

Innovative network access chambers, cable management and troughing systems

RAIL INDUSTRY EXPERTS

Cubis Systems is Europe's leading manufacturer of innovative, lightweight structural access chamber and cable protection systems used in the construction of rail infrastructure networks. Cubis works closely with some of the largest Rail network operators in Europe to provide integrated systems for telecoms, drainage, signalling and power applications.

Cubis' Network Rail PADS approved products offer clients the ideal solution to a wide range of rail and light rail applications. Cubis' composite range of products offer a modular, lightweight and scalable system that can be built on-site, significantly reducing costs of in-situ construction through time savings.

The Cubis approach to innovation in a well established industry 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.

Amongst other valued customers, Cubis also has long-standing approvals with SNCF (France) and Network Rail (UK). Cubis has Link-up approval for working directly with Network Rail.

Supplier ID: 26055.



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 rail and light rail markets.



STAKKABOX™ ACCESS CHAMBERS

STAKKAbOX™ access chambers offer an innovative, lightweight, structural and scalable network access solution. Available in a variety of sizes that are easily adaptable and fast to install on-site. The Network Rail approved STAKKAbOX™ access chambers offer a 150mm deep stackable unit that can be built to the desired height required achieving unsupported vertical load test results of 60 tonnes.

Using Cubis access chamber systems accessories can save even more time for installers. A range of compatible accessories including steps, cable management, MULTIduct™ spigots, duct entries and chamber bases is 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 retardancy specifications, eliminating common heat distortion and thermal expansion issues, including those for tunnels and stations.

NAL RETENTION SOCKET SYSTEMS

The NAL range of retention sockets are developed to secure all types of illuminated and non-illuminated rail furniture such as lighting, customer information screens, seating, CCTV, bollards, railings, and level crossing signals. The retention socket system enables quick and easy installation for operatives, simplifying the removal of impacted furniture and future maintenance or changes required.

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 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.



APPLICATIONS

From under-track crossings, to buried cable route systems, drainage catch pits, fixed telecommunications solutions, retention sockets and trackside cabinet bases, Cubis' products feature excellent safety, time and cost-saving benefits across a wide range applications and installations throughout the rail industry.

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 exiting applications across the rail industry.



APPLICATIONS /

CABLE MANAGEMENT



FIXED COMMUNICATION NETWORK (FTN)

Cubis' Network Rail approved trackside FTN system has been designed and developed to offer a modern alternative to traditional methods for storage of trackside cabling, offering enhanced security to power, telecommunications and signalling cables. Providing a seamless integration between Cubis' STAKKAbox™ chamber access and cable protection products, the FTN system delivers reduced track possession times through easier and safer installation, assembly of system and improved build quality.

The FTN system utilizes the STAKKAbox™ ULTIMA access chambers. A lightweight modular scalable solution that can be built and adjusted on-site. The STAKKAbox™ system significantly reduces costs through reduced construction times, whilst providing a structural unit that will support loadings imparted from vehicles and passing trains.

The STAKKAbox™ ULTIMA system is made from a GRP material that is not affected by diesel, ground acids, alkalines or frost unlike traditional access chamber systems such as brick and concrete. Cubis' FTN system provides storage of up to 450m of cabling allowing clients easy and safe access.

KEY FEATURES:

- Lightweight GRP material
- Reduced installation costs
- Pre fitted bracketry
- Pre formed duct entry with bellmouth
- Rapid installation
- Composite or concrete B125 access cover options available
- Compatible with existing ducting and troughing networks
- Stores up to 450m of cable
- Future proofed infrastructure

PADS Approved Certificate:
PA05/02301



STATION PLATFORM ACCESS CHAMBERS

Cubis' access chamber systems can be utilised to provide a modular scalable solution for stations and platforms access to lighting columns, ticketing machines, information boards, communication and power cables. The lightweight and easy to adjust STAKKAbox™ access chamber systems enable seamless connection to the NAL retention socket range and are easier to manual handle and build in restricted spaces.

Cubis AX-S™ range of access covers are designed and manufactured from a range of materials to complement our chamber ranges.

Cubis' AX-S™ access covers are manufactured to EN124 loadings incorporating unique 'slide-out' design for safe lift and removal. Secure locking and badging options allow easy identification for operatives. Cubis' AX-S™ recessed covers can enhance the aesthetic's of landscaped areas such as stations, allowing network access systems to blend into the surrounding surface.

