

GAS GENERATORS

Proton Energy, ein führender Hersteller von PEM Zellen (Polymer Electrolyte Membrane) für die Wasserstofferzeugung und Claind stellen die neuen Luft-, H₂-, N₂- Gas Generatoren der Serie BREZZA vor.

A modular system

- able to supply more gases (H₂, N₂, Air) for every single analytical application
- vertical development
- controlled by an unique electronic control system (also remote), for up to 32 modules
- possibility to use compressed air already existing in the laboratory or a Brezza AirComp, that can be displaced also in a technical area (noise reduction inside the lab)

Hi Tech

Two worldwide leading companies in the high purity hydrogen and nitrogen generation join together ensure a high tech line of products

High applicative experience

Claind's great applicative experience allows to offer a proper global solution to every single request, thanks to generators' modularity and to the wide range of spare parts

Innovative Design

An innovative design created in Milan joins together applicative and functional needs to a beautiful line for modern analytical labs





Hydrogen: HyGen 200 | HyGen 400 | HyGen 600

- Just one product to feed Detectors and Carrier
- Hydrogen output pressure up to 8 bar to be used also for the “FAST GC”
- Flow rates from 200 up to 600 ml/min to feed up to 15 FID or up to 4 GC Carrier
- High reliability of the PEM cells
- Interfacing with remote control
- Parallel connection up to 32 modules

Flow rate 200 - 400 - 600 Nml/min *Dimensions* 40 + 7 (H) x 38 (W) x 53 (D)

Technologies employed Solid electrolytic (PEM cell) *Weight* 30 kg

Output pressure 1 - 8 bar *Applications* Gas chromatography designed to feed detectors FID, NPD, FPD, TCD, HWD *Purity* > 99,9999 % (H₂O < 5ppmv, O₂ < 1ppmv) or to supply Carrier Gas

High purity Nitrogen: NiGen GC | NiGen GC HC

- High purity nitrogen guaranteed by PSA technology and “Fast Purity”
- Able to feed up to 12 Make up FID or up to 7 ECD
- HC version for the total removal of HCT < 0,1 ppm for application with high sensitivity detectors
- Possible integration with a dedicated air compressor

Flow rate 500 Nml/min *Dimensions* 40 + 7 (H) x 38 (W) x 53 (D)

Technologies employed PSA *Weight* 28 kg (GC version), 32 kg (GC HC version)

Output pressure 0 - 6 bar *Applications* GC (carrier gas, Make-up, ECD) and Circular dichroism *Purity* 99,9995 %



LC-MS Nitrogen: NiGen LCMS 40-1 | NiGen LCMS 40-0 | NiGen LCMS 100

- High purity nitrogen guaranteed by PSA technology and “Fast Purity”
- Flow rates from 40 up to 100 NI/min to feed up to 4 LC-MS
- Phtalate total free
- Internal stock of 50 lt nitrogen
- Special integrated oil free compressor version
- Minimum noise

Flow rate 40 - 100 NI/min *Dimensions* 130 (H) x 44 (W) x 110 (D)

Technologies employed PSA *Weight* 130 kg (w/o comp) / 150 kg (w comp)

Output pressure 0 - 7 bar *Applications* LC-MS, Sample preparation *Purity* up to 99,9%

High flow Nitrogen: NiGen HF-0 | NiGen HF-1

- High purity nitrogen guaranteed by PSA technology and “Fast Purity”
- Special integrated oil free compressor version
- Minimum noise

Flow rate 3 NI/min *Dimensions* 130 (H) x 44 (W) x 110 (D) *Technologies employed* PSA

Weight 130 kg (w/o comp) / 150 kg (w comp) *Output pressure* 0 - 7 bar *Applications* GC-ICP

Purity from 98 up to 99,9995%



Multiple use Nitrogen: NiGen MICRO

- High purity nitrogen guaranteed by PSA technology and “Fast Purity”
- Possible integration with a dedicated air compressor
- Dedicated to ELSD and Sample preparation

