

PRESS RELEASE

The heart of hydrogen mobility: EKPO showcases its high-performance NM12-single stack for automotive applications at IAA Mobility

The mobility sector is experiencing unprecedented momentum. Public debate on the challenges and opportunities of modern-day mobility has shown that hydrogen represents a promising complement to electromobility. At this year's IAA Mobility 2025, EKPO Fuel Cell Technologies GmbH (EKPO), a leading full-service supplier of PEMFC stack modules and stack components, will be showcasing its future-proof range of products and extensive industrialization expertise in the field of hydrogen technology under the banner of "Powering the heart of hydrogen mobility."

Dettingen/Erms and Munich, Germany, September 8, 2025 +++ Sustainable drive technologies are among the key drivers in the transformation of individual carbon-neutral mobility. Hydrogen is considered a promising addition to the next generation of electromobility solutions. Drawing on a high-end portfolio of bipolar plates and stack solutions, EKPO is transferring this technology to the road. In fact, EKPO fuel cell stacks are used in a variety of applications, including passenger cars, light commercial vehicles, trucks, and buses, in addition to rail, marine, and other off-highway applications.

Maximum performance for fuel-cell-powered vehicles: EKPO's NM12-single stack

A particular eye-catcher at this year's IAA Mobility trade show in Munich is the "NM12-single" PEMFC stack module. As a market-ready component, the NM12-single stack is mass-produced by EKPO to automotive standards. The product is already being used in a vehicle manufactured by one of China's premium carmakers. With a power output of up to 123 kWel, the PEMFC stack module is a perfect match for passenger cars and light commercial vehicle applications. Tailored to the requirements of the automotive sector, the NM12-single stack combines high power density with compact design and low weight. This is made possible by leveraging EKPO's robust and reliable technologies, providing the basis for low hydrogen consumption – which is synonymous with reduced operating costs – and thus extended range. Another key benefit is that the media module integrated within the stack provides all the necessary interfaces, leading to an easy integration of the stack into customer systems and vehicles. Other key features of EKPO's NM12-single PEMFC stack module include its proven durability and higher potential operating temperatures of up to 84°C, paving the way for the use of more efficient cooling systems in the application. Added to this is its recyclability.

Dr. Stefan Dwenger, Chief Commercial Officer at EKPO, explains: "Mobility of the future needs fuel cells. They are at the heart of hydrogen-based mobility. We have set ourselves the goal of making fuel cell technology competitive to drive forward carbon-neutral mobility. Not only mastering every step of the process chain, we also rely on highly automated, cost-effective operations conforming to automotive standards – with a portfolio of market-ready products."

From vision to reality – hydrogen as an energy source for mobility

EKPO fuel cell stacks and bipolar plates are a key ingredient when it comes to building a powerful, climate-neutral energy infrastructure for both mobile and stationary applications. The existing portfolio of four modular stack platforms – NM5-evo, NM12-single, NM12-twin, and NM20 – covers a power spectrum ranging from 16 to 400 kW. The NM5 stack is used, for example, as a range extender in hybrid vehicles. Benefiting from its technical features and proven durability, the NM12 stack offers maximum performance and efficiency in vehicles powered by fuel cells. In addition, several customer-specific engineering projects for bipolar plates have unlocked new fields of performance. In this context, one of the special features is that EKPO's bipolar plates are made of metal. Metallic PEMFC bipolar plates offer distinct advantages in respect of cost, installation space, weight, and

