

nano GEN₂ MAX: nitrogen gas generators

GEN2-MAX 12K

100 - 240 VAC/50 or 60 Hz - nitrogen generator

The nano GEN₂ MAX nitrogen generator is designed to deliver nitrogen gas at a specified purity, flow and pressure as required by the application. The nano GEN₂ MAX operates on the pressure swing adsorption principle, which allows for a continuous supply of nitrogen from clean dry compressed air. The nano GEN₂ MAX generator offers a cost-effective, reliable and safe alternative to the use of liquid or bottled nitrogen.



nano

general characteristics

rated capacity (scfh) @ 95% / 99.5% / 99.999% ⁽¹⁾⁽²⁾	23,640 / 11,484 / 3,087
rated capacity (Nm ³ /hr) @ 95% / 99.5% / 99.999% ⁽¹⁾⁽²⁾	669 / 325 / 87
absorbed power (watt)	<200
power supply	100-240 VAC / 50 or 60 Hz

operating limits

design operating pressure range psig (barg)	72.5 to 145 (5 to 100)
design operating temperature range °F (°C) ⁽³⁾	41 to 122 (5 to 50)
recommended operating temperature range °F (°C) ⁽³⁾	41 to 95 (5 to 35)

media chambers

material of construction	carbon steel
media type	carbon molecular sieve (CMS)

controls/design

generator design	pressure swing adsorption (PSA)
controller type	VISION ⁰¹ programmable logic controller (PLC)
interface type	touchscreen (HMI)
electrical rating	IP 31 / NEMA 2

connections

compressed air inlet (flange) ⁽⁴⁾	3"
nitrogen outlet to buffer vessel (flange) ⁽⁴⁾	3"
nitrogen return from buffer vessel (flange) ⁽⁴⁾	2" % units / 1.5" PPM units
nitrogen outlet (flange) ⁽⁴⁾	2"

(1) 101.5 psig inlet pressure / 68°F inlet temperature (7 barg / 20°C)

(2) consult factory for N₂ capacities between 95 to 99.999% that are now shown

(3) low ambient(+14°F) option available

(4) flange type ANSI or DIN dependent on model ordered

scope of supply

mechanical components

- two welded adsorption vessels with full shell size top flange, lifting lug, inlet and outlet strainers
- high density fill of high grade carbon molecular sieve (CMS)
- thermal relief safety valves for each welded vessel
- self-regulating nitrogen pressure reducing valve
- piping with standard flange tie-in connections
- pneumatic actuated inlet, blow off, equalization and outlet valves
- blow-off line with silencer (depressurization and off spec nitrogen blow-off)
- pilot control air filter and pressure regulator
- structural base frame with integrated forklift slots
- high quality butterfly valves with stainless steel trim
- compliance with international electrical (IEC or UL) and mechanical codes (ASME/CE)

nano-purification solutions
Charlotte, North Carolina
United States

nano-purification solutions Ltd.
Gateshead, Tyne and Wear
United Kingdom

nano-purification solutions TN
Maryville, Tennessee
United States

nano-purification solutions
St. Catharines, Ontario
Canada

nano-purification solutions Asia
Singapore

nano-purification solutions GmbH
Erkelenz, Germany

tel: 704.897.2182
fax: 704.897.2183
email: support@n-psi.com
web: www.n-psi.com

Experience. Customer. Service.

www.n-psi.com

controls and monitoring

- VISION⁰¹ control and monitoring system uses advanced algorithms for maximum reliability
 - 31 languages facilitating easy communication
 - comprehensive, proactive maintenance display
 - ICONS as standard for remote service and performance monitoring
 - user-friendly, intuitive navigation system
 - ethernet connection for local monitoring via LAN/DCS system
 - optional Modbus interface
- integrated zirconia oxygen sensor - 5 year life
- nitrogen thermal mass flow meter
- inlet air pressure, temperature and dew point sensors
- nitrogen vessel pressure sensors
- ecomode energy saving and PDES control modes as standard

dimensions & weight

length in (mm)	102 (2591)
depth in (mm)	71 (1803)
height in (mm)	104 (2642)
weight lbs (kgs)	8378 (3800)

