



Data Centre Sector Guide

Leading Manufacturer of
Infrastructure Solutions for
Data Centre Builds

Sustainable, Efficient, Faster, and more Reliable connectivity to Data Centres

Cubis Systems is the leading manufacturer of innovative lightweight, structural access chambers and cable protection solutions used in the construction of data centre builds. Cubis works closely with the largest data centre designers and builders to provide integrated systems for data, power, telecommunications and utilities.

Cubis' established network access chambers and cable protection systems deliver efficient, faster, more reliable solutions for secure, accessible access.

Through early project engagement our engineering expertise can provide, clients with the ideal solutions to their network access and cable protection requirements. Ensuring safe distribution and jointing of key utilities Cubis' chamber systems offer greater flexibility and clear opening for ease of access and maintenance.

The Cubis approach to innovation has been to develop products from multiple lightweight material types that incorporate intelligent technical design features, and integrate together to replace more traditional construction materials such as brick and concrete. These unique features provide clients an adaptable approved system to suit the needs of their installation.



DATA CENTRES /

PRODUCT OVERVIEW

Cubis Systems integrated product approach offers our clients a complete range of access chambers, access covers and cable protection systems that have been designed to offer seamless integration for use in the infrastructure build of Data Centres.



STAKKABOX™ ACCESS CHAMBERS

STAKKAbOX™ access chambers offer an innovative, lightweight, structural and scalable network access solution. Available in any size, they are easily adaptable and fast to install on-site coming in 150mm deep stackable units that can be built to the desired depth required achieving unsupported vertical load test results of 60 tonnes. Using STAKKAbOX™ access chamber systems accessories can save even more time for installers with a range of compatible steps, cable management, MULTIduct™ spigots, duct entries and chamber bases available.

MULTIDUCT™ CABLE PROTECTION

MULTIduct™ is a PADS approved multiple duct cable protection system, used in the construction of underground ducting systems for under track or under road, tunnels, bridge crossing and buried linear cable routes. Units are quickly assembled by connecting metre long sections with a unique push-fit system. The MULTIduct™ system offers a wide range of accessories to deal with tight turns, elevations, natural track curvature and other obstacles.

PROTROUGH™ CABLE PROTECTION

PROtrough is an innovative, lightweight, fire retardant cable troughing system that offers a modern alternative to traditional concrete trough systems for when easily deployed and accessible cable management systems are required. PROtrough is a GRP cable management trough that has been designed to comply with all major European fire retardant specifications, eliminating common heat distortion and thermal expansion issues.

FILOFORM DUCT SEALING, JOINTING AND CONNECTION SOLUTIONS

A comprehensive range of innovative, sustainable and competitive solutions to connect, seal and protect underground cable and ducting infrastructure networks. FILOform's comprehensive range of quality solutions has been designed to meet the needs of specialist and bespoke installations, for cable, fibre optic and utility network connections whilst meeting a range of industry standards for fire, water and rodents.

AX-S™ ACCESS COVERS

The Cubis range of access covers are designed and manufactured from a range of materials to complement our chamber ranges, to provide customers with a complete secure underground network access system. The AX-S™ range can be tailored to meet specified loading requirements from pedestrian (B125) up to carriageway (D400) duty and are available in a wide range of clear opening dimensions and depths.

NAL RETENTION SOCKETS AND EV SYSTEMS

The NAL range of retention sockets are developed to secure all types of illuminated and non-illuminated street furniture such as lighting, customer information screens, seating, CCTV, bollards and railings. The retention socket system enables quick and easy installation for operatives, simplifying the removal of impacted furniture and future maintenance or changes required. NAL's Universal EV range of products allows for ease of connection to a wide range of EV charges suitable to the installation application. The NAL EV range provides clients building new infrastructure the option to future-proof their builds with EV charging options.



DATA CENTRES /

APPLICATION

From network access chambers, to buried cable protection systems, secure access covers, EV chargers to duct sealing, jointing and connection solutions, Cubis' products feature excellent safety, time and cost-saving benefits across a wide range of applications and installations throughout the infrastructure build of data centres.



