

NG-UHP Series

Nitrogen Gas Generator (PSA)

Ultra High-Purity Nitrogen



Technical Datasheet

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Reliable and Efficient UHP Nitrogen Generation

The NG-UHP series utilizes PSA (Pressure Swing Adsorption) technology to produce ultra-high purity nitrogen tailored to diverse applications using Carbon Molecular Sieves (CMS) to separate nitrogen and oxygen molecules. These sieves are continuously regenerated, ensuring consistent, ultra-pure nitrogen production.

Pressure equalization occurs within an internal buffer tank, so that the NG-UHP guarantees a reliable, non-stop performance.

Optimal System Integrity

Integrating a compressor with the generator can risk heat, vibration, and condensation, affecting the gas quality and system lifespan. To avoid this risk, the best alternative is to get a separate compressor or in-house compressed air supply.

Extend your instrument lifespan with customizable guarantee options.

Versatile and Customizable

Choose from 7 standard capacities in the NG-UHP series, ranging from 600 to 5000 ml/min.

The NG-UHP-OX series includes a catalyst to reduce Total Hydrocarbon Content (THC) to <0.1 ppm (measured as methane).

Customize your cmc Instruments generator with optional features, including pressure, flow, and temperature control, as well as automatic switchover mechanisms in case of supply failure. Various fittings and outlets are available for seamless compatibility with your supply and destination equipment.

Applications

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

Features

- 99.9995% Nitrogen
- PSA technology
- Low cost of ownership

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Model Specifications NG-UHP / NG-UHP-OX Series

Electrical requirements: 230 V, 50 Hz

Dewpoint: -70 °C

Particles: > 0.01 µm: None

Max oil content: < 0.003 mg/m²

Inlet pressure: 6 - 10 bar

Max pressure drop: < 1 bar

Inlet temperature: 20 °C (recommended)

Ambient temperature: +5 to 45 °C

Ambient pressure: ca. 1013 mbar

Outlet port: 6mm OD (others on request)

Inlet port: female 6mm OD (others on request)

Compressed air quality: Air ISO 8573.1, Class 1:4:0

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Nitrogen generator, PSA type, purity 99.9995% at 6 barg

NG-UHP-OX Series

Nitrogen generator, PSA type, purity 99.9995% at 6 barg, with total oxidation, CH₄ <0.1 ppm

NG-UHP / NG-UHP-OX Model	600	1000	1500	2000	3000	4000	5000
Max Air Flow	600 ml/min	1000 ml/min	1500 ml/min	2000 ml/min	3000 ml/min	4000 ml/min	5000 ml/min
Dimensions (mm) (w x h x d)	400 x 960 x 400	400 x 960 x 400	400 x 1120 x 400	400 x 1120 x 400	500 x 1450 x 600	500 x 1450 x 600	500 x 1750 x 600

In the case that **no in-house compressed air supply** is available, the next-best alternative is **using 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 will result in low maintenance on your air compressor, making its typical interval to the first service **2.5 years**. Buffer tanks are available in 3 sizes dependent on air demand.

Available Options

- Flow control and flow meter
- Pressure control and manometer
- Temperature control OK/standby
- Automatic switchover for failure of gas supply and voltage

Spares

NGM-WA-SET: Set of filters

