



# The New Generation H2Station<sup>®</sup>

Proven Technology.

New Compressor Dedicated to  
Hydrogen – Developed by Nel.

Innovative Solutions.



# The World's Most Compact, Flexible and Reliable H2Station

The H2Station represents the next generation in hydrogen fueling for fuel cell cars, buses, trucks and forklifts. It offers fast fueling with the world's most compact footprint. Its design is based on years of R&D and operational experience, and is renowned for providing high fueling reliability. It features the world's first dedicated hydrogen compressor, the most efficient and contamination free hydrogen compressor on the market today.

## H2Station Key Features

- Daily capacity of up to 1,500 kg per day
- Maximum capacity: 65 kg/h @ 70MPa | 120 kg/h @ 35MPa
- Hydrogen storage dimensioned to fit any preferred capacity and supply source ranging from on-site production to truck delivery
- Modular and flexible placement of H2Station modules at site
- Compact dispenser for easy integration at existing station
- Standard module developed through years of R&D
- Lean volume manufacturing capability of up to 300 stations/year

## H2Station Services

- One stop shop for all service related to H2Station
- Turnkey H2Station from product development to start of operation
- Full Operation & Maintenance for high reliability
- Spare parts for standard modules in stock
- 24/7 Operation monitoring & technical hotline
- KPI monitoring with online client access
- Site Risk Assessment | Site Layout

## Specifications

### Station Modules



Station Types	SM for CAR with PDC compressor	SM for CAR with Nel compressor	SM for HDV with Nel compressor
Maximum Capacity	60 kg/h @ 70MPa	65 kg/h @ 70MPa	120 kg/h @ 35MPa
Fueling Protocol	SAE J2601-1 v2016	SAE J2601-1 v2016	SAE J2601-2 Optifill™
Dispenser Options	70MPa CAR 35MPa HDV 35MPa MH (indoor)	70MPa CAR 35MPa HDV 35MPa MH (indoor)	35MPa HDV 35MPa MH (indoor)
Inlet Pressure Range	2-70MPa – Multiple Hydrogen source		
Dimensions – Weight	3.3m L x 2.2m W x 3.6m H – 17.5 ton		
Approvals	CE marked or UL listed (Comply to all modules)		
Design	Available in galvanized steel only		

### Dispensers



Dispenser types	70MPa CAR   35MPa HDV   35MPa MH (indoor)
Nozzle design	In accordance with SAE J2600 and SAE J2799 (IR)
Metering	Coriolis mass flow meter
Payment	Compatible with APP/POS/Credit Card via built-in communication protocols
Dimensions	0.52m L x 0.52m W x 2.5m H (integration on existing gas-station)
Placement	Up to 50m from Station Module
Design	Available in galvanized steel or customer trade dress by quote

### Supply Storage



Storage pressure	Nominal 20MPa – Maximum 24MPa
Storage capacity	50-500kg hydrogen in each rack. Optional multiple racks – Upgradable after installation
Valves & safety	Leak detection (IEC61511) Jet fire protection, double block and bleed
Dimensions	6.5-12.3m L x 2.4m W x Flexible H up to 3.0m
Placement	Up to 100m from Station Module
Option	Supply Cabinet for fast Hydrogen unloading to Supply Storage
Design	Available in galvanized steel with white tubes only

### Fueling Storage

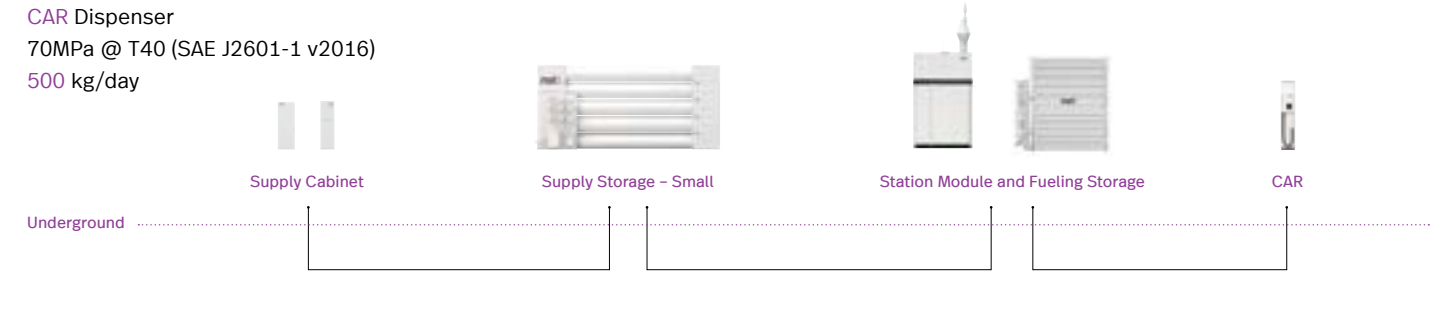


Storage Pressure	Nominal 43-95MPa – Maximum 50-100MPa
Storage Capacity	Up to 106 kg of hydrogen in each rack Optional multiple racks – Upgradable after installation
Valves and Safety	Double block and bleed – Jet flame protection
Dimensions	3.4m L x 1.2m W x Flexible H up to 2.8m
Placement	Up to 30m from Station Module
Design	Available in galvanized steel only

