



domnick hunter



gas generators

Nitrogen Gas Generators

maxigas
Pure & Simple

www.domnickhunter.com

maxigas nitrogen generators from domnick hunter - the safe and reliable alternative to cylinder and liquid gas at a fraction of the cost



How important is the supply of nitrogen to your business? For many companies, a reliable supply of nitrogen gas is essential.

domnick hunter understands the key role nitrogen can play and the fundamental need for a reliable and secure supply.

For over 40 years domnick hunter has been a world leader in filtration, purification and separation technologies in a diverse range of industries, domnick hunter is universally known for developing high quality products, technical innovation and partnerships with customers.



domnick hunter

Quality nitrogen gas for:

- Modified atmosphere packaging
- Laser cutting
- Metal heat treatment
- Pharmaceutical applications
- Inert electronic assembly
- Oil and gas pipe line purging
- High demand laboratory applications
- Plastic injection moulding

Whatever your need for nitrogen gas, domnick hunter has the products and experience to ensure you get the most appropriate and reliable gas supply solution.



an alternative supply

Every time you order gas cylinders or liquid nitrogen, you not only pay for the gas itself, but also for:

- **Cylinder/Tank Rental**
- **Delivery Costs**
- **Internal Order Processing**
- **Cylinder Handling Costs**
- **Safety Issues**

Now these and many other problems associated with nitrogen gas supplies can be eliminated in a manner that is not only more efficient, reliable and safe, but also at lower cost.



the simple solution – generate your own supply

You can now generate your own nitrogen gas at the press of a button – as much or as little as you need, at a fraction of the cost of your existing supply and at the purity your process requires. The generators are virtually maintenance free. Simply switch on and let your domnick hunter nitrogen generator do the rest.

benefits

■ Convenient, secure supply

With MAXIGAS, the nitrogen you need is always available on demand, 24 hours a day, eliminating the risk of lost production time due to gas running out.

■ The right purity

MAXIGAS systems deliver the nitrogen purity your application needs - from 5% to 10ppm oxygen content as standard.

■ Space saver

The compact design of MAXIGAS means that installations take up less floor space than other systems, and will fit through a standard doorway.

■ No growing pains

domnick hunter's unique modular design simply means that extra banks of MAXIGAS can be added as your business grows and gas requirements increase.

■ The safest supply

Eliminate safety hazards of storing, handling and changing heavy, high pressure cylinders.

■ Cost savings

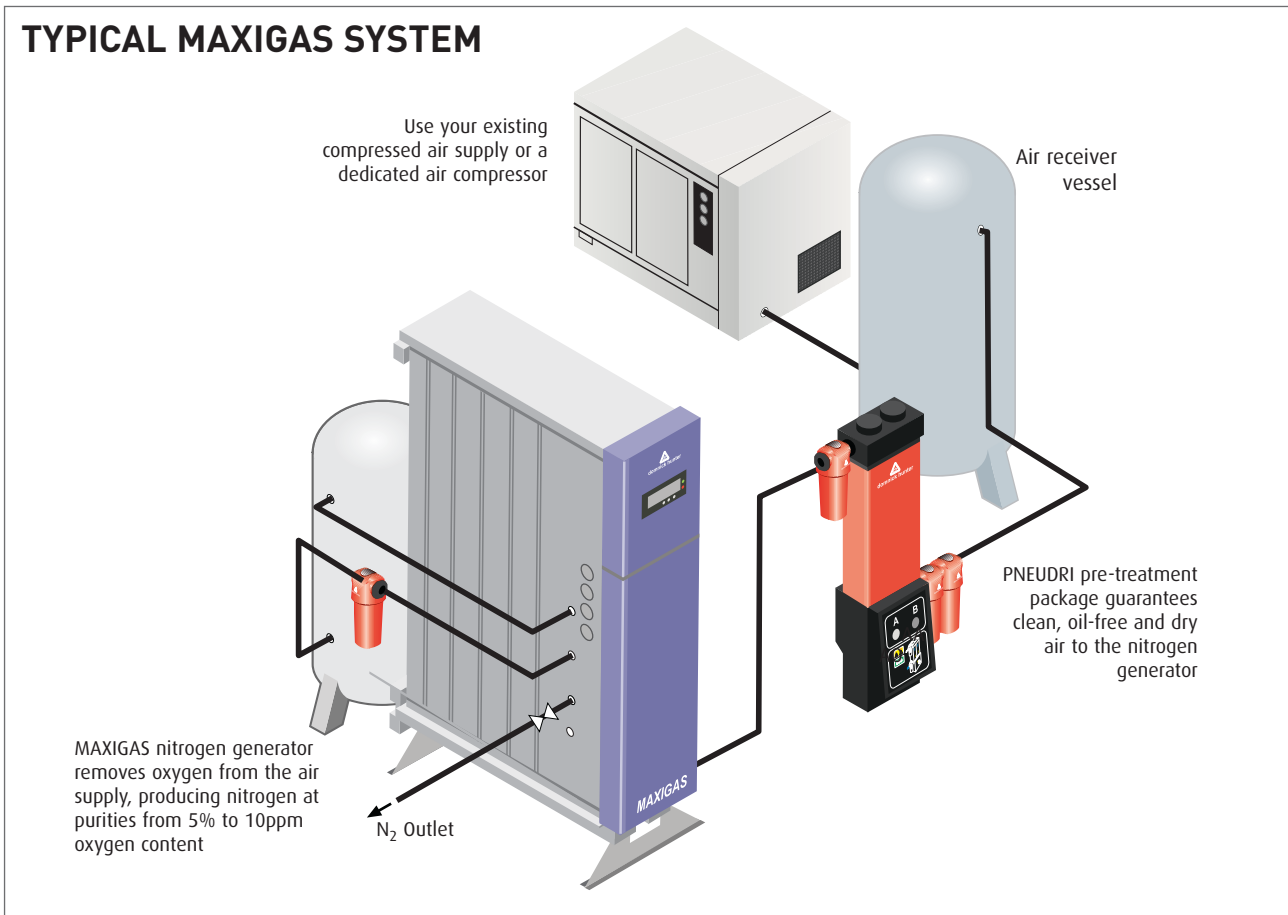
Producing nitrogen from compressed air with MAXIGAS can cut your operating costs significantly. No on-going cylinder costs; i.e. rental, re-fill, delivery, order processing.



