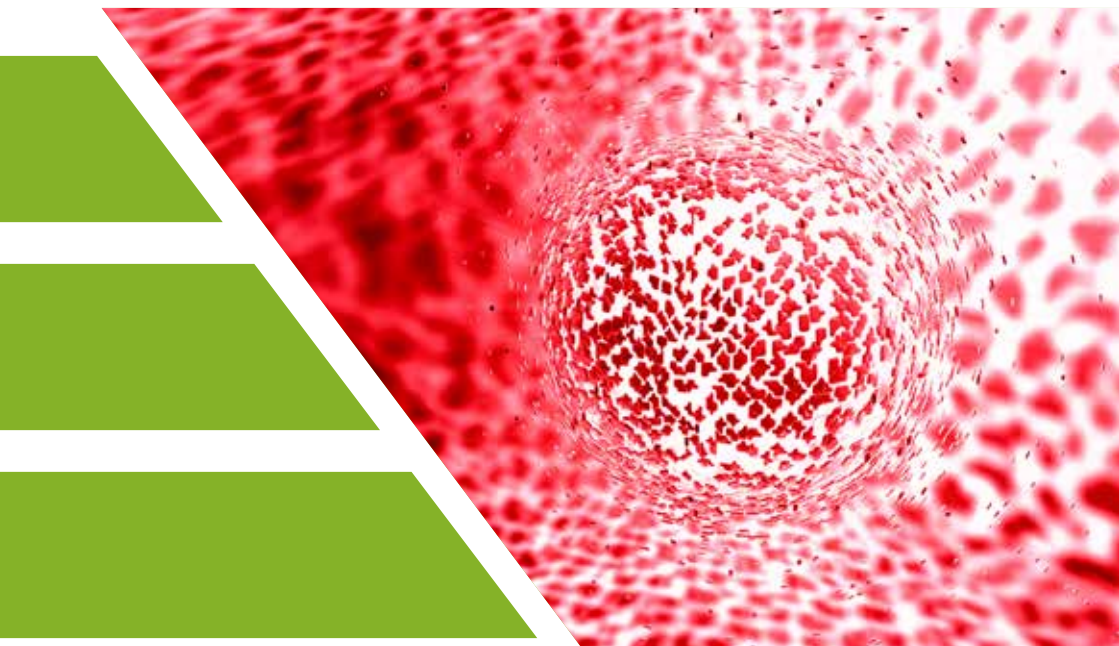


Your local gas generation



Gas Generators

For Shimadzu Instruments



Discover more at www.peakscientific.com/shimadzu

Our story

The Peak way

DESCRIPTION



Peak Scientific is a leading innovator in the design, manufacture and support of high performance gas generators for analytical laboratories. Established in the UK in 1997 near Glasgow (Scotland), where its 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 nearly two decades of experience in pioneering reliable gas generator technology, Peak Scientific develops market-leading nitrogen, hydrogen and zero air systems mainly for the field of LC-MS (Liquid Chromatography-Mass Spectrometry) and GC (Gas Chromatography).

Our forte is 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 may be in the world.

Our story

PEAK AND SHIMADZU

Shimadzu is a global manufacturer and distributor of mass spectrometers and analytical tools headquartered in Kyoto, Japan. Shimadzu and Peak Scientific have been working in conjunction since 2009, when a gas solution for the LCMS-8050 was in development, culminating in the launch of the Genius 1051 and Genius 1061. Since then, Peak has produced several gas generation solutions for Shimadzu applications including the Genius 3051. Peak have also specifically designed the Precision Nitrogen Headspace for the Shimadzu HS-10 and HS-20.

DEDICATED GAS SOLUTION

Product Managers and Engineers from both organizations are in constant contact throughout the New Product Development process to ensure Peak's products meet and exceed the specific gas requirements of Shimadzu's range of LC-MS, GC and TOC instruments. There is a Peak Scientific gas generator for the Shimadzu LC-MS, GC or TOC instrument you may have. Peak have engineered purposely built generators, meeting the most efficient operating standards of Shimadzu's TOC, GC, Headspace Autosampler and 8030, 8040, 8045, 8050, 8060 & 9030 LC-MS instruments.



SHIMADZU

Excellence in Science

Our story

MANUFACTURING EXCELLENCE



Our products are the result of our meticulous Research and Development culture developed over two decades of being at the forefront of the gas generator market. We pride ourselves in the utmost care taken to assess specific application needs prior to designing and rigorously testing new products.

As we have expanded, so have our R&D capabilities, both technically and in terms of know-how, to the point where we are better equipped than ever to meet changing market demands. Implementing the latest manufacturing technologies and philosophies ensures that Peak continues to improve product quality, responsiveness and efficiency – all resulting in a better value proposition for our customers.

