



# High purity nitrogen generators

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***MiniGen***

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State-of-the-art technology and decades of experience...

PARTENAIR offers innovative solutions for compressed air and gases for industry.

PARTENAIR is committed to working alongside its customers and providing exceptional solutions together with high quality products to solve their particular challenges.

Extensive experience and state-of-the-art products are only part of the equation.

PARTNER knows that world-class customer service is the most important component of any successful business.



## The solution for your nitrogen needs.

Nitrogen is an inert, dry gas used in a wide range of applications where oxygen can be harmful to products or processes.

Our generators use ordinary compressed air to provide an uninterrupted supply of high purity nitrogen.

This allows you to produce your nitrogen on site, as required, with the purity your application demands.



### Design

All our generators are designed and manufactured in Europe with exceptional technologies to offer you the highest level of performance with the lowest operating costs.



### Research and development

At PARTENAIR we strive to offer solutions that stand out from existing products. We are constantly looking for new technologies that can provide unparalleled advantages over competing offerings.



### Manufacture

Our MiniGen and ProGen series nitrogen generators are reliable and energy efficient. They are manufactured in state-of-the-art facilities to the highest quality construction standards to ensure equipment reliability and high performance levels.

# MINIGEN nitrogen generators

Nitrogen is used in many commercial and industrial applications to improve the quality of a product or process or as a safety measure to prevent combustion. Liquid or bottled nitrogen delivery and storage can be expensive, unreliable and a safety concern. Nitrogen generators allow users to produce nitrogen in-house simply and inexpensively using an existing compressed air system.

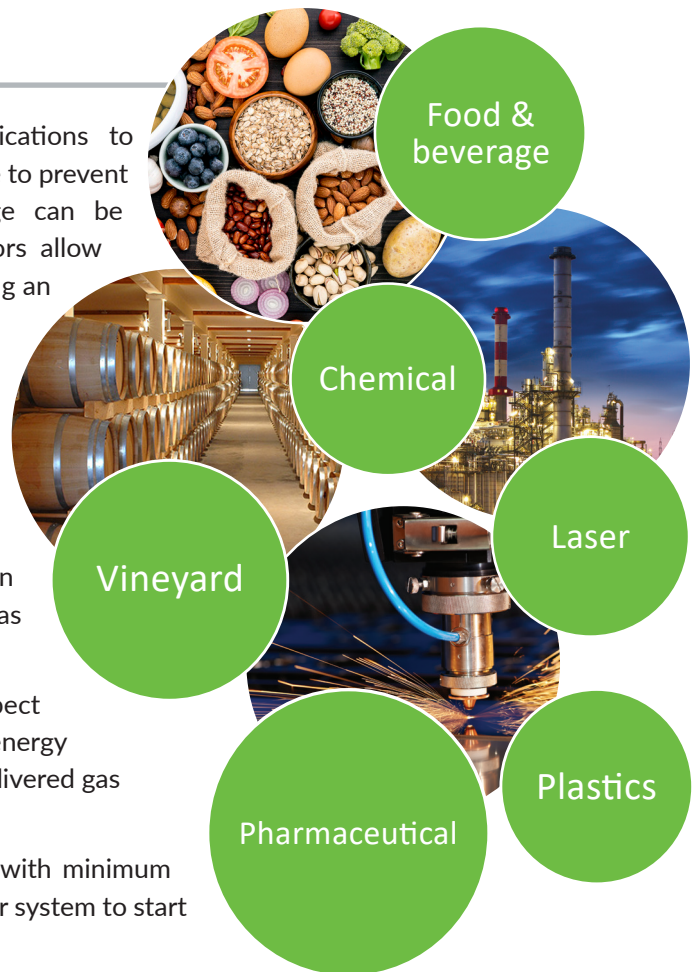
PARTENAIR recognises the importance of having a safe, reliable and cost effective supply of high purity nitrogen. We have developed the MINIGEN nitrogen generator to meet the increasing demand for high quality, complete packaged solutions which save energy and time while fulfilling the needs of their intended application.

