



CompactBreeze™ Series



Modular, Portable ,“One-Touch” Operation

Reduce Costs, Increase Profits!

Using an in-house nitrogen generator to supply your nitrogen gas demand is the easiest way to reduce nitrogen related costs, and thus increase profits.

The CompactBreeze™ System has been specifically designed to fit the needs of small-to-medium sized businesses in order to eliminate barriers related to footprint, cost, and limited experience. All components are protected from ambient dust and inadvertent tampering.

All models in this range are conveniently packaged in a cabinet that can easily fit through any standard door. With a small footprint, and One-Touch operation, installation and startup are a “Breeze”!

Major Features:

- Nitrogen purity up to 99.999%
- Perfect for lab applications and other low flow needs
- Installation is a breeze!
- Fits easily through any man-door
- Fully plug and play
- Easy “One-Touch” operation
- Password protected screens

70 °F Performance (SCFH)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.99% | 99.999% |
|--------------|------|------|------|------|------|-------|-------|--------|---------|
| HCBS-2M | 70.9 | 64.2 | 59.6 | 50.0 | 40.0 | 35.4 | 26.7 | 17.5 | 11.5 |
| HCBS-4M | 142 | 128 | 119 | 100 | 80.0 | 70.9 | 53.4 | 35.0 | 23.0 |
| HCBS-9M | 300 | 271 | 252 | 211 | 169 | 150 | 113 | 74.0 | 48.6 |
| HCBS-11M | 370 | 336 | 312 | 261 | 209 | 185 | 139 | 91.5 | 60.1 |
| HCBS-16M | 550 | 499 | 463 | 389 | 311 | 275 | 207 | 136 | 89.4 |
| HCBS-19M | 621 | 563 | 523 | 439 | 351 | 311 | 234 | 153 | 101 |
| HCBS-25M | 850 | 770 | 715 | 600 | 480 | 425 | 320 | 210 | 138 |

Performance listed is for ambient temperature 70° F and inlet pressure 110 psi.

Please consult Holtec for performance at other conditions.

Maximum operating pressure is 150 psig.

** Typical pressure drop is 25 psi.*

95 °F Performance (SCFH)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.99% | 99.999% |
|--------------|------|------|------|------|------|-------|-------|--------|---------|
| HCBS-2M | 66.5 | 61.5 | 55.0 | 47.2 | 37.9 | 32.9 | 24.4 | 15.9 | 10.3 |
| HCBS-4M | 133 | 123 | 110 | 94 | 75.9 | 65.8 | 48.7 | 31.7 | 20.6 |
| HCBS-9M | 281 | 260 | 232 | 199 | 160 | 139 | 103 | 67.0 | 43.6 |
| HCBS-11M | 348 | 321 | 287 | 247 | 198 | 172 | 127 | 82.9 | 53.9 |
| HCBS-16M | 517 | 478 | 427 | 366 | 295 | 256 | 189 | 123 | 80.1 |
| HCBS-19M | 583 | 539 | 482 | 414 | 333 | 289 | 214 | 139 | 90 |
| HCBS-25M | 798 | 738 | 660 | 566 | 455 | 395 | 292 | 190 | 124 |

Performance listed is for ambient temperature 95 °F and inlet pressure 110 psig.

Please consult Holtec for performance at other conditions.

Maximum operating pressure is 150 psig.

* Typical pressure drop is 25 psi.

Physical Characteristics

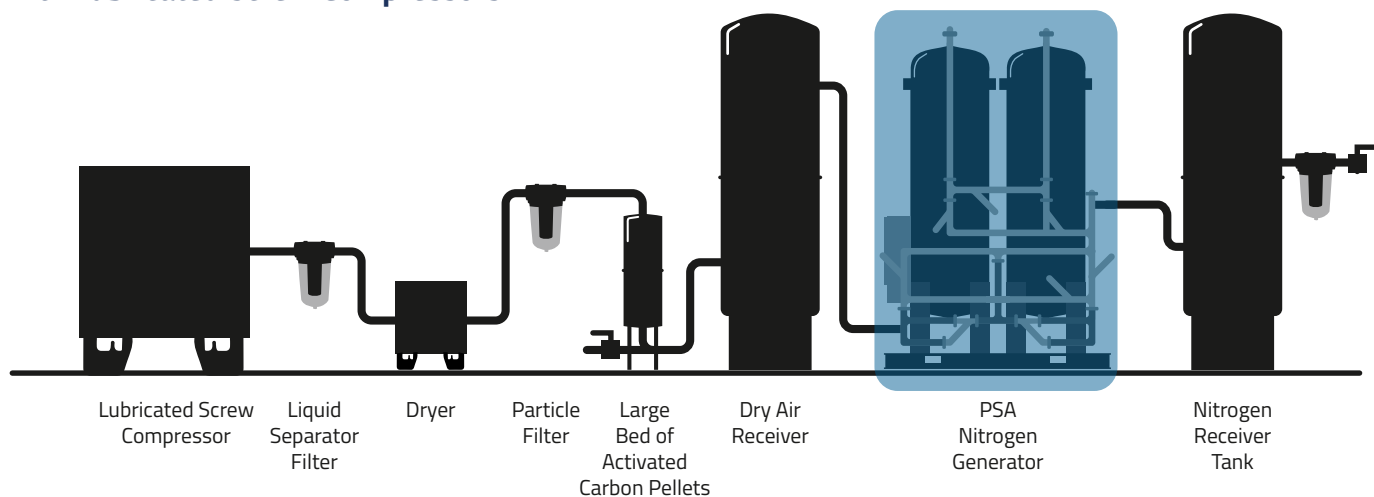
| Model Number | Length (In.) | Width (In.) | Height (In.) | Weight (lb.) | Inlet | Outlet |
|--------------|--------------|-------------|--------------|--------------|-------|--------|
| HCBS-2M | 35.5 | 25 | 66 | 350 | 3/8" | 3/8" |
| HCBS-4M | 35.5 | 25 | 66 | 390 | 3/8" | 3/8" |
| HCBS-9M | 35.5 | 25 | 66 | 400 | 1/2" | 3/8" |
| HCBS-11M | 35.5 | 25 | 66 | 415 | 1/2" | 3/8" |
| HCBS-16M | 35.5 | 25 | 66 | 440 | 1/2" | 1/2" |
| HCBS-19M | 35.5 | 25 | 66 | 475 | 1/2" | 1/2" |
| HCBS-25M | 35.5 | 25 | 66 | 520 | 3/4" | 1/2" |



Your Nitrogen generator plays a critical role in your facility. Because quality is so essential, we now offer NitroCheck™ tests to help provide you with peace of mind that your equipment continues to operate at its best. Contact us for more information.