Providing seamless integration between access chambers and cable protection systems, Cubis' products provide a modular range of systems for applications to significantly help overcome potential installation issues on-site. The adaptability of the Cubis range of products enable them to be easily adapted to suit the needs of the installation. Cubis' approach to innovation has seen the continual developed of its range of products for new and existing applications across data centre builds.



CHAMBER SYSTEMS /

ACCESS CHAMBERS



STAKKABOX™

STAKKAbOX™ ULTIMA Connect chamber system 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 and reduce environmental impact by 80% versus large pre cast alternatives across a range of applications and utilities.

Its adjust-ability 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.

Fast Reinstatement and Easy to Install

Comprised of lightweight components, ULTIMA Connect ensures safer manual handling and speed of installation. Once the chamber is built, full installation can be complete vastly reducing installation times compared to traditional methods.



*Bespoke design and supply of high loading cover slabs upon request. Please speak to a member of the team for more information.

Flexibility in Construction

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

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.

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.

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.

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.



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 adjust-ability 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 adjust-ability 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.

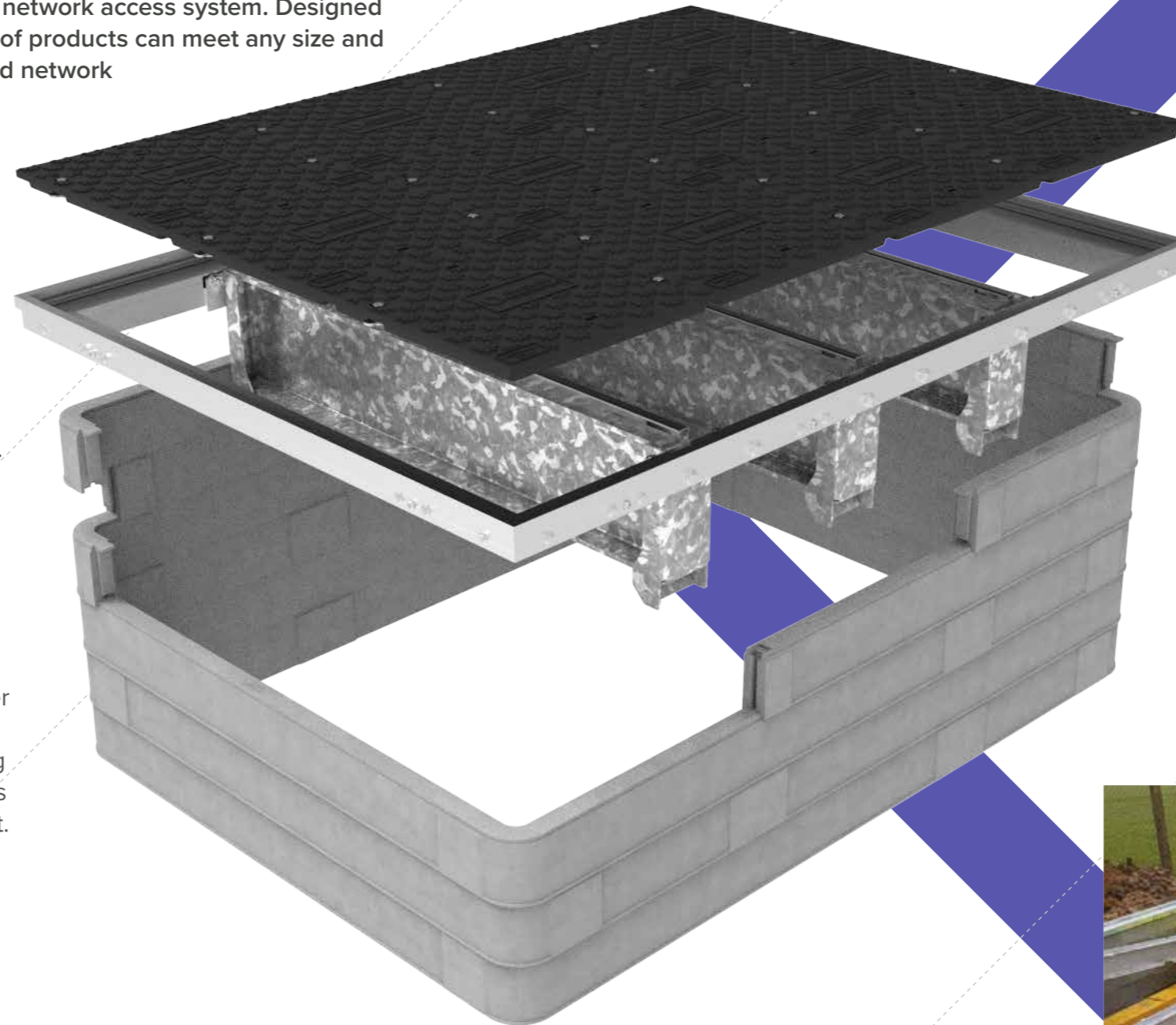


No Limit on Size

Cubis' range of access covers enables clients to build to any size required*. With large multi-span 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 walkway.

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 an assembled chamber so that the 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.

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.