With traditional methods of gas supply, users are liable for hidden costs such as rental, refill and delivery, order processing charges as well as an environmental levy charge.

When you switch to a MINIGEN gas generator you can expect payback typically between 6 to 24 months. Its unique design and energy saving function offers a number of significant advantages over delivered gas options, as well as traditional generator designs.

The compact plug and play system can be installed easily and with minimum cost and disruption and requires only a pre-treated compressed air system to start production.

The MINIGEN is ideal for smaller usage applications such as wine production, food packaging and for atmosphere blanketing where a high quality, simple, inexpensive nitrogen supply is required.



## Benefits

### *MiniGen*



#### Guareed performance

- reliable performance based on decades of experience with pressure swing adsorption technology
- 100% function and performance tested at our factory
- 2 year warranty

#### Rapid return on investment

- Significant cost savings over cylinder or liquid supply provides a typical return on investment of less than 24 months

#### Easy to install

- The compact design allows installation in spaces too small for twin tower generator systems

#### Safe and reliable

- Eliminates the safety hazards of transporting and storing pressurized gas cylinders or liquid nitrogen

#### Environmentally friendly

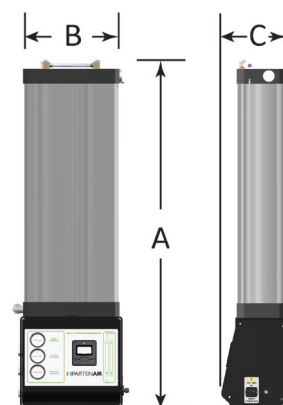
- Lower air consumption and refined controls provide greater energy efficiency
- Reduces carbon footprint by eliminating gas delivery to your facility installation.

Flow rates in m<sup>3</sup>/h of nitrogen generated according to purity / residual oxygen content <sup>(1)</sup>

generator model	95%	96%	97%	98%	99%	99,5%	99,9%	Dimensions			Masse
	(5%)	(4%)	(3%)	(2%)	(1%)	(0,5%)	(0,1%)	A	B	C	kg
MNG 3	6,3	5,7	4,9	4,0	2,9	2,4	1,5	1015	400	235	60
MNG 5	10,1	9,0	7,7	6,2	4,6	3,6	2,6	1340	400	235	78
MNG 8	16,6	14,9	12,9	10,3	7,6	6,0	4,3	1940	400	235	105

### Compressed air quality and specifications

Particle filtration <sup>(4)</sup>	0,1 micron
Residual oil content <sup>(3)</sup>	0,01 ppm
Minimum compressed air pressure	6 bar
Maximum compressed air pressure	10 bar
Maximum permissible dew point <sup>(2)</sup>	+3°C
Recommended dew point <sup>(2)</sup>	-40°C
Ambient temperature range	10...50°C
Electricity supply	100 à 240V AC / 50 ou 60 Hz



- (1) In m<sup>3</sup>/h (20°C - 1 bar abs) for a compressed air inlet pressure of 7 bar relative and a compressed air temperature between 20 and 25°C. Correction factors apply for different values. See correction factors below.
- (2) Requires an upstream compressed air dryer. Please contact us for assistance in selecting the optimal dryer for your application.
- (3) Oil vapors included.
- (4) Requires proper compressed air filtration. Please contact us for assistance in selecting the optimal filters for your application.
- (5) As an indication, please contact us for validation of the selection necessary for your application.

### Connections

Compressed air entry	½"
To regulation tank	1"
Return tank regulation	½"
Nitrogen output	½"

### Pressure correction factors <sup>(5)</sup>

Intake air pressure (bar)	6	7	8	9	10
Correction factor	0,88	1,00	1,10	1,20	1,20

### Temperature correction factors <sup>(5)</sup>

Intake air temperature (°C)	5	10	15	20	25	30	35	40	45	50
Correction factor	0,80	0,90	0,94	1,00	1,00	0,98	0,95	0,90	0,85	0,72



**PARTENAIR**  
AIR COMPRISE - AZOTE - EAU GLACEE - MESURE

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