



Rail Forum

UK RAIL MANUFACTURING
CAPABILITY

1st Edition
October 2024



TDi TRANSPORT DESIGN
INTERNATIONAL





REVOLUTION

Forewords



As the new Deputy Director for Rail and Maritime at the Department for Business and Trade (DBT), I am delighted to have been asked by the Rail Forum to provide the foreword to their new UK Manufacturing Capability Brochure.

The Manufacturing Capability digital brochure showcases a proportion of Rail Forum's members that are involved in manufacturing here in the UK, and who provide a wealth of products and processes that can be used to support the national rail network, whilst also presenting strong export opportunities.

The brochure enables users to quickly find specialist UK manufacturing capability to support their rail activity.

This is timely, because the government's growth mission is to secure the highest sustained growth in the G7, and this Manufacturing Capability digital brochure will help to do just that, supporting DBT's plan to drive long-term, sustainable, inclusive and secure growth and deliver real-world impacts to people right across the country.

I look forward to working with you.

Mike Hill
Deputy Director Rail and Maritime
Department for Business and Trade



At this pivotal time for the British economy, it's crucial that the right strategic decisions are made to improve the UK's rail transport infrastructure and ecosystem for generations to come. Choosing British-made goods or services isn't just the right decision from your heart, it's the most effective way to meet vital social, environmental and economic value targets, so that everyone wins and benefits cascade.

The future is locally made, by businesses that are manufacturing responsibly, innovating to reduce waste and acknowledge circularity, whilst creating a strong, reliable network for the British rail transport to lead on the co-creation of an exciting, inclusive and profitable sector that serves and benefits everyone. We encourage the use of this new resource which will help decision makers find relevant information on UK rail manufacturing capability to support their rail activities.

John Pearce
CEO
Made in Britain



Transport Design International (TDI) is Rail Forum's Manufacturing Partner and we are delighted to be working together to promote the capabilities of UK Rail Manufacturing. At TDI, we are committed to driving lightweight innovation within the rail sector and creating opportunities for local and national suppliers. We believe the growth of Very Light Rail is a key area for rail innovation led by lightweight thinking, and we are proud to be working with Rail Forum to shine a much-needed spotlight on UK manufacturing and our expertise in this area.

This year Rail Forum's #MadeInBritain campaign on social media was a powerful step in showcasing the immense manufacturing potential within the UK supply chain. The Manufacturing Capability Brochure is part of Rail Forum's broader initiative, to highlight the incredible innovation and expertise across the UK rail community. This brochure provides companies with a platform to demonstrate their strengths and services while offering a valuable resource for the industry. It is an important tool for UK manufacturers and suppliers to collaborate and support each other in rail projects, both nationally and globally. TDI is committed to expanding and enhancing our regional and national manufacturing presence, and we are thrilled to collaborate with Rail Forum on this significant project.

Nicola Islef
Head of Marketing & Communication
Transport Design International



— Manufacturing Workstream

Over 30%

of Rail Forum members manufacture rail related products in the UK. This provides a wealth of products and processes that can be used to support the national rail network delivering benefits including decarbonisation, partnership and collaborative working, developing innovation, building skills for the future and supporting wider UK supply chain as well as presenting strong export opportunities. Launched in May 2024, the Manufacturing Workstream is lead by 11 members and seeks to support manufacturing and shine a spotlight on UK based manufacturing capability. Following a successful social media campaign in the summer, the steering group are thrilled by the interest of members to participate in this initiative and we look forward to working with wider members and stakeholders to promote UK capability.

 **alfatronix**
POWER. NO COMPROMISE.

 **BCM**
GRC Limited

 **CEMBRE**

 **COMPOSITE
BRAIDING**

 **DATUM**
MANUFACTURING EXCELLENCE

 **DIAMOND**
RAIL SERVICES

 **HYDRAM**

 **Ibstock**
At the heart of building

 **infotec**

 **SIGNAL
HOUSE
GROUP
LIMITED**

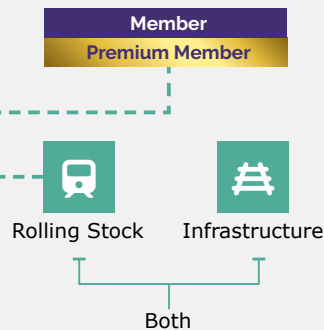


 **TJI** TRANSPORT DESIGN
INTERNATIONAL

A-Z Member Listings

Reference guide

- 1 Banner image
- 2 Logo
- 3 Company name
- 4 Company description
- 5 Membership level
- 6 Sector category
- 7 Contact details
- 8 Key words
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- 11 Link to Map listings
- 12 Link to Members Capability Matrix



The screenshot displays a 'Member Listing' page with the following numbered callouts:

- 1: Banner image (top background image of a train)
- 2: Logo (purple box with 'LOGO' text)
- 3: Company name (purple box with 'Member' text)
- 4: Company description (text block below company name)
- 5: Membership level (purple box with 'Member' text)
- 6: Sector category (icons for 'Rolling Stock' and 'Infrastructure')
- 7: Contact details (text block with 'Website: companywebsite.co.uk' and 'Contact: email@company.co.uk')
- 8: Key words (text block with 'Key Words: Keyword, Keyword, Keyword')
- 9: Case study (text block with 'Case study' heading)
- 10: Link to A-Z Member Lookup (orange button with 'A-Z List' text)
- 11: Link to Map listings (orange button with 'Map' text)
- 12: Link to Members Capability Matrix (orange button with 'Matrix' text)



Akriveia

Member



Website: akriveia.co.uk

Contact: enquiries@akriveia.co.uk

Key Words: Additive Manufacturing, 3D Printing, Scanning, Reverse Engineering, Obsolescence, Vacuum Form

Akriveia

Akriveia is an engineering company, specialising in 3D scanning, reverse engineering and 3D printing for the rail industry. Akriveia provide a full turnkey solution to address obsolescence in mechanical and moulded parts. Using professional 3D scanners, Akriveia can scan objects from 5mm in size up to full multiple units, and with professional 3D CAD and reverse

engineering software Akriveia have the tools and experience to be able to accurately reverse engineer almost any mechanical part. Using the most cost-effective manufacturing technique based upon the part and quantity, Akriveia provide the customer with agile support to achieve railway compliant parts.

Case study

A customer was facing obsolescence with a range of parts and had received quotes with minimum order quantities of >1,000 parts, when the maximum required was 100 due to the age of the train fleets in question. Akriveia was approached and asked if it was possible to reverse engineer and supply the parts in quantities closer to the actual customer requirements. Akriveia arranged a visit to the customer's depot to undertake 3D scanning of the parts in question which were then modelled in CAD to produce files which could be used for manufacture. Akriveia produced 3D 2 printed prototypes which were used for trial fitment by the customer and Akriveia. This confirmed the 3D models were accurate and the finished

parts would fit as intended. Akriveia confirmed that the most cost-effective manufacturing technique would be to utilise 3D printed low volume moulds for the parts which would allow minimum order quantities of 20. The parts would be like for like replacements using the same fire rated material, primer and paint to ensure compliance with railway standards.

The whole process from initial enquiry to the production of a quote for multiple parts took less than 4 weeks. As part of this process Akriveia was also able to offer child parts to the customer which reduced operating costs by eliminating the need to procure full assemblies upon failure of the child part.

Voltage Converters, USB and Wireless Chargers for Railway Applications.

For All Your Onboard Power



alfatronix

POWER. NO COMPROMISE.



Member



Website: alfatronix.com

Contact: sales@alfatronix.com

Key Words: USB Power Delivery, USB Chargers, Wireless Chargers, DC-DC Voltage Converters

Alfatronix

Since 1979, Alfatronix has been manufacturing innovative voltage conversion and onboard charging products here in the UK for use throughout the rail, automotive, communications and marine sectors worldwide.

Offering a range of rail compliant USB Power Delivery, USB & wireless chargers, and DC-DC voltage converters for all rolling stock, light rail,

metro, and tramway applications for installation into passenger seating, tables, and carriage sidewalls.

Providing reliable onboard power is inherent within the business with all products designed by a dedicated team of engineers and technicians manufacturing all products here in Poole, Dorset.

Case study

Due to the increasing use of smart devices on public transport and high-powered USB C type charging requirements for laptops and tablets, staying connected on a journey with reliable charging is a passenger expectancy irrespective of demographic. Alfatronix has been supplying a full range of USB and wireless charging options for integration into passenger seating, carriage sidewalls and tables to enhance the passenger experience and negate the need for AC mains charging.

The products are designed for both OEM and refurb service programmes for all rolling stock, light rail systems, tramways and metro applications and are fully rail compliant.

The Alfatronix USB and wireless charger products are installed in some of the most technologically advanced rolling stock with

wireless charging in arm rests of seats, at seat USB charging and pole mounted chargers for trams. The products serve passengers Worldwide and are a popular choice due to their versatility, reliability, durability, user friendly and engineered ingenuity.

There is a variety of USB options available, single C, dual C, and AC and with a choice of mounting options to include wall POD, underseat and table PODs. There is also a degree of customisation available too with the individual USB ring and casing available in a choice of colour from light grey, dark and black to suit most aesthetics and rail interiors.

With the arrival of the new USB PD range, this facilitates charging of high-powered USB C devices such as laptops, providing uninterrupted convenient power at their seat.

Building Better Together

Home of leading cable management & protection

Atkore
Unistrut

Atkore
Marco

Atkore
Flexicon



Premium Member

Website: unistrut.co.uk

Contact: pmoore@atkore.com

Key Words: Flexible Conduit, Cable Protection, Cable Management, Cable Trunking, Flexicon, Unistrut



Atkore UK

Atkore, a leading global cable management & protection manufacturer, has a legacy in understanding the rail industry's high demands. It's market-leading brands provide a one-stop solution for infrastructure and rolling stock.

Atkore Unistrut: Leading metal framing systems including channels and fittings in many finishes. Plus, a complete line of cable management systems including tray, ladder, and trunking.

Atkore Flexicon: 62+ metallic & non-metallic flexible conduit systems in a range of materials and options. Flexicon offers a simple, safe, and secure way of protecting cables.

Atkore Marco: uPVC cable management and steel wire cable tray from a leading UK containment manufacturer.

Case study

Project: Elizabeth Line, London
Contractor: Crossrail

Products: Atkore Defender™ Cable Management & Curved Channel Cantilever Arrangements

About: Previously known as Crossrail, the Elizabeth Line spans over 100 kilometers, connecting Reading and Heathrow in the west with Shenfield and Abbey Wood in the east of London. Now fully operational, the line can handle up to 200 million passengers annually, for faster and more efficient travel.

Challenge: As the project was mostly underground, the cable management systems and materials specified needed to withstand harsh environmental conditions, including moisture, vibration, and potential chemical exposure. Additionally, the system specified had to be as swift and efficient as possible, to meet tight schedules and underground tunnel spatial constraints.

Solution: To solve the potential problem of harsh environmental conditions, Atkore Defender™ finish was applied, significantly extending the cable management systems lifespan in comparison to standard Hot-Dip Galvanised products, ultimately ensuring infrastructure remains in optimal condition, reducing maintenance and downtime. Atkore also supplied over 35,000 pre-engineered curved channel cantilever arrangements, specifically designed to facilitate faster installation, whilst Flexicon product was used for the platform edge screens. Overall, Atkore's solutions allowed smooth project progression to meet critical deadlines.

Testimonial: "Atkore Unistrut is proud to have contributed to this ground-breaking project. Through our advanced cable management solutions and innovative installation methods, we have provided lasting value and efficiency, ensuring the line will serve London for years to come. -Richard Good - Technical Director - Atkore UK."



Member

Website: bcmgrc.com

Contact: sales01@bcmgrc.co.uk

Key Words: GRC, Lightweight, Elevated Trough, Ballast Boards



BCM GRC

BCM GRC Limited are the UK's leading supplier of high grade Glassfibre Reinforced Concrete (GRC). Glassfibre Reinforced Concrete is one of the most versatile building materials available to architects and engineers having only 20% of the weight of precast concrete, making it easier to handle on site and reducing loads on structures when in use. The unique properties of GRC allow

the manufacture of thinner wall products that are not achievable in precast concrete or natural stone.

We manufacture Lightweight Elevated Rail Trough, Ballast Boards and headwalls for the Rail Industry amongst other products.

Case study

GRC ELEVATED TROUGH SYSTEM

Contractor: Network Rail Special Projects Team

Project: Ferriby to Gilberdyke Re signalling.

