

*Think Green. Drive Green.*



# WELCOME TO THE INNER CIRCLE OF POWER.

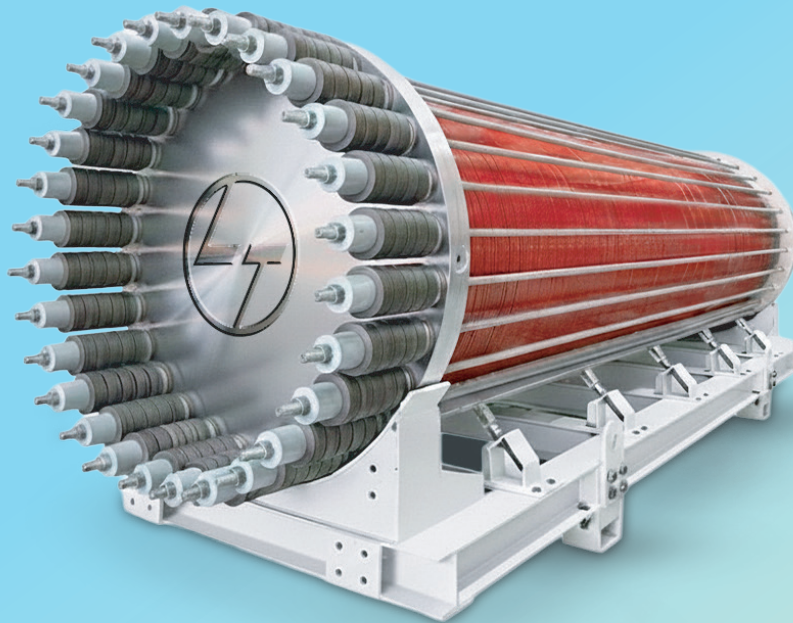
Electrolysers by L&T



## About L&T

Larsen & Toubro, India's leading technology-led engineering solutions and services company, has played a vital role in the country's national movements for over 80 years, including its green energy goals. Through ventures across core industries, L&T meets critical economic requirements while enhancing quality of life and creating long-term stakeholder value.

As builders to the nation, L&T stands alongside its clients, driving progress and laying foundations for a happier, brighter tomorrow.



## About L&T Electrolysers Ltd (LTEL)

L&T Electrolysers Ltd pioneers innovative, sustainable solutions to meet future energy needs and create a greener world. The company is committed to Green Hydrogen, a promising alternative fuel that reduces greenhouse gas emissions and enhances energy security.

The state-of-the-art Electrolyser Manufacturing Facility in Hazira, Gujarat, manufactures pressurized Alkaline electrolyzers based on a license from McPhy Energy, a leading electrolyser technology company.

This makes L&T Electrolysers Ltd the first Indian manufacturer with pressurized Alkaline technology that is capable of meeting the demands of the domestic as well as international markets for Green Hydrogen generation.



# Product Excellence

The Product is a cutting-edge, European-technology-based pressurized Alkaline electrolyser manufactured by L&T. It is engineered for efficiency and flexibility and designed to meet the growing demand for green hydrogen. With advanced features and robust performance, the Product ensures optimised hydrogen production, making it the ideal choice for Green Hydrogen production solutions.



## Next-Gen Efficiency

Best-in-class performance for cost-effective and sustainable green hydrogen production.



## Advanced Stack Technology

Leverages next-gen materials and a high-performance membrane for optimal efficiency and durability.



## Rapid Response

Hot standby for extended durations; reaches full load in <30 sec, perfect for variable RE power.



## Hydrogen Quality

**99.999% purity**  
with high-pressure  $H_2$  &  $O_2$  discharge.



## High Flexibility

Turndown up to 40% for seamless adaptation to demand fluctuations and RE variability