KEY FEATURES:

- Rapid installation resulting in reduced installation costs
- Lightweight and safe
- Fully customisable, flexible and adjustable on-site
- Future-proofed infrastructure



APPLICATIONS /

CABLE MANAGEMENT



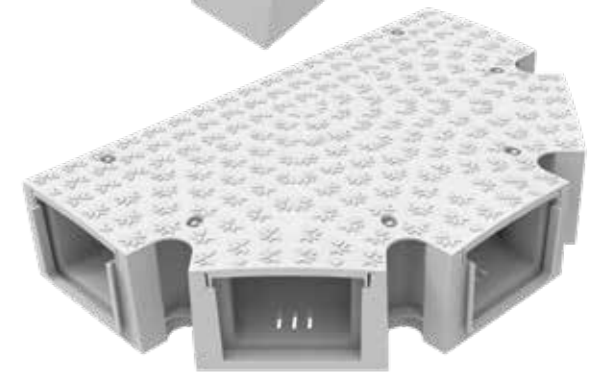
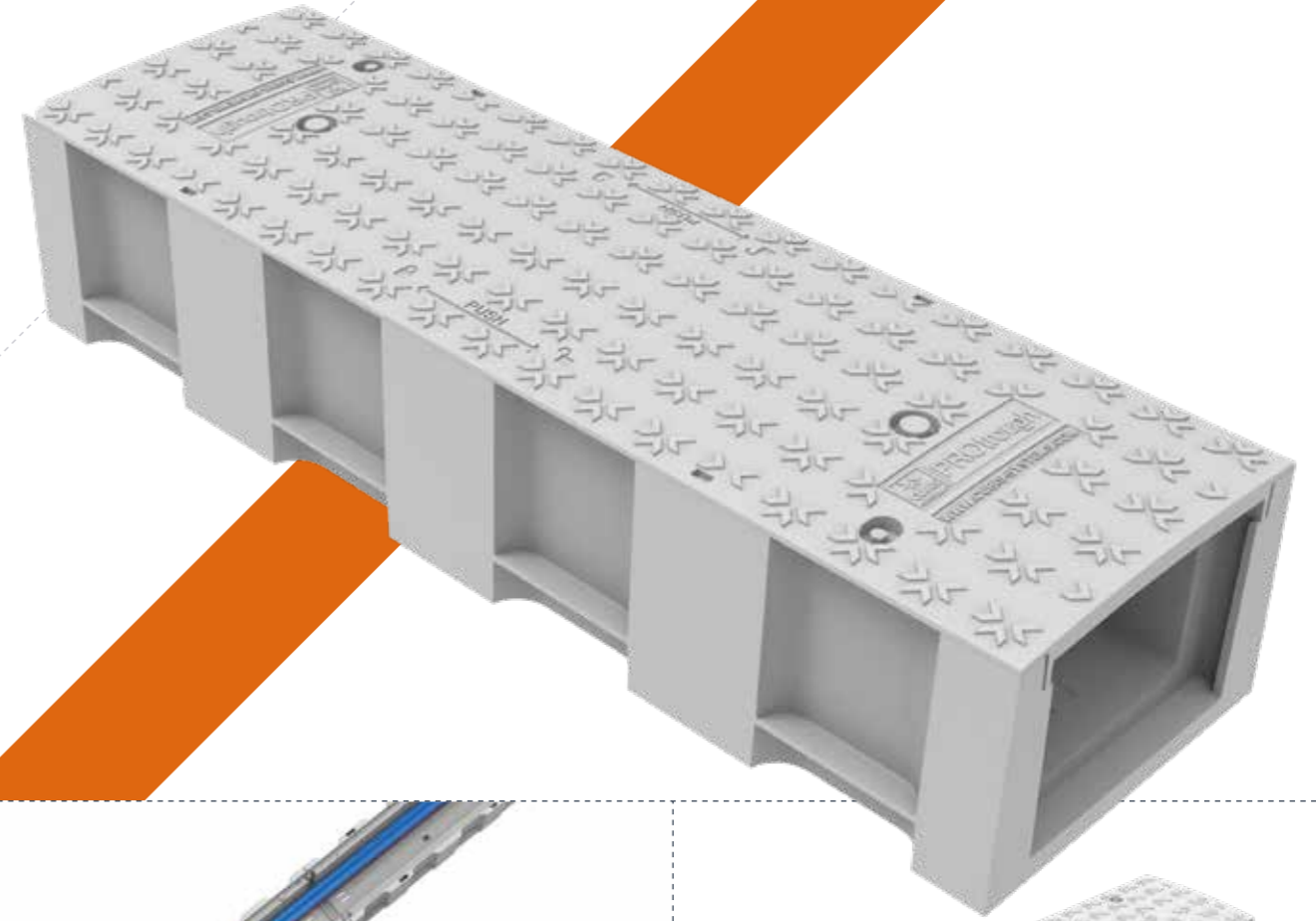
CABLE TROUGHING

