



EKPO FUEL CELL
TECHNOLOGIES

Fuel cell competence

COMPANY

We're making the fuel cell competitive

— in terms of performance, cost, and reliability.

EKPO Fuel Cell Technologies (EKPO) is a leading joint venture working on the development and large-scale production of fuel cell stack modules for carbon-neutral mobility.

We are a full-service supplier of fuel cell stack modules and components for use in cars, light commercial vehicles, trucks, and buses as well as in rail and marine applications.

Using highly efficient and automated production processes, we build on our industrialization expertise for the large-scale manufacture of fuel cell stack modules and components – fully audited and in proven automotive quality.

We already offer the fuel cell with the highest power density currently available within the market. We are continuing to build on this leading edge through ongoing development and a focus on innovation.

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COMPANY

Joining forces for the future of the fuel cell

— two companies, one goal.

ElringKlinger and Plastic Omnium:
two established automotive suppliers committed to shaping the future of hydrogen-based mobility.

The newly founded Joint Venture EKPO Fuel Cell Technologies [EKPO] is a full-service supplier of fuel cell stack modules and components. Our technology, applications, and products for fuel cells are based on expertise that we have accumulated over a period of two decades. Together we have been in business for more than 200 years. We understand our customers and know how stringent the requirements are in the automotive sector.

Our objective is clearly defined: the development and large-scale production of powerful fuel cell stack modules aimed at driving forward carbon-neutral mobility, whether on road, rail, land, or water.

ElringKlinger is contributing all its fuel cell assets, while Plastic Omnium will provide additional development and industrialization capacities. The overall package is nothing less than the benchmark of the industry.

EKPO FUEL CELL TECHNOLOGIES	
Established	2021
Headquarters	Dettingen/Erms, Germany
Employees	>180
Estimated production capacity	10,000 fuel cell stack modules per year
Targeted market share	10 – 15% (in 2030)

/ Production facility in Dettingen/Erms



OUR COMMON GOAL

“Plastic Omnium and ElringKlinger have been strongly investing over the years to develop their respective expertise in hydrogen technology. Both stock-listed with a family as anchor shareholder and sharing the same values, we are jointly building a leader in the development, design, production and marketing of fuel cell stacks and components for passenger cars, commercial vehicles, buses, trucks and other mobility applications. We aim to unlock the mass market potential for hydrogen and contribute to CO₂-neutral mobility.”

/ Statement by the CEOs of the two companies, Laurent Favre and Dr. Stefan Wolf

MARKETS

Stack modules and components for every industry

— your need, our solution.



CARS

- / Small installation spaces
- / Need for large quantities
- / Suitable for everyday use of vehicles



LIGHT COMMERCIAL VEHICLES

- / Long ranges and long-distance capabilities essential
- / Short refueling times necessary
- / Heavy-duty vehicle use



TRUCKS

- / High CO₂ emissions
- / Used frequently on long distances
- / Large ranges necessary



BUSES

- / Adherence to emission limits
- / Fast refueling facility necessary due to multiple-shift operation
- / Long-distance capability in rural areas



OFF-HIGHWAY

- / Difficult use conditions
- / Continuous or multiple-shift operation necessary



RAIL

- / Long-distance operation
- / Fast refueling times
- / Fuel cell drive as climate-friendly alternative on non-electrified sections



MARINE

- / High CO₂ emissions
- / High output requirement for large number of different vessels



SYSTEM INTEGRATORS

- / Limited installation space for system configuration
- / High level of complexity due to large number of components
- / High level of consultation and coordination for optimum system performance

OUR SOLUTIONS

As well as our standardized stack platforms we develop customer-specific solutions to offer stack modules that are optimally matched for integration into the respective system environment. And to offer you that decisive advantage in terms of performance, functionality, and robustness for your needs.

PRODUCT PORTFOLIO

Fuel cell stack modules and components

- series-production-ready energy converters to suit your specific needs.

Our stack modules are suitable for use in different industries, e.g., due to their robustness and compact design in combination with their low weight. Thanks to the particular strength of fuel cell drives – their long range – fuel cell stack modules can also be used as range extenders in battery-powered cars.

OUR STACK MODULES – YOUR BENEFITS

High power density

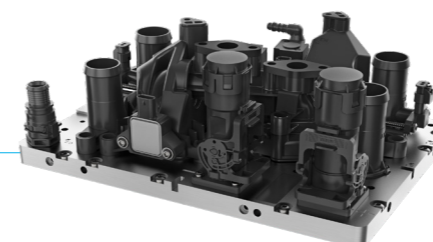
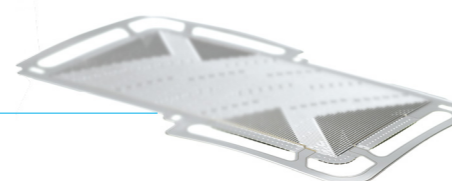
Compact design and low weight

Robust and reliable technology

Low hydrogen consumption for reduced operating costs and longer ranges

Automated manufacturing processes according to the latest automotive standards

Simple system integration thanks to function-integrating media supply assembly, validated quality and comprehensive documentation



- innovative components, good from experience.

As well as complete stack modules, EKPO offers a range of high-performance components for fuel cell applications that can be tailored to customer requirements.

