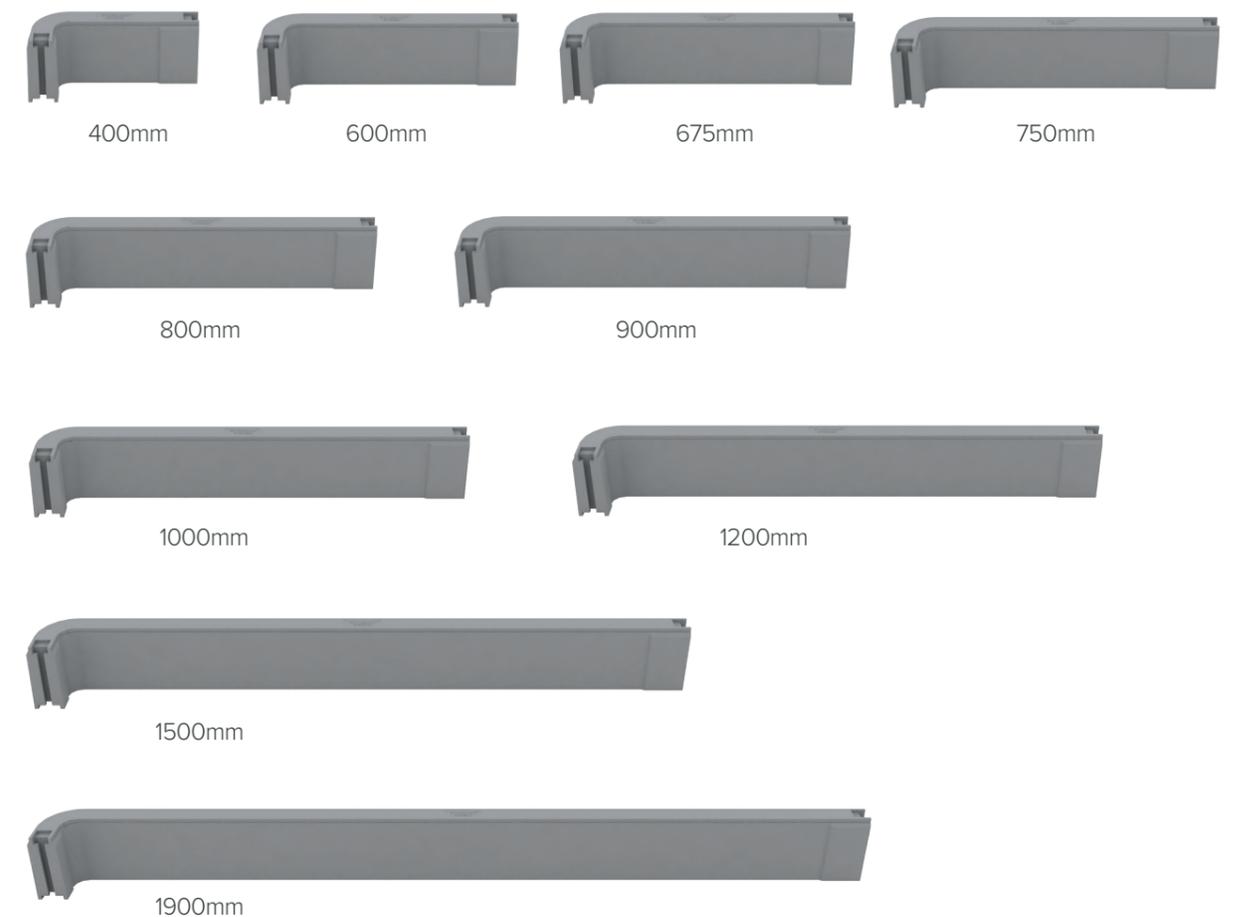
ULTIMA Connect is available in the below sizes, that can be used to build up the chamber size required.



