

LABTEK™

GENERATION TECHNOLOGY: NITROGEN | HYDROGEN | ZERO AIR





LABTEK™

LABTEK, a division of South-Tek Systems, designs and manufactures generation systems specifically for laboratory applications. With over two decades of experience engineering best-in-class nitrogen generation technology we have expanded our product line to include hydrogen and zero air generators and MASS spec tables/benches.

LABTEK nitrogen generators deliver up to 99.99% pure nitrogen on-demand for laboratory applications such as Liquid Chromatography – Mass Spectrometry, Glove Boxes, and Evaporators. Our robust product line features exceptionally quiet compact design options, PSA (Pressure Swing Adsorption) or membrane filtration, and Smart-Trak remote monitoring and management capabilities.

Known for delivering reliable generators and providing superior customer service, we have over 12,000 installations in both privately held businesses and Fortune 500 companies - all looking to drive cost savings, efficiency and take control of their nitrogen.



Control your supply chain



High-purity nitrogen on-demand



Exceptionally quiet, compact designs

LABTEK Nitrogen Generators

A Safer, Smarter and Cost-Effective Solution

Producing on-demand, high-purity nitrogen for laboratory applications such as Liquid Chromatography – Mass Spectrometry, Glove Boxes, and Evaporators.

N₂35, N₂70, N₂30 Dual, N₂90 & Tri-Gas

- Generate nitrogen on demand
- Designed for continuous use
- Dual-bed pressure swing adsorption (PSA) technology
- Compact, exceptionally quiet design
- Touchscreen control displays status and maintenance alerts
- Remote monitoring and management capabilities
- UL 508A ICP listed



CPi & CPx

- Generate nitrogen on demand
- Designed for continuous use
- Dual-bed, PSA technology delivers up to 99.999% pure nitrogen (flow rate dependent)
- Exceptionally quiet
- Touchscreen control displays status and maintenance alerts; remote monitoring capabilities
- UL 508A ICP listed



N₂100 & N₂220

These units use existing compressed air, purify it and supply high-purity LCMS grade nitrogen without taking up valuable lab space or consuming additional electrical resources.

- Generate nitrogen on-demand
- Designed for continuous use
- Exceptionally quiet, compact design
- Wall-mount standard, floor mounting optional
- No electrical required
- Fully automatic
- Simple plug-and-play design

Consolidate and Streamline Your Nitrogen Generation Solution

LABTEK offers high-capacity, continuous flow nitrogen generators engineered to serve multiple systems and meet the exact purity and flow rate requirements with one generator.

Our high-capacity generators with PSA filtration technology are designed to produce a wide range of flow rates at nitrogen purities up to 99.999%. All units are custom designed and can be packaged with a dedicated air compressor, dryer and/or booster if needed for a complete turnkey solution.



