



4• Syringes

GIBNIK GAS GENERATORS

Hydrogen Generators

Laboratory Hydrogen Generators No Maintenance

The GIBNIK series Hydrogen Gas Generators are the economical alternative to high pressure gas cylinders in the laboratories. Purities up to 99.9999 % are available and the generators offer silent operation at pressures up to 10 barg (155 psig).

The generators require just demineralised or distilled water to produce hydrogen. No caustic solutions are needed and no cell maintenance is required at all. Ideal as a feed gas for GC-FID's and as a reaction gas for HALL detectors as well as for carrier gas. Hydrogen from the model H₂FID is the ideal fuel gas for the GC-FID's or as reactor gas for the other types of detectors in gas-chromatography. The model H₂CARRIER has been designed to replace Helium or Nitrogen as carrier gas.

Hydrogen from the H₂FID Generator offers important advantages over Helium and Nitrogen in terms of speed analysis, sensitivity and resolution. Other Hydrogen applications include total hydrocarbon analyzers, sulfur analyzers and air-pollution monitoring systems.

The H₂FID and the H₂CARRIER hydrogen generators are "No Maintenance" systems which require little bench space. In addition, H₂CARRIER is optionally available with cascading and remote control capabilities. These unique and exclusive features open a wide range of new applications.

The Hydrogen gas generators are very compact, safe, ergonomic and cost effective. In addition to their high safety (production of Hydrogen only when required), the generators have been designed to meet highest quality and reliability standards.



HYDROGEN GENERATOR

Zero Air Generators

Zero Air Generators / Zero Air Stations

The GIBNIK series has developed a full range of Zero Air Generators which fits almost any laboratory requirement for clean air. The ZERO AIR series is split into two families: the low flow capacity models as table-top units and the high flow capacity models with built-in oil-free air compressors (within floor casing).

The GIBNIK series of Zero Air Generators produces laboratory grade purified air for the most accurate and convenient calibration of vehicle emission testing equipment as well as for gas analyzers, and all type of analytical instruments such as GC-FID etc. Models up to 30L/min are available.

The GIBNIK Ultra Zero Air Generator remove particles, CO₂, CO, HC, and NO_x, SO₂, O₃ contaminants down to 1 ppm or less as well as moisture.

Eliminating gas cylinders reduces annual operating costs associated with materials, labor, etc. Operation of the generator requires low levels of air consumption and electrical power. This complete turnkey system is engineered with the highest quality components, is easy to install, and requires only minimal annual maintenance.



ZERO AIR GENERATOR

Hydrogen-Air FID Station

The H₂-Air FID Station has been designed to feed GC's with Hydrogen and Zero Air at the same time. The bench-top unit has a small footprint which is an advantage with limited lab space.

The hydrocarbon free Hydrogen flow rate is up to 250 NmL/min. The hydrocarbon free Zero Air flow rate is up to 1500 NmL/min with less than 0.1 ppm of total hydrocarbons.

The H₂-Air FID Station is very simple to take into operation: needing only demineralised or distilled water for the Hydrogen part and an external source of compressed air for the Zero Air part.

Requires Air Compressed.

Nitrogen Generators

Space and noise are issues more and more important in laboratories. The N²-Garbi Gas Generator is small in size and includes – as an option – an internal oil-free air compressor.

It works on the PSA (Pressure Swing Adsorption) principle and delivers a continuous stream of N² with a purity of up to 99,999% without the need of additional purification.

The N²-Garbi series is ideal for all kinds of laboratory and chromatography applications where Nitrogen is required. Other typical applications are ICP, ELSD, PID or incubators.

The N²-Xaloc models have been designed for applications requesting larger flow and highest purity of Nitrogen. They use the DS-PSA (Double Stage PSA) principle to produce high purity Nitrogen which eliminates the need for costly, inconvenient high pressure cylinders in laboratories.

N²-Xaloc models include internal oil free compressors and deliver a continuous stream of 99.999% pure Nitrogen.

The Gregal-LCMS has been specially designed to aliment LCMS systems. Working with the PSA technology and including an internal compressor, the Gregal-LCMS delivers up to 35 L/min Nitrogen with a quality of 98.5%.

The N²-Gregal-0 Nitrogen Generator is based on the hollow fibre technology, enabling the separation of air into Nitrogen and Oxygen enriched air from an external compressed air supply.

The N²-Gregal-0 is designed for LCMS applications by supplying Nitrogen with the purity, pressure and flow required.

The generator will automatically switch on and off depending on the Nitrogen demand.

The N²-Gregal-0 works pneumatically, no power supply is needed. The compressed air can be sourced either from a centralised compressed air source or a dedicated air compressor. The installation has no moving parts, resulting in reliable and trouble free operation with virtually no maintenance.