Typical Flow Diagram with Lubricated Screw Compressors





CompactBreeze™ Series

At Holtec, your satisfaction is our top priority.

We specialize in providing cutting-edge on-site nitrogen (N₂) generator systems catering to various industries. With our focus on innovation, efficiency, reliability, and performance, we are your ultimate provider for all nitrogen generation needs.

We are experts at designing a solution that is right for your needs rather than simply providing a standard product. We will work with you to solve your application challenges. Let Holtec be your valued partner during the N₂ generation system selection process!



Comairco Compressed Air Specialists

+1 (877) 633-3247

info@comairco.com

holtecllc.com





NitroBreeze™ Series



Modular, Portable, “One-Touch” Operation

Reduce Costs, Increase Profits!

Using an in-house nitrogen generator to supply your nitrogen gas demand is the easiest way to reduce nitrogen related costs, and thus increase profits.

The NitroBreeze™ System has been specifically designed to fit the needs of small-to-medium sized businesses in order to eliminate barriers related to footprint, cost, and limited experience. Critical components are protected from ambient dust and inadvertent tampering.

For most needs in this range, a model can be found which will fit through standard doors. With a small footprint, and One-Touch operation, installation and startup are a “Breeze”!

Every system will be factory fine-tuned to meet the customer’s demands at the desired flow, purity, and pressure.

Major Features:

- Nitrogen purity up to 99.9995%
- Low to Moderate capacities
- Installation is a breeze!
- Most options fit through standard 36” door
- Fully plug and play
- Easy “One-Touch” operation
- Password protected screens
- EnergyAssistant™ option available
- HoltecConnect Lite™ option available
- Includes Holtec Prevue™ technology

70 °F Performance (SCFM)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.95% | 99.99% | 99.995% | 99.999% |
|--------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|---------|---------|
| HNBS-30M | 13.3 | 12.1 | 11.1 | 9.4 | 7.5 | 6.7 | 5.0 | 4.4 | 3.3 | 2.9 | 2.2 |
| HNBS-40M | 17.4 | 15.9 | 14.6 | 12.3 | 9.9 | 8.8 | 6.6 | 5.8 | 4.4 | 3.8 | 2.9 |
| HNBS-50M | 23.0 | 21.0 | 19.3 | 16.3 | 13.1 | 11.6 | 8.7 | 7.7 | 5.8 | 5.0 | 3.8 |
| HNBS-60M | 28.4 | 25.9 | 23.9 | 20.1 | 16.2 | 14.3 | 10.8 | 9.5 | 7.2 | 6.2 | 4.7 |
| HNBS-75M | 35.1 | 32.0 | 29.5 | 24.8 | 20.0 | 17.7 | 13.3 | 11.8 | 8.8 | 7.7 | 5.8 |
| HNBS-90M | 42.3 | 38.5 | 35.5 | 29.9 | 24.1 | 21.3 | 16.0 | 14.2 | 10.7 | 9.3 | 7.0 |
| HNBS-110M | 49.6 | 45.2 | 41.6 | 35.0 | 28.2 | 24.9 | 18.8 | 16.6 | 12.5 | 10.8 | 8.2 |
| HNBS-125M | 58.4 | 53.1 | 49.0 | 41.2 | 33.2 | 29.3 | 22.1 | 19.5 | 14.7 | 12.8 | 9.6 |
| HNBS-145M | 64.8 | 58.9 | 54.4 | 45.7 | 36.8 | 32.6 | 24.5 | 21.7 | 16.3 | 14.2 | 10.6 |
| HNBS-165M | 76.2 | 69.3 | 63.9 | 53.8 | 43.3 | 38.3 | 28.8 | 25.5 | 19.2 | 16.7 | 12.5 |
| HNBS-195M | 89.1 | 81.0 | 74.7 | 62.9 | 50.6 | 44.8 | 33.7 | 29.8 | 22.4 | 19.5 | 14.6 |
| HNBS-220M | 101.0 | 91.9 | 84.7 | 71.3 | 57.4 | 50.7 | 38.2 | 33.8 | 25.4 | 22.1 | 16.6 |
| Air Factor | 1.817 | 1.887 | 1.976 | 2.100 | 2.312 | 2.522 | 3.002 | 3.234 | 3.849 | 4.107 | 4.693 |

Performance and air factor listed is for ambient temperature 70 °F and inlet pressure 110 psig.
Please consult Holtec for performance at other conditions. Air factor listed may vary by ±5%.

