

VICI DBS™

ANALYTICAL GAS GENERATORS

INNOVATIVE GAS SOLUTIONS FOR YOUR LAB

DBS Instrumenti joins the VICI group of companies, becoming VICI DBS.

With the acquisition of DBS Strumenti Scientifici S.p.A in January 2016 the VICI group of companies broadens its array of products for the analytical industry. This includes temperature control accessories for chemical analysis and a range of hydrogen, nitrogen and zero air generators for analytical instruments such as GC, GC/MS and LC/MS. The modern facilities cover a total of 1,500 M² manufacturing in accordance with the UNI EU ISO 9001:2008 quality systems.



Since 1968, VICI Valco Instruments Inc. USA has been the leading designer and manufacturer of standard and custom components for precision analytical, biomedical, and biocompatible instrumentation.

In 1981 VICI expanded into Europe with the founding of VICI AG International in Switzerland. Our product portfolio includes valves and fittings, pneumatic and electric actuators, metal or polymer tubing and sampling loops, heated enclosures, valve sequence and temperature controllers, flow controllers, pumps and GC detectors.

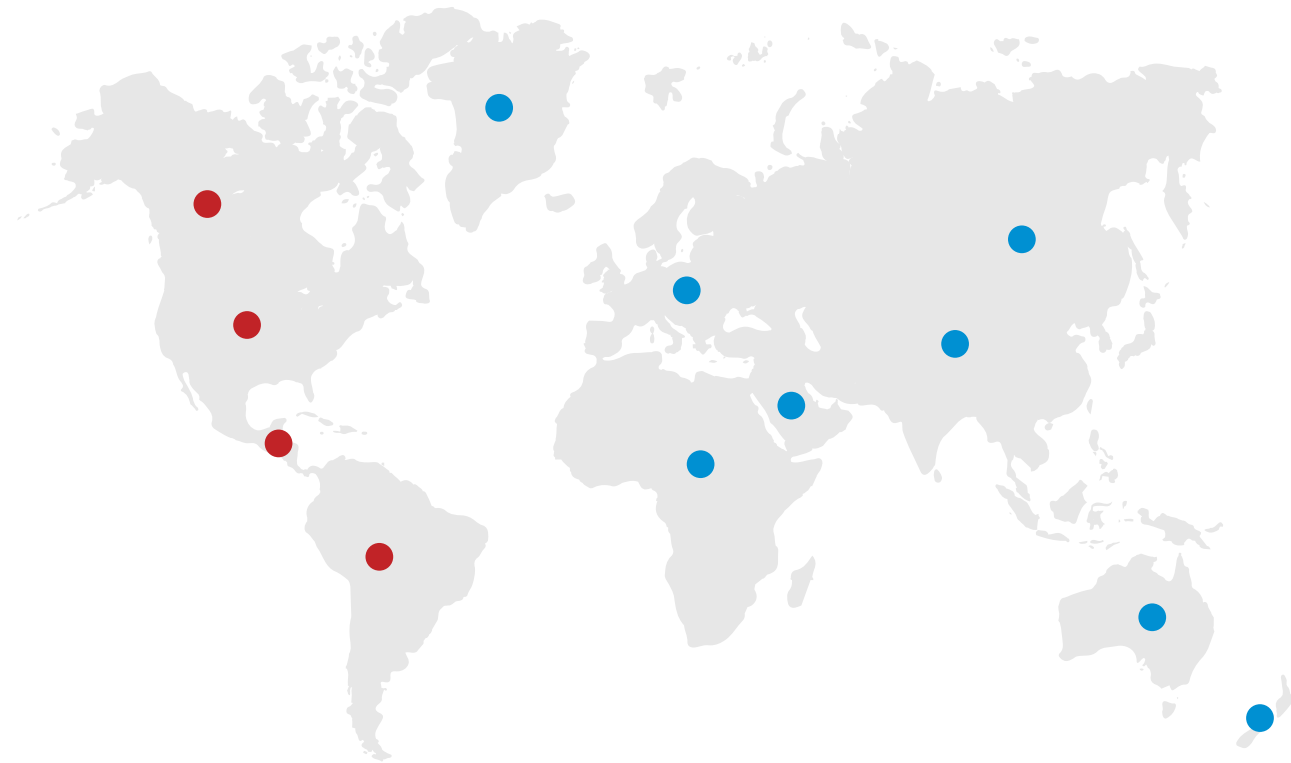


VICI DBS is a world-renowned manufacturer of high quality gas generators for analytical applications. Our innovative products bring significant, solution based benefits to all scientific users across all market sectors. Our product development approach is intelligent and customer focused, led by real user needs and benefits.

VICI DBS products are designed and manufactured at the VICI facility in Padova, Italy with administration support for customers in Europe, Asia, and Africa directed from the VICI AG International in Schenkon, Switzerland.



