



Performance in motion



Industrialising electrification technologies

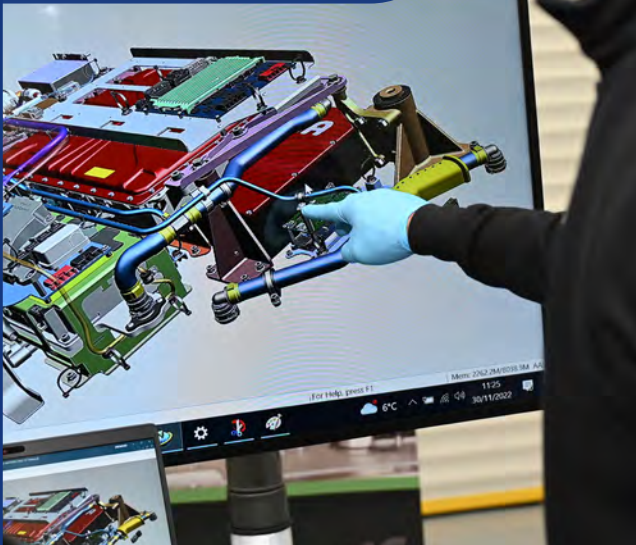
Design, manufacturing & engineering



One partner. The complete lifecycle.

Electrification demands more than a manufacturer. It requires an experienced partner who thinks in systems, accelerating your route from prototype to scalable production using robust and certified manufacturing methods.

Design



From concept to manufacturable reality

We integrate early into your development programme, co-designing electrified systems for producibility, safety and scale before a single component is ordered (design for manufacture). In parallel, our engineering teams design manufacturing solutions to begin the industrialisation journey of new products.

- Battery system design & HV system integration
- Power electronics & propulsion design

Our onsite R&D facility, AME, enables innovation, designing prototypes and pilot manufacturing lines, improving TRL/MRL readiness.

Make



Robust manufacturing solutions

Advanced manufacturing built for the demands of electrification. We deliver concept to series production with the discipline and repeatability that safety-critical applications require.

- Precision laser welding & automated assembly
- High-voltage battery module & pack build
- Power distribution unit manufacture
- Wiring harness manufacture
- Zero-defect, IATF 16949-aligned production



50+ years
manufacturing
heritage



80+
global
locations



End-to-end
lifecycle
capability



Multi-sector
delivery

Move



Supply chain without complexity

We integrate material flow and global compliance so components and systems arrive where and when they're needed.

- Hazardous goods handling (ADR, IATA, IMDG)
- Inbound materials to final delivery
- Inventory control & demand planning
- UK-based capability for supply chain resilience

Improve



Maximise asset life

We extend performance, reduce total cost of ownership and support the long-term sustainability of every electrified system we build.

- In-field diagnostics & repair programmes
- Remanufacture to as-new standard
- Second-life battery repurposing & storage
- Integrated with manufacturing for seamless handoff





Built for scale, proven in industry

Specialist capability across every layer of electrification, from cell to system, prototype to production volume. Every capability is backed by real programmes, real sectors and a zero-defect manufacturing discipline.



Battery systems manufacturing

Scaleable module and pack build. Mobile and static energy solutions for vehicles, infrastructure and grid applications. Designed for repair, remanufacture and second-life use.



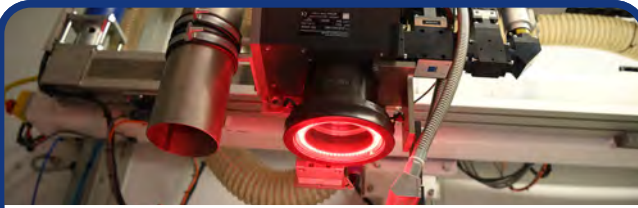
Wiring harness manufacturing

Design for manufacture and production of complex low and high-voltage wiring harnesses for safety-critical applications. Precision assembly, testing and traceability for reliable performance across multiple sectors.



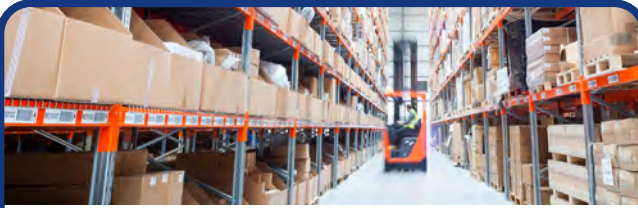
Electrical systems manufacturing

Specialist manufacture of power electronics, power modules and integrated electrical assemblies for demanding electrified applications. High-integrity assembly, functional testing and scalable production for complex electrical systems.



Advanced manufacturing & welding

Precision welding, automated assembly and zero-defect production disciplines. Built for safety-critical products from prototype through to series manufacture.



Logistics & supply chain integration

Integrated logistics for electrified systems. Hazardous goods handling, inventory control and global compliance. Safe, efficient movement from build to deployment.



R&D & industrialisation

Our dedicated on-site R&D facility, AME, helps customers de-risk innovation, accelerate development and prepare products for scalable manufacture.



Battery lifecycle services

Testing, storage, repair, remanufacture and reuse services. Extending asset life, reducing cost and improving long-term sustainability.

Why Unipart



One partner. Full lifecycle

One relationship, one accountable partner. Simpler supply chain, less risk, faster resolution.



Proven scalability

Flexible manufacturing from prototype and low-volume production through to series manufacture, built to scale with demand.



Zero-defect culture

Quality, traceability and continuous improvement embedded in every process.



Cross-sector expertise

40+ years of automotive-grade manufacturing expertise, applied across sectors and applications.