The Network Rail Team were asked to install Lightweight Elevated route by Siemens on the Ferriby Resignalling project and were looking for a lightweight elevated product that was economical and easy to install. The team chose The BCM GRC Ltd GRC elevated system based on the cost, short lead times and ease of installations. The 4-man teams were able

to install up to 100 Lin m in an 8 hour shift, installing the posts one day and fixing the GRC the following shift.

The NWR team were very impressed with the product and service and installed 11,470 Lineal meters of C-1-9 BCM GRC Elevated Trough system. We have since supplied further contracts for the team at Huddersfield to Bradford, Doncaster, Morporth and Wymington amongst others.



Member



Website: belvoir-rail.com

Contact: enquiries@belvoir-rail.com

Key Words: Heating, Lighting, Hand Dryers, Fabrications, Product Development, Obsolescence Support

Belvoir Rail

Belvoir Rail is a trusted supplier to the rail industry, offering a wide range of capabilities, from design to manufacturing. We provide high-quality parts, components, fully manufactured products, and customised kitting services.

Our expertise spans rolling stock interiors, lighting, heating, and fabrications, as well as providing professional overhaul and repair services.

Specialising in re-engineering and obsolescence support, we assist customers in maximising the lifespan of their products and assets.

Our passion lies in transforming rail through innovative solutions and forward-thinking engineering. We create solutions to address safety, reliability, and efficiency challenges. Our services include rail-approved design, product development and more.

Case study

Belvoir Rail specialises in manufacturing rail-certified, high-performance hand drying solutions tailored for rolling stock. With a long-standing track record of delivering precision-engineered, durable products, we have established ourselves as a trusted partner to Train Operating Companies across the rail industry.

Our dedicated UK manufacturing facility is equipped to meet the highest standards of production quality and output, ensuring we can efficiently deliver large volumes during high-demand periods, such as new fleet rollouts or refurbishments. Our team of highly skilled technicians use bespoke engineering methods to create products that are rigorously tested to meet the strict safety and performance requirements of rail applications.

Manufacturing Excellence: Our dryers are engineered to offer unparalleled reliability in the most demanding environments. Designed for compact spaces, they integrate seamlessly into train restroom facilities, enhancing both ergonomics and

accessibility. Built from robust, corrosion-resistant materials, our dryers withstand constant vibrations, shocks, and daily wear, ensuring exceptional durability over time. The advanced engineering of our products minimises power consumption without compromising drying efficiency, offering operators a solution that reduces energy demand while maximising performance.

Durability and Reliability: We understand that the performance of hand dryers directly impacts both passenger satisfaction and maintenance efficiency. Malfunctioning or unreliable equipment can lead to increased downtime and higher maintenance costs. Our dryers, however, are engineered to mitigate these concerns. Trusted for their longevity and low-maintenance requirements, they help keep maintenance workloads low while delivering consistently high performance under the heavy traffic demands of rolling stock, providing long-term value for operators.



Member



Website: cbeplus.com

Contact: sales@cbeplus.com

Key Words: Electroless Nickel Plating, CNC Machining, Assembly, Copper Plating

CBE+

CBE+ offer tailored, integrated supply chain solutions. We do this by using our knowledge and expertise, combined with our continuous investment in people, technology and quality management. Our services can be independently supplied or combined to help our customers find the most streamlined solution to meet their needs using multiple capabilities in countless combinations. We contribute to the most demanding sectors including Rail, Aerospace &

Defence, Oil & Gas, Energy & Renewables and Automotive.

Capabilities - Electroless Nickel Plating, CNC turning, CNC milling, Wire EDM, Gear Manufacture, Assembly, Pressure Testing, Heat Treatment, Paint

Accreditations - ISO9001:2015, AS9100D & ISO45001:2018

Case study

Situation: A new owner of a liquidated ex customer approached CBE+ to revive the copper plating process previously carried out. This process was crucial for a GPS tracking part.

Task: CBE+ trialled electrolytic copper plating for the customer, happy with the service, they requested CBE+ to recommend a suitable company for assembly and paint services.

Action: CBE+ informed the customer that they had the capabilities to fulfil the entire supply chain. They were impressed. CBE+ managed their supply chain including: electrolytic copper plating, assembly of electrics & spray paint.

Result: CBE+ has successfully managed the supply chain since the initial project. Additionally, CBE+ collaborated with the customer to develop similar products with varying geometries.

Situation: A long-standing plating customer of CBE+ was interested in outsourcing their machining

needs to CBE+. This interest arose after CBE+ consolidated its various capabilities to one site.

Task: To machine a range of products, particularly mounting brackets that varied in shape and size.

Action: CBE+ successfully machined the castings to the customer's specifications. To efficiently process the different sizes, CBE+ developed and manufactured versatile fixtures. These fixtures allowed CBE+ to provide: CNC Milling: Mill the blackface of the component to precise specifications and add holes for turning. CNC Turning: Utilise the milled holes to secure the part to a turning fixture plate and bore the central hole to tight tolerances.

Result: The successful completion of the project has fostered a long-standing relationship, encompassing both machining and plating services.




CEMBRE

Member

Website: cembre.co.uk
Contact: sales@cembre.co.uk
Key Words: Electrical Connectors, Electrical Installation Tools, Railway Tools, Cable Marking System, Identification & Labelling

Cembre

For over 50 years CEMBRE has been designing and manufacturing solutions for the connection and termination of electrical conductors: connectors, cable lugs, tools for their installation, cable glands, cable entry systems and automatic and manual cable marking systems.

With a vast array of approvals for Network Rail, London Underground and Rollingstock manufacturers CEMBRE seek to cooperate with the users of its products to search the best technical and economical solutions related to electrical connection applications.


Case study


Situation: Due to the ongoing threat of theft of high value copper conductor on the UK Rail infrastructure, a customer made the decision to look at changing from 935sqmm copper conductor to 1000sqmm aluminium conductor

Task: Cembre had to design a solution that would work within the confines of the existing infrastructure. The connector needed to accommodate the larger cable type, take into consideration the mixed material of aluminium conductor and copper landing plate and still attach in the same position to the existing landing plate.

Action: Utilising our design capability in the UK, Cembre designed and manufactured a Bi-metallic lug capable of maintaining the correct electrical properties whilst also ensuring that the palm of the lug remained the same size and dimensions so that it would fit onto the existing landing plate. Utilising an inhouse test laboratory Cembre were able to confirm via a series of tests that the connector was compliant to all required specifications

Result: The customer was able to begin the process of changing over from copper to aluminium conductor resulting in a reduced threat of theft.


Clayton™

Member

Website: claytonequipment.co.uk
Contact: jessica.salt@claytonequipment.co.uk
Key Words: Design & Build, Tunnelling, Mining, Metro, Mainline and Shunter Locomotives

Clayton Equipment

Clayton Equipment Ltd, are a UK based locomotive construction company that specialise in rail equipment, design and build, tunnelling, mining, metro, mainline and shunter locomotives.

A world-wide supplier providing a one-stop destination for zero-emission railway tools & equipment, including battery locomotives and locomotive haulage equipment.

Offering the most comprehensive range of battery locomotives on the market, available from 1.75 to 150 tonnes, the company 'lead the way' in offering low emission, environmentally friendly rail locomotives.

Since 1931, we have been a forward focused company, continually striving to build innovative locomotive solutions that propel us confidently into the future.

Case study

How Battery-Diesel Hybrid Locomotives Are Paving The Way For A Greener Future

Environmentally friendly, 90-tonne, hybrid locomotives are currently shunting around the rail tracks at UK industrial operations.

The Class 18 CBD90 locomotives manufactured by Clayton Equipment Limited, have 'zero emissions, low noise, low maintenance and ease of operation', running primarily on a lead acid battery which is charged up using a diesel engine battery charging system or on-site electrical supply.

With a maximum speed of 20kmph and a fuel tank capacity of 800 litres, the loco's axles each weigh 22.5 tonnes with the capability to pull 2,500 tonnes.

Testing the Class 18 loco's performance as part of its decarbonisation strategy to enhance sustainability and reduce carbon emissions, GB Rail freight through Beacon Rail has added four new electric Class 18 Hybrid+ shunting locomotives to its fleet.

The trial team analyse its operations looking at its efficiency, reliability and the potential reduction in maintenance costs.

Developed by Clayton Equipment, the 90 tonne Bo-Bo locomotives are equipped with an on-board battery, which can be charged by the engine or an external three-phase electric supply and by regenerative braking. They also feature a diesel engine that meets EU Stage V emissions standard, contributing to their overall environmental performance.

In a fast-changing environment with decarbonisation targets, the increased demand for lower emissions, new technology and more capacity, the Clayton Hybrid+ CBD90 will support GBf with sustainable environmental benefits which meets their commitment to invest in new technology and provide real cost savings.



Member



Website: compositebraiding.com

Contact: enquiries@compositebraiding.com

Key Words: Sustainable, Net-zero, Lightweight, Composites, Beams, Poles, Tubes, Infrastructure, Cost-effective, Recyclable

Composite Braiding

Our technology applies to both rail vehicles as well as infrastructure. At the centre of what we do is the world-leading production of highly automated advanced composite components capable of doing the work of steel but at much lighter weight. This is delivered at competitive costs from low to very high volumes. Our award-winning technology does all of this with materials that can be recycled, re-used or

repurposed. We typically use 95% less energy to make those parts. This all adds up to cost-competitive, sustainable components that will help deliver your net-zero carbon footprint targets.

Our technology is particularly suitable for lightweight structural tubes, poles and beams.

Case study

Grab poles are typically mild steel. A composite grab pole can perform the same job but at 60% less weight. This delivers many carbon footprint benefits. However it can take a few hours in the oven to make one. We can deliver the light weight but have developed a multi award-winning process that allows us to

consolidate one of these grab poles in under 5 minutes. We also use 98% less energy than standard processes and have materials that are recyclable or re-usable. We are transforming the composites market. What's more we are similar in cost to a steel pole.



Member



Website: datum-patterns.co.uk

Contact: composites@datum-patterns.co.uk

Key Words: Composites, Fireproof, Reverse Engineering, Fibre Glass, Tooling

Datum

Datum are a well-established manufacturing business leading in the supply of Phenolic GRP / GRP products into UK Rail. Our roots in the supply of Pattern & Tooling mean we offer a genuine full turn-key solution for clients.

Operating from a custom built 25,000sq.ft facility operating up to a 24 hour shift pattern we are able to effectively service clients nationwide

and with established links to the Department for International Trade, we can go well beyond if required.

The Company is ISO 9001:2015 accredited and practices a well-developed Parts Approval Process` (PAPs) ensuring the quality outcomes our global OEMs expect.

Case study

It is not possible to encapsulate Datums breadth in a simple one off Case study.

We can manufacture new parts / existing parts / obsolete parts from CAD data, 2D Drawings, reverse engineering or even a sketch on the back of a fag packet.

We manufacture all tooling in-house and throughout manufacture there is one point of contact for our clients - we also support this element of supply with full scanning inspection technologies.

We have a very strong and well established, proven supply chain to enable us to go above and beyond Composites in our supply offering.

From a full Train toilet UWC assembly to a simple litter bin, from a Cab Front sub-assembly to a PIS display cover in a variety of Composite materials and process` including Hand-lay / Hot press / Cold press / RTM / Vacuum forming we can meet your needs.

From a prototype, to a pre-series run to full series production - 1 offs to 1000s off, from Micros to the global OEMs and ROSCOS, we will turn your concepts into reality.



Premium Member



Website: deutschebahn.com/dbesg

Contact: enquiries@dbesg.com

Key Words: Digital Engineering, Digital Manufacturing, 3D Printing, Obsolescence, 3D Scanning

DB ESG

DB ESG Is a specialist provider of rolling stock engineering solutions for UK rail. Our world-class experts have been delivering consultancy services to the sector for almost 30 years. We have developed an enviable reputation for customer focused delivery.

We are part of DB Systemtechnik (DB ST) and together we form one of the largest rolling stock

consultancies in Europe. We are the route to market for DB ST's products and services.

We are a UK manufacturer, leading our sector with our digital manufacturing service, using computer aided processes such as 3D scanning and 3D printing to produce railway parts.

Case study

Our pioneering Digital Manufacturing (DM) service is used to address component supply issues and solve engineering problems. We have already designed and manufactured thousands of parts for the UK rail sector.

We have 3 different workstreams within our DM offering - solving obsolescence, creating components to solve engineering problems and 3D scanning. Each of these have new and exciting use cases daily.

Project Example - A rolling stock maintainer needed to improve the cleaning efficiency of a PU heatsink and reduce the cleaning time. The current process required around 4 people and took 6 hours per PU, involving removal of the PU from the vehicle and separate planning for each vehicle side. DB ESG 3D scanned the in-situ PU to determine potential mounting locations and designed custom duct shrouds that could be

installed without PU removal. Prototypes were 3D printed and trialled to assess the functionality and fitment. Further design improvements and material refinements were made to improve durability. The final rigid elastomer shrouds now allow the maintenance task to be completed in approximately 30 minutes per PU, using only 1-2 people and eliminating the need for PU removal.

