



Trusted for critical data
centre infrastructure

DATA CENTRES

Safeguarding critical services
& securing access

Helping eliminate avoidable
downtime



FIBRELITE 
PART OF OPW a  company

www.fibrelite.com

WE'VE GOT YOU COVERED



High-performance GRP composite trench covers for critical infrastructure facilities

Data centres are critical infrastructure facilities built for continuous, uninterrupted operation, where every part of the site must support reliability, safety and long-term performance including hyperscale data centres (AI, cloud and others). Fibrelite GRP composite trench and manhole covers are designed to protect and provide easy access to critical underground services, including power distribution routes, fibre optic cabling, cooling services and utility trench networks.

Engineered & manufactured in Malaysia, England & the USA

Manufacturing facilities in Malaysia, England and the USA enable us to support our customers locally in Asia Pacific, Europe, the Middle East, Africa and the Americas.

Custom-made, load rated and fire rated solutions

Fibrelite GRP composite trench covers can be manufactured to suit project-specific trench sizes, load ratings and site requirements, including areas exposed to vehicle or truck traffic. Covers are available up to heavy-duty D400 (40 tonne) loading, with E600 and F900 load ratings available where required and technically validated. For indoor trench applications, Class I / Class A fire-rated cover options can also be provided.

Safe, secure underground infrastructure access

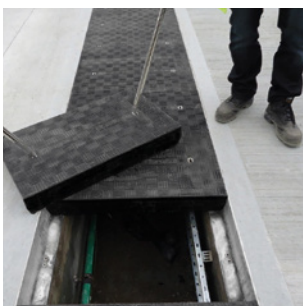
Fibrelite GRP composite manhole covers, and trench covers are designed for safe manual removal using Fibrelite's ergonomically designed lifting handles, allowing maintenance teams to access critical services quickly without heavy lifting equipment. Locking capability options are also available to help control access to trench networks in high security hyperscale, colocation and enterprise data centre environments.



