

## **NG-UHP series: Nitrogen Generator (PSA)**

## Superior performance, long life



#### **Features:**

- 99.9995% Nitrogen
- **PSA technology**
- Low cost of ownership
- Virtually maintenance free

#### **Applications**

- **Carrier gas applications for GC**
- **Blanketing solvents**
- Inerting
- **Chemical packaging**

Nitrogen generators from **Instruments** are designed with longevity Instruments approach is to use a remote generator with the features you want. in mind. The NG-UHP series uses PSA compressor or in-house compressed air Pressure, flow and temperature control technology to provide ultra high purity supply. (99.9995%) nitrogen for a variety of applications.

The PSA method uses Carbon Molecular Sieves (CMS) to separate the nitrogen and oxygen molecules. Each sieve is then regenerated in a continual process whilst variable pressure is equalised with an internal buffer tank. This guarantees reliable, ultra pure nitrogen production.

If a compressor is integral to the further includes a catalyst to reduce the generator then there is risk of heat and/ Total Hydrocarbon Content (THC) to or vibration and/or condensation <0.1ppm (measured as methane). affecting both the quality of the gas and

cmc the lifetime of the system. cmc Customise

Low cost of ownership and minimal maintenance is the result. To protect the system from oil, water or dust it is recommended to change the filters annually. Extended warranty agreements can be made for minimal cost.

The NG-UHP series is available in 7 standard capacities from 600 to 5000ml/min. The NG-UHP-OX series

your cmc Instruments are all options together with automatic switchovers in case of supply failures. Different fittings and outlets are available to make the nitrogen generator instantly compatible with your supply and destination equipment.

Designed manufactured in and Germany these products represent quality at an affordable price. Perhaps more importantly, the excellent reliability and almost zero downtime that can be expected over many years brings with it peace of mind.



**cmc Instruments GmbH** Rudolf Diesel Strasse 12 A D - 65760 Eschborn



#### **Specification**

Electrical requirements: 230V, 50Hz Dewpoint: -70°C Particles >0.01 µm: None

Max oil content: <0.003 mg/m<sup>2</sup>

Inlet pressure: 6-10 bar

Max pressure drop: <1 bar

Inlet temperature: 20°C (recommended)

Ambient temperature: +5-45°C

Ambient pressure: ca. 1013 mbar

Outlet port: 6mm OD (others on request)

Inlet: female 6mm OD (others on request)

Compressed air quality: Air ISO 8573.1, Class 1.2.1

#### Weights and Dimensions

Dimensions (w x h x d) mm: NG-UHP 600: 400 x 960 x 400 NG-UHP 1000: 400 x 960 x 400 NG-UHP 1500: 400 x 1120 x 400 NG-UHP 2000: 400 x 1120 x 400 NG-UHP 3000: 500 x 1450 x 600 NG-UHP 4000: 500 x 1450 x 600

#### **Ordering Information**

Part no.	Description	
NG-UHP 600	Nitrogen generator, PSA type, purity 99.9995% at 6 barg	Max gas capacity, 600ml/min
NG-UHP 1000		Max gas capacity, 1000ml/min
NG-UHP 1500		Max gas capacity, 1500ml/min
NG-UHP 2000		Max gas capacity, 2000ml/min
NG-UHP 3000		Max gas capacity, 3000ml/min
NG-UHP 4000		Max gas capacity, 4000ml/min
NG-UHP 5000		Max gas capacity, 5000ml/min
NG-UHP 600-OX		Max gas capacity, 600ml/min
NG-UHP 1000-OX		Max gas capacity, 1000ml/min
NG-UHP 1500-OX	Nitrogen generator, PSA type,	Max gas capacity, 1500ml/min
NG-UHP 2000-OX	purity 99.9995% at 6 barg, with	Max gas capacity, 2000ml/min
NG-UHP 3000-OX	total oxidation, CH <sub>4</sub> <0.1 ppm	Max gas capacity, 3000ml/min
NG-UHP 4000-OX		Max gas capacity, 4000ml/min
NG-UHP 5000-OX		Max gas capacity, 5000ml/min
Options		
	Flow control and flow meter	
	Pressure control and manometer	
	Temperature control OK/standby	
	Automatic switchover for failure of gas supply and voltage	
	Automatic switchover for failure of gas supply, voltage and flow	
Spares		
NGM-WA-SET	Set of filters	



Where no in-house compressed air supply is available cmc Instruments recommend a remote compressor and buffer tank. The heavy duty compressor has a low load and needs to run for less than 25% of the time in normal duty. An integral cooler/dryer ensures there is no moisture in the resultant compressed air. This mode of operation results in low maintenance on the compressor, typical interval to first service is 2.5 years. Buffer tanks are available in three sizes dependent on air demand.

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