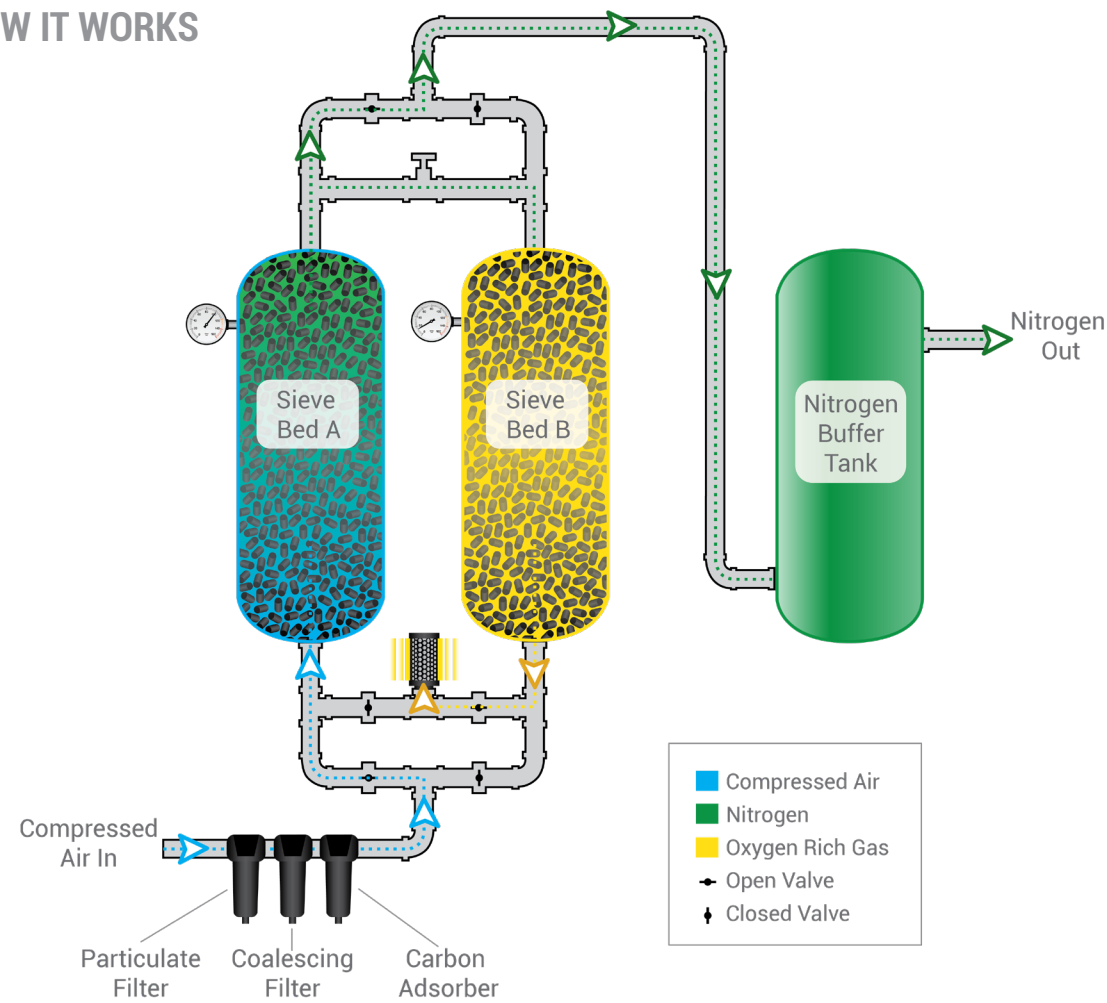
LABTEK Nitrogen Generators

Innovative technology engineered for optimum performance

DUAL-BED, PSA TECHNOLOGY

South Tek's nitrogen generators use dual-bed, PSA technology. The PSA 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 (dependent on system maintenance and run time).

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 N₂ usage.

"We ensure purity levels with in-house testing using Oxygen analyzers that have accuracies of ±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 O₂ for years in the field."

– Russ Banks, Director of Engineering

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.



TRADE-IN PROGRAM

- Replace your current, unreliable nitrogen generator
- Upgrade to a state-of-the-art dependable LABTEK N₂ generator
- Receive a huge trade-in credit



RENTAL PROGRAM

- Rental and lease options available
- Benefit of a fast ROI whether you rent, lease or purchase



TEK-ADVANTAGE SERVICE PROGRAM

- Best-in-class, hassle-free service
- Virtual or onsite troubleshooting
- Certified South-Tek Technicians
- If the issue cannot be addressed, we ship out a replacement generator within two business days

Hydrogen Generators

Economical alternative to high-pressure gas cylinders.

The **High-Purity H₂ Series** produces continuous, onsite supply for small volume requirements.

- Purity of +99.99996% (7.0)
- Designed to replace helium or nitrogen as a carrier gas
- No caustic solutions or cell maintenance
- Designed with safety and convenience in mind

The **FID Grade H₂ Series** cascading design allows for multiple generators in parallel.

- Purity of 99.9996%
- Unique drying membrane - no desiccant cartridges required
- Unique 100% titanium electrolytic cell
- Minimal maintenance

Purity needed for a variety of lab applications, including:

- Flame ionization detector (FID)
- Collisions on ICP-MS
- Small fuel-cell cylinder refills
- Carrier gas for GC and GC-MS
- Fast GC
- NPD / TCD
- Reagent gas for ELCD / HALL



Technology engineered for optimum performance.

Hydrogen is produced using distilled or deionized water from hydrolysis, through a polymer membrane. Electrolytic dissociation separates the water into its two main components: hydrogen ready for analytical use, and oxygen that is released into the air.

No acid no alkaline solutions are used in the hydrogen generation cycle.

The exclusive cascading option allows up to 32 units to be connected in series, producing flow-rates of 20-32 litres also via Intranet.

Combination Generators

Producing high-purity hydrogen & zero air.

Our **Hydrogen & Zero Air Station and Tower Series** conveniently produce hydrogen and zero air from one, compact generator available in horizontal or vertical options to fit your lab space.

- H₂ flow rate from 100 to 1000 ml/min
- H₂ purity options 99.9996% or 99.99996%
- H₂ pressure up to 11 bar (160 psig)
- Zero Air flow rates 1.8 or 5 lpm
- Zero Air purity .1 PPM of THC
- Minimal maintenance
- H₂ and Zero Air in a single solution



H₂ & Zero Air Station Series flat design allows for placement under a GC.

At only 17 cm high, the Station design provides the best access to injectors of any GC in the market.