## Design & Safety

Compliance to International Codes and Standards for

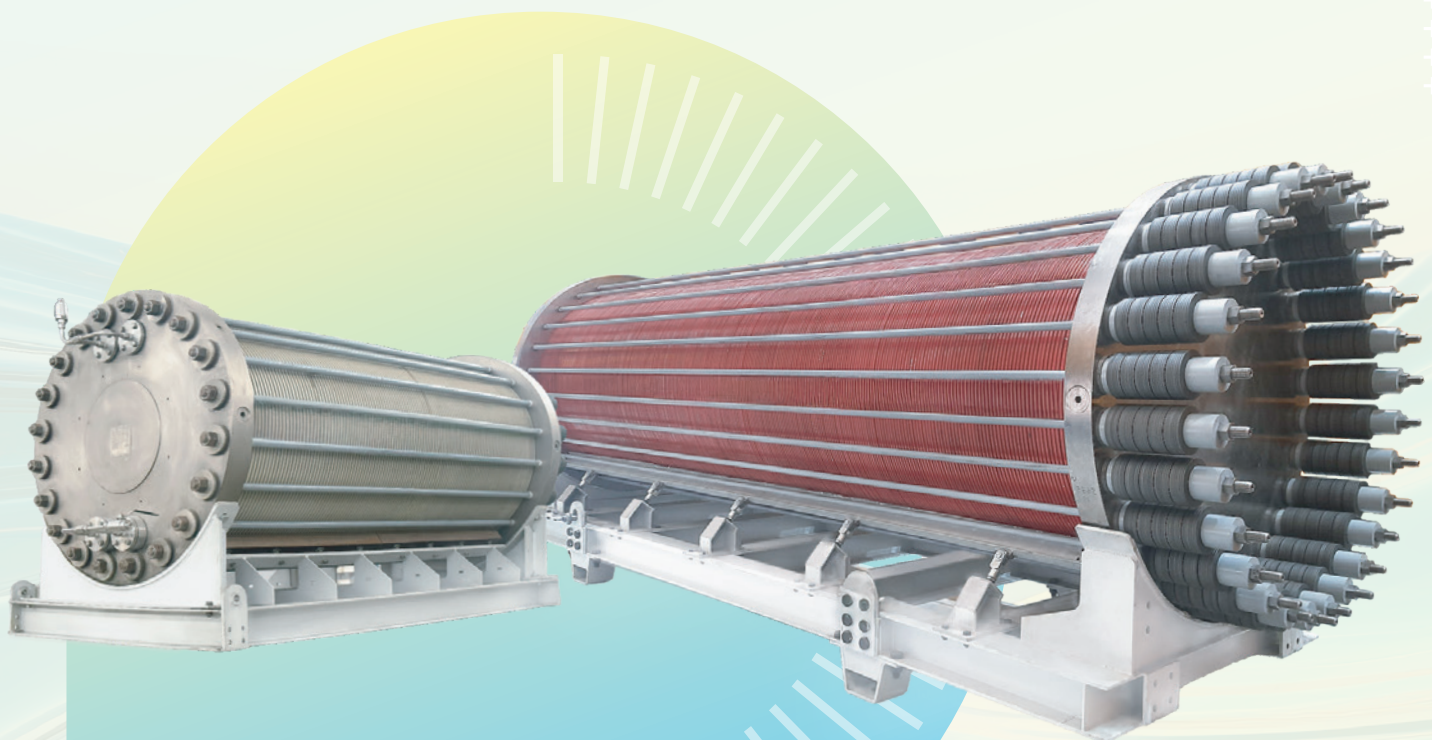
**ISO/IEC/NFPA/ASME/PED**

# Technical Specifications

## Product Fact Sheet

Power Class	1 MW	2 MW	4 MW	8 MW	16 MW
System Design Life (Mechanical)	+ 20 Years				
H <sub>2</sub> Flow Rate	200 Nm <sup>3</sup> / hr	400 Nm <sup>3</sup> / hr	800 Nm <sup>3</sup> / hr	1600 Nm <sup>3</sup> / hr	3200 Nm <sup>3</sup> / hr
H <sub>2</sub> Purity	> 99.999% after HPS				
O <sub>2</sub> Purity	99% at Electrolyser Outlet				
H <sub>2</sub> Delivery Pressure	~ 26 - 28 bar (g)				
O <sub>2</sub> Delivery Pressure	~ 28 bar (g)				
Stack DC Consumption	4.2 - 4.5 kWh/Nm <sup>3</sup>				
Operation Range	20 – 100%				
Reaction Time	< 30/60s from hot stand-by to 100 %				
Ramp-Up / Down	>5%/s   20 %/s				

