ECO-KPL SERIES

Membrane nitrogen generator for dry sprinkler systems

ECOINERT

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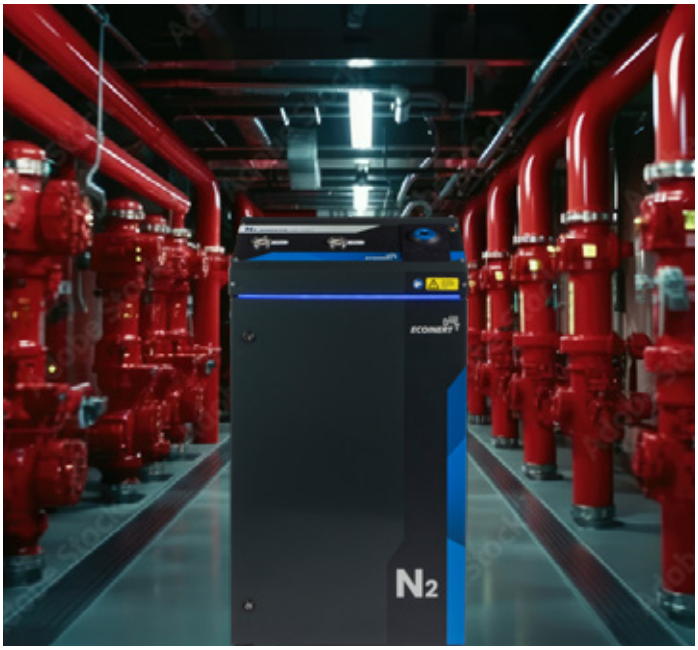
ECO-KPL SERIES

Experience peak efficiency with the ECO-KPL Nitrogen Generator – an innovative solution that extracts high-purity nitrogen directly from ambient air.

Utilizing state-of-the-art technology, this device filters out ultra-pure nitrogen, offering a cost-effective alternative for demanding processes. Renowned companies are already successfully employing this method to optimize their processes while saving costs. Trust the ECO-KPL 10-230 for reliable and efficient nitrogen production that meets your requirements on every front.



Enhance the Reliability of Sprinkler Systems with Nitrogen Generation

In the realm of fire protection, the use of sprinkler systems as automatic fire suppression devices is a burgeoning market. Particularly in areas prone to frost, where the risk of sprinkler pipe freezing exists, dry sprinkler systems come into play.

Addressing Maintenance in Sprinkler Systems

These systems use compressed air to fill the piping network between the sprinkler head and the dry alarm valve station. Water is introduced only when a sprinkler head is activated, but routine maintenance also necessitates periodic refilling. Unfortunately, this type of sprinkler system, typically designed to VdS CEA 4001 standards, inherently faces a heightened risk of corrosion due to its unique operating conditions, resulting in increased maintenance, repair, and downtime costs.

Mitigating Corrosion with Nitrogen Generation

Corrosion, caused by moisture and atmospheric oxygen, is a common issue. Nitrogen, a dry and oxygen-depleted inert gas, significantly reduces corrosion within the pipeline systems. Nitrogen also helps offset permissible leakage losses per VdS CEA 4001, aligning with FM guidelines that recommend using inert gases like nitrogen as an alternative to air.

Multiple fields of application

The own nitrogen production can be used in many areas, corrosion prevention in sprinkler systems, 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.

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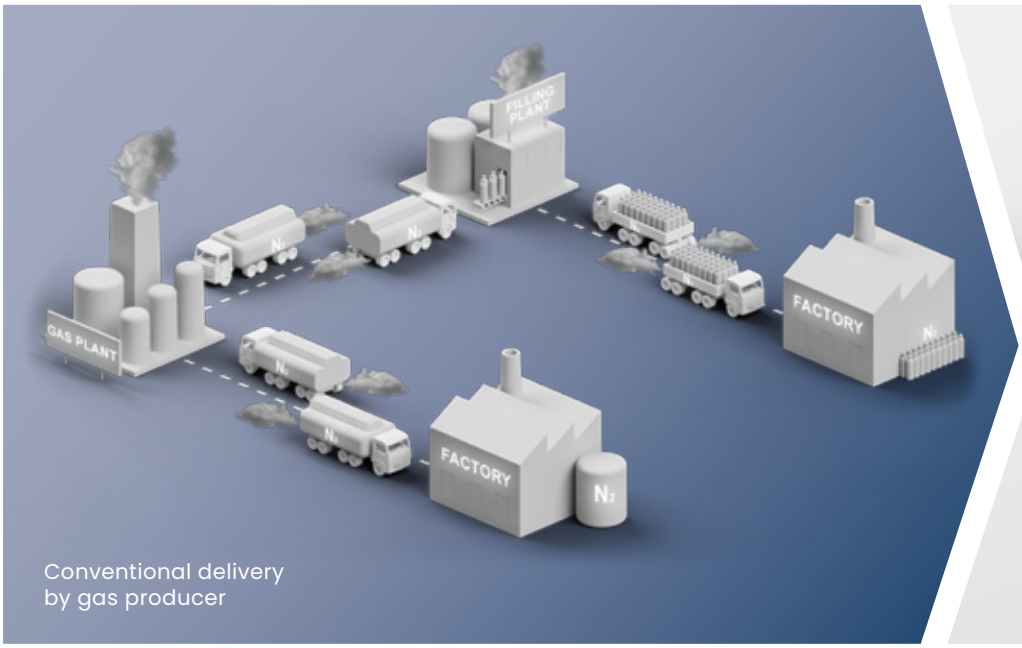


