

## HYDROGEN GAS GENERATORS SERIE RACK-H2



The RACK-H<sub>2</sub> hydrogen generators use the latest polymer electrolyte membrane (PEM) technology to produce pure hydrogen.

The RACK-H<sub>2</sub> series generators are ideal for:

- Ionization flame detector (FID)
- Carrier gas for GC e GC-MS
- Small fuel-cell cylinder refills

### Benfits 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

Three models available :

- **ND-H2** : simple column dryer located at the rear of the unit
  - **PAR-H2**: simple column dryer with programmable automatic regeneration via integrated clever calandar
  - **WM-H2**: no desiccant cartridge maintenance is required : used a double column dryer with automatic regeneration
- **Flow rate** 180, 260, 400, 500, 650, 800, 900,1000 cc/min
  - **Pressure up to 12 bar; on request 16 bar**
  - **Patented gas/water separator electronically controlled**
  - **LCD touch screen with user friendly menu : real time outlet pressure, water quality, water level, autodiagnosics with alarms**
  - **Remote PC monitoring in standard via RS232 or RS485 to interface the unit with customer's PC software**
  - **Internal tank level of 1,2L electronically controlled (when needed it is filled from external tank automatically by only a single tube)**
  - **Remote wireless display control in option**

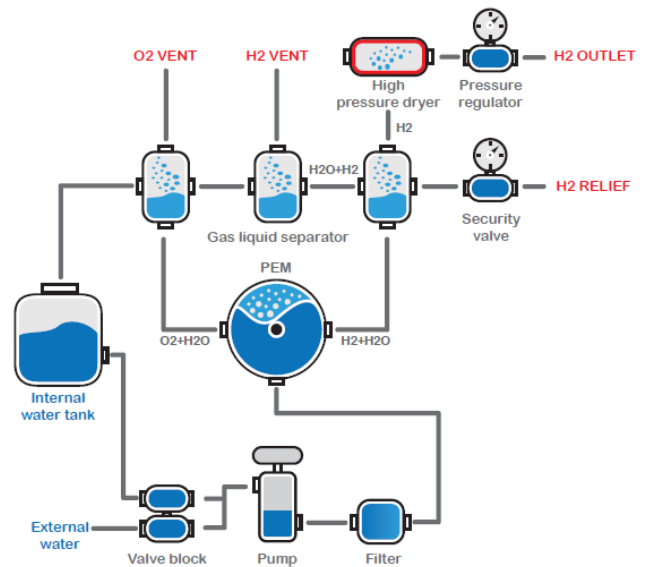
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**Hydrogen** is produced using distilled or deionised water from hydrolysis, through a polymer membrane. Electrolytic dissociation separates the water into its two main components: hydrogen ready for analytical use, and oxygen that is released into the air.

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

The drying system is different following the model used :

- **ND-H2 Series** : the desiccant cartridge is easy to remove for replacement or for refilling
- **PAR-H2 Series** : used a single column dryer with programmable automatic regeneration via an integrated calendar
- **WM-H2 Series** : no desiccant cartridge maintenance is required : used a double column dryer with automatic regeneration



### Technical Specifications

H2 Models	ND-H2 Séries	PAR-H2 Séries	WM-H2 Séries
Flow rate (cc/min)	120,180, 260	120,180, 260, 400	120,180, 260, 400, 500, 650, 800, 900, 1000
Purity	> 99.9995%	> 99.9999%	> 99.99999%
Max. Pressure	@ 12 bar ( 16 bar on request)		
Internal water tank	1.2 liters with automatic refill with single tube)		
External water tank	5L (10L optionnal)		
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		
Options	- Remote wireless display control - Possible to working in parallal mode		
Water quality	Deionised or distilled > 10MΩ		
Dimensions	Standard 19" Rack 4U-deep 40 cm		
Outlet port	1/8 Swagelock		
Weight	From 15 to 25kg depends of model		
Power consumption	From 200W to 800W depend of model		
Certification	CE		

**F-DGS SAS,**

8-10 rue du Bois Sauvage, BAT. Q18, 91000 EVRY, FRANCE

Tél: +33 1 64 98 21 00 - Fax: +33 1 64 98 00 43 -

email: info@f-dgs.com - site web: www.f-dgs.com