

Low Flow Nitrogen Generators

Parker Balston® Low Flow Nitrogen Generators include models N2-04, N2-14, N2-14A, N2-22, N2-22ANA, N2-35, and N2-35ANA that produce 132 SLPM of compressed nitrogen, on-site. The purity level of the nitrogen stream is defined by the user, for the application, and may range from 95% to 99.5%.

Models N2-14ANA, N2-22ANA and N2-35ANA Nitrogen Generators include an oxygen analyzer which monitors the oxygen concentration of the nitrogen stream. An audible alarm signals high or low oxygen concentrations. Parker Balston Nitrogen Generators are complete systems engineered to transform standard compressed air into nitrogen at safe, regulated pressures, on demand, without the need for operator attention. The systems eliminate the need for costly, dangerous dewars and cylinders in the laboratory.

Nitrogen is produced by utilizing a

combination of filtration and membrane separation technologies. A high efficiency prefiltration system pretreats the compressed air to remove all contaminants down to 0.01 micron. Hollow fiber membranes subsequently separate the clean air into a concentrated nitrogen output stream and an oxygen enriched permeate stream, which is vented from the system. The combination of these technologies produces a continuous on demand supply of pure nitrogen.

Typical applications include: LC-MS, nebulizer gas, chemical and solvent evaporation, instrument purge and supply, evaporative light scattering detector use (ELSD), and sparging.



Model N2-22 Mid Flow Membrane Nitrogen Generator

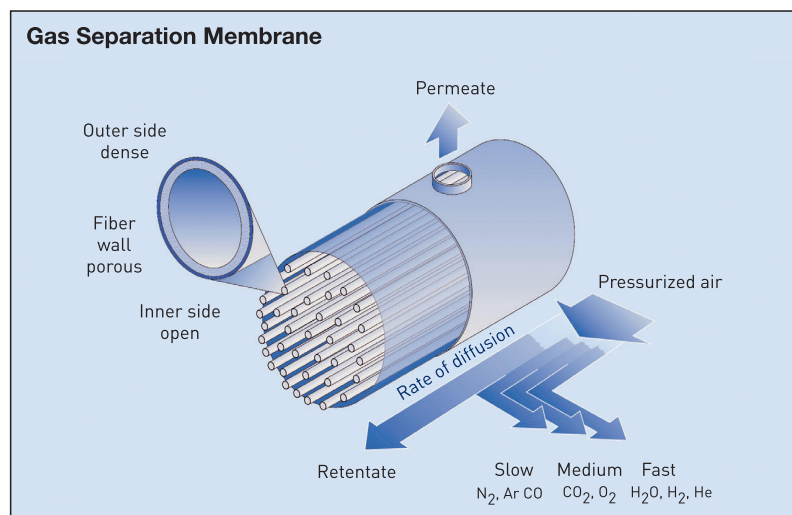


Features and Benefits

- Recommended and used by all major LC-MS manufacturers
- Eliminates the need for costly, dangerous, inconvenient nitrogen cylinders in the laboratory
- Models N2-04, N2-14, N2-22, N2-35 require no electricity
- Compact design frees up valuable laboratory floor space
- Phthalate-free, no organic vapors
- Unlike PSA technology, membrane will not suppress corona needle discharge.



This Technology Features Advanced HiFluxx Fiber



Nitrogen Purity / Flow Chart

Flow measured in SLPM at indicated Operating Pressure, psig. Flows for Model N2-04 printed in black, flows for Models N2-14 and N2-14A in red.

| | 145 | 125 | 110 | 100 | 90 | 80 | 70 | 60 |
|------|-------|-------|-------|-------|-------|-------|-------|------|
| 99.5 | - 11 | - 10 | - 9 | - 8 | - 7 | - 6 | - 5 | - 4 |
| 99 | 6 18 | 5 16 | 5 15 | 4 13 | 4 11 | 3 10 | 3 8 | 2 7 |
| 98 | 11 29 | 10 25 | 9 25 | 8 20 | 7 18 | 6 16 | 5 13 | 4 11 |
| 97 | 15 40 | 13 34 | 13 33 | 10 27 | 9 25 | 8 21 | 7 18 | 6 15 |
| 96 | 20 50 | 17 43 | 16 42 | 13 34 | 12 31 | 10 26 | 9 22 | 7 19 |
| 95 | 24 60 | 21 52 | 20 51 | 17 42 | 15 37 | 13 32 | 11 28 | 9 24 |