PEMFC METAL BIPOLAR PLATES

PEMFC metal bipolar plates offer benefits in respect of cost efficiency, the power density that is especially important for mobile applications, and the cold-start capability of the fuel cells. With high-precision progressive tools suitable for high-volume production, we are already producing metal bipolar plates in a fully automated and interlinked manufacturing process.

- / Made from stainless steel
- / Compact design
- / Cost effective processes and materials
- / Various coating options available
- / EKPO helps customers to devise a functional, producible plate design

MEDIA SUPPLY ASSEMBLIES WITH ADDED VALUE FROM A SINGLE SOURCE

Using injection molding processes, EKPO realizes highly complex media supply assemblies that meet the most stringent tolerances. Due to the integration of various functions, the overall system is considerably simplified. In a further step towards creating a highly integrated stack module, additional interfaces are provided to integrate stack-mounted system components. In the media module, the following system functions can be integrated depending on requirements:

- / Sensors
- / Valves
- / Water separators
- / Media interfaces
- / Electrical interfaces
- / Bypass and cooling channels



INDUSTRIALIZATION EXPERTISE

The future of mobility

— already in serial production today.

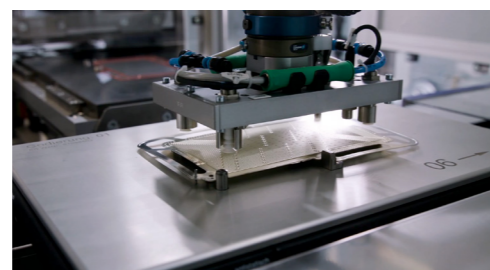
Automated serial production processes in metalworking and plastic injection molding, automated stacking, and ultra-modern joining and coating technology make us the ideal partner for the industrial-scale manufacture of fuel cell products. We stand for consistent quality – even in large quantities – and one hundred percent traceability. We fully meet the high quality requirements demanded in the automotive sector.

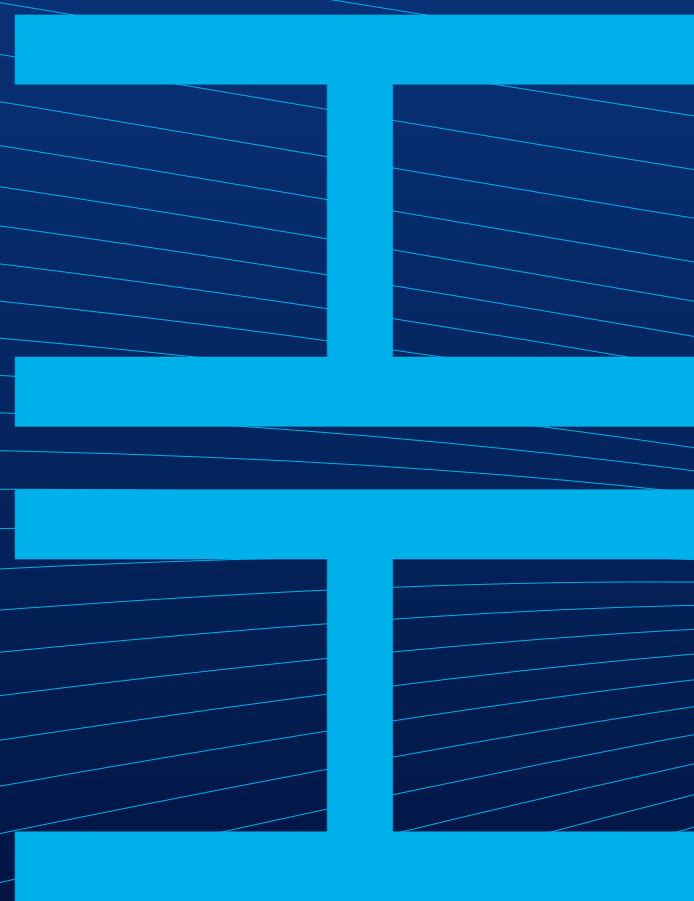
All processes and procedures necessary for the products are validated and constantly refined. Development, production engineering and series production are anchored in our DNA and come from a single source at EKPO. This means that innovations can be implemented quickly – and an optimum level of quality can already be achieved at the start of production. Highly flexible, scalable or fully automated production solutions are used, adapted to the respective customer and product requirements.

INNOVATIVE DEVELOPMENT CENTERS

At our headquarters in Dettingen/Erms, Germany, we combine our development and testing activities into purpose-built centers. All necessary testing and validation facilities are under one roof. This means that we can offer our customers the ideal conditions for taking new approaches and reaching their goals sooner, even in the case of small batch production and prototypes.

Automated serial processes





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CAREER

Are you passionate about the fuel cell?

— work with us to achieve fully sustainable mobility.

To do great things, what you need first and foremost is people with vision – and the courage to put it into practice. EKPO offers its employees plenty of scope to be creative. Together, we work on solutions for fully sustainable mobility. Let's get things going!

FOR INFORMATION ABOUT CAREER OPPORTUNITIES GO TO

/ www.ekpo-fuelcell.com/company/career

FOR MORE INFORMATION ABOUT OUR COMPANY, PRODUCTS,
AND SERVICES, GO TO



/ www.ekpo-fuelcell.com

/ www.linkedin.com/company/ekpo-fuel-cell-technologies/

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