# H2Station Solutions Configurations & Examples

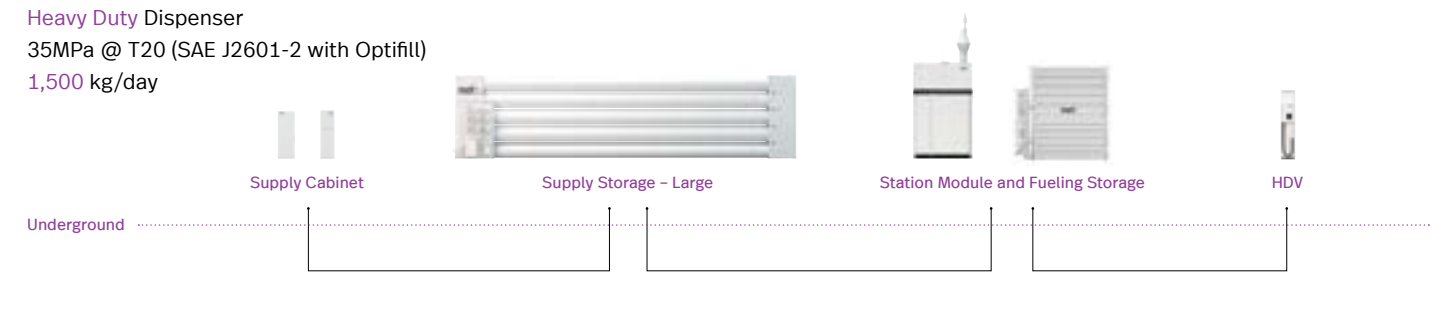
## H2Station

CAR Dispenser  
70MPa @ T40 (SAE J2601-1 v2016)  
500 kg/day



## H2Station

Heavy Duty Dispenser  
35MPa @ T20 (SAE J2601-2 with Optifill)  
1,500 kg/day



## H2Station

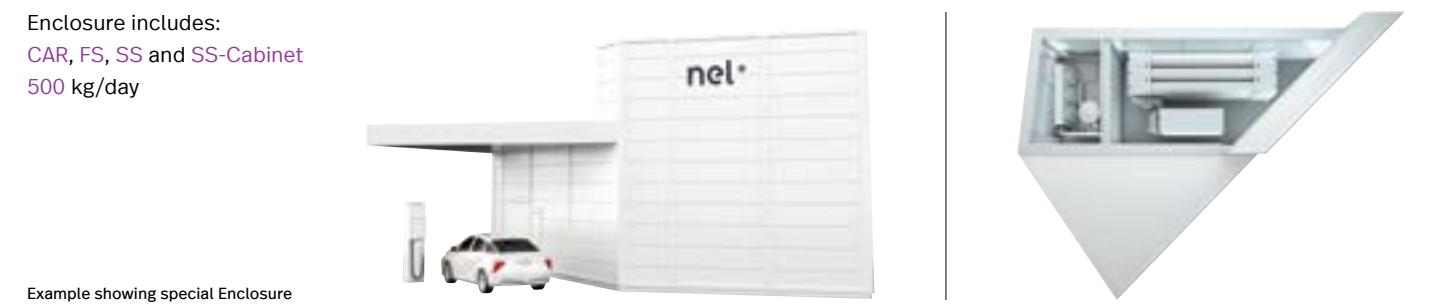
CAR, Heavy Duty and MH Dispenser  
320 kg/day



## H2Station

Multiple Designs – Multiple Branding Options

Enclosure includes:  
CAR, FS, SS and SS-Cabinet  
500 kg/day



Example showing special Enclosure

Nel Hydrogen is a publicly listed hydrogen company which builds on more than 90 years of combined experience within hydrogen production and hydrogen fueling technology.

### A benchmark within hydrogen production and fueling.

With more than 3,500 electrolyzers delivered around the globe, Nel Hydrogen is the world's leading company for alkaline water electrolysis. Nel Hydrogen fueling stations have the highest reported availability in the world, and were the first to comply with the latest standards for refueling. Our solutions for hydrogen production and fueling set a benchmark for others to follow.

[www.nelhydrogen.com](http://www.nelhydrogen.com)