



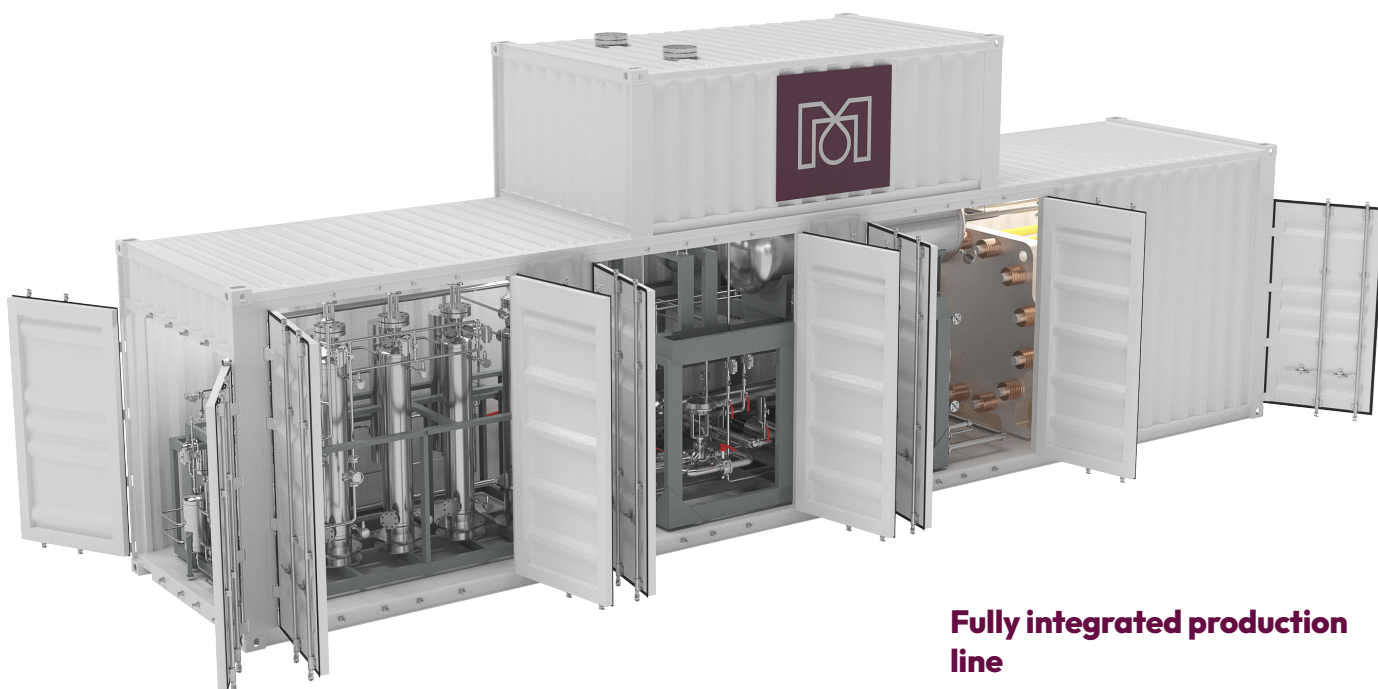
FACTORY-INTEGRATED HYDROGEN PRODUCTION SYSTEMS FOR RAPID DEPLOYMENT

1-5 MW Containerised Electrolyser Modules

Metacon's containerised electrolysis solutions provide a compact and factory-integrated solution for hydrogen production, designed for pilot projects, demonstration facilities and industrial applications requiring rapid deployment and minimal site infrastructure.

Factory-integrated solution

Delivered as a complete, factory-integrated hydrogen production line in standard ISO containers, minimising site work, reducing installation risk, and simplifying project execution



Fully integrated production line

Includes electrolyser stacks, gas-lye separation, power rectification, process control, cooling and optional purification.

No dedicated building required

Outdoor-ready containerised modules minimize site infrastructure and simplify project execution.

High-pressure hydrogen output

Pressurized alkaline technology delivers hydrogen at up to 30 bar, reducing downstream compression duty.

Rapid and flexible deployment

Pre-engineered and factory-tested modules simplify installation and accelerate project schedules.

Image shows a 1 MW containerised system with integrated GLS and lye treatment. Power and utilities supply systems not shown.



Modular containerised alkaline electrolyser units

Scale from a single unit to multi-container plants of 20 MW and beyond. Each system is configured to the required pressure, hydrogen purity, and site interfaces, enabling straightforward integration into industrial operations.

PARAMETER	SPECIFICATION
Nominal capacity	1-5 MW per containerised system
AC power consumption incl. BoP losses	4.6-4.8 kWh/Nm ³
Hydrogen production rate	200-1000 Nm ³ /h
Electrolyser configuration	1-5 MW per unit with auxiliary, electrical and utility systems containerised separately
Hydrogen output pressure	Up to 30 bar
Hydrogen purity	≥99.999 vol.% after purification
Load range	40-100% single-stack configuration, wider for multi-stack plants
Power conversion	Integrated transformers and rectifiers
Gas treatment	Gas-lye separation and optional purification
Process control	PLC control system with HMI and SCADA/DCS integration
Cooling system	Integrated cooling and utility interfaces
Structural design	Standard 40 ft ISO containers or custom units
Installation	Outdoor-ready, no dedicated building required
Scalability	Single unit to 20 MW+ plants
Stack design lifetime	>80,000 operating hours
Compliance	CE marking, European manufacturing standards

Metacon's scope of supply

Metacon designs and delivers hydrogen production systems tailored to site conditions, process requirements, and downstream integration needs. Acting as a single point of contact, Metacon supports projects from engineering and implementation through startup, training, and long-term service.

Long-term service agreements

Metacon offers an optional LTSA covering scheduled maintenance, stack health monitoring, spare parts management, and performance support throughout the system lifetime. Customers benefit from a single service partner and point of contact for long-term plant operation.