If an operator, manufacturer or leaser have any rolling stock component issues then it is worth approaching us to determine whether our DM service could solve this problem quickly and cost effectively for you.

We conduct all relevant railway compliance assessments, ensuring our parts meet all necessary industry and European standards, including fire safety.



Member



Website: dellnerpolymer.com

Contact: john.alden@dellnerpolymer.com

Key Words: Bushes, Trunnion Bearings, Rubber to Metal, Suspensions, Anti Roll Bars

Dellner Ferrabyrne

UK-based designer and manufacturer of rubber-to-metal products for rail vehicle bogies. Products include various primary and secondary suspensions, linkages and associated bushes and an array of trunnion bushes and bearings.

Also, designers of complete anti-roll bar systems for similar applications. We overhaul these and traction centres and are first tier suppliers to

most of the major train manufacturers and overhaulers.

We have a well-equipped test area to validate our designs and we design and manufacture our own tooling in-house. All design work is carried out using the most up-to-date computer software.

Case study

A customer supplied Dellner Polymer Solutions with detailed product specifications together with a request to develop and validate two new designs to satisfy their requirements. These were both within our SFX (Sferraflex) range of products.

Upon receipt of the customer's drawings and performance specification, we produced our own manufacturing drawings and performed in-house stiffness testing using sophisticated computer software. Prototypes were then physically tested in-house for radial stiffness.

Once finalised, the products were fitted to a vehicle bogie for in-service trialling and, after a suitable period in service, were removed and retested. Although the stiffness had reduced (as expected) it was still relatively stiff when compared with our competitor's products. This meant we had increased the service life of this product.

Both bush types are now being fitted in overhaul programmes to replace the obsolete bushes, and in the last 12 months we have manufactured and supplied over 400 of one type and over 1,000 of the other.



Member



Website: diamondrail.co.uk

Contact: info@diamondrail.co.uk

Key Words: EN15085, Drivers Seats, Refurbishment, Powder Coating, Paint, Turnkey, Kitting, Interior

Diamond Rail Services

Diamond Rail Services are a business based in Ecclesfield, Sheffield. On our site we complete seat refurbishment for the UK Rail Industry and find solutions for train interiors. We deliver projects all over the UK from Glasgow to Plymouth and have teams on customer sites that complete projects to enhance the customer experience by enhancing train interiors.

Our team are dedicated to a professional service and supporting customers and stakeholders. Service offer includes Rail passenger and driver seat overhaul and spare parts, painting and power coating of parts, procurement and kitting management and full interior refurbishment project management. Our SME is flexible in approach and cares about the service to all stakeholders.

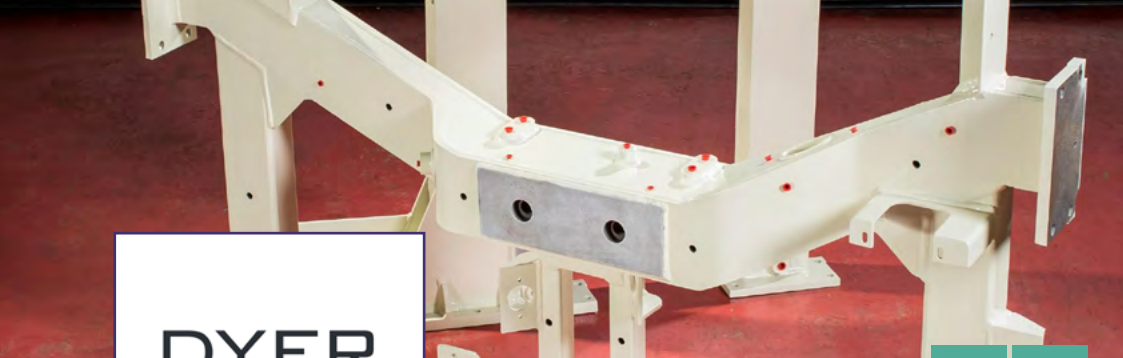
Case study

Diamond are completing the interior refurbishment of High Speed 1 for Hitachi Rail and South Eastern at Ashford Depot in Kent. The scope includes a full interior repaint, toilet floor modification, new floor coverings, complete seat refurbishment, new labelling throughout and the labour provision and project management to complete this turnkey project. The team at Ashford and Sheffield work collaboratively to ensure great performance and quality for this project.

There are 29 6car trains being complete, and 1 train is complete in a 3 week downtime. The project is on time and on budget and the stakeholder praise of the Diamond approach is exemplary. This work being complete by an SME is unique and Diamond have delivered cost savings for their customers with their innovative approach to labour planning.



Map



Member



Website: smarterstrongertogether.com

Contact: enquiries@dyer.co.uk

Key Words: Metal Components, Metal Structures, MRO, Engineering Partner

Dyer Engineering

Dyer Engineering is a global partner to industry leading OEMs in the rail industry. Based in County Durham, we solve complex engineering challenges, guiding clients through their product

development journey. Leveraging our 47 years of expertise, we specialise in the manufacture of machined metal components and fabrications to further advance the global rail industry.

Case study

Rail Car Production - Diesel Engine Mounting Frames

A global rail Original Equipment Manufacturer (OEM) partnered with us for the production and maintenance of diesel engine mounting frames. The project was part of both a first-stage manufacturing initiative and an ongoing Maintenance, Repair, and Overhaul (MRO) programme.

For the manufacturing process, we produced a suite of mounting frames and supporting brackets precisely according to the client's design. The frames were built to meet strict schedules, emphasising the importance of timely deliveries. The production process involved laser cutting parts, utilising jigs for welding and assembly, followed by finish machining. Each frame was then blasted and painted for durability and aesthetic appeal.

In addition to production, we are actively involved in the client's fleet MRO programme, which is ongoing. The frames are removed from service as part of scheduled maintenance, inspected for any wear or damage, and shot-blasted to remove coatings. We conduct a full dimensional inspection and non-destructive testing to ensure their structural integrity. Necessary repairs are completed on-site before retesting, repainting and returning the frames to service. A detailed condition report is provided to the rail operator, ensuring operational reliability. This MRO programme ensures that frames are returned to service quickly, while maintaining high safety standards.

Our comprehensive approach to both production and MRO ensures that the client's diesel engine mounting frames remain durable with minimal downtime and consistently meet operational demands.



Member



Website: eliteprecast.co.uk

Contact: sales@eliteprecast.co.uk

Key Words: All-Lines Open, Adjacent Lines Open, Rail Track Safety, Rail Barriers

Elite Precast

Manufacturing precast interlocking blocks, walling, barriers, service protection, drainage and construction products, Elite Precast has established relations with Network Rail, National Highways, housebuilders, contractors and builder's merchants, delivering to civil and infrastructure projects, including HS2, major motorways and commercial and private schemes.

With 100% of products made in the UK, we manufacture long-lasting, recyclable, or reusable products, complying with relevant codes of practice and legislation. This helps customers with their sustainability targets and requirements, whilst ensuring product quality.

We emphasise excellent customer service, fast deliveries, quality products and trust to safeguard the needs of our customers and their stakeholders.

Case study

Providing a safe platform for any line open

To minimise the impact on operational rail lines, it has become common practice to carry out construction, maintenance and renewal activities while leaving adjacent lines open to rail traffic. However, this can only ever be done without risking the safety of rail workers.

"The dangers associated with working with rail lines open to traffic cannot be underestimated and should only be embarked upon in accordance with the highest of safety standards" said Owen Batham, Sales Director at Elite Precast Concrete.

"Our Legato blocks have proved useful to the rail industry, for constructing walls and creating solid barriers between open rail lines and those being replaced, thus avoiding all line blocks by allowing adjacent live link working,"

added Owen. "Most importantly, this solution is keeping those working safe."

An example of their success includes engineers delivering the Cardiff Area Signalling Renewals Project when a wall was created using the Elite blocks to provide a solid barrier between open lines and those lines being replaced.

The project involved the installation of two new sets of points to form a crossover on the mainlines, with vital track works needing to be completed prior to the planned East of Cardiff Signalling commissioning, complicated by a lack of access. The railway involved was a four-track stretch of railway.

Owen continued "We are very proud to have helped with both the safety of the workforce and the completion of the works ahead of schedule."

PEPA-F™ filters for HVAC systems



Member



Website: filtrationcontrol.com

Contact: carl@filtrationcontrol.com

Key Words: Filters, Air Filters, HVAC

Filtration Control

Filtration Control LTD (FCL) is a leading UK manufacturer and distributor, specialising in HVAC air filtration and components, serving a wide range of industries, including rail, bus, automotive, commercial, and industrial

sectors, providing top-tier solutions to meet the demands of our global clientele. Our market-leading HVAC filter range, PEPA-F is certified to EN45545-HL3.

Case study

A new client approached FCL to improve dust extraction for a large manufacturer of rail grinding machines.

The customer requested improved air quality for driver comfort and safety in the cab of machine, due to the high number of particles entering the cab through the HVAC system.

The project involved designing and building a filtration solution to meet the demanding high dust environment.

The main filtration media was selected based on its ability to filter out fine dust particles and hold them within the filter media without restricting the air flow.

A composite foam prototype was manufactured and tested in our on-site TOPAZ ALF114 laboratory to ISO16890. The data was then communicated to the customer with a test report proving the filter met their requirements. This was then trialled on the system, ensuring it worked to the end customer's satisfaction.

The result is the new client has now placed scheduled orders of these filters for their application.



Member



Website: flotecindustrial.co.uk/rail

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Key Words: Hydrostatic Hoses, Abrasion Resistant Hose Covers, Track Maintenance Machine Upgrade

Flotec Industrial

Loughborough-based Flotec is a trusted and leading supplier of reliable hose and engineering solutions to the rail rolling stock and track maintenance markets.

Products include the Railtec branded hydrostatic hose, Gates cooling hoses and abrasion resistant covers plus variable pitch fan DMU engine cooling technology and train fleet battery chargers.

Case study

Loughborough-based Flotec, a leading supplier of reliable hose and engineering solutions to rail, is helping to keep the London Underground moving.

With 402 kilometres of track and annual passenger numbers equating to around 1.35 billion, it is essential that the London Underground runs as smoothly as possible.

With its specialist knowledge in the overhaul and upgrade of on-track maintenance machines, Flotec was recently approached by Swiss firm Matisa to help improve the efficiency and performance of one of its B45D tamping vehicles, used specifically on the London Underground lines.

The Matisa B45D tamping machine was in situ at the Worksop-based Harry Needle Railway Company (HNRC) train maintenance depot for a scheduled overhaul.

When it came to the inspection and commissioning of the equipment's hydraulic hosing, Flotec was

called in to assess the vehicle's state-of-play.

As an official Gates Hydraulics Distributor, Flotec got busy replacing the existing hoses with a market leading product. Gates hydraulic hoses are tested to above industry standards meaning that they have been proven to last three times longer than other product alternatives.

When considering the arduous working conditions encountered by track maintenance machines, Flotec ensures to install official Gates abrasion resistant hose coverings as part of its upgrade process.

Time was also spent routing the machines replacement hoses in such a manner that they would be less prone to a ballast strike when in operation.

The tamping machine upgraded by Flotec has recently completed its first high priority maintenance shift on the London Underground.



Member



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Key Words: Climate Resilience, Electrification, Overhead Line Equipment, Innovation, Decarbonisation

Furrer+Frey GB

Furrer+Frey are the experts in the development, innovation, and manufacturing of public transport electrification. We are an engineering company like no other - a dynamic team of engineers, consultants, and project managers backed by almost 100 years of Swiss railway engineering excellence combined with Midlands manufacturing.

We have 6 key systems that support growing passenger rail, rail freight, and urban transport: Rigid Overhead Conductor Rail Systems, Conventional Overhead Lines, Light Rail Systems, Tram Systems, Moveable Conductor-rail Systems, and All-in-One Rapid Charge Stations for Battery Vehicles. All our systems come with our low-carbon manufacturing in the Midlands.

Case study

In partnership with Nexus Tyne and Wear Metro, we looked at how their electrification renewal could be carried out in the most low-carbon and efficient way. A system built in the 1980s with falling reliability and new rolling stock with increased power demands meant Nexus required a new, reliable electrification system. Furrer+Frey worked with Nexus to develop a new system that was lighter than their current equipment which meant that existing structures

could be retained and only the electrification equipment was renewed. This considerably reduced costs and lowered the embodied carbon of the renewal. Furrer+Frey then undertook a carbon review to create the most carbon-efficient manufacturing methods. The project saved 216,000kg of carbon or the equivalent of driving 4.7x from the Earth to the Moon.



