



AX-S™ Steel Fabricated Covers





Cubis Systems manufactures bespoke steel access covers for the water and general construction industries.

This includes the Citadel range of upstand access covers, which meet the requirements of LPS 1175: Issue 7 for Level 4 security.

This standard, designed by the Loss Prevention Certification Board (LPCB), sets tests that classify the intruder resistance based on attack tools, times and methodology. LPS 1175 is a requirement for access covers in many industries, in the UK and internationally, due to this extensive testing regime.

The high-security access cover range is available in upstand format in a wide number of sizes and in single, twin-leaf and triple designs.

Access covers are also available in solid top and upstand designs using our own in-house security ratings and with a range of accessories to improve safety, security and access.

Cubis has been manufacturing steel access covers for over 10 years and is proud of its record for quality, customer service and supplying innovative, safe and value for money products.

Design to Manufacture

Cubis can assist at all stages of a project, from site survey to installation guidance.

Steel covers are designed by an in-house team using the latest technology which allows for 3D models to be shared with the client for collaborative working. Parts can be tested using Finite Element Analysis software to understand how the products perform under load.

Manufacturing takes place in Cubis' 4,00m² modern facility by experienced fabricators.



LPS 1175: Issue 7
Cert No. 1294a

How it Works

AX-S™ steel fabricated access covers are designed and manufactured from a minimum of 4mm thick structural steel plate and are hot-dip galvanised in accordance with BS EN ISO1461.

AX-S™ Covers Citadel Product Benefits:

Safety Arm
Cover safety arm stay with manual pul override. Gas struts also allow easy lifting of top cover