Conventional delivery
by gas producer

N_2-Generator solution:
On-site extraction of Nitrogen
from ambient air

Nitrogen On-site extraction

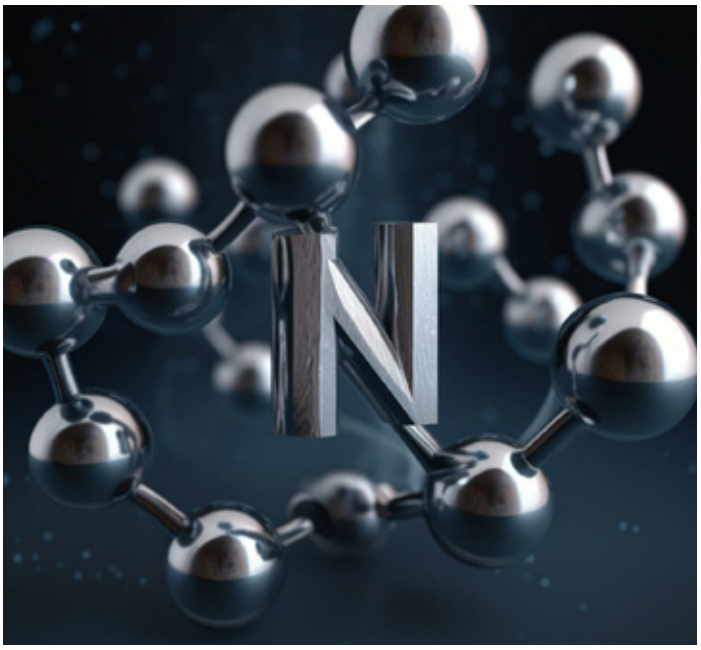
In-house nitrogen production offers many advantages, especially in situations where a reliable and cost-effective access to nitrogen is required.

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.

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

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.

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.



MEMRANE TECHNOLOGY 4.0

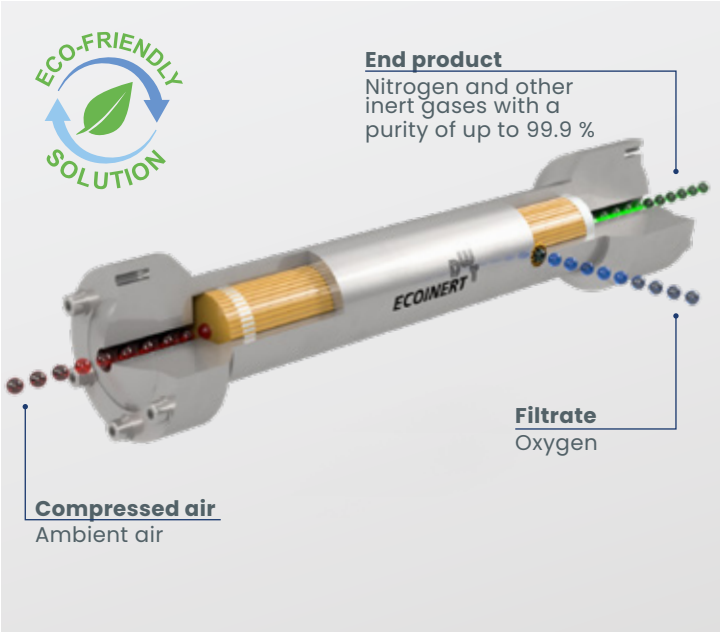
Our nitrogen generator uses the latest membrane technology to extract high purity nitrogen from the surrounding air.

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 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. faster than the nitrogen molecules. This leads to the fact the majority of the oxygen and other gases gases are retained in the membrane unit, while the purer nitrogen is concentrated on the other is concentrated.



Delivery quantity and air requirement ECO-KPL 10-230

At an operating temperature of 25°C

Inlet pressure [bar(ü)]		Residual oxygen content in the N_2 gas						
	Nm^3/h	0,1%	0,5%	1%	2%	3%	4%	5%
9	Delivery quantity	0,13	0,24	0,34	0,46	0,57	0,70	0,83

N_2 GENERATOR ECO-KPL 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 ECO-KPL Series nitrogen generator, you not only get high-quality nitrogen, but also a reliable and continuous nitrogen supply.

- Long service life of the piping networks due to corrosion prevention
- Significant cost savings
- Use at the piont-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 ECO-KPL Series

- Integrated compressor
- Included 50 l storage tank
- 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 Nm³/h / 1-280 Cu.Ft./h
Outlet pressure (adjustable)	8 Bar / 116 psi
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)	<55
Weight	91 kg / 201 lb

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

Payback period for nitrogen plants

	Capacity utilisation			
Comparison with*	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.

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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