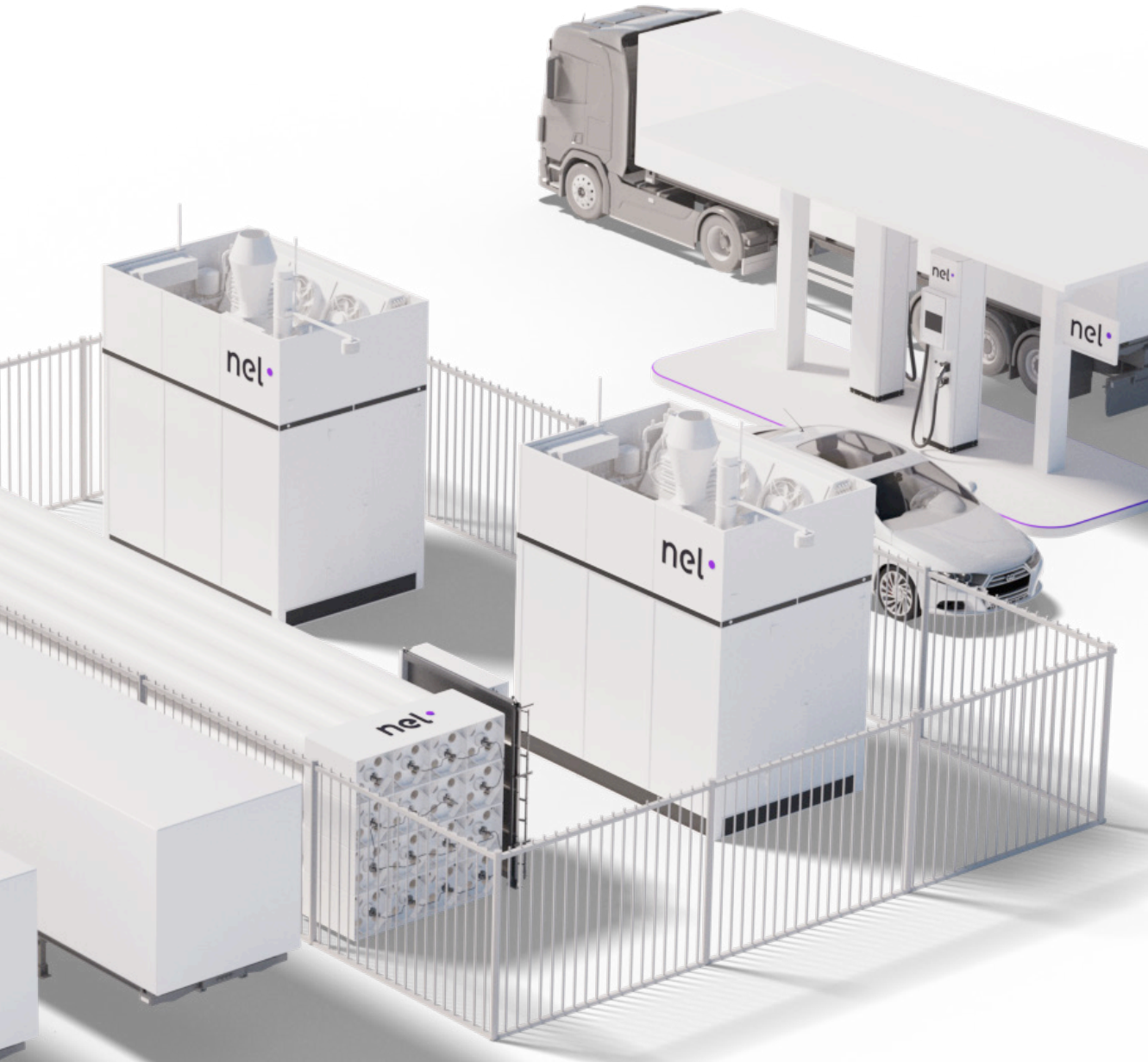
Nel Hydrogen Fueling

Empowering generations with clean energy forever



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Our mission

We unlock the potential of renewables and enable global decarbonization

Our vision

Empowering generations with clean energy forever

Our businesses

Renewable energy

We cater to power-to-gas, power-to-industry markets, and more

Hydrogen production

Our electrolysers are for markets including fertilizer, green steel and cement

Hydrogen fueling

We provide fueling equipment for cars, trucks, buses and other markets

number one by nature

Historic Achievements

1927
1st Small Electrolyser Installation in Norway

1940
The largest installation in the world of water electrolysers at Rjukan

2001
1st PEM Electrolyser

2003
1st Hydrogen Fueling Station in Iceland

2009
1st 350 bar Fueling Station

2011
1st 700 bar Fueling Station

2014
Oslo Stock Exchange Market listing

2016
2nd Gen 700 bar H2Station™

2016
Nel opens 1st office in California

2017
Factory opening with a potential capacity of 300 stations/year

2018
1st UL Certified Fueling Station US

2019
HDV dedicated 350 bar station

2019
A1000 product line Electrolyser

2019
M-Series – Electrolyser M-Series product line