How we can work with you

Option 1

Your design
OEM / Prime
design authority



Option 2

Engineering partner
Design &
development



or

UNIPART

Proven in production

Four disciplines. Real programmes. The depth of expertise that only comes from building the world's most demanding electrification systems.

1

Industrialisation Prototype to production



Development
programme



Autonomous
vehicle US
Robotaxi



7 × 60 kWh
Packs / week



576 Cylindrical
cells / module



21.8 MWh
Annualised
production capacity

Battery system development, production & testing for an autonomous vehicle application

- Led DFMEA and PFMEA activities, designing robust, repeatable production processes to automotive standards
- Designed, installed and commissioned the full production line
- Developed and delivered automated end-of-line test capability
- Full traceability and digital conformance, no-fault-forward controls on every battery component





2

Manufacturing
Build to print

Tier 1 standard

Lotus Evija: The most powerful series-production road car

Selected as the battery manufacturing partner for the world's most powerful production electric vehicle, managing a supply chain of 17,000 components across 500 unique parts.

- Sourced 18 of 22 commodities - full supply chain ownership
- Supplier management, PPAP approval, quality CoP & homologation
- Series production on shared line - pull-based, demand-responsive
- In-field support, warranty provision included in scope
- 2024: Lotus Evija X set third-fastest lap ever at Nürburgring - 6 mins 24.047 seconds

Full build-to-print production partner - supplier management, CoP, homologation & series production.



90 kWh
Battery pack



2,000 ps
Target output 0-62 in <3s



17,000
Components per pack





3

Welding expertise
100,000 welds. Zero tolerance.



100,000
Cell-to-busbar
welds per pack



IATF 16949
Automotive-grade
quality standard



100%
Digital weld traceability

Proprietary welding and joining technologies developed specifically for battery cell-to-busbar applications - where a single defective weld is a safety-critical failure.

- Single-mode fibre laser - exceptionally low heat input, exceptional penetration depth consistency
- Photoelectric diode sensing for real-time in-process weld quality assurance
- Proprietary Weld Quality Assurance specification (WQAS) developed and deployed
- Welds in challenging dissimilar materials combinations: Aluminium-to-Copper and Aluminium-to-Steel without significant IMC formation
- Welding development and qualification exceeding the requirements of ISO 3834-2 resulting in industry leading right first time welding capability

4

Innovation

R&D funded through the Advanced Propulsion Centre - scaling UK power electronics manufacturing from prototype to 50,000+ units per annum, with 100% digital traceability from day one.

Scaling high-power inverters and DCDC converters into UK volume manufacture with Protean Electric, Coventry University & WMG.



£11M

APC R&D grant awarded



50,000+

Units / year target scale



5,000+

Inverters/converters

- £11M Advanced Propulsion Centre grant - UK's foremost electrification R&D funding body
- Planning for scale-up to 50,000+ units per annum
- Life Cycle Assessment benefits - targeting energy and waste reduction across production
- Flexible power electronics assembly line: 5,000+ inverters/converters
- Digital management and vision systems delivering 100% traceability
- AME facility: where innovation meets industrialisation, onsite with manufacturing

Programme



APC25 Project PULSE
(Power Electronics Upscale
for Localisation & Sustainable
Electrification)

Quality & safety: Our non-negotiable standards

In safety-critical sectors, there is zero margin for error.

In high-voltage, safety-critical manufacturing, robust process control is fundamental. Unipart brings more than 40 years of safety-critical manufacturing experience to electrification, embedding quality, traceability and risk mitigation throughout production.

Automotive-grade excellence, applied across multiple sectors

Our electrification manufacturing operates to IATF 16949 standards, the globally recognised quality management standard for the automotive sector, bringing automotive-grade process control, traceability and continuous improvement to safety-critical applications across sectors.

- Robust Quality Management Systems (QMS): Standardised, highly repeatable processes drive consistency across our production lines.
- Conformity of Production and Homologation experience



Building quality into the process: No-Fault-Forward (NFF) Systems

Our No-Fault-Forward systems prevent non-conforming work from progressing through the assembly process, ensuring quality is controlled at every stage of production.

- Process control & verification: Predefined assembly sequences enforce correct step completion, maintaining consistency as production scales.
- Traceability & data collection: Real-time logging of operator actions, torque, and test results builds a complete digital record for rapid root-cause analysis.
- Operator guidance: Digital instructions synced directly with active tooling guide operators to minimise human error and ensure repeatable quality.
- Error-Proofing (Poka-Yoke): Integrated part-sensing, clamp-engagement and smart tooling feedback detect incorrect operations in real time, containing issues at source before they can progress downstream and cause rework or production disruption.

EU Battery Passport ready

Supporting the data foundations for compliance.



Trace



Record



Verify



Performance



Lifecycle



We design, make, move and improve components in our customers' supply chains – keeping their operations and assets moving and working better, for longer.

Who we are

We are a supply chain performance improvement partner.

Our ambition

Our ambition is to be the driving force behind efficient, resilient and sustainable supply chains.

Our expertise

Through The Unipart Way, each of our 8,500+ colleagues is focused on solving your problems and identifying opportunities to make your supply chain more efficient, resilient & sustainable.

How we do it

The Unipart Way – our unique culture – is at the heart of everything we do.

Established decades ago and reinvigorated to drive The Unipart Way Forward growth strategy, it provides our colleagues with the tools, processes and structure to be safe, cared for, motivated and developed. Which means continuously improving for our customers is in our DNA.

Through our commitment to continuously driving operational efficiencies, we improve performance – saving time, cost and carbon.

Our sectors

Automotive

Rail & Public Transport

Technology

Consumer & Retail

Healthcare

Aerospace & Defence

Industrials

Construction

Our solutions



Performance in motion

From prototype to
scalable production.
Let's build what's next.

UNIPART



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