

# **Gardner Denver**

NITROGEN GENERATORS | 2-280 CFM

## **XGN2 Series**



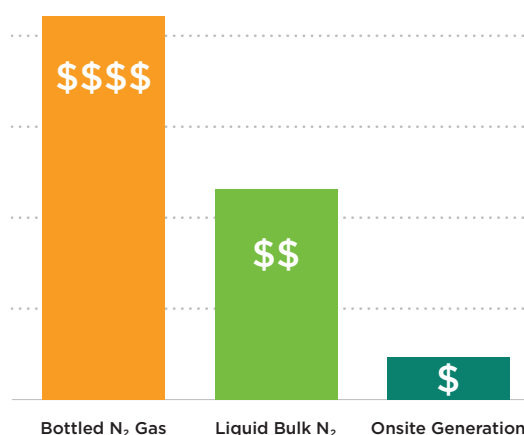
# X Series: NeXt-Generation Gardner Denver Air Treatment

## NITROGEN GENERATION BENEFITS

Gardner Denver's Pressure Swing Adsorption (PSA) nitrogen generators eliminate the need for traditional nitrogen shipments and storage, providing you with real cost savings. With access to our entire portfolio of related products and services, you'll have a trusted partner for nitrogen solutions from start to finish.

- Lowers your operating cost by generating nitrogen at your facility from freely available air
- Maximizes system energy efficiency by providing industry-leading air-to-nitrogen utilization
- Provides N<sub>2</sub> purity tailored to your operation, whether you need 95% or 99.9995%
- Reduce waste and operate more sustainably
- Avoid safety and footprint issues associated with storing nitrogen

### Annual Operating Cost



Gardner Denver nitrogen generators typically provide a one-year payback. After year one, you'll realize year-over-year savings.

### Did You Know?

WITH QUALITY AND RELIABILITY BUILT IN, GARDNER DENVER'S ON-SITE NITROGEN GENERATORS OFFER A WIDE VARIETY OF INNOVATIVE SOLUTIONS TO MEET YOUR PRODUCTION NEEDS AND REDUCE OPERATING COSTS COMPARED TO TRADITIONAL NITROGEN SUPPLY.

## Did You Know?

10-20% OF BULK NITROGEN IS TYPICALLY WASTED THROUGH BLEED OFF OR FAILURE TO EXTRACT ALL PRODUCT FROM CANISTERS.

## HOW PSA NITROGEN GENERATORS WORK

PSA technology utilizes a twin tower design where nitrogen production and tower regeneration occur simultaneously.

### N<sub>2</sub> Production

- 1 Compressed air enters the generator.
- 2 O<sub>2</sub> is preferentially adsorbed from the air by the carbon molecular sieve (CMS).
- 3 N<sub>2</sub> continues to pass through the system into the nitrogen receiver tank, for use in your process.

### Regeneration

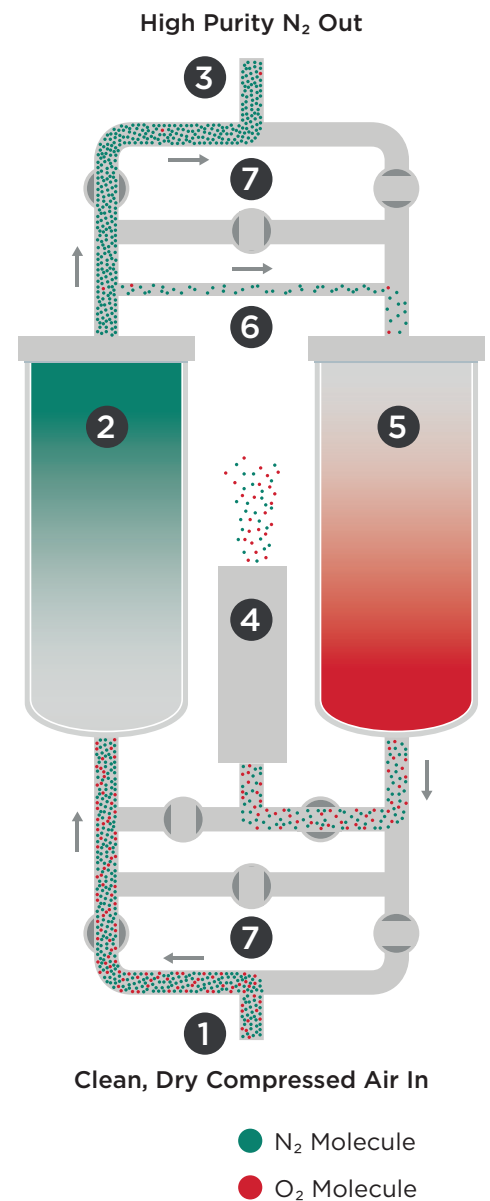
- 4 Pressure is released from the regenerating tower to the atmosphere.
- 5 The O<sub>2</sub> in the CMS is desorbed and exits the tower back into the atmosphere.
- 6 A small amount of N<sub>2</sub> is redirected to the tower to assist with CMS regeneration.