Bolt-down points

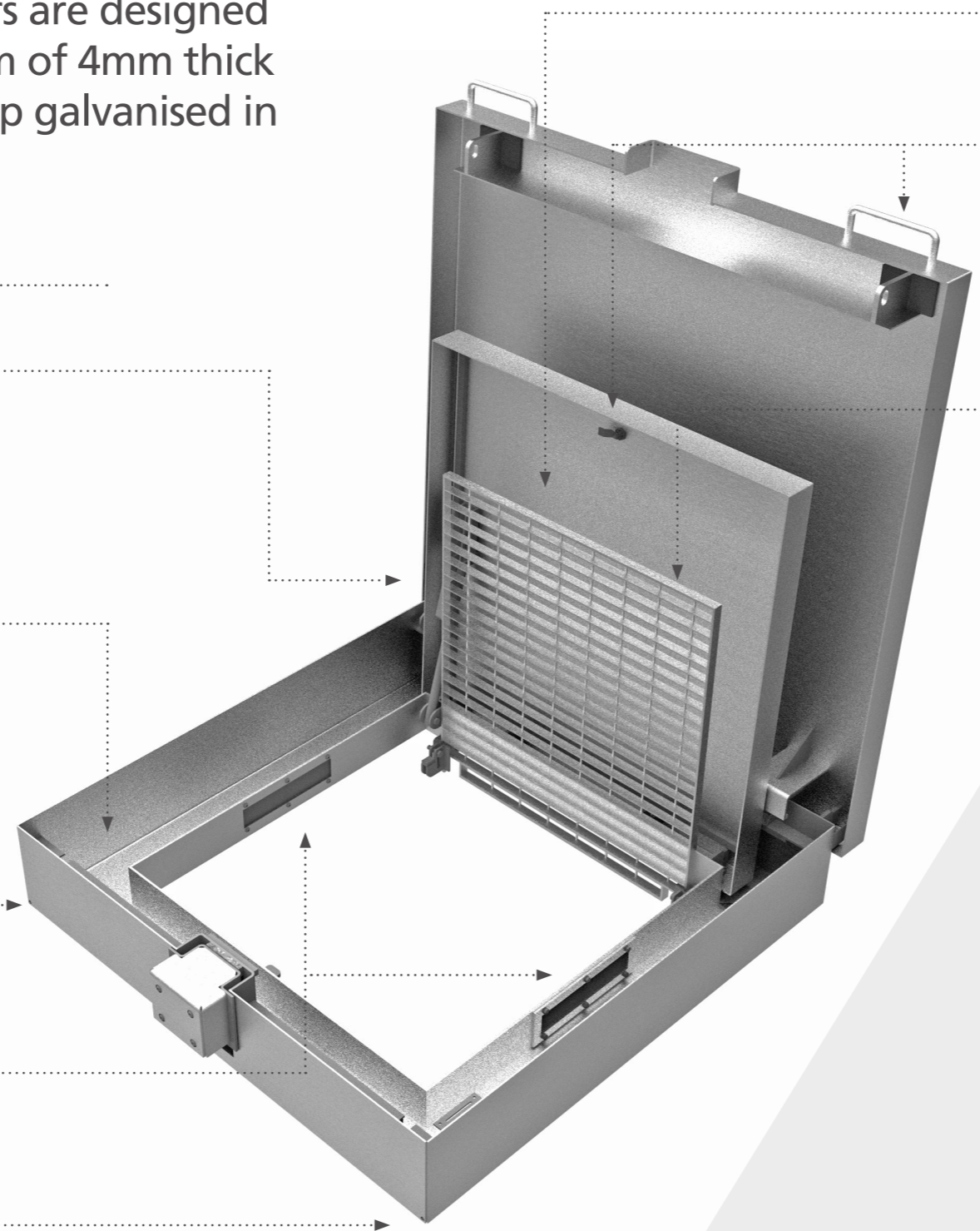
Padlocks

The following LPCB approved padlocks can be used in conjunction with Citadel steel access covers. Padlocks should be supplied separately.

- Abloy PL340/25 – EN12320 Grade 4
- Abloy PL342 – EN12320 Grade 4
- Abloy PL350/25 – EN12320 Grade 5

Odour Seal

Drainage Holes



Double Skin Secondary Cover

Optional sub security cover for additional protection during attack.

Lifting Handles

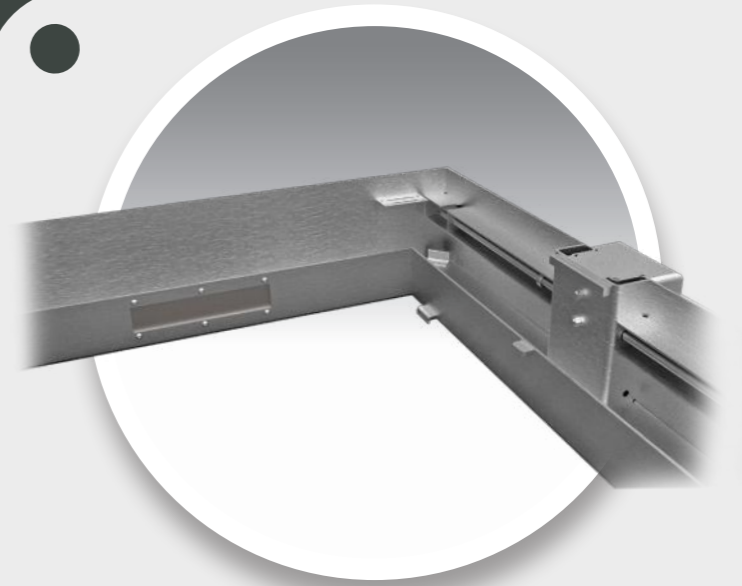
Secondary cover lifting handle with close lock

Safety Grid

Cubis has designed a number of fall protection options including: Walk on, hinged, drop-in and split. Grids are also fitted with a fail safe lock back catch



Magnetic Proxy Alarm System



The magnetic proxy alarm system can be designed to suit customers precise alarm specifications. Options can include Lock not fitted detection, Cover opened detection and vibration detection available.



Loss Prevention Certification Board

What is LPCB Approval?

The Loss Prevention Certification Board (LPCB) has been working with industry and government for more than 100 years to set the standards needed to ensure that fire and security products and services perform effectively. LPCB offers third-party approval confirming that products and services have met and will continue to meet these standards. This benefits both specifiers and manufacturers:

Specifiers selecting LPCB approved products reduce fire safety and security risks and demonstrate due diligence (the use of approved products is encouraged by insurers). They also avoid wasting money on purchasing inappropriate equipment, and save time spent on searching for and assessing products and services.

Find the Loss Prevention Standards (LPS) and details of LPCB approved products and services listed in the BRE Global Red Book and online at Redbooklive.com



The Citadel range has been extensively tested by BRE to ensure it meets the demands of Level 4 of LPS 1175: Issue 7.

Level 4 Explained

Protection of national infrastructure from vandalism or contamination is an utmost concern of utility companies and Governments.

Each site should be risk assessed before installing access covers to ensure that threats can be addressed with physical security.

It is the responsibility of the designer to ensure that consideration is given to the risks of the site. This includes its location, history of vandalism and whether it can be classified as a Critical National Infrastructure Site.

Certifying access covers to Level 4 ensures that the network is protected in High Risk areas.

Level 4 can be defined as a urban sites with a history of serious vandalism and where there is a threat of terrorist attack.

Other Security Levels

In addition to accredited Citadel access covers, CUBIS manufactures bespoke access covers that can be secured using in-house devised security ratings. Please turn to Page 11 for more information.



Size Range

The CITADEL sizes range below can be used to identify covers available by taking the largest clear opening dimension (first column to the left) then the second smaller dimension (along the top running down diagonally). This will outline the available sizes in either single, twin or triple leaf covers.

