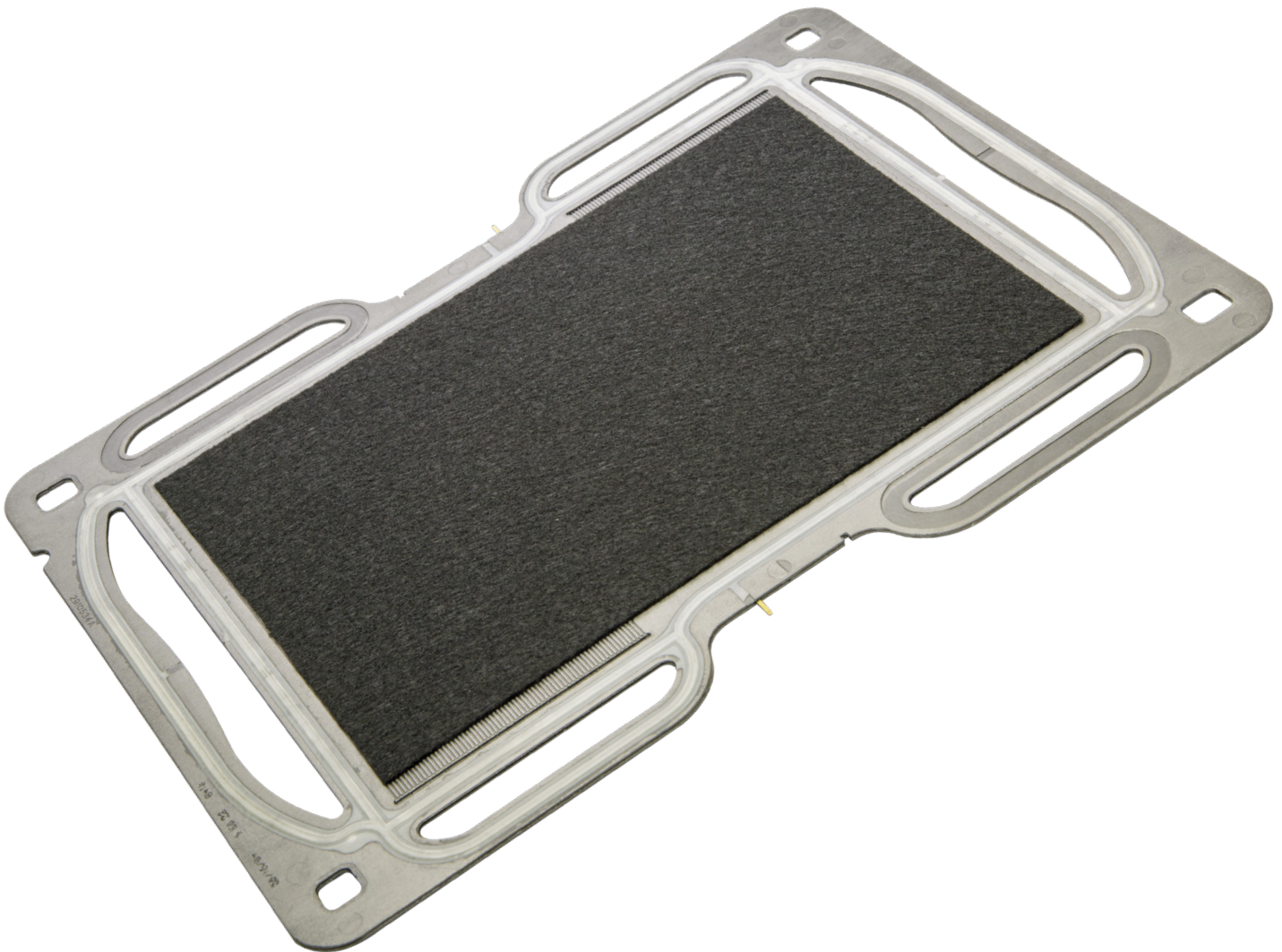




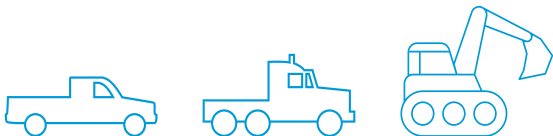
VICTOR REINZ™

Composite Bipolar Plates and Seals

Fuel Cell and Energy Storage Components



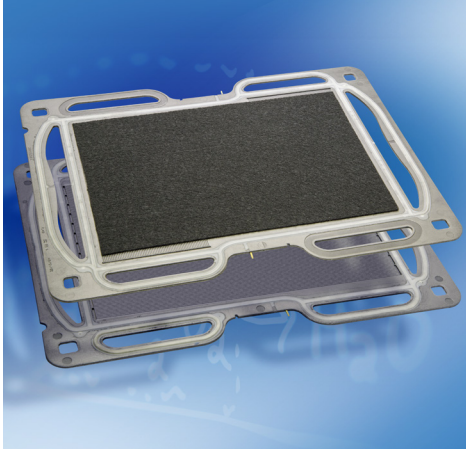
Ideal for Light Vehicle, Commercial Vehicle, and Off-Highway Vehicle Applications



Delivering Low-Cost Product Solutions for Advanced Fuel Cell Engines

Dana has been precision-molding highly conductive, polymer composite bipolar plates for fuel cell stack developers for over 20 years. In conjunction with high-volume polymer molding expertise, Dana's unique capabilities in ultrathin bonded plate assemblies with integrated seals make us a valuable partner for all your plate and sealing needs.

Applications for Dana's technologies include bipolar plates for polymer electrolyte fuel cell (PEFC), flow battery energy storage systems, and other electro-chemical-based systems under demanding environmental conditions, with markets extending to stationary power, industrial mobility, and transportation.



Production Supply

Dana operates an established manufacturing facility for serial production of composite fuel cell and flow battery plates, along with integrated seals.

Development Capabilities

Dana creates custom plate solutions to meet application requirements and ensure manufacturability while minimizing cost. With in-house material development capabilities, we provide custom seal materials and designs to ensure reliability and system compatibility.

Technology Development

Our customers benefit from ongoing technology improvements in plate and seal materials, as well as manufacturing improvements to reduce cost and improve product reliability. The combination of our strategic supplier alliances and in-house capabilities allows Dana to provide product solutions for a wide range of fuel cell and flow battery applications.

Proven Technologies for Tomorrow's Power Sources

A global leader in the fuel cell and flow battery market, Dana has the reliable alternative energy technologies that OEMs are looking for – both today and in the future.

Product Specifications	
Designs	Customized to Your Project
Materials	Optimized to Your Design
Conductivity	20 to 50 S/cm
Flexural Strength	45 to 55 MPa
Plate Thickness	0.7 mm to 7.0 mm
Web Thickness	<0.3 mm
Molded Plate Size	Up to 2,000 cm ²

Features

- Precision-molded graphite-polymer composite plates
- More than 20 years of production experience and proven field reliability
- Conductively bonded plate assemblies allow internal liquid cooling and improved plate-to-plate conductivity
- Complex assembly capabilities including laser welding, adhesive bonding, and mechanical attachment provide customers with design flexibility
- Custom seal design capability

Dana.com/Electrified

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Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana TM4; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.



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