



CLAIND LABORATORY GAS GENERATORS

UHP Carrier gas Hydrogen Generator

CLAIND Carrier Gas hydrogen generators are a tried and trusted alternative to high pressure helium gas cylinders for the Carrier Gas in Gaschromatography.

This new series completely manufactured by Claind include a unique UHP filter able to supply a purity over than 6.0 requested from the Carrier gas **to guarantee reliability on the analysis** and also over the expectation for all mayor GC detectors for a completely **Flat baseline**.

CG series are safe because are producing hydrogen on demand avoiding high pressure storage as with gas cylinders. Any malfunction or hydrogen leaks inside or outside the generator are immediately indicated on the alphanumeric display with an audible alarm. If the alarm condition is not rectified, the generator automatically shuts down.

Claind CG Hydrogen Generators are coupled with an **external water tank**. This allows hydrogen to be produced independently without needing to stop the generator for water refill.

No maintenance on the electrolyser, and the operator does not need to replenish or add any electrolyte which is sealed by our laboratories before shipment.

The **patented Multi Layer Electrodes electrolytic cell** manufactured by Claind is tolerant of light water impurities and does not require deionizer bags, neither any inlet filters on the water reservoir.

The final dryer **is made of stainless steel instead of plastic material**, to avoid pollutants to get in contact with the high purity hydrogen.

MAIN APPLICATIONS

The major use is in **gas chromatography** where hydrogen can be used either to **feed detectors like FID, NPD, FPD, TCD, ELCD, HALL, HWD** or as **carrier gas**. Using hydrogen as carrier gas speeds up analysis time and increases chromatographic resolution.



SAFETY ALARMS

Hydrogen leaks internal and external to the generator (tailored for GC carrier gas)

Hydrogen overpressure

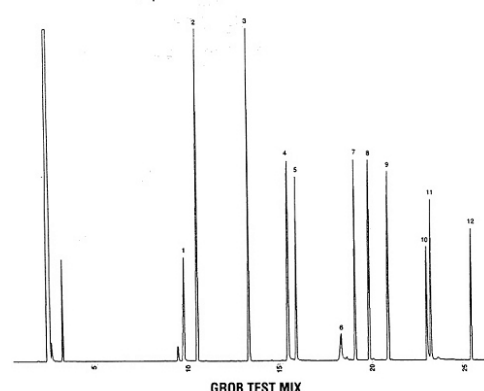
Low water level

WORKING PRINCIPLE

Hydrogen is produced through a patented MLE electrolytic cell, manufactured exclusively from Claind.

Demineralized water is loaded into the electrolytic from a small water tank. The patented cell electrolysis the water producing hydrogen. Oxygen is than safely dissipated into the atmosphere.

UHP Hydrogen flows through a UHP filter residual pollutant removal.



CG 2000 *series*

gas characteristics

Purity better than 99,99999%*

Outlet pressure: 1 - 6 barg**

* max O₂ content 0,1 ppm

** Standard setting 4 barg, manually adjustable from the operator. 6 barg available on demand

available models

Bench: CG 2200, CG 2400, CG 2600

technical specifications

bench version

Technical specifications	CG 2200	CG 2400	CG 2600
FLOW RATE	200 Nml/min	400 Nml/min	600 Nml/min
POWER RATING	100 VA	170 VA	240 VA
ELECTRICAL SUPPLY	115÷230 Vac 50÷60 Hz*	115÷230 Vac 50÷60 Hz*	115÷230 Vac 50÷60 Hz*

* available on the same item

Noise level: <46 dB

Operating temperature: between 5°C and 40°C

H₂O supply: Demineralised H₂O ≤ 5 µS/cm² (0,2 MΩ) @ 20 °C

Consumables: dryer with molecular sieve + UHP filter

dimensions

	CG2200	CG2400	CG2600
Height	31 cm	31 cm	31 cm
Width	40 cm	40 cm	40 cm
Depth	50 cm	50 cm	50 cm
Weight	19 kg	21 kg	23 kg

CLAIND s.r.l.

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