

METHANOL

→ HYDROGEN

→ ELECTRICITY

*Energy, where it matters*



**M REFORMER**



# About Methanol Reformer

## Energy, where it matters



Since 2023, Methanol Reformer has been developing advanced methanol reforming technology to enable decentralized, reliable and low-emission hydrogen and power generation.

Our mission is to deliver flexible energy solutions where traditional infrastructure cannot reach, supporting industry and society with reliable, on-demand power and hydrogen.

We design and manufacture systems that convert methanol into high-purity hydrogen and electricity, ensuring efficiency, scalability and full independence from the grid.

9

Projects delivered

7

Countries

4

Years combined expertise

15

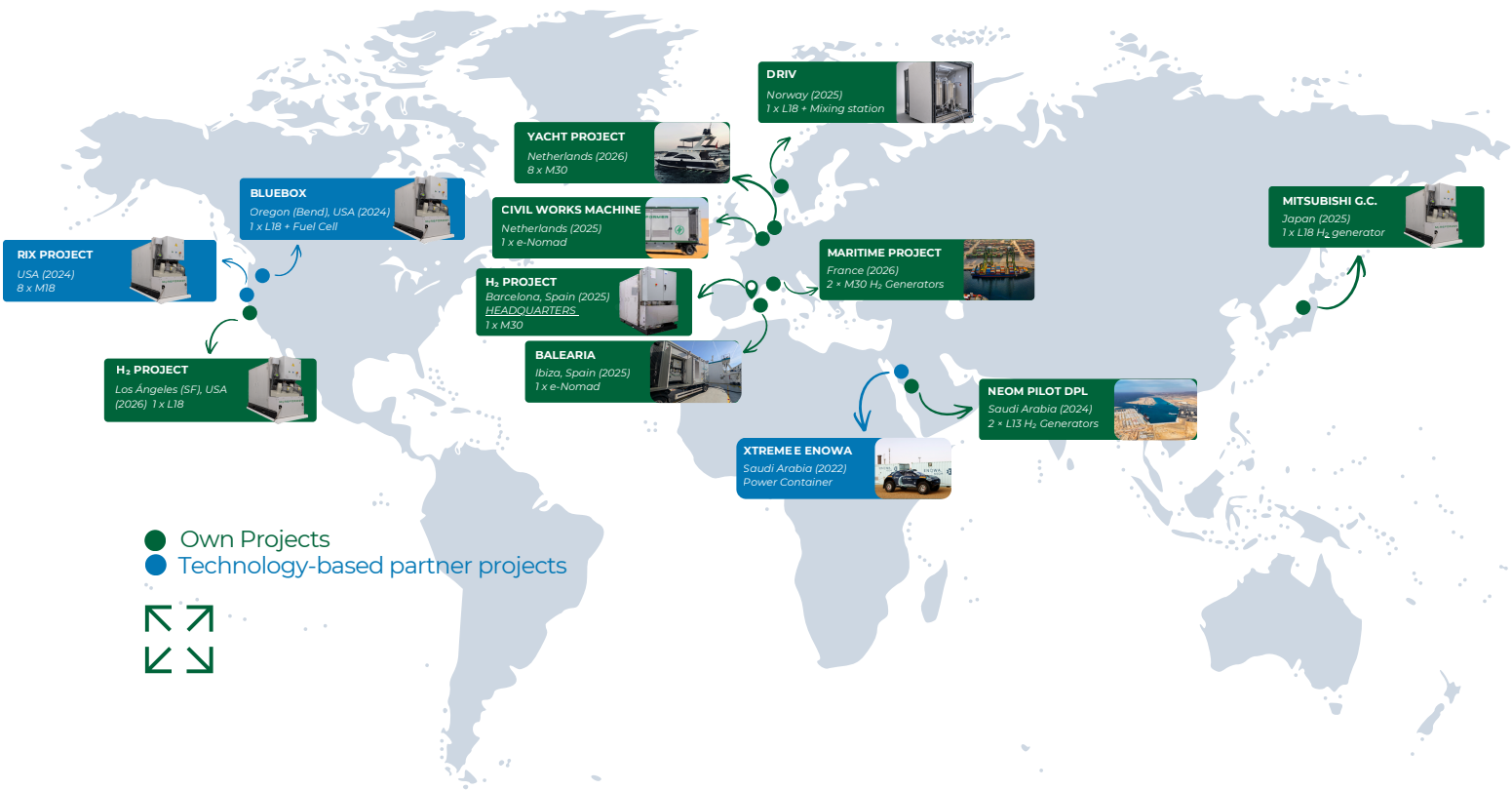
Strategic partnerships

### Partnerships & Collaborations



# Our projects around the world

Our technology is already supporting energy needs across multiple regions, enabling reliable and clean power in demanding environments.



## Contact with our team

Our team combines expertise in hydrogen, energy systems and industrial deployment to support your project from concept to operation.



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# Energy, where it matters Everywhere. Anytime.

## Cross-sectorial applications

Our solutions integrate seamlessly into critical environments where energy reliability is essential:

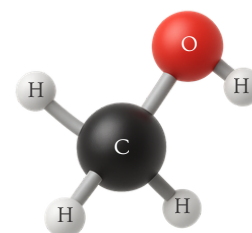
**Mining & Construction | Ports & Maritime | Airports | Industrial | On-board |  
Service Stations & Mobility | Warehouse & Logistics | Backup Power Systems**



## Why methanol?

Widely available, safe & efficient for H<sub>2</sub> logistics

- ⚡ **High-density** hydrogen carrier (CH<sub>3</sub>OH)
- ⚡ **Liquid** at ambient conditions
- ⚡ **Safer & easier** to transport than other H<sub>2</sub> carriers
- ⚡ Widely **available worldwide**
- ⚡ **Low-carbon** fuel supporting the energy transition
- ⚡ Enables **cost-efficient, large-scale** logistics
- ⚡ Can be **converted into electricity** without combustion
