Powering the future of fuel cells

Delivering high performing catalyst coated membranes and membrane electrode assemblies
Fuel cells for decarbonising transportation and energy

Transportation is one of the most significant contributors to greenhouse gas emissions globally, so fuel cells are an attractive solution as societies take action to decarbonise emissions. They use clean or low carbon fuels, such as hydrogen, to generate power electrochemically without releasing any harmful emissions or particulates. Fuel cells have proved ideal for heavy duty and high usage applications, such as for trucks and buses, as they provide the range, low weight and rapid fuelling times required by commercial fleet operators.

Through many years of collaborating with automotive customers globally, our fuel cell technology is already powering hundreds of fuel cell commercial vehicles. These have already clocked up more than 6.5 million kilometres of zero emission travel.

The demand for continuous innovation extends beyond automotive. Our fuel cell components also power a range of non-road markets, such as stationary power and materials handling applications.

In for the long haul

Fuel cell technology dates back almost to when JM began. We supplied the platinum when William Grove first demonstrated a fuel cell in 1839. In the 1960s, we supplied the electrocatalysts during the Apollo space missions. We were the first company to commit to a dedicated MEA manufacturing site, which is based in Swindon, UK. More recently, we demonstrated our commitment to supporting global supply chains by opening a new manufacturing facility in Shanghai, China.

Exceptional science has always been at our core; we have many years of experience in fuel cell development, characterisation, catalysis, electrochemistry and process optimisation – critical to developing next generation fuel cells.

As the technology evolves, so do we. We’ll continue to invest in manufacturing capacity and R&D so we can stay ahead of the curve and meet the demands of the future.
Our catalyst coated membranes and membrane electrode assemblies sit at the heart of the fuel cell stack, ensuring exceptional performance and durability.

Proton Exchange Membrane (PEM) fuel cell offer

JM experience in the electrochemical value chain is comprehensive

As the world’s largest secondary refiner of platinum group metals, we are committed to the creation of an efficient recycling system to help unlock future capacity and support a sustainable energy transition.

Through our expertise in refining and metal management, we help minimise your exposure to metal price fluctuations, reduce purchasing complexity and optimise recycling possibilities.

JM develops and manufactures leading edge membranes in-house for our CCM and MEA products. Our tailored subcomponents deliver optimised and fully compatible products.

Our Hispec™ range of top tier fuel cell catalysts are the product of decades of research and development. JM’s expertise and continued investment has resulted in a portfolio of high performing catalysts.

Because every fuel cell system is unique, providing flexible and tailored 3-layer (CCM) solutions is vital to success. We supply our advanced materials in roll format, making it suitable for direct integration into your existing manufacturing processes.

Whether you require a fully unitised MEA (7-layer with GDL attached) or a 5-layer MEA (sealed MEA without GDL attached), we’ll find a solution that works for you. Picking from our extensive array of subcomponents, developed with specific applications in mind, we’re confident we can help you get the best out of your fuel cell system.