MAXIGAS 120

The next generation of maxigas new levels of performance, reliability and efficiency unobtainable until now

The award winning MAXIGAS nitrogen generator from domnick hunter offers a unique, innovative solution to nitrogen gas supply. A reliable, secure source of nitrogen can be produced from your existing compressed air supply, eliminating the need for high pressure gas cylinders or bulk cryogenic liquefied gas. What's more the design has recently been improved to give an even more energy efficient solution.



Note: In high ambient temperature applications, it may be necessary to install an additional activated carbon stage to protect the nitrogen generator from oil vapour carryover. Please consult domnick hunter for advice

The importance of pre-treatment

domnick hunter knows that total reliability is important to you. Using high quality compressed air to supply MAXIGAS nitrogen generators ensures long and trouble free service and guarantees optimum performance.

domnick hunter pre-treatment packages include our PNEUDRI desiccant air dryers and OIL-X EVOLUTION coalescing filters to guarantee the highest quality air supply for MAXIGAS nitrogen generators.

Guaranteed air quality:

Dewpoint:	-40°C PDP
Particulate:	<0.1 micron
Oil:	<0.01 mg/m ³

how it works

MAXIGAS operates on the Pressure Swing Adsorption (PSA) principle to produce a continuous stream of nitrogen gas from compressed air.

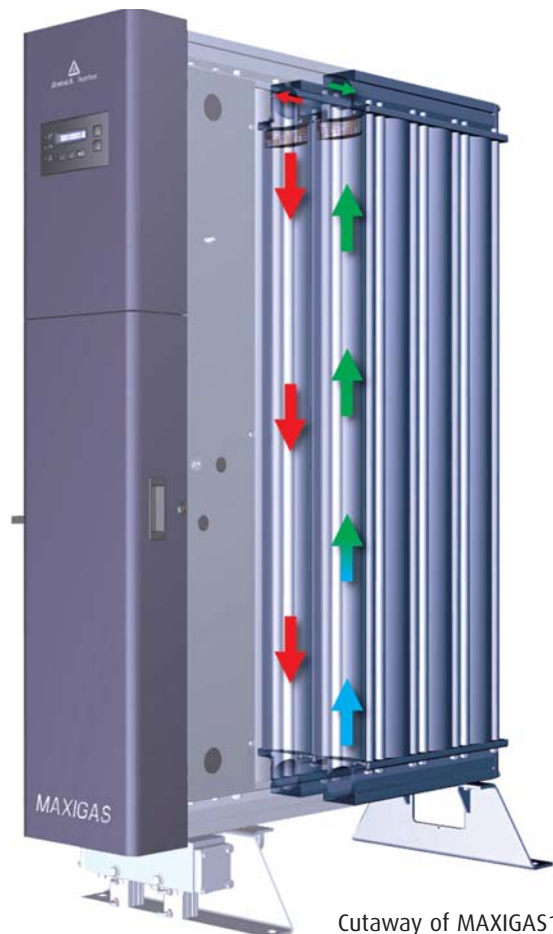
Pairs of extruded aluminium columns are filled with carbon molecular sieve (CMS). Pre-treated compressed air enters the bottom of the 'on-line' column and flows up through the CMS. Oxygen and other trace gases are preferentially adsorbed by the CMS, allowing nitrogen to pass through.

After a pre-set time the on-line column automatically switches to regenerative mode, venting contaminants from the CMS.

