



Manufacturing Services & Asset Management

Delivering excellence in safety-critical environments





Manufacturing

Unipart Rail designs, develops and manufactures an unrivalled range of equipment which is innovative, of high quality and performance, used within highly regulated, safety-critical industries - not just the rail industry. Our solutions are also delivered into the utilities and highways industries.

Underpinned by the Unipart Way, we deliver mechanical, electrical and optical solutions for our partners across the globe.

Our manufacturing services include:



Specialist component and systems manufacture

- from single items and large system components to entire complex system design, manufacture, test and delivery. If you require a solution designed from a concept or an existing system improving then speak to us.



Legacy manufacturing - sometimes suppliers go out of business or parts stop being economically viable to produce. If you're struggling to source a product or want to transfer a current manufactured part - talk to us. Not only do we manufacture discontinued parts... we improve them.



Offsite factory - major projects can be costly with time spent on site being charged at a premium and involving extensive safety precautions. The Unipart 'offsite factory' concept has been proven to deliver benefits and savings to our partners by completing as much of the manufacture and testing as possible within our manufacturing service centres, prior to the installation of the equipment on site, reducing the time and number of personnel needed.

Control panels, Distribution boards & Motor Control Centres

Unipart manufactures both standard and bespoke control panels, distribution boards and Motor Control Centres, to meet the requirements of our customers.

We specialise in working closely with our clients to fully understand their needs and support them from early concept stages through to successfully delivering and commissioning systems across many industries.

All products are built to suit the task at hand, including requirements for:

- Ingress protection up to IP65
- Wall mounted or floor standing equipment
- Cable entry and cable management designed for accessibility
- Full range of instruments and metering to customer requirements
- Fuse switch disconnectors, MCCBs and ACBs as required
- Integrated Renewable Energy & Storage solutions
- Intergrated Emergency Power systems - UPS and generators
- Automatic change over systems





Asset Management

Expert provision of ongoing support to better manage assets through their full lifecycle. Including:



Condition based maintenance (CBM) - using our experience with partners from Formula 1 racing, we are able to place sensors into environments where having advanced knowledge of a potential failure is vital. The 'on asset' sensors provide real-time data from critical areas of the asset to our cloud-based servers, where this is processed into actionable information and accessed via our secure web portal - Paradigm Insight.

This information can be used to drive predictive maintenance programmes for our partners. It can be further enhanced by incorporating our Condition Based Supply Chain (CBSC) service, where the advanced warning of component failure drives the delivery of replacement parts to our customers, just in time for the planned maintenance activities.



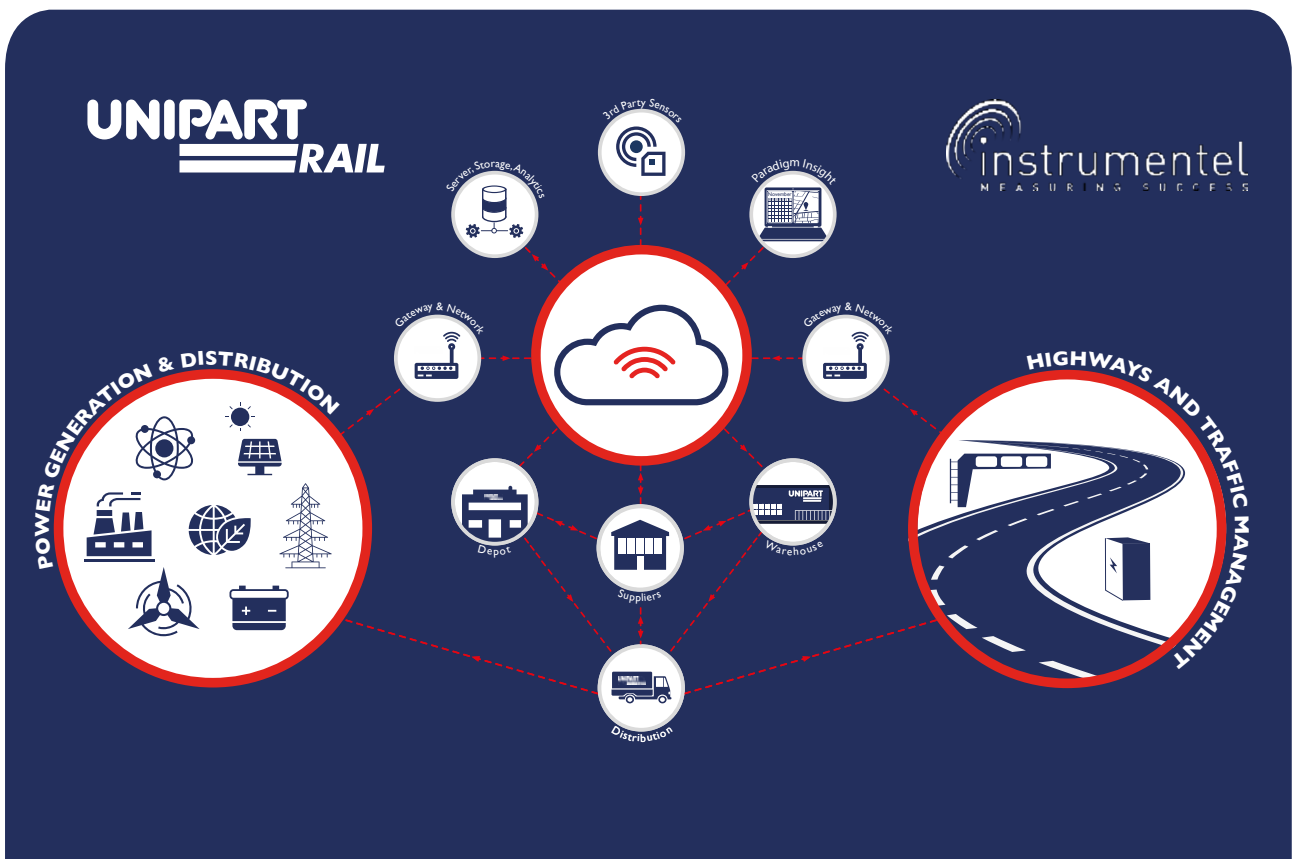
Repair and overhaul - our overhaul facilities breathe new life into our customer's equipment. We have the experience in refurbishing electrical, electronic, mechanical and hydraulic equipment, always ensuring compliance with current legislation and standards, providing a warranty against further failure.



