

High Purity Nitrogen Generators for GC and Other Analytical Applications

Nitrogen on demand, up to 3,200 ml/min

The **Parker Balston High Purity Nitrogen Generators** are engineered to transform standard compressed air in to a safe regulated supply of 99.9995% pure nitrogen.

Typical applications include GC make up gas, solvent evaporation, DSC (Differential Scanning

Calorimeter) and virtually any analytical instrument that requires a small flow of ultra high purity nitrogen.

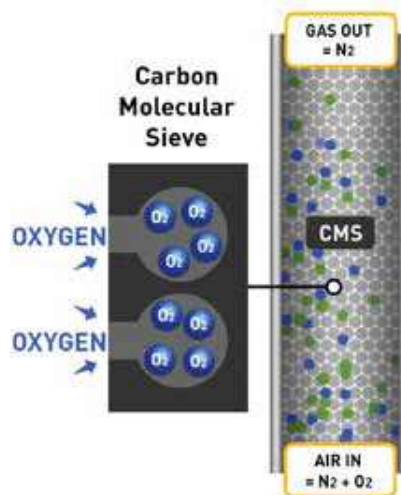
Innovative design features include integral compressors with economy mode as standard. This extends compressor life and reduces ongoing running costs.



Features and Benefits

- Produces a continuous supply of high purity nitrogen 99.9995% for analytical applications
- Compact, reliable with minimal operator attention and maintenance
- Eliminate dangerous nitrogen cylinders from the laboratory
- Integral oil free compressors with noise reduction technology
- Economy mode: increasing compressor life and reducing ongoing running costs
- Designed to run 24 hours a day

Clean dry compressed air from a Parker enters a bed of proprietary carbon molecular sieve (CMS). As the air passes over the CMS, oxygen is preferentially adsorbed into the CMS pores leaving an outlet stream of nitrogen gas. This nitrogen gas passes into a process buffer vessel and finally through the generator control system to regulate pressure and flow before being delivered to the application. The CMS is regenerated by releasing the pressure rapidly to atmosphere; oxygen is removed from the CMS and the cycle is ready to begin again. This cycle operates on a continuous basis, ensuring a constant stream of nitrogen gas, 24/7 if required. CMS is not considered to be a regular replacement component and is expected to have a minimum service life of at least 10 years, subject to correct operation and maintenance.



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Nitrogen is produced by utilizing a combination of filtration and pressure swing adsorption (PSA) technology. Standard compressed air is filtered by high efficiency coalescing filters

to remove all contaminants down to 0.01 micron.

The air then passes through two columns filled with proprietary carbon molecular sieve (CMS) which

adsorb O₂, CO₂, moisture and hydrocarbons. These are desorbed to atmosphere during the pressure swing cycle leaving a supply of ultra pure nitrogen.

Principal Specifications

Model	UHPN2-600	UHPN2-600C	UHPN2-800	UHPN2-800C	UHPN2-1600	UHPN2-1600C	UHPN2-3200	UHPN2-3200C
Purity	99.9995%	99.9995%	99.9995%	99.9995%	99.9995%	99.9995%	99.9995%	99.9995%
Hydrocarbon Concentration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CO Concentration	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm
CO ₂ Concentration	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm
H ₂ O Concentration	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm	<1ppm
Flow Rates	600ml/min	600ml/min	800ml/min	800ml/min	1600ml/min	1600ml/min	3200ml/min	3200ml/min
Inlet Pressure	115 to 145 psig (8-9.9 bar)	N/A N/A	115 to 145 psig (8-9.9 bar)	N/A N/A	115 to 145 psig (8-9.9 bar)	N/A N/A	115 to 145 psig (8-9.9 bar)	N/A N/A
Outlet Pressure	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)	75 psig (5 bar)
Integral Compressor	No	Yes	No	Yes	No	Yes	No	Yes
Inlet Connection	1/4"	N/A	1/4"	N/A	1/4"	N/A	1/4"	N/A
Outlet Connection	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"
Ambient Temperature	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)	60 to 77°F (15 to 25°C)
Electrical Requirements ⁽¹⁾	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz	120/230VAC, 60/50Hz
Power Consumption	85 Watts	606 Watts	85 Watts	606 Watts	88 Watts	698 Watts	88 Watts	698 Watts
Dimensions (HxWxD)	34" x 14" x 16" (869x345x417mm)	34" x 14" x 16" (869x345x417mm)	34" x 14" x 16" (869x345x417mm)	34" x 14" x 16" (869x345x417mm)	34" x 14" x 16" (869x345x667mm)	34" x 14" x 16" (869x345x667mm)	34" x 14" x 16" (869x345x667mm)	34" x 14" x 16" (869x345x667mm)
Weight	97lbs (44Kg)	110lbs (50Kg)	97lbs (44Kg)	110lbs (50Kg)	185lbs (84Kg)	205lbs (93Kg)	185lbs (84Kg)	205lbs (93Kg)

NOTES

1 Refer to voltage appendix for electrical and plug configurations for outside North America.

Ordering Information

for assistance, call 800-343-4048, 8 to 5 Eastern Time

Description	Model Number
600 ml/min UHP Nitrogen Generator	UHPN2-600
600 ml/min UHP Nitrogen Generator with Integral Compressor	UHPN2-600C
800ml/min UHP Nitrogen Generator	UHPN2-800
800ml/min UHP Nitrogen Generator with Integral Compressor	UHPN2-800C
1600ml/min UHP Nitrogen Generator	UHPN2-1600
1600ml/min UHP Nitrogen Generator with Integral Compressor	UHPN2-1600C
3,200 ml/min UHP Nitrogen Generator	UHPN2-3200
3,200ml/min UHP Nitrogen Generator with Integral Compressor	UHPN2-3200C
Installation Kit	IK7694

Maintenance Items	Model Number	Change Frequency
Filter Kit - All Non Compressor Models	MKUHPN2-FK	12 months
Filter Kit - UHPN2-600C/800C Models	MKUHPN2C-FK	12 months
Filter Kit UHPN2-1600C / 3200C Models	MKUHPN2CL-FK	12 months
Compressor Kit 230V - UHPN2-600C/800C Models	MKN2CK230S	8,000 hours or 24 months (which ever comes first)
Compressor Kit 230V UHPN2-1600C/3200C Models	MKN2-CK230L	8,000 hours or 24 months (which ever comes first)