

Dana Demonstrates Leadership in Advancing Automotive Fuel Cell Stacks at Hannover Messe 2018

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MAUMEE, Ohio, April 24, 2018 /PRNewswire/ -- Dana Incorporated (NYSE: DAN) is contributing to the industrialization of high-performance fuel cell stacks through its support of the Autostack Industry project, an alliance of German automotive manufacturers, suppliers, and the Centre for Solar Energy and Hydrogen Research.



To help the project advance toward fuel-cell stack commercialization, Dana designed and optimized its metallic bipolar plate to meet cost and performance targets for early market entry. The company will display its latest fuel-cell technologies at Hannover Messe 2018, April 23-27, in Hannover, Germany.

Fuel cells offer a clean energy alternative for today's vehicles and are considered a great power source for vehicles with long range requirements, such as delivery trucks, city buses, and passenger cars, as they can be rapidly refueled. The Autostack Industry project is focused on decreasing the cost and improving the quality of fuel cells to further the opportunity for large-scale production.

"Dana leverages the latest research in new energy solutions to introduce cutting-edge fuel-cell components, assisting the industry in moving toward commercializing automotive fuel cells," said Dwayne Matthews, president of Dana Power Technologies. "The possibilities for fuel-cell technologies are very exciting and we believe our expertise in design-to-cost and high-volume manufacturing strongly supports the efforts of Autostack Industry."

At Hannover Messe, Dana will showcase its e-mobility products, including battery and electronics cooling solutions and fuel-cell components. Among the fuel-cell components exhibited will be bipolar plates made from stainless steel or graphite composite. These plates feature integrated sealing and conductive coating technologies and take advantage of the company's precision stamping and molding, as well as fluid management capabilities to deliver increased performance and reliability at a lower cost. Other fuel-cell component products Dana will showcase are its charge air coolers and a range of gas-to-liquid cooling solutions, as well as valves.

In addition, Dana will display its thermal management subsystems, which are critical in advanced fuel-cell engine performance. With state-of-the-art designs, they provide enhanced performance with reduced parasitic energy losses to help customers meet fuel efficiency and durability targets.

Dana first joined Autostack CORE, the predecessor to Autostack Industry, in 2010. Autostack Industry is comprised of major automotive manufacturers, including BMW, Daimler, Ford, and Volkswagen, with the objective to develop a generic fuel-cell stack.

In 2016, Dana announced it had joined the Project INSPIRE, a consortium made up of Europe's top fuel-cell catalyst researchers and development organizations along with BMW, to collaborate on accelerating the commercialization of fuel cells. For its role in this consortium, Dana engineers at its technology center in Neu-Ulm, Germany, will lead the development of an advanced metallic bipolar plate design for automotive fuel cells.

Dana is a proven supplier of solutions for tomorrow's power sources and has a long history of innovation in fuel-cell product technologies. The company has displayed these solutions at Hannover Messe for more than a decade.

Dana's booth (stand B69) at Hannover Messe is located in Hall 27 with the Hydrogen + Fuel Cells + Battery group.

For more about Dana's fuel-cell and thermal management solutions, visit dana.com.

About Dana Incorporated

Dana is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, and off-highway markets, as well as industrial and stationary equipment applications. Founded in 1904, Dana employs approximately 30,000 people in 33 countries on six continents who are committed to delivering long-term value to customers. The company reported sales of more than \$7.2 billion in 2017. Based in Maumee, Ohio, the company's operations in Northwest Ohio and Southeast Michigan were selected as a Top Workplace for the last two years by *The (Toledo) Blade* and its research partner, Energage. Dana is ranked among the Drucker Institute's listing of the 250 most effectively managed companies. For more information, please visit www.dana.com.

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Jeff Cole, 419-887-3535, jeff.cole@dana.com