

Membrane Nitrogen Generators

Applications: LCMS / Solvent Evaporation / ELSD Detectors / Corona Detectors

IATT offer a range of Membrane Nitrogen Generators that use membrane filtration technology as the core of the process based on the selective permeation principle.

Membrane Nitrogen Generators uses filtration to separate nitrogen from atmospheric air that is passed through an air compressor into the generator. The dry compressed air stream is passed through bundles of semi-permeable hollow fibre filtration membranes that are configured into a cartridge style. Under pressure oxygen, water vapour and other trace gases, which are fast gases, readily permeate through the micro porous structure of the hollow fibre filtration membranes. The nitrogen molecules which present a speed of slower distribution stay within the membrane and pass along the hollow fibres to the outlet to be further filtered and used in the application.

The low pressure drop of Membrane Nitrogen Generators allows the unit to be connected to an existing clean, dry and oil-free compressed air supply in the laboratory. Combined nitrogen/dry air is available to meet the requirements in terms of flow, purity and pressure for ABI LC-MS applications.

Features

- Constant high purity Nitrogen.
- Saves space in the laboratory.
- Minimal maintenance.
- Touch screen control option.
- No need to handle gas cylinders.

{ IATT provide Rapid Responsive Maintenance programmes to ensure laboratory downtime is minimised

Purity

N₂: >99.5%

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Technical

Flow Rates: 8, 40, 80, 120 L/min.

N₂ / Dry Air flow rates available for ABI SIEX LCMS.

Nitrogen purity: > 99%. N₂ Dewpoint < -40°C.

Outlet Pressure: 4.2 – 7 barg depending on flow rate

COMBINED N ₂ /AIR FOR ABI LC-MS SYSTEMS	
Specifications	STREAM-TF
N ₂ for curtain gas	12 l/min N ₂ @ 5.5 bar
Dry Air for source gas	24 l/min @ 7.6 bar
Dry Air for exhaust gas	8 l/min @ 4.2 bar
Residual particulates	< 0.01 µ
Dewpoint at operating pressure	-40°C
Maximum operating temperature	10°C – 35°C
Electrical specification	none
Inlet/outlet connections	¼ G
Weight (Kg)	26 kg

Specifications	Flow rate (Max.)	N ₂ Outlet pressure	Air flow rate Required @ 8 bar	Pressure loss	Air inlet pressure Min/max	Particles	N ₂ dewpoint at operating pressure	Maximum operating temperature	Electrical specification	Inlet/outlet connections	Weight
STREAM-8	8 L/min >99%	7 bar	28 l/min	< 0.8 bar (10 psig)	5-13 bar	< 0.01 micron	-40 °C	10°C – 35°C	none	1/4G	15 Kg
STREAM-40	40 L/min >99%		140 l/min								22 Kg
STREAM-80	80 L/min >99%		280 l/min								26 Kg
STREAM-120	120 L/min >99%		420 l/min								30 Kg