



DATA CENTERS

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 minimize the risk of downtime, data centers are constructed with the highest performance, highest quality building materials available, especially hyperscale and AI data centers. Fibrelite's lightweight modular FRP composite trench and manhole covers are being increasingly specified for new build data center 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 molded 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 FRP 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 standard truck and heavy truck wheel load ratings (H-20/HS-20 and H-25/HS-25).



Trenwa 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 center in Northern Europe to cover 1,722ft (1,046 covers) of electrical and data cabling between buildings.

READ MORE

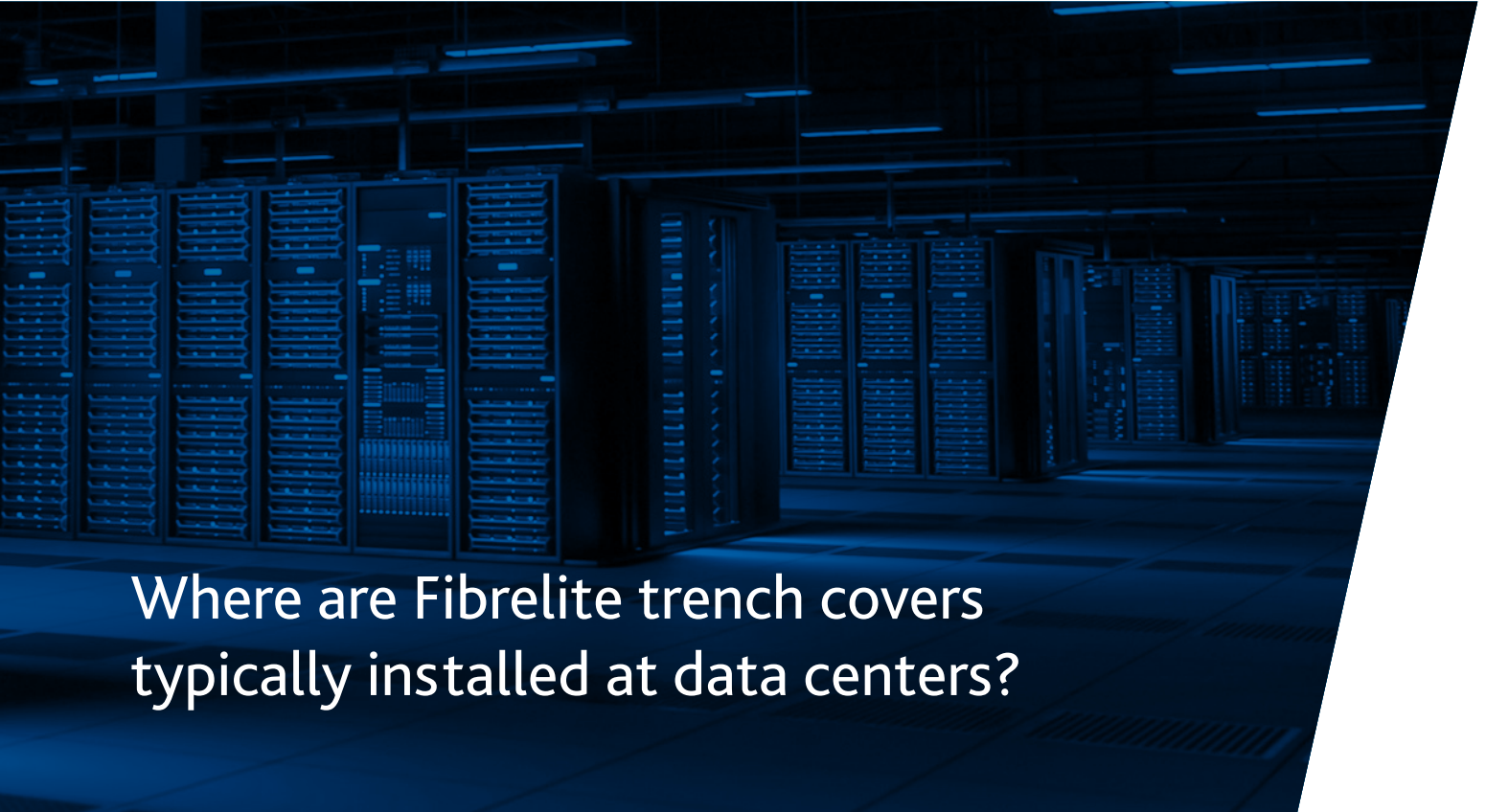


Data Centre, Hong Kong

One of the largest data center 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.

