



# Chrysalis® II ULTRA High Purity Nitrogen Generators



Chrysalis® Gas Generators



“BORA”



“SIROCCO”

### Description

The Chrysalis® II ULTRA High Purity Nitrogen Generators produce UHP grade nitrogen from compressed air simply and cost effectively. Matheson offers six (6) models for analytical and process applications: the BORA 500, 750 and 1250, and SIROCCO 3, 3A and 5 with flow capability ranging from 0.5 Lpm up to 5 Lpm. The Chrysalis® II ULTRA High Purity Nitrogen Generators incorporate “DUAL-STEP” Pressure Swing Adsorption (DS-PSA) technology to transform ambient air into a continuous stream of nitrogen gas ideal for gas chromatography applications and purge/make-up gas requirements in the laboratory. The DS-PSA technology is a patented process specifically designed to reduce air consumption, power and increase purity. An LCD based control system with monitoring screen provides user friendly access to select key operating functions. Integral oil-free air compressors are standard and furnished on all models. Audible and visual indications are provided to signal maintenance or alarm conditions. An optional Oxygen Sensor to monitor purity is also available on all models.

### Applications

- ELSD nebulizer gas
- Carrier/combustion gas for TOC analyzers
- Make-up gas for GC-ECD/NCP/FID instruments
- Purge gas for ICP Spectrometer operation
- Incubator oven gas supply
- Blanketing for food packaging
- Instrument purge gas
- Solvent evaporation
- Fermentation processes
- Glove box atmosphere gas
- Fume cupboard gas
- Carrier gas for packed column GC-FID's, and GC-AED instruments

### Product Features

- Nitrogen purity up to 99.999%
- Flow capacities range from 500 ccm to 5 Lpm
- Provides continuous LCD indication and monitoring of nitrogen flow and delivery pressure
- Manual adjustment of delivery pressure
- BORA model designed for installation on lab bench top
- SIROCCO model designed for installation under lab bench
- SIROCCO 3A model produces both UHP nitrogen and instrument air simultaneously
- LCD based operating display and membrane touch control pad provide simplified operation

- Multiple alarms alert user to low pressure (leak) and power supply conditions
- Pressure indication provided for the outlet nitrogen supply
- Integral oil-free direct drive air compressor for “turn key” operation is standard and conserves power by only operating when nitrogen supply is required
- Audible and visual indication provided to signal maintenance
- Caster (self-locking) wheels (on SIROCCO) provide mobility for installation
- Optional Oxygen Sensor to continuously monitor nitrogen purity
- Power cord included
- CE & CSA approved

### Operating and Physical Specifications

Nitrogen Flow Rate (max):

<b>BORA 500</b>	500 ccm
<b>BORA 750</b>	750 ccm
<b>BORA 1250</b>	1250 ccm
<b>SIR 3</b>	3 Lpm
<b>SIR 3A</b>	3 Lpm (nitrogen) & 3 Lpm (instrument air)
<b>SIR 5</b>	5 Lpm

Nitrogen Purity:

<b>BORA 500 &amp; 750</b>	99.999%
<b>BORA 1250</b>	99.995%
<b>SIR 3, 3A &amp; 5</b>	99.999%

O<sub>2</sub> Concentration (N<sub>2</sub> Outlet):

< 10 ppm
Nitrogen Outlet Pressure (max): 75 psig
Nitrogen Outlet Connection: 1/8" (compression fitting)

Operating Noise Level:

<b>BORA 500, 750 &amp; 1250</b>	< 48 db
<b>SIR 3, 3A &amp; 5</b>	< 60 db

Power Source:

115 VAC / 60 Hz; 230 VAC / 50 Hz
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Castor Wheels:

SIROCCO Models	
<b>BORA 500, 750 &amp; 1250</b>	9"W x 14"H x 17"D
<b>SIR 3, 3A 5</b>	19"W x 26"H x 33"D

Weight:

<b>BORA 500</b>	40 lbs
<b>BORA 750</b>	45 lbs
<b>BORA 1250</b>	55 lbs
<b>SIR 3</b>	210 lbs
<b>SIR 3A</b>	220 lbs
<b>SIR 5</b>	240 lbs

Warranty:

2 years (1 year on air compressor)
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## Chrysalis® II ULTRA High Purity Nitrogen Generators - *continued*

### Ordering Information

Model Number	Description	N <sub>2</sub> Production Capacity
NUHP-BORA500-60	BORA-500 ULTRA High Purity Nitrogen Generator - 60Hz	500 ccm
NUHP-BORA500-50	BORA-500 ULTRA High Purity Nitrogen Generator - 50Hz	500 ccm
NUHP-BORA750-60	BORA-750 ULTRA High Purity Nitrogen Generator - 60Hz	750 ccm
NUHP-BORA750-50	BORA-750 ULTRA High Purity Nitrogen Generator - 50Hz	750 ccm
NUHP-BORA1250-60	BORA-1250 ULTRA High Purity Nitrogen Generator - 60Hz	1.25 Lpm
NUHP-BORA1250-50	BORA-1250 ULTRA High Purity Nitrogen Generator - 50Hz	1.25 Lpm
NUHP-SIR3-60	SIROCCO-3 ULTRA High Purity Nitrogen Generator - 60Hz	3 Lpm
NUHP-SIR3-50	SIROCCO-3 ULTRA High Purity Nitrogen Generator - 50Hz	3 Lpm
NUHP-SIR3A-60	SIROCCO-3A ULTRA High Purity Nitrogen Generator (Nitrogen & Instrument Air) - 60Hz	3 Lpm
NUHP-SIR3A-50	SIROCCO-3A ULTRA High Purity Nitrogen Generator (Nitrogen & Instrument Air) - 50Hz	3 Lpm
NUHP-SIR5-60	SIROCCO-5 ULTRA High Purity Nitrogen Generator - 60Hz	5 Lpm
NUHP-SIR5-50	SIROCCO-5 ULTRA High Purity Nitrogen Generator - 50Hz	5 Lpm

*"NOTE: All models are furnished with integral oil-free air compressors"*

Model Number	Description
NUHP-OS1	Optional Oxygen Sensor (all models)

### Replacement Parts

Model Number	Description
BORA-ASK	Annual Service Kit (internal system filters and air compressor filter)
BORA-SK-4000	4000 Hour Service Kit (internal system filters)
SIR-ASK	Annual Service Kit (internal system filters and air compressor filter)
SIR-SK-4000	4000 Hour Service Kit (internal system filters)