FOS 700 bar H2Refuel Fleet Owner Station



Safe. Cost efficient. Maintenance friendly.









▶ The H2Refuel Fleet Owner Station (FOS) is designed to provide fleet owners, governments and entrepreneurs with a cost-efficient solution for refuelling FCEVs with hydrogen at 700 bar. The design avoids expensive components such as pressurized hydrogen storage and hydrogen cooling prior to filling. This makes the fleet owner station financially attractive for the development of a hydrogen refueling infrastructure, which requires a relatively low capital investment compared to a public station. The FOS consists of three components: Compression module, Dispenser module and the control console, to ensure safe operation, the electrical components are scanned from the hydrogen holding parts and the Resato - Gas booster technology is integrated in the station to ensure safe refueling of the vehicle at 700 bar.

Benefits & Features

- Reliable filling is made possible by the use of a Resato hydraulic-driven gas booster with a flow till 4 kg/ hour.
- Flexible hydrogen supply via bottle rack system, tube trailer, electrolyzer or pipeline. Supply pressure range between 30 and 300 bar.
- Small footprint: only 16 m² floor space required exclusive hydrogen supply.
- Safe hydrogen gas compression due to separation of the gas chamber from the hydraulic section to avoid oil contamination.
- To provide safety during refueling, the dispenser is equipped with a communicating nozzle.
- Dangerous situations caused by air traps inside the gas booster are prevented with a nitrogen flushing system.

| Application Areas

Refueling of passenger cars (LDV).





Technical Information



Compressor Module

Dimensions (WxHxL)	1545 x 1810 x 2500 mm
Weight	+ 1 500 ka



Dispenser Module 700 bar

Dimensions (WxHxL)	456 x 2001 x 376 mm
Weight	+ 80 ka



Operating Module

Dimensions (WxHxL)	456 x 1606 x 356 mm
Weight	± 80 kg

General

Item	Specification
Outlet Pressure Range	700 bar
Inlet Pressure Range	30-300 bar
Flow Capacity Range	>4 kg/hr at supply pressure 300-50 bar >2 kg/hr at supply pressure 50-30 bar
Noise Level	±70 dBA
Temperature	-20° to 40° C environment
Power Supply	400V 3Ph/ 50 Hz 22KW 63A-C/30MA
Internet Connection (for VPN support)	Min. 3 Mbit download / 1 Mbit upload (RJ45) RJ-45 connector
Certifications	CE marked, ATEX certfied



Risk Assessment - ATEX

Hydrogen refueling stations have to be safe to use. Therefore, a common risk assessment is used that results in the certification. Our experience in the oil & gas industry gives us extensive knowledge in certifying our products for safety and reliability.



Hydrogen Supply

The hydrogen supply for the station is versatile. It is possible to connect gas bottles, a tube trailer, or an electroyzer to the station. The modular design of the gas booster makes a change in the supply at a later stage simple and cost-efficient.

Since 1991.

Resato is a Dutch provider of smart high pressure solutions with the aim to increase the productivity of its worldwide customers. We develop and manufacture waterjet cutting systems as well as components and systems for pressure testing, injection, and controlling up to 14,000 bars with the mission to meet and exceed the expectations of our customers. Since 2017, we are developing hydrogen filling solutions and high pressure equipment.

YOUR HIGH PRESSURE EXPERT.

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