



# Heat-Treating Industry

## NITROGEN GENERATORS

***Generating Nitrogen on-demand:  
A safer, smarter and cost-effective solution***



## ***The South-Tek Difference*** ***Innovative technology engineered for optimum performance***

South-Tek's nitrogen generators benefit the Heat-Treating industry when continuous flow of either pure N<sub>2</sub> or N<sub>2</sub> as a component is needed in a process such as blanketing, nitrogen purging, or carrier gas.

Our nitrogen generators provide a fast, favorable ROI, and, when comparing the cost of generating nitrogen to buying liquid nitrogen in bulk, South-Tek's clients on average realize up to a 50-90% savings.

Since 1997, South-Tek has designed, developed and manufactured best-in-class nitrogen generation technology. Based in the U.S.A., we have installed over 12,000 systems in both privately held businesses and Fortune 500 companies - all looking to drive cost savings and efficiency. With over two decades of experience delivering reliable generators and providing superior customer service, South-Tek has earned a reputation as ***the nitrogen expert.***

Engineered-to-order Solutions Offer:

- Continuous nitrogen on-demand
- 95-99.999% nitrogen purities
- A wide range of flow rates up to 35,000+ SCFH





# The South-Tek Difference

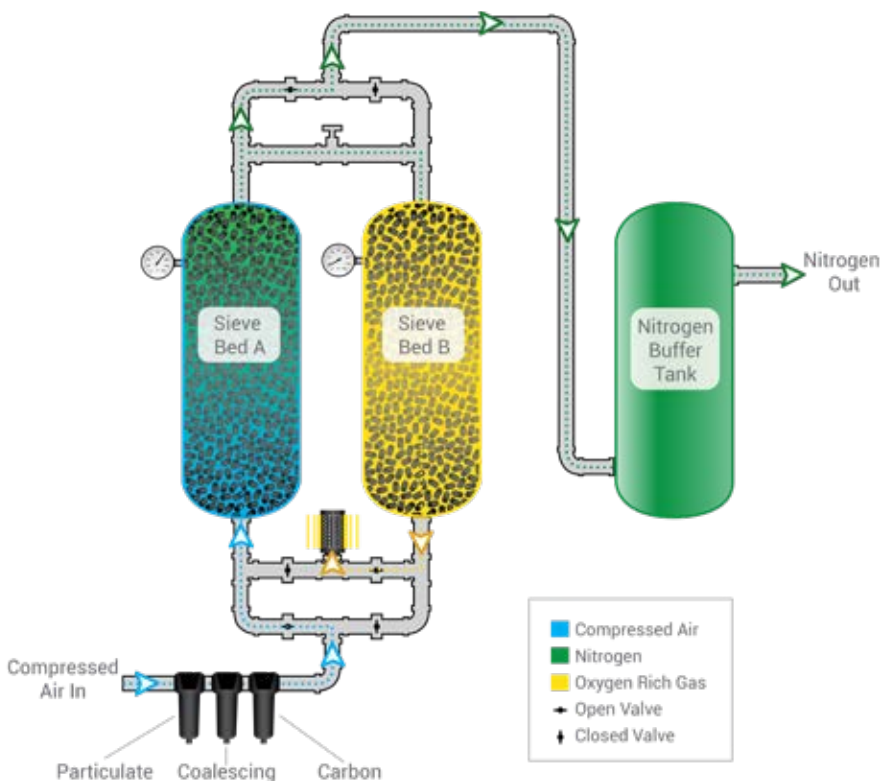
Innovative technology engineered for optimum performance

## Dual-Bed, PSA Technology

South Tek's nitrogen generators use dual-bed, PSA technology. The PSA (Pressure Swing Adsorption) filtration delivers 99.99% pure nitrogen while the dual-bed design allows for maximum efficiency and minimal maintenance. Combined, the dual-bed design and PSA technology are a powerful solution with a 20+ year system life\*.

South-Tek has over two-decades of history solely focused on nitrogen generation. We've been around, and *will be around* (for the life of your system).

## PSA - How it Works



- 1 Compressed air is filtered, removing oil, water, dirt and other impurities
- 2 Sieve Bed A acts as a sponge, using carbon molecular sieve to adsorb oxygen
- 3 Simultaneously, Sieve Bed B is in recovery, oxygen rich off-gas is exhausted into the atmosphere. After a period of time, the process will switch.
- 4 Specified purity nitrogen is discharged into the nitrogen buffer tank, ensuring a steady downstream supply and uninterrupted N<sub>2</sub> usage.

## Smart-Trak

A powerful software/user interface, Smart-Trak offers unprecedented control and testing capabilities for the end user.

Smart-Trak allows you to access information such as equipment runtime, time in air bypass mode, current system status, and maintenance reminders. Remotely monitor and manage your nitrogen generator from any mobile device.



"We ensure purity levels with in-house testing using Oxygen analyzers that have accuracies of  $\pm 2$  PPM (parts per million) – many clients require additional 3rd party verification using very precise chromatography machines which corroborate our factory results and the ability of our generators to achieve purities better than 10 PPM O<sub>2</sub> for years in the field."

– Russ Banks  
Director of Engineering

## Cost Comparison

### On-Going, Contracted Purchase



**High Pressure Bottles**  
Up to \$25.00+ / CCF



**Liquid Dewar**  
Up to \$5.50+ / CCF



**Liquid Bulk Tank**  
Up to \$1.00+ / CCF

### One-Time, Capital Expense



**STS Nitrogen Generator**  
As low as  
\$0.10 / CCF

**LEASE OR PURCHASE OPTIONS - REQUEST A QUOTE TODAY**  
Contact: [industrialsales@SouthTekSystems.com](mailto:industrialsales@SouthTekSystems.com) | (888) 526-6284