READ MORE





Where are Fibrelite trench covers typically installed at data centers?

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

Long electrical trenches run from the substation to:

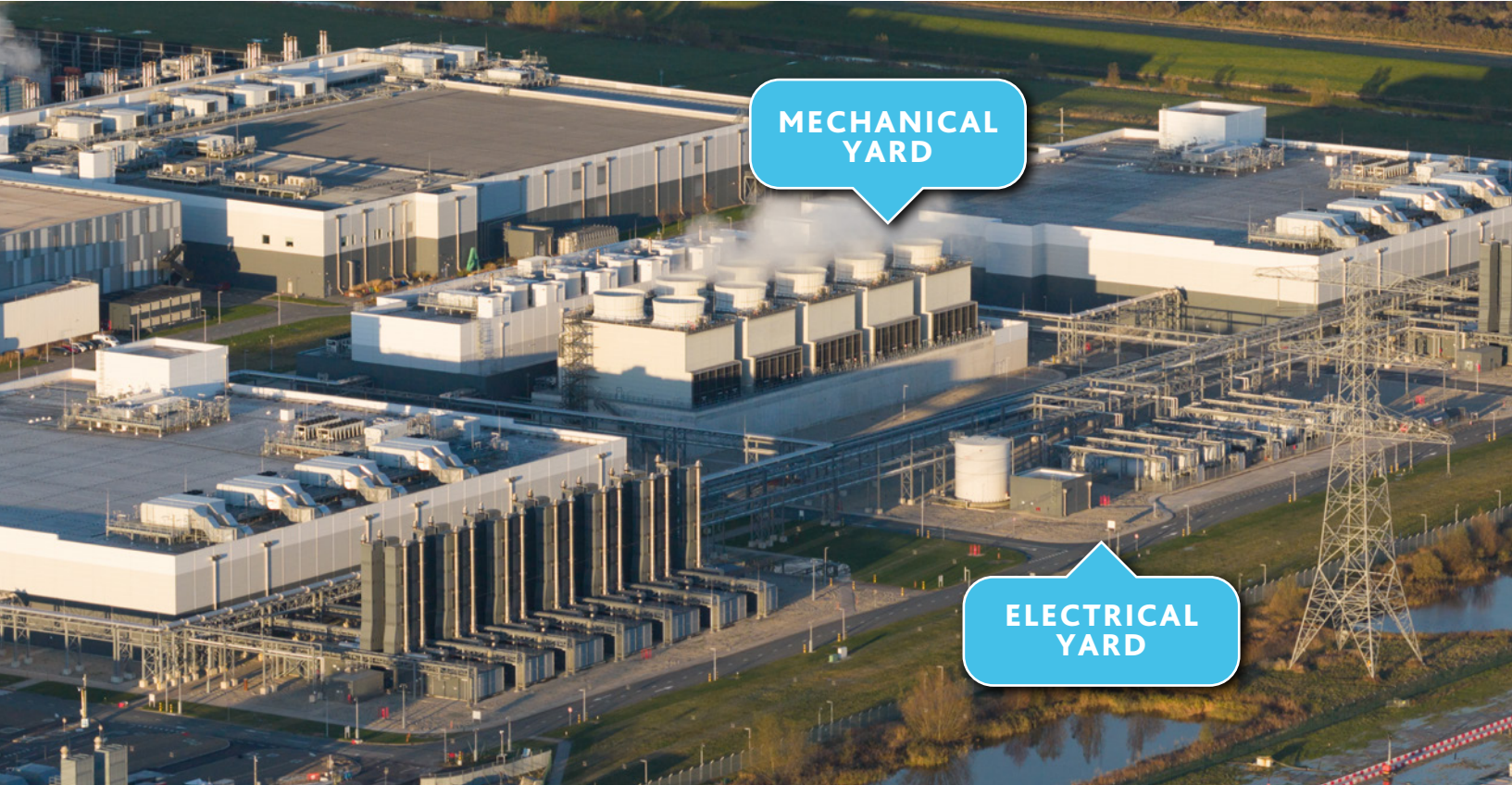
1. **The electrical yard where AC power is converted to DC for the data center servers; and...**
2. **To the mechanical yard where giant cooling towers are installed which cool the servers**

