

Nitrogen Generators



(Including Zero N₂ and dry air)

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

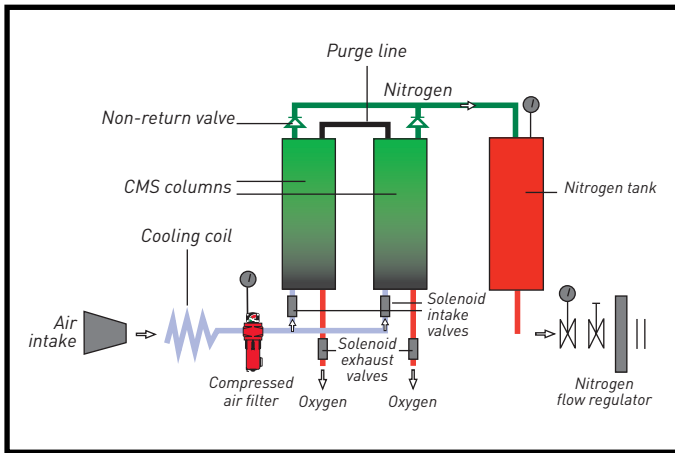
- **Designed to meet specific analytical instrument gas purity and flow requirements**
- **Improved analytical performance** - Production of a constant flow of gas improves the consistency of the analysis results and hence reproducibility
- **Increased laboratory efficiency with a constant, guaranteed 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 N₂ and Dry Air Generators** - In addition to the stand alone nitrogen, zero N₂ 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

- N₂ flow: 550 cc/min to 30L/min (for larger capacities please consult domnick hunter)
- O₂ 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 N₂ is pressure swing adsorption (PSA).

This technology uses a combination of molecular sieves to selectively eliminate O₂ and other contaminants in the ambient air.

The CMS column(s) alternate between the purification and regeneration modes to ensure continuous N₂ 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 O₂, CO₂, humidity and hydrocarbons are eliminated from the compressed air, producing a flow of clean and dry high purity nitrogen.

For zero N₂ generators, a heated catalyst oxidises additional hydrocarbons from the N₂ gas flow providing zero grade N₂ with a remaining hydrocarbon content of <0.1ppm

Nitrogen Generator Selection Chart

Model	Gas Flow L/min (up to)	Outlet Pressure bar g	Purity			
			ppm	%		
G1	0	550 cc/min	5	10	-	Nitrogen N ₂
	1	750 cc/min		10	-	
G2	0	1.5	5	10	-	
	1	2		10	-	
G3	0	2.5	5	100	-	
	1	4		-	0.1	
	2	5		-	0.5	
	3	7		-	1	
	4	8		-	2	
G4	0	5	5	100	-	
	1	6		-	0.1	
	2	10		-	0.5	
	3	12.5		-	1	
	4	14	-	2		
	5	12	7	-	0.5	
	6	18*		-	0.5	
	7	20*		-	1	
8	25*	-	1			
G5	0	1	5	10	-	Zero N ₂
G6	0	N ₂ : 600 cc/min	5	10	-	N ₂ & Dry Air
		Air : 1.5		-55°C adp		
G7	0	N ₂ : 3	5	10	-	
		Air : 3		-55°C adp		
G8	0	3	5	-55°C adp		Dry Air
G9	0	6	5	-55°C adp		Dry Air

0	Without compressor
1	With compressor
0	Without Economy Mode
1	With Economy Mode**
E	230 V / 50 HZ
W	110 V / 60 HZ

G4	3	0	1	E	Selected Product Code
----	---	---	---	---	-----------------------

Please Note:

- 1 All 5 bar [72.5 psi g] delivery generators without compressor require 7 bar [102 psi] air inlet
- 2 All 7 bar delivery generators without compressor require 8.5 bar [123 psi] air inlet
- 3 *This unit is only available without compressor
- 4 **Economy mode only available on models G1-G4

Dimensions