95 °F Performance (SCFM)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.95% | 99.99% | 99.995% | 99.999% |
|--------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|---------|---------|
| HNBS-30M | 12.5 | 11.6 | 10.3 | 8.9 | 7.1 | 6.2 | 4.6 | 4.0 | 3.0 | 2.6 | 1.9 |
| HNBS-40M | 16.4 | 15.2 | 13.6 | 11.6 | 9.4 | 8.1 | 6.0 | 5.3 | 3.9 | 3.4 | 2.5 |
| HNBS-50M | 21.7 | 20.1 | 17.9 | 15.4 | 12.4 | 10.7 | 7.9 | 7.0 | 5.2 | 4.5 | 3.4 |
| HNBS-60M | 26.8 | 24.8 | 22.1 | 19.0 | 15.3 | 13.2 | 9.8 | 8.6 | 6.4 | 5.6 | 4.1 |
| HNBS-75M | 33.1 | 30.6 | 27.3 | 23.5 | 18.9 | 16.4 | 12.1 | 10.6 | 7.9 | 6.9 | 5.1 |
| HNBS-90M | 39.9 | 36.9 | 32.9 | 28.3 | 22.7 | 19.7 | 14.6 | 12.8 | 9.5 | 8.3 | 6.2 |
| HNBS-110M | 46.7 | 43.2 | 38.6 | 33.1 | 26.6 | 23.1 | 17.1 | 15.0 | 11.1 | 9.8 | 7.2 |
| HNBS-125M | 54.9 | 50.8 | 45.4 | 39.0 | 31.3 | 27.2 | 20.1 | 17.7 | 13.1 | 11.5 | 8.5 |
| HNBS-145M | 61.0 | 56.4 | 50.4 | 43.3 | 34.8 | 30.2 | 22.3 | 19.6 | 14.5 | 12.8 | 9.5 |
| HNBS-165M | 71.8 | 66.3 | 59.3 | 50.9 | 40.9 | 35.5 | 26.3 | 23.1 | 17.1 | 15.0 | 11.1 |
| HNBS-195M | 83.8 | 77.5 | 69.3 | 59.5 | 47.8 | 41.5 | 30.7 | 27.0 | 20.0 | 17.6 | 13.0 |
| HNBS-220M | 95.1 | 87.9 | 78.6 | 67.4 | 54.2 | 47.0 | 34.8 | 30.6 | 22.7 | 19.9 | 14.7 |
| Air Factor | 1.924 | 2.002 | 2.103 | 2.245 | 2.485 | 2.722 | 3.266 | 3.568 | 4.340 | 4.665 | 5.401 |

Performance and air factor listed is for ambient temperature 95° F and inlet pressure 110 psig.

Please consult Holtec for performance at other conditions. Air factor listed may vary by ±5%.

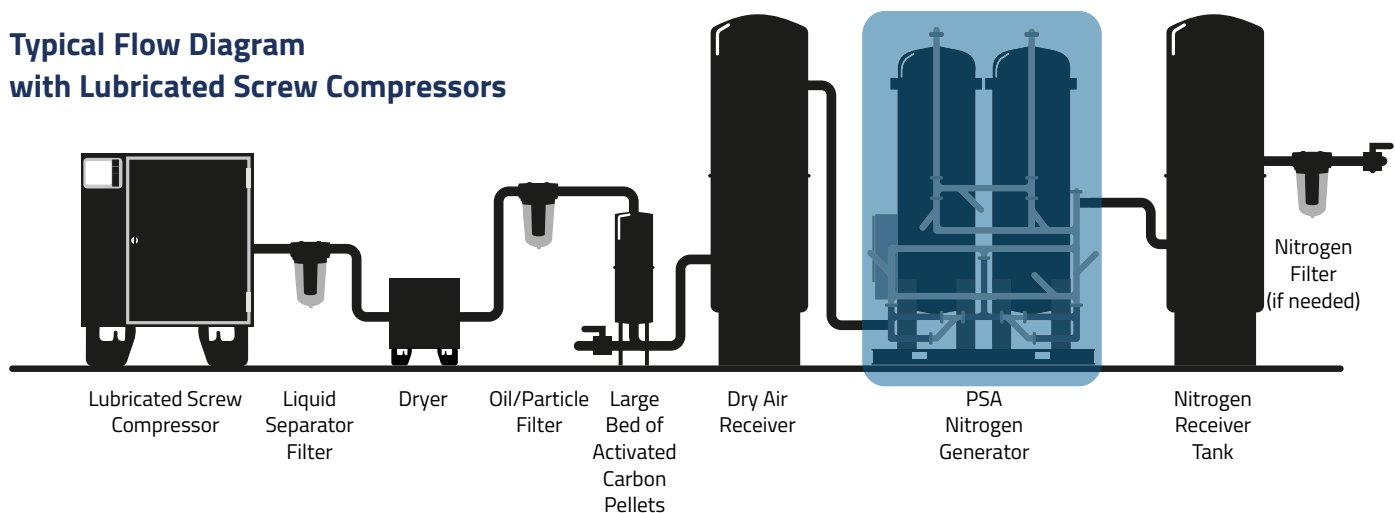
Physical Characteristics

Notes:

N₂ pressure will typically be 20 psi lower than compressor outlet pressure (with reasonable pressure drop for filters included). In some cases, lower pressure drop may be possible. Please consult factory for details where relevant.

| Model Number | Max Inlet Pressure (psig) | Inlet (in.) | Outlet (in.) | Length (in.) | Width (in.) | Height (in.) | Weight (lb.) |
|--------------|---------------------------|-------------|--------------|--------------|-------------|--------------|--------------|
| HNBS-30M | 150 | 3/4" | 1/2" | 35 | 26 | 80 | 702 |
| HNBS-40M | 150 | 3/4" | 1/2" | 35 | 26 | 100 | 738 |
| HNBS-50M | 150 | 3/4" | 3/4" | 35 | 26 | 80 | 870 |
| HNBS-60M | 150 | 3/4" | 3/4" | 35 | 26 | 96 | 1000 |
| HNBS-75M | 150 | 1" | 3/4" | 35 | 30 | 80 | 1060 |
| HNBS-90M | 150 | 1" | 3/4" | 35 | 30 | 100 | 1194 |
| HNBS-110M | 150 | 1.5" | 1" | 35 | 30 | 80 | 1292 |
| HNBS-125M | 150 | 1.5" | 1" | 35 | 30 | 91 | 1443 |
| HNBS-145M | 150 | 1.5" | 1" | 35 | 37 | 85 | 1500 |
| HNBS-165M | 150 | 1.5" | 1" | 35 | 37 | 96 | 1630 |
| HNBS-195M | 150 | 1.5" | 1" | 35 | 39 | 90 | 1850 |
| HNBS-220M | 150 | 1.5" | 1" | 35 | 39 | 99 | 2025 |

Typical Flow Diagram with Lubricated Screw Compressors





Your Nitrogen generator plays a critical role in your facility. Because quality is so essential, we now offer NitroCheck™ tests to help provide you with peace of mind that your equipment continues to operate at its best. Contact us for more information.

