

nano GEN<sub>2</sub> MAX: nitrogen gas generators

## GEN2-MAX 25K

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

The nano GEN<sub>2</sub> MAX nitrogen generator is designed to deliver nitrogen gas at a specified purity, flow and pressure as required by the application. The nano GEN<sub>2</sub> MAX operates on the pressure swing adsorption principle, which allows for a continuous supply of nitrogen from clean dry compressed air. The nano GEN<sub>2</sub> 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% <sup>(1)(2)</sup>	50,168 / 24,371 / 6,551
rated capacity (Nm <sup>3</sup> /hr) @ 95% / 99.5% / 99.999% <sup>(1)(2)</sup>	1421 / 690 / 186
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 10)
design operating temperature range °F (°C) <sup>(3)</sup>	41 to 122 (5 to 50)
recommended operating temperature range °F (°C) <sup>(3)</sup>	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 <sup>01</sup> programmable logic controller (PLC)
interface type	touchscreen (HMI)
electrical rating	IP 31 / NEMA 2

### connections

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

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

(2) consult factory for N<sub>2</sub> 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

- VISION<sup>01</sup> 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)	116 (2946)
depth in (mm)	83 (2108)
height in (mm)	121 (3073)
weight lbs (kgs)	16976 (7700)

