OPTIMAS INTERNATIONAL

MAKING EVERY CONNECTION COUNT

FASTENING SOLUTIONS FOR:

Electrification



Precision-engineered fasteners and C-class components for high-performance EV integration and structural applications.









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Introduction

As OEMs and Tier-1s accelerate the development of electric and hybrid platforms, fastening requirements are evolving across the whole vehicle.

Battery packs, body and chassis structures, thermal management systems and high-voltage wiring harnesses all need fastening solutions that support lightweighting, electrical conductivity, heat control, insulation and efficient assembly, while meeting automotive production requirements.

Optimas International brings decades of engineered fastening expertise, supporting customers with integrated component solutions across the EV platform.

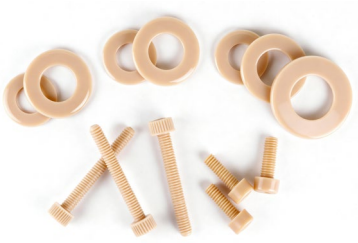
By combining application knowledge, local engineering support and global supply capabilities, we help simplify sourcing, reduce part complexity and support consistent product performance.













Case Study: Battery Tray Manufacturer

Battery systems manufacturer supplying a major automotive OEM

A battery tray line stalled when structural fasteners from the incumbent supplier failed in production and were found to be below the required property class.

The Challenge:

- Failed screws reworked by hand, disrupting takt times
- Sourcing restricted to OEM-approved suppliers
- Supply needed within 8-10 weeks

Optimas International sourced a compliant replacement from an OEM-approved manufacturer, running supply and testing in parallel to restore production.

50%+	Lead-time reduction

Supplied in under 10 weeks, against an industry-standard lead time of 16-22 weeks for the correct specification.

0	Fastener failures

Production restarted with a compliant, correctly specified fastener, resolving the issue at source rather than through ongoing containment.

0	Airfreight needed

Dedicated express road transport kept the consignment intact and traceable, avoiding the cost, emissions and handling of airfreight.

Case Study: Automotive Tier-1

Global interiors, seating and emissions technologies manufacturer

Forvia experienced part proliferation from its continually expanding product lines, causing increased inventory from redundant parts.

Optimas International created a standardised global part list for multi-programme use, resulting in efficiency gains and cost savings:

- Lowered total cost of ownership
- Reduced risk with consolidated supply chain
- Faster time to market with quality-approved part list

FORVIA Inspiring mobility

> Optimas International's part standardisation reduced our piece part costs, enabled us to launch new products quicker, decrease inventory obsolescence, improve product quality and increase customer satisfaction.

- Rainer Schulze
  Global Commodity Director, Metals & Mechatronics, Forvia

82%	Standardised SKUs

82% of the total BOM was converted to global standard parts, enabling consistency, scalability and supplier leverage.

79%	SKU reduction

SKUs were reduced, eliminating duplication, lowering inventory and simplifying the supply base.

€1.6M	Annual cost savings

This lowered total cost of ownership through economies of scale, reduced inventory and risk mitigation enabled by a simplified supply chain.

Product Categories Overview

Our product range is engineered for electric vehicle platforms, where sealing, thermal management, high-voltage safety and lightweight construction are critical.

Components are specified to deliver reliable pressure equalisation, ingress protection, secure clamp load, vibration resistance and consistent electrical performance across the battery system and the wider vehicle.

- Vents, sealed fasteners, gaskets, O-rings and plugs for IP-rated battery and electronics enclosures
- Cable ties, glands, clips, conduit and grommets for low- and high-voltage harnesses
- Hose and pipe clamps, fittings and seals for coolant and fluid loops
- High-tensile bolts, locking nuts and washers, pins and spacers for structural joints and vibration control
- Rivets, rivet nuts, weld and clinch studs, clips and lightweight parts for thin-sheet and multi-material joints
- Busbar fasteners, contacts, insulating parts and earthing hardware for high-voltage connections
- Custom cold-forged and machined fasteners, turned parts, make-to-print and prototype components
- Aluminium, titanium, high-strength steel, stainless steel, copper alloys and engineered polymers, with zinc-nickel, zinc-flake and phosphate finishes











Venting, Sealing and Enclosure Protection

Vents, valves, plugs and seals that balance pressure and keep moisture and dust out of sealed EV enclosures.