NitroBreeze™ Series

At Holtec, your satisfaction is our top priority.

We specialize in providing cutting-edge on-site nitrogen (N₂) generator systems catering to various industries. With our focus on innovation, efficiency, reliability, and performance, we are your ultimate provider for all nitrogen generation needs.

We are experts at designing a solution that is right for your needs rather than simply providing a standard product. We will work with you to solve your application challenges. Let Holtec be your valued partner during the N₂ generation system selection process!



Comairco Compressed Air Specialists

+1 (877) 633-3247

info@comairco.com

holtecllc.com





Niagara™ PSA Nitrogen Generators



holtecllc.com

Reduce Costs, Increase Profits!

Using an in-house nitrogen generator to supply your nitrogen gas demand is the easiest way to reduce nitrogen related costs, and thus increase profits. The Niagara™ Series of Pressure-Swing Adsorption (PSA) nitrogen generators has been designed to be the most efficient, reliable, and durable nitrogen generator available. With a rich list of features and available HoltecConnect™ communications/troubleshooting portal, Niagara™ is the workhorse of the Pressure-Swing Adsorption world.

Major Features:

- Industry leading purity options, from 95 - 99.9995% (5% residual O₂ - 5 ppm residual O₂)
- Low power consumption - lowest compressed air consumption reduces compressor horsepower, reducing customer electrical costs
- Modbus TCP/IP standard for connection to customer controls. Many other protocols available upon request.
- EnergyAssistant™ is always included in every Niagara. HoltecConnect™ is an additional cost.
- Holtec Prevue™ technology allows customer to quickly confirm final purity or continuous monitoring of independent systems sharing one nitrogen tank.
- Molecular Sieve - "The active ingredient" lasts 10+ years with proper maintenance
- Adsorbers designed for 20+ years life
- Durable mechanical valves - 2½" and below rated for 5 million cycles (10+ years), 3" and above rated for 3 million cycles (6+ years)

- O₂ analyzer with zirconia sensor - Long sensor life, no calibration needed
- Tamper resistant controls and password protected screens

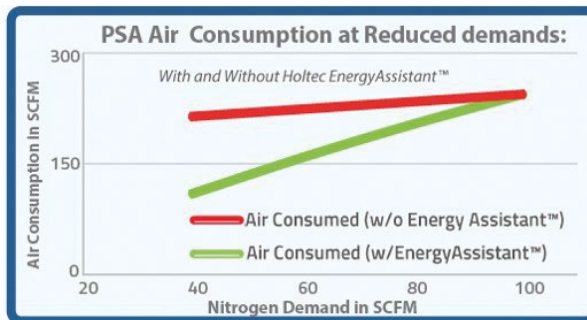
Energy Assistant™

- Savings tailored to the customer need

A Holtec PSA consumes the least amount of compressed air (and therefore the least amount of electricity). This is because we use only the highest quality, most efficient carbon molecular sieve in our PSAs. The PSA will also detect when you are not using any nitrogen and stop, using no electricity at all.

But what about when you are using something in between? Traditional PSA systems will consume nearly the same amount of compressed air whenever they are running, regardless of the customer's actual demand.

EnergyAssistant™, built into every Niagara™ PSA, adjusts on the fly so the compressed air demand decreases at a nearly 1:1 rate with your nitrogen usage between 40%-100%. Even below 40% of full capacity you will experience significant energy savings. With EnergyAssistant™, customers whose demands vary will now maximize their energy savings in all usage profiles.



HoltecConnect™ - Remote gateway for monitoring and factory support

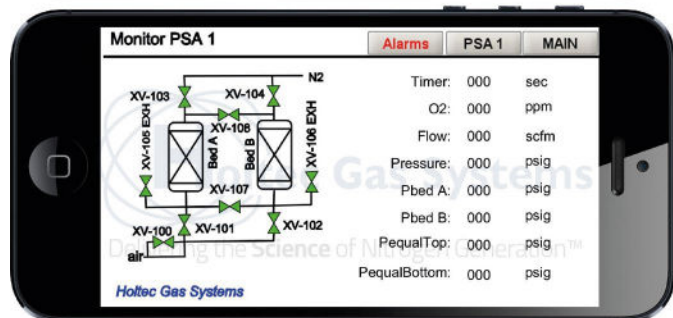
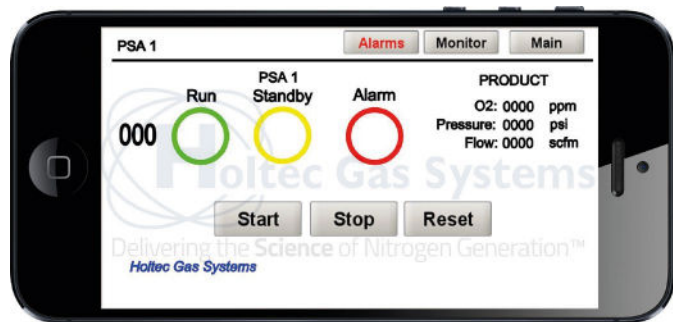
HoltecConnect™, available on any Niagara™ PSA system, allows any user with security clearance to access the nitrogen generator vital statistics through a secure connection from a web browser anywhere an internet connection is available.

Your authorized Holtec dealer can use this powerful tool to continuously monitor the nitrogen generator for you, averting downtimes and freeing up your manpower to concentrate on your primary business.

Easily disabled for added security, HoltecConnect™ is not just for monitoring. With additional sensors throughout the nitrogen generator, this gateway gives factory personnel the ability to diagnose many issues without the delay and expense of a field visit. Many corrections can be made remotely, and when on-site visits are required, technicians are better able to assess which parts to bring in order to reduce follow up visits.

