Nitrogen Membrane Generators

For all your oil & gas, mining and shipyard applications

Easily generate nitrogen on site

With our highly efficient nitrogen membrane generators, we are offering you a full solution in combination with our broad range of portable air compressors and boosters. Our custom built-for-purpose nitrogen generators are here to meet your specific needs.

The easy-to-use units generate nitrogen at required purity (up to 99%) optimizing your energy savings. With a continuous supply of nitrogen in even the most extreme conditions, you are secured for your day-to-day operations.

Thanks to the use of superior membrane technology and top-notch engineering, the nitrogen membrane generators are highly efficient lowering your cost of ownership to the minimum.

EASY TO OPERATE

LOW COST OF OWNERSHIP

LONG LASTING QUALITY

RELIABILITY

Atlas Copco

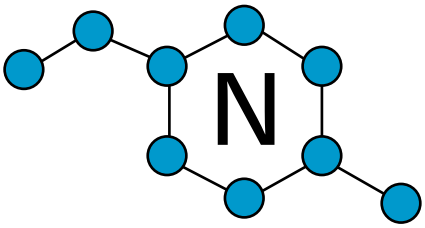
The easy-to-use and full solution

Experience the Atlas Copco advantage with our offering of not only nitrogen generators, but a full solution to your application needs. Contact us for custom built-for-purpose nitrogen equipment in combination with our portable air compressors and boosters. Thanks to our global presence and worldwide service network, we are able to offer you the best service.

Easily control your nitrogen purity

Atlas Copco's advanced technology allows you to easily generate nitrogen at purity level of your choice (up to 99%), giving you the flexibility to match your application needs. The integrated feed air filtration package ensures optimal performance, while the choice for lower nitrogen purity makes it possible to save on energy costs.

How does membrane technology work?



Membrane nitrogen generators are based on a simple working principle. The main part of a membrane generator is the membrane module (+- 10cm in diameter), filled with small, hollow polymer fibers.
First, dry, clean compressed air enters and due to the structure of these fibers parts of the air will flow to the outside of the fiber. This process is called permeation. During this process, water, oxygen and some of the argon exit through the membrane sides of the fibers. In the end, only nitrogen will remain. This is possible since different molecules permeate at different speeds. H2O will permeate very quickly, oxygen takes a little longer.

Argon and Nitrogen permeate rather slowly, meaning that they will remain in the fibers long after the H2O and oxygen are gone (some of the Argon will permeate as well, but it would be inefficient to completely remove it from the air stream). Because of the permeation through the fiber wall, an overpressure would occur inside the membrane housing. The fibers would clog and the permeation efficiency would be significantly lowered. To prevent that from happening there is an opening in the housing, the permeate vent, where these 'exhaust' gases (including H2O, oxygen and Argon) can escape.

Ease of use

Simplicity meets efficiency with our nitrogen membrane generators. The unit boast straightforward start-up and commissioning, making on-site nitrogen easily deployable for all your needs. The integrated feed air manifold connects various compressed air sources seamlessly, providing a hassle-free solution. Maintenance is a breeze, ensuring continuous operation with minimal downtime. And if an issue might pop up, our global service network is there to the rescue, so you're ensured of optimal performance.

Secure your business with a reliable nitrogen generator

You can count on Atlas Copco's nitrogen membrane generators for a continuous supply of nitrogen with stable purity. Our superior membrane technology sets us apart, resulting in low energy consumption. Because of this minimal use of energy per ton of nitrogen, your total cost of ownership drops to a minimum. Reliability is key for your application, and thus for our generator unit. By opting for a reliable nitrogen generator your day-to-day operations are secured, independently of nitrogen availability and supplier performance.

Built to withstand all tough conditions

High or low temperatures, high concentrations of dust or humid conditions? Our nitrogen membrane generator is built to endure the most extreme conditions. The units are tested to perform at their best for every tough application in even the toughest conditions. From extreme temperatures to dusty environments, our robust generator units ensure reliable performance when and where you need it.

