

HYDROGEN GAS GENERATOR SERIE RACK-H2



The RACK-H₂ hydrogen generators use the latest polymer electrolyte membrane (PEM) technology to produce pure hydrogen.

The RACK-H₂ series generators are ideal for:

- Ionization flame detector (FID)
- Carrier gas for GC e GC-MS
- Collisions on ICP-MS
- Small fuel-cell cylinder refills
- Total hydrocarbon analyser

Benefits and Savings

■ Improved chromatograph result

The use of hydrogen as a carrier gas allows lower temperature elution, thus extending the life of the chromatograph column. Hydrogen as a carrier gas is faster and more sensitive than the more-expensive helium. Run time savings of 25% to 35% without a decline in resolution.

■ Increased laboratory efficiency

A constant, uninterrupted gas supply of guaranteed purity eliminates interruptions of analyses to change cylinders and reduces the amount of instrument re-calibrations required.

■ Improved safety

The very limited internal volume (less than 50 ml) allows safe use of the gas generators where the use of cylinders is risky or prohibited.

The application of tested safety technologies stops the unit in the event of leaks or malfunctions

■ Simple installation

Gas generators can be installed in the laboratory, on or under a bench, eliminating the need for long gas lines from cylinders secured elsewhere.

Standard Features

- **Two models available :**
 - **ND-H2** : single column dryer located at the rear of the unit
 - **PAR-H2**: single column dryer with programmable automatic regeneration via integrated clever calendar
- **Flow rate** 120, 160, 250, 400, 500, 650, 800 and 900 cc/min
- **Pressure up to 12 bar; on request 16 bar**
- **Patented gas/water separator electronically controlled**
- **LCD touch screen with user friendly menu**
- **Remote PC monitoring** in standard via RS232 or RS485 to interface the unit with customer's PC software
- **Internal tank of 1,2L electronically controlled (can be filled from external tank automatically or manually by only a single tube)**
- **Water tank protected and filtered**
- **Capabilities allowing to work in parallel mode**

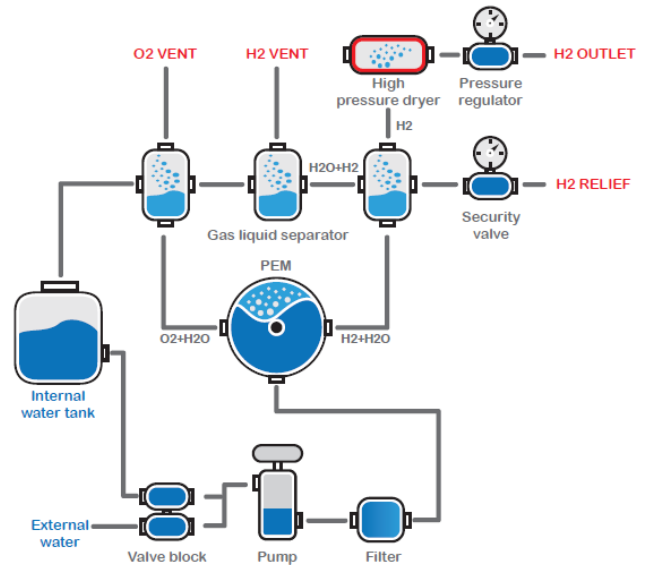
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Hydrogen is produced using distilled or deionised water from hydrolysis, through a polymer membrane.

Electrolytic dissociation separates the water into its two main components: hydrogen ready for analytical use, and oxygen that is released into the air.

No acid nor alkaline solutions are used in the hydrogen generation cycle.

The exclusive parallel working option allows up to 10 units to be connected, producing flow-rates of up to 9 litres /min!



Technical Specifications

| Models | RACK-H2-120 | RACK-H2-180 | RACK-H2-260 | RACK-H2-400 | RACK-H2-500 | RACK-H2-650 | RACK-H2-800 | RACK-H2-900 |
|---------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| H2 flow rate cc/min | 120 | 180 | 260 | 400 | 500 | 650 | 800 | 900 |
| H2 purity | > 99.9995% for ND-H2 series > 99.9999% (O2 Dewpoint < -65°C) for PAR-H2 series | | | | | | | |
| Delivery pressure | 1 - 12 barg (16 barg on request) | | | | | | | |
| Internal water tank | 1.2 liters (automatic refill with single tube) | | | | | | | |
| External water tank | 5 L (10L optional) | | | | | | | |
| Temperature range | From 5°C to 35°C | | | | | | | |
| LCD touch screen | Resolution 128x64 touch screen (operating parameters, system status, alarms) | | | | | | | |
| In series | - communication port : RS-232, RS-485, USB, LAN - it can be filled from external tank (5 liters (10 liters optional)) automatically or manually by only a single tube | | | | | | | |
| Options | Possible to work in parallel mode | | | | | | | |
| Water quality | Deionised or distilled > 10MΩ | | | | | | | |
| Dimensions | Standard 19" Rack 4U – deep 40cm | | | | | | | |
| Outlet port | 1/8 Swagelock | | | | | | | |
| Weight | From 15 to 25kg depends of model | | | | | | | |
| Power consumption | From 200W to 800W depend of model | | | | | | | |
| Certification | CE | | | | | | | |