Operating from our ISO 9001 accredited manufacturing center of excellence in the UK, every Peak Scientific generator is designed and independently tested to ensure compliance with all of the applicable safety and Electromagnetic Compatibility standards.

Our story

PEAK PERFORMERS: OUR WORLD-CLASS PRODUCT PLATFORMS

Four distinct product series define our core offering to supply Shimadzu's analytical laboratory 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, Infinity XE and Solaris series of nitrogen gas generators are silent-running compressor-free systems for laboratories with an in-house supply of clean, dry air - delivering nitrogen in a wide range of flow rate.

For very high-flow, high demand needs, our innovative Pressure Swing Adsorption based i-FlowLab technology is designed to meet the full and total demand for nitrogen gas a facility may have, all in one expandable solution.

Engineered specifically to meet the needs of Gas Chromatography our cutting-edge Precision series is a modular system consisting of high-purity nitrogen, hydrogen and zero air generators that can be combined into a compact stack tailored to your needs.



Application Matrix

		Peak Solution	
Application		Single Instrument	Two Instruments
LCMS IT TOF	No compressor	<ul style="list-style-type: none"> Infinity NM32L Solaris XE 	Infinity XE 5010
	Built in compressor	<ul style="list-style-type: none"> Genius NM32LA Genius XE 35 	<ul style="list-style-type: none"> Genius 3020 Genius XE 70
LCMS-2020	No compressor	<ul style="list-style-type: none"> Infinity NM32L Solaris XE 	Infinity XE 5010
	Built in compressor	<ul style="list-style-type: none"> Genius NM32LA Genius SQ 24 	<ul style="list-style-type: none"> Genius 3020 Genius XE 70
LCMS-8030	No compressor	<ul style="list-style-type: none"> Infinity NM32L Solaris XE 	Infinity XE 5010
	Built in compressor	<ul style="list-style-type: none"> Genius NM32LA Genius XE 35 	<ul style="list-style-type: none"> Genius 3020 Genius XE 70
LCMS-8040	No compressor	<ul style="list-style-type: none"> Infinity NM32L Solaris XE 	Infinity XE 5010
	Built in compressor	<ul style="list-style-type: none"> Genius NM32LA Genius XE 35 	<ul style="list-style-type: none"> Genius 3020 Genius XE 70
LCMS-8045*	No compressor	<ul style="list-style-type: none"> Infinity 1051 	-
	Built in compressor	<ul style="list-style-type: none"> Genius 1051 Genius 1061 (<i>Japan only</i>) 	<ul style="list-style-type: none"> Genius 3051
LCMS-8050*	No compressor	<ul style="list-style-type: none"> Infinity 1051 	-
	Built in compressor	<ul style="list-style-type: none"> Genius 1051 Genius 1061 (<i>Japan only</i>) 	<ul style="list-style-type: none"> Genius 3051
LCMS-8060*	No compressor	<ul style="list-style-type: none"> Infinity 1051 	-
	Built in compressor	<ul style="list-style-type: none"> Genius 1051 Genius 1061 (<i>Japan only</i>) 	<ul style="list-style-type: none"> Genius 3051
LCMS-9030	Built in compressor	<ul style="list-style-type: none"> Genius 3051 	<ul style="list-style-type: none"> 2 x Genius 3051

Note:

* The **Genius 1051, 1061** is the recommended Peak solution for both the 8045, 8050 and 8060, and will provide sufficient gas flow when the 8045/8050/8060 is operating in '**Default Gas Delivery Mode**'.

When operating in '**High Flow Gas Delivery Mode**', the gas flow requirement is increased, which may exceed the capabilities of the Genius 1051, in this instance the **Genius 3051** is the recommended solution.

NB: The Genius 1061 has been designed specifically for use within the Japanese market.

• Included on Shimadzu Corporate Price List

Peak Gas Generator Recommendations For Shimadzu GC

Detector	Carrier Gas		Detector Gas		
	Hydrogen	Nitrogen	Hydrogen	Air	Nitrogen
MS	● Precision Hydrogen Trace	● Precision Nitrogen Trace	Not Applicable		
FID	● Precision Hydrogen Trace	● Precision Nitrogen Trace	● Precision Hydrogen	● Precision Zero Air	● Precision Nitrogen
TCD	● Precision Hydrogen Trace	● Precision Nitrogen Trace	-	-	● Precision Nitrogen
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	-
FTD	● Precision Hydrogen Trace	● Precision Nitrogen Trace	● Precision Hydrogen	● Precision Zero Air	● Precision Nitrogen