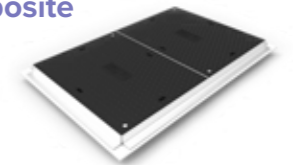
AX-S™ Concrete Infill



AX-S™ Recessed



AX-S™ Composite



AX-S™ Ductile Iron Cover

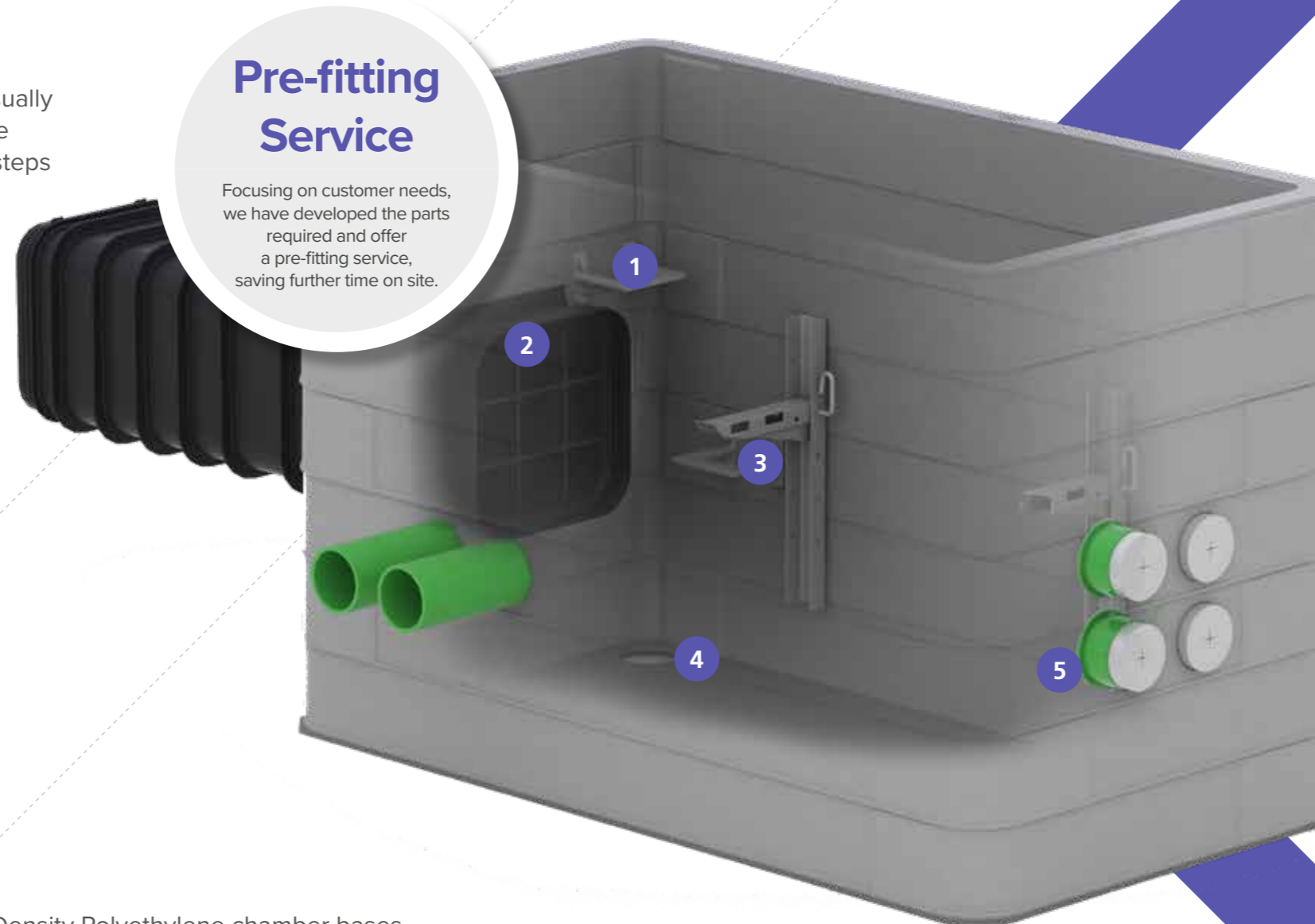


AX-S™ Concrete Cover Slab



5 X-TRAS™ Duct Entry

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.



CHAMBER SYSTEMS /

MULTIDUCT™

INNOVATING UNDERGROUND NETWORK ACCESS

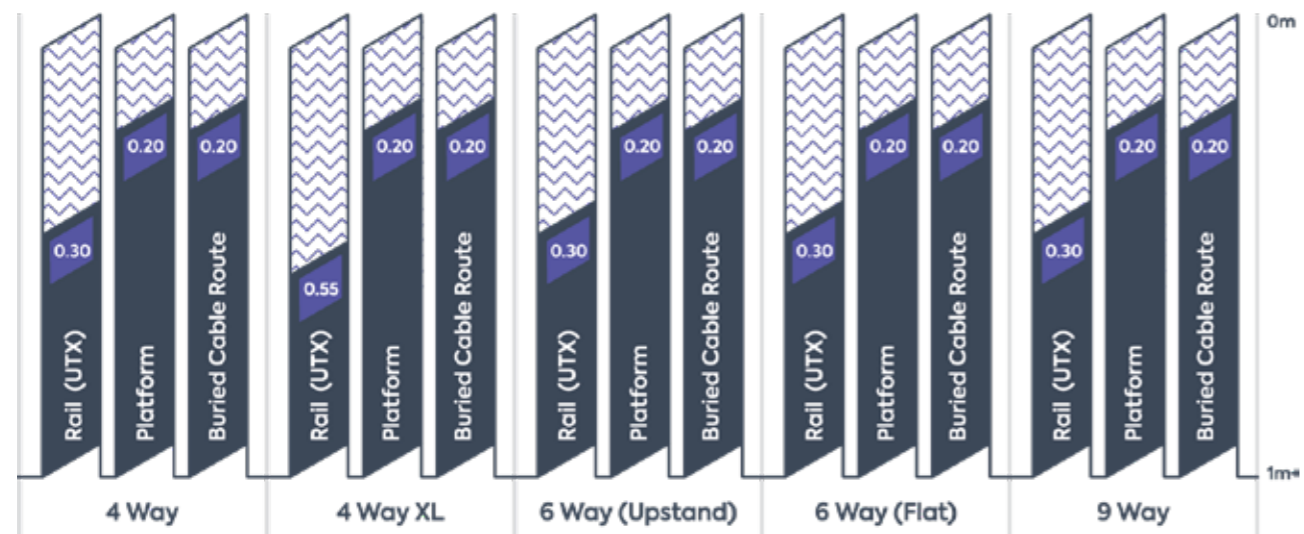
MULTIDuct™ is an innovative, lightweight, structural, multiple duct cable protection system that offers a modern alternative to traditional cable ducting systems. Used in the construction of under road crossing (URX), tunnels, bridge crossings and buried linear routes MULTIDuct™ offers an easily deployed and accessible cable management system. MULTIDuct™ has been designed to offer seamless integration with Cubis' range of chamber access products such as STAKKAbOX™ ULTIMA Connect, enabling enhanced cable management and access. MULTIDuct™ can be integrated into the STAKKAbOX™ access chamber on-site, or alternatively spigots can be pre-assembled and delivered as a single unit.