Precast trench with Fibrelite covers



Cast in place trench with Fibrelite covers



View our case studies

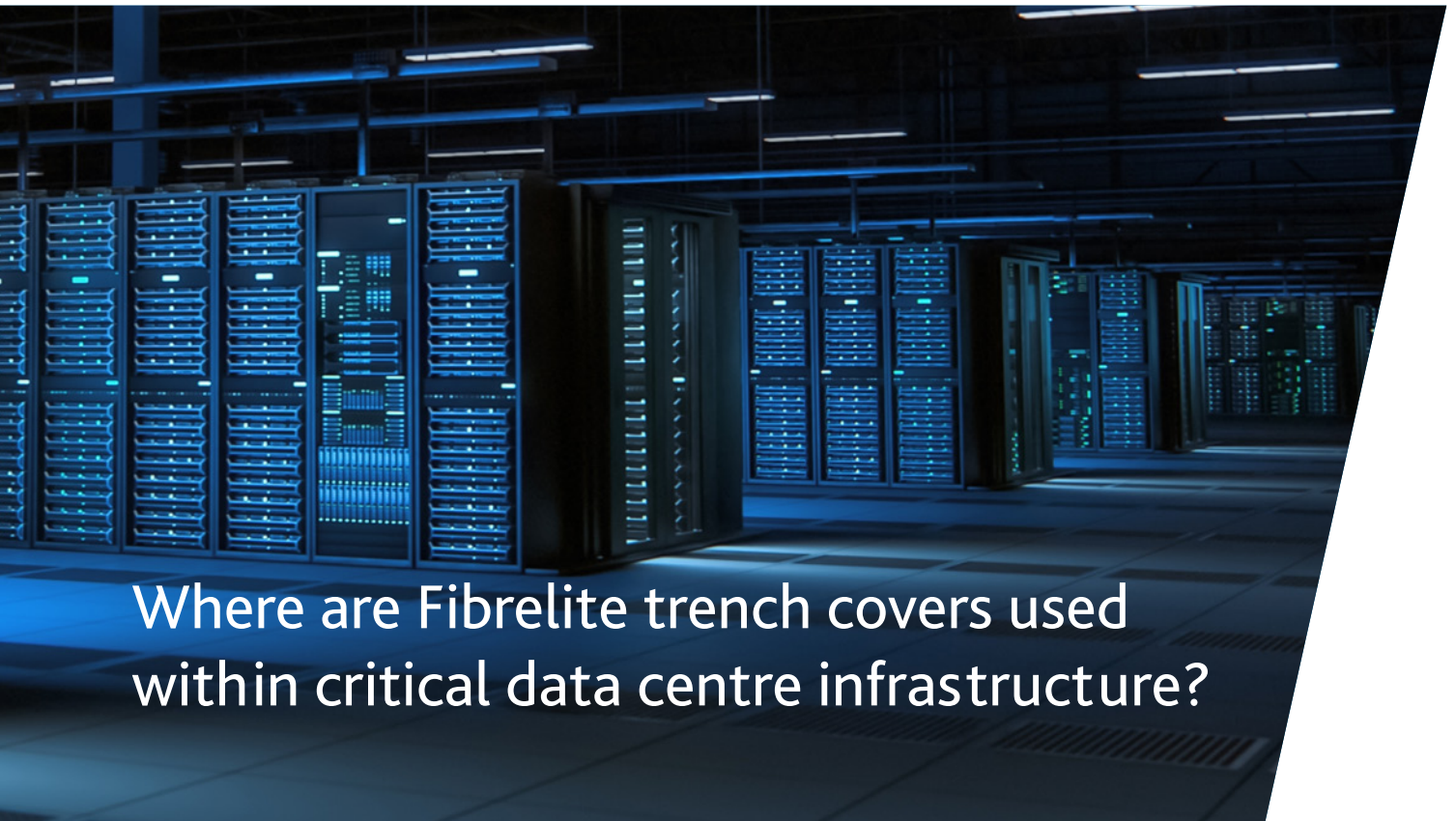
Data Centre, Hong Kong

One of the largest data centre developers and operators in Hong Kong S.A.R. of China, came to Fibrelite for a retrofit replacement for their failing concrete trench access covers.

[View our technical case study library of over 150 projects](#)

READ MORE





Where are Fibrelite trench covers used within critical data centre infrastructure?

Data centres are installed next to giant substations connected to the electrical grid.

Long electrical trenches run from the substation to:

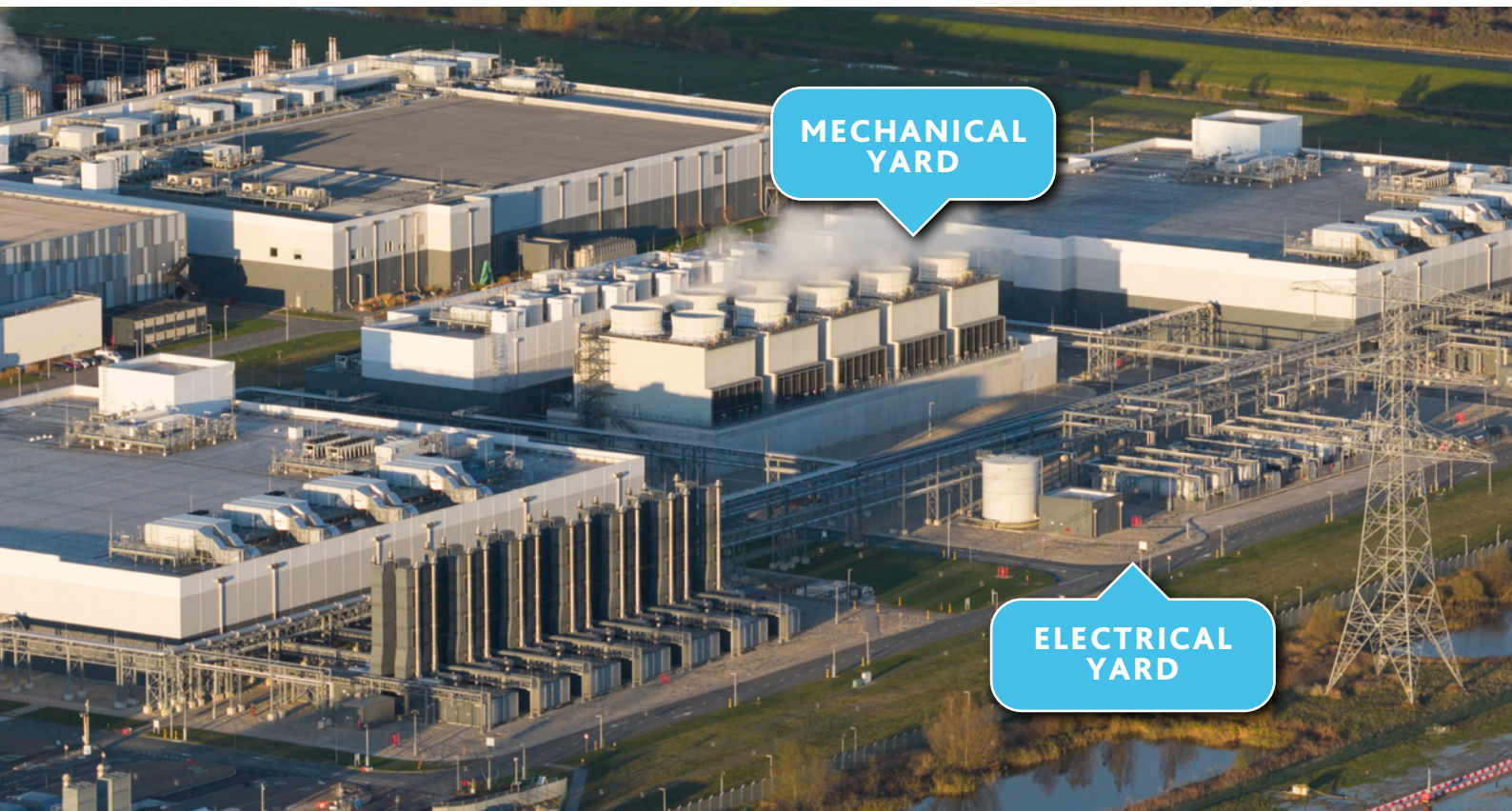
1. **The electrical yard, which accommodates critical power distribution infrastructure such as transformers, switchgear, generators and associated cabling**
2. **The mechanical yard, which accommodates cooling and heat-rejection systems that support continuous data centre operation**

