2ND GENERATION

Nitrogen Generator System

COST EFFECTIVE SOLUTION FOR TRANSFORMER OIL PRESERVATION

The patented Waukesha® Nitrogen Generator was designed for use on transformer main tanks, tap changers, breakers and any other electrical device requiring a nitrogen gas-blanketed enclosure. This robust system offers a controlled environment to ensure consistent nitrogen purity and supplies compressed nitrogen gas at a much lower psi than traditional bottle pressures to significantly reduce the possibility of system leaks. In addition, pressure gauges are easily viewed through a large portal in the front door.

CLIMATE CONTROL ENSURES >99% NITROGEN PURITY

System's climate control module maintains a constant temperature inside the cabinet to provide the ideal environment for producing nitrogen of the highest purity.

Climate Control Assembly Box is located on the outside of the cabinet.

POSITIVE PRESSURE SYSTEM

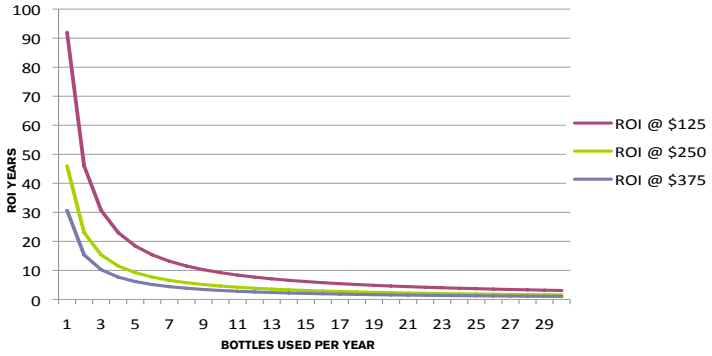
The Waukesha® nitrogen generator system features a positive pressure nitrogen gas regulation system that maintains transformer tank pressure between 0.2 and 2.0 psi to protect transformer oil from oxidation and moisture absorption.

ALARMS FOR EXTERNAL SYSTEM MONITORING

Four non-powered alarm contacts are included to monitor the condition of the nitrogen generator system externally: low gas space pressure (lower than 0.2 psi), high gas space pressure (exceeding 5.5 psi), low nitrogen storage tank pressure (lower than 50 psi) and generator temperature alarm (internal air space rises above 105°F or falls below 40°F).

RETURN ON INVESTMENT

Based on $125, $250 and $375 cost per bottle change:



Inside view of Waukesha® 2nd Generation Nitrogen Generator System

QUICK AND EASY TO INSTALL

The Nitrogen Generator System is housed in a lockable enclosure the same size as an industry standard nitrogen bottle cabinet. The nitrogen gas line exiting the enclosure is also in a standard location, making installation easy—especially in retrofit applications.

For service convenience, return gas line and high flow regulator valves are included to easily and quickly purge transformer gas space while technician stands at the nitrogen generator cabinet.

IMPROVED SAFETY

- No lifting of heavy nitrogen bottles
- Eliminates the risk associated with transporting nitrogen bottles

LOWER MAINTENANCE COSTS

- Eliminates the need to replace nitrogen bottles
- Eliminates cost of handling and changing bottles

Build Your Own Part Number Using Configuration Below

N2GEN- XXX

CABINET TYPE

STANDARD CABINET 12 AWG STEEL (NO BOTTLE) 1030-1236	1
STANDARD CABINET STAINLESS STEEL (NO BOTTLE) 1030-1523	2
WIDE CABINET 12 AWG STEEL (SINGLE BOTTLE) 1030-1312	3
WIDE CABINET STAINLESS STEEL (SINGLE BOTTLE) 1030-1575	4