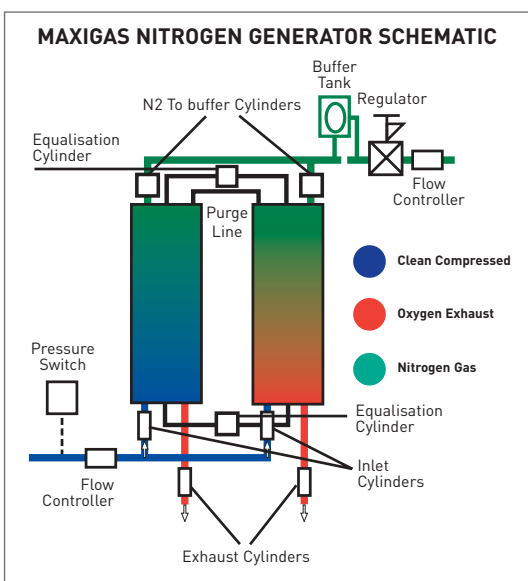
Carbon molecular sieve differs from ordinary activated carbons in that it has a much narrower range of pore openings. This allows small molecules such as oxygen to penetrate the pores and be separated from nitrogen molecules which are too large to enter the CMS. The larger molecules of nitrogen by-pass the CMS and emerge as the product gas.



Carbon Molecular Sieve



Cutaway of MAXIGAS112



performance data



		Nitrogen outlet flowrate – Nm ³ /hr (ATP) v Oxygen Concentration									
Model	10ppm	100ppm	500ppm	0.1%	0.5%	1.0%	2.0%	3.0%	4.0%	5.0%	
MAXIGAS MIDI	N2MIDI350	0.68	1.14	N/A	1.8	3.0	3.5	4.56	N/A	N/A	N/A
	N2MIDI351										
MAXIGAS	N2MIDI600	1.0	1.7	N/A	3.0	4.4	5.2	7.0	N/A	N/A	N/A
	N2MIDI601										
SINGLE BANK MAXIGAS	MAXIGAS104	1.97	3.19	8.1	8.9	14.1	17.8	21.9	25.8	29.0	32.2
	MAXIGAS106	2.95	4.79	12.1	13.4	21.2	26.6	32.8	38.7	43.5	48.3
	MAXIGAS108	3.93	6.38	16.2	17.9	28.3	35.5	43.8	51.6	58.0	64.4
	MAXIGAS110	4.92	7.98	20.2	22.4	35.3	44.4	54.7	64.5	72.5	80.4
	MAXIGAS112	5.90	9.58	24.2	26.8	42.4	53.3	65.7	77.4	87.1	96.5
	MAXIGAS116	7.87	12.77	30.7	34.0	53.7	67.5	83.2	98.1	110.3	122.3
	MAXIGAS120	9.83	15.96	37.2	41.2	65.0	81.7	100.7	118.7	133.5	148.0

Performance data based on 7barg (102psig) air inlet pressure, 20°-25°C (68°-77°F) ambient temperature. Consult domnick hunter for performance under other specific conditions.

technical specifications

Ambient temperature range:	5 - 50°C 122°C
Nitrogen outlet pressure:	up to 16.5 barg
Min. air inlet pressure:	6 to 18 barg*
Inlet air quality:	Dewpoint: -40°C
	Particulate: <0.1 micron
	Oil: <0.01 mg/m ³
Electrical supply:	220V/1ph/50Hz Or 110V/1ph/60Hz
Inlet/outlet connections:	Air G1 / Nitrogen G½

* MAXIGAS only

weights and dimensions

Model	Height (mm)	Width (mm)	Depth (mm)	Weight (kg)
N2MID350	1100	590	600	145
N2MID600	1100	590	600	180
MAXIGAS104	1894	550	692	235
MAXIGAS106	1894	550	861	355
MAXIGAS108	1894	550	1029	450
MAXIGAS110	1894	550	1198	543
MAXIGAS112	1894	550	1368	637
MAXIGAS116	1894	550	1765	825
MAXIGAS120	1894	550	2043	960

standard equipment includes

- Oxygen analyser for continuous monitoring of nitrogen purity
- Analogue outputs for remote monitoring
- Alarm connections



User friendly customer interface



MIDIGAS

The MIDI range is designed to offer the most compact solution for smaller scale nitrogen requirements. These units are also available with the option of an integral oil-free air compressor, giving a more flexible nitrogen supply with no dependence on your plant air supply.



MIDIGAS Installation



MAXIGAS Modular Concept

For higher flow rate applications, MAXIGAS can be multibanked to offer the most cost effective solution.

The modular design of the MAXIGAS system means you can simply add extra banks as your business grows and your gas requirements increase.

N-com Networked Condition Monitor

- Secure remote condition monitoring
- Tracks critical system parameters
- Notifications by automatic alerts



domnick hunter also manufactures:



Laboratory Gas Generators



Compressed Air Filters



Compressed Air Filter Elements



Compressed Air Refrigeration Dryers



Compressed Air Desiccant Dryers



Condensate Drains



Oil / Water Separators



Breathing Air Purifiers



Sterile Air Filters



Carbon Dioxide Purifiers



Mixed Gas Dispense Systems



Liquid Filters

For further information about these and many other filtration, purification and separation products please contact domnick hunter or visit our website at www.domnickhunter.com



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