- **Threaded Pressure Relief Valves**
  Anodised aluminium, ePTFE membrane, FKM / EPDM O-ring
- **Pressure Compensation Vent Plugs**
  PA66 / PBT body, ePTFE membrane, elastomer O-ring
- **Panel Bushings / Sealing Plugs**
  EPDM, silicone, polyamide
- **Blanking Plugs / Hole Masking Caps**
  PE, silicone, EPDM
- **Moulded Sealed Fasteners for IP67 Battery Enclosures**
  Silicone and EPDM seals
- **Gaskets**
  Standard profiles and custom shapes
- **End Caps, Plugs and Protective Covers**
  PE, nylon, rubber, stainless steel
- **Rubber-Faced Sealing Washers**
  Steel washer with bonded EPDM / NBR face
- **O-Rings**
  NBR, EPDM, FKM, silicone









Cable, Harness and Grommet Protection

Ties, clips, glands and grommets that route, secure and protect low- and high-voltage cable harnesses and hoses.

- **Clipped Cable Ties**
  PA66
- **Snap-Fit Cable and Hose Routing Clips**
  Polyamide / polypropylene
- **Multi-Line Routing Clips**
  Impact-modified polyamide (PA66-HIR / PA66-GF)
- **Slotted Pass-Through Grommets**
  EPDM rubber / thermoplastic
- **HV Cable Grommets and Shielding Covers**
  Flame-retardant PA66-GF / PBT, RAL 2003 orange, foam pad
- **Conduit and Trunking**
  PVC and other polymers
- **Cable Ties**
  PA66, flame-rated and high-temperature grades, stainless steel
- **Cable Clips and Cable Clamps**
  PA66, polypropylene, PEEK, stainless steel
- **Cable Glands and Strain Relief**
  Seal and secure cable entries into enclosures
- **Dome Plugs and Cable Bushings**
  Close unused holes and protect cables through panels









Thermal Management and Fluid Handling

Clamps, fittings, plugs and seals for coolant and fluid loops across the battery, inverter, e-axle and heat pump.

- **Sealing Plugs with Integrated O-Ring**
  Machined steel / aluminium, FKM or EPDM seal
- **Fluid Quick-Connect Fittings / Hose Adapter Studs**
  Zinc-nickel-plated steel or aluminium
- **Fitting Pipes**
  Steel / stainless steel
- **Thread-Coated Actuator Shafts / Valve Spindles**
  Stainless / alloy steel, microencapsulated thread coating
- **Bonded Sealing Washers**
  Steel or stainless ring, NBR or FKM lip
- **Worm-Drive Hose Clamps**
  Steel / stainless steel
- **P-Clamps**
  Metal and rubber
- **Heavy-Duty Clamps**
  Hinged snap-latch
- **Heavy-Duty Plastic P-Clamps**
  Plastic and metal
- **Self-Tensioning Spring-Steel Hose Clamps**
  Spring steel
- **Pipe Clamps**
  Stainless steel, carbon steel
- **Nylon Clamps**
  Lightweight, non-corrosive
- **Brake and Fluid Line Fixings**
  316L stainless steel









Structural Fastening, Locking and Isolation

Bolts, nuts, locking washers, pins and isolators that hold clamp load, resist vibration and protect soft materials.

- **Wire Thread Inserts**
  Stainless steel; brass / steel self-tapping variants
- **SEMS Screws**
  Carbon steel 8.8 / 10.9, zinc-flake or zinc-nickel
- **Rubber Damping Bushings**
  EPDM / NBR on steel sleeve



- **Hex, Flange, Structural and Shear Bolts**
  Property classes 8.8, 10.9 and 12.9
- **Socket Screws, Set Screws and Machine Screws**
  Carbon steel, A2 / A4 stainless
- **Studs and Threaded Rods**
  Tap-end and continuous-thread studs



- **Hex and Flange Nuts**
  Property classes 8, 10 and 12, A2 / A4 stainless
- **Pins, Clevis Pins, Cotter Pins, Circlips and Retaining Rings**
  Carbon steel, spring steel, A2 / A4 stainless
- **Spacers, Bushes and Shims**
  Set gaps and alignment in assemblies
- **Bearings**
  Plain and rolling-element types



- **High-Temperature and Exotic Material Fasteners**
  A286, Inconel®, titanium
- **Nylon-Insert and All-Metal Locking Nuts**
  Prevailing-torque designs that resist vibration loosening
- **Flat, Spring and Wedge-Lock Washers**
  Carbon steel, A2 / A4 stainless



Joining into Thin and Multi-Material Structures

Rivets, rivet nuts, weld and clinch studs, clips and lightweight parts for single-sided, thin-sheet and mixed-material joints.