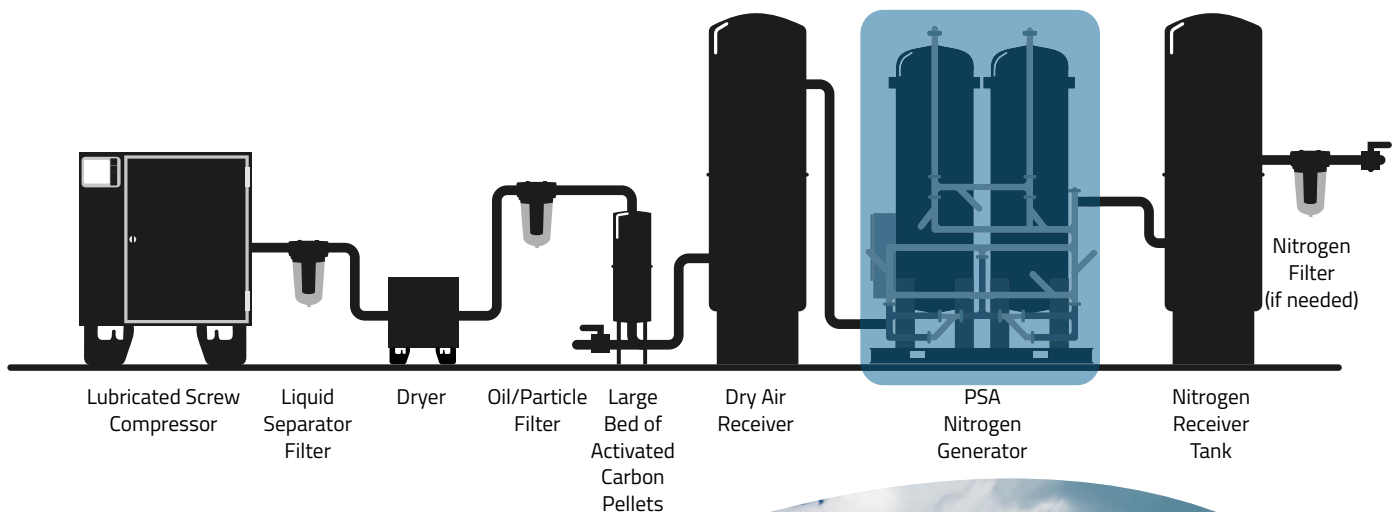
Other Capabilities include:

- Email alerts and warnings
- Text messages directly to mobile phone or tablet (without the need for a cellular modem)
- Real-time display of nitrogen purity, pressure, and flow
- Nitrogen generator START/STOP functionality
- Change process parameters
- View/Graph system performance (real-time and historical)



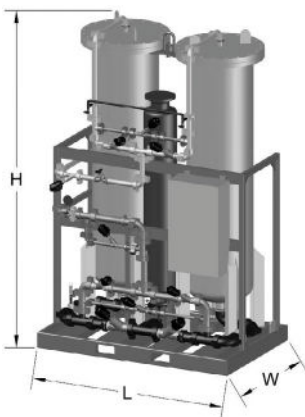
Niagara™ General Specifications

- 100 - 230V - 1ph - 50/60 Hz- max 120W
- Standard systems for Indoor use only (Outdoor option under sun/rain shelter available with control panel heater).
- Note that a fork lift is typically required at the destination unless otherwise noted. If a crane is needed at the origin or destination for larger systems, this is at the buyer's expense. Systems are shipped horizontally and partially disassembled; fork lift or crane required to re-orient and re-assemble.
- Clean, dry, oil-free compressed air (ISO 8573 Class 1.4.1 or better with an activated carbon adsorber tower must be used if the compressor is not of the oil-free variety). See below for a typical arrangement when lubricated screw compressors are used.



Niagara™ Physical Characteristics (Dimensions in inches, weight in pounds)

| Model Number | Max Inlet Pressure (psig) | Inlet (in.) | Outlet (in.) | Length (in.) | Width (in.) | Height (in.) | Weight (lb.) |
|--------------|---------------------------|-------------|--------------|--------------|-------------|--------------|--------------|
| HNS-245M | 150 | 1.5 | 1.5 | 76 | 48 | 124 | 3,450 |
| HNS-265M | 150 | 1.5 | 1.5 | 76 | 48 | 132 | 3,610 |
| HNS-300M | 150 | 1.5 | 1.5 | 76 | 48 | 142 | 3,810 |
| HNS-320M | 150 | 2 | 1.5 | 76 | 48 | 108 | 4,870 |
| HNS-355M | 150 | 2 | 1.5 | 76 | 48 | 115 | 5,090 |
| HNS-400M | 150 | 2 | 1.5 | 76 | 48 | 124 | 5,380 |
| HNS-435M | 150 | 2 | 1.5 | 76 | 48 | 133 | 5,710 |
| HNS-480M | 150 | 2 | 1.5 | 76 | 48 | 144 | 5,930 |
| HNS-530M | 135 | 2 | 2 | 76 | 48 | 119 | 6,120 |
| HNS-585M | 135 | 2 | 2 | 76 | 48 | 128 | 6,430 |
| HNS-645M | 135 | 2 | 2 | 76 | 48 | 137 | 6,760 |
| HNS-715M | 135 | 2 | 2 | 76 | 48 | 147 | 7,120 |
| HNS-780M | 135 | 2 | 2 | 76 | 48 | 157 | 7,480 |
| HNS-850M | 135 | 3 | 2 | 95 | 53 | 125 | 8,030 |
| HNS-940M | 135 | 3 | 2 | 95 | 53 | 135 | 8,510 |
| HNS-1025M | 135 | 3 | 2 | 95 | 53 | 143 | 8,990 |
| HNS-1130M | 135 | 3 | 2 | 95 | 53 | 153 | 9,550 |
| HNS-1245M | 135 | 3 | 2 | 95 | 53 | 164 | 10,170 |
| HNS-1370M | 135 | 3 | 2 | 95 | 53 | 177 | 10,870 |
| HNS-1515M | 150 | 4 | 3 | 111 | 60 | 148 | 14,090 |
| HNS-1675M | 150 | 4 | 3 | 111 | 60 | 159 | 15,010 |
| HNS-1840M | 150 | 4 | 3 | 111 | 60 | 171 | 15,980 |
| HNS-2005M | 150 | 4 | 3 | 111 | 60 | 182 | 16,910 |
| HNS-2205M | 130 | 4 | 3 | 120 | 66 | 158 | 17,430 |
| HNS-2440M | 130 | 4 | 3 | 120 | 66 | 170 | 19,200 |
| HNS-2690M | 130 | 4 | 3 | 120 | 66 | 183 | 20,540 |
| HNS-2970M | 130 | 4 | 3 | 120 | 66 | 197 | 22,030 |
| HNS-3300M | 135 | 4 | 4 | 120 | 66 | 213 | 23,760 |
| HNS-3610M | 135 | 6 | 4 | 135 | 76 | 190 | 28,620 |
| HNS-3980M | 135 | 6 | 4 | 135 | 76 | 204 | 30,650 |
| HNS-4400M | 135 | 6 | 4 | 135 | 76 | 220 | 32,950 |



