STILL

Energy Solutions
24 V Fuel Cell System

Fuel Cell

first in intralogistics

Today, it is entirely possible to make intralogistics processes both economically efficient and climate-neutral; the two are no longer at odds. When paired with sustainably produced, green hydrogen, fuel cell technology provides forward-thinking solutions for creating emission-free internal material flows. Powerful and ready for use at all times: hydrogen is the perfect energy source for multi-shift operation and a smart alternative to battery-driven trucks for companies with large fleets and a high volume of operating hours. Fuel cell technology offers an exceptionally clean drive system, making it highly suitable for industries with stringent hygiene requirements.

Quality made in Hamburg: STILL is the only forklift truck manufacturer in Europe to produce their own fuel cell systems. STILL's 24 V fuel cell system for warehouse trucks was specially developed by the company and is produced at the company's Hamburg site. The fuel cell system is a self-contained unit, allowing for a subsequent switch from battery power to fuel cell propulsion. As such, STILL offers a 'Fuel Cell Ready' option for selected vehicles, giving you the freedom to switch to our innovative fuel cell technology made by STILL at any time.

We will not leave you alone on this journey. Quite the contrary. Our technicians are always by your side and will support you with their expertise and know-how in handling this emerging intralogistics technology. In addition, our tight-knit service network is always available and just a stone's throw away – you can count on it. You can also rely on our partners. We work with renowned manufacturers and hydrogen experts to produce holistic solutions and can provide you with comprehensive advice and support on the topic of hydrogen infrastructure, not only for our 24 V fuel cell system, but also for 48- and 80 V solutions.

Conclusion: Battery changes and long charging times are a thing of the past thanks to our powerful 24 V fuel cell system. It takes just a few minutes to fill up one of our trucks for the next shift at the dispenser (similar to a fuel pump), giving you a constant power supply, without any drop in performance, for up to nine hours of driving time. And it gets even better: hydrogen dispensers do not require much space and can be flexibly positioned in the warehouse based on your specific requirements and seamlessly integrated into existing transport and working routes. For even more efficiency and handling performance.

Who will benefit most from the use of fuel cell technology and hydrogen utilisation in intralogistics?

- Customers with large truck fleets of more than 50 trucks and more than 1,500 operating hours per year
- Customers who can leverage synergies in hydrogen production and utilisation, e.g. those that can use renewable energy sources (wind power, photovoltaics) to produce their own hydrogen
- Customers in close proximity to hydrogen pipelines or sources
- Customers with additional hydrogen applications such as heavy-duty H_2 trucks, production facilities or emergency power generators that use hydrogen, e. g. customers in the automotive, wholesale & retail and 3PL sectors

Technical data

Manufacturer	**STILL**	**Available trucks**
Voltage	24 V	OPX 20/25/Plus
Continuous performance	1.8 kW (Begin of Life)	OPX-L 20
Peak performance	7 kW	OPX-D 20
H_2 storage	0.6 kg (type I = steel tank)	OPX-L 20 S
H_2 nozzle	SAE J2600 350 bar	OPX-L16
H_2 storage pressure	350 bar at 15 °C	OPX-L 12
H_2 refuelling time	~90 s	OXV 07/08/10
Cooling	Air-cooled, no process water	LTX 50
Battery energy content	3 kWh	
Plug	160 A, DIN 43589	
Operating temperature	+3 °C – 40 °C	
Ambient temperature	>0 °C	
Dimensions	786 × 310 × 630 mm; tray 67	
Weight	338 kg	
Display	External display	
Service interval	According to vehicle service interval	
Air filter change	Depends on customer application	
Service life	10000 operating hours	

Maximum availability and efficiency thanks to short refuelling times and a constant energy supply

Maximum flexibility in the warehouse and optimised use of space thanks to the dispenser, which can be positioned along transport routes, without requiring a separate charging space

Actively working to protect the environment and conserve resources: emission-free material flow and conservation of valuable resources such as rare earth elements

The 'Simply Efficient' factors: Performance attributes as a measure of economic efficiency

Simply easy

- As easy as filling up: a few minutes at the dispenser is enough to fill up with enough power for an entire shift
- Ready at all times: fuel cell technology makes replacing batteries and long charging times a thing of the past
- Strategically pre-planned: STILL offers a 'Fuel Cell Ready' option for selected trucks, giving you maximum flexibility to switch to fuel cell technology at any time

Simply powerful

- High-performance for multi-shift operation and during extended operating hours: the 24 V fuel cell system gives you up to nine hours of driving time on just one tank
- Constant, high power supply without a drop in performance thanks to the hybrid system consisting of a fuel cell and a 3 kWh lithium-ion battery as energy storage

Simply safe

- Quality and safety made in Germany: the STILL fuel cell system is safe and is produced at the company's Hamburg production site
- Ensure workplace health and safety, even indoors, through CO_2-free operation that uses non-toxic, non-corrosive and residue-free combustible hydrogen

Simply flexible

- Flexible refuelling in just a few minutes to give you strong performance in multi-shift operation and during periods of high operating volumes
- Flexible refuelling infrastructure that is optimally integrated into your warehouse layout and in accordance with existing transport routes

Simply connected

- Intelligently interconnected for the control of the fuel cell system and monitoring of performance data

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STILL is certified in the following areas: Quality management, occupational safety, environmental protection and energy management.

Fuel Cell EN 07/23 Subject to technical modifications.

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