

PRESS RELEASE

HyET Hydrogen's Technology Enables Critical Hydrogen Cost-Down in Semiconductor Manufacturing

MILESTONE ACHIEVED IN COLLABORATION WITH NIPPON SANSO, ADDRESSING CRITICAL HYDROGEN RECYCLING NEED IN THE SEMICONDUCTOR INDUSTRY



Arnhem, April 7, 2026 – HyET Hydrogen, a global leader in electrochemical hydrogen compression and purification technology, announced the successful completion of a Factory Acceptance Test (FAT) on April 2nd, 2026, conducted in the presence of its customer Nippon Sanso. The demonstrated system is designed for the purification and recycling of hydrogen used in semiconductor manufacturing.

The FAT milestone marks a significant step forward for the joint commercialization effort between HyET Hydrogen and Nippon Sanso, who are together bringing this innovative hydrogen recycling solution to the global semiconductor market reducing the cost levels of hydrogen purification to only 15-20% of those of currently available hydrogen purification technologies.

Addressing a Critical Industry Challenge

The semiconductor industry requires a continuous flow of high-purity hydrogen gas to function. Currently, this hydrogen is vented after use – a practice that is increasingly untenable due to tightening environmental regulations and the substantial and rising cost of high-purity hydrogen. HyET Hydrogen's electrochemical purification technology offers a direct answer to this challenge by recovering and recycling the hydrogen back into the process, delivering both environmental and economic benefits to chipmakers, strengthening the position of the semiconductor manufacturers.

A Powerful Partnership

HyET Hydrogen provided the technological backbone of the solution, the electrochemical purification system, and subcontracted EPC tasks to Netherlands-based MTSA. Nippon Sanso, a world-leading industrial gas company, serves as the primary customer and system integrator for this project. Together, the companies are combining their complementary expertise to deliver a complete, market-ready hydrogen recycling solution for the semiconductor industry and energy value chains.

Quote from HyET Hydrogen

"The successful FAT is a proud moment for our team and a testament to the maturity of our electrochemical purification platform," said Rombout Swanborn – Founder of HyET Hydrogen. *"The semiconductor industry faces a genuine urgency around hydrogen management – both in terms of sustainability and economics. We are delighted to be working with a leading partner like Nippon Sanso to turn that challenge into an opportunity."*

Quote from Nippon Sanso

"We are pleased with the results of the Factory Acceptance Test and the performance demonstrated by HyET Hydrogen's purification technology," said Kenichi Sugihara of Nippon Sanso. *"Hydrogen recycling is an area of growing importance for our customers, and this collaboration gives us a compelling and timely solution to bring to market."*

About HyET Hydrogen

HyET Hydrogen is a Netherlands-based innovator in electrochemical hydrogen technology, specializing in hydrogen purification and compression solutions for industrial and high-tech applications. The company's proprietary technology enables efficient, scalable hydrogen processing without moving parts, making it ideally suited for demanding environments such as semiconductor manufacturing.

About Nippon Sanso

The Nippon Sanso Holdings Group is the world's fourth-largest supplier of industrial, electronic, and medical gases, operating in four geographic regions – Japan, the U.S., Europe, and Asia & Oceania. In Japan, it is one of the largest and most internationally active industrial gas suppliers, providing gas supply, equipment, and integrated solutions across a wide range of industries including electronics and semiconductors.

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