Notes:

* N2 pressure will typically be 25 psi lower than compressor outlet pressure (with reasonable pressure drop for filters included). In some cases, lower pressure drop may be possible. Please consult factory for details where critical.

Scope of Supply

- ASME VIII Div 1 adsorber vessels filled with Carbon Molecular Sieve
- Relief valves
- Air actuated switching valves
- Pressure gauges
- Control panel with:
 - Terminal blocks supplied for hard-wired power connection (cannot be plugged into wall outlet included unless otherwise stated)
 - On/Off power switch
 - PLC control with touch-screen interface (HMI)
 - Switching for continuous or standby operation (HMI feature)
 - Operating hours recorder (displayed on HMI)
 - Electrical terminal blocks and wiring
 - Solenoid valves (for switching valves)
 - N2 pressure sensing transducer for automatic standby operation
 - Oxygen analyzer sampling system and oxygen analyzer and sensor
- Manual control valves for setting N2 flow and purity
- Manual isolation valves
- Silencer for waste gas
- Digital Operating and maintenance Manual (digital only, unless otherwise agreed)
- Fittings, Piping, and tubing
- N2 flow limiting device
- All above equipment to be pre-assembled and pre-tested mounted on a painted steel skid for easy site installation and quick startup



Niagara™ Performance* - 70 °F (Flows listed in SCFM)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.95% | 99.99% | 99.995% | 99.999% |
|--------------|--------|--------|--------|--------|--------|--------|-------|--------|--------|---------|---------|
| HNS-245M | 119.5 | 108.7 | 100.2 | 84.3 | 67.9 | 60.0 | 45.2 | 40.0 | 30.1 | 26.1 | 19.6 |
| HNS-265M | 130.1 | 118.3 | 109.1 | 91.8 | 73.9 | 65.3 | 49.2 | 43.5 | 32.7 | 28.4 | 21.4 |
| HNS-300M | 143.3 | 130.4 | 120.2 | 101.1 | 81.5 | 71.9 | 54.2 | 47.9 | 36.1 | 31.3 | 23.5 |
| HNS-320M | 149.5 | 136.0 | 125.5 | 105.5 | 85.0 | 75.1 | 56.5 | 50.0 | 37.6 | 32.7 | 24.6 |
| HNS-355M | 163.8 | 149.0 | 137.4 | 115.6 | 93.1 | 82.2 | 61.9 | 54.8 | 41.2 | 35.8 | 26.9 |
| HNS-400M | 182.2 | 165.8 | 152.9 | 128.6 | 103.6 | 91.5 | 68.9 | 60.9 | 45.9 | 39.8 | 29.9 |
| HNS-435M | 200.6 | 182.5 | 168.3 | 141.6 | 114.0 | 100.7 | 75.8 | 67.1 | 50.5 | 43.8 | 32.9 |
| HNS-480M | 223.1 | 202.9 | 187.1 | 157.4 | 126.8 | 112.0 | 84.3 | 74.6 | 56.1 | 48.7 | 36.6 |
| HNS-530M | 245.0 | 222.8 | 205.5 | 172.9 | 139.3 | 123.0 | 92.6 | 81.9 | 61.6 | 53.5 | 40.2 |
| HNS-585M | 271.8 | 247.2 | 228.0 | 191.8 | 154.5 | 136.4 | 102.7 | 90.9 | 68.4 | 59.4 | 44.6 |
| HNS-645M | 298.6 | 271.6 | 250.5 | 210.7 | 169.8 | 149.9 | 112.9 | 99.9 | 75.1 | 65.3 | 49.0 |
| HNS-715M | 328.4 | 298.7 | 275.5 | 231.8 | 186.7 | 164.9 | 124.1 | 109.8 | 82.6 | 71.8 | 53.9 |
| HNS-780M | 358.2 | 325.8 | 300.5 | 252.8 | 203.6 | 179.8 | 135.4 | 119.8 | 90.1 | 78.3 | 58.8 |
| HNS-850M | 392.3 | 356.8 | 329.1 | 276.9 | 223.0 | 196.9 | 148.3 | 131.2 | 98.7 | 85.7 | 64.4 |
| HNS-940M | 434.7 | 395.4 | 364.7 | 306.8 | 247.1 | 218.2 | 164.3 | 145.4 | 109.4 | 95.0 | 71.4 |
| HNS-1025M | 477.2 | 434.1 | 400.3 | 336.8 | 271.3 | 239.5 | 180.4 | 159.6 | 120.1 | 104.3 | 78.4 |
| HNS-1130M | 524.3 | 477.0 | 439.8 | 370.1 | 298.1 | 263.2 | 198.2 | 175.4 | 131.9 | 114.6 | 86.1 |
| HNS-1245M | 576.2 | 524.1 | 483.4 | 406.7 | 327.6 | 289.2 | 217.8 | 192.7 | 145.0 | 125.9 | 94.6 |
| HNS-1370M | 637.5 | 579.9 | 534.8 | 449.9 | 362.4 | 320.0 | 241.0 | 213.2 | 160.4 | 139.3 | 104.7 |
| HNS-1515M | 697.0 | 634.0 | 584.7 | 491.9 | 396.2 | 349.9 | 263.5 | 233.1 | 175.4 | 152.3 | 114.5 |
| HNS-1675M | 771.3 | 701.6 | 647.0 | 544.3 | 438.5 | 387.2 | 291.6 | 257.9 | 194.1 | 168.5 | 126.7 |
| HNS-1840M | 852.3 | 775.3 | 715.0 | 601.5 | 484.5 | 427.8 | 322.2 | 285.0 | 214.4 | 186.3 | 140.0 |
| HNS-2005M | 926.6 | 842.8 | 777.3 | 654.0 | 526.7 | 465.1 | 350.3 | 309.9 | 233.1 | 202.5 | 152.2 |
| HNS-2205M | 1017.9 | 926.0 | 853.9 | 718.4 | 578.7 | 511.0 | 384.8 | 340.4 | 256.1 | 222.4 | 167.2 |
| HNS-2440M | 1129.1 | 1027.1 | 947.2 | 796.9 | 641.9 | 566.8 | 426.8 | 377.6 | 284.1 | 246.7 | 185.4 |
| HNS-2690M | 1249.6 | 1136.7 | 1048.2 | 881.9 | 710.4 | 627.3 | 472.4 | 417.9 | 314.4 | 273.1 | 205.2 |
| HNS-2970M | 1379.3 | 1254.7 | 1157.1 | 973.5 | 784.1 | 692.4 | 521.4 | 461.3 | 347.0 | 301.4 | 226.5 |
| HNS-3300M | 1528.5 | 1390.4 | 1282.2 | 1078.8 | 868.9 | 767.3 | 577.8 | 511.2 | 384.6 | 334.0 | 251.0 |
| HNS-3610M | 1673.1 | 1521.9 | 1403.5 | 1180.8 | 951.1 | 839.9 | 632.5 | 559.5 | 421.0 | 365.6 | 274.7 |
| HNS-3980M | 1841.7 | 1675.3 | 1545.0 | 1299.9 | 1047.0 | 924.5 | 696.2 | 615.9 | 463.4 | 402.5 | 302.4 |
| HNS-4400M | 2034.5 | 1850.7 | 1706.7 | 1435.9 | 1156.6 | 1021.3 | 769.1 | 680.4 | 511.9 | 444.6 | 334.1 |
| Air Factor | 1.817 | 1.887 | 1.976 | 2.100 | 2.312 | 2.522 | 3.002 | 3.234 | 3.849 | 4.107 | 4.693 |