2020
Nel opens 1st H2Station™ in Korea

2022
1st automated 500 MW electrolyser plant opening in Herøya

2023
1st UL Certified Fueling Station in Canada

Our Manufacturing Plants

PEM Electrolysers Plants

Wallingford, USA

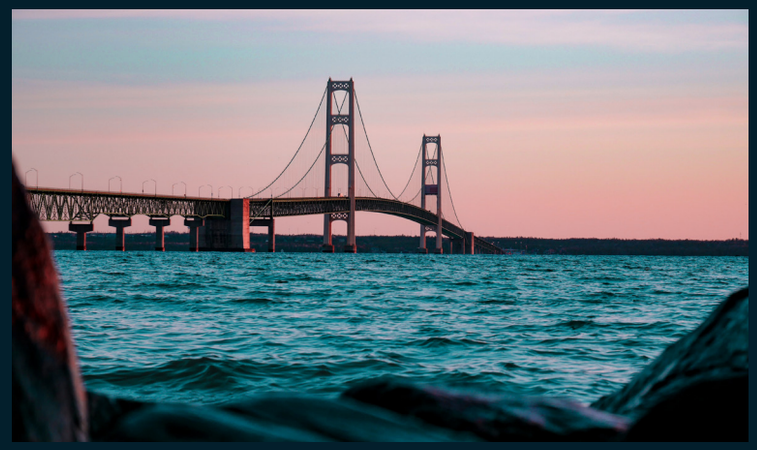
Systems delivered
2,700+
Production Capacity
>50 MW/year

Michigan, USA

Announced in 2023

Production Capacity
Up to 4 GW

In the planning phase



Alkaline Electrolysers Plants

Nottoden, Norway

Systems delivered
800+

Production Capacity
40 MW/year

Herøya, Norway

Production Capacity
500 MW/year
(with potential expansion to 2 GW/year)

Hydrogen Fueling Stations

Herning, Denmark

Systems sold
150+

Potential Production Capacity
300 stations/year

Control over full value chain

1 Product Development

Product development based on Nel deep hydrogen knowledge and years of field experience for better service and customer experience

2 Sales

Sales is performed through an increasing share of key accounts

3 Procurement & Logistics

Long-term supply agreements with strategic suppliers

4 Production

Lean production flow, aiming for standardization and efficiency.

5 Installation and Commissioning Services

Project Management and Engineering support customers in permitting, 3rd-party approvals etc.

