



NITROGEN GENERATORS

LABORATORY & ANALYTICAL INSTRUMENTS



FLAIRMO

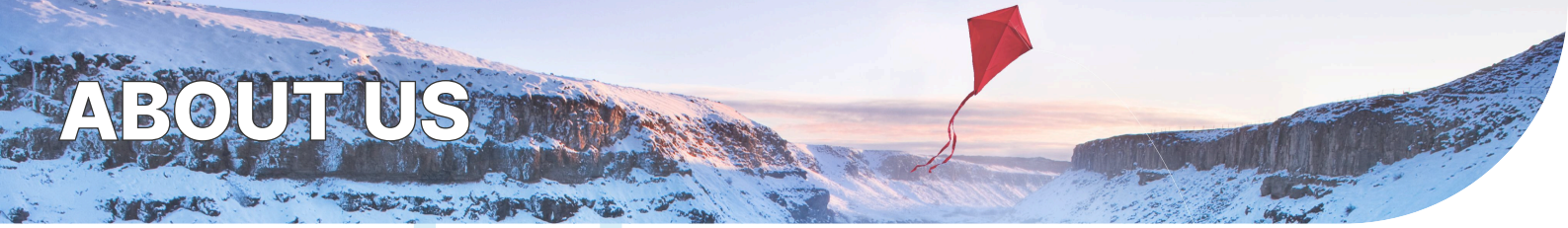
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ABOUT US

About FLAIRMO

FLAIRMO is a professional supplier of compressors, vacuum pumps, air treatment products and gas generators. With decades of experience, we specialize in delivering innovative, efficient and specialized solutions for a wide range of industries.

The generators are reliable and come with either integrated long-life oil-free compressor or made for an external air supply. FLAIRMO gas generators are designed and manufactured in Aalborg, Denmark.

+1000
Gas generators delivered

+200
Customers assisted worldwide

+50
Gas generator variations

+10
Year service life



Why choose FLAIRMO

Application Experience
From labs and 3D-printing to district heating and food production

Long-Term Partnerships
Stable supplier agreements and dealer relationships built to last

Support That Answers
Direct and easy access to our in-house service team

High Quality Products
Every product is built from carefully selected, high-quality components.

Our mission

Only the best solution is good enough for our customers. We strive to be the best possible supplier with reliable products and excellent service.

We focus on creating long-term partnerships based on trust and reliability, ensuring our clients have the tools and support they need to maintain high uptime.



APPLICATIONS

Why nitrogen in the laboratory

Producing your own nitrogen on site is easy, affordable and gives you a real advantage in the lab. Instead of ordering, storing and swapping cylinders, a FLAIRMO generator turns compressed air into a continuous nitrogen supply – 24 hours a day.

That means no delivery delays, no overnight sequence stopping halfway because a cylinder ran empty, and no high-pressure bottles to handle or store. Purity and flow stay stable, so your results stay comparable from run to run.

Many laboratory instruments/equipment use nitrogen at different purities and flowrates e.g., for example:



LC/MS - Liquid Chromatography

High-purity nitrogen is typically used in LC/MS instruments as nebulizer, curtain and dry gas. A drop in purity or flow shows up directly in your baseline, so a stable, uninterrupted supply is a data quality requirement.

GC - Gas Chromatography

Nitrogen is used as an effective inert carrier gas and as an alternative to helium and hydrogen. It is also the standard make-up and detector gas in most GC setups.

ELSD - Evaporation Light Scattering Detector

The purity of nitrogen gas is important since it needs to be pure and dry in order to optimise detection. Any moisture, oil or particulates carried in with the gas show up as baseline noise.

APPLICATIONS



- Effective and reliable nitrogen generators based on **PSA Technology**
- Purities ranges from **95% - 99.9995%** compatible for different lab applications
- **Plug-and-Play** solutions - plug into power and start producing nitrogen
- Low service costs – **annual service** costs significantly less than with other manufacturers
- **10+ years lifetime** with simple annual service - no specialist technician required





GB - Glove Box

The glove box should be supplied with inert gas at 2 bar pressure. Normally the inert gas chosen is nitrogen to lower the oxygen concentration within the equipment.