NITROGEN GENERATOR

GAS GENERATORS



H2 Carrier Gas Generator



H2 FID Gas Generator



H2-AIR FID STATION



ANSN2-GARBI-500-C



ANSN2-GARBI-4000-C

HIDROGEN GENERATORS

H2 CARRIER

Description	Item n°
100 Nml/min of Hydrogen	ANSH2-CARRIER-100
160 Nml/min of Hydrogen	ANSH2-CARRIER-160
250 cc/min of Hydrogen	ANSH2-CARRIER-250
400 Nml/min of Hydrogen	ANSH2-CARRIER-400
500 Nml/min of Hydrogen	ANSH2-CARRIER-500
700 Nml/min of Hydrogen	ANSH2-CARRIER-700
900 Nml/min of Hydrogen	ANSH2-CARRIER-900

H2 FID

Description	Item n°
100 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-100
160 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-160
250 cc/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-250
400 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-400
500 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-500
700 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-700
900 Nml/min of Hydrogen, HC free < 0,1ppm	ANSH2-FID-900

H2-AIR FID STATION

Description	Item n°
100 Nml/min H2, 1500 Nml/min Air, HC free < 0,1ppm	ANSH2/AIR-FID-100
160 Nml/min H2, 1500 Nml/min Air, HC free < 0,1ppm	ANSH2/AIR-FID-160
250 Nml/min H2, 1500 Nml/min Air, HC free < 0,1ppm	ANSH2/AIR-FID-250

NITROGEN GENERATORS

MINI HIGH PURITY NITROGEN GENERATORS

Description	Item n°
500 Nml/min of Nitrogen (with compressor)	ANSN2-GARBI-500-C
500 Nml/min of Nitrogen (requires compressed air)	ANSN2-GARBI-500-NC
750 Nml/min of Nitrogen (with compressor)	ANSN2-GARBI-750-C
750 Nml/min of Nitrogen (requires compressed air)	ANSN2-GARBI-750-NC
1300 Nml/min of Nitrogen (with compressor)	ANSN2-GARBI-1300-C
1300 Nml/min of Nitrogen (requires compressed air)	ANSN2-GARBI-1300-NC
4000 Nml/min of Nitrogen (requires compressed air)	ANSN2-GARBI-4000-NC
4000 Nml/min of Nitrogen (requires compressed air)	ANSN2-GARBI-4000-C

STANDARD HIGH PURITY NITROGEN GENERATORS

Description	Item n°
3 NL/min of Nitrogen (with compressor)	ANSN2-XALOC-3
5 NL/min of Nitrogen (with compressor)	ANSN2-XALOC-5
up to 25 NL/min of Nitrogen (requires compressed air)	ANSN2-XALOC-FLEX

LCMS NITROGEN GENERATORS (PSA)

Description	Item n°
35 NL/min of Nitrogen (with compressor)	ANSN2-GREGAL-LCMS

LCMS NITROGEN GENERATORS (MEMBRANE)

Description	Item n°
25 NL/min of Nitrogen (requires compressed air)	ANSN2-GREGAL-0-25-L
40 NL/min of Nitrogen (requires compressed air)	ANSN2-GREGAL-0-40-L
60 NL/min of Nitrogen (requires compressed air)	ANSN2-GREGAL-0-60-L
120 NL/min of Nitrogen (requires compressed air)	ANSN2-GREGAL-0-120-L



LCMS N2 Generator (membrane)

AIR GENERATORS

ZERO AIR GENERATORS (requires compressed air)

Description	Item n°
1500 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZERO AIR - 1.5L
3000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZERO AIR - 3L
6000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZERO AIR - 6L



Ultra Zero Air Generator

ZERO AIR STATION (with internal compressor)

Description	Item n°
1500 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 1.5L
3000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 3L
6000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 6L
10000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 10L
20000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 20L
30000 Nml/min Zero Air, HC free < 0.1ppm, CO free < 0.05ppm	ANSZAS - 30L

ULTRA ZERO AIR GENERATORS (requires compressed air)

Description	Item n°
1500 Nml/min Ultra Zero Air	ANS-ULTRA ZERO AIR - 1.5L
3000 Nml/min Ultra Zero Air	ANS-ULTRAZERO AIR - 3L
6000 Nml/min Ultra Zero Air	ANS-ULTRAZERO AIR - 6L



Compressed Air Station

ULTRA ZERO AIR STATION (with internal compressor)

Description	Item n°
1500 Nml/min Ultra Zero Air	ANSUZAS - 1.5L
3000 Nml/min Ultra Zero Air	ANSUZAS - 3L
6000 Nml/min Ultra Zero Air	ANSUZAS - 6L
10000 Nml/min Ultra Zero Air	ANSUZAS - 10L
20000 Nml/min Ultra Zero Air	ANSUZAS - 20L
30000 Nml/min Ultra Zero Air	ANSUZAS - 30L

AIR COMPRESSORS

COMPRESSED AIR STATION

Description	Item n°
20 NL/min Compressed Air	ANS-AIR STATION -20
40 NL/min Compressed Air	ANS-AIR STATION -40
80 NL/min Compressed Air	ANS-AIR STATION -80
120 NL/min Compressed Air	ANS-AIR STATION -120



Mini Air Station

MINI COMPRESSED AIR STATION

Description	Item n°
1500 Nml/min Compressed Air	ANS-MINI AIR STATION -1.5