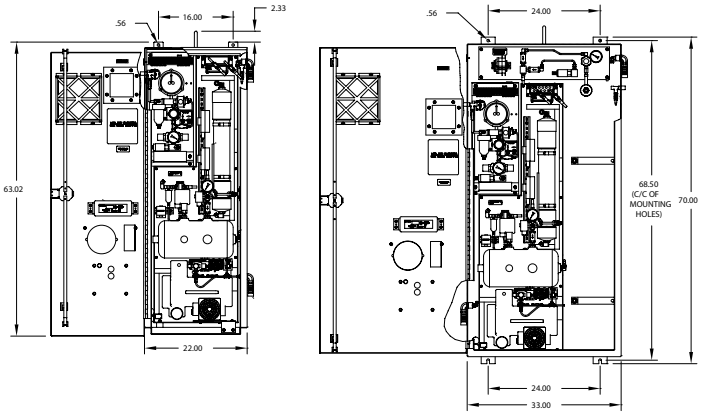
CABINET COLOR

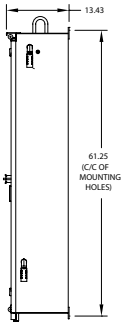
0	STANDARD (5mil) ANSI 70 GREY
1	NO PAINT -APPLIES TO SS CAB. ONLY

OPTION 1

0	NONE

NOTE:
This equipment includes a standard SPX Transformer Solutions' nitrogen regulation panel integrated into the nitrogen generator assembly.





PERFORMANCE SPECIFICATIONS

- Nitrogen Supply: 120 psi (instead of traditional 3000 psi bottle pressure)
- Purity of Delivered Nitrogen: 99.0% to 99.5%
- Dew Point of Delivered Nitrogen: < –40°C
- Flow Rate: 1.0 SLPM Continuous; 5.0 SLPM Purge
- Final Output Pressure: 0.2 to 2.0 psi
- Storage Capacity: 3 U.S. gallons at 120 psi

CAUTION: The nitrogen generator is designed to provide the equivalent volume of nitrogen as a standard nitrogen system consuming the standard 225 ft3 bottle every 4 days or more. Operating the equipment beyond the rated 1 l/m continuous will result in damage to the unit and void the manufacturer's warranty, i.e. multiple transformer application or leaking transformer with a consumption of greater than 1 l/m. The internal compressor is rated to operate in a maximum ambient temperature of 104°F. To ensure maximum service life, a conservator circuit has been implemented to protect the N2 generator and internal compressor. *If the application requires more nitrogen volume, consult the factory for a specialized unit.*

MOUNTING SPECIFICATIONS

Location: Indoor/Outdoor, Wall-Mounted

AMBIENT OPERATING CONDITION SPECIFICATIONS

- Temperature Range: – 40° to + 40°C
- Relative Humidity: 100%
- Altitude: 0–6000 ft
- Air Quality: Normally Clean Ambient Air

ELECTRICAL SPECIFICATIONS

- Voltage/Frequency: 120 VAC, 60 Hz
- Power Consumption*: 1–19 Amps (depending on ambient conditions)
- Alarm Contacts: Normally Open, 1 Amp 120 VAC

* Typical Operation: Fan Only – 1 amp; Heaters (low ambients) –10 amps; AC (high ambients) – 5 amps; Compressor Run (5 minutes) – 9 amps

CONDENSER ASSEMBLY: Cools compressor air for easy moisture removal.

SCADA OUTPUTS: Included terminals monitor low/high transformer pressure, low storage tank pressure and control system temperature alarm. Each of these points is brought out to SCADA contacts.

NITROGEN MEMBRANE: Provides up to 99.5% pure nitrogen with –40°C dew point.

PRESSURE REGULATOR PANEL: Helps maintain low supply pressure of 120 psi to prevent leak problems prevalent with traditional high-pressure nitrogen bottles.

CLIMATE CONTROL MODULE: Regulates system temperature for optimum nitrogen purity.

COALESCING FILTER ASSEMBLY: Protects hollow fiber nitrogen membrane from particle contamination.

NITROGEN STORAGE TANK: Provides 3 gallons of reserve nitrogen for use in the event of a power failure.

AIR COMPRESSOR: Offers high reliability and low maintenance.

CONVECTION HEATERS: Multiple heaters provide even heat distribution.

Contact us for additional information or quotation on our extensive range of products and services:

CALL **800-338-5526**

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