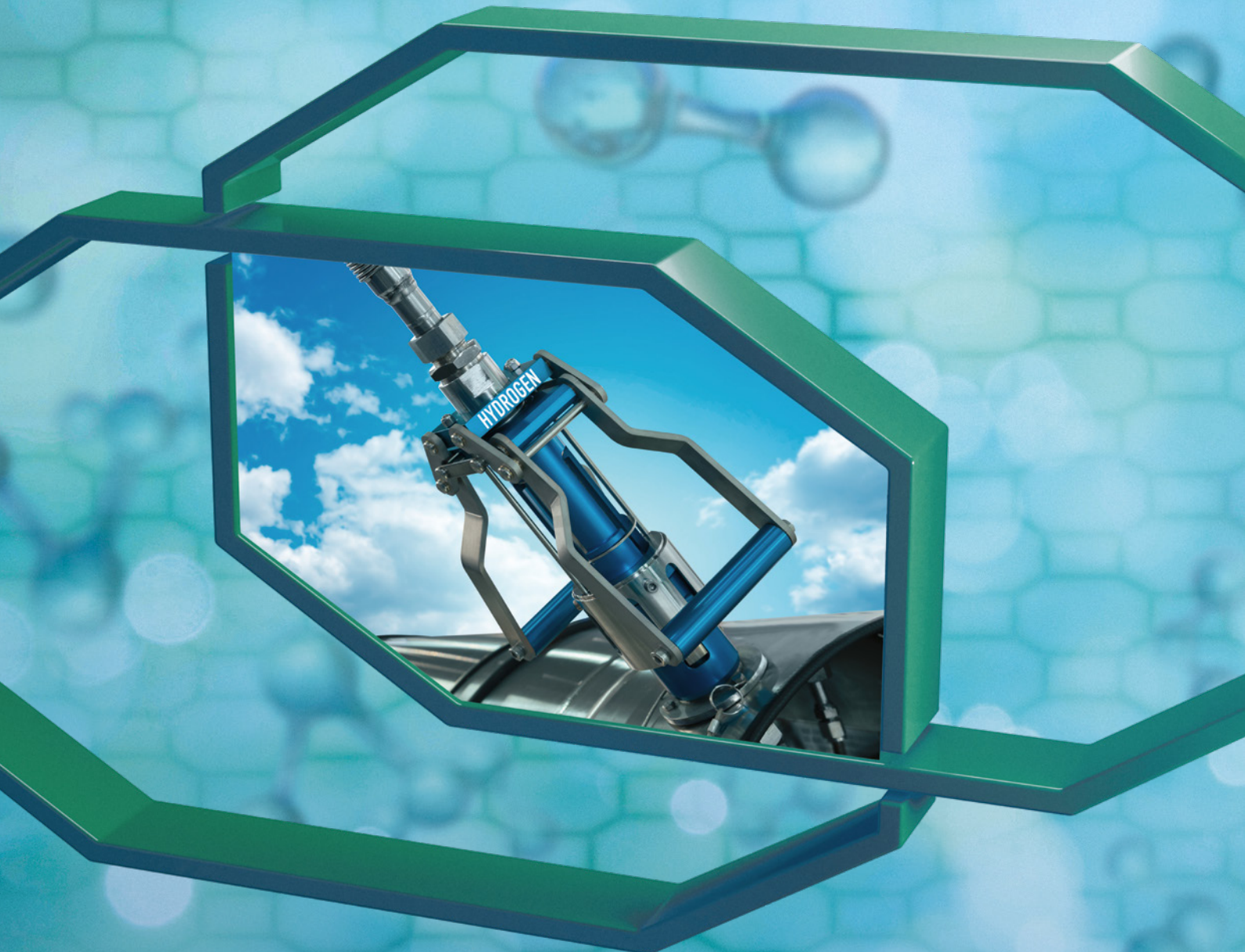


# H<sub>2</sub> PUMPING AREA



THE STRONGEST LINK.

**STAHL**

## OUR PROJECT: A LOADING STATION FOR LIQUID HYDROGEN

South Korea is expanding its ecosystem for liquid hydrogen. This is because liquefied hydrogen has 800 times less volume than gaseous hydrogen – which makes loading and transportation much more efficient. We were entrusted to participate in this groundbreaking process by providing explosion protection for a first-of-its-kind liquid hydrogen pumping station.





## OUR CHALLENGE: PLANNING AND DESIGNING FROM SCRATCH

In order to make the function and monitoring of the H<sub>2</sub> vacuum pump completely safe, we had to design and implement both the HMI and the electrical system from the ground up. All in accordance with South Korean certification requirements.



## OUR SOLUTION: CUSTOMISED EXPLOSION PROTECTION SYSTEMS

Right from the start, we offer state-of-the-art solutions for explosion protection that are perfectly tailored to the respective requirements on-site. In this case, twelve human-machine interfaces (HMI) for Zone 1 – including software and KC certification.



### Control

The loading process itself can be controlled via the HMIs with, for example, “On” and “Off”. Thanks to our cybersecurity, the entire process is also always protected and safe from digital attacks.

### Measuring

Thanks to the customised software and the linked protocol, data such as pressure, filling quantity and temperature can be measured constantly and controlled reliably.

### Display

The measured parameters can be easily called up and read via the low-reflection touchscreen. In addition, an automatic warning is issued in the event of deviating parameters.

For more information visit [r-stahl.com/en/h2](https://www.r-stahl.com/en/h2)