Sidewalls



Corner Sections



CHAMBERS /

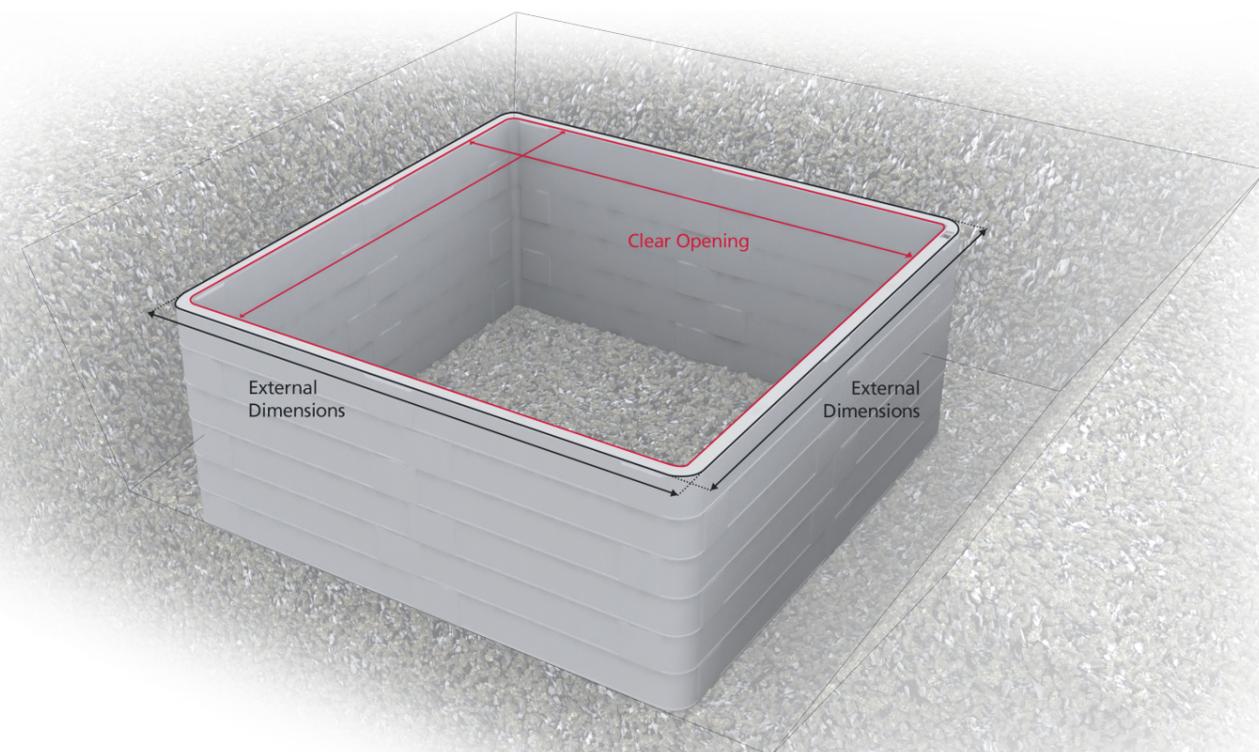
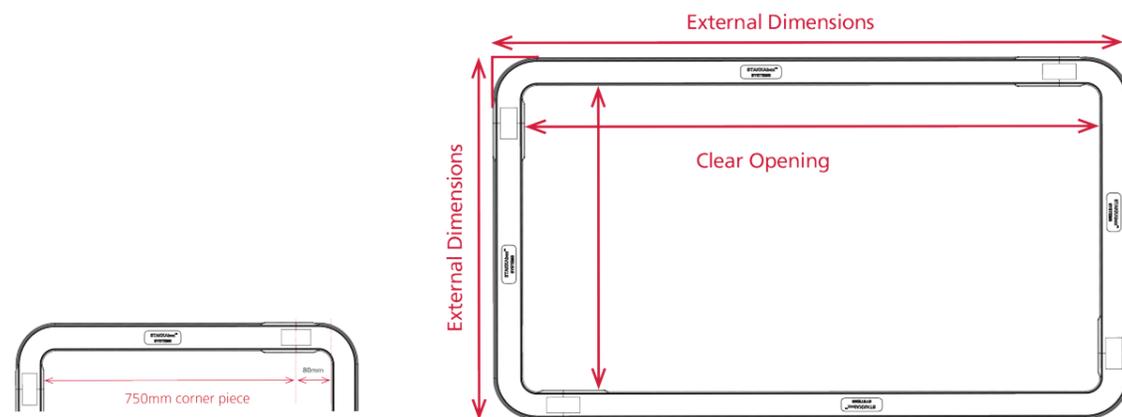
HOW TO BUILD

MEASURING AN ACCESS CHAMBER

Access chambers, pits, vaults or manhole sizes are determined by the internal dimensions, this is also referred to as the clear opening to which Cubis' STAKKAbox™ ranges provide a greater clear opening to allow for ease of access and management of utilities in the future.