In 2017, VICI DBS USA opened in Houston Texas to serve the US, Canada, Central and South America.



VICI DBS™

www.vicidbs.com

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PG Plus Series

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 solution. Ideal for use with gas chromatography detectors such as FID, NPD, NPD and FPD:

PG PLUS Series -

- Flow rate from 100 to 600 ml/min
- Purity 99.9996%
- Pressure up to 10.5 barg (153 psig)
- Minimal maintenance
- Unique drying membrane - no desiccant cartridges required
- Automatic shut-down in case of hydrogen leak
- 2 year standard warranty

Never run out of high purity hydrogen again!

Cascading—the ability to install several hydrogen generators in parallel

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

NM Plus Series

Ideal for all GC & GC/MS carrier gas and detector gas applications

The NM Plus Series enhances 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. With its highly sophisticated software control and safety alarm capability it presents the GC user with the opportunity to reap the benefits of hydrogen carrier gas while overcoming the safety concerns.

NM PLUS Series -

- Flow rate from 100 to 1000 ml/min
- Purity 99.99996%
- Pressure up to 10.5 barg (153 psig)
- No maintenance
- ISB for remote monitoring and servicing
- Optional automatic water feed and RS232/485 connectivity
- 2 year standard warranty



FID Tower Version



FID Flat Version for placement under GC



FID Gas Station

H₂ and Zero Air in a single solution

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 1L/min and zero air flow rates up to 5 lpm.

FID Gas Station Features:

- H₂ flow rate from 100 to 1000 ml/min
- H₂ Purity options 99.9996% or 99.99996%
- H₂ Pressure up to 10.5 barg (153 psig)
- Zero air flow rates 1.8 or 5 lpm
- Zero air purity <0.1 ppm
- Minimal maintenance
- Ideal for all GC detectors and carrier gas applications

Hydrogen 19" Rack Plus

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. Get the best of both worlds-top quality, ultra safe, supremely reliable, and economical hydrogen generation--in a convenient and compact package.

Hydrogen 19" Rack Plus Features:

- H₂ flow rates from 100 to 1000 ml/min
- H₂ purity options 99.9996% or 99.99996%
- H₂ pressure up to 10.5 barg (153psig)
- Zero air flow rates 1.8 & 5 lpm options
- Zero air purity <0.1 ppm
- Minimal maintenance

N₂
Nitrogen**N₂**
Nitrogen

MISTRAL EVOLUTION

MISTRAL EVOLUTION HYBRID

MISTRAL EVOLUTION GAS-STATION

Nitrogen Generators

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.

Nitrogen Generator Features:

- Flow rates from 500 to 4,000 ml/min
- Purity up to 99.999%
- Pressure up to 5 barg (75psig)
- Space saving design
- Optional hydrocarbon removal for GC applications
- Ideal for GC carrier gas including ECD, make up gas, TOC, DSC, and ELSD applications

Mistral Evolution Series

For LC/MS/MS and ELSD Applications

The Mistral Evolution and Whisper nitrogen generators have been specifically designed to meet the flow, pressure and purity requirements of all the leading LC/MS instrument manufactures. Nitrogen is produced either by 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.

Mistral Evolution Series Features:

- Flow rates from 10 to 120 lpm
- LC/MS grade hydrocarbon free nitrogen
- Pressure up to 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



GC and GT Ultra-Zero Air Generator

For GC-FID, TOC, CEM and Process Control Applications

VICI DBS GC and GT Zero Air Generators are designed to supply ultrapure hydrocarbon free zero air for GD-FID applications. Catalytic oxidation technology eliminates hydrocarbons to <0.1ppm 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, NO_x, SO_x and water vapor.

GC & GT Ultra-Zero Air Features:

- Flow rates from 1 to 30 lpm
- Pressure up to 9 barg (130 psig)
- GC Zero Air purity <0.1ppm
- GT Zero Air purity <0.1ppm HC, <5ppm CO₂, <50ppm CO, <0.1ppm NO_x and SO_x
- Minimal maintenance
- Also available in a 19" rack option

VICI DBS Technology

VICI DBS – TECHNOLOGY YOU CAN TRUST

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 and CSA/UL.

WHY A GAS GENERATOR?

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



SAFE

No health and safety issues and requirements in managing, moving and storing high pressure gas cylinders. No concerns with the storage of flammable hydrogen gas or the sudden accidental release of high pressure gas from a cylinder. No need to change gas cylinders or liquid dewars.



COST EFFECTIVE

Minimal generator maintenance costs, combined with eliminating ongoing costs associated with cylinders, such as volatility of gas prices, delivery and rental costs and unplanned downtime.



CONVENIENT

No instrument or application downtime as a result of running out of cylinder gas. Gas generators provide a 24/7 reliable on-demand supply.



IMPROVE PERFORMANCE

Consistent, reliable on-demand supply of gas at stable high purity and pressure, improves sensitivity and reproducibility.



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