

Your local *gas generation* partner



## Gas Generators

For PerkinElmer Instruments



Discover more at [www.peakscientific.com/perkinelmer](http://www.peakscientific.com/perkinelmer)

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## Our story

### THE PEAK WAY

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PEAK Scientific is a leading innovator in the design, manufacture and support of high-performance gas generators for analytical laboratories. Established in 1997 near Glasgow (Scotland), where our corporate Headquarters and high-tech manufacturing and R&D facilities reside, PEAK Scientific boasts a significant local presence on every continent – including major operations in North America, China and India.

With over two decades of experience pioneering reliable gas generator technology, PEAK Scientific develops market-leading nitrogen, hydrogen and zero air systems mainly for the field of LC-MS and GC.

Our strength lies in providing our customers with high-quality, dependable gas generation solutions tailored to meet their specific laboratory demands; what differentiates us is our world-class technical support and on-going service care throughout the generator's lifespan, wherever you are in the world.

### PEAK AND PERKINELMER

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PerkinElmer is a global manufacturer and distributor of mass spectrometers and analytical tools headquartered in Waltham Massachusetts, U.S.

PerkinElmer and PEAK Scientific have been working in conjunction to develop dedicated nitrogen gas and air solutions for PerkinElmer instruments since 2015.



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## Our story

### DEDICATED GAS SOLUTION

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Product Managers and Engineers from both organizations are in constant contact throughout new product development process to ensure PEAK's products meet and exceed the specific gas requirements of PerkinElmer's LC-MS instruments. PEAK Scientific's Genius 1025 was the first dual gas generator specifically designed for PerkinElmer's QSight Triple Quad 110 and 210 LC-MS/MS systems. Other dedicated solutions include Infinity 1046, and more recently, Genius XE QSD, modelled on PEAK Scientific's best-selling Genius XE series with a custom design to meet the exact requirements of PerkinElmer's QSight Triple Quad 110 and 210 LC-MS/MS systems.

### PEAK PERFORMERS: OUR WORLD-CLASS PRODUCT PLATFORMS

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PEAK has developed dedicated product platforms to support numerous PerkinElmer instruments. Our best-selling Genius and Genius XE series, designed mainly for LC-MS and LC-MS/MS applications, is a self-contained system featuring integrated compressors, delivering laboratory-grade nitrogen at various pressures and flow rates required by numerous laboratory instruments.

The Infinity series of nitrogen gas generators are silent-running compressor-free systems for laboratories with an in-house supply of clean, dry air - delivering nitrogen/dry air in a wide range of flow rate.

## Our story

### MANUFACTURING EXCELLENCE

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Our products are the result of our meticulous Research and Development culture, built over more than 20 years at the forefront of the gas generator market. We pride ourselves on the greatest care taken to assess specific application needs before designing and rigorously testing new products.

As we have expanded, our R&D capabilities have advanced to the point where we are better equipped than ever to meet changing market demands. By implementing the latest manufacturing technologies and philosophies, PEAK continues to improve product quality, responsiveness and efficiency - resulting in a better value proposition for our customers.

Every PEAK Scientific generator is designed from our ISO 9001:2015 accredited manufacturing center of excellence in the UK and independently tested to ensure compliance with all applicable safety standards.

# Our Promise

Our commitment is to provide laboratories with a reliable gas generation solution that delivers long term value. We achieve this through **exceptional product** design, and direct global on-site support that is **unmatched** in our industry.

We take a vested interest in customer outcomes and strive to be a valued partner in their success by delivering **exceptional service** over the life of our product.

## Application Matrix

Application		PEAK Solution Single Instrument
All QSight Dual Source LC-MS including 120, 220, 225, 420	No compressor	Infinity 1046
	Built in compressor	Genius XE QSD
All QSight Single Source LC-MS including 110, 210, 410	No compressor	Infinity 1046
	Built in compressor	Genius 1025
TGA 4000, 8000	No compressor	Precision N2 600cc
DSC 8000, 8500 (Normal conditions)	No compressor	Precision N2 600cc
DSC 8000, 8500 (Sub- ambient operation using Intracoolers 2)	No compressor	Precision N2 600cc
Frontier FT-IR	No compressor	PG14L, PG28L*
Spectrum 1000 FT-IR	No compressor	PG14L, PG28L*

\* Find Information on flow rate required before quoting solution.