Attention should also be paid to the external dimensions when deciding whether the network access chamber will fit into the area required.

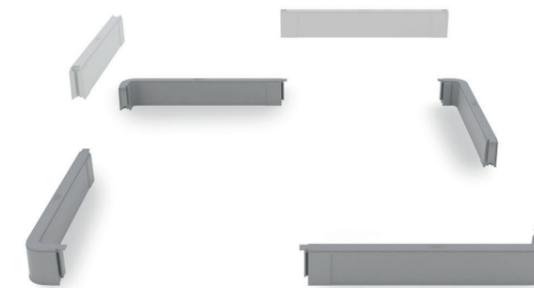
Specifying a Size



Rapid and Easy Installation

Step 1:

Arrange corner pieces and sidewalls to match the chamber clear opening dimensions. Ensure that the lip is on the outside of the chamber. The corner pieces should be all 'left' or all 'right' on each section and will alternate between the two as the chamber increases in depth.



Step 2:

Layout the first ring section of connect pieces to ensure you have the correct components



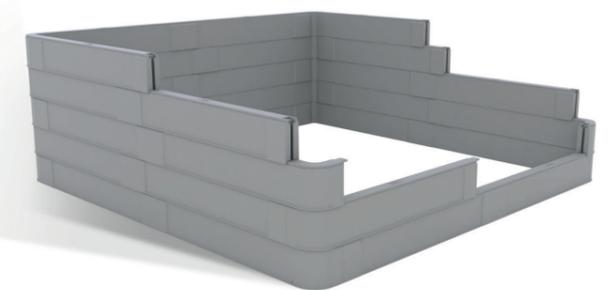
Step 3:

Now Connect the sections using the jointing peg, ensuring that the top of the peg is level with the top of the section.



Step 4:

Build the next section on top, using the alternative corner pieces. This will provide a 'brick worked' chamber ensuring any joints are not in a vertical line.



CHAMBERS /

LARGE CHAMBERS

STAKKABOX™ ULTIMA CONNECT

STAKKAbOX™ ULTIMA Connect has specifically been developed to provide a scalable network access chamber solution, that provides a truly modular system for building large chambers. Its design has been optimised to deliver the technical needs across a range of applications and utilities.

Its adjustability to customers' requirements regarding size, lead-time, and installation environments, makes it the ideal solution for a range of installations and sites with restricted access. Available with a wide range of cover options to meet the loading and size needs of our customers the STAKKAbOX™ ULTIMA connect is the only solution for large chamber requirements.



Strength

Suitable of meeting and exceeding installation environments rated to F900 under EN124. Ideal for areas imposing high wheel loads, e.g. docks, aircraft pavements

No Limit on Size

The ULTIMA Connect chamber is the only system that can be built to any size required*. A range of cover options is available from A15 to F900 loadings



Flexibility in Construction

The ULTIMA Connect chamber provides the ideal solution for adaptability onsite during installation. Duct entries can be quickly and safely formed on site, with overbuilding or benching being easily achieved around existing or new utilities.

Fast Reinstatement and Easy to Install

Comprised of lightweight components, ULTIMA Connect ensures safer manual handling and speed of installation. Once a the chamber is built, full installation can be complete vastly reducing installation times compared to traditional methodsequipment or plant in order to install the chamber.



Flat Pack Delivery

ULTIMA Connect can be shipped flat pack in component format. Reducing lead times and the removing the need for specialist lifting equipment.

*This is depending on site and application suitability. Please speak to a member of our team for further details.