Member



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Key Words: Co2, Air Quality, Passenger Comfort

Grinsty Rail

At Grinsty we have more than 75 years' experience delivering solutions in Rail Electronics and Interiors. Grinsty Rail has the capabilities to fulfil your most demanding requirements. If you require out-of-the-box, remote condition monitoring, crash proof data recorders, passenger comfort, air quality monitoring or custom engineering to support lifetime extension, our team backed by Rail industry accreditations will have the solution for you. Trusted to deliver Mission critical on-board and track-side systems

for major UK Train operators, Leasing companies and system integrators, Grinsty knows what it takes to support your solutions from conception through FTON, Certification and into service. Grinsty Rails' UK based facilities and teams are fully equipped to deliver Overhaul, service, design and manufacture of Rail approved Sustainable solutions.

Enquire now to see how Grinsty can help on your next project.

Case study

Grinsty has developed a true wireless passenger comfort module, which monitors the passenger environment on the train. The device records: CO2 (Carbon Dioxide), Light, Vibration, Humidity and Temperature. This data can then be used to determine the perceived passenger (or driver) experience and therefore improve passenger comfort - a key factor for franchise operators is to improve efficiency management of the environment and predictive asset failure such as a heater or HVAC unit. Reduction in energy use is also possible by only recirculating the air when required, saving thousands of pounds as well as the wider benefit on the environment.

The unit is powered by special industrial grade batteries and WiFi enabled which gives a true

wireless and compact solution. This highly configurable device allows users to remotely adjust the sample rate per their application needs, providing flexibility and freedom for future data needs. The unit can be fitted to all types of rail vehicles DMU's, EMU's, Trams and Locomotives.

The data is reported in near real-time to a cloud-based server where the data can be used by any system as the solution is software agnostic. With access to data, train operators can build a better understanding of the customer they are serving and identify the needs of their specific audience.



Pushing Performance
Since 1945

Member



Website: harting.com/en-GB

Contact: salesuk@harting.com

Key Words: Jumper Cable, Connectors, Cabling, Electrical, Electronic, ETCS, Power, Data, PIS

HARTING

HARTING is a leading supplier of electrical, electronic and optical connectivity technology for the transmission of data, signals and power.

Their products meet all rail-related specifications for rolling stock, including shock, vibration and performance related to fire standards. They supply interior and exterior cable and device connectivity solutions for the transmission of high-current, control and data. Applications

including traction control, network cabling for ETCS, PIS and Wi-Fi.

HARTING produce and test project-specific jumper and cable assemblies. Their Northampton facility holds ISO 9001 certification for Quality Management, the ISO 14001 Environmental Standard and UL certification for Wiring Harnesses ZPFW2 / ZPFW8.

Case study

A powerful, secure data network is an essential cornerstone of rail technology. Not only do passengers demand high speed internet, functions relevant to the train itself, including seat displays, passenger information systems and CCTV, mean larger bandwidths and interference-free transmission is essential.

To enable this communication, trains and railcars need an efficient network infrastructure. Inside, carriages are equipped with network cables and jumper cables provide the data flow between the vehicles.

One example of a successful expansion of data networks in the railway sector is the Porterbrook project. Porterbrook leases rail vehicles to railway operators, so it's essential that modern, high-performance Ethernet cabling is installed in their vehicles.

Porterbrook Engineering explains: "Our requirement was to provide high-performance Ethernet. The pain point was 2 x 10 Gbit backbones, both using ring topology networks, which needed to be fitted into one jumper cable and into another environment with limited space. The Han-Modular® Hinged Frame in combination with the data transmission modules and the M12 connector are the ideal solution for this application."

The Han-Modular® series offered a versatile solution for the project. The Han® Gigabit module enables Ethernet transmission of Cat. 6A or Cat. 7A, to ensure future-proof data delivery. At the same time, all the relevant requirements such as resistance to shock and vibration and 360-degree EMC shielding are fully met. Thanks to its robustness, this module is particularly suitable for jumper cable connections, where they achieve high data and power transmission rates per space unit.



HellermannTyton

Member



Website: hellermanntyton.com

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Key Words: Cable Identification, Cable Ties, Cable Management, Cable Protection, Cable Insulation

HellermannTyton

HellermannTyton is a global manufacturer of products for fastening, routing, installing, connecting, insulating, protecting and identifying electrical and data cables for both rolling stock and rail infrastructure projects. We offer a portfolio of parts that meet and exceed requirements of the EN 45545-2

We operate two manufacturing sites in the UK. A wide range of injection moulded products are

manufactured at our Manchester site, ranging from cable ties to complex parts for industry-specific, or individual customer applications.

The focus of operations in Plymouth are extruded cable management products, heat-shrinkable tubing and shapes and a range of identification systems.

Through working with the customer's engineering teams, there was part of the install that needed a new approach to cable management. HellermannTyton design team were able to support with a new innovative solution to attach cable. This was designed and tested in the UK, and once approved for use on the railway, was manufactured in Manchester.

HellermannTyton are manufacturers of cable management, identification, and protection products. With manufacturing, distribution and design and development capabilities throughout the UK, our team of Rail experts are ready to help with your next project.

Case study

Working with a major infrastructure Tier 1 contractor

HellermannTyton worked with the customer's engineering and technical authorities to understand the project requirements and scope of work, HellermannTyton were asked to advise on a package of products that met the needs for use on the railway for Identification, cable management and protection products. HellermannTyton commercial and technical teams supported the technical approval process with the authorising body and provided supporting documentation and additional testing using our in-house laboratory test facilities.



Member



Website: hfsindustrial.com

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Key Words: Fasteners, Vibration Resistance, Cost Reduction, Corrosion Resistance, Permanent Joint, Structural

Howmet Fastening Systems

Howmet Fastening Systems are well known for developing and engineering innovative value add fastening products for a range of markets, including Rail. Our fastening brands include Huck; original developers of the first Lockbolt and first structural blind rivet.

The Huck® fastening system is designed to meet the demanding needs of permanent way applications, offering you confidence when

fastener failure is not an option. With quick and easy installation, you can increase your productivity and reduce labour costs. A simple visual inspection confirms that the installation was successful and once installed there is no need to tighten, just fit and forget!

Case study

We were approached by a well known UK rolling stock manufacturer who was facing a joining challenge within a heavy vibration structural framework for rolling stock.

The key issues they were experiencing was fixings becoming loose over time, resulting in excessive maintenance and removal of rolling stock from service.

Following extensive discussions with our knowledgeable UK based engineering team, it was decided that the issues could be resolved by applying our Bobtail 2-piece lockbolt.

The additional benefits to the manufacturer was this enabled an improved assembly time, supported by a vibration proof, permanent fixing method resulting in minimized maintenance costs.



Premium Member



Website: hubner-group.com/en

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Key Words: Gangways, Gangway Doors, Coupling Systems, Sealing, Articulations, Bellows, Material Solutions

Hübner UK

Wherever people are traveling by rail, Hübner products will be found playing a key role - connecting, sealing or cushioning as required.

Hübner have made outstanding developments in the production of high-performance gangway systems. We are the global leader in this area. In addition to gangway systems, Hübner also provides chassis components for railway cars,

entry systems for trams and cockpit display systems for rail vehicles.

Hübner UK is here to provide the very best service, local to you. Our team have an in-depth knowledge of the UK market and the challenges that we may need to support you through.

Case study

Situation: A customer approached Hübner UK for a quote for a fleet change out of the inter vehicle bellows. The contract was very late and deadline much closer than the normal lead times.

Task: Replacement of inter-vehicle bellows

Action: Hübner UK have delivered a recent gangway replacement project in less than 10 weeks from contract receipt to the full quantity being delivery.

Result: This meant that our customer was able to deliver a pre-planned overhaul on time to the final user.



Premium Member



Website: hydrum.co.uk

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Key Words: Aluminum, Steel Fabrications, Luggage Racks, Location Cases, ISO15085-2, EN 17460.

Hydrum Engineering

Hydrum is one of the UK's leading Sheet Metal Fabrication Companies, based in County Durham UK. The privately owned company has been supplying powder coated fabricated metal products and fabrications to a broad range of industries for over 47 years.

Providing metalwork components, including aluminium panels for exterior bodywork, interior trim panelling, tubular steel fabrications

for hand poles and luggage racks, to the railway rolling stock, bus and coachbuilding industries for over 15 years.

Hydrum also manufactures a variety of metal cabinets and metal enclosures for many industries, from heavy-duty railway trackside signaling equipment location cases, to panels and brackets.

Case study

Since 2013, Hitachi Rail has spent over £1.8bn with UK suppliers, including with local company Hydrum Engineering.

Hitachi Rail's success with the Intercity Express Programme (IEP) - supplying new fleets for the East Coast and Great Western Main Lines - has helped to create a supply chain of over 1,400 individual suppliers. This includes over 130 suppliers directly in the North East - close to the manufacturing facility in Newton Aycliffe, County Durham.

Hydrum Engineering has worked successfully with Hitachi Rail to enter the rail market in 2016, winning a contract to supply over 1,500 components and assemblies. The majority of components supplied by Hydrum for the IEP are for the carriage interiors, including hand poles, painted interior panels and various bracketry and exterior under-floor assemblies - quality

products, many supplied to a class 'A' surface finish. Railway quality standards include ISO 3834-2 Welding Standard, BS EN 15085-2 CL1 ECWRVC Welding Standard & EN 17460 / DIN 6701 standard for adhesive bonding in rail industry.

Hydrum's employees are proud to experience the trains during both the production process and then again as passengers - seeing how the parts they are responsible for make a real difference to millions of people each year travelling on Hitachi rolling stock.

Hydrum collaborated with Hitachi Rail as a partner and has supported business growth, whilst developing new talent through a successful apprentice scheme.



Premium Member



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Key Words: Stepoc, Access Staircase, Dry Laid System, Labour Savings

Ibstock - Anderton Concrete

Ibstock's Rail & Infrastructure specialist brand Anderton Concrete combines rail troughs, signal bases, platform copers and other products for infrastructure - all harnessing the latest in concrete technology to minimise embodied carbon without compromising performance.

We manufacture solutions that are low carbon and, at times, highly bespoke to meet the requirements of our customers.

Case study

The Stepoc system from Ibstock is being used to great effect by Neary Rail, which has just completed the installation of a GRP Access Staircase on a site adjacent to farmland in Hapton, Burnley.

The Stepoc system is supporting the Access Staircase which was specified to enable rail maintenance workers to safely cross the railway lines. This Design & Build Project was delivered with the assistance of SEP Rail Design, with topographical Surveys carried out by SEP Rail Services.

Neil Cross, Ibstock National Sales Manager commented: The Stepoc system makes it possible to build almost anywhere and therefore it was an ideal solution for Neary Rail."

"Stepoc is a dry laid system and is therefore very quick to install just requiring the blocks to be placed on top of each other and then concrete poured in to create a reinforced wall. It enables the fast construction of single skin retaining walls of up to four metres high, subject to a design carried out by a structural engineer."

"One of the major benefits it offers is labour savings of between 20 and 30 per cent that can be made. No specialist skills are required in the installation process - so general site labourers can do the work."

"The only preparation work needed is to build a base to put the Stepoc on."



Member



Website: infotec.co.uk

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Key Words: Passenger Information, LED Display, TFT Display, RGB Display, CIS Display

Infotec

Infotec produces an innovative range of IP65 rated, IP addressable LED, TFT and RGB displays for all environments both on and off vehicle featuring full remote programming, self-diagnostics, asset and content management and the ability to handle all industry standard protocols over WAN, LAN, Ethernet, Internet, wireless or serial communications.

Historically 80% of Infotec's business has come from the UK rail market but increasingly, other sectors are opening up and it is active in the on-vehicle, bus, road, underground, air and multimodal transport wherever information has to be presented to the public.

Case study

The Elizabeth Line required bespoke Platform Screen Door (PSD) displays to fit into the glass partitions on the platforms that separated passengers from the track. These doors were supplied by a third party with whom Infotec liaised throughout the design and build prototyping. Infotec's in-house mechanical engineers had to overcome challenges that arose from the limited space available, cost-effective mass production of over 500 units, sub-surface compliance and thermal management that comes with enclosed

environments. Our in-house engineers were also responsible for the presentational aspects of the displays as well as the integration with the data providers systems. All displays were designed and delivered on time and on budget. The displays have now been running successfully on the Elizabeth line network since its opening back in the Spring of 2022.