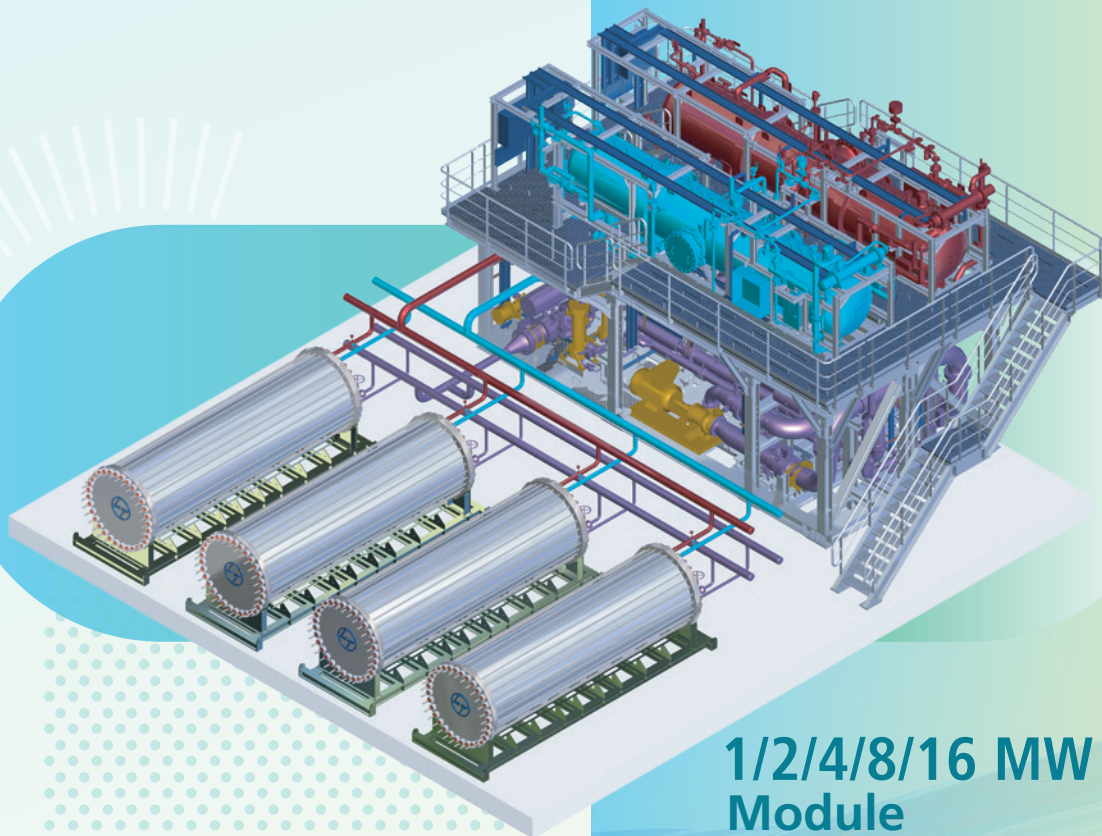
## Product Portfolio



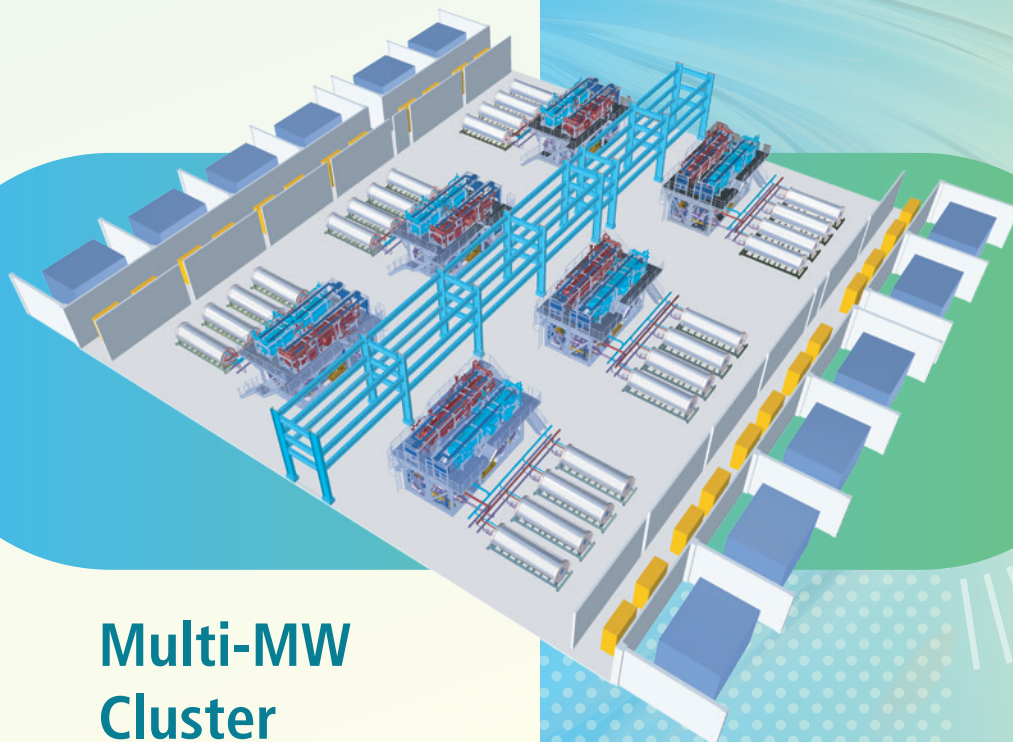
**0.5 MW and 4 MW  
Stacks**



# Modular Solutions



**1/2/4/8/16 MW  
Module**



**Multi-MW  
Cluster**

## Proven Technology



Larsen & Toubro (L&T), a technology-driven engineering and construction leader, is firmly committed to sustainability and the advancement of India's green energy ecosystem. Aligned with the nation's transition from "Make in India" to "Made in India," L&T is actively co-creating a robust green hydrogen value chain.

At the core of this effort is the manufacturing of advanced Pressurized Alkaline Electrolysers, built in India. L&T's Made-in-India electrolyser solutions are recognized for their superior efficiency, operational flexibility & robustness, modular solution making them well suited for a wide range of industrial applications and an attractive investment for businesses across scales.

L&T has made significant investments in research and development, focused on advancing technology, optimizing costs, and delivering next-generation electrolyser solutions with an aim to provide safe, efficient, reliable electrolysers at competitive price. The state-of-the-art R&D facility is well equipped for advanced & alternate material testing, prototype development, and product-level validation.

To ensure world class quality and performance, L&T Electrolysers operates a dedicated full-scale testing facility. An electrolyser stack undergoes rigorous hydrostatic and leak testing to validate mechanical integrity and pressure containment, followed by cathode activation and conditioning. Comprehensive performance testing is conducted prior to dispatch to ensure consistent and reliable operation in the field.

L&T's integrated ecosystem encompassing manufacturing, R&D, testing infrastructure forms the foundation of the robustness, safety, and performance of its electrolyser systems, reinforcing L&T's position as a trusted partner in the global green hydrogen transition.





