Nitrogen – Generators UHP

FEATURES & BENEFITS

- **Eliminates costly dangerous gas cylinders**
- **Significant savings over cylinders**
- **Simple installation, no special requirements**
- **Constant purity with no fall off in performance**
- **Sophisticated control and safety system with automatic changeover switch**
- **Meets all standards and regulations**

Nitrogen-Generating with the PSA technologies

The Nitrogen Generators of the NG-UHP series are used for producing UHP nitrogen out of an in house air supply in the field or in the laboratory. The produced nitrogen has a **purity** of **99,9995%,** with **optional** built in catalyst the THC content can be reduced to < 0,1 ppm (measured as methane). The generating of nitrogen is based on the pressure swing adsorption method (PSA). Under pressure oxygen molecules are retained in the micropores of the Carbon Molecular Sieve (CMS), the bigger nitrogen molecules are passing through the Carbon Molecuar Sieve. For molsieve regeneration the O_2 – rich air mixture flows with a small amount of nitrogen counterflow across the to-be regenerated molsieve. Variable pressure is equalized with an internal buffer tank. This guarantees a reliable and ultra pure nitrogen-production with a constant inlet pressure. This proceeding is repeated permanently on a time to time basis and is nearly wear-free. To protect the whole unit against pollution out of the pressure system (oil, water, dust) the prefilter has to be changed once a year. The generators are fixed to the required parameters and tested on our testbench. Units with external oil-less compressor for permanent use (**< 55 dBA**) and units with integrated Oxygen analyser to supervise the gas quality are deliverable.

Units with the highest flowrate of 5000 ml/min are standard. Units with flowrates up to 50 l/min are available.

Dewpoint	-70 °C
Particles > 0,01 µm	none
Electrical Requirements	230 V / 50 Hz
Min/ Max. inlet pressure	6 - 10 bar
Max. pressure drop	< 1 bar
Recommended inlet temperature	20 °C
Ambient-temperature	5 – 45 °C
Ambient-pressure	1013 mbar
Dimensions (W x D x H)	40x40x112 cm
In/Outlet ports	6 mm Swagelok

Applications:

- ideal suitable for Carrier-Gas-applications (GC)
- blanketing solvents
- inerting
- chemical packaging

Nitrogen supply (ml/min) at inlet pressures from p = 8 bar abs.

Type	N2 99,9995 %	Dimensions (w x h d) [cm]
NG UHP 600	600	40 x 96 x 40
NG UHP 1000	1000	40 x 96 x 40
NG UHP 1500	1500	40 x 112 x 40
NG UHP 2000	2000	40 x 112 x 40
NG UHP 3000	3000	50 x 145 x 60
NG UHP 4000	4000	50 x 145 x 60
NG UHP 5000	5000	50 x 175 x 60

The oxygen content at a purity of 99,9995 % is < 5ppm O_2. Hydrocarbons like methane can be reduced to < 0,1 ppm via additional catalytical chamber (option).

The qualitiy of compressed air is important for the lifetime of the generator. To guarantee a longlasting maintenance-free operation the use of quality air is recommended, which fullfills the following regulations: Air ISO 8573.1, Class 1.2.1; oil < 0,01 mg/m^3; water < -40 °C dewpoint, particles < 0,1 µm.

Systems with external air compressor

All nitrogen generator models are available with an external low noise and oil-less air compressor for permanent use (< 55 dbA).

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