6 Service

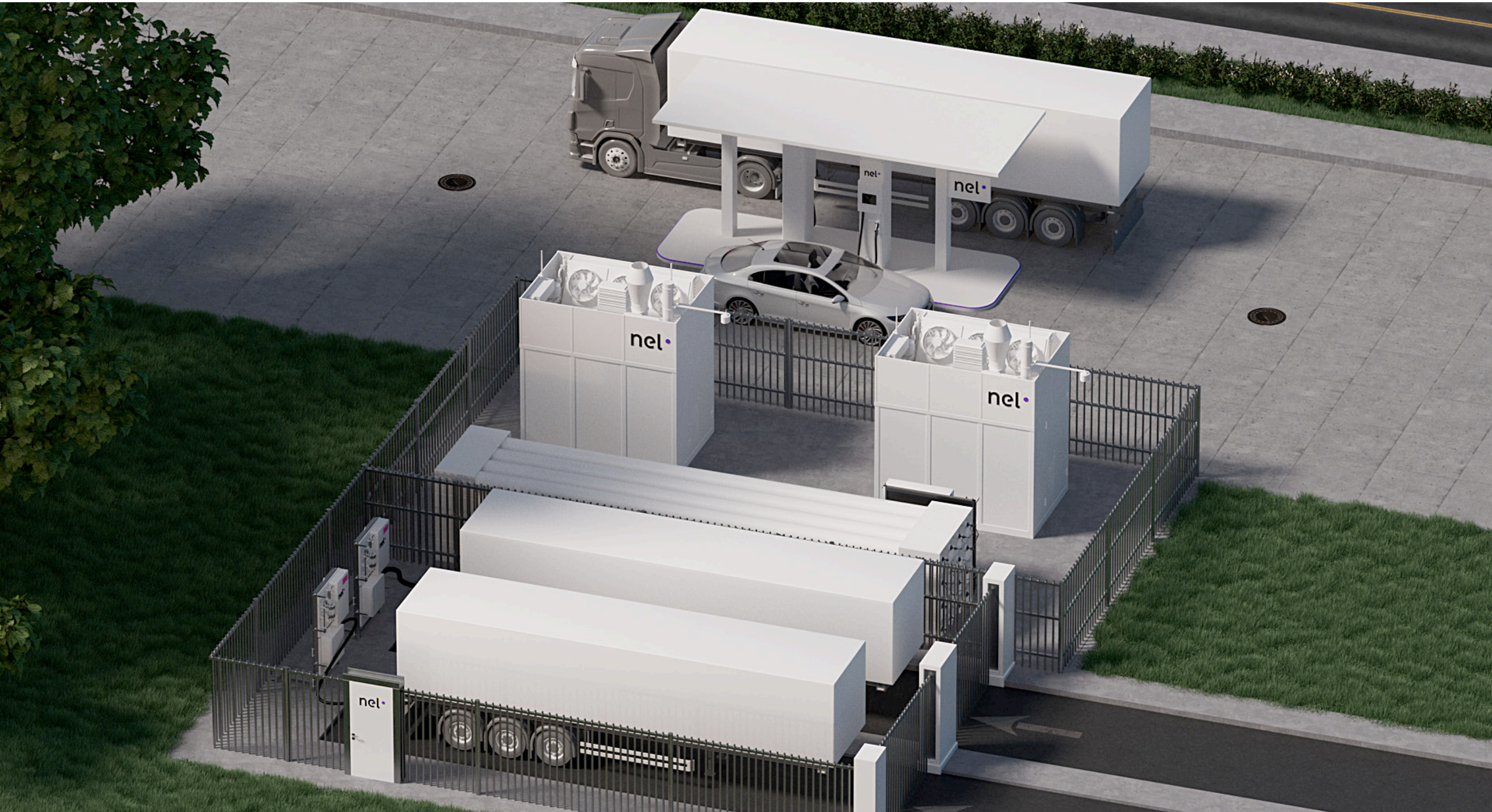
Global 24/7 monitoring system

Preventive and proactive maintenance

Safe and Fast Fueling of Hydrogen

Experience the convenience of our all-in-one hydrogen fueling station. It's designed to effortlessly combine hydrogen supply, compression, and cooling processes with efficient storage and user-friendly dispensing. Ideal for smooth and reliable hydrogen fueling solutions.

20+ years of experience and one of the largest station network worldwide



Full System Breakdown

PEM & Alkaline Electrolysers

Hydrogen Fueling Storage

For fast 70 and 35 MPa fueling of hydrogen at H2Station™

Station Module

Compression, cooling, and fast fueling of hydrogen

Hydrogen Dispenser

Compact hydrogen dispenser for H2Station™

Hydrogen Supply Connection

Vehicles

Passenger cars

Buses

Trains

Trucks

Customer stories

Multipurpose station in South Korea

Location: Pyeoungtaek, Korea
Customer: Kogas Tech
Station Capacity: 600 kg/day
Operational since 2021

KOGAS-Tech

Buses in London

Location: London, UK
Customer: TfL
Station Capacity: 1,200 kg/day
Operational since 2021

TRANSPORT FOR LONDON

Bus Station in Netherlands

Location: Heinenoord, Netherlands
Customer: Everfuel
Station Capacity: 1,200 kg/day
Operational since 2022

