

Hydrogen gas generator

« Serie PAR-H2 »

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

The PAR-H2 unit use a single column dryer with programmable automatic regeneration via an integrated clever calendar.

The exclusive, electronically-controlled gas/liquid separator, automatic checking for internal leaks whenever starting the units and constant control of operating parameters, guarantee maximum safety.

The touch screen LCD interface provides simple and user-friendly management of all functions on the unit



Applications :

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

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

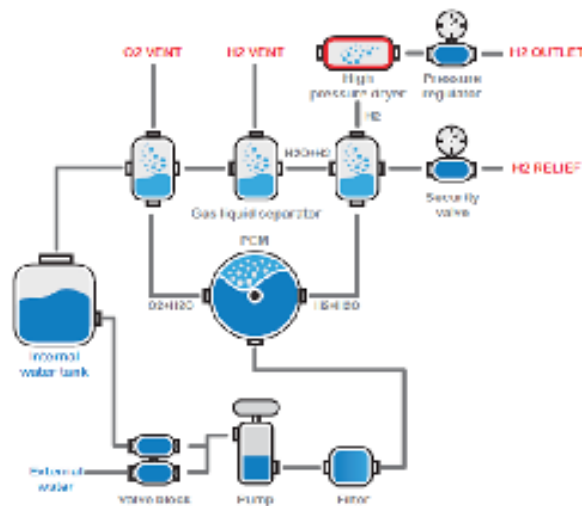
- Models available : 120, 180, 260, 400, 500, 650 cc/min
- Purity > 99.9999%
- Pressure up to 12 bar (174 psi), 16 bar (232 psi) in option
- Patented gas/water separator electronically controlled
- LCD touch screen with indication in real time : H2 outlet pressure, H2 flow rate, water quality, water level, cartridge saturation, system status with auto-diagnostics of breakdown with alarms
- Remote PC monitoring in standard via RS232 or USB to interface the unit with customer's PC software (allow the end user to be connected with the manufacturer for remote diagnostics)
- Water tank protected and filtered
- Automatic checking for internal leaks to guarantee maximum safety
- Automatic internal water tank refill included in standard
- Capabilities allowing to work in parallel 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.

PAR-H2 Series use a single column dryer with programmable automatic regeneration via an integrated clever calendar

The exclusive parallel working mode option allows up to 10 units to be connected, producing flow-rates of up to 6.5L/min for PAR-H2 series !



Models	PAR-H2-120	PAR-H2-180	PAR-H2-260	PAR-H2-400	PAR-H2-500	PAR-H2-650
Generals informations						
H2 flow rate - cc/min	120	180	260	400	500	650
H2 purity	> 99.9999 % (O2 < 0.1 ppm, dewpoint H2O < -70°C(-94°F))					
Delivery pressure	1 - 12 bar (14 - 174 psi), 16 bar (232 psi) in option					
H2 dryer	Single column dryer with programmable automatic regeneration via an integrated clever calendar					
Internal water tank	2,3 liters with autorefill included					
Temperature range	From 5 - 35°C (41 - 95°F) and humidity 80% to 25°C (77°F)					
LCD touch screen	Resolution 128 x 64 - touch screen with (operating parameters, system status, alarms)					
Water quality	Deionised, ASTM II, < 0.1 µS					
Dimensions (W x H x D)	30 x 43 x 43 cm (12" x 17" x 17")					
Outlet port	1/8 Swagelock					
Weight (kg/lbs)	15.5 / 34				16.5 / 36	
Power consumption	280 W			450 W		
Power supply	90 - 240 V ac / 50 - 60 Hz					
Communication						
RS232				X		
RS485/USB	Option			X		
Special functions						
Parallel mode	Option			X		
Automatic water tank refill				X		
Canister filling				X		

Gold Service
— Satisfaction Guaranteed —

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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