

VICI | DBS®

www.vicidbs.com

ANALYTICAL GAS GENERATORS

INNOVATIVE SOLUTIONS
FOR YOUR LAB



CONTACT US



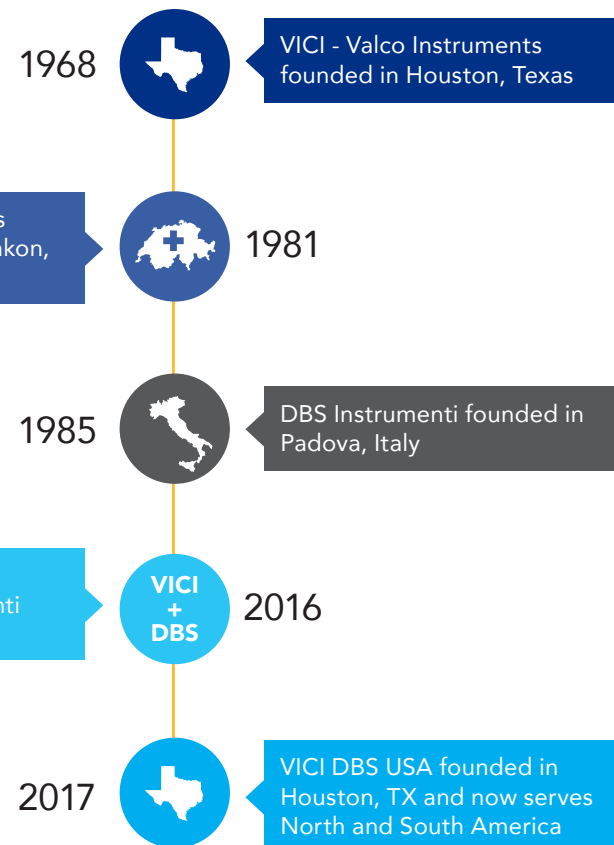
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SERVING YOU SINCE 1968





PG PLUS SERIES HYDROGEN GENERATOR



IDEAL FOR ALL GC DETECTOR APPLICATIONS

VICI DBS hydrogen generators offer a safe, economical and convenient alternative to gas cylinders. The PG Plus Series provides superior performance with proprietary electrolytic cell technology combined with high quality components and a unique hydrogen drying technology. Ideal for use with gas chromatography detectors such as FID, NPD, and FPD.



FEATURES

- On-demand supply 24/7
- Flow rate: 100 to 600 mL/min
- Purity: +99.9996%
- Pressure: 11 barg (160 psig)
- Proprietary 100% titanium cell technology
- Unique permeation membrane drying system
- 2-year complete product warranty
- PC Monitoring
- Cascading



APPLICATIONS

- GC
- Analyzers
- Hydrogenation reactors
- Hydrogen fuel cells

NM PLUS SERIES HYDROGEN GENERATOR



IDEAL FOR ALL GC & GC/MS CARRIER GAS AND DETECTOR GAS APPLICATIONS

The NM Plus Series hydrogen generators enhance the high performance of the PG Plus with the addition of a unique no maintenance purification system. This results in ultra high purity carrier grade gas. The intuitive software control and safety alarm capability maximize the benefits of using hydrogen carrier gas while minimizing the safety concerns.



FEATURES

- On-demand supply 24/7
- Flow rate: 100 to 1350 mL/min
- Purity: +99.99996%
- Pressure: 11 barg (160 psig)
- Proprietary 100% titanium cell technology
- Unique cold dual dynamic regeneration system
- 2-year complete product warranty
- PC Monitoring
- Cascading



APPLICATIONS

- GC
- Analyzers
- Spectroscopy
- Other applications: CVD, UCP, high efficiency process gas, weather balloon filling, eNOSE, and 3-D chromatography



FID GAS STATION

HYDROGEN + ZERO AIR



FEATURES

- On-demand supply 24/7
- Flow rate: 100 to 1350 mL/min
- Purity: +99.99996%
- Pressure: 11 barg (160 psig)
- Zero air flow rates 1.8 or 5 L/min
- Zero air purity <0.1 ppm
- H2 and Zero Air in a single compact package
- 2-year complete product warranty
- PC Monitoring
- Cascading



APPLICATIONS

- GCs
- Analyzers
- Hydrogenation reactors
- hydrogen fuel cells

▶ WHAT IS CASCADING?

Cascading is the ability to install several hydrogen generators in parallel resulting in:

- Higher flow rates up to 10 lpm
- Automatic flow compensation in the event of unplanned down-time
- Continuous operation for critical applications

Never run out of high purity hydrogen again!

