

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.



general characteristics

rated capacity (scfh) @ 95% / 99.5% / 99.999% ^{(1) (2)} 23,640 / 11,484 / 3,087

rated capacity (Nm³/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

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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)