PROtrough is an innovative, lightweight, cable trough system that offers a modern alternative to traditional concrete troughing systems for the use in rail and light rail markets. Used when easily deployed and accessible cable management systems are required.

Cubis' PROtrough unit comprises of 1 metre long units that connect together allowing for 3° of vertical and horizontal flexibility within its connection, resulting in the creation of a natural bend that can follow the curvature of a track. The PROtrough system has an extensive range of flexible accessories that enables the system to deal with tight turns, elevations and other obstacles. PROtrough has been designed to offer seamless integration with Cubis' range of cable protection and access chamber products such as STAKKAbOX™ ULTIMA Connect and MULTIduct™ enabling enhanced cable management and Network access.

KEY FEATURES:

- Rapid installation resulting in reduced installation costs
- Lightweight design 5 times lighter than concrete
- Superior structural integrity compared to thermoplastic alternatives
- Designed to comply with major European fire retardancy specifications
- Eliminates common heat distortion and thermal expansion issues
- Extensive range of accessories to enable flexibility and ease of deployment
- Seamless integration with Cubis access chamber and cable protection systems



APPLICATIONS /

CABLE MANAGEMENT

BURIED CABLE ROUTES

Cubis' Network Rail approved buried cable route system has been designed and developed to offer a modern alternative to traditional methods for burying trackside cabling offering. This enables enhanced security for telecommunications, power and signalling networks. Providing a seamless integration between Cubis' STAKKAbox™ chamber access and MULTIduct™ cable protection products, the buried cable route system delivers reduced track possession times through easier and safer installation, assembly of system and improved build quality.

The buried cable route system utilises Cubis MULTIduct™, an innovative, lightweight, structural, multiple duct system. The easy to handle 1m long 4, 6 or 9 way units are lightweight under 20kg and offer a unique 'one click' push fit connection that is fast and easy to install. MULTIduct™ has an extensive range of flexible accessories that enables the system to deal with tight turns, elevations and other obstacles.

MULTIduct™ provides 2° of flexibility within its connection, resulting in the creation of a natural bend that can follow the curvature of a track. Due to its high crush strength MULTIduct™ requires a shallower and narrower burial depth and does not require any concrete or specialist surround. Minimum cover for Network Rail of 0.6m is easily achievable. Excavated material can be reused during re-installation reducing time, cost, heavy plant and disposal of excess material.

KEY FEATURES:

- Rapid installation, reducing track possession, allows reduced track possession times
- Reduced installation costs
- 100m duct runs
- Easier to pull cables through than traditional ducting systems
- Enhanced security
- Seamless integration with STAKKAbox™ access chamber system
- High crush strength MULTIduct™ units
- No spacers or graded backfill material required
- Fully customisable, flexible and adjustable on-site
- Compatible with existing ducting and troughing networks
- Future-proofed infrastructure
- Lightweight

PADS Approved Certificate: PA05/00635



APPLICATIONS /

UNDER TRACK/ROAD CROSSING

BURIED CABLE ROUTES

Cubis' under tracking crossing (UTX) system has been approved for use with Network Rail. This modern method of building an under track crossing creates a faster, safer construction system which reduces track possession times. The UTX system seamlessly incorporates Cubis' STAKKAbox™ access chambers with MULTIduct™ cable protection system.