- **Flow-Drill Screws**
  Hardened steel, zinc-nickel or zinc-flake coating
- **Blind Rivet Nuts**
  Zinc-plated steel / stainless steel
- **Blind Rivets**
  Breakstem, sealed, semi-tubular and nylon; aluminium, steel, stainless steel
- **Expansion, Drive and Scrivet Rivets**
  For panels, trim and underbody shields
- **Weld Studs, Rivet Studs and Clinch Studs**
  Including arc and CD weld studs
- **Threaded Inserts for Plastic and Light-Alloy Housings**
  Including nylon inserts
- **Self-Tapping and Thread-Forming Screws**
  For plastics and body-in-white
- **Snap-Fit, Push-Fit and Spring-Steel Clips**
  PA66, POM, PEEK, spring steel; UL 94 grades available
- **Lightweight Parts**
  Aluminium, titanium, carbon fibre, PEEK
- **Weld Nuts**
  Projection and spot-weld types, steel









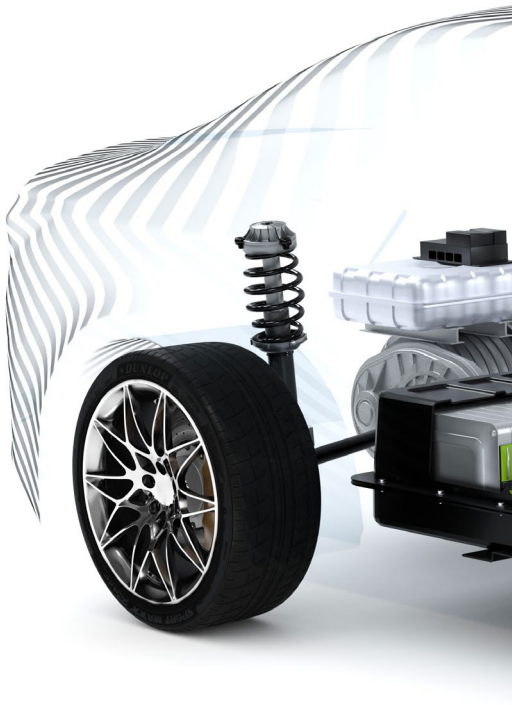
Electrical Connection, Earthing and Contacts

Busbar fasteners, contacts, insulating parts and earthing hardware for reliable high-current and signal connections.

- **Machined Electrical Contact Pins**
  Brass / copper alloy, tin or gold plated
- **Knurled Threaded Bushings / High-Current Terminal Inserts**
  Machined copper alloy or high-conductivity brass
- **Busbar and Power-Connection Fasteners**
  For high-voltage busbars and power connections
- **Brass Nuts, Screws and Washers**
  For electrical connections
- **Electrical Insulating Parts, Housings and Enclosures**
  PA66, PC, PEEK; UL 94 grades available
- **Nylon Insulating Washers and Rivets**
  Electrically isolate fasteners from conductive parts
- **Earthing, Bonding and EMC Shielding Hardware**
  Grounding points and EMC shielding for HV systems







Designed for Performance

Delivered at Scale



About Us





Optimas International is a tech-enabled industrial distributor providing fasteners, components, inventory management and supply chain solutions across APAC and EMEA.

Partnering with domestic and global manufacturers, the company delivers bespoke, engineering-led and technology-enabled programmes designed to improve efficiency, quality, supply chain resilience and profitability for its customers.

