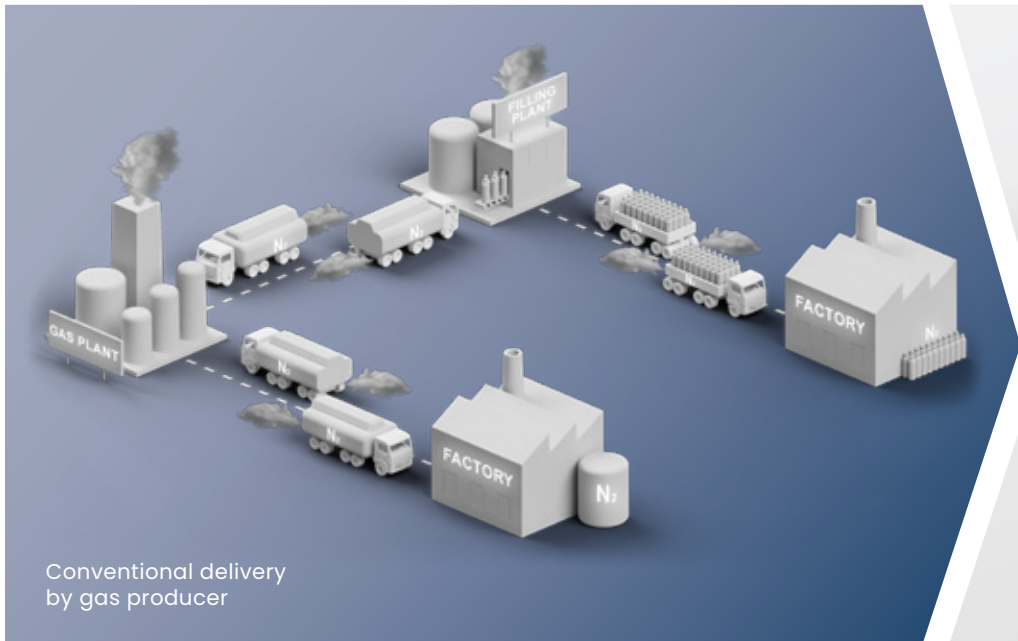




MINI SERIES
Membrane nitrogen generator





Conventional delivery by gas producer



N₂-Generator solution:
On-site extraction of Nitrogen from ambient air

NITROGEN ON-SITE EXTRACTION

In-house nitrogen production offers many advantages, especially in situations where a reliable and cost-effective access to nitrogen is required.



Cost savings

Forget expensive nitrogen cylinders and delivery costs! Producing your own nitrogen allows you to reduce costs considerably in the long term. Invest once and save in the long run.



Reliable availability

No more worries about supply bottlenecks or transport problems. With our technology, you always have a reliable source of high-quality nitrogen right on site.



On-demand production

Match your nitrogen production exactly to your needs. With our system, you can produce nitrogen on demand, without overproduction or waste.



Environmental sustainability

Take responsibility for the environment! Producing your own nitrogen significantly reduces energy consumption and transport, resulting in a lower environmental impact.



Controlled quality

Our advanced technology ensures the production of the highest purity nitrogen. You can be sure that the nitrogen you extract meets the strictest quality standards and is free from impurities.

Multiple fields of application

The own nitrogen production can be used in many areas, including the chemical industry, electronics industry, food industry, Pharmaceutical industry, shielding gas in welding, especially in metal 3D printing and cutting of metals in the metal industry and many others.

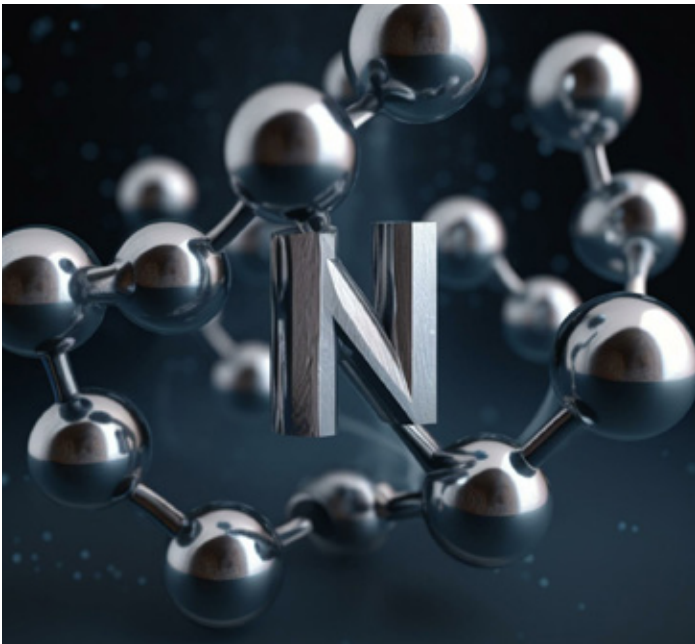
It allows adaptation to specific requirements and uses.