- ⚡ **Platform molecule** to produce other fuels
- ⚡ Key enabler for **decentralized energy systems**



## Methanol Reformer solutions

Generate your own hydrogen on-site

We design and deliver **reliable, efficient and scalable systems** for on-demand hydrogen and power generation using methanol reforming technology.

We are committed to providing **customized solutions** tailored to the specific needs of your company or project. Discover our **stand-alone solutions** (L/M18 & L/M30) or **integrated solutions**.



### Stand-alone systems

- L/M18: 9.8 kgH<sub>2</sub>/hr (≈150 kWe)
- L/M30: 16,2 kgH<sub>2</sub>/hr (≈250 kWe)

### Integrated solutions

- Containerized systems
- Plug & Play
- Modular & Scalable
- Mobile or stationary

## Why MReformer

- |  |  |
|--|--|
| ⚡ No <b>NOx, SOx or particulate</b> emissions                                | ⚡ <b>Fast deployment</b>               |
| ⚡ <b>Grid independent</b>  | ⚡ <b>24/7</b> autonomous operation     |
| ⚡ High <b>purity hydrogen (99,997%)</b>                                      | ⚡ <b>Low noise</b>                     |
| ⚡ Low CO <sub>2</sub> emissions ( <b>carbon neutral</b> with green methanol) | ⚡ <b>Minimal maintenance</b>           |
| ⚡ <b>Low CAPEX / OPEX</b>  | ⚡ <b>Instant hydrogen</b> availability |
|  | ⚡ <b>Scalable</b> systems              |

## Delivering the solution for H<sub>2</sub> logistics

Methanol enables cost-efficient hydrogen transport

**1 TRUCK OF METHANOL = 12 TRUCKS OF COMPRESSED H<sub>2</sub>**



3.6 Tons  
**H<sub>2</sub>**



**Methanol x 1 truck**  
+600 km + 1.37 Tn CO<sub>2</sub>

**Compressed H<sub>2</sub> x 12 trucks**  
+ 7.200 km + 16.4 CO<sub>2</sub>

\*Source for the calculation CO<sub>2</sub> from trucks: Transport & Environment (2021). Easy Ride: why the EU truck CO<sub>2</sub> targets are unfit for the 2020s  
\*\*3.6 Tn H<sub>2</sub> requires 18 Tn D.I. water for the reformation process

# METHANOL TO HYDROGEN TO ELECTRICITY

Generate clean energy where you need it!