HOW IT WORKS

Manufactured from high density polyethylene, MULTIDuct™ offers a lightweight, high strength-to-weight unit. With parts weighing below 20kg MULTIDuct™ offers significant health and safety advantages permitting a single person lift and install. Being lightweight and easy to install results in considerable project time and cost savings. Requiring shallower burial depths and with greater crush-resistance than conventional methods, MULTIDuct™ easily resolves engineering challenges for cable installation.

MULTIDUCT™ BURIAL DEPTH TABLE

The following shows recommended burial depths for each MULTIDuct product in various applications:

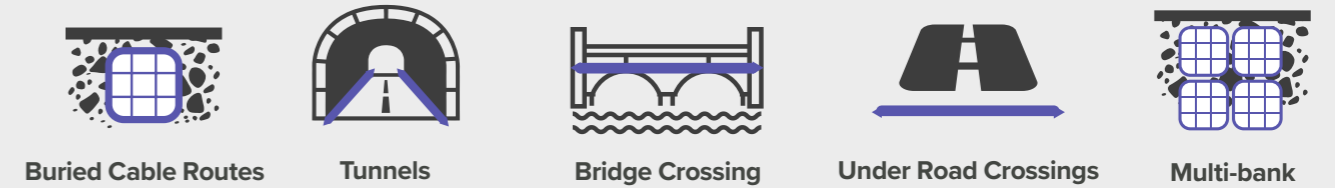


HOW IT'S BUILT

MULTIDuct™ units are quickly assembled by connecting metre long sections with a unique push-fit system. The MULTIDuct™ system offers a wide range of accessories to deal with tight turns elevations, adjustable height on-site, natural curvature and other obstacles.

APPLICATIONS

MULTIDuct™ holds numerous global approvals and has been installed in various applications and environments across the world.



- MULTIDuct™ CAN NOT BE BURIED AT THIS DEPTH (0M-)
- MULTIDuct™ CAN BE BURIED AT THIS DEPTH (-1M)
- SOIL DEPTH (H) METER (M) MULTIDuct™ CAN BE BURIED AT THIS DEPTH





CABLE PROTECTION /

PROTROUGH

MODERN CABLE TROUGHING SOLUTION

PROtrough is a lightweight, fire retardant cable troughing system that offers a modern alternative to traditional concrete trough systems for a range of applications and installation environments. Easily installed and accessed the PROtrough system is the ideal solution for modern cable troughing installations. An extensive range of adaptable accessories have been designed to enable a high degree of flexibility, ease of access and seamless integration with Cubis' range of STAKKAbox™ access chambers and cable protection products.

HOW IT WORKS

Weighing under 20kg PROtrough offers significant health and safety advantages over traditional concrete troughing systems that can weigh over 90kg. PROtrough is suitable for single person lift and install, enabling compliance with manual handling regulations. Being lightweight and easy to deploy results in considerable project time and cost savings. Manufactured in from GRP PROtrough has been designed to comply with all European fire retardant specifications.

HOW IT'S BUILT

PROtrough is a highly durable cable protection system that easily resolves engineering challenges for cable laying. The system offers a simple slide and drop male to female connectivity with a unique one click interlocking cover and sliding mechanism.

Combined with being lightweight and easy to deploy in difficult to access locations, PROtrough is the ideal troughing system with a range of accessories, custom badging and locking options to prevent against the threat of vandalism or theft.

Compared to equivalent concrete troughing systems, PROtrough is up to 5 times lighter.

	PROTROUGH	CONCRETE TROUGH
BODY	13KG	54KG
COVER	5KG	34KG
COMBINED	18KG	88KG





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 our 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 protection 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.





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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.