

# NITROGEN TWIN TOWER PSA SYSTEM

**Series: NS-4-48** 



### 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

Blanketing of Chemical & Pharmaceuticals

Auto Clave

## Advantages of GENERON® PSA

Low Operating PressuresNo Hazardous Storage or ConnectionsLow Gas Generating costs

Low Operating Cost Fully Automatic Unattended Operation

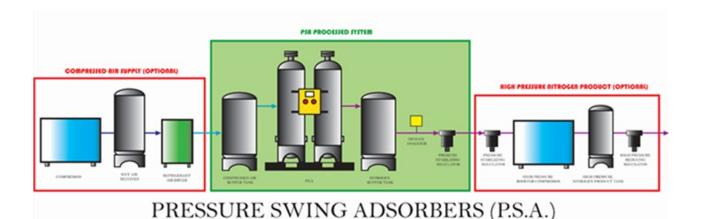
2 Million plus cycle valves Easy to Install and Maintain

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.



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| Inlet Pressures |      | Nitrogen Purity / Flow Rate |       |      |       |       |       |        |       |  |  |
|-----------------|------|-----------------------------|-------|------|-------|-------|-------|--------|-------|--|--|
| psig            | barg | 99                          |       | 99.9 |       | 99.99 |       | 99.999 |       |  |  |
|                 |      | scfm                        | Nm³/h | scfm | Nm³/h | scfm  | Nm³/h | scfm   | Nm³/h |  |  |
| 90              | 6.2  | 2.0                         | 3.2   | 1.2  | 1.8   | 0.8   | 1.2   | 0.4    | 0.7   |  |  |
| 109             | 7.5  | 2.5                         | 3.9   | 1.4  | 2.1   | 0.8   | 1.3   | 0.4    | 0.6   |  |  |
| 125             | 8.6  | 2.9                         | 4.5   | 1.5  | 2.4   | 0.9   | 1.4   | 0.3    | 0.5   |  |  |
| 145             | 10   | 3.3                         | 5.3   | 1.7  | 2.7   | 0.9   | 1.5   | 0.3    | 0.5   |  |  |

<sup>\*</sup> 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                          | Н  | H W |    | Weight |  |  |  |  |
| US-in / lbs                       | 72 | 36  | 28 | 490    |  |  |  |  |

#### **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

#### **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: Disp[lays Inlet pressure, outlet pressure, system run status. O2 concetraion
- CFV Activated Carbon Filter Vessel

#### **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
- Custom Engineered packages

### **GENERON**

16250 Tomball Parkway Houston, Texas 77086 O +1 713 937 5200

F +1 713 932 5250 www.generon.com