Flow rate up to 5000 Nml/min *Dimensions* 40 + 7 (H) x 38 (W) x 53 (D)

Technologies employed PSA *Weight* 28 kg *Output pressure* 0 - 7 bar

Applications ELSD, Sample preparation *Purity* up to 99,5%

Air input characteristics particulate ≤ 0,01 μm, oil vapors ≤ 0,01 mg/m³ moisture ≤ 3° C dew point ATP, min pressure: 8.5 bar, min flow rate: 18 Nml/min

Air Generators: AirGen TOC | AirGen GC

- High purity air guaranteed by PSA technology
- Platinum-Palladium HC system for the total removal of HCT < 0,1 ppm
- Possible integration with a dedicated air compressor
- CO2 removal < 1 ppm (TOC version)
- Able to feed up to 8 FID (GC version)

Flow rate 3000 Nml/min **Dimensions** 40 + 7 (H) x 38 (W) x 53 (D)

Technologies employed PSA **Weight** 28 kg (GC version), 32 kg (TOC version)

Output pressure 0 - 6 bar **Applications** TOC/GC **Purity: Total hydrocarbons residual with catalyzer** < 1 ppm **Moisture** HC: - 50 C dew-point ATP/TOC: - 60 C dew-point ATP **CO2 residual (TOC version)** < 1 ppm



Zero Air: ZeroAir 5 | ZeroAir 20

- Platinum-Palladium HC system for the total removal HCT < 0,1 ppm
- Possible integration with a dedicated air compressor
- CO2 removal < 1 ppm (TOC version)
- Able to feed from 14 up to 55 FID

Flow rate 5- 20 NI/min **Dimensions** 28,5 (H) x 20 (W) x 14 (D)

Technologies employed Platinum-Palladium catalytic reactor **Weight** 6 kg

Output pressure 0 - 10 bar **Applications** for GC FID, THC, NOX, BTX AND SOX analyzers **Purity: Total hydrocarbons residual** < 0,1 ppm

Air Compressor: AirComp

- An 8 bar full oil free compressor to feed up to 2 Brezza generators
- Compact and able to guarantee an extended working without supervisory control
- Minimum noise

Flow rate 20 NI/min **Dimensions** 40 + 7 (H) x 38 (W) x 53 (D)

Technologies employed Piston compressor **Weight** 25 kg **Output pressure** 0 - 8 bar

Air characteristics * particulate < 0,01 mm * moisture < 3 C dew point ATP



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Article	Description	Flow ml/min
422.01.0110	HyGen 200, Hydrogen generator	200
422.01.0210	HyGen 400, Hydrogen generator	400
422.01.0310	HyGen 600, Hydrogen generator	600
422.02.0110	NiGen GC, Nitrogen generator	500
422.02.0230	NiGen GC HC, Nitrogen generator	500
422.02.0310	NiGen HF-0, Nitrogen generator	3.000
422.02.0450	NiGen HF-1, Nitrogen generator incl. compressor	3.000
422.02.0650	NiGen LCMS 40-1, Nitrogen generator for LCMS incl. comp.	40.000
422.02.0710	NiGen LCMS 40-0, Nitrogen generator for LCMS	40.000
422.02.0810	NiGen LCMS 100-0, Nitrogen generator for LCMS	100.000
422.02.0510	NiGen MICRO, Nitrogen generator	5.000
422.03.0230	AirGen GC, Pure Air generator	3.000
422.03.0130	AirGen TOC, Pure Air generator	3.000
422.05.0130	ZeroAir 5, Zero Air purifier	5.000
422.05.0230	ZeroAir 20, Zero Air purifier	20.000
472.000.010	CO2 PUR, Air purifier	20.000
422.04.0130	AirComp, Oil Free Air Compressor	20.000

H₂

UHP Hydrogen Generators

N₂

UHP Nitrogen Generators

LC-MS Nitrogen Generators

AIR

UHP Air Generators

Ultra Pure Zero Air Purifiers

Compressor

UHP: Ultra High Purity. Product specifications, design or prices may change without notice. ©2010 CP-ANALYTICA GmbH.

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