Directory

Track & Infrastructure

Complete Composite Systems (CCS)

Innovative Rail Cabling Solutions Provided by the Composite-Constructed and Ever-Evolving ARCOSYSTEM®

Multiple troughs of ARCOSYSTEM® stacked vertically to meet the demanding cable-load requirements for a project in Berlin

Installing trackside cable troughing along challenging routes is becoming quicker and easier thanks to the flexible design of the elevated ARCOSYSTEM® cable containment system.

Manufactured from pultruded glass fibre reinforced polymers (FRP/GRP) for a robust yet lightweight finish, **ARCOSYSTEM®** combines the durability of composite troughing with bespoke, laser-cut steel brackets to overcome the most challenging requirements, whether that be reaching hard-to-access areas along the cable route or finding alternative attachable options.

The lightweight design means ARCOSYSTEM® can be post-mounted up to 6 metres between supports with height and directional changes easily accommodated, making installation faster and more cost-effective than traditional ground-based systems. ARCO can also be fastened to walls, **clamped to bridges**, or attached to a variety of trackside features such as **noise barriers**, **railings**, **rock walls** or **hillside slopes**.

Key features and benefits of ARCOSYSTEM®:

- Safely encloses and protects high-voltage power, signalling and digital communication cables for long runs alongside railway tracks
- Carries cable loads of up to 90kg/m
- Engineered GRP construction ensures strong resistance to heat, water, corrosion and UV rays compared to more common materials, providing a long lifespan and sustainability
- Can withstand working temperatures between -40˚C and +80˚C
- Twin-walled design of the troughing ensures system can resist lateral forces from embankment subsidence, high snow loads and wind effects from high-speed trains
- Resistant to continuous freeze-thaw cycles, as well as a wide range of chemicals
- Troughing available in different cell sizes to accommodate a range of cable load requirements or space restrictions
- Independently verified life cycle assessment (LCA) carried out as part of an official **Environmental Product Declaration (EPD) published in 2025**

The range of complementary bracketry is constantly being updated, with a new '**ClickFit**' style option allowing site operatives to simply click the troughing cells into place with a satisfying snap, instead of sliding the troughs into the shoes of the brackets, making installation much easier on sloping ground or in slippery conditions.

Working in conjunction with key partners like Anchor Systems Ltd, technology such as the **Rapid Route technique** – fitting ARCOSYSTEM® via Sigma Posts atop specially designed Anchor Screws – enables speedy installations without the need to excavate and use cast in-situ posts, further reducing carbon emissions.

ARCOSYSTEM® installed using the Rapid Route technique with ground-screwed Anchor Screws to ensure solid fitting along a steep trackside route near Glasgow

Contact the experienced **technical experts at Complete Composite Systems**, the exclusive UK distributor of ARCOSYSTEM®, for enquiries about your rail cable project

Complete Composite Systems Ltd

complete composite systems

85 Great Portland Street, London, W1W 7LT
Tel: +44 7702 206755 or +44 7860 147863
Email: **info@completecomposites.co.uk**

The exclusive UK rail stockist of ARCOSYSTEM® is the **Scott Parnell Rail Division**

Scott Parnell Ltd. RAIL DIVISION

ARCOSYSTEM® is developed by CCS's Swiss partners, **Castioni Kabelführungssysteme GmbH**

CASTIONI KABELFÜHRUNGSSYSTEME

The 'Rapid Route' cable containment installation method is developed in partnership with **Anchor Systems Ltd**

ANCHOR SYSTEMS (INTERNATIONAL) LTD

COMPOSITE BRIDGES

Innovative composite solutions for challenging rail infrastructure applications

- BEAM or TRUSS designs
- Pedestrian, cycle or vehicular bridges
- Manufactured from glass fibre reinforced polyester (GRP) for strong load-bearing performance and long-term durability
- High corrosion, UV and weather resistance & flame retardant
- Lightweight, easy to handle for quick and cost-effective assembly and erection on site
- Pioneers in the field of GRP bridge construction, with more than 250 installations across Europe

complete composite systems

Made by Complete Composite Systems (CCS) in association with BGL Ingenieurbau GmbH in Germany

BGL

UK Partner & Distributor: Complete Composite Systems Ltd T: +44 7702 206755
info@completecomposites.co.uk www.completecomposites.co.uk