TRADESHOW CORPORATE FLYER

Powering Industry with Green Hydrogen

Integrated hydrogen production, transport and industrial decarbonisation solutions — designed for deployment at the point of use.



01

ONSITE H_2

Green hydrogen plants at or near the point of use.

02

RETROFIT

Transition existing hydrogen supply systems to green hydrogen.

03

GREEN TRANSPORT

Hydrogen technologies for locomotive applications.

04

INDUSTRIAL HEAT

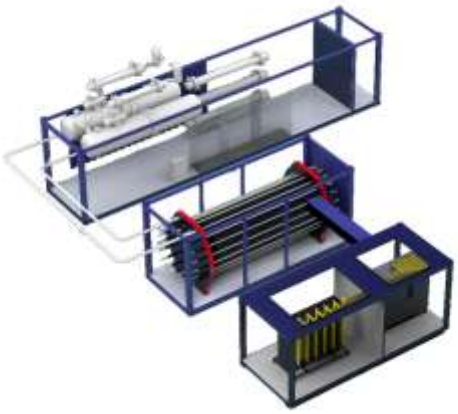
Decarbonisation solutions for high-temperature processes.

WEST HYDROGEN (Pty) Ltd | Sandton, Johannesburg, South Africa

HYDROGEN PRODUCTION

Scalable Electrolyser Systems

Modular alkaline electrolysis solutions for projects from distributed production to utility-scale green hydrogen plants.



PRODUCT PLATFORM

Alkaline Electrolysers

West Hydrogen offers patented alkaline-type hydrogen production electrolyser systems designed for the green hydrogen market.

- Single-stack designs from 1 kW up to 5 MW
- More than 15 standardised models
- Hydrogen production from 1 Nm^3/h up to 4,000 Nm^3/h or higher
- Customised capacity to suit project requirements
- Containerised and compact outdoor configurations

SCALE-UP CONCEPT

20 MW Base Module

Stated production capacity: approximately 8,500 kg of hydrogen per day. The modular architecture is intended to scale into hundreds of MW and GW-class plants.



INTEGRATED DEPLOYMENT

Production + Compression + Storage + Dispensing

The containerised approach supports integrated hydrogen generation and refuelling infrastructure for mobility and industrial applications.

STANDARDS REFERENCED BY WEST HYDROGEN

ISO 22734 • ASME VIII Div. 1 • NFPA 2 • IEC requirements

GREEN TRANSPORT

Hydrogen Technologies for Rail

A pathway to lower-carbon rail operations through fuel-cell and hydrogen-engine technologies.

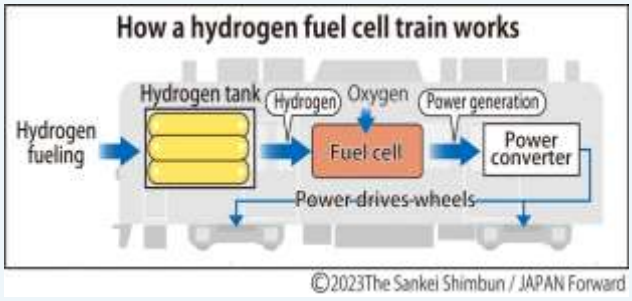


LOCOMOTIVE APPLICATIONS

From Diesel to Hydrogen

West Hydrogen proposes conversion of diesel-powered locomotives to hydrogen propulsion using either fuel-cell technology or hydrogen-fuelled compression engines.

- Fuel-cell electric propulsion pathways
- Dual-fuel hydrogen engine options
- 100% hydrogen engine options
- Reduced dependence on conventional diesel
- Retrofit approach subject to engineering assessment and certification



SYSTEM PRINCIPLE

Hydrogen Fuel-Cell Rail

Hydrogen is stored onboard and supplied to a fuel cell, where electrochemical conversion produces electricity for the traction system. Water is the principal point-of-use by-product of the fuel-cell reaction.



Hydrogen-capable engine technologies provide an alternative pathway where the duty cycle and engineering case support combustion-based conversion.

INDUSTRIAL DECARBONISATION

Hydrogen Beyond Transport

Green hydrogen can support both mobility and hard-to-abate industrial applications where high-temperature energy is required.



HIGH-TEMPERATURE PROCESSES

Decarbonising Industrial Heat

West Hydrogen develops solutions aimed at substituting fossil-fuel energy with green hydrogen in high-temperature industrial processes, alongside efficiency improvements and carbon-management strategies where applicable.

- Process-heat decarbonisation
- Fuel switching to green hydrogen
- Integration with renewable hydrogen production
- Solutions tailored to project requirements

MEET WEST HYDROGEN

Let's Build the Hydrogen Economy

Discuss your hydrogen production, rail, refuelling or industrial decarbonisation project with our team.

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