Everfuel
beyond renewables

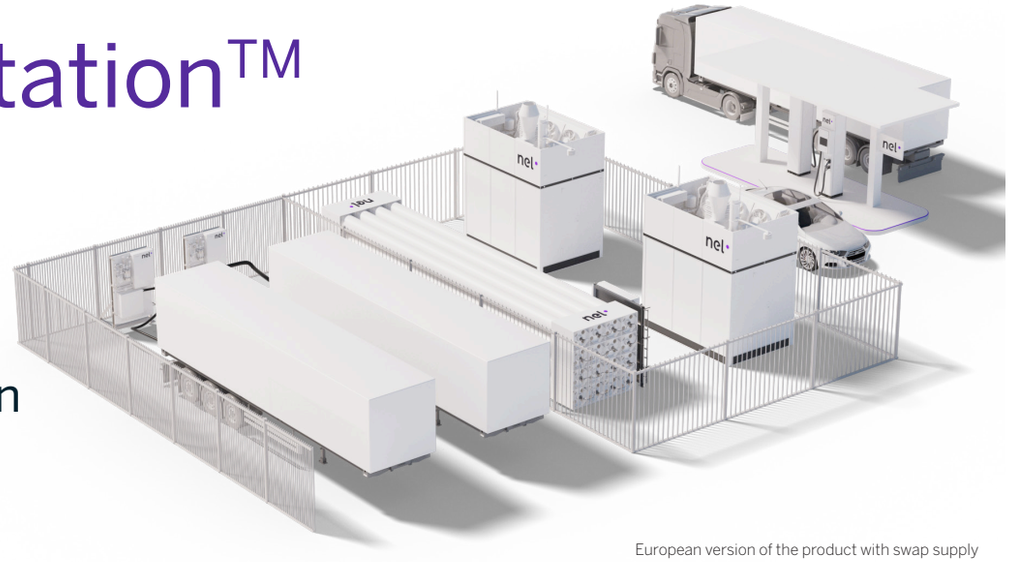
Multipurpose station in Poland

Location: Solec Kujawski, Poland
Customer: Solbet
Station Capacity: 500 kg/day
Operational since: 2023

SOLBET
SINCE 1951

H2Station™

Hydrogen Fueling Station



European version of the product with swap supply

	HS004 2-stage	HS-ABB LP Duplex	HS-AAA HP Duplex
Region	Europe	Europe	US/Canada
COMPRESSOR PERFORMANCE AND ENERGY CONSUMPTION			
*Energy consumption for compression of Hydrogen			
Inlet Pressure @20 MPa	50 kg/h & 1.1 kWh/kg	102 kg/h & 1.2 kWh/kg	44 kg/h & 2.8 kWh/kg
Inlet Pressure @45 MPa			121 kg/hr & 1.3 kWh/kg
SAFETY EQUIPMENT			
Key RCS	CE Marked Functional Safety EN61511 ISO 9001 Certified	CE Marked Functional Safety EN61511 ISO 9001 Certified	UL/cUL Certified Functional Safety EN61511 ISO 9001 Certified
Key Safety Equipment	Full safety Instrumented system (SIS) incl. Mechanical safety - shutoff valves Fully autonomous safety software Leak detection software Hydrogen and CO2 gas detectors Smoke and UV detectors		

	HS004 2-stage	HS-ABB LP Duplex	HS-AAA HP Duplex
Region	Europe	Europe	US/Canada
FUELING INFORMATION			
Ambient temperature	-20 to 40°C		
Storage pressure level	22.5, 45 and 93 MPa	45 MPa	45 MPa
Inlet pressure range	3 - 20* MPa *can be increased by using a pressure regulator	3 - 45 MPa	6 - 50 MPa
Flowmeter / accuracy	Coriolis mass flow meter		
Light Duty Fueling Protocol(s)	H35-T20 SAE J2601-1 (1.2-6 kg) H70-T40 SAE J2601-1 (2-10 kg)	N/A	H70-T40 SAE J2601-1 (2-10 kg)
Medium Duty Fueling Protocol(s)	H35-T20 SAE J2601-1 (6+ kg)	H35 Nel Optifill®	H35 Nel Optifill® H70-T40 JPEC S-0003
Fueling Nozzle	Compliance with ISO 17268 and SAE J2600 H35: 35 MPa, Normal Flow H70: 70 MPa, Normal Flow	Compliance with ISO 17268 and SAE J2600 H35: 35 MPa, High Flow	Compliance with ISO 17268 and SAE J2600 H35: 35 MPa, Normal Flow H70: 70 MPa, Normal Flow
Fueling protocols	SAE J2601-1 (SAE J2601 -2)*	SAE J2601-2 - Optifill	SAE J2601-1 SAE J2601-2 - Optifill
	*SAE J2601-2 is used for for H35 fuelings		
Point-of-Sale (POS) interface	IFSF 2.32 and Gilbarco Two-Wire Protocol		
UTILITY REQUIREMENT			
Voltage	400 VAC Three phase + N	400 VAC Three Phase + N	480 VAC Three Phase + N
Current	150 A	225 A	250 A
Power factor	> 0.9	> 0.9	> 0.9
Inlet connection	Hydrogen Connection = 9/16" C&T MP or 13/16" - 16 UNF - C&T MP or 3/4" BSPT-M Pneumatic Connection = 12 mm hose RSI06.2100/RSI06.2101		
DIMENSIONS			
	Length	Width	Height
Station Module	3.3 m	2.2 m	3.6 m
Dispenser	0.5 m	0.7 m	2.5 m
Swap Panel	1.3 m	1.2 m	2.0 m
Storage Vessels	7 - 12.3 m	0.6 - 2.4 m	0.6 - 2.4 m

