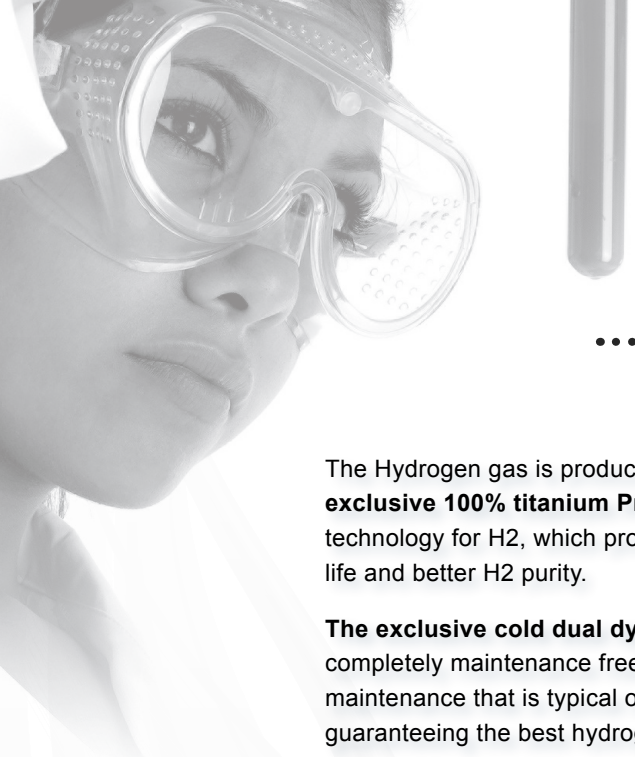


Hydrogen Gas Generator

« Serie MF.H2 »

The Hydrogen gas is produced from deionised water using the **exclusive 100% titanium Proton Exchange Membrane** (PEM) technology for H2, which provides a very high reliability, new longer life and better H2 purity.

The exclusive cold dual dynamic regeneration dryer is completely maintenance free and eliminates all down time for maintenance that is typical of other systems on the market, guaranteeing the best hydrogen purity 24 hours a day.

The 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 • Fuel cell • THA

BENEFITS AND SAVINGS

> Improved chromatograph result
The use of hydrogen as a carrier gas allows :
- faster and more sensitive than the more expensive helium
- lower temperature elution, thus extending the life of the chromatograph column
- 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 vert limited internal volume (less than 50 ml) allowssafe 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.

> Ergonomic and compact design, simple installation
Can be installed in the laboratory, on or under the bench, eliminating the need for long gas lines from cylinders secured elsewhere.

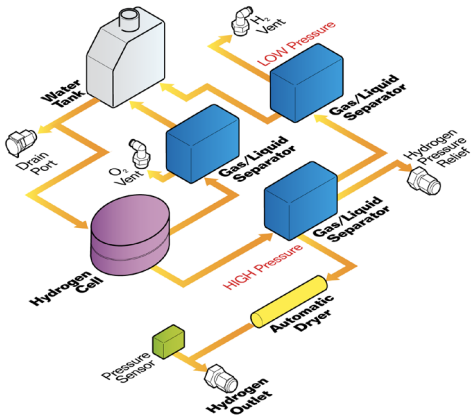
STANDARD FEATURES

- Models available: 100, 160, 250, 300, 400, 500, 600, 1000, 1200, 1400 cc/min
- Purity > 99.99999%
- Exclusive cold dual regeneration dryer: removes both moisture plus oxygen and eliminates the need to monitor, change and purchase desiccant cartridges
- Pressure up to 11 bar (160 psi): suitable for fast and high-speed GC methods
- Option: Cold Palladium Catalyst reduces O2 < 0.01 ppm and moisture < 1 ppm
- Exclusive 100% titanium electrolytic cell: longer life / better purity of gas
- 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 and diagnostic analysis via USB to interface the unit with customer's PC software (allow to carry out checks and maintenance effectively, only via a remote connection)
- Automatic checking for internal leaks to guarantee maximum safety
- Capabilities allowing to work in cascading mode
- Higher flow rates up to 10 L/min
- Automatic flow compensation in the event of unplanned down-time
- Continuous operation for critical applications

F·DGSi
Innovative Gas System Company

OPERATING PRINCIPLE

Hydrogen is produced using distilled or deionised water < 0.1 µS 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.
No dessicant cartridge maintenance is required: there is a double column dryer with automatic regeneration.
This automatic drying system ensures the maximum grade of hydrogen purity.
An exclusif system allows to work in parralel mode and to connect until 10 units, to have flowrate until 10 L/min.



Models	MF.H2.100	MF.H2.160	MF.H2.250	MF.H2.300	MF.H2.400	MF.H2.500	MF.H2.600	MF.H2.1000	MF.H2.1200	MF.H2.1400
Generals Information										
H2 flow rate - cc/min	100	160	250	300	400	500	600	1000	1200	1400
H2 purity	> 99.99999% (O2 < 0.1 ppm, dewpoint H2O < -75°C (-103°F))									
Cold Palladium Catalyst (Option)	Reduces O2 < 0.01 ppm and moisture < 1 ppm									
Delivery pressure	1 - 11 bar (14 - 160 psi)									
H2 dryer	Exclusive cold dual regeneration dryer									
Internal water tank	2.3 liters									
Temperature range	From 5 - 35°C (41 - 95°F) and humidity 80% to 25°C (77°F)									
LCD touch screen	Touch screen (operating parameters, system status, alarms) with LED indicators (Power on/off; ready or errors)									
Water quality	Deionised, ASTM II, < 0.1 µS Conductivity									
Dimensions (W x H x D)	23 x 48 x 37 cm (9" x 19" x 14.5")									
Outlet port	1/8 Swagelock									
Weight (kg/lbs)	17 / 37.5				18 / 39.6			20 / 44	21 / 46	
Power consumption	280 W				450 W			560 W	800 W	
Power supply	110 - 120 V 60 Hz / 220 - 240 V 50 Hz									
Communication										
USB/PC control	In series									
RS232/RS485	Option									
Special feature										
Cascading mode	Option									
Automatic water tank refill	Option									
Certification	CE, CSA, FCC									

Gold Service
Satisfaction Guaranteed

The products are guaranteed 12 months. Beyond, your investment continues to be supported by our maintenance program "Gold Service". Our wold 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
8, 10 rue du Bois Sauvage, bat Q18 - 91000 Evry France
Tel. : +33(0)1 64 98 21 00
Fax. : +33(0)1 64 98 00 43
Email : info@f-dgs.com
Web : www.f-dgs.com

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CE