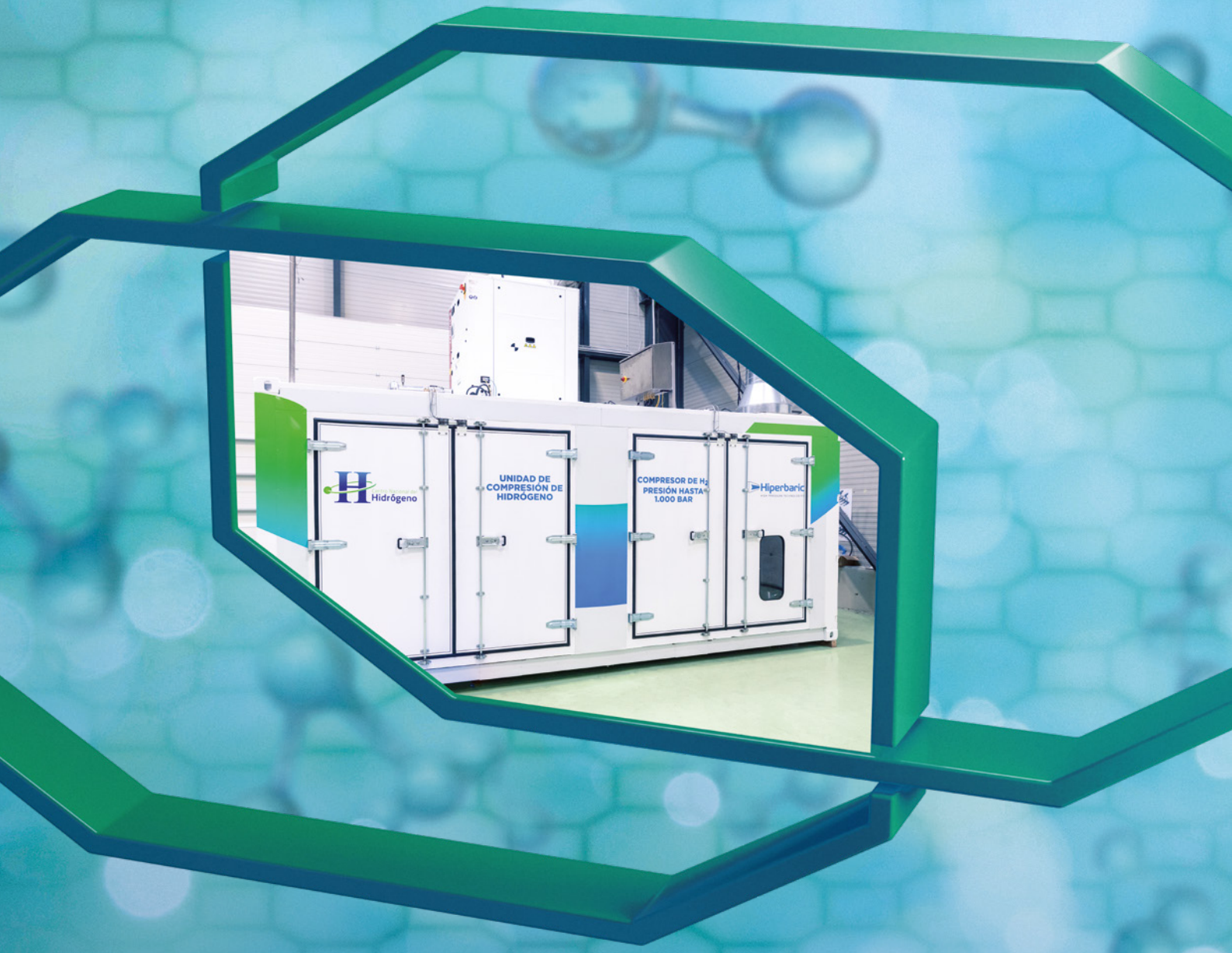
H_2 COMPRESSION



THE STRONGEST LINK. STAHL

OUR PROJECT: A VISIONARY HYDROGEN COMPRESSION SOLUTION

Hiperbaric has developed a new high-pressure hydrogen compression solution in collaboration with the Spanish National Hydrogen Center CNH_2. This fills the hydrogen tanks of the latest generation of fuel cell vehicles with an outstanding pressure level of 1,000 bar – and R. STAHL supplied the customised explosion protection for this milestone in H_2 mobility.

OUR CHALLENGE: MAXIMUM SAFETY FOR MAXIMUM EFFICIENCY

The most important components of Hiperbaric's compressor unit are the high-pressure multipliers, which have various sections for carrying out compression. Our task was to ensure the safety, efficiency and reliability of these units.

THE GREEN LINK • PROTECTING NEW ENERGY •

OUR SOLUTION: CUSTOMISED EXPLOSION PROTECTION SYSTEMS

The new hydrogen compression solution will significantly accelerate the development of H_2 mobility. To safeguard this development, our experts have worked together with Hiperbaric's developers on three different systems:

Panel assembly

The explosion-protected panel assembly consists of two Ex d enclosures and two Ex e enclosures. One of the tasks of this main control cabinet is to ensure leak detection with the help of various measuring devices.

Control panel

The 8150/5 control panel for the decentralised E/A 1718 is used to operate the entire H_2 compressor station – from "Start", "Stop" to "Set up". It also provides the signals "Ready", "Service" and "Error", allowing permanent control of the system.

Operator panel

A 7145/5 operator panel is located in the control panel to allow the easy inputting of commands and reading of information. The HMI is operable with gloves and, as with all other solutions, compliant with ATEX directives.

For more information visit **r-stahl.com/en/h2**

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