## Application Matrix

Application		PEAK Solution
		Single Instrument
PinAAcle 500/900	Built in compressor	Precision Air Compressor

### PEAK Gas Generator Recommendations For PerkinElmer

Detector	Carrier Gas		Detector Gas		
	Hydrogen	Nitrogen	Hydrogen	Air	Nitrogen
MS	Precision Hydrogen Trace	-	Not Applicable		
FID	Precision Hydrogen Trace	Precision Nitrogen Trace	Precision Hydrogen	Precision Zero Air	Precision Nitrogen
TCD	Precision Hydrogen Trace	Precision Nitrogen Trace	Same as carrier gas		
ECD	Precision Hydrogen Trace	Precision Nitrogen Trace	-	-	Precision Nitrogen Trace
ECD Sensitivity	Precision Hydrogen Trace	Precision Nitrogen Trace	-	-	Precision Nitrogen Trace
FPD	Precision Hydrogen Trace	Precision Nitrogen Trace	Precision Hydrogen Trace	Precision Zero Air	Precision Nitrogen
FTD	Precision Hydrogen Trace	Precision Nitrogen Trace	Precision Hydrogen	Precision Zero Air	Precision Nitrogen

# Genius XE QSD

Combining advanced technology with refined and robust engineering, Genius XE QSD provides a premium standalone nitrogen solution custom designed to meet the requirements of PerkinElmer QSight Dual Source LC-MS.

Featuring dual outlets (1 x nitrogen, 1 x air), the generator is precision engineered to reduce size as well as noise and heat emissions. Genius XE QSD has been tested and validated by PerkinElmer for use with their QSight Dual Source LC-MS and comes with factory pre-set pressures and flows to meet the exact demands of the system.

- Factory pre-set pressures and flows to meet exact demands of PE QSight Dual Source Systems
- Multi- Stage Drying Filtration to efficiently remove moisture and contaminants, providing a consistent quality of gas
- Low impact on lab environment with low noise and heat emissions
- Next-generation high performance premium compressors, engineered exclusively for Genius XE
- Intuitive LED Service Indication
- ECO (Electronic Compressor Optimisation™) technology for low energy consumption and compressor durability warranty



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius XE QSD	up to 16 L/min up to 67 L/min	Nitrogen Air	80psi / 5.5 bar 110psi / 7.6 bar	700 x 570 x 897 mm 27.6 x 22.5 x 35.4"	QSight 100, 200 and 400 Series



# Genius 1025

Producing a single output of LC-MS grade nitrogen (up to 15 L/min) and air (up to 35 L/min) specifically to meet the requirements of PerkinElmer's QSight Triple Quad 110 and 210 LC-MS/MS systems, the Genius 1025 has been designed using membrane technology to produce LC-MS grade purity and an internal air dryer to produce a clean supply of dry air.

The Genius 10 series models are compressor-based systems PEAK manufacture utilizing membrane technology to ensure high performance and supply of analytical instrument grade nitrogen.

- Self-contained solution with integrated compressors, no need for an external air supply
- Highly economical source of nitrogen/dry air with low lifetime running costs
- Easy to use, gas at the push of a button
- Wheels make it easy to manoeuvre generator around the lab
- 12 month comprehensive on-site warranty



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius 1025	up to 15 L/min up to 35 L/min	Nitrogen Air	80psi / 5.5 bar 110psi / 7.6 bar	713 x 600 x 750 mm 28.1 x 23.7 x 29.6"	QSight Triple Quad 110/210

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**PEAK's  
generators  
were really a  
lifesaver** for us!  
A key benefit for  
us has been the  
**elimination of the  
safety hazards**  
associated with  
compressed gas  
cylinder handling.

**Kerri Heckrow**

Corporate NPD Lab Manager  
Evergreen Packaging, NC  
USA

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# Precision Nitrogen 600

## DESCRIPTION

Precision Nitrogen has been developed to provide a constant and consistent source of Nitrogen for detector make-up gas at standard/typical detection levels for GC applications, as well as headspace vial pressurization, purge and trap, tube conditioning for thermal desorption and sample blow down. For applications requiring hydrocarbon-free Nitrogen, such as GC carrier gas, the Nitrogen Trace generator provides gas with <0.05ppm hydrocarbons. These generators are capable of delivering high purity nitrogen, removing oxygen and moisture via Pressure Swing Adsorption and Carbon Molecular Sieve technology.

## Features

- 99.9995% purity
- Nitrogen Trace model suitable as GC and GC-MS carrier and detector gas
- Trace capable of delivering hydrocarbon-free Nitrogen (as Methane) suitable for carrier gas, make-up gas and sample preparation
- Highly economical source of nitrogen gas with low lifetime running costs
- Ultra-fast start-up time, quick to reach standard operating purity



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Precision Nitrogen 600	600 cc/min	Nitrogen	80 psi / 5.5 bar	38 x 54 x 25.6 cm 14.9 x 21.2 x 10 in	Sample Prep - Headspace, Purge and Trap, Tube Conditioning Detector Gas - Make-up / Reference
Precision Nitrogen Trace 600	600 cc/min	UHP Nitrogen	80 psi / 5.5 bar	38 x 54 x 40.6 cm 14.9 x 21.2 x 21.3 in	Sample Prep - Headspace, Purge and Trap, Tube Conditioning Detector Gas - Make-up / Reference

# Infinity 1046

Generating up to 20 L/min nitrogen and 70 L/min dry air, the Infinity 1046 has been specifically designed to support the PerkinElmer QSight Triple Quad, whether single/dual source configuration.

