



DATA CENTRES

Trusted by the world's largest
technology brands worldwide
Safeguarding service, eliminating
downtime



FIBRELITE 
PART OF OPW a  DOVER company

www.fibrelite.com

WE'VE GOT YOU COVERED



High-tech composite trench covers for high-tech facilities

To ensure continuous operation and to minimise the risk of downtime, data centres are constructed with the highest performance, highest quality building materials available, especially hyperscale and AI data centres. Fibrelite's lightweight modular GRP composite trench and manhole covers are being increasingly specified for new build data centre projects by the world's largest technology brands to protect and provide easy access to underground infrastructure such as electrical and fiber optic cabling.

Custom-made to specification

Fibrelite's trench and manhole covers can be custom-manufactured to allow for locking and

tamper-resistant designs as well as moulded identification of below-ground services. Fibrelite can also custom manufacture composite trench covers to fit into existing trench systems.

Simple, safe underground infrastructure access

Fibrelite GRP composite trench and manhole covers are designed for installation in roadways as well as non-trafficked areas and allow for safe manual removal using Fibrelite's ergonomically designed lifting handles. Fibrelite manufactures trench and manhole covers at all load ratings from pedestrian loading up to D400 (40 tonne) load rated trench covers for trenches installed in roadways (higher load ratings also available if required).



Precast trench with Fibrelite covers



Cast in place trench with Fibrelite covers



View our case studies

Large Data Centre, Northern Europe

Fibrelite worked with the design consultants of this data centre in Northern Europe to cover 525 metres (1,046 covers) of electrical and data cabling between buildings.

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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.

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Where are Fibrelite trench covers typically installed at data centres?

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

Long electrical trenches run from the substation to:

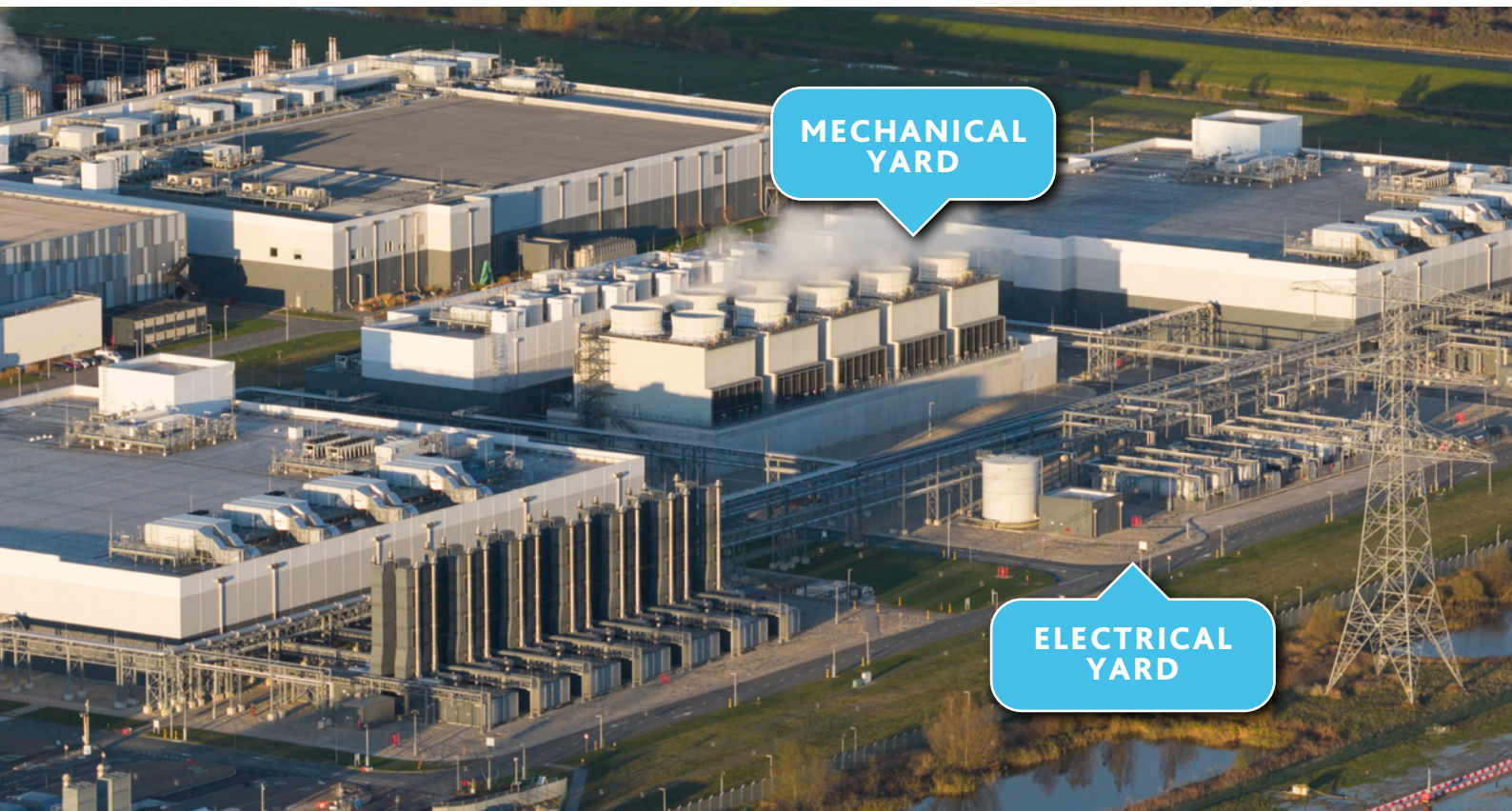
1. **The electrical yard where AC power is converted to DC for the data centre servers; and...**
2. **To the mechanical yard where giant cooling towers are installed which cool the servers**