CHAMBER SYSTEMS /

LARGE COVERS

AX-S COVERS™

Cubis' access covers provide a complete underground network access system. Designed for varying installation environments the AX-S™ range of products can meet any size and load rating requirements to complete your underground network access system needed for your project.

Designed from a range of materials to optimised and deliver the technical needs across a range of applications and utilities. The AX-S™ ranges of adjustability to customers' requirements regarding size, weight loading and installation environments, make them the ideal solution for a range of installations and sites. Seamlessly integrating with STAKKAbOX™ access chambers, accessories and cable protection products, Cubis' system approach provides a full utilities network offering to its customers.

Frame Options

With a wide range of frame options to suit varying installation environments, Cubis' frames offer greater flexibility for varying ground conditions with adjustability in height and camber to meet the surrounding ground level. Bolt in frames and sub-security options offer protection of networks against damage or theft.

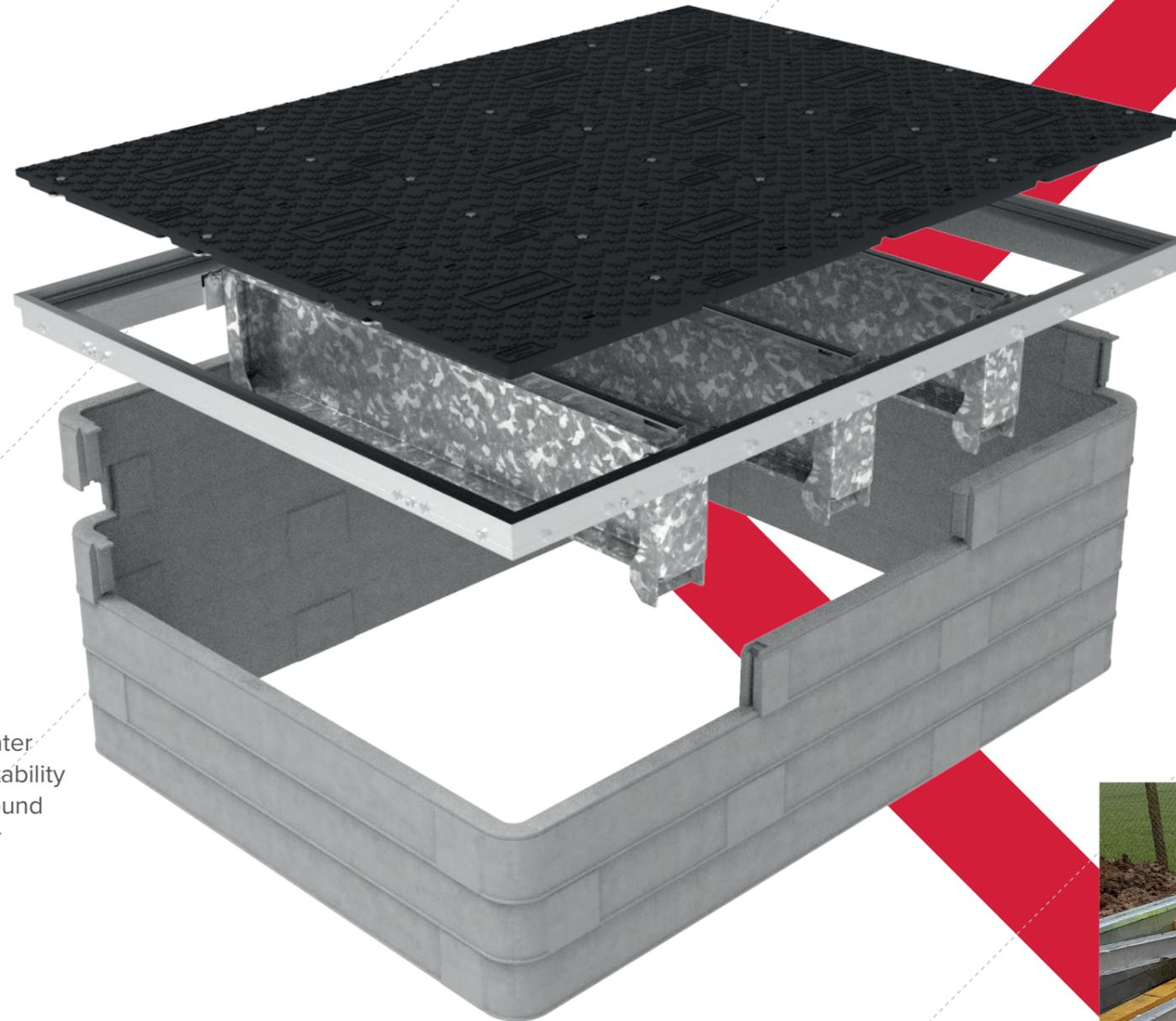


No Limit on Size

Cubis' range of access covers enables clients to build to any size required*. With different cover options available from composite, concrete, ductile and recessed, Cubis can provide a suitable solution for your project.

Load Rating

Suitable of meeting and exceeding installation environments rated from A15 to F900 under EN124. The Cubis range of AX-S™ covers are ideal for areas imposing high wheel loads, e.g., docks, aircraft, roads, and pavements.



Safe and Secure

Providing customers with a complete secure underground network access system through bespoke locking and sub-security options.

Clear Opening and Safe Access

The AX-S™ range of access covers provide a greater access to underground utilities with easy to remove covers and cross beams making a much larger clear opening space for safe access for operatives, both during and after installation. STAKKAbOX™ access chamber range for ease of installation.



Easy to Install

Developed to create a safe and easy installation on-site, the AX-S™ range seamlessly integrates with Cubis' STAKKAbOX™ access chamber range for ease of installation.

*This is depending on site and application suitability. Please speak to a member of our team for further details