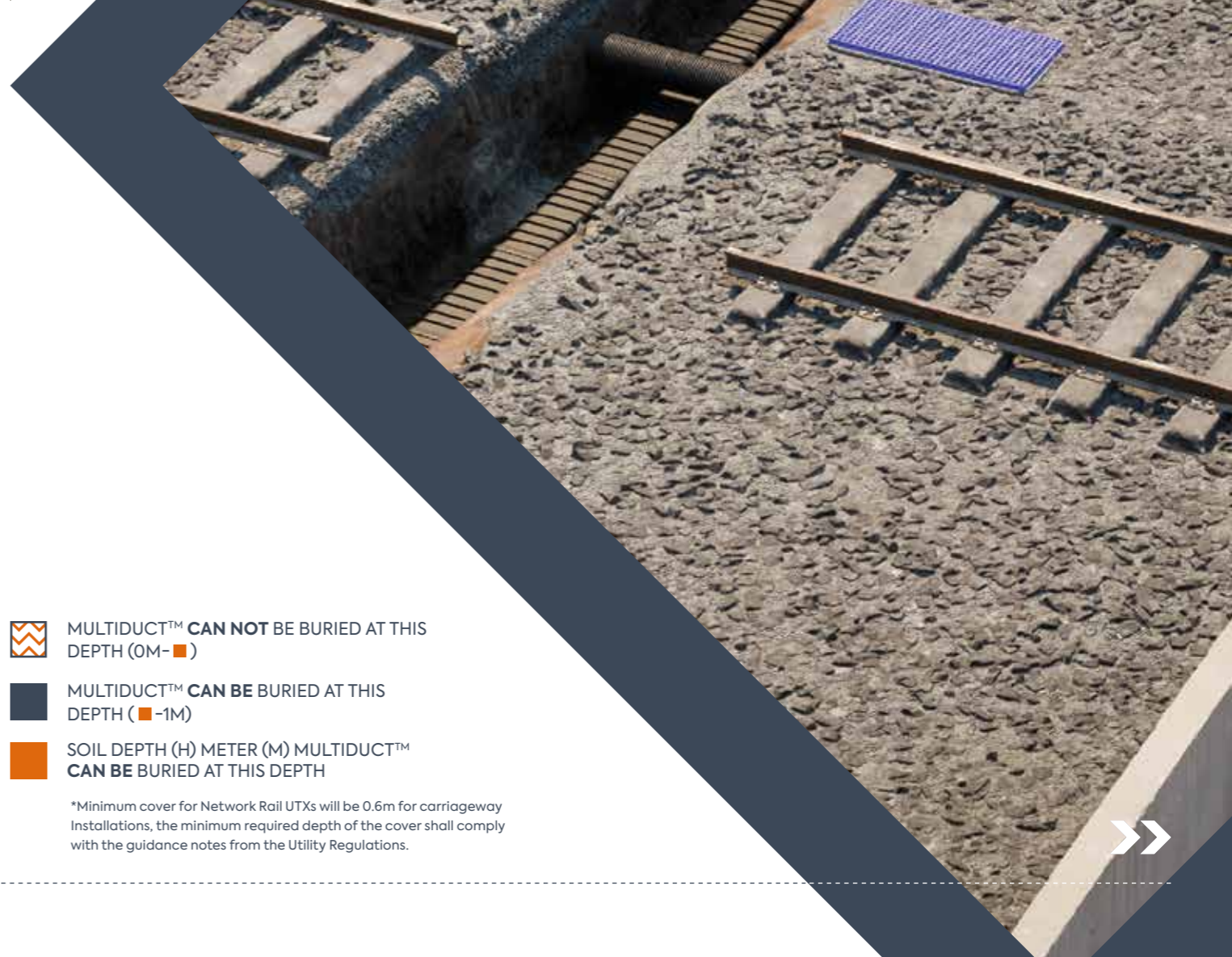
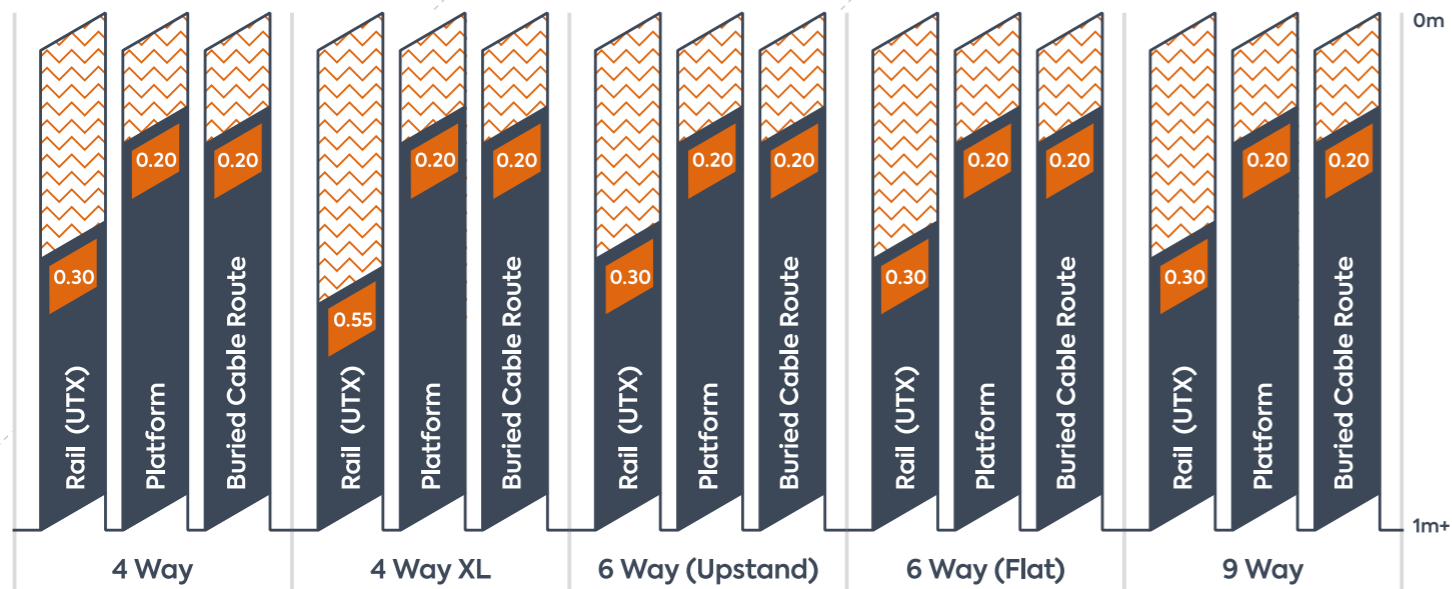
The UTX system utilises MULTIduct™ an innovative, lightweight, structural, multiple duct system. The easy to handle 1m long 4, 6 or 9 way units are lightweight under 20kg and offer a unique 'one click' push fit connection that is fast and easy to install. Due to its high crush strength MULTIduct™ requires a shallower and narrower burial depth and does not require any concrete or specialist surround. Minimum cover for Network Rail UTXs of 0.6m is easily achievable. Excavated material can be reused during re-installation reducing time, cost, heavy plant and disposal of excess material.

