

HYZON

Accelerating the energy transition



Zero Emission Ecomobiel presentation

HYZON Motors Europe B.V.

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ZERO EMISSION
ECOMOBIEL



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HOLTHAUSEN
CLEAN TECHNOLOGY

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CLEAN TECHNOLOGY



Specialized in the development and construction of hydrogen-electric and battery-electric vehicles ...

OUR MISSION, ZERO EMISSION

HYZON Motors was founded as a new company by Horizon Fuel Cell. HYZON is a global supplier of zero-emission, hydrogen fuel cell powered commercial vehicles, including heavy trucks, buses and coaches.

Accelerating the energy transition



HOLTHAUSEN

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WORKING ON ZERO-EMISSION MOBILITY

Holthausen Clean Technology has been involved in hydrogen-electric and battery-electric vehicles for more than five years now.

We began as a developer, converting vehicles powered by fossil fuels to emission-free sustainable future with zero emissions. One example from our portfolio is the world's first hydrogen-powered sweeper.



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HESLA project

The Tesla with hydrogen range extender.



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H2 trucks

The development of emission-free trucks such as the sewer cleaner and garbage trucks.



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Utility vehicles

From large to small sweepers, salt spreaders and other machines.





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HyMax-75 FCEV

3.2T L2 closed Van or Chassis, combi
Hydrogen electric version



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HyMax-80 FCEV

3.5T or 5.5T L3, L4, or L5 closed Van oder Chassis, combi
Hydrogen electric version





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Developments

Own development for prefab preparing the complete electric powertrain with hydrogen components



We offer a wide range of hydrogen-electric and battery-electric trucks with a range of 180 km to 450 km. (or more) In addition, our hydrogen-electric and battery-electric chassis offers the option of supplying the body with power via the existing PTO on the transmission.

It is possible to build our hydrogen trucks for applications such as cooling systems, garbage truck structures, sewer cleaning equipment, dump hooks, and other types of structure on vehicles that come with a bare chassis. We can supply the most common chassis variants for you, including European homologation.



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Our zero-emission trucks

HYZON Motors Inc.

US based operations, assembling global capabilities to be the first US producer of fuel cell trucks and heavy vehicle fuel cell powertrains

A leader in fuel cell truck commercialization through consolidating and spinning-off the vehicle business of Horizon Fuel Cell

Combine sustainable hydrogen supply with fuel cell commercial vehicles to achieve attractive TCO – aim to match diesel vehicle TCO by 2023

Established Hyzon Motors Europe joint venture with Holthausen Clean Technology in the Netherlands, and Hyzon branded vehicles are being built now



HYZON

HyMax-160

The HYZON HyMax-160 chassis is perfectly suited for applications such as rigid trucks, refrigerated trucks or refuse trucks.



HYZON

HyMax-250

The HYZON HyMax-250 chassis or tractor is perfectly suited for applications such as rigids, refrigerated trucks or (Inter)National transport.



HYZON

HyMax-450

The HYZON HyMax-450 chassis or tractor is perfectly suited for applications such as rigids, refrigerated trucks or (Inter)National transport.



The logo for HYZON, featuring the letters H, Y, Z, O, N in a stylized, blocky font. The 'Z' and 'O' are blue, while the others are black.

HyMax-160

Electric driveline

Electric motor type: HYZON-160-M
Motor power: 160 kW, with a peak power of 260 kW
Voltage system: 450 V
Battery pack: 70 kWh
Onboard-charger: 22 kW
Type of connection for charging: CCS / Type 2

Hydrogen driveline

Type Fuel Cell: HYZON-80-F
Power Fuel Cell: 80 kW
Cylinder pressure: 350 Bar
Standard amount of Hydrogen: 30 kg

Basic specifications chassis

Type chassis: HyMax-160 (DAF LF)
Minimal wheelbase: 3.900 mm
Type of gearbox: 6 speed automatic Allison gearbox
PTO: Possibility to be connected to the gearbox
Structure options: Box, RCV, Refrigerator, empty chassis

Options for HyMax-160

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar
Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW

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HyMax-250

Electric driveline

Electric motor type: HYZON-250-M
Motor power: 250 kW, with a peak power of 350 kW
Voltage system: 700 V
Battery pack: 140 kWh
Onboard-charger: 22 kW
Type of connection for charging: CCS / Type 2

Hydrogen driveline

Type Fuel Cell: HYZON-120-F
Power Fuel Cell: 120 kW
Cylinder pressure: 350 Bar
Standard amount of Hydrogen: 30 kg

Basic specifications chassis

Type chassis: HyMax-250 (DAF CF)
Minimal wheelbase: 3.850 mm, preferred 4.000 mm
Type of gearbox: 6 speed automatic Allison gearbox
PTO: Possibility to be connected to the gearbox
Structure options: Box, RCV, Refrigerator, empty chassis

Options for HyMax-250

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar
Stronger motor: 450 kW motor
Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW

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HyMax-450

Electric driveline

Electric motor type: HYZON-450-M
Motor power: 450 kW, with a peak power of 550 kW
Voltage system: 700 V
Battery pack: 140 kWh
Onboard-charger: 22 kW
Type of connection for charging: CCS / Type 2

Hydrogen driveline

Type Fuel Cell: HYZON-120-F
Power Fuel Cell: 120 kW
Cylinder pressure: 350 Bar
Standard amount of Hydrogen: 30 kg

Basic specifications chassis

Type chassis: HyMax-450 (DAF XF)
Minimal wheelbase: 3.850 mm, preferred 4.000 mm
Type of gearbox: 6 speed automatic Allison gearbox
PTO: Possibility to be connected to the gearbox
Structure options: Box, RCV, Refrigerator, empty chassis

Options for HyMax-450

Remove 1 or add 1 extra cylinder: 5 kg per cylinder at 350 Bar
Extra Fuel Cell power: Can be adjusted by a minimum of 20 kW

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Hyzon Hymax as a complete solution for a sewer cleaner,
box truck or garbage truck, for example...



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HYZON HyMax trucks





We work with partners to offer the total solution to our end users





HYZON HyMax-250 4x2 Puller

The new series model from HYZON Motors. The first of its kind and also a demo truck for all of Europe as soon as it is finished.
(Mid-November 2021)





HYZON HYDROGEN COACH BUS

The HYZON 12 meter Coach bus is perfect for long journeys. By default, this bus can travel up to +/-800 km. The bus is 12 meters long.

This model will soon be launched on the European market. 12- and 18-meter city buses also follow



HYZON

HYZON Motors Europe production hall Winschoten

The very first HYZON production hall in which production for the world market starts



31st of March,
Public Announcement

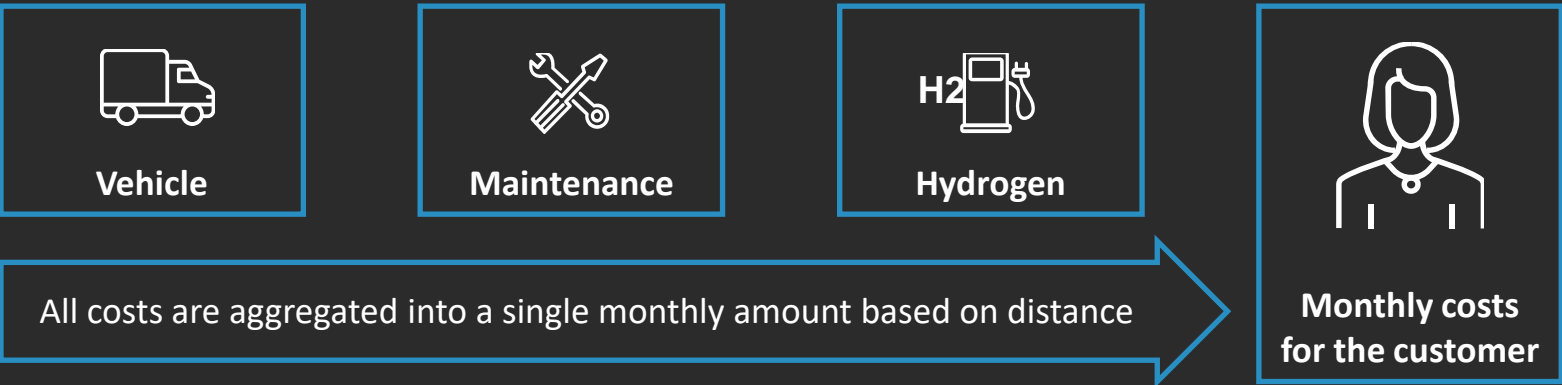
Hyzon Motors Inc., a leading global supplier of zero-emission hydrogen fuel cell-powered commercial vehicles, today announced it has launched leasing service for the provision of heavy-duty fuel cell electric vehicles (FCEVs) to its customers in the European Union.



HYZON Motors offer

With the advanced Horizon fuel cell technology, HYZON Motors is in a leading position to offer a full range of vehicles up to large tonnage at competitive prices with conventional diesel vehicles

HYZON Zero Carbon offers vehicles complete cost integration, avoiding capital charges and uncertainties in operating costs



*TCO equivalence must also be achieved in Europe
distributed hydrogen costs of approx. 4/5 EUR per kg*



What do we need for a suitable infrastructure for hydrogen powered vehicles...?

- »» Hydrogen refueling station infrastructure
- »» Green hydrogen
- »» Dealer network for service & maintenance (aftersales)
- »» Acceptance from Insurance Companies
- »» Financial Institutions to invest in sustainable mobility
- »» The role of governments, regional- and local authorities



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If you want to stay informed of all developments, visit the website and register for all our news: www.hyzonmotors.com



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This is the end of my
presentation...

Thank you for your attention !