100+
years of expertise

1,200+
global suppliers

2.2 Bn
parts supplied annually

750
dedicated members serving globally

1,500+
global customers

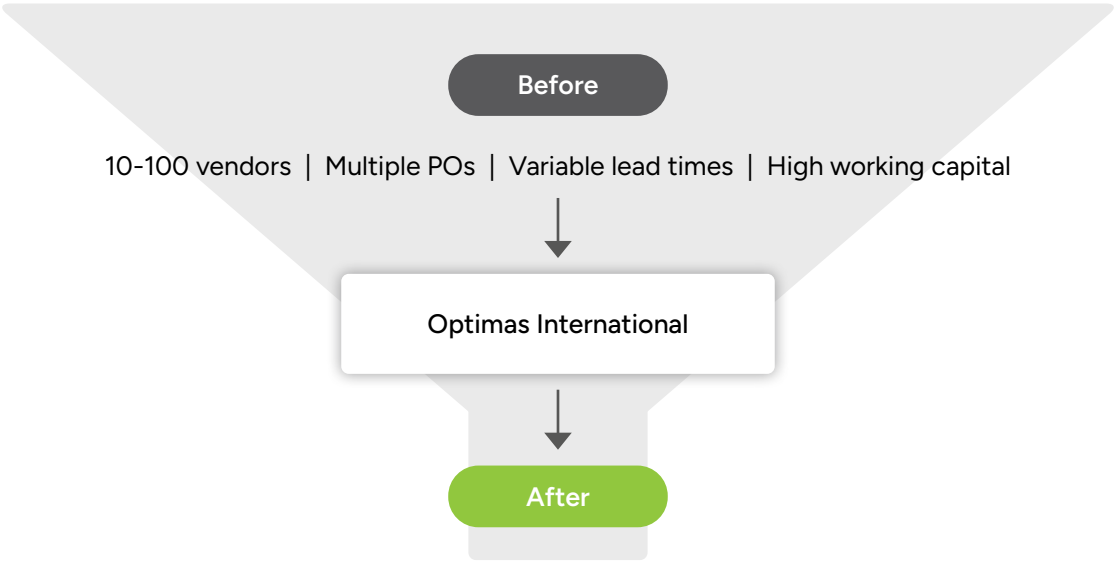
40,000+
SKUs supplied annually

0
defect culture

365
days a year support

Support Beyond Components

- **Global Presence, Local Support:** We help customers maintain consistency, reliability and speed across their operations through our global and local expertise.
- **Bespoke Engineering:** Our expertise enables us to deliver fastening solutions tailored to meet specific manufacturing requirements.
- **Supply Chain Risk Mitigation:** We empower supply chains through strategic sourcing, strong supplier networks and proactive planning.
- **OptiTech® - Smart Inventory Management:** Using smart inventory solutions and real-time visibility tools, we help customer operations and reduce stock issues.
- **Smart BOM Management:** By improving standardisation, reducing complexity and cost, we simplify BOM management, supported by OptiSpec®.
- **Quality Assurance:** You're in good hands with our zero-defect culture, rigorous supplier audits and best-in-class standards.



One PO | One lead time | Reliable delivery to point-of-use | Lower TCO

More orders on time	Higher cycle count accuracy	Orders shipped correctly on time	Lower return rate

Key Account Growth

Off-Highway OEM

35+ years of partnership

- Accounts grown by 15x
- SKUs increased by 275%
- Net sales increased over 10x

Power Generation OEM

30+ years of partnership

- Facilities grown by 11x
- SKUs increased by 1,100%
- Net sales increased over 23x

Luxury Vehicle OEM

20+ years of partnership

- 42M parts supplied annually
- Unique SKUs grown 1.5x to 90%
- Net sales increased over 6x

Automotive Tier-1

15+ years of partnership

- Accounts increased by 19x
- SKUs increased by 168%
- Net sales increased by 14x

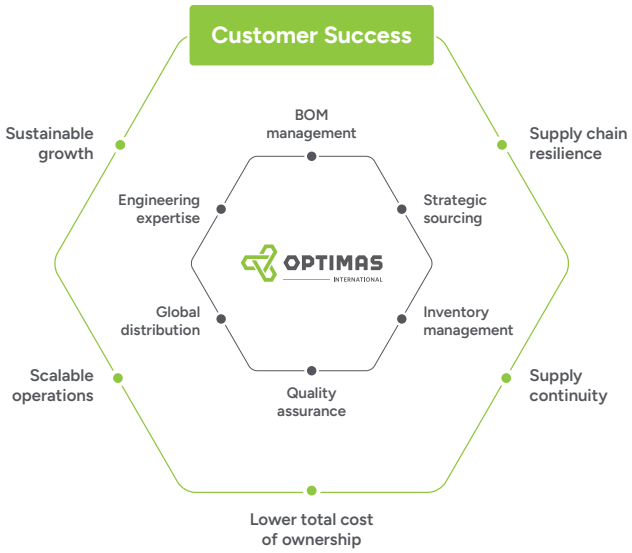
Global Presence, Local Support



Why We Do What We Do

Optimas International combines advanced engineering expertise, inventory management systems and global sourcing to simplify complex supply chains. We deliver scalable solutions that reduce total cost of acquisition and drive long-term value for our customers. In today's complex business environment, companies need a partner that mitigates risk and supports sustainable growth. We do this by:

Making Every Connection Count



Committed to Sustainability

At Optimas International, we create long-term value through responsible sourcing, trusted partnerships and a commitment to continuous improvement. We build resilient supply chains that support our customers and the communities we serve.

By combining innovation with practical solutions, we are helping shape a more sustainable future for our business, our industry and the people who depend on us.



- Our 2025 sustainability report is live



VALUE-ADDED SERVICES

To streamline operations and maximise efficiency

- ### Bespoke Engineering Expertise

  OptiSpec®-powered part design, testing and BOM management. Partner with our engineers to drive efficiencies and savings across your operations.

- ### Strategic Sourcing

  Global and local sourcing strategies backed by our vast supplier network and access to world-class manufacturers. This delivers a broad, resilient product range for every need.

- ### Supply Chain Management

  Kitting, secondary operations and inventory management, powered by tech-enabled solutions, delivery solutions and vendor consolidation. We get the right parts to the right place at the right time in the right quantity, reducing risk, cutting lead times and boosting productivity.

- ### Quality Assurance

  KPI-driven performance and industry standards. Know you're in good hands with our zero-defect culture, rigorous supplier audits and best-in-class standards across every part we deliver.

Connect with our experts

OR

collaborate@optimas.com