H₂ & Zero Air Tower Series compact narrow design conserves bench space.

Zero Air Generator

Ergonomic, compact and silent design.

The **Zero Air** generator produces dry and hydrocarbon-free air, using air from oil-free compressors.

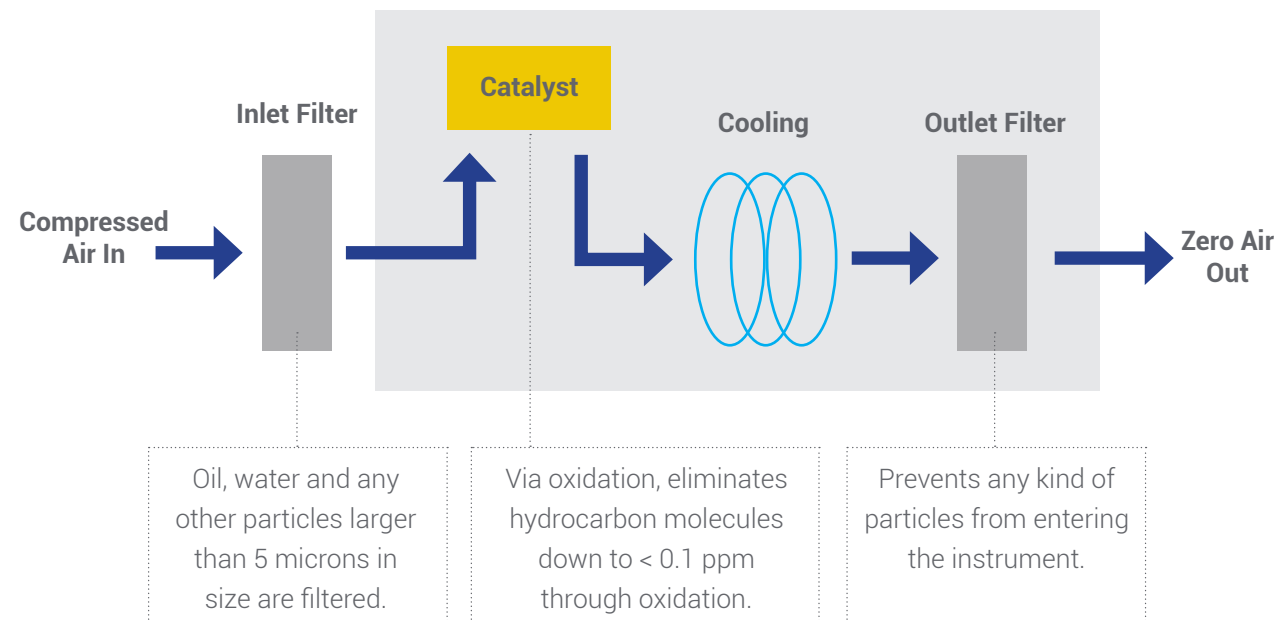
- Easy installation for almost immediate air at the correct grade, simply connect a suitable oil free compressor (optional).
- Improves lab safety by removing the need for bottles and expensive air distribution pipelines.
- Allows for efficient, continuous, 24-hour a day lab operations without dead times for gas bottle changeover or the need for tedious instrument recalibration.

Purity needed for a variety of lab applications, including:

- GC-FID
- GC-NPD
- GC-FPD
- GC-PFPD
- THA
- TOC



Technology engineered for optimum performance:



LABTEK MASS Spec Tables & Benches

DESIGNED FOR LCMS OR GC NEEDS

LABTEK also offers sturdy MASS spec tables and benches which complement the sleek generator design with the smaller N₂35 generator easily rolling underneath. 96" table and 52" benches are available and currently in stock at our Wilmington, NC warehouse.



- Black, powder-coated steel frame
- Black, chemical-resistant phenolic top
- Sturdy frame design prevents any sagging or warping from the weight of instruments
- Large industrial casters allow you to move the table to any location with ease
- Sound-dampening enclosure for vacuum pump
- Temperature control sensor shuts fans off when pumps are no longer in use
- Shipped in pieces or prebuilt for your convenience



LABTEK™



ROBUST, LAB-SPECIFIC PRODUCT LINE

- Nitrogen Generators
- Hydrogen Generators
- Zero Air Generators
- UPS
- Mass Spec Tables & Benches

TRADE-IN-PROGRAM

Frustrated with an unreliable nitrogen generator that constantly needs service? Trade-in your old system and upgrade to a LABTEK nitrogen generator.

WARRANTY

All systems come with a standard 1 year warranty per South-Tek Systems terms and conditions

LEASE OR PURCHASE

Options available

CONTACT: Email lab@southteksystems.com or call 888-526-6284