### Pressure Equalization

In between cycles, the generator's inlet and outlet valves are closed and pressure is equalized between the two towers, thus conserving compressed air.

### Tower Switch

- 7 Once equalized, the freshly regenerated tower now becomes the production tower while the other tower is regenerated.

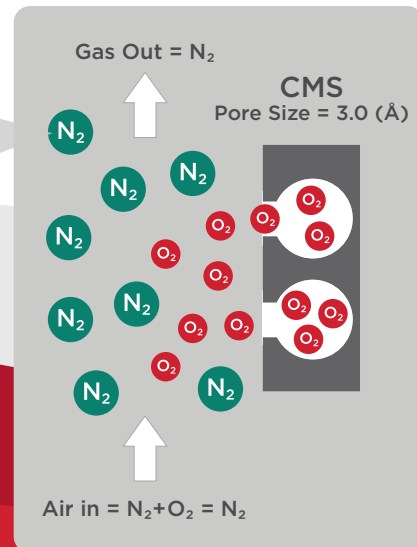


# Industry-Leading Features

Gardner Denver nitrogen generators are precisely designed to ensure a long operating life and efficient operation.

- 1 Intuitive touch screen controller
- 2 Real-time onboard trending
- 3 Long-life oxygen analyzer

- 4 Precision switching valves
- 5 Long-life CMS adsorption media
- 6 ASME-certified pressure vessels
- 7 Air input
- 8 N<sub>2</sub> output
- 9 Noise-reducing silencer
- 10 Pressure-safety valves



# Built-In Reliability

Your success depends on safety and reliability—that's why it's built into all of our PSA nitrogen generators. Each system comes pre-assembled and tested at the factory for simple, plug-and-play installation at your site to maximize productivity and ensure out-of-box operation. Our robust design includes:

- Superior quality CMS media that extends product life, simplifies maintenance and reduces replacement costs
- Precision long-life valves to control gas flow with quick-acting, high precision switching, improving efficiency and durability
- Intelligent controls designed to optimize set points, improve performance, and protect your entire nitrogen generation system
- ASME-certified pressure vessels to ensure safe operation
- Extended warranties to keep you protected for 24/30 months





# Specifications

## GARDNER DENVER NITROGEN GENERATOR PERFORMANCE

70°F AMBIENT, 110 PSIG AIR PRESSURE

| MODEL      | FLOW RATE<br>CFM AT DIFFERENT NITROGEN PURITIES |       |       |       |        |        |         | INLET  | OUTLET |
|------------|---|-------|-------|-------|--------|--------|---------|--------|--------|
|            | 95%   | 99%   | 99.5% | 99.9% | 99.95% | 99.99% | 99.999% | NPT    | NPT    |
| XGN2-15LS  | 11.2  | 6.3   | 5.5   | 4.6   | 3.6    | 2.7    | 1.7     | 3/4"   | 1/2"   |
| XGN2-21LS  | 14.8  | 8.2   | 7.3   | 6.0   | 4.7    | 3.6    | 2.3     | 3/4"   | 1/2"   |
| XGN2-26LS  | 21.6  | 12.1  | 10.6  | 8.8   | 6.9    | 5.2    | 3.3     | 3/4"   | 1/2"   |
| XGN2-32LS  | 26.7  | 14.9  | 13.1  | 10.8  | 8.6    | 6.4    | 4.1     | 3/4"   | 1/2"   |
| XGN2-41LS  | 33.0  | 18.4  | 16.2  | 13.4  | 10.6   | 8.0    | 5.0     | 1"     | 3/4"   |
| XGN2-47LS  | 39.7  | 22.2  | 19.5  | 16.1  | 12.7   | 9.6    | 6.1     | 1"     | 3/4"   |
| XGN2-59LS  | 46.6  | 26.0  | 22.9  | 18.9  | 14.9   | 11.2   | 7.1     | 1"     | 3/4"   |
| XGN2-68LS  | 54.8  | 30.6  | 26.9  | 22.2  | 17.6   | 13.2   | 8.4     | 1"     | 3/4"   |
| XGN2-76LS  | 60.8  | 34.0  | 29.9  | 24.7  | 19.5   | 14.7   | 9.3     | 1"     | 3/4"   |
| XGN2-88LS  | 71.5  | 40.0  | 35.1  | 29.0  | 22.9   | 17.2   | 10.9    | 1"     | 3/4"   |
| XGN2-100LS | 83.6  | 46.7  | 41.0  | 33.9  | 26.8   | 20.2   | 12.8    | 1-1/2" | 1"     |
| XGN2-118LS | 94.7  | 52.9  | 46.5  | 38.5  | 30.4   | 22.8   | 14.5    | 1-1/2" | 1"     |
| XGN2-132HS | 112.1   | 62.4  | 55.1  | 45.5  | 35.9   | 26.8   | 17.1    | 1-1/2" | 1"     |
| XGN2-144HS | 122.0   | 67.9  | 59.7  | 47.3  | 39.0   | 29.2   | 18.5    | 1-1/2" | 1"     |
| XGN2-159HS | 134.5   | 74.8  | 65.7  | 48.8  | 43.0   | 32.1   | 20.4    | 1-1/2" | 1"     |
| XGN2-174HS | 140.3   | 78.1  | 68.6  | 51.0  | 44.9   | 33.5   | 21.3    | 2"     | 1-1/2" |
| XGN2-191HS | 153.7   | 85.5  | 75.1  | 55.8  | 49.2   | 36.7   | 23.3    | 2"     | 1-1/2" |
| XGN2-212HS | 171.0   | 95.1  | 83.6  | 62.1  | 54.7   | 40.9   | 25.9    | 2"     | 1-1/2" |
| XGN2-232HS | 188.2   | 104.7 | 92.0  | 68.4  | 60.2   | 45.0   | 28.6    | 2"     | 1-1/2" |
| XGN2-259HS | 209.3   | 116.4 | 102.3 | 76.0  | 66.9   | 50.0   | 31.8    | 2"     | 1-1/2" |
| XGN2-285HS | 229.8   | 127.9 | 112.4 | 83.5  | 73.5   | 54.9   | 34.9    | 2"     | 1-1/2" |
| XGN2-315HS | 255.0   | 141.9 | 124.7 | 92.6  | 81.6   | 60.9   | 38.7    | 2"     | 1-1/2" |
| XGN2-347HS | 280.2   | 155.9 | 137.0 | 101.7 | 89.6   | 67.0   | 42.5    | 2"     | 1-1/2" |

