



HYDROGEN, AT THE HEART OF TOMORROW'S ENERGY INFRASTRUCTURES



HYDROGEN
REFUELING STATIONS



FILLING
CENTERS



SECURE
POWER UNITS



RHEADHY PROJECT ACHIEVES NEW BREAKTHROUGH IN HYDROGEN REFUELING TECHNOLOGY FOR HEAVY-DUTY MOBILITY

Grenoble, 24 August 2026 – **HRS**, a French designer and manufacturer of hydrogen infrastructure and the European leader in hydrogen refuelling stations, announces the successful completion, as part of the RHeaDHy project and alongside its partners Toyota Motor Europe and ENGIE Lab CRIGEN, of an extensive testing campaign of the Twin Nozzle hydrogen refueling technology for heavy-duty applications.

This innovative and cost-effective approach **enables ultra-fast truck refueling**, with the ambition of matching diesel refueling performance while leveraging dispensing technology derived from light-duty vehicle applications.

The testing campaign follows the integration of the next-generation **Mid Flow Twin** hydrogen refueling technology into an RHeaDHy dispensing station, as announced in January 2026¹.

A trial campaign with promising results

Over a **six-day testing campaign**, **HRS** teams conducted **18 refueling tests** under a wide range of operating conditions, including:

- Ambient temperatures ranging from **15°C to 40°C**;
- Initial tank pressures between **60 and 300 bar**;
- Tanks starting at ambient temperature, including particularly demanding high-temperature conditions.

By way of illustration, at an ambient temperature of **30°C**, a complete refueling operation was completed in **six minutes**, including connection, start-up and final purging. The amount of hydrogen dispensed was equivalent to a **driving range of up to 600 km for a heavy-duty vehicle**.

In total, **more than 400 kg of hydrogen** were used during the campaign, and **100% of the hydrogen was recovered and recycled through the HRS station following the tests**.

A significant milestone for Mid Flow Twin technology

The campaign demonstrated the robustness of the **ISO 19885-3 Mid Flow Twin refueling protocol**, consistently achieving state-of-charge levels **above 95%**, even at ambient temperatures of up to 40°C. As a remainder, the **Mid Flow Twin** technology is based on an innovative dual-nozzle architecture designed to significantly reduce refueling times for both heavy-duty and light-duty vehicles, while optimizing hydrogen station installation and operating costs.

¹ [See the press release dated January, 26, 2026.](#)

The tests also highlighted **the flexibility of the entire refueling ecosystem**, encompassing both hydrogen dispensing through **HRS** stations and **the truck's onboard storage system**. **The technology performed successfully in both Twin Nozzle and Single Nozzle configurations.**

This campaign therefore represents a key step toward delivering fast, reliable and interoperable hydrogen refueling solutions for heavy-duty mobility. The project partners will now focus on demonstrating similar refueling performance directly on a heavy-duty vehicle under real-world operating conditions.

ABOUT HRS (HYDROGEN REFUELING SOLUTIONS)

HRS is a French designer and manufacturer of hydrogen infrastructure.

It is one of the **world leaders in high-capacity hydrogen refueling stations** and offers a **comprehensive range of modular and scalable stations, ranging from 300 kg/day up to 4 tonnes/day**. As a pure player covering everything from design to commissioning of stations, **HRS** has state-of-the-art industrial production facilities, including a test facility that is unique in Europe, enabling it to test, trial and develop its products and solutions.

HRS currently has one of the largest installed bases of high-capacity stations on the market, with **31 stations ranging from 300 kg to 1 tonne per day, representing a combined capacity of over 6 tonnes per day**. **HRS** also offers a comprehensive range of services, including maintenance, 24/7/365 on-call support and real-time monitoring via its 'control room' – the only one of its kind in Europe. **To date, 23 maintenance contracts for hydrogen stations have been signed.**

HRS is also developing a range of filling centers dedicated to hydrogen logistics infrastructure, as well as Secure Power Units (SPUs) for generating electricity from hydrogen for critical infrastructure.

ISIN code: FR0014001PM5 – ticker symbol: ALHRS.

For further information, please visit our website www.hydrogen-refueling-solutions.fr



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