

GN

4-7 kW/5.5-10 hp

Dual Output Compressors (Air/Nitrogen)



Driving Nitrogen Forward



GN: the dual output solution

From cargo blanketing in LNG vessels to the inflation of Formula 1 tires, nitrogen is used in a wide range of safety and high performance arenas. Nitrogen's dry, non-reactive qualities now also make it a strong alternative for road tire inflation

to increase reliability and decrease wear. Atlas Copco's GN Dual Output compressor generates nitrogen and compressed air simultaneously. Unique in the industry, the GN is one solution for both air and nitrogen.



THE RIGHT QUALITY NITROGEN

The GN offers an assured flow and purity of nitrogen, regardless of changing workplace conditions. With its integrated membrane technology, the GN provides a constant flow of nitrogen even in high compressed air use.



RELIABLE COMPRESSED AIR

The GN's efficient engineering maximizes air flow and reduces energy use, while its integrated dryer provides quality air to preserve tools and equipment. With the rotary screw compressor's low noise operation, the GN can also be installed close to the point of use to reduce piping costs. With the added assurance of Atlas Copco's experienced service team, the GN makes light work of heavy demand.



THE DUAL OUTPUT SOLUTION

The GN Dual Output compressor is the single solution to nitrogen and air production. Fully integrated and unique in the industry, the GN produces the right quality of nitrogen and air simultaneously from one compact unit.



The GN Dual Output compressor is the compact and robust solution for combined and simultaneous nitrogen and compressed air use.

NITROGEN: A RANGE OF APPLICATIONS

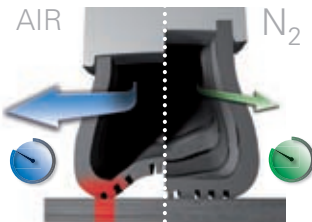
- Automotive tire inflation
- Blanketing of vessels with LNG, petrol
- Sealing off gas compressors
- Blanketing valves which handle explosion sensitive materials
- Storage of food

Driving nitrogen forward



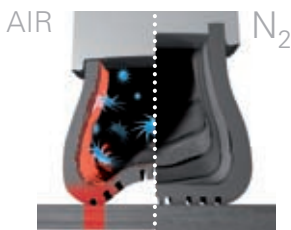
Nitrogen is proven as a strong alternative to air for tire inflation in a range of high performance arenas. Now, inflating road tires with nitrogen also provides a wide range of cost and safety benefits for everyday use.

NITROGEN: HIGH PERFORMANCE TIRE INFLATION



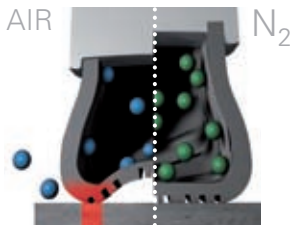
MINIMIZE FUEL CONSUMPTION

A tire should be properly inflated at all times to ensure good road contact. Oxygen molecules escape quickly through tire rubber. The resulting pressure loss will affect fuel use as the tire loses full contact with the road. Nitrogen stays in the tire longer, stabilizing the tire's shape to lower fuel consumption.



IMPROVE TIRE LIFE

Compressed air can create oxidization of the rubber which will increase tire wear. Air also escapes easily from the tire – reducing pressure and creating uneven wear. As an inert gas, nitrogen doesn't oxidize the rubber, contributing to longer tire life. Because nitrogen does not escape from the tire as quickly, it creates a more even level of wear and decreases maintenance.



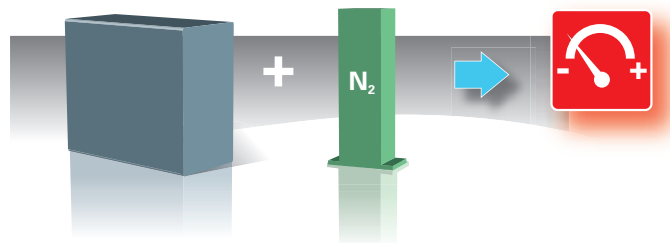
INCREASE SAFETY AND DRIVING COMFORT

Fluctuating temperatures cause the air inside a tire to expand and contract – affecting performance and increasing the risk of a blowout. Nitrogen disperses heat more easily to keep the tire cooler. It also maintains the right tire pressure longer, minimizing the danger of skidding and improving comfort, handling and safety even further.