Cost savings

By opting for on site nitrogen generation you drastically lower your transport costs and CO^2 emissions in the supply chain. Thanks to top-notch engineering and superior membrane technology, minimal energy is consumed during operation leading to a low cost of ownership.

The solution to meet your needs

Model	Oil & Gas					Mining		Shipyard & LNG			
NM 500-25	Under-balanced drilling	Coiled tubing operations	Enhanced oil recovery	Well completions	Pipeline services	Extinguish mine fires	Coal mine inerting	Nitrogen blanketing	Pneumatic testing	Gas lift	Flushing tanker
NM 1000-25											
NM 2000-25											
NM 3000-25											

Our nitrogen membrane generators are suitable for every possible application where nitrogen is required. The more nitrogen is required for your specific application, the bigger unit you go for. Specific technical data on the nitrogen outlet is shown on the next page.

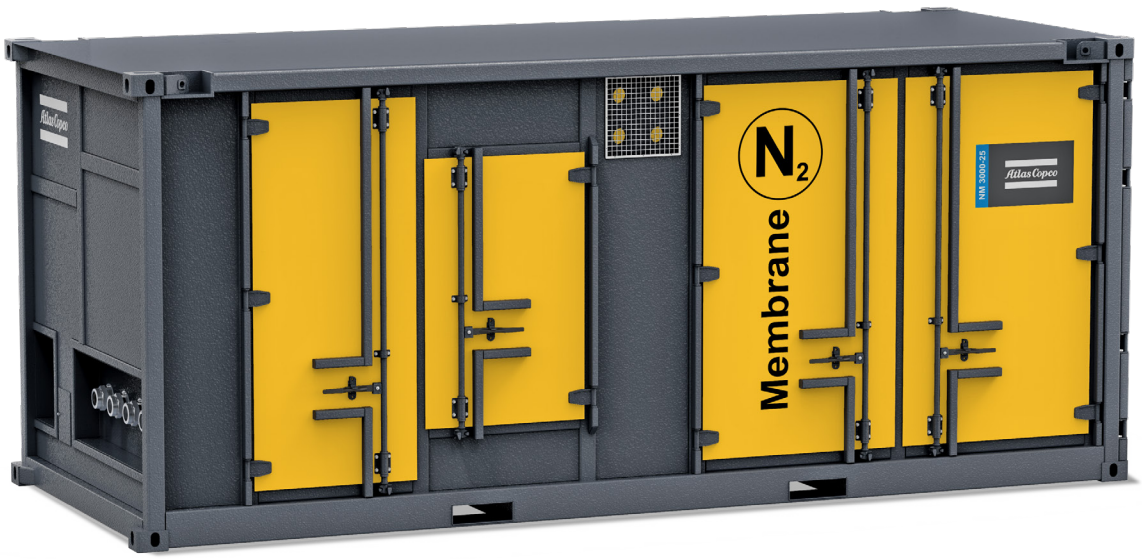
Oil & gas

Shipyard

Mining

Technical data

Type		NM 500 - 25		NM 1000 - 25		NM 2000 - 25		NM 3000 - 25	
		Nm^3/h	Scfm	Nm^3/h	Scfm	Nm^3/h	Scfm	Nm^3/h	Scfm
Nitrogen - FND	95%	803	500	1605	1000	3210	2000	4815	3000
	96%	722	450	1324	825	2729	1700	4013	2500
	97%	562	350	1083	675	2247	1400	3210	2000
	98%	401	250	843	525	1766	1100	2568	1600
	99%	313	195	570	355	1284	800	1846	1150
Dimensions and Weight									
Length	mm	3050		3050		6100		6100	
Width	mm	2440		2440		2440		2440	
Height	mm	2620		2620		2620		2900	
Weight	kg	3856		5216		9525		11340	



Our air solutions portfolio

Portable air compressors diesel driven

Small range

- 2-5 m^3/min (33-175 cfm)
- 7-12 bar (100-175 psi)

Medium range

- 7-22 m^3/min (275-784 cfm)
- 7-14 bar (100-205 psi)