MEMBRANE TECHNOLOGY 4.0

Our nitrogen generator uses the latest membrane technology to extract high purity nitrogen from the surrounding air.

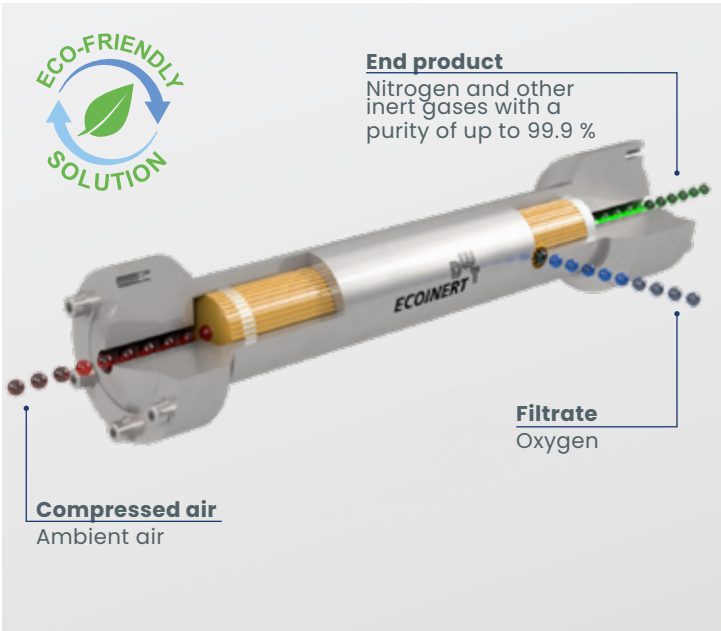
Membrane technology is an innovative process and a highly modern, environmentally friendly and cost cost-efficient process for nitrogen recovery.



Functionality of the membrane technology

The nitrogen generator consists of an innovative membrane unit. The membrane consists of a special material with microscopic pores, which enable the targeted separation of nitrogen and oxygen. The air that is fed into the generator consists mainly of nitrogen (approx. 78 %) and oxygen (approx. 21%), plus 1% of other inert gases.

During operation, the compressed air is fed into the membrane unit. Due to the different diffusion velocities through the membrane, the oxygen molecules diffuse faster than the nitrogen molecules. This leads to the fact the majority of the oxygen and other gases are retained in the membrane unit, while the purer nitrogen is concentrated on the other side.



NITROGEN GENERATOR MINI SERIES

On-site nitrogen production up to 99.9%

The ideal alternative to conventional gas supply. Flexible, cost-efficient and tailor-made for your industry. With the Mini Series nitrogen generator, you not only get high-quality nitrogen, but also a reliable and continuous nitrogen supply.

- Significant cost savings
- Use at the point-of-use, no cost-intensive line relocations
- No use of dangerous high pressure gas cylinders questionable
- No ordering procedures, rental invoices, contracts
- No access problems due to truck deliveries
- Environmentally friendly



Components of the MINI Series

- Electronic shut-off
- Integrated storage tank to compensate for of demand peaks and purity fluctuations
- High-performance membrane
- Digital display of nitrogen quality
- Differential pressure indicator
- Filter wear indicator
- Automatic condensation drain

Technical data

Nitrogen purity (adjustable)	95 – 99,9 %
Delivery quantity*	0,03 – 8 Nm ³ /h / 1-280 Cu.Ft./h
Inlet pressure	4 - 8,5 bar(ü) / 58 - 123 psi
Outlet pressure (adjustable)	Max. 1.5 bar / 21 psi below inlet pressure
Pressure dew point	≤-40°C / -40 F
Ambient temperature	Min. 5°C / 41 F - max. 45°C / 104 F
Storage size	50 ltr. / 190 gal
Size (H x W x D)	1120 x 600 x 390 mm / 21 x 44 x15 Cu.Ft.
Power supply	110 - 230 V, 50/60 Hz
Sound level dB(A)	<45
Weight	78 - 82 kg / 172 - 180 lb

*Depending on the type of generator and depending on the inlet pressure.