CHAMBERS /

CHAMBER ACCESSORIES

LARGE CHAMBERS

Utilising Cubis' access chamber accessories can help save even more time and ensure safe entry to your utilities network. Chamber accessories allow installers to simply place, connect up tubes or ducts, backfill and walkaway.

1 X-TRAS™ Access

Chambers deeper than 600mm will usually require steps or ladders for access. We supply high quality drop-in or bolt-on steps to suit customer requirement.

Pre-fitting Service

Focusing on customer needs, we have developed the parts required and offer a pre-fitting service, saving further time on site.

2 X-TRAS™ MULTIduct Spigot

MULTIduct™ spigots can be built into assembled chamber so that interface can be completed quicker on site. These can be located anywhere to match customers' needs.

3 X-TRAS™ Cable Management

Based upon BT or France Telecom accredited galvanised steel cable and joint management and our own high-strength plastic fittings, these accessories will keep cables dressed perfectly within the chamber.

4 X-TRAS™ Bases

We extrude 100% recycled Low Density Polyethylene chamber bases to suit any chamber size. These are securely fitted to a ring section or bottom of a chamber to provide a clean easy finish to the floor of the chamber. There is no requirement to 'float' a floor on site and the floor prevents vegetation and silt from entering.

Bases are available with an anti-slip finish, grated drainage holes with silt block, sumps to provide a low point for removal of water and built in cable pulling eyes.

X-TRAS™ Duct Entry

5 Ducts, tubes and pipes come in many size and wall configurations and we have developed fittings which provide for the simple transit of these into our chambers. Whilst duct entries can always be made very easily on site, our pre-fit service gives consistent spacing and internal wall finish every time. The addition of cable glands means they will also stop sand, silt and if required, water ingress at the point of entry.

The Cubis AX-S™ range of access covers provide customers with a complete underground network access system as they are designed and manufactured from a range of materials to complement our chamber ranges.

The AX-S™ range can be tailored to meet specified loading requirements from pedestrian up to carriageway duty and are available in a wide range of clear opening dimensions and depths.