Member



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Key Words: Braking Systems, Train Control Management Systems, HVAC Systems, Entrance Systems

Knorr-Bremse Rail Systems (UK)

Knorr-Bremse Rail Systems is a leading supplier of braking systems and other safety-critical rail vehicle systems. With a commitment to innovation and sustainability, the company provides advanced solutions for both passenger and freight trains. Their product range includes braking, door, and HVAC systems, ensuring safe

and efficient rail operations. Headquartered in Melksham, Wiltshire, Knorr-Bremse Rail Systems UK is part of the global Knorr-Bremse Group, renowned for its engineering excellence and dedication to enhancing rail transport safety and reliability.

Case study

Alstom, a leading rail manufacturer, needed a state-of-the-art brake control system for their high-speed train fleet in Sweden. They had previously relied on Knorr-Bremse's CubeControl system for various global projects.

Alstom required a braking system that could optimize performance based on multiple variables, such as passenger weight distribution, and integrate seamlessly with other train systems.

Knorr-Bremse provided the latest generation of the CubeControl brake control system. This system integrates electropneumatics, mechatronics, smart software, and data to enhance braking performance and dynamics. Key features include Brake Disc Temperature Monitoring, WheelGrip Adapt, and Deceleration

Control (DCC). These innovations enable condition-based maintenance and reduce braking distances, even in low-adhesion conditions.

The new CubeControl system improved braking performance and reliability, helping Alstom's high-speed trains operate more efficiently and safely. The system's advanced features, such as Reproducible Braking Distance (RBD), further optimized train operations by making braking distances more predictable. This project demonstrated Knorr-Bremse's capability to deliver cutting-edge rail solutions, reinforcing their position as a key supplier in the rail industry. Deliveries for this project are scheduled from 2024 to 2028, marking a significant milestone in rail technology advancement.



Member



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Key Words: CIS, Passenger, Screens, Display, BSL

LB Foster

Our performance-critical engineering solutions fulfil an essential role in maintaining the safe and reliable operation of rail and air networks around the world.

LB Foster is a manufacturer and supplier of cutting-edge engineering and digital communication technology solutions for the rail, including: Friction Management, Control and Digital Displays complete with Inform Media, Contract Services, Engineering Design, and Remote Condition Monitoring Solutions.

Case study

South Western Railway has been supported by LB Foster across its portfolio. The two companies have collaborated on a Friction Management wheel flange lubrication retrofit on the Island Line fleet, and also in introducing technology to enhance passenger access to information at stations, focusing on improving the quality, relevance, and usefulness of information.

LB Foster delivered 42 Inform Mobile Totems, equipped with Inform Software. The Inform Mobile Totems display Enhanced Customer Information, allowing passengers to access up-to-date information about their journeys, any disruptions, and live status of routes.

Key features: Enhanced Customer Information: Real-time updates on travel information; Self-Help Functionality: Passengers can independently access the latest information at their fingertips; Mobile Totems: Designed to operate without fixed power or communications infrastructure, providing flexibility in deployment.

This innovative solution significantly improves the passenger experience by ensuring that crucial travel information is readily available, enhancing both convenience and accessibility.

"The 42 Inform mobile totems installed across the SWR network are an important part of our customer service, providing critical travel information where it's needed. The team at L.B. Foster were great to work with, taking the time to understand our exact needs and producing bespoke software functions to enhance the journey experience for our customers. The combination of a mobile, wireless, battery powered digital display and powerful Inform Media software has delivered over and above our expectations. Having these Inform totems in our stations is enabling us to deliver high quality communications to our customers."

Christian Neill - SWR Customer Experience Director



Muirhead.
Fine Scottish Leather

Member



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Key Words: EN45545, Passenger Seat Covers, Sustainable, British Made, Genuine Leather

Muirhead

Muirhead manufacture genuine leather 100% in UK for the rolling stock sector. Installed on many operators across the globe as specialists in EN45545 with on site full seat fire testing. Market leading warranty with UK projects including Virgin, Mersey Travel, Avanti, GWR

South Western Trains and London North Western. Options for all seat manufacturers. Hygienic, durable and simple to maintain, lowest carbon sustainable leathers from Muirhead.

Case study

Muirhead regularly supply the UK rolling stock sector from Scotland in the case of new trains and refurbishment. During 2024 we were very happy to support Diamond Rail Services Ltd in supplying our lowest carbon genuine leathers for refurbishment projects into both South Western Railways and London North Western Railways. For SWR our Rockall coloured material was cut

& sewn into seat covers and for LNWR Diamond also manufactured the First Class headrests in our Pewter material on the Siemens 350 units. Muirhead leather can also be found on the passenger seat headrests of the new Stadler 777 EMU sets at MerseyTravel.



Member



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Key Words: CNC Turning/Milling, Quick Release Fasteners, Sub-Contract Machining, Quality Certified ISO9001

Mulraney Components

Mulraney Components Ltd, your supply chain provider for your engineering, JIT or Kanban requirements.

With over 100 years' experience in metal component manufacture, engineering & assembly work, we are the one stop solution for all our customers' requirements.

We provide CNC turning & Milling services to all industries in all major materials to the rail

industry. We also offer Assembled components service and we are ISO9001 approved.

We having our own branded product 'Oddie® Fastener' - quarter turn fasteners are the cost-effective solution to fastener requirements.

One of the strongest, quickest and most reliable solutions to panel fastening. www.oddie-fasteners.com

Case study

Mulraney Components (MCL) have their own brand called 'Oddie® Fastener'. A rail refurbishment company approached MCL asking if we could provide a special fastener that allowed their product to be locked in place and remove by a quarter of a turn when maintenance was carried out.

MCL Oddie range of fasteners have a forged 'Spring Return Fastener' which fastens to our Oddie Tolerance clip, allowing a secure fit, plus addition of a Neoprene rubber washer which removes any vibration and reduces noise.



Member

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Key Words: Rubber, EN45545-2, BR568, BS6853, NFF16-101, APTA130, DIN 4102, UL94-V0



Nufox Rubber

Nufox are a specialist rubber manufacturer. We have years of experience working within the rail industry and our engineers and technical experts work with an extensive range of materials. We work to and comply with EN45545-2, BR568, BS6853, NFF16-101, APTA130, DIN4102, UL94-V0 and other national and international fire safety standards. Our core capabilities

are precision extrusions, gaskets, seals, mouldings, fabrications, diaphragms, bellows, inflatable seals, glazing and door profiles. We have our own in-house tool making facility and can reverse engineer or manufacture bespoke products from client concept to prototype production development.

Case study

Rail Refurbishment Programme

A client approached us to replace the various rubber seals in the carriages as part of a refurbishment programme.

The Problem: The rubber seals were aged and had lost their capabilities, resulting in draughty windows and doors and excessive noise in the carriage, impacting passenger comfort.

The Solution: Nufox Rubber reverse-engineered the various profiles based on samples taken from the carriages, prepared

a new series of drawings, and then produced samples for fit and function. We used the latest compounding technology to ensure compliance with current regulations and improved performance. Where applicable, seals were redesigned to accommodate the constant friction and distortion experienced in service, thus extending their longevity.

The Result: The train provided had draught-free carriages, with rubber seals compliant with the latest regulations and a longer lifespan.



Member

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Key Words: USB, Socket, At Seat Power, A+C, C+C, EN45545-2, Compliant, Approved



OE Electrics

OE Electrics Ltd design and manufacture innovative at seat socket and USB power solutions at our state of the art production facility in Wakefield, West Yorkshire, UK.

The OE Range of products are fully Railway Approved for installation into Passenger Vehicles.

The unique and patented TUF-R USB is front removable, saving maintenance time and cost,

Case study

From our Head Office and Manufacturing facility in Wakefield, United Kingdom, OE Electrics Ltd work with a number of global Tier One Suppliers within the Train Interior and Train Seating and Tables market, to design and manufacture bespoke or retrofit power solutions for At Seat, Under Seat, On Table, In Table, Train Side Wall applications.

In 2021, OE Electrics Ltd designed UK 3 Pin Socket and TUF-R USB Solutions for the on table power requirements for the Class 390 Pendolino Refurbishment Project.

In addition, OE provided the under table TUF-R USB modules to power the in table Wireless Chargers.

Keep passengers powered up with intelligent, at-seat charging solutions.



without the need to isolate the power.

The TUF-R USB variants are available in A+C or C+C configurations, and AC or DC powered.

The OE Design, R&D, Technical and Manufacturing Teams are all based here in the UK.

British Products for British Trains.

The OE Design, R&D and Technical Teams have also worked with tier one suppliers to produce Socket and USB Power Solutions for the CAF MK5 Coach Refurbishment Project and the recent Hitachi Train Build Project.

OE also work with UK and European Train Builders. OE have Tram Driver Cab socket and USB power solutions as well as the High Power A+C DC USB module for Driver Cab Desks on High Speed Train Builds, all manufactured here in the UK.



Member



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Key Words: Coupler Capsules, Side Buffers, Buffer Stops, Energy Absorption, Anti-climb Units

Oleo International

Oleo International provides crash energy management solutions and services to the rail industry. Over 1,000,000 Oleo hydraulic and deformation impact energy absorbers are in operation around the world; meeting the requirements for higher levels of protection for passenger and freight rolling stock and operating requirements.

This knowledge and expertise has led to Oleo being market leaders in the design, manufacture and overhaul of Couplers, Anti-Climbers, and Side Buffers for Rolling Stock. Within infrastructure, Oleo's globally approved Buffer Stop range enables cost effective solutions to maximise depot and station space without compromising on safety.

Case study

Brief: Oleo was commissioned to design and manufacture a hybrid two stage emergency buffer for the Stadler Flirt project, operator Keolis Rail which could be mounted directly onto the car structure with minimal rear protection.

Solution: Using our in house simulation software and testing equipment it was possible to develop an emergency buffer which uses deforming element "one-shot" technology both in series and in parallel with the traditional gas hydraulic solutions. This achieved the client's goal of 382kJ impact energy absorption.

Hybrid gas-hydraulic /deformation tube absorption systems overcome each-others shortcomings resulting in a compact unit which offers a reversible and non-reversible stage giving:

- A very efficient and resilient unit during normal operation.

- Excellent crash protection at velocities sufficient to activate the deformation tube.

Brief: To install new buffer stops on Platforms 2 & 5 in Baker Street Underground station, within the existing space envelope.

Solution: The units supplied were based on the Oleo industrial Type 730, 3m stroke buffer. These units were designed for this application with specific metering pins housed in 5 individual capsules in a series of tubes.

Due to space constraints in the tunnels and the installation site Oleo used small portable cranes with great precision to ensure that there was no damage to the Grade 2 listed wall. Once the hydraulic cylinders had been installed the client embedded these with concrete.



Petards Rail
intelligent train technology

Member



Website: petardsrailsolutions.com

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Key Words: CCTV, ASDO, CSDE, Pantograph, Passenger Counting, Analytics, Condition Monitoring, Data

Petards Rail

Petards is a global provider of intelligent train technology. With the largest base of on-train CCTV systems in the UK, we are at the forefront of driving digital innovation to enhance safety and elevate customer experiences within the rail industry.

Our commitment to excellence, combined with a passion for innovation. We don't just meet

today's challenges, we anticipate and overcome tomorrow's hurdles. Our team works in close partnership with clients to deliver bespoke train solutions tailored to their needs. Drawing on decades of experience, we have cultivated a wealth of specialist skills and expertise that sets us apart.

Case study

October 2020 saw Petards awarded a contract, worth in excess of £1.3 million by Porterbrook, for the supply of its eyeTrain systems to be fitted to 19 off Class 769 Flex trains, which are the UK's first tri-mode trains, capable of running on overhead and third rail electric lines as well as under their own diesel power. The trains will be operated by Great Western Railway and were due to be introduced on services running between Reading and Gatwick during 2021.

The contract was to:

- Supply DCO & ASDO System for 19 Trainsets
- Responsible for the delivery of the Test Wall
- Provide associated spares
- Provide engineering services, comprising of design, build and installation. We worked on the exact specification with the client, against

which a product specification was produced and the build commenced against that.

The project was awarded in October 2020 with a rapid project schedule requiring delivery of all equipment, in one drop, in just over 4 months following contract award.

The entire project was delivered during COVID 19 pandemic with Petards and Porterbrook required to adapt to the restrictions in order to deliver to the rapid project schedule.

The project was delivered on time and on specification in February 2021 by Petards. This is a true example of how Petards eyeTrain systems can be rapidly deployed to meet our customers' requirements.