XGN2 outlet pressure will typically be 25 psig lower, so 85 psig outlet N<sub>2</sub> pressure for the conditions in the table.



## GARDNER DENVER NITROGEN GENERATOR WEIGHTS & DIMENSIONS

| MODEL      | DIMENSIONS<br>(L × W × H) |                    | WEIGHT |      |
|------------|---------------------------|--------------------|--------|------|
|            | IN                        | MM                 | LB     | KG   |
| XGN2-15LS  | 35 × 26 × 80              | 889 × 661 × 2032   | 702    | 319  |
| XGN2-21LS  | 35 × 26 × 80              | 889 × 661 × 2032   | 738    | 335  |
| XGN2-26LS  | 35 × 26 × 100             | 889 × 661 × 2540   | 866    | 393  |
| XGN2-32LS  | 35 × 26 × 100             | 889 × 661 × 2540   | 998    | 453  |
| XGN2-41LS  | 35 × 30 × 80              | 889 × 762 × 2032   | 1060   | 481  |
| XGN2-47LS  | 35 × 30 × 80              | 889 × 762 × 2032   | 1194   | 542  |
| XGN2-59LS  | 35 × 30 × 80              | 889 × 762 × 2032   | 1292   | 587  |
| XGN2-68LS  | 35 × 30 × 91              | 889 × 762 × 2312   | 1443   | 655  |
| XGN2-76LS  | 35 × 37 × 85              | 889 × 940 × 2159   | 1500   | 681  |
| XGN2-88LS  | 35 × 37 × 96              | 889 × 940 × 2439   | 1630   | 740  |
| XGN2-100LS | 35 × 39 × 85              | 889 × 991 × 2159   | 1850   | 840  |
| XGN2-118LS | 35 × 39 × 99              | 889 × 991 × 2515   | 2025   | 919  |
| XGN2-132HS | 64 × 34 × 116             | 1626 × 864 × 2947  | 3450   | 1565 |
| XGN2-144HS | 64 × 34 × 124             | 1626 × 864 × 3150  | 3610   | 1638 |
| XGN2-159HS | 64 × 34 × 134             | 1626 × 864 × 3404  | 3810   | 1729 |
| XGN2-174HS | 76 × 48 × 110             | 1931 × 1220 × 2794 | 4330   | 1965 |
| XGN2-191HS | 76 × 48 × 110             | 1931 × 1220 × 2794 | 4520   | 2051 |
| XGN2-212HS | 76 × 48 × 126             | 1931 × 1220 × 3201 | 4750   | 2155 |
| XGN2-232HS | 76 × 48 × 135             | 1931 × 1220 × 3429 | 4990   | 2264 |
| XGN2-259HS | 76 × 48 × 146             | 1931 × 1220 × 3709 | 5280   | 2395 |
| XGN2-285HS | 76 × 48 × 119             | 1931 × 1220 × 3023 | 6120   | 2776 |
| XGN2-315HS | 76 × 48 × 128             | 1931 × 1220 × 3252 | 6430   | 2917 |
| XGN2-347HS | 76 × 48 × 137             | 1931 × 1220 × 3480 | 6760   | 3067 |

### Did You Know?

The earth's atmosphere is composed of 78% nitrogen, making it the most readily available and economical inert gases. It is used to avoid combustion, corrosion and product spoilage. Many industries rely on nitrogen for their manufacturing processes, including food and beverage, electronics, petrochemicals, pharmaceutical and metal operations.

Gardner Denver offers a complete line of nitrogen generation solutions that allow you to forgo traditional nitrogen delivery, reduce operating expenses and simplify your operations.

The leader in every market we serve  
by continuously improving all business processes  
with a focus on innovation and velocity

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GA-XGN2 1st Ed. 2/22