AX-S™ Concrete Infill



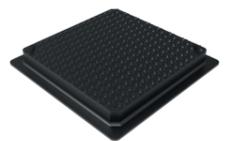
AX-S™ Recessed



AX-S™ Composite

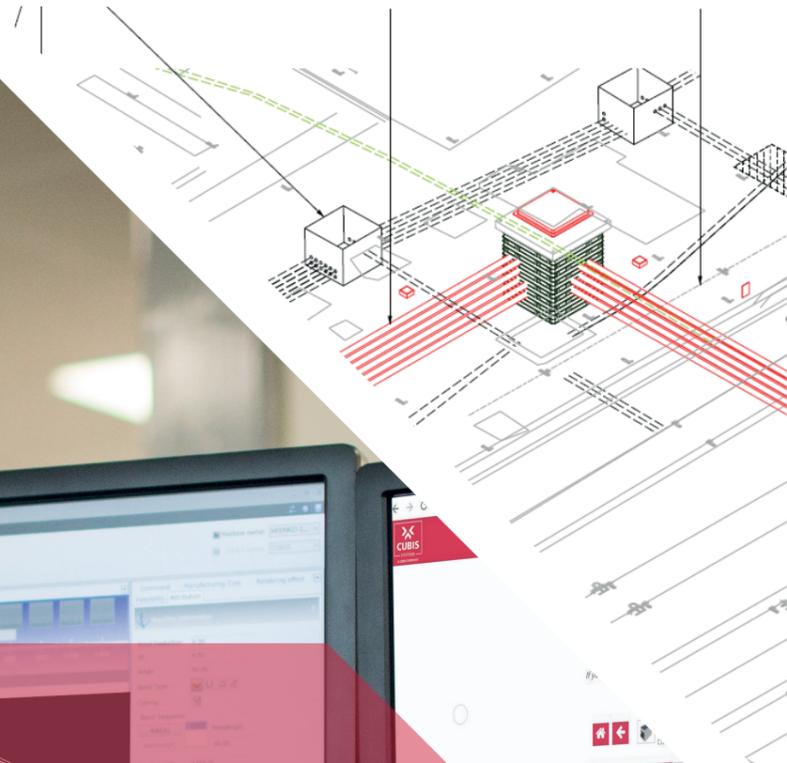


AX-S™ Ductile Iron Cover



AX-S™ Concrete Cover Slab





CHAMBERS /

TECHNICAL HUB

TECHNICAL HUB

Cubis prides itself on being the leading design and manufacturer of network access chambers and cable protection solutions for a range of applications and utilities. Our commitment to ensuring our products meet the technical requirements of our customers is seen throughout our product range and team of experts who can help with all technical questions to ensure the right installation for your project.

TECHNICAL SPECIFICATION

With technical experts across our business, Cubis' ability to provide technical support to its customers throughout their infrastructure project, from the early design phases through to installation advice, our team has a wealth of experience to ensure your network meets the requirements for now and the future.

BUILDING INFORMATION MODELLING (BIM)

Cubis Systems is the only accredited manufacturer of network access chambers and cable protection solutions to provide BIM Level 2 models. Available in range of industry standard file formats through our online tool, customers can configure and adapt products to suit their requirements. For further details please see our website or contact a member of our team.

ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)

As a business dedicated to working responsibly, our ability to manufacture and deliver sustainable products and solutions to our customers is at the forefront of our business. Our range of EPD's covers our network access, cable protections and access cover products and summaries the environmental impact of the products through their Life Cycle Assessment (LCA). For further details please see our website or contact a member of our team.



CASE STUDY

SUCCESS STORY

STAKKABOX™ ULTIMA CONNECT PROVIDES A UNIQUE BESPOKE SOLUTION

Cubis supplied large chambers for turning of large high-voltage power cables in the build in time for the 2012 Olympic Games. The chambers were designed and manufactured using the original 'cut and bolt' system to order, the largest being 6m x 3m x 3m (internal dimensions).

Two years after the games finished, the site was being re-configured for future use, which meant upgrading and diverting the buried infrastructure on site. Cubis were asked to supply a solution for two chambers that would be able to be retrofitted over the existing cable banks. The dimensions of these were to be 5.6m x 2.5m x 1.6m and 4.4m x 3m x 1.6m. In order to meet the criteria, Cubis supplied the ULTIMA Connect system in flat-pack format for this project.

Thanks to the component design, the chambers could be fabricated in situ to build around the ducts. This was done by forming two 'C shape' chambers around the duct bank until it reached the depth that allowed the chamber to be built normally over the top.