Obsolescence management - we collaborate with customers and suppliers to manage obsolescence as part of whole-life monitoring or bespoke assessment.

A proactive approach that:

- Identifies risk products and mitigates current and future risks of failure in service
- Reduces through-life support costs by optimising reliability and availability
- Avoids expensive reactive obsolescence resolutions through early customer collaboration to identify risks and solutions
- Where replacement parts are required, we can reverse engineer products as well as develop and supply new and improved products, in fact we've resolved issues for over 500 obsolete parts.





Plug&Play by Unipart Rail

A collaborative solution to provide savings to our customers

Having personnel working alongside a railway track or a highway creates a significant number of risks and can be a costly aspect of a project.

Unipart has worked with partners, within the rail industry, to develop a solution to one aspect of on-site working that has been proven to deliver time savings of up to 80% and is now adopted as the industry-standard solution.

The installation of cabling on-site can provide considerable challenges including:

- Wiring diagrams to be studied and interpreted
- Large amounts of equipment are required to be identified and installed
- Systems must be tested and re-worked if necessary - requiring personnel with specialist skills to be available, which can cause projects to overrun and incur additional costs.



The Unipart Rail Plug & Play systems solution is an end-to-end solution for the fast, efficient and safe installation of multiple cables in any industry, reducing the time taken and removing the need for complex engineering and technical personnel to be on-site.

The solution includes the sourcing of the appropriate cable, pre-cut and terminated cables to defined lengths (up to 2km in length has been successfully provided), fully tested and certified by Unipart Rail in our manufacturing service centres. With keyed mating connectors fitted into the equipment enclosures, to prevent incorrect connections, it all just fits together on site, with no additional hard-wiring or testing required.

The equipment

Pre-terminated cable lengths & tails

Each cable length pre-cut to size with plugcouplers fitted and ready to install. Extension pieces and in-line connectors allow for longer lengths to be easily deployed.

New and existing kit can have coupled cable tails attached to enable fast installation and replacement.

Bespoke Cable Reels

The special Unipart Rail designed cable reels allow plug-coupled cables to be tested on-reel, and couplers are accessible for immediate deployment.

Equipment Enclosures

Unipart Rail has the expertise to build, wire, test and certify equipment enclosures incorporating PLC's, computers, CCTV, signalling control equipment, batteries, UPS with integrated Plug & Play solutions to enable rapid deployment on site.

Break Out Boxes (BoBs)

The Plug Coupler Breakout Box (BoB) is designed and manufactured by Unipart Rail to provide an on-site tool for testing Plug & Play cables, should the need arise for fault finding purposes.

Marshalling Boxes (one income to many outgoing) and Disconnection boxes (one incoming to one outgoing) are also available to make the site simpler and to enable fast change-out of materials.





The Benefits

Easier Installation

Removing hard-wiring and testing requirements means that the installation time is much reduced. This leads to:

- shorter possessions
- reduce manpower requirements
- less equipment on-site
- less down-time
- off-the-shelf component availability
- fewer control enclosures
- faster switch-out of vandalised or damaged materials

Worker Safety & Skills

Fewer staff on site, for less time and with less equipment means that the risk of injury is reduced. The reduced complexity of installations - including limited hard-wiring on site - means that less skilled labour is required on site. Pre-testing in the factory also reduces the skill levels required for project commissioning.

Reduced Costs

Everything about Plug & Play delivers lower costs. Overall Project costs are reduced through:

- Standardisation of component parts with replacements available off-the-shelf - reduced stockholding
- Reduced manpower costs
- Reduced risk of project over-run and fines
- Faster installation of new equipment and enclosures
- Faster switch-out of vandalised or damaged materials



Integration with other materials

The cable is just part of your project. Because Unipart Rail manages the entire supply chain for thousands of products, your cable arrives with all your other equipment - when and where you need it.

Need it all at once? **No problem.**

Need it phased across the project? **No problem.**

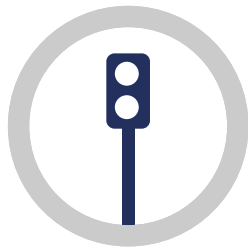
Need plug couplers on your cable? **No problem.**

Need cut-to-length? **No problem.**

Need leads and interconnects? **No problem.**



Overhead Line



Signalling



Power



Telecoms



LUL Cables



About Unipart

The Unipart Group is a leading UK manufacturer, full service logistics provider and consultant in operational excellence. Operating across a range of market sectors, including automotive, manufacturing, mobile telecoms, rail, retail and technology, Unipart offers a breadth of services to a wide range of blue chip clients internationally.

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