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## DEDICATED **TO DISCOVERY**

ELGA LabWater are specialists in the engineering, service & support of water purification systems.

Unrivalled product design has achieved international recognition and awards.

Worldwide technical service teams support prestige science, healthcare & industrial organizations globally.

A global supply chain supports clients from regional centres on every continent. ELGA is part of the world's largest environmental services organisation: Veolia.



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reddot design award winner 2011











**Compact. Reliable. Proven.** 

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## **PURENERGY**BO

PURENERGY

VEOLIA

VEOLIA

## Hydrogen: essential for a low carbon future

Green hydrogen is produced using sustainable electricity sources combined with proton electrolyte membrane (PEM) water electrolysis.

### WATER PURITY IS CRITICAL FOR EFFICIENT GREEN HYDROGEN PRODUCTION

Lowering the cost of hydrogen production means maximising the efficiency of the electrolysis process.

PEM, using an acidic electrolyte requires purified water to avoid deterioration of catalysts and membranes due to the impact of organics & transition metals.

Within PEM hydrogen production, ions, particles and organics all have the potential to adhere to the surface of an electrode.

Surface contamination can either reduce process efficiency, cause damage or shorten equipment life span, all of which can increase hydrogen production costs. As such, a consistent supply of purified water is essential for efficient PEM hydrogen production.



# ELGA Veolia, purified water in mission critical applications worldwide

ELGA & Veolia provide ultrapure water expertise to prestige life science, clinical, academic, industrial and research organizations globally.



### PURENERGY30



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Total Organic Carbon (TOC)

Make Up Rates

**Daily Output** 

Hydrogen Produced by Electrolyser

>1MΩ.cm

<50ppbC\*

Up to 30 litres per hour

Up to 720 litres

30Nm³/h

\*Feedwater dependant





# The PURENERGY 30. Compact, reliable & proven globally

The PURENERGY 30 is a compact, high performance water purification system for PEM Electrolyser Systems with purified water demands of up to 30 l/hour. Guaranteed water purity, space saving design and simple maintenance, makes the PURENERGY 30 an ideal solution to feed hydrogen Electrolyser Systems producing up to 30Nm<sup>3</sup>/h of hydrogen.



#### Compact

550mm wide and 460mm height. Wall mountable, optional docking vessel - saving valuable space



#### **Eco-aware**

The EDI technology minimizes environmental impact



Reliable

ELGA Veolia 's extensive experience in mission critical environments means reliability is tested, proven and unrivalled



Easy to Use

A near plug & play installation process combined with automated monitoring & alarms enables a simple set up & operation



Regular recirculation through the system's purification technologies ensure the water specification is maintained



#### Simple Maintenance

The expertise gained from a global installed base delivers an easily serviceable unit

### **DELIVERING CONSISTENT PERFORMANCE OF HYDROGEN GENERATION ELECTROLYSERS** WORLDWIDE

PURENERGY

VEOLIA

VEOLIA



### **Compact. Reliable. Proven.**



## Working with green hydrogen innovators world wide

ELGA Veolia's purified water experience will ensure the consistent performance of your hydrogen generation systems.

Maximising electrolyser efficiency, minimising cooling loads & minimising system complexity are all key components in the success of the hydrogen economy.

ELGA & Veolia's global service network enables service packages to ensure the availability & electrolyser efficiency essential for the commercial success of green hydrogen. ELGA & VEOLIA PROVIDE MISSION CRITICAL PURE WATER SERVICES TO THE MOST DEMANDING ORGANISATIONS ON THE PLANET

# Unmatched global support & solutions

As part of the Veolia group, the world's largest environmental company, ELGA operates in over 60 countries worldwide, offering local support to cutting edge organisations in industrial, clinical, academic and prestige research organisations globally.

The ELGA / Veolia service offer includes more than 1000 ELGA trained Engineers in over 70 Countries.





The ELGA product range offers water for every pure water requirement, quality which is beyond question, unmatched value and complete adaptability. The ranges are reliable, robust & simple to use and maintain.