Fibrelite can provide composite trench covers from pedestrian loading all the way up to H20/HS20 40K lb load rated trench covers for trenches installed in roadways.



New trench & trench cover design guide - [DOWNLOAD HERE](#)



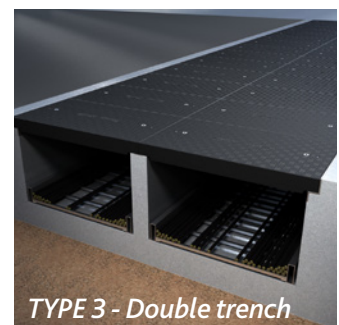
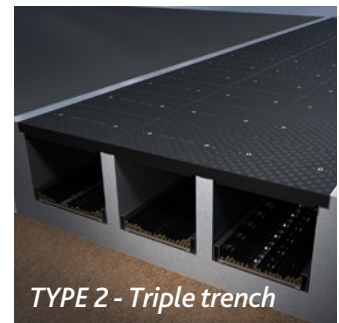


Data centers - electrical trench sizes

Fibrelite trench covers are used on single trench, double trench and triple trench runs within the data centers. They can cover single trench runs up to 66" wide and multiple trench runs in most configurations with middle wall supports as shown.

Lightweight FRP 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 centers 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 molded in the next cover

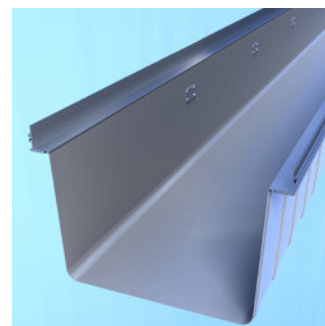
Locks & restraining bolts

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.

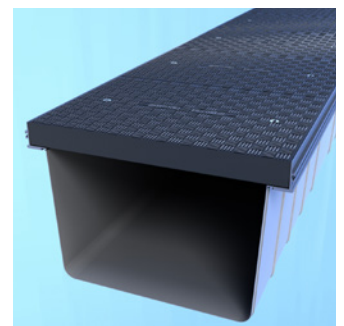


New product development – FRP trench system

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



New modular FRP trench system



New modular FRP trench & cover

The world's largest range of options

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

- Colors
- Logos/Symbols
- Locks and restraining bolts
- Custom surface finishes
- Custom hand hole, inspection ports and pipe and cable entries
- Rain-tight modular trench covers
- Double trench covers
- FRP frames
- Manual/Lift assist handling
- Specialized frame or existing rebate
- Frame installation - epoxy system

Available in a range of widths from 12" (300mm) to 40" (1,000mm); a range of lengths from 24" (600mm) to 78 ¾" (2,000mm) and depths from 2" (50mm) to 8" (203.2mm).

Load ratings from pedestrian to 90 tons.



Products specific to data centers



Trench Covers



Manhole Covers



Underground Enclosures

Explore our product range here



Speak to our technical team

Email: enquiries@fibrelite.com

Tel: +1 (919) 209 2404



3250 US Highway 70 Business West,
Smithfield, North Carolina,
NC 27577, USA

Fibrelite Technical Sales Team

Jim Goodman
+1 (201) 647-7319

Gene Hunt
+1 (919) 209 2404

FIBRELITE 
PART OF OPW a  company

enquiries@fibrelite.com
www.fibrelite.com

LEARN MORE