<https://petardsrailsolutions.com/porterbrook-class-769>

Member

Website: wilkesengineering.co.uk

Contact: info@wilkes-engineering.co.uk

Key Words: Locks, Hinges, General Engineering, Budget Locks, Bespoke, Safety, Security, Latch

Samuel Wilkes Engineering

Wilkes Engineering specialises in the design and manufacture of bespoke lock and hinge systems, with over 150 years of experience in the Rail Industry.

Our products are specific for rail vehicles all over the world, where reliability, safety critical and high security features are primary requirements.

Our range includes locks for cab doors; cab

back wall doors; interconnecting doors; panels and ceilings; as well as emergency access and egress devices, hinges, and many similar products.

We also manufacture and supply many general engineered products that support our specialist ranges, enabling us to offer a 'one stop shop' solution.

Case study

Samuel Wilkes Engineering were recently approached by a client within the rail industry, to design, develop, and manufacture an Emergency Access Device to be installed externally on their rolling stock coaches.

Initially, we worked with the client to produce a specification for this product. This included how the device was to interact with other train systems, functionality, dimensional interfacing, materials, and required finishes.

Once the specification had been agreed, our design team, using 3D CAD software, produced an initial design proposal which was submitted to the client. After a few small design changes had been incorporated, the final design was submitted to the client for their approval.

Following design approval, we provided our client with a detailed quotation along with our arrangement drawing for the device.

Upon receipt of the client's purchase order, we proceeded to manufacture and assemble the Emergency Access Devices at our purpose-built factory, based in Walsall.

Prior to dispatch, each device was fully tested to ensure it operated and functioned in accordance with the specification.

If you have a requirement for a specialised locking system, hinges, or any other similar or associated product, please get in touch and talk to our technical engineering team.

Member

Website: sherwoodaluminium.com

Contact: sales@sherwoodstainless.co.uk

Key Words: Aluminium Extrusion, CNC Machining, Powder Paint, Assembly, Welding

Sherwood Stainless & Aluminium

Sherwood offer fully finished components and assemblies from aluminium extrusion. We can offer low CO2e aluminium extrusions, machined and finished to the requirements of rolling stock and infrastructure projects, participate in closed loop recycling schemes for refurbishment projects.

UKs largest suite of long bed 3/4/5 axis machining centres enabling the machining of extrusion lengths up to 11.5m if required.

Case study

With the refurbishment of the class 390 train carriages our client was completely changing the interior seating configuration. As a result all the existing floor capping extrusions had to be replaced with similar, but slightly different, parts. By choosing to work with Sherwood, we were able to reverse engineer a new extrusion die to still interface with the non-changed underfloor parts, and to match the anodising to the other aluminium trim in the cars. We were then able to use our state of the art programmable saws to produce the 46 individual part lengths

optimising the yield from each long length "bar". We were then able to CNC and construct the 20 different kits of parts, suiting the 9 car or 11 car, standard or first class layouts. By using our metal purchasing and stocking experience, we were able to deliver the kits at a weekly rate to match the refurbishment, having purchased the aluminium under contract to ensure the client was protected from metal price fluctuations during the 24 month program.



SIEMENS

Premium Member



Website: [siemens.com](https://www.siemens.com)

Contact: gareth.speak@siemens.com

Key Words: Overhaul, Traction Components, HVAC, Fan Systems, Cooling Pumps+

Siemens Mobility

Facility for the overhaul and maintenance of Rolling stock components including, Gearboxes, Traction Motors, HVAC units, Fan systems, cooling oil and water pumps plus several other

projects. We carry out work for both our own Siemens fleets as well as 3rd party fleets.

Case study

Situation: Thameslink scheduled fleet Overhaul

Task: The overhaul of the Thameslink Gear Units, Traction Motors, Brake Resistor Fans and Inverter Radial Fans.

Action: To submit bids for all of these projects to the Thameslink fleet.

Result: By successfully demonstrating our capabilities to Thameslink, for example, being one of the only companies in the country that can overhaul and then load test a Gearbox. We successfully won the bids for all four of these projects. Work commenced upon successful completion of our move from our old facility in Leeds to our new one located at the Goole Railway village. This was to overhaul a total of 2200 gear units and Traction Motors, 1200 Brake Resistor Fans and 1700 Inverter radial fans.



SIGNAL
HOUSE
GROUP
LIMITED



Premium Member



Website: [collis.co.uk](https://www.collis.co.uk)

Contact: sales@collis.uk

Key Words: Structural Steelwork, Rail Infrastructure, Steel Fabrication, UKCA Execution Class 4, Precision Machining,

Signal House Group

Group of Engineering companies, primarily involved in the design, manufacture and on-site installation of fabricated, structural steelwork. We also offer a varied machining capability.

We are a Network Rail Principal Contractor.

Collis Engineering is our Design and Fabrication business. We hold UKCA Marking up to EXC 4, Constructionline Gold, and a range of RISQS approvals.

Collis Civil Engineering are our experienced on-site presence, undertaking lineside works including foundations, installations, troughing, and many other site services.

Signal House Ltd manufacture LED Rail signals and offer a complex sheet metal working service.

Case study

HS2 Long Itchington Wood TBM Thrust Frame and Launch Ring

Collis Engineering Limited were engaged by the Balfour Beatty Vinci Joint Venture as part of their construction works on the tunnels as part of their construction section for HS2. Collis Engineering was to manufacture and deliver the structural steel work for the "TBM Thrust Frame and Launch Ring". This was a heavy steelwork infrastructure project with a total supply of over 64 Tonnes of steel. These are the Launch Rings for the TBM machines used on the project.

Collis Engineering held a vital role in the design discussion to manufacture these in the most advantageous way for transport and to reduce waste in line with our environmental commitments.

All work was carried out in line with Collis Engineering procedures and quality management system.



BUILDING TRUST

Premium Member

Website: sika.com

Contact: constructionsolutions@uk.sika.com

Key Words: Rail Fixings, Concrete Repair, Structural Strengthening, Flooring, Adhesives & Sealants



Sika

Sika® has a deep understanding of the industry's unique challenges and our technical experts have developed world-leading products to overcome issues such as limited possession and fire risk.

Sika® offers innovative rail track installation solutions designed to withstand a wide variety of exposures and conditions. Sika's® comprehensive support spans every stage of

railway projects, reflecting our expertise in grouts, elastic joint sealing, and adhesives for embedded rail tracks. And not forgetting our infrastructure capability around concrete repairs, corrosion management, roofing, flooring and structural strengthening.

From tracks to trams and tubes to tunnels, Sika® has your rail infrastructure covered.

Case study

Sika® keeps Edinburgh Trams on track

Sika® rode to the rescue when Edinburgh Trams needed to replace its faulty embedded rail joint sealant. Discovering the replacement part had a long lead time, the tram operator instructed contractor Markon to approach Sika® for a speedier solution.

Having worked with Sika® for years, Edinburgh Trams knew that not only are Sika's® products fit for purpose but also that site support and training in their correct application are included as standard.

Given the tight timescale to complete the job, Sika® recommended Sikaflex®-406 KC, a one-part, self-levelling, elastic joint sealant with high mechanical and chemical resistance, in this case to diesel. Designed for elastic joint sealing between rails, rapid and homogeneous curing throughout the entire sealant was accelerated by adding Sikaflex®-406 KC Booster.

As the tram rail is in daily use, timing was critical. The repair was completed over two nights in May, between the hours of midnight and 4.30am, avoiding service disruption. Beforehand, Sika® provided full training in the product's application to contractor Markon at Edinburgh Trams™ Cogar depot. This covered how to remove the failed sealant, prepping and priming the affected area, correct mixing of the new sealant and pouring the resin into place.

It was critical the network reopened on time so in line with Sika's® high standard of aftercare, a Sika® representative was present on-site on both nights to assist and advise.

As a Sika guaranteed solution, Edinburgh Trams is assured that Sikaflex®-406 KC will last for many years, maintenance-free.

SSCS

SIRIUS SUPPLY CHAIN SOLUTIONS

Member

Website: SiriusSCS.co.uk

Contact: adam.hobday@siriusSCS.co.uk

Key Words: Laser/Waterjet, Press Braking, Weldings/Fabrication, Assembly, EN15085-2/ISO3834-3, EN1090, ISO14001:2015revE/Iso9001:2015/AS9100revD, NADCAP, RISQS



Sirius Supply Chain Solutions

UK-based designer and manufacturer of rubber-to-metal products for rail vehicle bogies. Products include various primary and secondary suspensions, linkages and associated bushes and an array of trunnion bushes and bearings.

Also, designers of complete anti-roll bar systems for similar applications. We overhaul these and traction centres and are first tier suppliers to most of the major train manufacturers and overhaulers.

Case study

Established to meet the growing demands of the UK manufacturing sector, Sirius SCS offers bespoke, engineering-focused solutions that allow clients to concentrate on value-added activities while leveraging Sirius' extensive capabilities.

With deep roots in manufacturing through its parent company, Sirius A Corporation, and Sirius Manufacturing Group who operates seven strategically located manufacturing facilities across the UK. Boasting over 100,000 sq/ft of production space and decades of expertise in the Rail, Automotive, and Aerospace sectors, Sirius is well-positioned to provide flexible and innovative supply chain services.

Sirius SCS' solutions include vendor consolidation, bespoke kitting solutions, and

We have a well-equipped test area to validate our designs and we design and manufacture our own tooling in-house. All design work is carried out using the most up-to-date computer software.

design-for-manufacture support, helping clients streamline processes and reduce costs. Additionally, their line-side stocking and engineering process development support optimize production efficiency, ensuring continuous operation. The company's six standalone manufacturing sites provide built-in risk mitigation, offering unparalleled reliability to their clients.

One of Sirius SCS' key strengths is its local approach, with facilities strategically spread across the UK to address customers' regional needs. By combining specialist manufacturing and supply chain expertise, Sirius SCS has become a trusted partner for UK manufacturers, ensuring that every solution is tailored to fit the specific demands of the industries they serve.



Member

Website: structuralfabrications.co.uk

Contact: SKang@structural-fabrications.co.uk

Key Words: Structural Steel, Manufacturing, Walkways, DDA Handrails, Lift shafts, Bridges, Walkways



Structural Fabrications

Structural Fabrications Ltd offer an all-in-one solution including design, consultation, manufacture, installation and maintenance of projects from our headquarters in Derby. We deliver a full range of steelwork services for

customers in a variety of specialist industries including cladding, waterproofing, lift shafts, bridges, canopies, walkways, Kingspan and Kalzip products.

Case study

Project Highlight: Coventry Railway Station

Structural Fabrications Ltd (SFL) successfully completed a major project at Coventry Station, delivering a full suite of design, engineering, and construction services.

Scope of work including:

Tekla 3D Modelling: Advanced structural modelling to ensure precision and efficiency.

Steelwork Fabrication and Installation: 400 tons of steelwork, meticulously manufactured and installed.

Lift Shafts: Construction and cladding of 3 lift shafts, complete with flashing.

Double-Span Glazed Bridges: Installation of 2 double-span glazed bridges.

Access Stairs: Fabrication and installation of 3 access stairs.

Canopy Extensions: Large extensions of 3 canopies.

SFL was responsible for all steelwork, cladding, GRP works, DDA handrails, single membrane waterproofing, and flashings across the entire project. Our dedicated in-house team, including PTS staff, executed every aspect of construction.

Through value engineering, meticulous planning, and strategic procurement, SFL maximized value and minimized project costs. Our commitment to excellence and efficiency ensures that every project we undertake meets the highest standards.



Member

Website: tbmrail.com

Contact: neilsmith@tbmrail.com

Key Words: CET, Toilets, Grab Poles, Nylon R-AG+, Fabricated Parts



TBM (Train Bits & More)

TBM offers a comprehensive and trusted range of cost-effective products and services to support UK train and bus operators. Our experienced team combines in-depth knowledge with a drive and commitment to deliver outstanding passenger comfort services. We offer a wide variety of services, ranging from seat cover cleaning, fabric protection and CET

tank overhauls, to nylon coatings for carriage fittings and door sensor switches. With qualified operatives located at our Crewe base and at locations around the country, TBM is a flexible partner that delivers fleet solutions that help the country's rail fleets keep passenger services running efficiently.

Case study

Southern Railways issued TBM a challenge to find a rail approved coating system for grab poles and grab handles on their 377 3 / 4 & 5 vehicles which will withstand today harsh transportation world from knocks and chips to scratches which is found to be a common issue with polyester powder coat.

Using our extensive network of suppliers and TBM knowledge and experience of rail vehicle standards we were able to find a solution for Southern Railways that meets EN45545:2. We also worked with Southern to meet the critical turnaround times with this project and manufacturing key float set of poles and grab handles which helps negate the risk of late deliveries.