Payback period for nitrogen plants

Comparison with*	Capacity utilisation			
	1.000 Hours/year	2.000 Hours/year	4.000 Hours/year	6.000 Hours/year
Bottles	0,5 Years	0,4 Years	0,3 Years	0,2 Years
Bundle	0,6 Years	0,5 Years	0,4 Years	0,3 Years
Gas tank	1,1 Years	0,9 Years	0,7 Years	0,6 Years



* values depending on hourly demand, purchase costs and purity of the nitrogen required in the application.



Delivery quantity and air requirement MINI 1

At an operating temperature of 25°C

Type	Inlet pressure [bar(ü)]	Nm ³ /h	Residual oxygen content in the N ₂ gas						
			0,1%	0,5%	1%	2%	3%	4%	5%
MINI 1 Art.no. RG400100	5	Delivery quantity	0,05	0,08	0,11	0,14	0,17	0,21	0,24
		Air factor*	7,1	4,5	3,7	3,0	2,6	2,4	2,2
	6	Delivery quantity	0,06	0,10	0,14	0,19	0,24	0,28	0,34
		Air factor*	6,7	4,2	3,4	2,9	2,5	2,3	2,1
	7	Delivery quantity	0,08	0,13	0,19	0,24	0,30	0,37	0,43
		Air factor*	6,7	4,0	3,3	2,7	2,4	2,2	2,0
	8	Delivery quantity	0,10	0,17	0,23	0,30	0,37	0,45	0,53
		Air factor*	6,7	3,8	3,2	2,6	2,3	2,1	2,0
	9	Delivery quantity	0,11	0,19	0,27	0,35	0,44	0,53	0,62
		Air factor*	6,7	3,8	3,1	2,6	2,3	2,1	2,0

Delivery quantity and air requirement MINI 2

At an operating temperature of 25°C

Type	Inlet pressure [bar(ü)]	Nm ³ /h	Residual oxygen content in the N ₂ gas						
			0,1%	0,5%	1%	2%	3%	4%	5%
MINI 2 Art.no. RG400101	5	Delivery quantity	0,10	0,15	0,22	0,28	0,34	0,42	0,48
		Air factor*	7,1	4,5	3,7	3,0	2,6	2,4	2,2
	6	Delivery quantity	0,12	0,20	0,28	0,38	0,48	0,56	0,68
		Air factor*	6,7	4,2	3,4	2,9	2,5	2,3	2,1
	7	Delivery quantity	0,15	0,26	0,38	0,48	0,60	0,74	0,86
		Air factor*	6,7	4,0	3,3	2,7	2,4	2,2	2,0
	8	Delivery quantity	0,19	0,34	0,46	0,60	0,74	0,90	1,06
		Air factor*	6,7	3,8	3,2	2,6	2,3	2,1	2,0
	9	Delivery quantity	0,22	0,38	0,54	0,70	0,88	1,06	1,24
		Air factor*	6,7	3,8	3,1	2,6	2,3	2,1	2,0

* Delivery quantity multiplied by the Air factor gives the required air quantity.