* Performance and air factor listed is for ambient temperature 70° F and inlet pressure 110 psig.
Please consult Holtec for performance at other conditions. Air factor listed may vary by ±5%.



Your Nitrogen generator plays a critical role in your facility. Because quality is so essential, we now offer NitroCheck™ tests to help provide you with peace of mind that your equipment continues to operate at its best. Contact us for more information.

Niagara™ Performance - 95 °F* (Flows listed in SCFM)

| Model Number | 95% | 96% | 97% | 98% | 99% | 99.5% | 99.9% | 99.95% | 99.99% | 99.995% | 99.999% |
|--------------|--------|--------|--------|--------|--------|-------|-------|--------|--------|---------|---------|
| HNS-245M | 112.5 | 104.0 | 93.0 | 79.8 | 64.1 | 55.7 | 41.2 | 36.2 | 26.8 | 23.5 | 17.4 |
| HNS-265M | 122.4 | 113.2 | 101.2 | 86.8 | 69.8 | 60.6 | 44.9 | 39.4 | 29.2 | 25.6 | 19.0 |
| HNS-300M | 134.9 | 124.7 | 111.5 | 95.7 | 76.9 | 66.8 | 49.4 | 43.4 | 32.1 | 28.2 | 20.9 |
| HNS-320M | 140.8 | 130.2 | 116.4 | 99.8 | 80.3 | 69.7 | 51.6 | 45.3 | 33.5 | 29.5 | 21.8 |
| HNS-355M | 154.2 | 142.6 | 127.5 | 109.4 | 88.0 | 76.3 | 56.5 | 49.6 | 36.8 | 32.3 | 23.9 |
| HNS-400M | 171.6 | 158.6 | 141.8 | 121.7 | 97.8 | 84.9 | 62.9 | 55.2 | 40.9 | 35.9 | 26.6 |
| HNS-435M | 188.9 | 174.6 | 156.1 | 133.9 | 107.7 | 93.5 | 69.2 | 60.8 | 45.0 | 39.5 | 29.3 |
| HNS-480M | 210.0 | 194.2 | 173.6 | 148.9 | 119.8 | 103.9 | 76.9 | 67.6 | 50.0 | 44.0 | 32.6 |
| HNS-530M | 230.6 | 213.2 | 190.6 | 163.6 | 131.5 | 114.1 | 84.5 | 74.2 | 55.0 | 48.3 | 35.7 |
| HNS-585M | 255.9 | 236.6 | 211.5 | 181.5 | 145.9 | 126.6 | 93.7 | 82.4 | 61.0 | 53.6 | 39.7 |
| HNS-645M | 281.1 | 259.9 | 232.4 | 199.4 | 160.3 | 139.1 | 103.0 | 90.5 | 67.0 | 58.9 | 43.6 |
| HNS-715M | 309.2 | 285.9 | 255.6 | 219.3 | 176.3 | 153.0 | 113.3 | 99.5 | 73.7 | 64.7 | 47.9 |
| HNS-780M | 337.2 | 311.8 | 278.8 | 239.2 | 192.3 | 166.9 | 123.5 | 108.5 | 80.4 | 70.6 | 52.3 |
| HNS-850M | 369.3 | 341.5 | 305.3 | 261.9 | 210.6 | 182.8 | 135.3 | 118.9 | 88.0 | 77.3 | 57.2 |
| HNS-940M | 409.2 | 378.4 | 338.3 | 290.3 | 233.4 | 202.5 | 149.9 | 131.7 | 97.5 | 85.7 | 63.4 |
| HNS-1025M | 449.2 | 415.3 | 371.3 | 318.6 | 256.2 | 222.3 | 164.6 | 144.6 | 107.0 | 94.0 | 69.6 |
| HNS-1130M | 493.6 | 456.4 | 408.0 | 350.1 | 281.5 | 244.3 | 180.8 | 158.9 | 117.6 | 103.3 | 76.5 |
| HNS-1245M | 542.4 | 501.5 | 448.4 | 384.7 | 309.3 | 268.5 | 198.7 | 174.6 | 129.3 | 113.6 | 84.1 |
| HNS-1370M | 600.2 | 554.9 | 496.1 | 425.7 | 342.2 | 297.0 | 219.9 | 193.2 | 143.0 | 125.7 | 93.0 |
| HNS-1515M | 656.1 | 606.7 | 542.4 | 465.4 | 374.2 | 324.7 | 240.4 | 211.2 | 156.4 | 137.4 | 101.7 |
| HNS-1675M | 726.1 | 671.3 | 600.2 | 515.0 | 414.0 | 359.3 | 266.0 | 233.7 | 173.0 | 152.0 | 112.5 |
| HNS-1840M | 802.3 | 741.9 | 663.3 | 569.1 | 457.5 | 397.1 | 294.0 | 258.3 | 191.2 | 168.0 | 124.4 |
| HNS-2005M | 872.3 | 806.5 | 721.1 | 618.7 | 497.4 | 431.7 | 319.6 | 280.8 | 207.9 | 182.6 | 135.2 |
| HNS-2205M | 958.3 | 886.0 | 792.2 | 679.7 | 546.5 | 474.3 | 351.1 | 308.5 | 228.4 | 200.6 | 148.5 |
| HNS-2440M | 1063.0 | 982.8 | 878.7 | 753.9 | 606.2 | 526.1 | 389.4 | 342.1 | 253.3 | 222.5 | 164.8 |
| HNS-2690M | 1176.4 | 1087.7 | 972.5 | 834.3 | 670.8 | 582.2 | 431.0 | 378.7 | 280.3 | 246.3 | 182.3 |
| HNS-2970M | 1298.5 | 1200.6 | 1073.4 | 920.9 | 740.5 | 642.6 | 475.7 | 418.0 | 309.4 | 271.9 | 201.3 |
| HNS-3300M | 1438.9 | 1330.5 | 1189.5 | 1020.6 | 820.6 | 712.2 | 527.2 | 463.2 | 342.9 | 301.3 | 223.0 |
| HNS-3610M | 1575.0 | 1456.3 | 1302.0 | 1117.1 | 898.2 | 779.5 | 577.0 | 507.0 | 375.3 | 329.8 | 244.1 |
| HNS-3980M | 1733.8 | 1603.1 | 1433.3 | 1229.7 | 988.7 | 858.1 | 635.2 | 558.1 | 413.2 | 363.0 | 268.7 |
| HNS-4400M | 1915.3 | 1770.9 | 1583.3 | 1358.4 | 1092.2 | 947.9 | 701.7 | 616.5 | 456.4 | 401.0 | 296.9 |
| Air Factor | 1.924 | 2.002 | 2.103 | 2.245 | 2.485 | 2.722 | 3.266 | 3.568 | 4.340 | 4.665 | 5.401 |