Nitrogen Purity / Flow Chart

Flow measured in SLPM at indicated Operating Pressure, psig. Flows for Model N2-22, N2-22A printed in black, flows for Models N2-35, N2-35A in red.

| | 145 | 125 | 110 | 100 | 90 | 80 | 70 | 60 |
|------|--------|--------|--------|-------|-------|-------|-------|-------|
| 99.5 | 19 29 | 16 25 | 14 22 | 13 20 | 12 18 | 10 16 | 9 13 | 17 11 |
| 99 | 29 44 | 25 37 | 22 33 | 20 30 | 18 27 | 15 23 | 13 20 | 11 17 |
| 98 | 44 66 | 38 57 | 34 51 | 30 46 | 27 41 | 24 36 | 20 30 | 17 26 |
| 97 | 59 83 | 50 74 | 45 65 | 40 57 | 36 52 | 31 46 | 26 40 | 23 35 |
| 96 | 73 109 | 63 94 | 56 84 | 50 75 | 45 67 | 39 59 | 32 50 | 27 42 |
| 95 | 88 131 | 77 114 | 69 102 | 61 90 | 55 81 | 48 71 | 41 60 | 35 52 |

Principal Specifications

| | | |
|---|--|--|
| Models | N2-04, N2-14, N2-14ANA, N2-22, N2-22ANA, N2-35 and N2-35ANA | |
| Nitrogen Purity | 95.0% - 99.5% | |
| Atmospheric Dewpoint | -58°F (-50°C) | |
| Suspended Liquids | None | |
| Particles > 0.01µm | None | |
| Commercially Sterile | Yes | |
| Phthalate-free | Yes | |
| Hydrocarbon-free | Yes | |
| Min./Max. Operating Pressure | 60/145 psig | |
| Max. Press. Drop @ 99% N ₂ Purity, 125 psig | 10 psig | |
| Recommended Ambient Operating Temperature | 68°F (20°C) | |
| Max. Inlet Air Temperature | 110°F (43°C) | |
| Inlet/Outlet Ports | 1/4" NPT | |
| Electrical Requirements | N2-04, N2-14, N2-22, N2-35 N2-14ANA, N2-22ANA, N2-35ANA | None 120V/60Hz/100mA, 230V/50Hz/50mA |
| Shipping Weight | N2-04 N2-14 N2-14ANA, N2-22, N2-22ANA N2-35, N2-35ANA | 42.5 lbs (19 kg) 75 lbs (34 kg) 80 lbs (36 kg) 90 lbs (41 kg) |
| Oxygen Analyzer | Included with Model N2-14ANA, N2-22ANA, N2-35ANA | |
| Dimensions, N2-04 | 16.1"h x 10.7"w x 13.4"d (40.9cm x 27.2cm x 34cm) | |
| Dimensions, N2-14, N2-14ANA, N2-22, N2-22ANA, N2-35, N2-35ANA | 51.5"h x 18"w x 16.2"d (130.8cm x 45.7cm x 41.1cm) | |

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 | Galvanic Cell | Annual Maintenance Kit | Installation Kit | Preventive Maintenance Plan | Extended Support with 24 Month Warranty |
|--------------------|---------------|------------------------|------------------|-----------------------------|---|
| N2-04 | N/A | MK7840 | IK7572 | N2-04 -PM | N2-04-DN2 |
| N2-14 | N/A | MK7572C | IK7572 | N2-14-PM | N2-14-DN2 |
| N2-14ANA | 72695A | MK7572C | IK7572 | N2-14A-PM | N2-14A-DN2 |
| N2-22, N2-35 | N/A | MK7572C | IK7572 | N2-22-PM, N2-35-PM | N2-22-DN2, N2-35-DN2 |
| N2-22ANA, N2-35ANA | 72695A | MK7572C | IK7572 | N2-22A-PM, N2-35A-PM | N2-22A-DN2, N2-35A-DN2 |