FID GAS TOWER

HYDROGEN + ZERO AIR



IDEAL FOR ALL GC DETECTORS AND CARRIER GAS APPLICATIONS

This clever instrument combines the reliability of our hydrogen and zero air generators into one compact and convenient package. Available in both high purity PG Plus and ultra high purity NM Plus configurations, the FID station can be ordered in either of two different styles – flat for placement under a GC, or the FID tower to conserve bench space. Available in a variety of H2 flow ranges up to 1 L/min and zero air flow rates up to 5 L/min.



APPLICATIONS

- GC
- Analyzers
- Spectroscopy
- Other applications: CVD, UCP, high efficiency process gas, weather balloon filling, eNOSE, 2-D & 3-D chromatography, hydrogenation reactors, hydrogen fuel cells





NM & PG PLUS RACK HYDROGEN + ZERO AIR

HP PLUS NITROGEN GENERATORS



FEATURES

- 19" for rack mounting
- On-demand supply 24/7
- Flow rate: 100 to 1350 mL/min
- Purity: +99.9996% or +99.99996%
- Pressure: 11 barg (160 psig)
- Zero air flow rates 1.8 or 5 L/min
- Zero air purity <0.1 ppm
- H2 and Zero Air in a single compact package
- 2-year complete product warranty

FOR CONTINUOUS EMISSION AND AIR MONITORING APPLICATIONS

The same features found in our laboratory gas generators are now available in industry standard 19" rack mount format – top quality, ultra safe, reliable, and economical hydrogen generation in a convenient and compact package.



FEATURES

- On-demand supply 24/7
- Flow rate: 200 to 4000 mL/min
- Purity: +99.999%
- Pressure: 5 barg (75 psig)
- Space saving design
- Optional hydrocarbon removal for GC applications
- Ideal for GC carrier gas including ECD, make up gas, TOC, DSC, and ELSD applications
- 2-year complete product warranty

FOR GAS CHROMATOGRAPHY AND ANALYTICAL INSTRUMENT APPLICATIONS

VICI DBS nitrogen generators are engineered to transform standard compressed air into a safe regulated supply of Ultra High Purity nitrogen. Utilizing a superior quality carbon molecular sieve (CMS) and innovative column switching, the nitrogen generators require minimal maintenance and operator attention.



APPLICATIONS

- Analyzers
- On-board gas supply for mobile laboratories



APPLICATIONS

- GC-FID carrier & make up gas
- ECD
- ELSD
- TGA & DSC
- Incubators



MISTRAL EVOLUTION NITROGEN GENERATOR



FOR LC/MS/MS AND ELSD APPLICATIONS

The Mistral Evolution and Mistral Evolution Hybrid have been specifically designed to meet the flow, pressure and purity requirements of all the leading LC/MS instrument manufactures. Nitrogen is produced by either carbon molecular sieve (CMS) or hollow fiber membrane technology, depending on the exact user requirements. Generators are also available with integral compressors, providing a complete “plug and play” solution.



FEATURES

- On-demand supply 24/7
- Flow rate: 10 to 120 L/min
- LC/MS grade hydrocarbon free nitrogen
- Pressure: 8 barg (116 psig)
- Oil free, low noise compressor options
- Specialist hybrid air and nitrogen options for Agilent Microwave Plasma and Sciex LC/MS/MS
- 2-year complete product warranty



APPLICATIONS

- LC/MS instruments
- Spectroscopy
- Analyzers
- Other applications

WHISPER NITROGEN GENERATOR



FOR LC/MS/MS AND ELSD APPLICATIONS

The Whisper Nitrogen Generators has been specifically designed to meet the flow, pressure and purity requirements of all the leading LC/MS instrument manufactures. Nitrogen is produced by either carbon molecular sieve (CMS) or hollow fiber membrane technology, depending on the exact user requirements. Generators are also available with integral compressors, providing a complete “plug and play” solution.



FEATURES

- On-demand supply 24/7
- Flow rate: 40 to 120 L/min
- LC/MS grade hydrocarbon free nitrogen
- Pressure: 8 barg (116 psig)
- Oil free, low noise compressor options
- Specialist hybrid air and nitrogen options for Agilent Microwave Plasma and Sciex LC/MS/MS
- 2-year complete product warranty

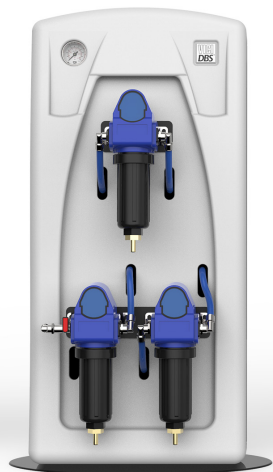


APPLICATIONS

- LC/MS instruments
- Spectroscopy
- Analyzers
- Other applications



MINI WHISPER NITROGEN GENERATOR



FOR LC/MS/MS AND ELSD APPLICATIONS

The Mini Whisper Nitrogen Generator has been specifically designed to meet the flow, pressure and purity requirements of all the leading LC/MS instrument manufactures. Nitrogen is produced by either carbon molecular sieve (CMS) or hollow fiber membrane technology, depending on the exact user requirements. Generators are also available with integral compressors, providing a complete "plug and play" solution.