CAD - Charged Aerosol Detector

Nitrogen gas serves multiple roles of atomisation, drying and collision charging in the CAD process. With the gas involved at every stage, purity directly affects your results.



TOC - Total Organic Carbon Analyzer

By acidifying the sample and sparging it with nitrogen, inorganic carbon is removed from the sample, leaving only organic carbon sources for measurement.

ON-SITE GENERATORS



On-site nitrogen generators

Nitrogen in cylinders or as liquid means a steady stream of practical work: ordering, deliveries, heavy bottles to move and swap, rental costs, and gas that slowly disappears while it sits. And if a bottle runs empty while a process is running, it stops.

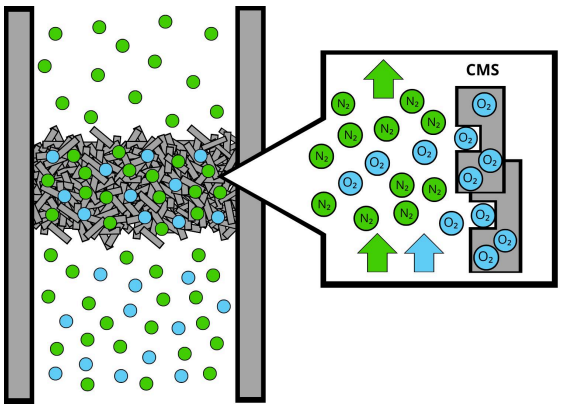
An on-site nitrogen generator removes all of that. It produces nitrogen directly from the ambient air, continuously, for as long as your process needs it.

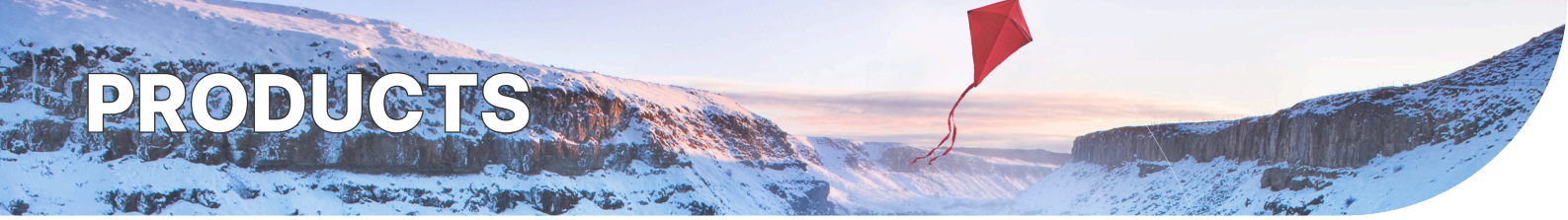
	CYLINDERS	LIQUID	FLAIRMO GENERATOR
Supply	Deliveries	Deliveries	✓ **Continuous**
Handling	Manual swaps	Cryogenic handling	✓ **None**
N2 Losses	Manual swaps	Boil-off	✓ **None**
Ongoing cost	Gas + rental	Gas + rental	✓ **Electricity**
Availability	Order lead time	Order lead time	✓ **24/7**



The PSA-technology

FLAIRMO nitrogen generators use PSA (Pressure Swing Adsorption) technology to separate nitrogen from oxygen and other gases. Compressed air passes through CMS (Carbon Molecular Sieves) filled towers that alternate between adsorption and regeneration, retaining oxygen while allowing nitrogen to flow continuously. The system delivers purities from 95% up to 99.9995%, offering a cost-effective, efficient, and reliable on-site solution with a long operational lifespan.





PRODUCTS

Internal air supply

With an internal high quality oil-free compressor, drying, and filtration integrated into a single cabinet, these units deliver a complete plug-and-play solution, producing 3-40 l/min in flowrate.