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](#)



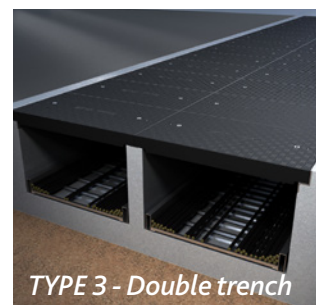
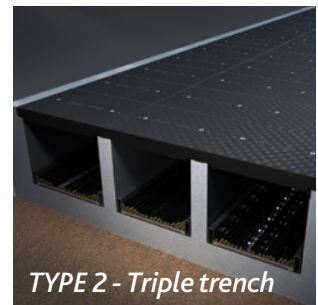


Data centres - electrical trench sizes

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 / 66" wide and multiple trench runs in most configurations with middle wall supports as shown.

Lightweight GRP composite construction

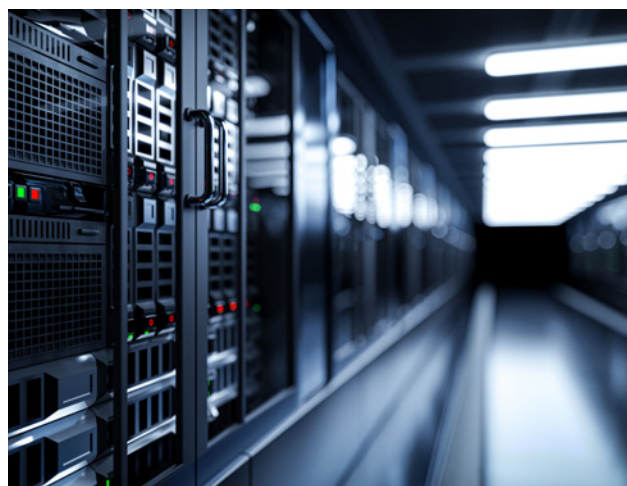
Manufactured from high performance polymers and engineered to outperform similar products made from concrete and fiberglass reinforced concrete materials, these covers are lightweight, yet tough enough to withstand traffic and harsh field conditions.



Locking & interlocking trench covers

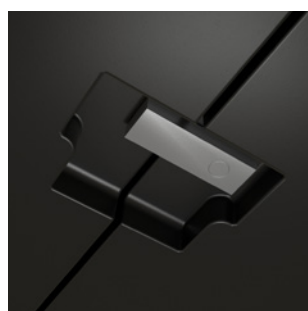
New 'interlocking' trench cover design

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.



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.



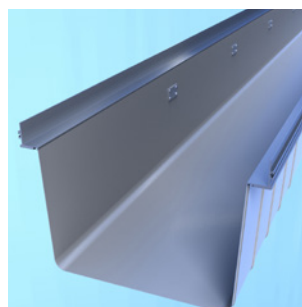
Side locking roto-latch connects to SS angle on trench wall

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

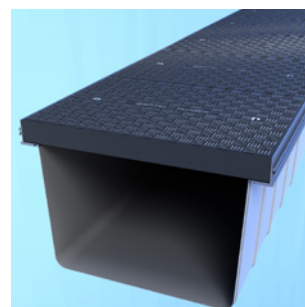


Locks & restraining bolts

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 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 (12") to 1,000 mm (40"); a range of lengths from 600 mm (24") to 2,000 mm (78 ¾") and depths from 50 mm (2") to 203.2 mm (8").

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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