## Methanol

Methanol & DI water



Hydrogen

Gas

## CORE TECHNOLOGY

## Hydrogen Generator | L/M18 & L/M30

On-demand hydrogen from methanol



## SOLUTIONS PORTFOLIO

Methanol → Hydrogen → Power



### L/M18

- Up to **235 kg** H<sub>2</sub>/day
- ≈150 kWe equivalent
- Compact & modular



### L/M30

- Up to **390 kg** H<sub>2</sub>/day
- ≈250 kWe equivalent
- Higher capacity for larger applications

## Key features

- High purity hydrogen (>99.97%)
- On-site and on-board integration
- Scalable architecture
- Fast hydrogen availability



## H<sub>2</sub> CONTAINERIZED HYDROGEN SOLUTIONS

### Flexible hydrogen supply, on-demand *H<sub>2</sub> & Power Made Easy*



#### SOLUTIONS PORTFOLIO

Reliable hydrogen generation for multiple applications, built on our core reforming technology.



#### **H-NOMAD | UP TO 16.2 KG H<sub>2</sub>/H**

Mobile hydrogen production (20 ft container).

**Includes:** LM18/ LM30 reformer, buffer tank, compression system, power electronics & control system.

#### **CHG3/CHG6 | Up to 50 kg H<sub>2</sub>/h**

Stationary hydrogen production (20ft or 40ft).

**Includes:** LM30 reformer, buffer, compression, power controls.



## Benefits

- Decentralized hydrogen production
- Reduced transport costs
- Flexible deployment
- Scalable capacity



## Generate electricity where you need it

*H<sub>2</sub> & Power Made Easy*



### SOLUTIONS PORTFOLIO

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Our power solutions combine hydrogen and fuel cells to deliver clean, reliable electricity - fully off-grid.



#### e-Nomad | 140 kW

Mobile electric power generation (20 ft container).

**Includes:** LM18/ LM30 reformer, fuel cell, battery pack, power electronics & control system.

#### CPG | 250 kW

Stationary electric power generation (LM30 unit)

**Includes:** LM30 reformer, fuel cell, power electronics & control.



## Benefits

- Reduces emissions with clean electricity
- Silent operation
- Grid independence
- 24/7 availability



## ADDITIONAL SOLUTIONS

## Complementary systems to support operations and integration

*H<sub>2</sub> & Power Made Easy*

## SOLUTIONS PORTFOLIO



### Mixing Station | 250 L/h

- Safe, precise methanol-water preparation
- Continuous, controlled fuel supply for reformers
- ATEX-classified for industrial safety

### M2Power 250 kW/h by PowerCell

- Marine-ready electricity generation system
- Integrated methanol reformer + fuel cell technology
- Simplifies fuel cell deployment onboard vessels



## ADDITIONAL SOLUTIONS

## H<sub>2</sub> purge services for Tube Trailers

*Low-intensity hydrogen process designed to improve efficiency and reduce hydrogen consumption during trailer purging operations.*