KEY FEATURES:

- Rapid installation, reducing track possession time
- Reduced installation costs
- Lightweight
- High crush strength MULTIduct™ units
- Requires shallower burial depths
- No spacers or graded backfill material required
- Future-proofed infrastructure
- No additional tooling required with only hand adjustment required for backfill barrier adjustment
- B125 load rated access cover options available: composite, concrete or recessed

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PA05/00635

MULTIDUCT BURIAL DEPTH TABLE



- 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

*Minimum cover for Network Rail UTXs will be 0.6m for carriageway Installations, the minimum required depth of the cover shall comply with the guidance notes from the Utility Regulations.



APPLICATIONS /

RETENTION SOCKET SYSTEMS

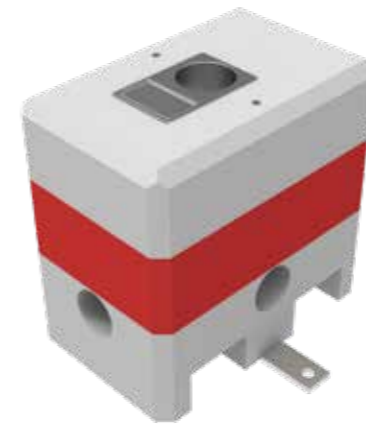
INNOVATIVE POLE FOUNDATIONS

The NAL range of retention sockets are developed to secure all types of illuminated and non-illuminated rail furniture such as lighting, customer information screens, seating, CCTV, bollards, railings, and level crossing signals. The retention socket system enables quick and easy installation for operatives, simplifying the removal of impacted furniture and future maintenance or changes required.