The Infinity Series are compressor-free gas generators which require a clean source of in-house air to operate effectively. With very few moving parts, these generators are effectively silent in operation and need only minimal care to ensure continued high performance and extended product life.

- Delivers nitrogen (drying gas) at up to 20 L/min and air (source gas) at up to 70 L/min
- Capable of supplying both single and dual source QSight models
- 24/7 operation at optimum performance if required
- Highly economical source of nitrogen and air with low lifetime running costs
- Minimal set-up required
- Completely silent in operation
- 12 month comprehensive on-site warranty



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Infinity 1046	up to 20 L/min up to 70 L/min	Nitrogen Air	80psi / 5.5 bar 110psi / 7.6 bar	730 x 421.6 x 250mm/ 28.8 x 16.6 x 9.9"	QSight Triple Quad

PEAK Protected

# Safeguard your laboratory workflow with

# [**PEAK** Protected]<sup>TM</sup>

Servicing any equipment in your lab should not be seen as just an option, it should be treated as a necessity. With many moving parts and wear & tear, especially where generators feature integrated compressors, as well as filters and other 'consumables', a gas generator needs to be maintained regularly to continue to perform at its best for many years.

Here at PEAK we see your gas generator as the beating heart of your laboratory, enabling your analytical instruments to perform and achieve the results you need. With this being the case it is extremely important you look after your 'beating heart' to ensure the best possible results.

# We offer a range of **[PEAK Protected]** services to suit your particular needs.



### **Premium Plan**

Complete maintenance care with 24 hour rapid response breakdown cover



### **Complete Plan**

Complete maintenance care with guaranteed response time breakdown cover



### **Fixed Price PM**

Preventative maintenance carried out by an expert PEAK engineer at a time that suits you



### **Supported Plan**

Preventative maintenance support specifically for compressor-less generators



### **Paid Repairs**

On-site repairs carried out by a certified PEAK FSE in case of a breakdown



### **Replacement Parts**

Genuine PEAK parts with express delivery, ensuring optimal performance and lifetime



### **Installation**

Trained PEAK FSE will visit to install and commission your generator



### **IQ/OQ**

Certified assurance for applications requiring documented qualification



### **Support Hotline**

Around the clock support by phone or online with our global technical helpdesk

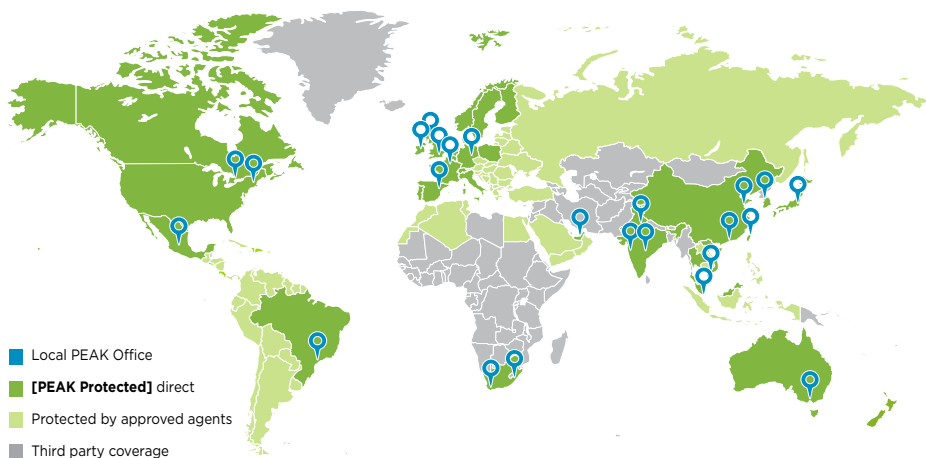
# Not all warranties are equal.

What differentiates PEAK from other gas generator manufacturers is that a PEAK gas generator comes with a truly comprehensive on-site warranty. This means that in the unlikely event that your gas generator develops a problem, we will send a PEAK Certified Field Service Engineer to your laboratory to try to resolve the issue on-site and get you back up and running with minimal fuss and disruption.

What's more, when we say fully-comprehensive, we mean it. Every part of your generator is covered during warranty. While other manufacturer warranties may only cover certain components or require the return of your generator to the factory for repair, leaving you without gas for weeks or even months, our warranty is designed to give you complete peace of mind.

To find out more about our unique warranty, visit [www.peakscientific.com/warranty](http://www.peakscientific.com/warranty)

# Your local **gas generation** partner



PEAK Scientific has highly trained, fully certified Field Service Engineers located in over 20 countries across every continent around the world. This allows us to provide an industry-leading rapid response service to our customers. With [PEAK Protected], your laboratory's productivity becomes our top priority.

## Contact us today to discover more!

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