

# Nitrogen Generators



Produce nitrogen gas from compressed air simply and cost effectively. Replace nitrogen gas cylinders for the following applications:

- LCMS (single and multiple units)
- ICP
- ELSD
- GC-carrier gas
- GC-FID, NPD, ECD, AED
- Solvent evaporation

## Benefits

- **Designed to meet specific analytical instrument gas purity and flow requirements**
- **Improved analytical performance** - Production of a constant flow of gas improves the consistency of the analysis results and hence reproducibility
- **Increased laboratory efficiency with a constant, guaranteed supply**
- **Improved safety** - No handling high-pressure gas cylinders or liquid dewars. Nitrogen production at controlled low pressures
- **Simple installation** - Only one set up operation required for reliable service over time. Installation on or below a laboratory bench top, saving space in the laboratory
- **Economy** - Quick return on investment - No gas cylinder rental bottles, no price inflation
- **Recommended by major instrument manufacturers**
- **Combined N<sub>2</sub> and Dry Air Generators** - In addition to the stand alone nitrogen, zero N<sub>2</sub> and dry air gas generators, domnick hunter also manufactures models that provide nitrogen and dry air from a single unit (models G6 and G7).

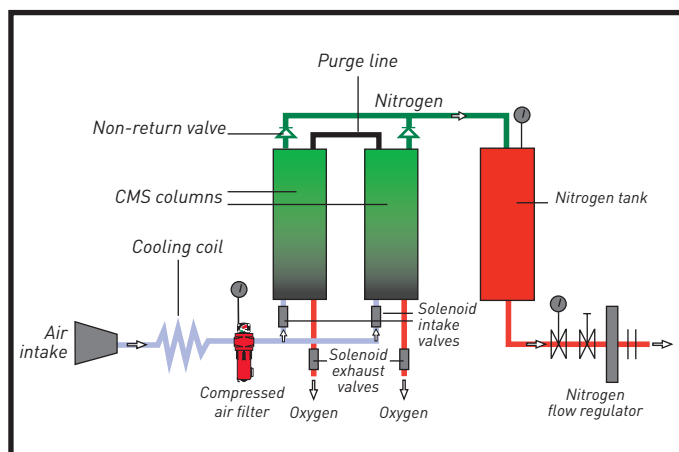


## Technical Features

**Principle: passage of compressed air through a bed of carbon molecular sieve (CMS) using pressure swing adsorption technology, the most reliable on the market**

- N<sub>2</sub> flow: 550 cc/min to 30L/min (for larger capacities please consult domnick hunter)
- O<sub>2</sub> purity: 3% to 10 ppm
- On-line purity monitoring capability
- Digital hours counter  
Audible and visual maintenance indicator
- Economy mode option: Enables the compressor to switch off when nitrogen supply is not required
- Oil-free air compressor available: The quietest models available
- Available with or without built-in air compressor
- Quick and easy servicing: less than 10 minutes every 6 months
- A 25L/min version is also available

# How the generator works



The technology used to produce a continuous flow of high purity  $N_2$  is pressure swing adsorption (PSA).

This technology uses a combination of molecular sieves to selectively eliminate  $O_2$  and other contaminants in the ambient air.

The CMS column(s) alternate between the purification and regeneration modes to ensure continuous  $N_2$  production.

The gas generator is designed to take pre-filtered compressed air at 7 or 8.5 barg (102 or 123 psi g) (depending on model) from the existing laboratory supply or via the integrated oil-free compressor.

This flow of filtered compressed air then passes through the CMS column which is in the purification mode. At this point, the  $O_2$ ,  $CO_2$ , humidity and hydrocarbons are eliminated from the compressed air, producing a flow of clean and dry high purity nitrogen.

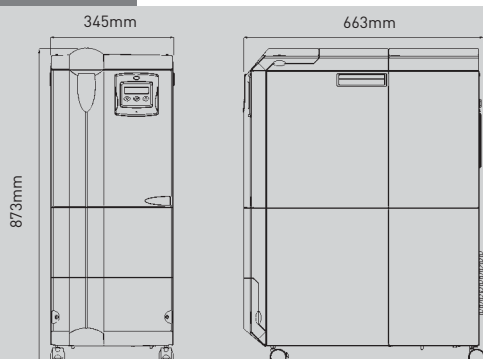
For zero  $N_2$  generators, a heated catalyst oxidises additional hydrocarbons from the  $N_2$  gas flow providing zero grade  $N_2$  with a remaining hydrocarbon content of  $<0.1\text{ppm}$

## Weights

Model	without compressor (Kg)	with compressor (Kg)
G4	77	90

## Dimensions

Model  
G4



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## LCMS Nitrogen Generator Selection Guide:

Model	Part Number
LCMS N2 generator 12 l/min @ 7 barg oxygen content 0.5% complete with Compressor	SA75-G4-5-1-0-E
LCMS N2 generator 12 l/min @ 7 barg oxygen content 0.5% complete with Compressor, with Economy Mode	SA75-G4-5-1-1-E
LCMS N2 generator 18 l/min @ 7 barg oxygen content 0.5% without Compressor	SA75-G4-6-0-0-E
LCMS N2 generator 18 l/min @ 7 barg oxygen content 0.5% without Compressor, with Economy Mode	SA75-G4-6-0-1-E
LCMS N2 generator 20 l/min @ 7 barg oxygen content 1% without Compressor	SA75-G4-7-0-0-E
LCMS N2 generator 20 l/min @ 7 barg oxygen content 1% without Compressor, with Economy Mode	SA75-G4-7-0-1-E
LCMS N2 generator 25 l/min @ 7 barg oxygen content 1% without Compressor	SA75-G4-8-0-0-E
LCMS N2 generator 25 l/min @ 7 barg oxygen content 1% without Compressor, with Economy Mode	SA75-G4-8-0-1-E