Large range

- 20-60 m^3/min (700-2000 cfm)
- 7-35 bar / 100-500 psi

Portable air compressors electric driven

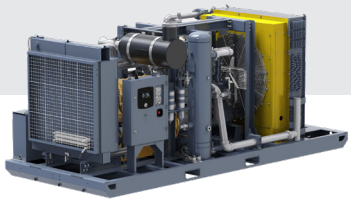
E-Air, electric range

- 5.4-25 m^3/min (190-900 cfm)
- 5-14 bar (72-200 psi)

B-Air, battery range

- 3.7-5.3 m^3/min (130-185 cfm)
- 5-12 bar (72-175 psi)

Boosters



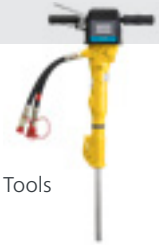
- Up to 127 m^3/min (TBC cfm)
- Up to 345 bar (5000 psi)

Handheld tools

Pneumatic tools

- Breakers (2,5 – 40 kg)
- Rockdrills (5 – 25 kg)
- Underground Rock Drills

Hydraulic tools



- Breakers (11– 40 kg)
- Additional Hydraulic Tools
- Powerpacks

Petrol engine driven tools

- Breakers & Tie Tampers (25 kg)
- Rockdrills (23 Kg)

Air treatment products

Nitrogen membrane generator

- Max. flow: 3000 cfm
- Max. pressure: 25 bar

Online solutions

FLEETLINK

Intelligent telematics is a system that helps optimize fleet usage and reduce maintenance, ultimately saving time and cutting operating costs.

CONNECTED FLEET LINK SECURED

E-AIR TCO CALCULATOR

Does your jobsite have an electric power supply?

Then an electric compressor can reduce your operating costs significantly. Take the test and in only 5 steps you'll find out how much you will save.

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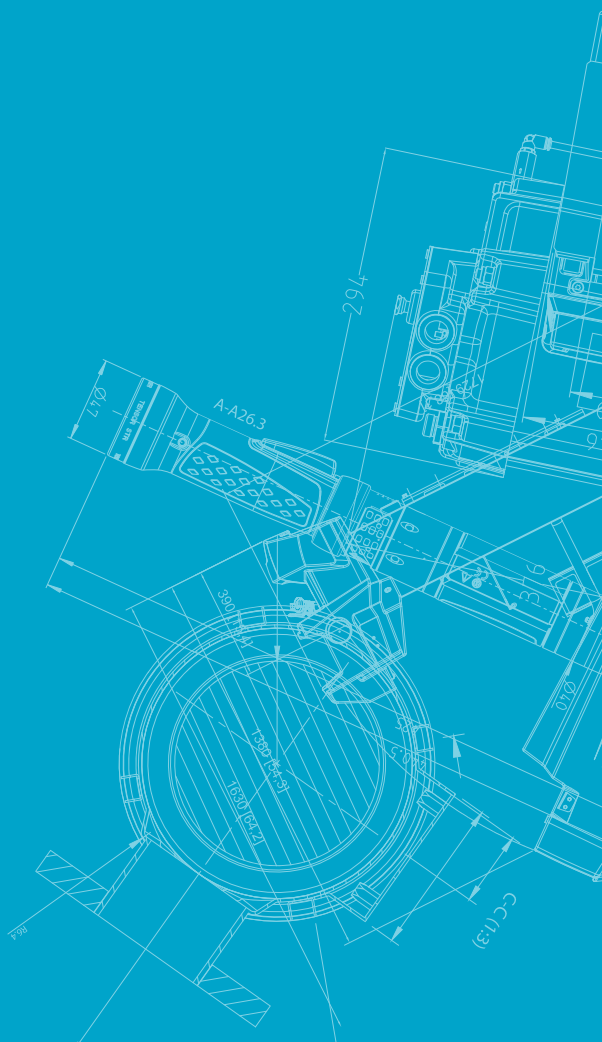

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atlascopco.com/mobile-air-compressors