Alternative Sizes
The table below provides the specifier with numerous clear opening sizes. ANY sizes is available as a bespoke order, within the min/max dimensions shown.

Dimensions in mm	600	700	800	900	1000	1100	1200
600	■						
700	■	■					
800	■	■	■				
900	■ ■	■ ■	■ ■	■ ■			
1000	■ ■	■ ■	■ ■	■ ■	■ ■		
1100	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	
1200	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
1300	■	■	■	■	■	■	■
1400	■	■	■	■	■	■	■
1500	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■
1700	■	■	■	■	■	■	■
1800	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
1900	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2000	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2100	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2200	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2300	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2400	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■	■ ■
2500	■	■	■	■	■	■	■
2600	■	■	■	■	■	■	■
2700	■	■	■	■	■	■	■
2800	■	■	■	■	■	■	■
2900	■	■	■	■	■	■	■
3000	■	■	■	■	■	■	■
3100	■	■	■	■	■	■	■
3200	■	■	■	■	■	■	■
3300	■	■	■	■	■	■	■
3400	■	■	■	■	■	■	■
3500	■	■	■	■	■	■	■
3600	■	■	■	■	■	■	■

Single Hinged Cover 1200mm x 1200mm ■
 Twin Leaf Hinged Cover 1200mm x 2400mm ■
 Triple Hinged Cover 1800mm x 3600mm ■

Galvanising

Covers are manufactured from a minimum of 4mm thick structural steel plate and are hot dip galvanised in accordance with BS EN ISO 1461. For increased longevity and aggressive environments a superior galvanising finish can be used to give a 100 (min) or 140 (min) micron zinc coating.

Bespoke - Steel Covers

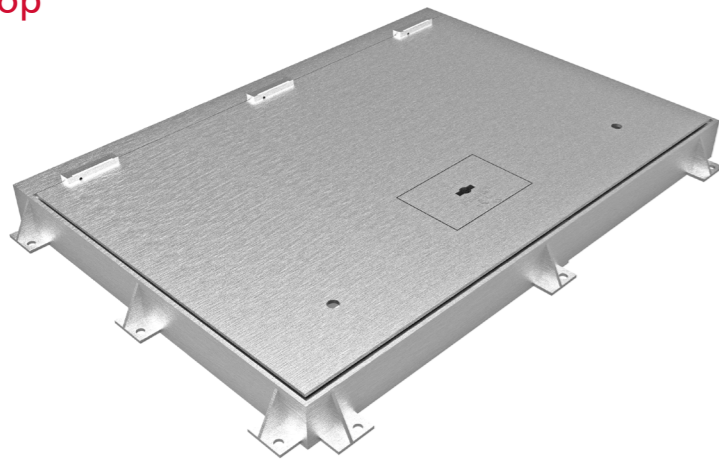
In addition to the Citadel range, Cubis manufactures non-accredited fabricated steel access covers. These are suitable for installation in areas that are not rated as high-risk.

Along with other options and accessories to improve performance, these access covers can be equipped with security features to help prevent unwanted access.

Cubis' range of steel fabricated access covers are designed to suit each installation. Requirements such as size of opening, valve equipment and expected rate of zinc corrosion are considered before a final design is produced for approval.

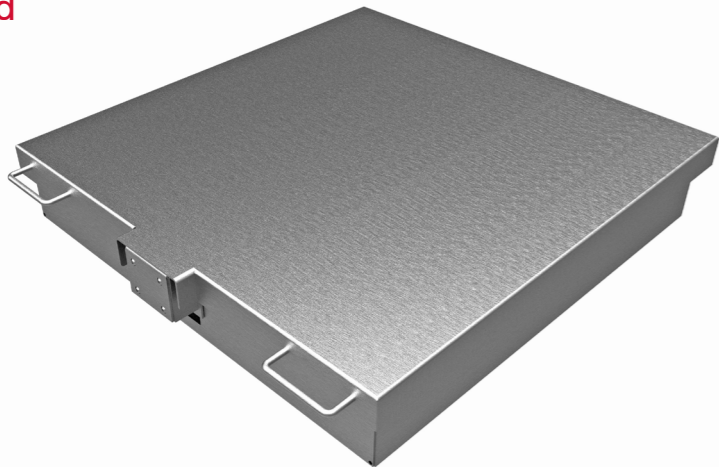
Cubis manufactures steel access covers in Solid Top and Upstand designs.

Solid Top



Solid Top access covers are fitted into a rebate so that the top of the cover is finished flush with the ground level. Solid Top Covers can be trafficked in areas with slow moving traffic (under 20mph).

Upstand



Upstand access covers are fitted on top of the finished structure and stand proud of the finished structure. Upstand covers provide a fully waterproof access point.