FEATURES

- On-demand supply 24/7
- Flow rate: 10 L/min
- LC/MS grade hydrocarbon free nitrogen
- Pressure: 8 barg (116 psig)
- Oil free, low noise compressor options
- 2-year complete product warranty



APPLICATIONS

- ELSD, LC/MS & sample preparation
- Spectroscopy
- Analyzers
- Other applications

GC ZERO AIR GENERATOR



FOR GC-FID, CEM AND PROCESS CONTROL APPLICATIONS

VICI DBS GC Zero Air Generator is designed to supply ultrapure hydrocarbon free zero air for GC-FID applications. Catalytic oxidation technology eliminates hydrocarbons to <0.1ppm resulting in a flat and stable baseline, increased sensitivity and repeatable analysis.



FEATURES

- On-demand supply 24/7
- Flow rate: 1.5 to 30 L/min
- Pressure: 6.5 barg (95 psig)
- GC zero air purity <0.1ppm
- Available as 19" rack
- 2-year complete product warranty



APPLICATIONS

- GC applications: GC-FID fuel gas, GC-NPD plasma gas, GC-FPD fuel gas
- Total hydrocarbon analyzer (THA) fuel gas



GT ULTRA ZERO AIR GENERATOR

FOR GC-FID, TOC, CEM AND PROCESS CONTROL APPLICATIONS

VICI DBS GT Ultra Zero Air Generator is designed to supply ultrapure hydrocarbon free zero air for GC-FID applications. Catalytic oxidation technology eliminates hydrocarbons to $<0.1\text{ppm}$ resulting in a flat and stable baseline, increased sensitivity and repeatable analysis. For more demanding applications such as TOC, Continuous Emissions Monitoring and process control applications the GT Zero Air Generator removes CO, CO₂, NOX, SOX and water vapor.



APPLICATIONS

- Analyzers: CEM continuous emissions monitoring, CO₂ Analyzers, emissions analyzers, online and laboratory TOC, stack gas sampler, online and laboratory FT-IR



FEATURES

- On-demand supply 24/7
- Flow rate: 1 to 30 L/min
- Pressure: 6.5 barg (95 psig)
- Available as 19" rack
- 2-year complete product warranty
- GT zero air purity $<0.1\text{ppm}$ HC, $<5\text{ ppm}$ CO₂, $<0.1\text{ ppm}$ CO, $<0.1\text{ppm}$ NOX and SOX



IMPROVE SAFETY

Gas is produced on demand, which allows for the safe use of the hydrogen generator when cylinders are prohibited or regarded as potentially dangerous. Sophisticated, easy to use software control and full alarm capability (including for hydrogen leaks) gives the user full control of the gas supply.



INCREASE EFFICIENCY

A constant gas supply with a guaranteed purity, eliminates interruptions of analyses to change cylinders and reduces the amount of instrument re-calibration required.



ENHANCE PERFORMANCE

Gas generators can be installed in the lab close to the instrument, eliminating the need for long gas lines from external cylinder supplies. A constant guaranteed high purity gas supply improves stability and ensures greater reproducibility of results.



ENHANCE RESULTS

Hydrogen as a carrier gas is faster and more sensitive than expensive helium, with run time savings of 25% to 35% without a decline in resolution. The use of hydrogen as a carrier gas allows lower temperature elution, thus extending the life of the chromatograph column.



RETURN ON INVESTMENT

Payback period can be as short as 12 to 18 months.

WHY GAS GENERATORS?

Gas generators offer a safe, convenient and cost effective alternative to gas cylinders and dewars. A VICI DBS generator provides you with a dependable, easy to use and on-demand supply of ultra high purity gas.



BENEFITS

- Eliminates dangerous high pressure cylinders
- Automatic flow compensation
- Continuous operation for critical applications
- Minimal maintenance

▶ TRUSTWORTHY TECHNOLOGY

VICI DBS is a leading innovator and manufacturer of high purity gas systems for analytical laboratories. Generators are specifically designed to meet the stringent gas requirements for all the leading GC and LC/MS instrument manufactures.

▶ PATENTED TECHNOLOGY

Utilizing VICI DBS's range of patented proprietary technologies, there are 10,000 systems installed worldwide. These technologies offer unique performance benefits, including guaranteed ultra high purity gas, silent operation, minimal moving parts and minimal operator attention.

▶ ISO 9001 2008 CERTIFIED

Operating from our ISO 9001 2008 accredited gas generator manufacturing center in Italy, every VICI DBS product is designed and tested to ensure compliance with the relevant safety standards. All generators meet and exceed the requirements for CE, CSA, UL and FCC.