Working in partnership with our supplier we supplied a solution to chip poles and unsightly scratches, Nylon R-AG+ which is 14 times more wear resistance than standard polyester it provides good resistance to graffiti and the chemicals used to remove it. + represents its anti-microbial properties which inhibits the growth of microbes such as bacteria and flu viruses.

Nylon R-AG+ will save you money on a full life costings basis over polyester powder coating by the reduced refurbishment costs due to the durability of the Nylon R-AG+ proven to last over 20 years in service as proven with Bombardier Built CI220 vehicles.





Premium Member

Website: tecforce.co.uk

Contact: sales@tecforce.co.uk

Key Words: Welding, Corrosion, BSEN15085, Engineering Solutions



Tecforce

Tecforce are a welding organisation that specialise in corrosion, fatigue and vehicle modifications all supported via our range of accreditations. To name a few: RISAS, RISQS,

ISO9001, ISO3834 all bolstered by one of the widest BSEN15085 welding ranges in the UK, which help our offsite services to our clients and allow them to achieve our deadlines.

Case study

A number of leading ROSCOS and TOCS approached Tecforce to manufacture Class 15X Gangways (leading and intermediate).

The dilemma we faced was that there were no drawings available for our team to use.

Our in-house engineering department reverse engineered the Gangways enabling

a set of drawings to be created to help with the manufacture.

Tecforce were also given the opportunity to manufacture the Gangways and have been doing so for a number of years securing programmes across the UK.

These Gangways were manufactured in our Workshop by our experienced team.



From basic to
complex wiring
and harnesses
we've got you
covered

www.time24.com



Member

Website: time24.com

Contact: sales@time24.co.uk

Key Words: Intercar Jumpers, Control Cabinets, Cable Harnesses, Relay Panels, Electro-Mechanical Assemblies



Time 24

Time 24 Limited is a leading electromechanical contract manufacturer in Europe, specialising in the rail industry with over 35 years of experience. Time24 products, including control systems and

wiring harnesses, are utilised in over 30,000 rail carriages, reflecting their commitment to quality and innovation in the field.

Case study

Time 24 Limited stands as a cornerstone in the rail sector, especially in wiring and electromechanical assembly. Over the past three decades, we have played a crucial role in the advancement of numerous rail ventures throughout Europe. Our proficiency excels with the wiring and build of electro-mechanical assemblies, and we have installations on more than 30,000 rail vehicles, mirroring our dedication to excellence and innovation.

We are proud of our substantial workforce of over 250 employees across locations in our Head Office (UK) and the Czech Republic. Our strategic sites enable us to deliver cost-efficient solutions while upholding the highest quality, as evidenced by our IRIS certification. Our engineering team excels in adapting to change, customizing each project to the evolving requirements of the rail sector.

Our portfolio is a testament to our capabilities, showcasing partnerships with major rail endeavours like the Victoria Line, Northern Line, and Crossrail. Our role in the Crossrail project is particularly significant, involving the supply of advanced cable assemblies for the new Elizabeth line trains in London, in addition to the cabling and systems for the platform screen doors. This project alone underscores Time 24's ability to manage extensive, intricate projects in both Rolling Stock and Infrastructure domains, all while maintaining an outstanding quality track record.

Time 24 Limited's input to the rail industry is characterized by a rich history, strategic positioning, and unwavering commitment to quality. Our involvement in key European rail projects solidifies our status as a leading entity in electromechanical contract manufacturing.



Member



Website: trackelast.com

Contact: rail@trackelast.com

Key Words: Rail Pad, Baseplate Pad, Ballast Mat, Baseplate, Switch & crossing

Trackelast (Tiflex)

Trackelast specialise in the manufacture of resilient track support materials and other components which are designed to reduce ground-borne vibration from rail track.

Our products include rail & baseplate pads, ballast mats, platform & gap filler and specialist baseplates to name a few. They are approved by many major rail authorities in the UK and across the globe.

Case study

The Kings Cross fire disaster occurred on November 18, 1987. The fire caused 31 deaths and was made worse by flammable materials used in the station construction. Another contribution to the fire was the grease and litter that had collected beneath the steps.

In light of this, it became clear that specialist care must be taken into the selection and design of materials used in underground applications. Previously used materials such as wood and plastic are highly flammable therefore unsuitable for certain applications.

In response to this issue, Tiflex/Trackelast developed our FC650 fire retardant material via our in-house R & D team. This material is compliant with LU Standard 1-085 (Fire Safety Performance of Materials) and is now used for various applications including; insulator

pads for DC electrification systems, slab track gap sealing strips and our bespoke RSD's (rail storage device) amongst others.

These products were subsequently approved for use by many rail authorities including London Underground and Network Rail.

These products are now used in many global situations where fire safety is paramount. Notable cases include the Doha Metro where our slab track gap sealing strips are fitted. These have been fitted to significantly reduce the risk of fire by not allowing rubbish to build up between the slab and tunnel wall.

Our RSD's are also used extensively by London Underground. These are used to store new rail in the tunnels prior to fitting, so it is essential they are fire retardant.



Premium Member



Website: trainfx.com

Contact: sales@trainfx.com

Key Words: LED/LCD Displays, APC, CFA, Real Time Services, Eddy Current Testing.



TrainFX

Providing bespoke, turnkey and on-train solutions including, passenger information systems, crew comms, call for assistance, CCTV, seat sensors and passenger counting, metal flaw detectors from Accuspect serial products for rolling stock and rail infrastructure.

TrainFX provides in house training, support, repair and maintenance services for all its systems.

- Monitor passengers between First and Second Class compartments as well as boarding and alighting the train.
- Provides real time loading data.
- Designed to integrate to TrainFX Side Destination Displays providing passengers waiting to board the train with visual indication of available space in a carriage.

Case study

PIS: The TrainFX passenger information system provides an end to end service

The TrainFX Crew communications System consists of crew communications control units and amplifiers providing controlled targeted communication to both passengers and crew.

MRCM: The real-time communications module (MRCM) provides location awareness of the vehicle through GPS, and real-time communications capability. This device connects to the TrainFX back office server which provides the train with up to date route configuration data.

Saloon Amplifiers: The TrainFX Saloon Amplifiers provide PRM TSI compliant audio messaging capability throughout the train. These messages are played in tandem with the text-based journey information displayed on our PIS saloon displays. These saloon amplifiers can also allow crew to make train-wide announcements from a handset in the cab.

Screens: Our new generation of Passenger information screens use High-Definition, LCD to deliver crisp text and sharp images which fit your branding look and feel.

Our screens are fully integrated with the passenger information system, display PRM messages as well as being able to support additional multimedia content.

Back Office: The centralised back-office consists of an application server provided as a managed service. It provides the capability to include operations, route planning and maintenance to interact with the system. The back-office also allows the user to track the fleet in real time.

Accuspect NDT Products: Accuspect, the intelligent, multi-frequency eddy current flaw detector adopts the most advanced FPGA and DSP digital processing technology to realise real-time, multi-frequency eddy current detection, which can effectively detect defects in metal materials.



Premium Member



Website: transportdesigninternational.com

Contact: info@tdi.uk.com

Key Words: Lightweighting, Net-Zero Vehicles, Manufacturing, RevolutionVLR, Very Light Rail, Electric-Battery, Infrastructure

Transport Design International (TDI)

Transport Design International (TDI) offers commercial transport solutions in Very Light Rail (VLR). It is an international market leader in lightweighting technology, focused on the design and manufacture of vehicles for mass transit solutions. These lightweight vehicles support zero-emissions battery solutions and operate on cheaper infrastructure. A VLR solution gives significant savings across the

vehicle build and supporting infrastructure, it offers rapid economic deployment and reduced operational costs.

TDI is a UK-based manufacturing company with over 30 years' experience, delivering more than 135 projects across the globe. Products include the award-winning Revolution VLR and urban vehicles, Lync and Orbit.

Case study

Transport Design International's flagship product, the award-winning, Revolution Very Light Rail (RVLR) vehicle, illustrates our commitment to innovation and building a greener future for the rail industry. Using the latest lightweight materials and battery technology, RVLR provides a more cost-effective, zero-emissions sustainable transport solution for rural and suburban communities.

The lightweight nature of RVLR means the vehicle has lower energy requirements, which allows for battery-only propulsion systems supported by rapid in-service fast charging technology at stations. Lightweighting enables the use of cheaper, less intrusive infrastructure which contributes to the bulk of project costs for any rail-based transit solution.

The vehicle is designed to revitalise poorly serviced branch lines and establish new rail connections, where traditional rail or tram solutions are not economically viable. It is an ideal solution for

routes linked to tourism, commuter traffic or residential and commercial developments, offering more affordable rail solutions, while addressing the increasing demand for zero-emissions mass transportation by 2050.

With significant cost savings across the vehicle build, infrastructure requirements, operational running and through-life asset management of RVLR, we are experiencing considerable UK and global interest in VLR technology.

TDI has a UK contract in place with Eversholt Rail to build RVLR Pre-Series vehicles for passenger trials in the UK from 2026. These battery-powered, fast-charging vehicles represent the next generation of rail transport, poised to decarbonise Britain's railways and support greater regional connectivity.

Contact us for more information of VLR technology and RVLR.



Premium Member



Website: [uniparttrail.com](https://unipartrail.com)

Contact: nicola.holt@unipart.com

Key Words: Materials Manufacture, Maintain Repair Overhaul, Design, Engineer, Manufacture, Obsolescence Management

Unipart Rail

Unipart Rail addresses the challenges of the rail industry across the asset lifecycle by working collaboratively with our partners to deliver technology and supply chain solutions that improve performance, reduce risk and optimise cost.

We're part of Unipart Group, a global business that brings together manufacturing, logistics

and consultancy in a set of products and services that create imaginative solutions for its customers.

We take a holistic approach to rail and work across infrastructure, signalling and rolling stock. We work with the full portfolio of rail customers including Operators, ROSCOs, Infrastructure Owners and Contractors.

Case study

Challenge: Network Rail's Capital Delivery team identified there was severe CAT 4 wire degradation within an REB (Relocatable Equipment Building) at London's Selhurst Depot.

This was unearthed during their routine maintenance activities and was quickly escalated due to the significant risk of potential signalling failures on the network controlled by the Selhurst REB.

The REB at Selhurst hadn't seen any design specification changes and the only drawings for the design of the REB were the original drawings dating back to 1987.

Solution: Through close collaboration with Network Rail an effective solution was reached.

The Unipart team understood the customers needs and limitations of the projects, quickly grasping the enormity of the project and with their decades of REB design & manufacture experience were able to work with the 1987 drawings supplied.

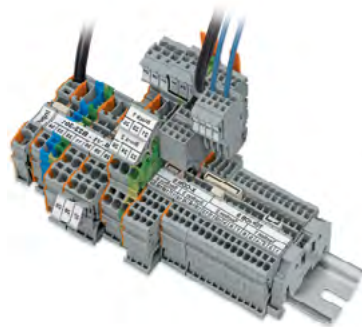
The manufacturing competency and integrity of the Unipart team ensured they were able to deliver a credible design for manufacture within the short 8 week lead time. They used the "red & green method for changes" process to manage design changes, ensuring new technologies replaced old and modern techniques were implemented.

Impact: 601 relays were re-serviced by Unipart's Relay team & delivered back for installation into the REB.

The team adapted the layout plan to ensure all the equipment racks were able to be installed with sufficient lighting.

On-site 3A verification testing within 3 weeks to ensure that the REB was successfully delivered on-time.

25KM of wire used within the REB where each wire was manually terminated.



Member

Website: wago.com/gb

Contact: uksales@wago.com

Key Words: Railway Automation, Electrical Connections, Maintenance Free, Cost Efficiency, Lighting Control



Wago UK & Ireland

Whether signal technology, railway vehicles or train stations, WAGO products can be used almost anywhere electricity flows or signals are transmitted and converted in the railway industry. It's not without good reason that operators, manufacturers and suppliers of railway and signaling systems count on WAGO. We have pioneered new electrical interconnection technology since 1977. It all

began by moving away from screws - and to spring pressure connection technology - to set standards in railway technology. WAGO was the first company to apply spring pressure technology to connect electrical conductors, to allow maintenance-free connections in Overground and Underground transportation.

Case study

WAGO worked with a large rail manufacturer in UK, to build and supply DIN rail assemblies and small cable harnesses for rolling stock applications.

The customer wanted a solution that would require minimal onsite installation to reduce their production costs, whilst reducing future maintenance costs. They chose WAGO as their supplier for delivering the solution as all our products use maintenance free spring clamp technology. We also provide expert engineering and design support plus we also have the capability to manufacture in our state-of-the-art factory based in Rugby, UK.