Each installation took less than a day to complete, including the assembly and backfill. This was significantly faster than alternatives, while offering a flexible solution for benching over existing services and creating duct entries.



DETAILS

Project: Queen Elizabeth Olympic Park Stadium renovation

Client: London Legacy Development Corporation

Contractor: Balfour Beatty & PJ Carey (groundworks)

Products used: STAKKAbOX™ ULTIMA Connect



CASE STUDY

SUCCESS STORY

STAKKABOX™ ULTIMA CONNECT PROVIDES GREATER SAVINGS IN TIME AND COST

Canary Wharf London, home to the UK's major business and financial districts has undergone significant development over recent years with the continued regeneration of the area. With ongoing works underway at one of the major access roads into Canary Wharf site access and storage of products needed on site is in extreme shortage. Cubis' STAKKAbOX™ ULTIMA Connect chamber offered the perfect solution to the access and storage issues at the Heron Quays Road, Bank Street, London.

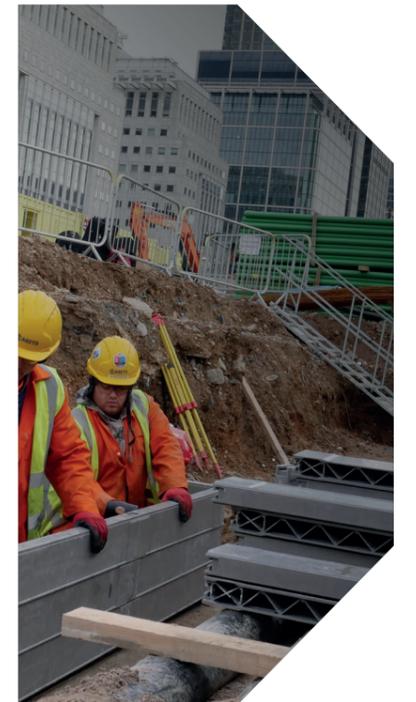
The product installation carried out at the Bank Street site to address power and telecoms networks to the whole of Canary Wharf, saw the introduction of one 2200 x 1200 x 1200mm deep ULTIMA Connect chamber delivered flat-pack on 5nr pallets. The chamber sections (17nr 2200x750x150mm deep sections & 40nr 2200x1200x150mm deep sections) presented as component parts allowed for enhanced maneuverability on site with no requirement needed for heavy duty machinery, whilst helping to overcome potential storage issues faced with the option of a pre-fabricated chamber.



ULTIMA Connect has been developed to offer greater flexibility in chamber sizes without compromising the strength of the standard ULTIMA system. Featuring the same twinwall and sectional design as the standard system the difference being that sections are built from combining multiple parts.

The system comprises of corner pieces ('hockey sticks') and sidewall lengths, a sequence which offers the ability to offset joints between sections in order to provide a solid, brickwork effect. These parts are connected using a jointing peg to form a variety of clear opening sizes.

The Cubis team visited the installation site to demonstrate techniques to site operatives on the process for constructing the ULTIMA Connect chamber from flat-pack to fully constructed chamber. The full chamber was constructed in under 50 Minutes.



DETAILS

Project: Heron Quays Road regeneration

Client: Canary Wharf Group

Contractor: PJ Carey (groundworks)

Products used: STAKKAbOX™ ULTIMA Connect





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DRIVEN BY INNOVATION

Cubis is Europe's leading manufacturer of network access chamber and ducting systems, used in the construction of infrastructure networks for rail, telecoms, water, construction and power markets.

Cubis has developed an innovative approach in an old-fashioned industry. This has been achieved by developing quality products which replace traditional construction materials, like bricks and concrete, with lightweight plastics incorporating intelligent design features. These can then be installed faster and ultimately save our customers both time and money.

Cubis manufactures preformed network access chamber systems STAKKAbOX™, AX-S™ access covers, MULTIduct™ multiple duct system and PROtrough cable trough at its manufacturing sites throughout the UK and Ireland these products are exported to more than 25 countries throughout the World.

At Cubis we pride ourselves on delivering technical customer support, new innovation, product quality and the highest levels of customer satisfaction.