ARE YOU LOOKING TO PROVIDE NITROGEN?

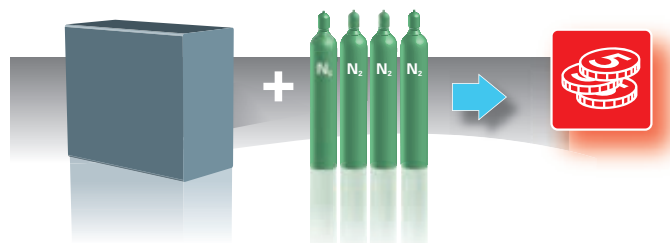
CONSIDERING AN ADD-ON NITROGEN GENERATOR?

To produce nitrogen you require a compressor that can cope with the added demand. Some nitrogen add-ons may use too much air, leaving power tools inoperable and purity unstable. If you have a compressor of 10 bar and want to generate nitrogen with an add-on, there is a risk that the pressure of the nitrogen may be too low to inflate tires quickly and efficiently.



CURRENTLY BUYING NITROGEN CYLINDERS?

Why buy nitrogen when you can produce your own? Nitrogen cylinder delivery can be expensive. Can you rely on delivery when you need it most? Nitrogen cylinders also require large, secure storage space to ensure safety.



The GN advantage

To optimize your nitrogen production, Atlas Copco now introduces the GN Dual Output compressor. Compressed air and nitrogen generation are integrated in one unit for simultaneous use – ensuring maximum efficiency, quality and cost savings.

DEPENDABLE FLOW

With an internal heater and a nitrogen membrane designed for each compressor, the GN provides a constant flow of nitrogen in changing workplace conditions. The GN also produces a stable flow of compressed air even when producing high levels of nitrogen.

ASSURED QUALITY

The GN provides the right nitrogen purity even in fluctuating conditions or heavy compressed air usage.