Opening Options

Drop-in: Covers are lifted to provide access, requiring a minimum of 2 persons or plant to remove the covers, depending on the size and configuration.

Spring Assisted: Covers are hinged and the opening aided by steel springs. Each cover is manufactured so that the cover will rise slowly or with minimal effort.



Bespoke Steel Fabricated Access Covers

Steel Fabricated Access Covers (not rated by LPCB)

All steel fabricated access covers are designed to suit the requirements on site.

Examples of options that have been requested in previous designs are shown. Cubis is keen to work with clients on devising new innovations that can be fitted to access covers to improve safety, performance or security.

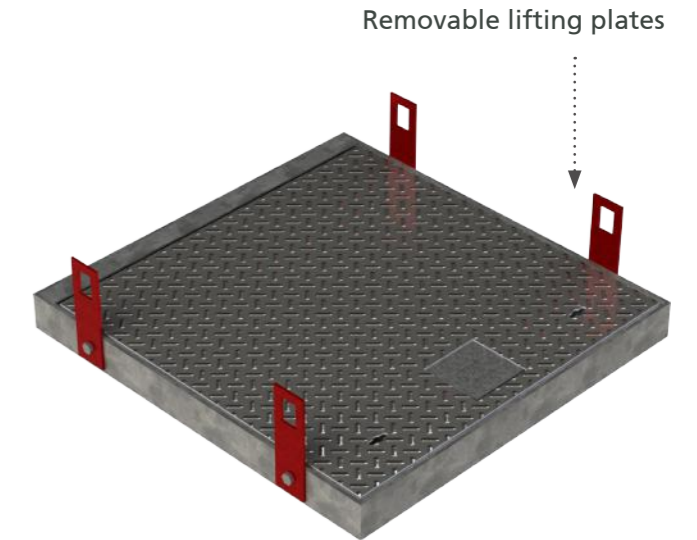
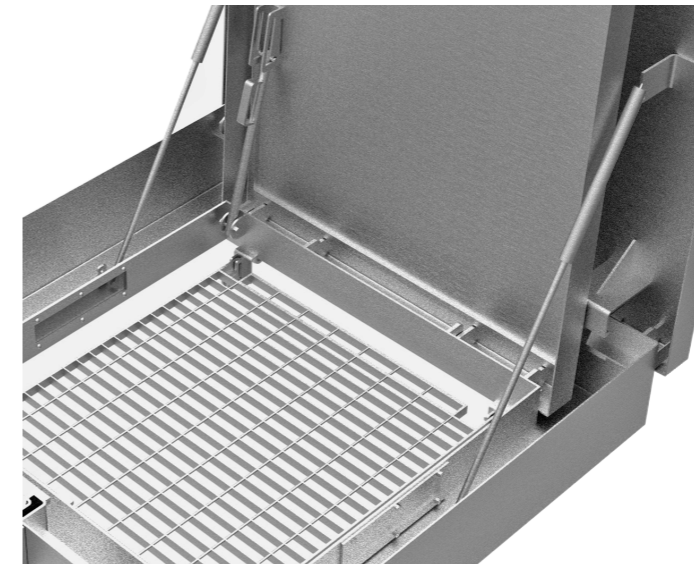
Cubis steel fabricated access covers are Hot Dip Galvanised in accordance with EN1461: 2009.

Hot dip galvanising provides an average lifetime of between 40-100 years.

For areas with high rates of corrosion, higher levels of galvanising can be specified. To find out if the area of installation has a high level of Corrosion, please consult the Galvanizers Association's Millennium Map (www.galvanizing.org.uk).



Safety Features



Covers are optimised for safety during use with a safety stay that prevents the cover leaf from slamming shut when in use. Furthermore, opening of the cover is aided by a torsion spring and gas strut.

Covers are fitted with removable bolt-off lifting plates that allow for the cover to be moved safely and easily.



Custom Badging



Powder Coating






Turnbuckle Locking Hasp & Staple Locking

Security Ratings

Cubis has developed its own attack standard that is an amalgamation of recognised industry attack test procedures.

Details of the testing can be provided on request.

Locked with:

-  Standard Turnbuckle
-  Standard Turnbuckle Hasp and Staple Locking
-  Enhanced Turnbuckle Hasp and Staple Locking




Protects against:

- Non premeditated attack by vandals.
- Opportunist attack by vandals with tools that can easily be concealed upon their person.
- Vandals forced entry using a wide selection of medium duty tools.

Solid Top Vertical Loading

Solid Top covers are designed to meet the vertical loading requirements of BS: EN124.

Other standards have intermediary load classes and lower test loads on equivalent classes.

- A**  **1.5 tonnes** vertical load
- B**  **12.5 tonnes** vertical load
- C**  **25 tonnes** vertical load

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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 RAILduct™ 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.