Global Experience

North America
68+ stations

- 350 bar bus station in California with On-Site production
- 700 bar HDV station in California
- 700 bar LDV station in California

Europe
61+ stations

- 350 and 700 bar HDV/LDV stations in Poland with On-SIte Production
- 700 bar LDV and 350 bar HDV station in France
- 350 bar bus station in Netherlands
- 700 bar LDV and 350 bar HDV station in Germany
- 350 bar bus station in the UK

Korea
15 stations

- 700 bar LDV station in Korea
- 700 bar LDV and HDV station in Korea

Our Offices

Nel Fueling Denmark
Office Address:
Vejlevej 5
7400 Herning, Denmark

Nel Fueling Austria
Office Address:
Gertrude-Fröhlich-Sandner-Straße 2,
Tower 9, Level 7
1100 Vienna, Austria

Nel Fueling USA
Office Address:
111 Academy, Suite 220,
Irvine CA 92617, United States of America

Nel Fueling Korea
Office Address:
Hasoro 3, Dong-gu,
Daejeon, 300-250, Republic of Korea

Request a quotation

About us

- Nel is a pure play hydrogen technology company listed on Oslo Stock Exchange (NEL.OzqSE).
- At Nel we have a long story of providing safe and reliable H2 systems to our customers since 1927. Safety comes first in everything we do, everyday.
- We are a globally recognised player delivering optimal solutions for the production, storage and distribution of renewable hydrogen around the world.
- Nel is a leading manufacturer of hydrogen refuelling stations, with 130+ H2Station™ solutions delivered/in progress to 13 countries.
- We are the world's largest electrolyser manufacturer (alkaline and PEM), with >3,500 units delivered in 80+countries since 1927.
- Nel is a European company with manufacturing facilities located in Norway, Denmark and U.S., with an established global sales and service network.

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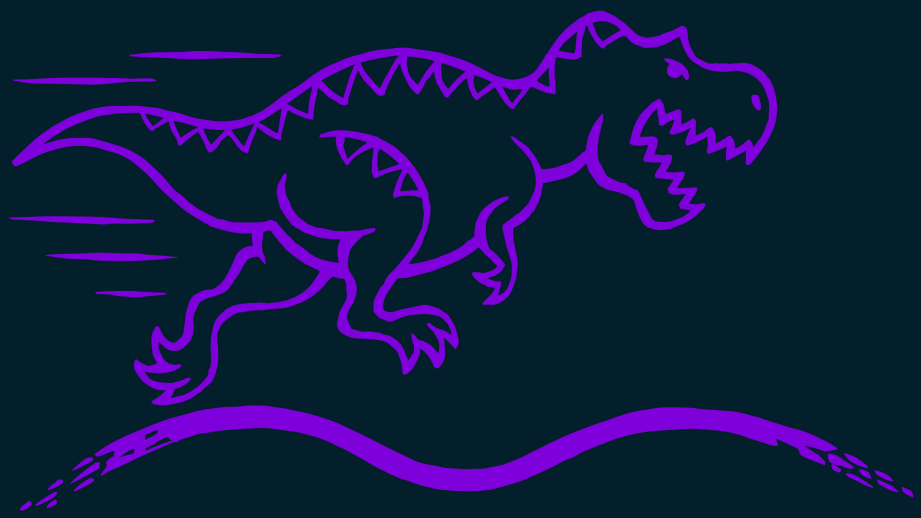

“Thanks for the ride dinosaurs we’ll take it from here”

Nel Hydrogen Fueling

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Denmark