# L&T Electrolyser Manufacturing

## ■ Facility - Key Highlights ■



### **Manufacturing Location**

Hazira, Gujarat



### **Product Line**

Stack & Process Unit



### **Technology**

Pressurized Alkaline Electrolysis

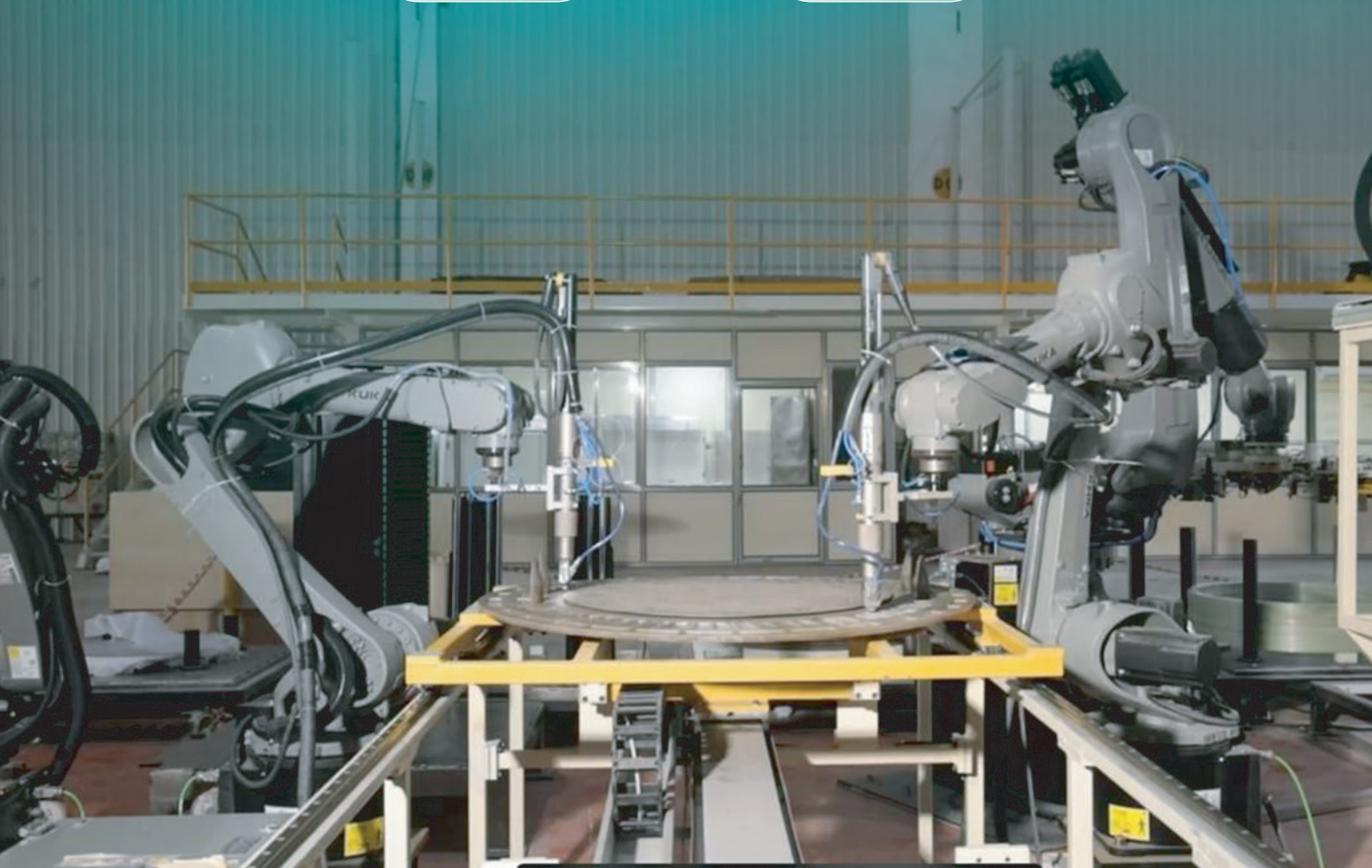


### **Capacity GW Scale**



### **Proximal Advantage**

Connected to Industrial Corridor and port





# INDIA'S FIRST FULLY INTEGRATED GH2 Plant

## Demonstrating L&T's Indigenous Manufactured Electrolysers



200 Nm<sup>3</sup> / hr (~1 MW)

Fast Ramp – Up / Down

Industrial usage for Oxygen

Hotstand by-24 hrs  
(Daily Start / Stop)

Cofiring H<sub>2</sub> and  
NG in Furnace

Pressurized H<sub>2</sub> and  
O<sub>2</sub> delivery

## Expertise Advantage

L&T's profound commitment to sustainability and reliability shines through this product - a testament to their expertise. L&T offers an extensive supply chain support, high precision craftsmanship, and engineering excellence, all encapsulated in the product. The company goes the extra mile by providing Indigenous service solutions, ensuring long service life for these electrolysers. This unwavering long-term service commitment makes L&T an invaluable and dependable partner for Green Hydrogen Production, contributing to the growth of a greener economy.

### L&T Electrolysers Limited

**Mumbai:** Landmark Building, A wing, 4<sup>th</sup> Floor, Suren Road, Off Andheri-Kurla Road Chakala, Near W.E.H Metro Station, Andheri East, Mumbai - 400093, INDIA | Email: LTGreen@Larsentoubro.com

**Vadodara:** L&T Knowledge City, Gate No.1, Corporate Block, 3<sup>rd</sup> Floor, NH-8, Ajwa-Waghodia Crossing, Vadodara - 390019, Gujarat, INDIA

Registered Office:  
Larsen & Toubro Limited, L&T House, N. M. Marg, Ballard Estate, Mumbai 400 001. INDIA. | CIN - U28299MH2023PLC405501

[www.lntgreen.com](http://www.lntgreen.com)

Scan to download