Delivery quantity and air requirement MINI 3

At an operating temperature of 25°C

Type	Inlet pressure [bar(ü)]	Nm ³ /h	Residual oxygen content in the N ₂ gas						
			0,1%	0,5%	1%	2%	3%	4%	5%
MINI 3 Art.no. RG400102	5	Delivery quantity	0,15	0,3	0,4	0,5	0,7	0,9	1,0
		Air factor*	7,7	4,5	3,7	3,0	2,6	2,4	2,2
	6	Delivery quantity	0,20	0,4	0,5	0,7	1,0	1,2	1,4
		Air factor*	7,1	4,2	3,4	2,9	2,5	2,3	2,1
	7	Delivery quantity	0,25	0,5	0,7	0,9	1,2	1,5	1,8
		Air factor*	6,7	4,0	3,3	2,7	2,4	2,2	2,0
	8	Delivery quantity	0,31	0,7	0,9	1,2	1,6	1,9	2,2
		Air factor*	6,3	3,8	3,2	2,6	2,3	2,1	2,0
	9	Delivery quantity	0,36	0,7	1,0	1,3	1,8	2,2	2,6
		Air factor*	6,3	3,7	3,1	2,6	2,3	2,1	2,0

Delivery quantity and air requirement MINI 4

At an operating temperature of 25°C

Type	Inlet pressure [bar(ü)]	Nm ³ /h	Residual oxygen content in the N ₂ gas						
			0,1%	0,5%	1%	2%	3%	4%	5%
MINI 4 Art.no. RG400103	5	Delivery quantity	0,3	0,6	0,8	1,1	1,4	1,7	2,0
		Air factor*	7,7	4,5	3,7	3,0	2,6	2,4	2,2
	6	Delivery quantity	0,4	0,7	1,1	1,4	1,9	2,4	2,8
		Air factor*	7,1	4,2	3,4	2,9	2,5	2,3	2,1
	7	Delivery quantity	0,5	1,0	1,4	1,9	2,4	3,0	3,6
		Air factor*	6,7	4,0	3,3	2,7	2,4	2,2	2,0
	8	Delivery quantity	0,6	1,3	1,8	2,4	3,2	3,8	4,4
		Air factor*	6,3	3,8	3,2	2,6	2,3	2,1	2,0
	9	Delivery quantity	0,7	1,3	2,0	2,6	3,6	4,4	5,2
		Air factor*	6,3	3,7	3,1	2,6	2,3	2,1	2,0

Delivery quantity and air requirement MINI 5

At an operating temperature of 25°C

Type	Inlet pressure [bar(ü)]	Nm ³ /h	Residual oxygen content in the N ₂ gas						
			0,1%	0,5%	1%	2%	3%	4%	5%
MINI 5 Art.no. RG400104	5	Delivery quantity	0,6	1,0	1,4	1,8	2,2	2,6	3,1
		Air factor*	7,7	4,5	3,7	3,0	2,6	2,4	2,2
	6	Delivery quantity	0,8	1,4	1,9	2,4	3,0	3,6	4,3
		Air factor*	7,1	4,2	3,4	2,9	2,5	2,3	2,1
	7	Delivery quantity	1,0	1,8	2,4	3,1	3,9	4,7	5,5
		Air factor*	6,7	4,0	3,3	2,7	2,4	2,2	2,0
	8	Delivery quantity	1,2	2,2	3,0	3,8	4,8	5,7	6,8
		Air factor*	6,3	3,8	3,2	2,6	2,3	2,1	2,0
	9	Delivery quantity	1,4	2,5	3,5	4,5	5,6	6,8	8,0
		Air factor*	6,3	3,7	3,1	2,6	2,3	2,1	2,0

* Delivery quantity multiplied by the Air factor gives the required air quantity.

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SERVICE AND MAINTENANCE

All generators, every model, fast and competent

Our products are extremely robust and reliable. To maintain long-term performance, you should have the recommended service and maintenance intervals carried out regularly. All service and maintenance work is carried out by qualified staff with great care.

We offer competent service through subsidiaries as well as our worldwide network of authorised partners.

- ✓ Reduced downtime
- ✓ Preservation of the value of your machines
- ✓ Service directly from the licensed dealer
- ✓ Ensuring operational availability

OUR SERVICES

- Proactive maintenance
- Cost estimates, repairs, replacement
- Pick-up service for machines
- Service training for customers
- Visual and functional inspection
- Carrying out modifications
- Rental generators for bridging repairs with special conditions
- Functional testing of system components
- Determination and measurement of technical parameters



Germany-wide service

Top service & repair by distribution partners.

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DWT COMPANY

is a medium-sized sales, production and service company in the industrial heart of Germany. The headquarter, warehouse, production and service centre are located in Bottrop. Since 1995, the export business has also been expanded and customers are now supplied in over 30 countries around the world.



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