

Gas Generators



Laboratory Hydrogen Generator



Safe & Reliable Hydrogen Generation

- Up to 600 cc/min flow rate
- Up to 200 psig delivery pressure
- Stable gas costs
- Improved personnel productivity
- Lowest upkeep cost
- 24/7 operation
- Eliminate run outs
- Near-zero maintenance

HOGEN GC 99.9999% Hydrogen Gas Supply

Proton's HOGEN GC hydrogen generators are designed to provide ultra pure hydrogen for GC fuel and carrier gas as well as other analytical purposes. The HOGEN GC hydrogen generator combines caustic-free PEM electrolysis hydrogen generation technology with a maintenance-free palladium diffuser to generate CG grade hydrogen on demand.

Benefits

Economy- hydrogen gas supply at a fraction of the cost of cylinder gas use and no associated labor cost for cylinder handling.

Purity- gas purity that surpasses UHP cylinder hydrogen. Provides a flatter baseline and more precise analysis by eliminating the need to disconnect cylinder piping, which may introduce air and moisture into your system.

Safety – eliminates the need to handle 140 lb cylinders with high-pressure connections. Gives safer environment by only containing a fraction of a gram of hydrogen at only one-tenth cylinder pressure.

Space savings- occupied a fraction of the space of cylinder gas supply with no need to move it.

	HOGEN CG300	HOGEN CG600
Pure hydrogen output (cc/min.)	300 cc/min	600 cc/min
Electrolyte system	Proton Exchange membrane (PEM) solid electrolyte caustic –free and maintenance-free	
Hydrogen purification technology	Palladium membrane, maintenance-free	
Hydrogen inventory	<0.1 gram at full capacity	
Delivery pressure psig (bar)	Adjustable, 45-200 psig (13.8 bar)	
Purity (assay%)	99.9999%	
Impurities by specs	<5ppm water, <1ppm total N2 & O2, <1ppb hydrocarbons/halocarbons, balance nitrogen	
Auto-fill water replenishment	Standard	
Manual-fill water capacity	1.9 liters	
Water quality (minimum) required	De-ionized, ASTM Type II, > 1 megohm-cm or better	
Electrical supply required	100-220V, 1 phase	
Cordset	US and International cordsets available	
Electrical consumption	<1000 watts	<1200 watts
Operating environment	Laboratory, temperature controlled	
Duty cycle	100% (24/7)	
Dimensions	14.5" x 9"x 20.5" (37cm x 23cm x 52cm)	
Weight	50 lbs.	
Product Certification	CE, Ex, TUV US, TUV Canada (UL and CSA equivalent)	
Controls and automation	Illuminated high visibility display; Adjustable pressure output; Remote alarm terminal/output; Switchable English/metric pressure reading	
Diagnostics and warnings	Water quality, water level, comprehensive self-diagnostics leak sensing (internal & external leaks)	
Maintenance	Replace water quality resin bag every six months	
Options	De-ionized water supply system, Auto-crossover manifold for back up gas supply, Pressure reducing regulator	

For ordering and technical support (858) 578-2622