

## ***On-site nitrogen supply: ECOVAR® supply concept***

**Intention**

Supplying the industry with cost-effective and reliable nitrogen of the necessary quality based on the ECOVAR® supply concept. This method of supply is a combination of an on-site nitrogen plant and a liquid nitrogen storage tank to meet peak requirements and provide back-up.

**On-site plants**

The gaseous nitrogen from the on-site plant is obtained alternatively by three different processes:

**ECOVAR®-C**

**Cryo plant:**

Cryo plant produces nitrogen through low-temperature rectification of air.

- Flow range:
- Purity range:

over 250 Nm<sup>3</sup>/h nitrogen  
10 ppm – 1 ppb oxygen.



***View of a cryogenic plant with a capacity of 600 Nm<sup>3</sup>/h nitrogen***

**View of a PSA plant with a capacity of 300 Nm<sup>3</sup>/h nitrogen**



**ECOVAR®-A**

**PSA plant:**

PSA plant produces nitrogen through pressure swing adsorption.

- Flow range:
- Purity range:

10 - 5,000 Nm<sup>3</sup>/h nitrogen  
95 - 99.9% nitrogen.

**ECOVAR®-M**

**Membrane plant:**

Membrane plant produces nitrogen through membrane separation.

- Flow range:
- Purity range:

2 - 1,500 Nm<sup>3</sup>/h nitrogen  
95 - 99.5% nitrogen.



**View of a membrane plant with a capacity of 150 Nm<sup>3</sup>/h nitrogen**

**Back-up**

The supply for peak requirements and back-up is provided by a liquid nitrogen storage tank. For evaporating liquid nitrogen air, hot water or steam may be used as the heating medium.

**Advantages**

- Low nitrogen costs
- Maximum supply safety
- Great flexibility if requirements fluctuate
- Long-term cost calculation
- Environmentally friendly system.
  
- Individual customer consulting and requirements analysis
- Determination of the most economical nitrogen supply mode concept
- Planning, installation and prefinancing of the supply system
- Monitoring, maintenance, spare parts stock and repair
- Assumption of operating risk.

**Range of services**



Linde AG  
Werksgruppe Technische Gase  
Export Head Office  
Seitnerstraße 70  
82049 Höllriegelskreuth/Germany  
Phone: +49/89/74 46-0  
Fax: +49/89/74 46-12 30  
<http://www.linde.com/linde-gas>

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Our specialist staff are on call to advise you.