MINIMAL INSTALLATION COSTS

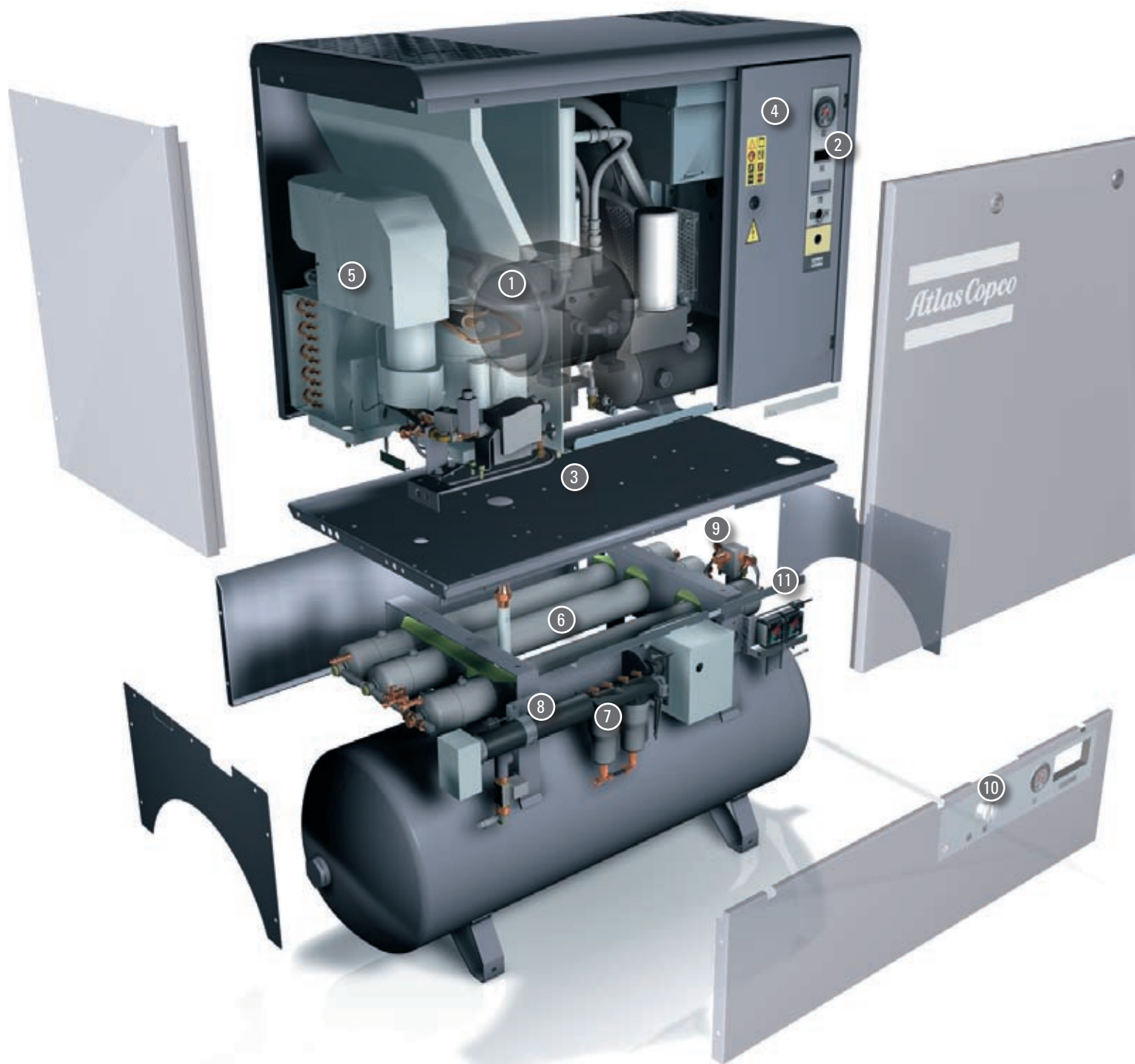
With dryers, filters and the nitrogen membrane completely integrated into one unit, the GN takes up minimal space and reduces installation time and costs. The GN's low noise also allows it to be placed at the point of use. This eliminates the need for a dedicated compressor room and costly piping to the workfloor.

LOW ENERGY USE

Innovative rotary screw technology offers low energy usage even when producing nitrogen and compressed air simultaneously – saving costs across the production.



Endurance through engineering



COMPRESSOR

- 1 **ROTARY SCREW TECHNOLOGY**
 - The GN's solid, durable and quiet 4-7kW rotary screw compressor is suitable for 100% continuous duty in varying demands.
 - Rotary screw technology ensures maximum efficiency with the lowest possible energy consumption.
- 2 **START/STOP CONTROL**

The start/stop control feature ensures that the compressor only consumes energy when nitrogen or compressed air is produced, saving energy when not in use.
- 3 **EASY ACCESS SERVICE POINT**

With service points grouped together for easy access, the GN also features a screw-on oil separator and filter for quick, efficient maintenance.
- 4 **COMPRESSOR CONTROL PANEL**

The GN comes with a clear control panel featuring air delivery pressure, hour meter and dew point indicator.
- 5 **FULLY INTEGRATED DRYER**

A fully integrated dryer prevents corrosion in the piping system and tools while improving the efficiency of nitrogen generation.