* Performance and air factor listed is for ambient temperature 95° F and inlet pressure 110 psig.
Please consult Holtec for performance at other conditions. Air factor listed may vary by ±5%.





Niagara™

PSA Nitrogen Generators

At Holtec, your satisfaction is our top priority.

We specialize in providing cutting-edge on-site nitrogen (N₂) generator systems catering to various industries. With our focus on innovation, efficiency, reliability, and performance, we are your ultimate provider for all nitrogen generation needs.

We are experts at designing a solution that is right for your needs rather than simply providing a standard product. We will work with you to solve your application challenges. Let Holtec be your valued partner during the N₂ generation system selection process!



Comairco Compressed Air Specialists

+1 (877) 633-3247

info@comairco.com

holtecllc.com



HSS-3EC Nitrogen Generation System

The HSS-3EC represents the newest innovation from Holtec, engineered to ensure a dependable and sustainable nitrogen source for safer use of 3D printers.

This complete nitrogen generation solution gives you the ability to easily generate nitrogen at your facility:

- Effortless "Plug and Play" setup for immediate use
- Enhanced safety compared to handling high-pressure nitrogen cylinders or low-temperature dewars
- Cost-effective operation, reducing expenses associated with 3D printer usage
- Diminish dependency on external nitrogen suppliers, promoting sustainability
- Boost in operational autonomy and self-sufficiency

Specifications

N₂ flow = 0.5 scfm / 0.80 Nm³/h*

Purity = 0.5% O₂ +/- 0.2%

Pressure: 60 – 100 psig / 4.1 – 6.9 barg

(*Based on 25°C/77°F operation & 500 ft elevation)

Weight & Dimensions:

LxWxH = 30.5" x 24.3" x 40.1" / 775 x 617 x 1,019 mm

Weight = 234 lbs / 106 kg

Power Required:

0.9 kW, 120 VAC – 1 ph – 60 Hz, 15 Amp

All-inclusive Nitrogen Generator for your 3D Printing Operation

- Oil-less rocking piston compressor
- Integrated cooling fans and heat exchangers regulate temperature and condense moisture
- Three-stage filtration system removes particles and moisture
- High-efficiency membrane nitrogen separator(s)
- User-friendly automated PLC with touch screen interface
- Optional continuous purity monitoring system
- Built-in pressure gauges and transducer
- Included nitrogen storage vessel
- Mobile enclosure with casters for effortless movement

Ease of Use & Maintenance

Owning a nitrogen generator streamlines operations by removing the complexities and safety concerns associated with the frequent changing of high-pressure cylinders and low temperature dewars. Furthermore, cut the reliance on delivery schedules and advance towards achieving your operation's carbon emission reduction targets

The installation process couldn't be simpler: Wheel the unit to the desired location, connect it to an electrical outlet, and attach the nitrogen supply line directly to your 3D printer. There's no need for additional components or complex setup procedures.

As for upkeep, the HSS-3EC is low-maintenance, requiring only annual replacement for three filters. This ensures hassle-free operation throughout the year!



Comairco Compressed Air Specialists

+1 (877) 633-3247

info@comairco.com

holtecllc.com