## SOLUTIONS PORTFOLIO

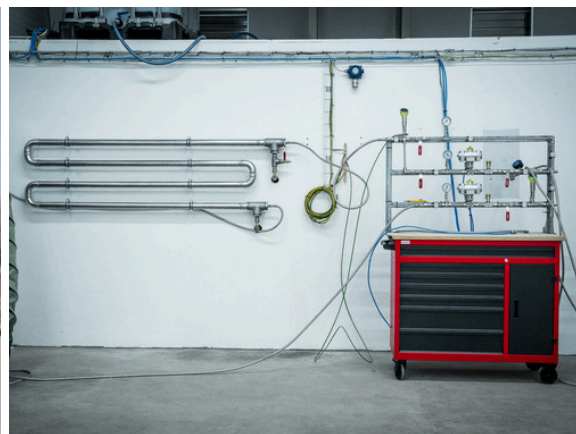
### Warm Flushing | H<sub>2</sub> Purge for Tube Trailers

A controlled hydrogen-based flushing process that improves safety, reduces resource use and optimizes operational turnaround for tube trailers.

- Low-intensity hydrogen process
- Faster contaminants removal
- 30-60% lower H<sub>2</sub> consumption
- Optimized OPEX & turnaround time

### How does the process work?

- Hydrogen is introduced into the trailer system
- A controlled flow displaces residual gases (N<sub>2</sub>, O<sub>2</sub>)
- Enables faster removal of contaminants
- Vent gas is recovered and recirculated to support facility heating



## SERVICES

## Comprehensive support across your project

We support your project at every stage, ensuring safe, reliable, and optimized operation.

## SERVICES PORTFOLIO

### Remote Monitoring & Control

- Real-time system supervision
- Custom alarm management
- Safety & performance diagnostics
- Optimized operation & energy use
- 24/7 remote monitoring & operation
- Full remote control of the system

### Maintenance

- Fast intervention thanks to local stock availability
- Preventive & corrective maintenance
- Predictive maintenance enabled by 24/7 monitoring
- Ensures long system lifetime & reliability

### Technical Support & Training

- Operator & basic maintenance training (Level 1)
- Commissioning support & start-up assistance
- System integration support
- Expert guidance for smooth deployment & operation



## CLIENT PROJECTS

## REAL PROJECTS. REAL IMPACT.

## Baleària | Cap de Barbaria

## BALEARIA

First autonomous e-methanol power generation container deployed onboard an electric ferry in Europe.

The system generates electricity from hydrogen produced via e-methanol, supporting battery charging and enabling real-world validation of onboard hydrogen generation under operational conditions.

A pioneering project advancing energy efficiency and decarbonization in short-distance maritime transport.



“

*“This system allows us to test hydrogen generation onboard in a real operational environment on a key route.”*

**- Javier Cervera, Corporate Director of Institutional Relations & Energy Transition, Baleària**

## CLIENT PROJECTS

## REAL PROJECTS. REAL IMPACT.

DRIV Hydrogen | BioH<sub>2</sub> Genset

Successful commissioning of a BioH<sub>2</sub> genset using bio-methanol in Kløfta, Norway.

The system generates hydrogen and electricity under real operating conditions, ensuring reliable 24/7 performance and demonstrating the readiness of decentralized energy solutions for industrial deployment.

A key project validating scalability, operational reliability and the role of bio-methanol in low-emission energy systems.



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*“This milestone demonstrates that the technology works and provides a solid foundation for further development.”*

**- Kristian Morken, CEO, DRIV Hydrogen**

# ANNEX Graphic material



[L/M 18](#)



[L/M 30](#)



[e-Nomad - Datasheet](#)



[e-Nomad - Onepage](#)



[H-Nomad - Datasheet](#)



[H-Nomad - Onepage](#)



[Brochure \(Short Version\)](#)

# ANNEX Multimedia material



## Energy, where it matters

Integrated hydrogen & power solutions  
for real-world applications



Integrated solutions for hydrogen and power supply, designed for mobile and stationary applications.

Our containerized systems enable reliable energy generation in local or remote environments, with scalable configurations from kW to MW level.

# M REFORMER

Let's build your energy solution.

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 **LinkedIn:** [www.linkedin.com/company/m-reformer](http://www.linkedin.com/company/m-reformer)

