

Hydrogen Gas Generator 19"

« Serie RACK.H2 »

The RACK-H2 hydrogen generators use the **exclusive electrolyte membrane technology (PEM cell) 100% full titanium** to produce high grade purity H2 gas.

The exclusive cold dual dynamic regeneration dryer on RACK.MF series is completely maintenance free and allows continuous operation 24 hours a day. The automatic checking for internal leaks whenever starting the unit and constant control of operating parameters guarantee maximum safety.

The drying system is different following the model :

- **RACK.MB.H2 Series** : use a Drying system : static, maintenances-free
- **RACK.MF.H2 Series** : use an exclusive cold dual dynamic regeneration dryer

Applications :

- GC-FID • GC-FPD • GC-NPD • GC-TCD
- ICP-MS • THA • Fuel cell
- GC-Carrier gas
- Hydrogenation



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 :
 - **RACK.MB.H2**: use a Drying system: static, maintenances-free
 - **RACK.MF.H2**: exclusive cold dual dynamic regeneration dryer
- Flow rate: 100 to 1400 cc/min
- Pressure up to 11 bar (160 psi)
- LCD touch screen: with indication in real time: H2 outlet pressure, H2 flow rate, water quality, water level, system status with auto-diagnostics of breakdown with alarms
- Remote PC monitoring via RS232/RS485/USB to interface the unit with customer's PC software (allow the end user to be connected with the manufacturer for remote diagnostics)
- Up to 32 units can be controlled in cascading mode

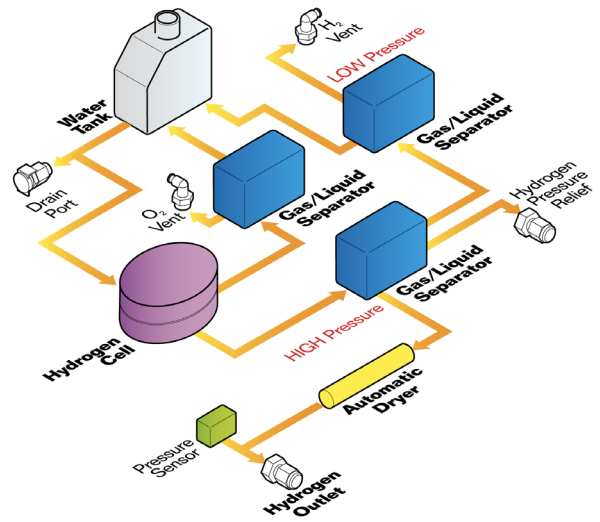
OPERATING PRINCIPLE

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 :

- **RACK.MB.H2** : use a Drying system : static, maintenances-free
- **RACK.MF.H2** : exclusive cold dual dynamic regeneration dryer



Models	RACK.MB.H2.100 RACK.MB.H2.160 RACK.MB.H2.250 RACK.MB.H2.300 RACK.MB.H2.500 RACK.MB.H2.600	RACK.MF.H2.100 RACK.MF.H2.160 RACK.MF.H2.250 RACK.MF.H2.300 RACK.MF.H2.500 RACK.MF.H2.600 RACK.MF.H2.1000 RACK.MF.H2.1200 RACK.MF.H2.1400
H2 flow rate - cc/min	100,160, 250, 300, 500, 600	100, 160, 250, 300, 500, 600, 1000, 1200, 1400
H2 purity	> 99.9996%	> 99.99999%
Cell type	Exclusive PEM 100% full titanium	
H2 dryer	Drying system : static, maintenances-free	Exclusive cold dual dynamic regeneration dryer
Delivery pressure	0.1 - 11 bar (1 - 160 psi)	
Internal rack water tank	300 ml with automatic refill via an internal sucking water pump	
External water tank	5 L or 7 L	
Temperature range	From 5 - 35°C (41 - 95°F) and humidity 80% to 25°C (77°F)	
LCD digital screen	Digital screen with (operating parameters, system status, alarms) with LED indicators (Power on /off; ready or errors)	
Communication	RS-232, RS-485, USB, PC control monitoring	
Option: Software function	Up to 32 units can be controlled in parallel mode	
Water quality	Deionised, ASTM II, < 0.01 µS	
Dimensions	Standard 19" Rack 3U - depth 54 cm	
Outlet port	1/8 Swagelock	
Weight (kg/lbs)	17 / 37	20 / 44
Power supply voltage	110 - 120 V 60 Hz / 220 - 240 V 50 Hz	
Certification	CE, CSA, FCC	



The products are guaranteed 12 months. Beyond, your investment continues to be supported by our maintenance program "Gold Service". Our world class technical assistance offers Programmed preventive maintenance to ensure optimal performance of your Gas generator F-DGSi and a priority intervention in case of failure.

F-DGSi

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