Peak Gas Generator Recommendations For Shimadzu Headspace Autosampler

Instrument	Recommendation
GC Headspace Autosampler HS-10	Precision Nitrogen Headspace
GC Headspace Autosampler HS-20	Precision Nitrogen Headspace

Peak Gas Generator Recommendations For Shimadzu TOC

Instrument	Recommendation
TOC (All Models)	TOC1500HP

Product

Genius XE Series

DESCRIPTION

Inspired by the success of our best-selling Genius line of nitrogen gas generators for LC-MS/MS, Genius XE Nitrogen is a cutting-edge evolution combining advanced technology with refined and robust engineering. With two models - XE 35 (up to 35 L/min) and XE 70 (up to 70 L/min) - Genius XE Nitrogen provides a premium standalone nitrogen solution for high performance LC-MS/MS and other mission-critical laboratory applications where performance and reliability are paramount.

Features

- Variable flow up to 70 L/min
- Variable pressure up to 116 psi
- Multi-Stage Purification™ producing analytical grade nitrogen gas up to 99.5% purity
- 2 year comprehensive manufacturer's warranty*
- Touch-screen full colour user interface for ease of operation
- Additional compressor capacity (Genius XE 70 only)



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius XE 35	up to 35 L/min	Nitrogen	116psi / 8 bar	640 x 570 x 710 mm 25.2 x 22.5 x 28"	LC-MS/MS
Genius XE 70	up to 70 L/min	Nitrogen	116psi / 8 bar	1000 x 570 x 710 mm 23.6 x 29.5 x 28 in39.4 x 22.5 x 28"	LC-MS/MS

Product

Genius SQ 24

DESCRIPTION

For labs using any Single Quad LC-MS systems, the Genius SQ 24 nitrogen gas generator delivers analytical grade nitrogen supply dedicated for this instrument. With a compact size to fit under most lab benches and flow rates of up to 24 L/min, meeting and exceeding the maximum flow rate required by any Single Quad LC-MS on the market today, your lab can enjoy hassle free nitrogen gas which helps you deliver the best analytical results.

Features

- Best value nitrogen generator on the market
- Variable flow up to 24 L/min
- Analytical grade nitrogen supply for Single Quad LC-MS
- Outlet pressure up to 116psi (at 22 L/min maximum)
- Reduced height and compact size to fit under most lab benches
- Integrated internal compressors for easy plug and play



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius SQ 24	24 L/min	Nitrogen	116psi / 8 bar	610 x 600 x 750 mm 24.1 x 23.7 x 29.6"	Single Quad LC-MS

Product

Genius 1051

DESCRIPTION

The Genius 1051 has been developed to provide nitrogen gas and dry air to the Shimadzu LC-MS-8045, 8050 or 8060 to labs with electrical supply of up to 230V. We've built the Genius 1051 with two internal air compressors as standard, this removes the reliance upon an in-house air supply. The configuration allows users to change the flow ratio of nitrogen and dry air, such that the total flow is 25L/min, split between nitrogen and dry air.

Features

- Innovative CMS and PSA technology ensures high performance
- Compressor based solution, no need for an external air supply
- Minimal set-up required
Highly economical source of nitrogen gas with low lifetime running costs
- The latest generation of compressors located in an insulated chamber reducing noise and vibration
- Service indication to allow planning of preventative maintenance
- 12 month comprehensive on-site warranty



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius 1051	up to 25 L/min total	Nitrogen & Dry Air	110 psi / 7.6 bar	713 x 600 x 750 mm 28.1 x 23.7 x 29.6"	8045, 8050 and 8060 LC-MS/MS in Default Gas Mode

Product

Genius 3051

DESCRIPTION

Engineered specifically for the Shimadzu LCMS-8045, LCMS-8050, LCMS-8060 and LCMS-9030 instruments, the Genius 3051 provides one output of phthalate free, high purity nitrogen at up to 27 L/min and one of dry air at up to 29 L/min.

This will provide enough high purity gas to support these instruments even when being operated in 'high flow gas delivery mode' and for some uses up to two instruments in 'standard gas delivery mode'.

Features

- Shimadzu approved gas solution for 8045, 8050, 8060 and 9030
- Supports LCMS "High flow gas delivery" mode
- Gas is supplied on demand so generator works to your schedule
- Highly economical source of nitrogen/dry air with low lifetime running costs
- The latest generation of compressors located in an insulated chamber reducing noise and vibration
- Service indication to allow planning of preventative maintenance



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Genius 3051	up to 27 L/min Nitrogen & 29 L/min Dry Air	Nitrogen & Dry Air	100psi / 6.9 bar	1322 x 600 x 850 mm 52.1 x 23.7 x 33.5"	LC-MS-MS 8045, 8050, 8060 in High Gas Delivery mode or Shimadzu 9030

“We purchased our Peak generators as they came **highly recommended** by Shimadzu.”