The retention socket system has the ability to be installed in shallow burial depths with a 360-degree bottom cable entry point providing versatility in its location of installation. Once installed it can withstand unlimited impacts of any force, minimising disruption in traffic management for re-installation of traditional methods and provides future proofing for new upgraded technology.

KEY FEATURES:

- Up to 50% reduction in installation times
- Less organisation of installation teams, both civils and electricians working together on-site
- Removable poles for maintenance or increased capacity mediation
- No trip Hazards – flush ground level installation
- Poles can be installed straightaway reducing storage damage
- Temporary or permanent options available
- No need for wet trades on site



APPLICATIONS /

TRACKSIDE DRAINAGE

FLEXI PIT

Cubis' Network Rail approved track-side drainage inspection chamber system FLEXI Pit has been designed and developed to offer easily adjustable duct positions for varying pipe invert levels. The system incorporates a unique sliding backfill barrier that is easily adjusted on-site during installation.

The system incorporates a unique sliding backfill barrier that is easily adjusted on-site during installation. The backfill barrier allows for up to 150mm vertical adjustment to achieve the correct pipe invert level required and can accommodate pipes from 150mm to 450mm (internal dimension). This unique system removes the need for individual detailed technical drawings. Another added benefit of the system is to enable chamber height alterations by adding 150mm STAKKAbox™ ULTIMA ring sections until the desired depth is achieved. This allows for quicker install times and reduced track possession requirements.

The FLEXI Pit drainage system is created from Cubis' STAKKAbox™ ULTIMA access chamber system. The ULTIMA provides a modular scalable solution available in a variety of sizes that are easily adaptable, lightweight, fast and easy to install. Seamless integration with Cubis' chamber accessories and AX-S™ concrete and composite access covers provides clients with a complete underground drainage system solution.

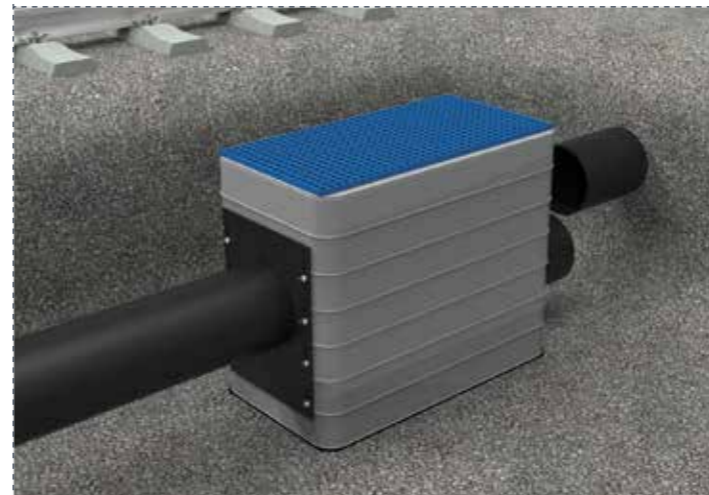
KEY FEATURES:

- Rapid installation & reduced track possession time
- Reduced installation costs
- Lightweight and safe
- Fully customisable, flexible and adjustable on-site
- Compatible with existing drainage networks
- Compatible with both smooth and twin wall pipes (150mm, 225mm, 300mm and 375mm)
- Access cover options available: Full and part composite covers or full isophthalic grate cover for ease of inspection
- No additional tooling required with only hand adjustment required for backfill barrier adjustment

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PA05/04067



The adjustable back fill board can be altered up to 150mm when varying duct entry levels occur on-site. Vertical height alteration on the backfill barrier frame allows for fully customisability removing the need for chamber adjustment or individual technical drawings saving time and money on installation and assembly.



APPLICATIONS /

MODULAR CABINET BASE

RAIL CABINET BASE (RCB)

The Cubis Rail Cabinet Base (RCB) is an innovative system designed to provide a secure foundation for all types of electrical trackside assets. The system simplifies the civils, cabling installation and maintenance works whilst providing an inbuilt area of safety to work from.