NITROGEN

- 6 **NITROGEN MEMBRANE**

Innovative membrane technology separates oxygen from the compressed air and allows nitrogen to leave the membrane to the point of use.
- 7 **INTEGRATED FILTERS**

Integrated coalescing DD and PD filters remove any harmful particles and oil droplets from the compressed air to protect the nitrogen membrane – ensuring long life and efficient generation. With complete access to the filter area, cartridges can be replaced quickly and efficiently.
- 8 **HEATER**

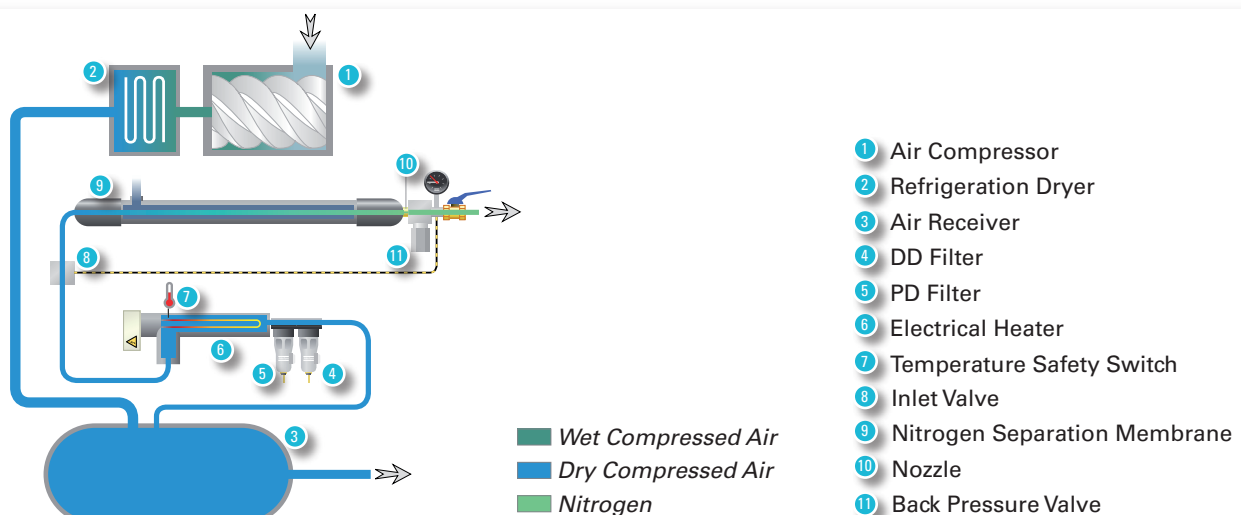
A compact heater warms the compressed air – ensuring an efficient and constant nitrogen flow.
- 9 **NITROGEN PURITY REGULATION**

The GN is set to produce nitrogen at a purity of 97%. Nitrogen purities of 92%, 95% and 99% can be obtained with optional regulation nozzles.
- 10 **CONTROL PANEL**

A compact, accessible control panel allows easy monitoring of the pressure drop over individual filters and nitrogen delivery pressure. Nitrogen purity can also be shown as an optional extra.
- 11 **FILTER GAUGE**

If pressure drop over the filters goes above 350 mBar, the nitrogen section will automatically switch off to prevent the membrane being damaged due to oil carry-over.