We collaborated with the customer through the full design process to understand the application. Our engineers worked closely with the customer

engineering team throughout the process and worked together on the final application solution which would use WAGO's products.

WAGO engineers based in UK, transformed these designs using our smartDESIGNER software, into 3D drawings. As these products were to be made bespoke for the customer, we had to use specialist equipment and manufacture them in our factory in Rugby, UK.

By producing the finished DIN rail assembly and small cable harnesses, offsite, the customer was able to reduce onsite installation costs, and by using WAGO's spring clamp connections, they gave their customer the added benefit of reduced future maintenance costs.



Premium Member

Website: aftermarket.zf.com

Contact: info.zf-services-uk@zf.com

Key Words: Bogies, Reverse Engineering, Dampers, Overhaul, Final Drive, Transmissions, Condition Monitoring



ZF Services UK

ZF Services UK has been trading in Nottingham for over 40 years overhauling and repairing gearboxes and transmissions for rail, automotive, marine, defence and commercial vehicle markets. In 2003 a dedicated rail shop was created in order to service the growing number of ZF final drives requiring overhaul in the UK market.

ZF Services UK now overhauls circa 150 rail transmissions and 550 final drives per year for a growing list of customers in the UK, mainland Europe and as far afield as Thailand. This covers all sectors of the rail market including light rail, passenger and freight products.

Case study

Irish Rail (Iarnród Éireann) were determined to improve efficiency and reduce emissions in its Class 22000 Hyundai Rotem Diesel Multiple Units (DMUs) fleet. With fuel accounting for two-thirds of the fleet's lifecycle costs, Irish Rail sought a solution to enhance operational efficiency and meet decarbonisation goals.

Irish Rail partnered with ZF Services UK and Rolls Royce MTU to repower the DMUs. The task was to upgrade the existing hydrodynamic transmission to ZF's EcoWorld six-speed powershift transmission. This new transmission, a result of the collaborative effort, promised improved acceleration, reduced noise, and significant fuel and emissions savings.

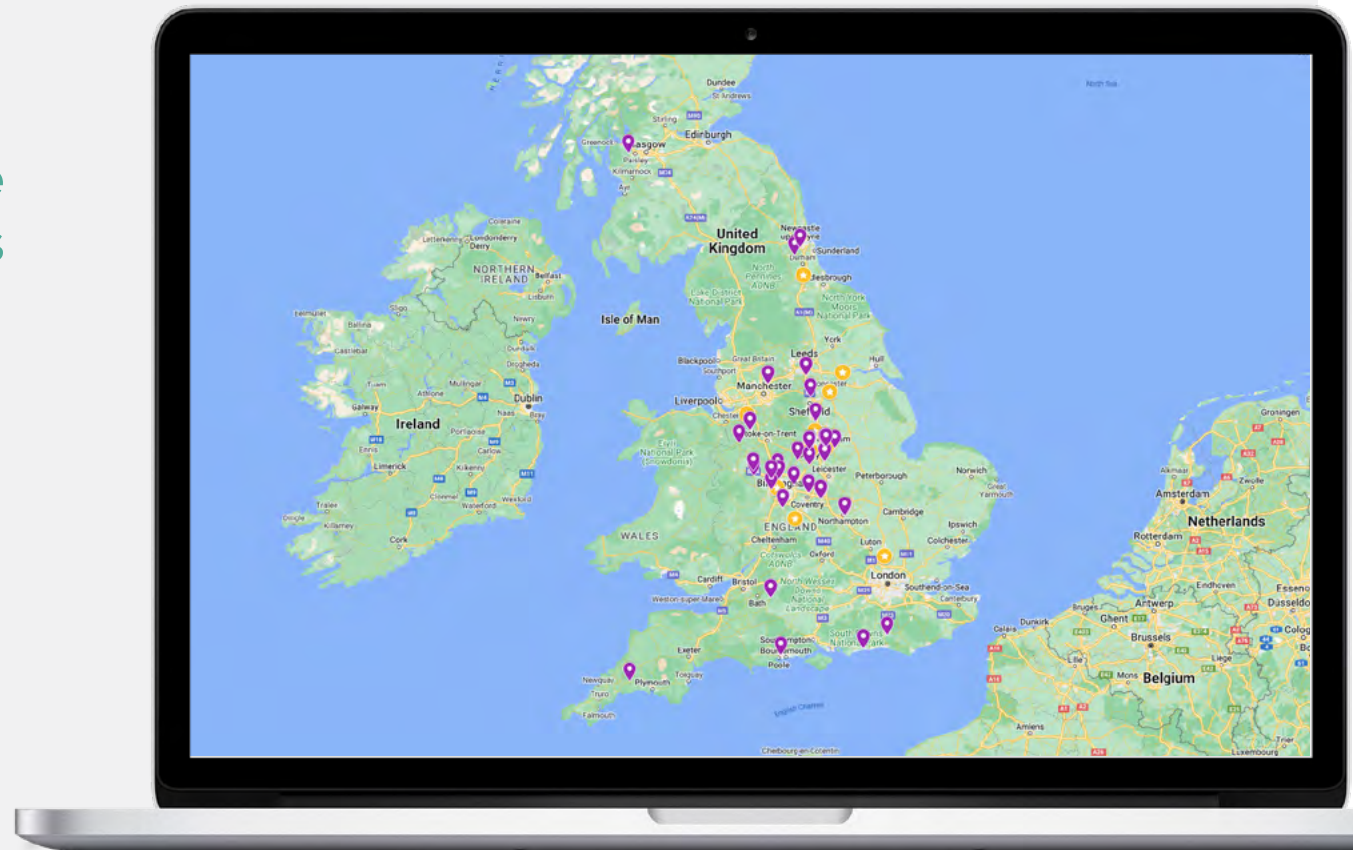
The ZF EcoWorld transmission, with its integrated reversing and coasting capabilities, underwent rigorous trial validation. The project

also included monitoring energy performance on different routes, such as Heuston-Portlaoise Commuter and Heuston-Cork Express.

Following the transmission upgrade of 3 units, Irish Rail achieved up to 20% fuel savings, this would result in €2 million in annual cost savings, reduction of 9,419 tonnes of CO2 and 3.5 million liters of fuel savings, if it was implemented across the fleet. The energy efficiency improvements were validated, confirming a 20.7% performance improvement on frequent-stop routes and 11.5% on express routes. ZF's repowering technology successfully future-proofed the fleet, enabling Irish Rail to meet its decarbonization targets.

Map Listings

Click on the map to visit an interactive map of the manufacturing members featured in this brochure



Premium Member



Member

MEMBERS MATRIX



▼ Company



▼ Capabilities

























Rolling Stock - Manufacturing, Parts and Maintenance

























	Battery Technologies										Body Shells										Bogie Components										Bogies										Brake Control										Brakes										Buffers and Anti-Climb Units										Cab Interiors										Compressed Air Equipment										Couplers										Crash Damage Repairers										Depot & Workshop Equipment										Doors & Door Mechanisms										Diesel Engines, Equipment & Components										Drawgear Equipment										Electric Traction Equipment										Electrical Collection Equipment										Electrical Systems & Cabling										Exterior Painting & Finishing										Galley & Catering Equipment										Gangways										Gearbox & Transmission										Glazing & Windscreen Systems										HVAC										Hydrogen Power Technologies										Lighting										Maintenance, Overhaul and Refurbishment										Manufacturing & Sub-contract Services										On-train Safety / Monitoring Equipment										Saloon Interiors										Suspension Components										Toilets										Underframe										Wheels & Wheelsets																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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A-Z Member Lookup

 Premium Member
 Member

 Rolling Stock
 Infrastructure

Akriveia	
Alfatronix	 
Atkore UK	 
BCM GRC	
Belvoir Rail	
CBE+	 
Cembre	 
Clayton Equipment	
Composite Braiding	 
Datum	
DB ESG	
Dellner Ferrabyrne	
Diamond Rail Services	
Dyer Engineering	 
Elite Precast	
Filtration Control	 
Flotec Industrial	

Furrer+Frey GB	
Grinsty Rail	
Harting	 
HellermannTyton	 
Howmet Fastening Systems	 
Hübner UK	
Hydram Engineering	 
Ibstock - Anderton Concrete	
Infotec	
Knorr-Bremse Rail Systems (UK)	 
LB Foster	
Muirhead	
Mulraney Components	
Nufox Rubber	
OE Electrics	
Oleo International	 
Petards Rail	 

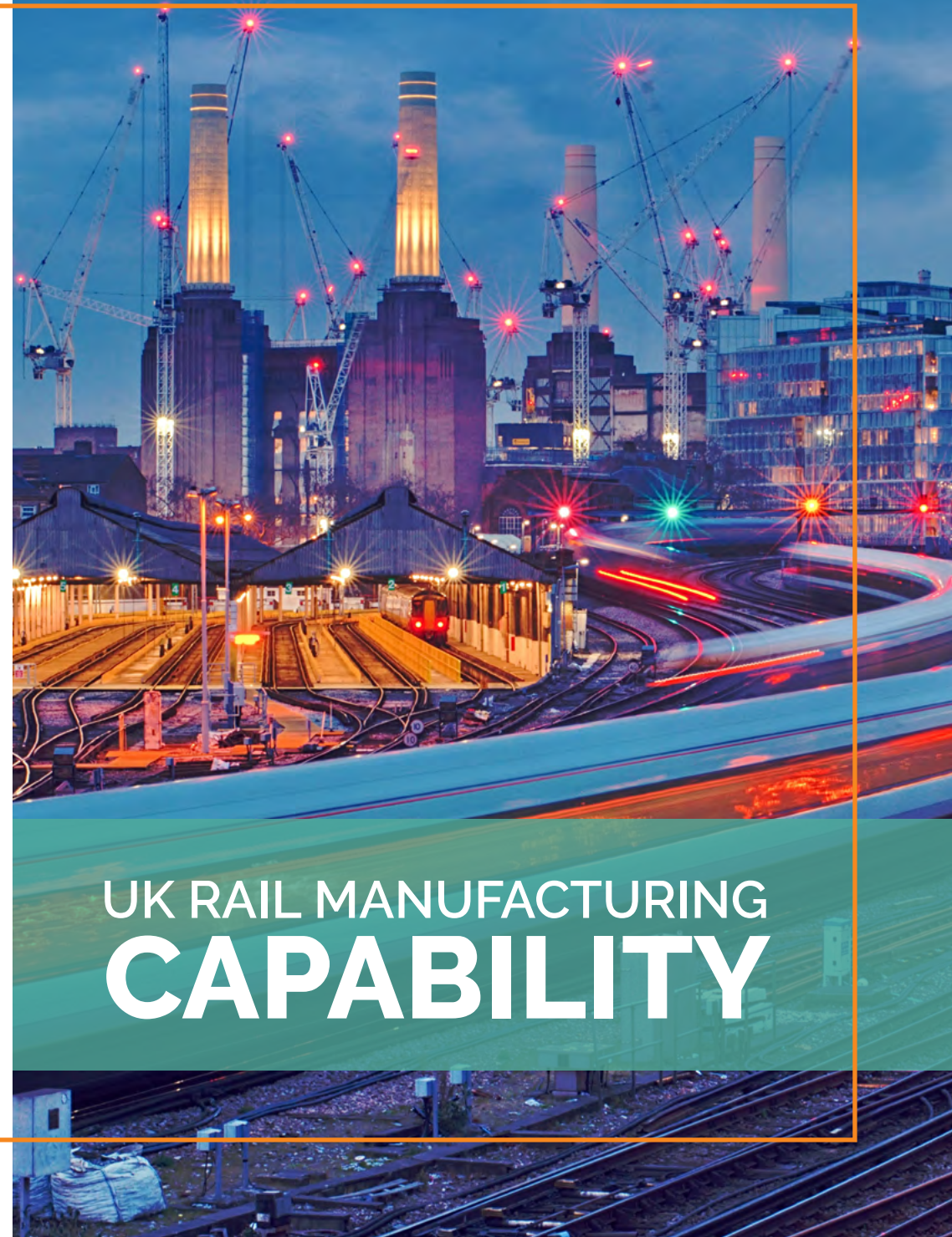
Samuel Wilkes Engineering	
Sherwood Stainless & Aluminium	 
Siemens Mobility	
Signal House Group	
Sika	 
Sirius Supply Chain Solutions	 
Structural Fabrications	 
TBM (Train Bits & More)	
Tecforce	
Time 24	 
Trackelast (Tiflex)	
TrainFX	 
Transport Design International (TDI)	
Unipart Rail	 
Wago UK & Ireland	 
ZF Services UK	





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UK RAIL MANUFACTURING **CAPABILITY**