The system is modular in construction and comprises of six basic components all of which can be delivered flat packed in parts or fully assembled. These can be in a format to build single or multiple cabinet sites and sizes. The systems foundation is constructed from Cubis' STAKKAbOX™ ULTIMA Connect chamber providing easy access and a lightweight system that is adapted on site during installation.

The cabinets' location modules are manufactured from powder-coated aluminum, offering a stable lightweight interface between the base and cabinet which is protected from saline oxidation. Between the cabinet's location modules sits the frame and GRP covers that provide a clear opening access cable entry point and safe hard-standing area for operatives working in or on the rail cabinets.

Within each of the cabinet location modules a gland tray fits on top. This can be pre-fitted with IP rated glands or grommets as per application requirements, whilst ensuring easy to install or upgrade plug and play solutions. With the installation of the cabinet often coming after the installation of the base, the system also incorporates a cover plate to ensure no open holes are left that may cause an accident during the time between installation of the base and the cabinet unit.

Cubis' cable protection cable troughing product PROtrough is also simply connected to the base system with the use of a trough connector. It enables the cable trough to positively locate against the base of the cabinet for the entry of any cables. The connector also provides seamless connection for any other size of cable trough required.

KEY FEATURES:

- Lightweight, safe and easy to assemble
- No lifting equipment required
- Single or multiple assets can be accommodated
- Installation takes half the time of traditional methods
- Gland tray removes the risk of vermin entering the cabinet
- Modules can be made for any equipment traditionally founded on a concrete base
- Removes the need for multiple cable troughs
- In built areas of safety to stand
- Large working space underneath providing greater flexibility





INDUSTRY EXPERTS

Cubis Systems products are innovative, lightweight and significantly reduce costs of in-situ construction through time savings.

The Cubis integrated systems approach offers clients a complete range of access chambers, access cover and cable protection systems. These products have been installed worldwide in Telecoms, Highways, Rail/Light Rail, Water and Power & Energy applications. Cubis' products are used within many different applications within each sector from buried cable routes to network access solutions.

ACCESS CHAMBER SYSTEM

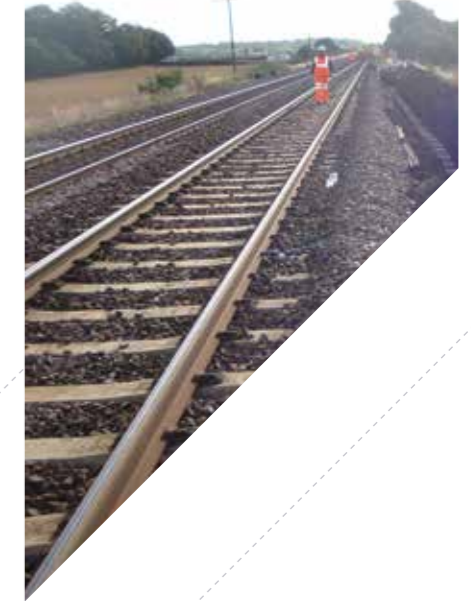
Cubis' STAKKAbOX™ access chamber systems are adaptable to the unique requirements of each site. This means ordinary site tools can be used to retrofit chamber systems around existing networks by drilling duct entries or cutting the chamber sections horizontally. The seamless integration across the Cubis product range enables the construction of bespoke systems that significantly reduce costs of access chamber construction through time savings. Cubis' chamber options & accessories range allows installers the ability to simply place, connect ducts, backfill and walk away.

CABLE PROTECTION

Cubis' cable protection systems MULTIduct™, PROtrough, RAILduct™ and MM RAILduct™ offer innovative, lightweight, secure cable protection systems that have been used worldwide in a range of sectors and applications. Cubis' cable protection systems comprise of 1 metre long units that connect together allowing for rotation in the units to deal with tight turns, elevations, natural curvature and other obstacles. Due to their light weight properties Cubis' cable protection systems offer significant health and safety advantages over traditional systems.

AX-S™ ACCESS COVERS

The Cubis AX-S™ range of access covers provide customers with a complete underground network system, designed and manufactured from a range of materials to complement our access chamber systems. 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, depths, security features, frame types and bespoke badging. The Cubis AX-S™ range consists of concrete infill, recessed, composite and steel fabricated.





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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.