



Main Specifications

Item Model		Xcient Fuel Cell
Vehicle Type		Cargo (Chassis Cab)
Cab Type		Day Cab
Drive System		LHD / 4 x 2
Dimensions [mm]		
Wheel Base		5,130
Overall (Chassis Cab)		
	Length	9,745
	Width	2,515 (2,550 with side protector), Maximum allowable width 2,600
	Height	3,730
Weight [kg]		
Max. Gross Combination Weight		36,000 as pull-cargo
Max. Gross Vehicle Weight		19,000 as rigid truck
	Front / Rear	8,000 / 11,500
Empty Vehicle Weight (Chassis Cab)		9,795
Calculated Performance		
Drive Range		Accurate range to be confirmed later
Max. Speed		85 km/h
Powertrain		
Fuel Cell Stack		190kW (95kW x 2EA)
Battery		661V / 73.2kWh - by Akasol
Motor / Inverter		350kW / 3,400Nm - by Siemens
Transmission		ATM S4500 - by Allison / 6 forward and 1 reverse speed
Rear Axle ratio		4.875
Hydrogen Tank		
Filling Pressure		350 bar
Capacity		32.09kgH2 (available hydrogen amount at SOF 100%)
Brake		
Service Brake		Disc
Auxiliary Brake		Retarder (4-Speed)
Suspension		
Туре	Front / Rear	Air (2-bag) / Air (4-bag)
Tires	Front / Rear	315/70R22.5 / 315/70R22.5
Safety		
Front Collision-avoidance Assist (FCA)		Standard
Smart Cruise Control (SCC)		Standard
Electronic Braking System (EBS) +Vehicle Dynamic Control (VDC)		Standard (ABS is included in VDC)
Lane Departure Warning (LDW)		Standard
Air Bag		Option

*Hyundai Motor Company reserves the right to change specifications and equipment without prior notice.

Dimensions



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Why Hydrogen for Heavy Road Transport?

Refueling time and range are important factors definitely for the operation of heavy duty trucks. In this regard, hydrogen is the best suitable fuel for heavy duty trucks by ensuring a short refueling time and long distance driving while promoting the zero-emission solution.

Eco-friendly and still energy-efficient solution for transportation

Easy Fueling

Xcient Fuel Cell can be charged within 8-20 minutes* per single charge, ensures smooth opeation.

*Based on 350 bar tank pressure *May change depending on outer tank temperature

Long Range

Xcient Fuel Cell reaches a drive range around 400 km per charge, thereby providing the ideal solution for long-distance operation. *Driving distance range around 400 km* in the 4 x 2 rigid body configuration while towing an 18-ton trailer *Depends on several conditions



Our Journey towards Zero Emissions has started

The era of fossil fuel may have gifted us convenience, but it is affecting the beauty of the world around us and the air we breathe.

Hyundai is one of the first to see the potential of hydrogen as an alternative energy which can replace fossil fuels for a more sustainable future.

It represents the 100% zero-emission on a well-to-wheel basis where the hydrogen is produced from renewable energy.

A new chapter of Xcient Fuel Cell, the future of logistics without environment pollution, starts now.



Technology & Performance

Eyes are on Hyundai's fuel cell heavy duty truck running on the road based on its technological strength. Xcient Fuel Cell promises powerful driving on every road, just like how trucks should be.

FCEV powertrain developed by Hyundai's unique technology

Fuel Cell System

The core device enabling electrochemical reaction of hydrogen and oxygen to produce electric energy

*Max. power 190kW (95kW stack X 2)

High-Voltage Battery Pack

It supports fuel cell system by storing or discharging electricity. The battery pack further allows recuperation during braking.

*Battery pack capacity 73.2kWh (24.4kWh X 3)

Hydrogen Storage System

Seven equally-sized tanks for the maximum range at the lowest possible cost

*Tank capacity 32.09kg (available hydrogen amount at SOF 100%)

Driving Motor

Generates driving force from electric energy supplied from the stack and battery *Max, power 350kW









Bringing the Future Closer to Us

To get this truck running on the road, a complete H2 ecosystem is necessary. Here's the entire set of factors on this value chain including the hydrogen supplier, hydrogen refueling station, customer and truck. Let's find how we approached in Switzerland as the first step.

First Step in Switzerland

Build Partnerships

Build partnerships with hydrogen value chain players and various stakeholders to form a hydrogen community. 1,600 hydrogen trucks will be operated in Switzerland by 2025.

Well-to-Wheel Zero Emission

100% Green Hydrogen produced from renewable energy sources. It represents the 100% zero-emission on a well-to-wheel basis.