FLOW DIAGRAM: GN DUAL OUTPUT COMPRESSOR



Technical specifications

GN TYPE	Max. working pressure			97% Nitrogen purity ³				95% Nitrogen purity				Installed motor power		Noise level ⁴	Weight	
				FAD ¹		FND ²		FAD ¹		FND ²						
	bar(e)	psig		l/s	cfm	l/s	cfm	l/s	cfm	l/s	cfm	kW	hp	dB(A)	kg	lbs
50 Hz VERSION																
4 kW/5.5 hp																
GN 4.1	10	9.75	142	7.0	14.8	0.3	0.6	7.1	15.1	0.3	0.6	4	5.5	62	205	451
GN 4.2	10	9.75	142	6.0	12.7	0.7	1.5	6.1	12.9	0.8	1.7	4	5.5	62	207	456
GN 4.3	10	9.75	142	5.0	10.6	1.1	2.3	5.1	10.8	1.2	2.6	4	5.5	62	210	463
7 kW/10 hp																
GN 7.1	13	12.75	185	8.7	18.4	1.4	3.0	8.4	17.8	1.9	4.0	7	10	67	388	856
GN 7.2	13	12.75	185	5.4	11.4	2.7	5.7	4.6	9.8	3.8	8.1	7	10	67	392	864
GN 7.3	13	12.75	185	2.3	4.9	3.9	8.3	1.1	2.3	5.7	12.1	7	10	67	396	873
60 Hz VERSION																
4 kW/5.5 hp																
GN 4.1	10	9.75	153	7.0	14.8	0.3	0.6	7.1	15.1	0.3	0.6	4	5.5	62	205	451
GN 4.2	10	9.75	153	6.0	12.7	0.7	1.5	6.1	12.9	0.8	1.7	4	5.5	62	207	456
GN 4.3	10	9.75	153	5.0	10.6	1.1	2.3	5.1	10.8	1.2	2.6	4	5.5	62	210	463
7 kW/10 hp																
GN 7.1	13	12.25	178	8.9	18.9	1.3	2.8	8.8	18.7	1.7	3.6	7	10	67	388	856
GN 7.2	13	12.25	178	5.7	12.1	2.5	5.3	5.2	11.0	3.5	7.4	7	10	67	392	864
GN 7.3	13	12.25	178	2.6	5.5	3.7	7.8	1.6	3.4	5.4	11.4	7	10	67	396	873

Note 1: The FAD specified is the free air delivery available when simultaneously producing nitrogen. When the unit is not producing nitrogen, the full Free Air Delivery of the compressor is available for compressed air use, which is a substantially larger amount.

Note 2: The free nitrogen delivery (FND) refers to available nitrogen. For specifications at other purities, please consult your local Atlas Copco representative.

Note 3: For tire inflation, Atlas Copco advises a nitrogen purity of 97%.

Note 4: Mean noise level measured according to Pneurop/Cagi PN8NTC2 test code; tolerance 2 dB(A)

- Dryer unit performance measured according to ISO 7183, Ed. 1, 1996
- Quality of air measured according to ISO 8573-2, Ed. 1, 1996, ISO 8573-4, Ed. 1, 2001 and ISO 8573-5, Ed. 1, 2001

Reference conditions:

Producing nitrogen of 95% or 97%

Absolute inlet pressure 1 bar(e) (14.5 psig)

Intake air temperature 20°C, 68°F

Working air pressure for 13 bar(e) units: 12.5 bar(e)

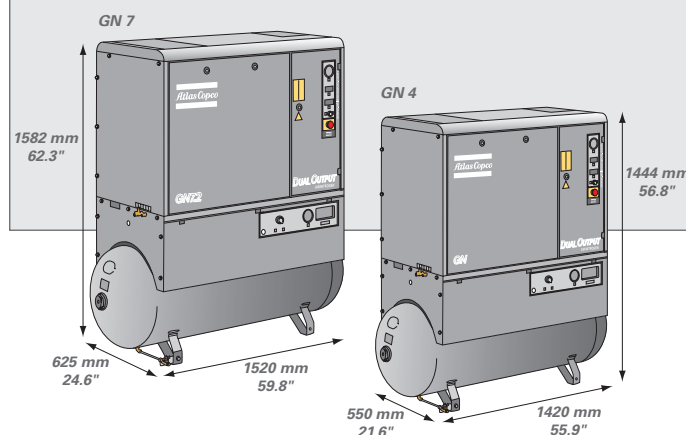
Working air pressure for 10 bar(e) units: 9.5 bar(e)

- Working pressure nitrogen for 13 bar(e) units: 10.5 bar(e)
- Working pressure nitrogen for 10 bar(e) units: 8 bar(e)

OPTIONS

- Variable nitrogen purity settings.
- Nitrogen purity indicator.
- Upgrade kits to increase your nitrogen capacity.
- Nitrogen receivers in various sizes.
- Oxygen resistant tubes to remove oxygen from the operating area.
- A line PDx filter to eliminate particles and fluids.
- Electronic drain option to remove condensate.

DIMENSIONS



Electronic drain



PDx filter