

# Hydrogen HYG



**TEXOL**  
Products

Laboratory Gas Generators

# Hydrogen HYG

The HYG series of Hydrogen generators employ the safest, most reliable technology for laboratory hydrogen gas supply.

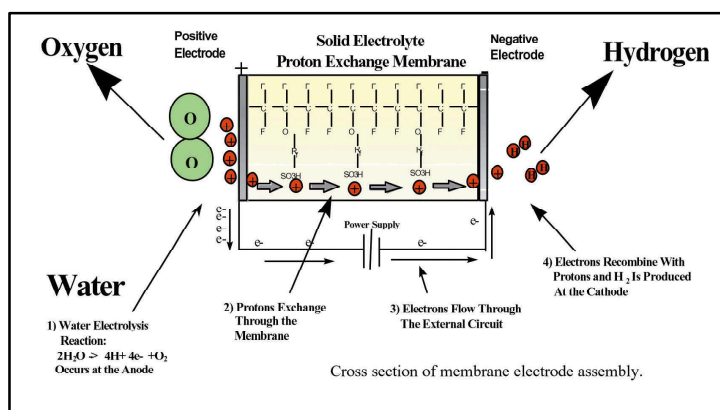


## Overview

The HYG series of laboratory hydrogen generators combine caustic-free PEM electrolysis with a maintenance-free palladium diffuser to generate GC-grade hydrogen on demand. Texol's HYG range is the superior choice for GC fuel and carrier gas supply. They eliminate the need for hydrogen cylinders in the lab, providing increased safety and reduced costs. The HYG generator is available in two models: HYG300 with a maximum flow rate of 300 cc/min, and HYG600 with a maximum flow rate of 600 cc/min.

## Process Description

Texol's HYG Hydrogen Generators produce pure hydrogen using an electrolytic cell and a Proton Exchange Membrane (PEM). Deionised water flows into the positive side of the cell where it is dissociated by electrolysis into protons, electrons and oxygen. The positively charged protons are attracted to the negative side of the cell using the sulphonic acid ion groups embedded within the membrane as the path to travel through the solid material. Simultaneously, the electrons flow through the power supply to the negative electrode, linking up with the emerging protons to form molecules of pure hydrogen gas.



## Features and Benefits

- High Purity: 99.9999%
- Delivery Pressure up to 200 PSIG
- Small footprint
- Automatic Safety Shutdown
- Easy Fill Water Reservoir
- Just Add Water - No Caustic Solutions
- User Selectable Delivery Pressure
- Maintenance-Free Palladium Purifier
- Universal Voltage Compatibility
- User-Friendly Display Panel
- Auto-fill available as standard

## Typical Applications

- GC-FID Fuel Gas
- GC-FID Carrier Gas
- "Fast GC"
- GC-FPD Fuel Gas
- GC-NPD Capillary Gas
- GC-TCD Carrier Gas
- GC-ELCD, HALL Reaction Gas
- THA Analyser Fuel Gas

# Technical Specifications

Model:	HYG300	HYG600
Hydrogen Production Capacity (cc/min)	300	600
Hydrogen Purity	99.9999% <5ppm H <sub>2</sub> O <1ppm O <sub>2</sub> > 1ppb hydrocarbons / halocarbons	
Operating Pressure (kPa / PSIG)	0-1380 / 45-200 user-adjustable	
Autofill	YES	YES
Electrical Consumption (W)	<1000	<1200
Electrical Requirements (VAC / Hz)	100-230 / 50/60	
Weight (kg / lbs)	23 / 50	
Depth (cm / ins)	37 / 14.5	
Height (cm / ins)	52 / 20.5	
Width (cm / ins)	23 / 9	

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