Fibrelite can provide composite trench covers from A15 (1.5 tonne) load rated all the way up to D400 (40 tonne) load rated trench covers for trenches installed in roadways.



The complete GRP trench cover guide - [DOWNLOAD HERE](#)



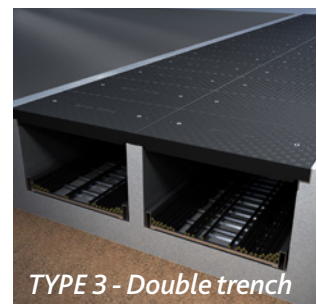
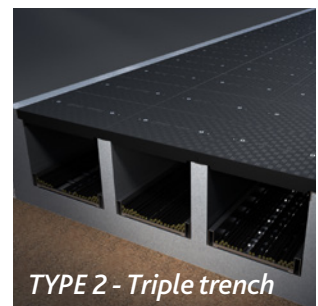


Data centres - electrical trench sizes

Fibrelite trench covers are used on single trench, double trench and triple trench runs within the data centres. They can cover single trench runs up to 1,675 mm wide and multiple trench runs in most configurations with middle wall supports as shown.

Lightweight GRP composite construction

Manufactured from high performance polymers and engineered to outperform similar products made from concrete and fibreglass reinforced concrete materials, these covers are lightweight, yet tough enough to withstand traffic and harsh field conditions.



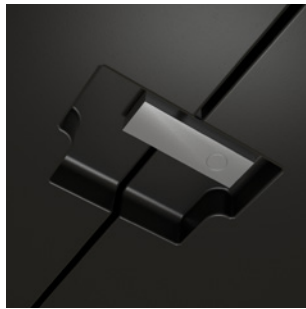
Locking & interlocking trench covers

New 'interlocking' trench cover design

Fibrelite provides most data centres with our 'locking & interlocking' trench covers for security. The 'side locking' covers lock to the sidewall of the trench and the 'interlocking' covers lock to the next trench cover.



Side locking roto-latch connects to SS angle on trench wall



Interlocking roto-latch connects to recess moulded in the next cover

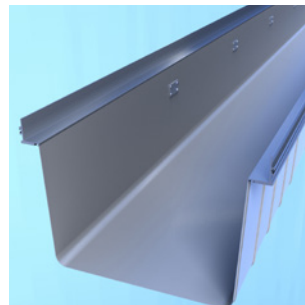
Locks & restraining bolts

Locks and restraining bolts are available for added security, either a standard head operated by an Allen Key, or a bespoke Tri Head, operated by a dedicated Tri Key.

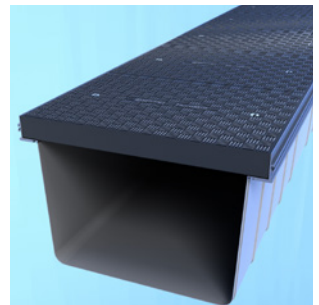


New product development – GRP trench system

Fibrelite has developed a complete modular trench system for use in data centre construction where modular systems are preferred for faster installation and better quality control.



New modular GRP trench system



New modular GRP trench & cover

The world's largest range of options

Fibrelite's composite covers are available in almost any size, colour, shape or configuration, providing a truly bespoke made-to-measure solution for every project.

- ◆ Colours
- ◆ Logos/Symbols
- ◆ Locks and restraining bolts
- ◆ Custom surface finishes
- ◆ Class I/Class A fire rated options available
- ◆ Custom hand hole, inspection ports and pipe and cable entries
- ◆ Rain-tight modular trench covers
- ◆ Double & triple trench covers
- ◆ GRP frames
- ◆ Manual/Lift assist handling
- ◆ Specialised frame or existing rebate
- ◆ Frame installation - epoxy system

Available in a range of widths from 300 mm to 1,000 mm; a range of lengths from 600 mm to 2,000 mm and depths from 50 mm to 203 mm.

Custom load ratings are also available up to F900 (90 tonnes).



Products specific to data centres



Trench Covers



Manhole Covers



Underground Enclosures

Explore our product range here



Speak to our technical team

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