

MEMBRANE NITROGEN GENERATOR SERIE NMG



The Membrane nitrogen generator has been developed to meet specific requirements in terms of flow, purity and pressure for LC-MS applications. It can also be used for the evaporation of solvents in samples being analysed.

The simple high efficiency membrane technology allows the separation of nitrogen from the other components of the compressed air inlet.

Benefits and Savings

Improve laboratory efficiency

The relatively high gas volumes required by LCMS instruments make cylinder supply inappropriate for such applications. A constant, uninterrupted gas supply eliminates interruptions of analyses to change cylinders.

Improve analytical instruments performance

Production of a constant flow of gas improves the consistency of the analysis results and hence reproducibility .

Improve economy

- Quick return on investment < 1 year
- No gas cylinder rental bottles, no price inflation

Improve safety

Nitrogen produced at low pressure and ambient temperature removes the hazards associated with high pressure cylinders and liquid Dewar's

Simple installation

Gas generators can be installed in the laboratory, on or under a bench, eliminating the need for long gas lines from cylinders secured elsewhere. No power supply is require.

Standard Features

- * **Flow rate available :**
8, 40, 80 et 120 L/min
- * **Nitrogen purity :**
> 99 %
dewpoint : -40 °C
- * **Pressure loss :** max 1 bar
- * **Low maintenance**
-What can be simpler than changing filters once a year?

Option :

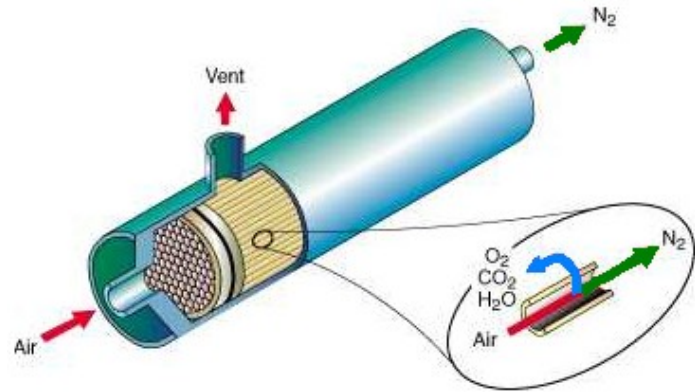
Fitted with external N2 tank, automatic stop when nitrogen is not required.

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Principle of functioning

The production of nitrogen by membrane technology is based on the selective permeation principle : the air circulates in a device which contain a membrane: oxygen, water vapour and CO₂ which are fast gases, diffuse through this membrane and then are eliminated. As for the nitrogen molecule which present a speed of slower distribution, stay within and are delivered as product gas.

Technologie a membrane



TECHNICAL SPECIFICATIONS

New N₂ flows if the air inlet pressure is different:

| Specifications | NMG8-0 | NMG40-0 | NMG80-0 | NMG120-0 |
|---|---------------------------------------|----------------|----------------|-----------------|
| max. Flow | 8 L/min > 99% | 40 L/min > 99% | 80 L/min > 99% | 120 L/min > 99% |
| N ₂ outlet pressure | 7 bar | | | |
| Air flow rate require @ 8 bar | 40 L/min | 200 L/min | 400 L/min | 600 L/min |
| Pressure loss | < 0.8 bar (10 psig) | | | |
| Air inlet pressure min. /max. | 5 à 13 bar (see correction factor) | | | |
| Particles | < 0,01 micron | | | |
| N ₂ dewpoint at operating pressure | - 40°C | | | |
| Maximum operating temperature | 10°C - 35°C | | | |
| Electrical specification | none | | | |
| Inlet/outlet connections | ¼ G | | | |
| Weight Kg | 15 | 22 | 26 | 30 |

Factor of correction

| Pressure [bar(g)] | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|------|------|
| Factor of correction | 0.8 | 0.9 | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.35 | 1.45 |

Multiply the nominal flow of the generator by the factor of correction which corresponds to the inlet pressure of the generator