



EFLEX SQUARE
A FURUKAWA ELECTRIC PRODUCT



Case Study

Solving space, delivery and cost challenges for a high-density data centre:
How EFLEX Square Ducting made it possible.



Electrical cable & component specialists
etechcomponents.com

Power. Connected.

THE SITUATION



In 2024, E-Tech Components successfully assisted a 90MW Tier 3 data centre (LON01) in North London. Our team supported major ducting and drainage works for a new substation within the wider data centre infrastructure, serving Building 1, a 20MW, four-data-hall facility within a high-density, two-building campus.

Location: Brent Cross, London Borough of Barnet, UK

Programme: January 2024 – May 2024 (19 weeks)

Site Size: 8.92 acres | 86,527 sq. m

Wider Impact: £1 billion of investment into the local economy during construction

CLIENT'S PAIN POINTS

The client required a ducting system that could perform in a constrained, fast-moving data centre environment while supporting future scalability. Key concerns included:

- Limited space across a high-density campus
- Tight construction timelines with no tolerance for delays
- The need to accommodate design changes without rework
- Minimising excavation, trench size and installation disruption
- Long-term durability and protection for critical power and data cabling

THE CHALLENGE

For a Tier 3 data centre, cable infrastructure must meet the highest standards for resilience, safety and future-readiness. The ducting solution for Building 1 had to be:

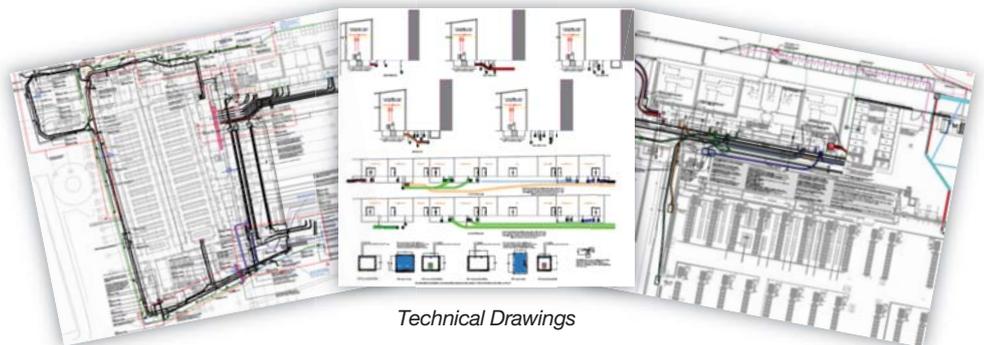
- Compact and space-efficient
- Quick to install to maintain programme certainty
- Flexible enough to adapt to evolving layouts
- Robust enough to support underground multi-rack cable routes
- Fully compliant with relevant industry standards
- Any delays or design constraints would risk impacting the wider campus delivery schedule.

WHY THEY CHOSE E-TECH

E-Tech Components was selected for its technical expertise, reliability and collaborative approach. By working closely with all project stakeholders, E-Tech ensured:

- Clear technical guidance from design through to delivery
- Guaranteed product availability and on-time supply
- Full accessory support to avoid installation bottlenecks
- Practical solutions tailored to real site constraints

Our proven experience in data centre infrastructure gave the client confidence that the ducting system would be delivered safely, efficiently and without compromise.



Technical Drawings

OUR SOLUTION



EFLEX Square – A Cable Ducting System by Furukawa Electric

EFLEX Square is a modular, stackable ducting solution ideal for underground multi-rack cable routes in data centre infrastructure.

Built to ENATS 12/24 Class 1, EFLEX Square enables faster, cleaner installs while maximising space and protection. Besides data centres, this proven solution is trusted across Europe and the Middle East for use in highways, rail networks, stadiums and airports.

By supplying Furukawa EFLEX Square, the system's flexibility allowed our client to create custom layouts without bends or spacers, speeding up installation and minimising trench size.

**WHY
CHOOSE
EFLEX
SQUARE?**

WATER-TIGHT TO IP67

DUST-PROOF

STRONG & DURABLE

EASILY INSTALLED

STACKABLE

LIGHTWEIGHT & VERSATILE

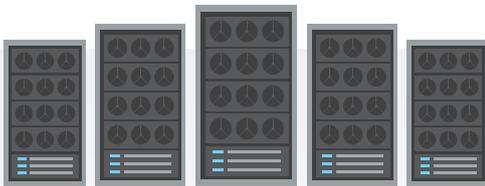
COST-SAVING

FLAME-RESISTANT

SPACE-SAVING

Reliable Underground Cable Ducting for Data Centres

Underground cable ducting safely routes power and data. This is crucial for complexes where uptime, organisation and protection matter most. Ducting shields cables from weather, impact and interference, keeping networks protected, organised and future-ready.



Data Centres + Cable Ducting = A Perfect Match

• PROTECT • ORGANISE • CONTROL LEAKS & CONTAMINATION

PRODUCT SPOTLIGHT

EFLEX Square – A Smarter Way to Bury Cable

EFLEX Square comes in 5 sizes with a full range of accessories. It allows data centres to design multi-rack duct layouts without costly bend pieces or spacers. It seamlessly integrates with Green Trough to deliver a complete, top-tier cable management solution.

- ✓ Stackable units only need small trenches with no spacers - ideal for tight sites
- ✓ Just 6.4kg for a 5.3m (100 series) unit - easy to handle on-site
- ✓ Withstands 25-tonne loads buried at just 300mm - shallower trenches, lower costs
- ✓ Bends up to 10× its inner diameter - no expensive bend pieces needed
- ✓ Chemical-resistant for long-term reliability underground
- ✓ Easy to configure with 5 size options and IP67-rated watertight push-fit connectors
- ✓ Simplifies maintenance and reduces downtime

Installation Method

Installing underground ducting is straightforward but requires careful planning to ensure safety and compliance.



Underground Cable Ducting Guide



Download the Installation Manual

TESTING

Threat	Protection Level
Water Ingress	IP67-rated connectors; moisture-activated Aqua seals
Rodents	HDPE material offers a strong physical barrier
Dust / Dirt Ingress	Sealed design protects interior from dust and soil intrusion

EFLEX Square Accessories & Complete System

To complete your Furukawa EFLEX system installation, E-Tech Components supplies a full range of compatible accessories designed for seamless connection, protection and flexibility.



Furukawa EFLEX Square Duct

Sizes 50, 75, 100, 130 and 150 — robust underground ducting for fast cable installation.



Furukawa AQUA Square Adaptor

Joining mechanism used to connect cut EFLEX Square Duct ends when adjusting length.



Furukawa AQUA Square Male Adaptor

Converts a pipe section to male for insertion into a female part.



Furukawa AQUA Connector

Includes AQUA-Nut and AQUA-Mouth to connect EFLEX Square / Round ducts to chambers or catchpits.



Furukawa Male to Male Adaptor

Converts female ends to male, linking two EFLEX female connectors or a female end to a Long Bell Mouth.



Furukawa Converter to EFLEX Round

Adaptor connecting EFLEX Square male ends to other pipe types.



Furukawa Long Bell Mouth

Connects EFLEX Square to chambers / catchpits — available in three lengths for wall thickness.



Furukawa Bell Block

Concrete resin block for interfacing EFLEX with concrete or polymer chambers.



Furukawa Temporary Plug

Used with the EFLEX Square Long Bell Mouth and standard EFLEX Square units to prevent dirt, sand or soil from entering the duct during installation.

Ready to simplify your data centre cabling with Furukawa EFLEX Square?

Get a quote or discuss your project with E-Tech Components today.