

HYDROGEN GENERATORS

PG PLUS FID TOWER SERIES



The space-saving **PG Plus FID Tower Hydrogen Generator** uses the latest proton exchange membrane (PEM) technology to produce pure hydrogen.

Deionized water is automatically loaded from smart internal system tanks with a 3 liter capacity, providing up to 3000 liters of H₂ before a refill is required. The only recommended maintenance is replacement of the internal deionizing cartridge, which has been greatly simplified.

SUITABLE FOR

- ✓ Gas Analyzer
- ✓ Auxiliary gas for FID/FPD
- ✓ Sulphur Analyzer
- ✓ Hydrocarbon Analyzer

CASCADING

The ability to "cascade", or install several hydrogen generators in parallel, provides:

- ✓ Higher flow rates
- ✓ Automatic flow compensation in the event of unplanned downtime
- ✓ Continuous operation for critical applications

IMPROVED SAFETY

The very limited internal volume (less than 50ml) 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.

PG Plus FID TOWER Series FEATURES

- ✓ **1.8 or 5 l/min Zero Air flow rate**
- ✓ **Unique Full titanium electrolytic cell**
- ✓ PEM Technology (no caustic solution) -
- ✓ PURITY: 99.9996%
- ✓ Pressure up to 11 bar (160 psig)
- ✓ Unique high pressure drying membrane
- ✓ **NO desiccant cartridges required**
- ✓ Optimized powerful water pump for PEM cell
- ✓ Low energy consumption
- ✓ Software upgrade by standard USB
- ✓ Full microprocessor control
- ✓ LCD touch screen interface or push buttons
- ✓ Real time outlet pressure
- ✓ Water level and quality sensors - Autodiagnosics with alarms
- ✓ H₂ leak detector
- ✓ Shock sensor

SAVING

Hydrogen gas generators avoid the need for expensive installation of gas pipelines from the cylinder storerooms to the labs, as well as the need to repeatedly change the bottles.

OPERATING PRINCIPLE

Hydrogen is produced by forcing distilled or deionized water through a sophisticated fuel cell designed and made by VICI AG Swiss. 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 NO ALKALINE SOLUTIONS** are used in the hydrogen generation cycle. The automatic drying system ensures the maximum grade of hydrogen purity.

Specification PG Plus FID TOWER Series

Models	PG-100 PLUS	PG-160 PLUS	PG-250 PLUS	PG-300 PLUS	PG-500 PLUS	PG-600 PLUS
Flow ml/min.	100	160	250	300	500	600
Weight (kg)	22	22	22	23	24	24
Power consumption Watts	65	85	115	130	180	280
Technology	Proton exchange membrane (PEM)					
Cell type	Full titanium					
Dryer system	Regenerative Permeation Membrane					
Purity	>99.9996%					
Dew Point a 7 bar	-25° C					
Outlet pressure	7-160 psi / 0.5-11 bar					
H2 Internal volume	< 50 ml at max pressure					
Internal water tank	3.0 lt					
Cascading	up to 32 units					
Display	Operating parameters, system status, alarms and touch screen					
LED indicators	Power on / off, system ready, errors					
Interface	USB mod. A					
Water quality	Deionized or demineralized (<10µS/cm)					
Power	110-120V 60Hz / 220-240V 50Hz					
Product Dimensions (mm)	140W x 490H x 580D					
Shipping Dimension (mm)	770W x 590H x 410D Weight 27 Kg					
Outlet Connections	1/8" Compression					
Safety	Automatic shut down- pressure drop, overpressure, low water					
Certification	CE, MET, FCC					

The **PG Plus FID TOWER Series** is supplied with Zero Air Generator inside at two different flow rate: **Zero Air 1.8 l/min or 5 l/min**

The following options are available:

- I/O board
- Remote control software (RS232 or USB)
- Cascading hardware
- Autorefill
- H2 Sensor