Model	N2G-3C	N2G-10C	N2G-15C	N2G-20C	N2G-40C	N2G-40CS	N2G-20CAS
Product							
Flowrate	3 Nl/min @ 99,5%	10 Nl/min @ 99,5%	15 Nl/min @ 99,5%	20 Nl/min @ 99,5%	40 Nl/min @ 99,5%	40 Nl/min @ 99,5%	20 Nl/min @ 99,5% Air flow: 51 Nl/min
Nitrogen purity	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%
Compressor	Internal compressor	Internal compressor	Internal compressor	Internal compressor	Internal compressor	Internal compressor	Internal compressor
Tank size	4 Liter	6 Liter	6 Liter	6 Liter	6 Liter	6 Liter	6 Liter
Noise level	55 dB(A) / 1 m	55 dB(A) / 1 m	60 dB(A) / 1 m	62 dB(A) / 1 m	65 dB(A) / 1 m	55 dB(A) / 1 m	55 dB(A) / 1 m
Duty cycle	S1 - 100%	S1 - 100%	S1 - 100%	S1 - 100%	S1 - 100%	S1 - 100%	S1 - 100%
L x W x H	495 × 230 × 545 mm	722 × 270 × 551 mm	722 × 270 × 551 mm	722 × 278 × 785 mm	825 × 278 × 1647 mm	640 × 618 × 854 mm	640 × 618 × 854 mm
Weight	28 kg	50 kg	52 kg	80 kg	130 kg	110 kg	110 kg

External air supply

FLAIRMO external air supply nitrogen generators are modular, high-capacity systems delivering flowrates from 15 to 160 l/min. Designed to connect with external compressed air supply (ISO 8573-1: Class 2.4.1).

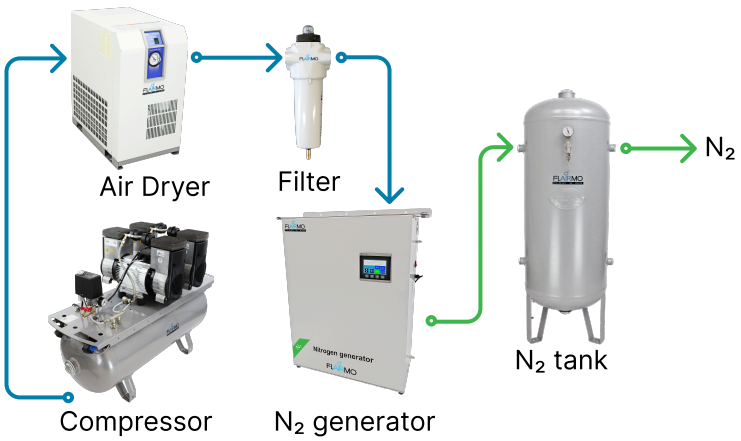
Model	N2G-15	N2G-30	N2G-40	N2G-80	N2G-120	N2G-160
Product						
Flowrate	15 Nl/min @ 99,5%	30 Nl/min @ 99,5%	40 Nl/min @ 99,5%	80Nl/min @ 99,5%	120 Nl/min @ 99,5%	160 Nl/min @ 99,5%
Nitrogen purity	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%	Up to 99,9995%
Inlet flowrate*	45 l/min @ 7 bar	90 l/min @ 7 bar	120 l/min @ 7 bar	240 l/min @ 7 bar	360 l/min @ 7 bar	480 l/min @ 7 bar
Noise level	50 dB(A) / 1 m	50 dB(A) / 1 m	50 dB(A) / 1 m	50 dB(A) / 1 m	50 dB(A) / 1 m	50 dB(A) / 1 m
Duty cycle	S1 – 100 %	S1 – 100 %	S1 – 100 %	S1 – 100 %	S1 – 100 %	S1 – 100 %
L x W x H	722 × 270 × 551 mm	722 × 270 × 551 mm	722 × 278 × 785 mm	825 × 278 × 1647 mm	703 × 411 × 1670 mm	703 × 411 × 1670 mm
Weight	45 kg	48 kg	75 kg	115 kg	180 kg	230 kg

*Air quality according to ISO 8573.1 Class 2.4.1

Internal air supply solution



External air supply solution



A buffer tank is not always required for operation, but can be added as an option if needed.



Nitrogen at your convenience

FLAIRMO

FLAIRMO ApS

Lundeborgvej 3, 9220 Aalborg Ø, Denmark

+45 53 71 72 20

info@flairmo.dk

Flairmo.dk

FLAIRMO ApS