

# GENERON® NITROGEN PSA SYSTEM

## TWIN TOWER Series: NS-16-75



### Typical Applications

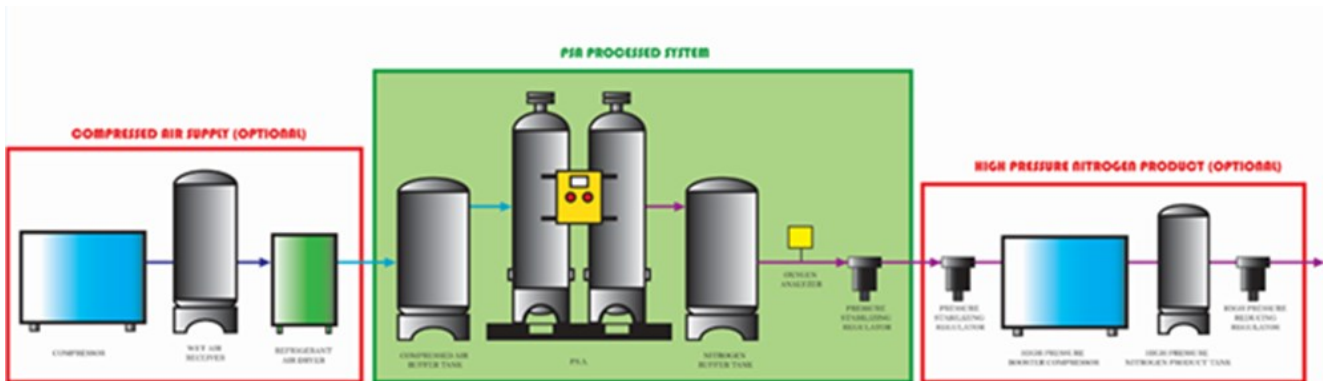
- Gas Assisted Injection Molding (GAIM)
- Heat Treatment of Ferrous & Non-Ferrous Metals
- Inerting of Flammable Liquids & Gases
- Food Packaging
- Laser / Plasma Cutting
- Re-flow and Wave Soldering of PCBs
- Brazing
- Blanketing of Chemical & Pharmaceuticals
- Auto Clave

### Advantages of GENERON® PSA

- Low Operating Pressures
- No Hazardous Storage or Connections
- Low Gas Generating costs
- Low Operating Cost
- Fully Automatic Unattended Operation
- 2 Million plus cycle valves
- Easy to Install and Maintain
- Low dBA levels
- Easily Boosted to High pressure

Continuing to be the leader in innovative system designs, GENERON offers a Compact PSA System. This new design was developed to bridge the gap between the GENERON® Twin Tower PSA designs and the expandable Bank PSA Series. Utilizing its years of experience and extensive technology in nitrogen generators, this concept allows for small single or multiple bed PSA's to be installed on a common base, for portability and ease of installation. The design allows for lower-flow and higher-purity applications, and requires less space than the conventional Twin Tower PSA's.

Using the highest efficiency CMS on the market to date, the overall system size has been reduced and will utilize less incoming air than conventional PSA's on the market. The air receiver and nitrogen receiver can be installed on same common base, which minimizes installation time, resulting in faster Nitrogen purity, once delivered and turned on.



PRESSURE SWING ADSORBERS (P.S.A.)

# NITROGEN TWIN TOWER PSA SYSTEM

## Series: NS-16-75

| Inlet Pressures |      | Nitrogen Purity / Flow Rate |                    |      |                    |       |                    |        |                    |
|-----------------|------|-----------------------------|--------------------|------|--------------------|-------|--------------------|--------|--------------------|
| psig            | barg | 99                          |                    | 99.9 |                    | 99.99 |                    | 99.999 |                    |
|                 |      | scfm                        | Nm <sup>3</sup> /h | scfm | Nm <sup>3</sup> /h | scfm  | Nm <sup>3</sup> /h | scfm   | Nm <sup>3</sup> /h |
| 90              | 6.2  | 45.9                        | 72.7               | 26.4 | 41.8               | 17.8  | 28.2               | 9.4    | 14.9               |
| 109             | 7.5  | 56.3                        | 89.2               | 30.8 | 48.8               | 18.8  | 29.8               | 8.6    | 13.5               |
| 125             | 8.6  | 65.0                        | 103.0              | 34.5 | 54.7               | 19.7  | 31.2               | 7.9    | 0.5                |
| 145             | 10   | 75.3                        | 119.2              | 39.2 | 62.1               | 21.3  | 33.8               | 7.7    | 12.2               |

\* The nominal rating of the generators are at 68°F; 0% RH and at 14.5 Psia. Flow and pressure values are averages throughout a cycle with tolerances of ±4%.



| Approximate Weight and Dimensions |     |    |    |        |
|-----------------------------------|-----|----|----|--------|
| Standard                          | H   | W  | L  | Weight |
| US-in / lbs                       | 103 | 46 | 48 | 2,630  |

### Standard Components

- ASME Adsorber Vessels
- Pneumatic / Electric Valves (Two million cycle life)
- Piping, Gauges, and Instrumentation
- Safety Valve
- Nitrogen Pressure and Flow Regulators
- PLC Control System (Allen Bradley)
- Steel wrap around skid mounted
- Exhaust Silencing Muffler
- Sound Level < 90 dB(A)

### Options

- Oxygen Analyzer (with Calibration kit)
- Product Flow Meter
- Inlet Filtration Package
- Post Filtration Package
- Auto Shut Down/Startup mode (with manual bypass valve capability)
- Auto Standby mode
- Off Specification Circuit
- HMI Display Screen: Displays Inlet pressure, outlet pressure, system run status, O<sub>2</sub>

### Special Options

- Master Controller: PLC (Allen Bradley) Driven for multiple unit operation
- Enhanced PLC with Telemetry
- Enhanced HMI: Monitor Package (Displays Feed Air, Nitrogen Product Pressures, Oxygen Concentration, and Product Flow )
- Compressed Air Buffer Tank
- Nitrogen Buffer Tank
- Product Booster Compressor
- Dew Point Analyzer
- Tanks & Generator on a common skid
- Custom Engineered packages

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