Scott Newport, Divisional Technical Manager, William Tracey Group, UK

Product

Solaris XE

DESCRIPTION

Peak Scientific's Solaris XE generator has been engineered using membrane technology to meet the gas delivery requirements for labs using LC-MS or multiple lower flow nitrogen instruments such as ELSDs or Compact Mass Spectrometers. Solaris XE can operate with varying flow rates (up to 35L/min of high purity nitrogen), purity (up to 99.5%) and outlet pressure can be adjusted down from 116psi, offering a flexible solution for a variety of applications.

Features

- Nitrogen up to 35L/min, up to 116 psi and up to 99.5% purity
- Variable outlet flow, pressure and purity
- Compact, stackable system maximizing the use of valuable laboratory floor or bench space
- Colour indicative LED lighting for easy status awareness
- Manufactured and tested to highest spec in UK, CE/FCC/CSA certified



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Solaris XE	35 L/min	Nitrogen	116psi / 8 bar	156 x 343 x 650 mm 6.2 x 13.5 x 25.6"	LC-MS, LC-MS/MS or Multiple ELSDs

Product

Infinity XE 5010

DESCRIPTION

Producing between 10-60 L/min of high purity nitrogen gas, the Infinity XE 5010 can comfortably supply multiple laboratory instruments. With a variable flow rate in relation to purity, set the flow rate you need to meet the total demands of the instruments in your lab.

Features

- Flow rate up to 60 L/min
- Variable flow rate
- 135 psi outlet pressure
- Purity from 95-99.5% (flow rate dependent)
- Tried and tested membrane technology for high purity gas
- Small laboratory footprint using minimal lab space
- Optional purity shutdown feature



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Infinity XE 5010	up to 60 L/min	Nitrogen N/A	psi / 0 bar 100 psi / 0 bar	995 x 500 x 500 mm 39.2 x 19.7 x 19.7"	For multiple LC-MS/MS instruments

Product

Infinity 1051

DESCRIPTION

Designed and engineered as an on-site, compressorless nitrogen generation solution tailored for the Shimadzu LCMS-8045, 8050 or 8060, the Infinity 1051 delivers one output of nitrogen and another of dry air to laboratories who already have an existing air supply.

Features

- Both a nitrogen and dry air output suitable for the Shimadzu LCMS-8045/50/60 and instruments requiring similar specifications
- 24/7 operation at optimum performance if required
- Gas is supplied on demand so generator works to your schedule
- Few moving parts means little maintenance required and ensures long life of the generator
- Minimal set-up required
- Completely silent in operation
- 12 month comprehensive on-site warranty



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Infinity 1051	up to 25 L/min total	Nitrogen Dry Air	100 psi / 6.9 bar 100 psi / 6.9 bar	730 x 424 x 250 mm 28.8 x 16.7 x 9.9"	LCMS-8045/ 8050/ 8060 instruments

Product

Precision Nitrogen

DESCRIPTION

The Precision Nitrogen generators are available in both standard and trace models. The standard models come in three flow rate models (250cc, 600cc and 1L) which are able to provide make-up gas, reference gas and for sample preparation (i.e. headspace). The Nitrogen Trace models are engineered to offer zero nitrogen as carrier gas, make-up gas and reference gas for sample preparation available in 250cc, 600cc and 1L models.

Features

- All models offer 99.9995% purity
- Nitrogen Trace model suitable as GC and GC/MS carrier and detector gas
- Trace capable of delivering hydrocarbon-free (as Methane) nitrogen 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



GC Gas Calculator

Here at Peak we are always trying to help with your workflow...

Visit www.peakscientific.com/gasflow to calculate the optimal Precision gas generator stack solution for you.

Product

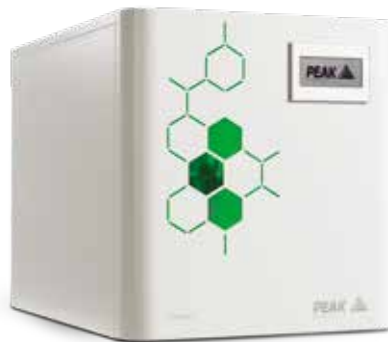
Precision Hydrogen

DESCRIPTION

The Precision Hydrogen generators come in two variants, standard and trace. The standard models are designed to provide detector gas for applications such as FID available in 100cc, 200cc, 300cc, 450cc and 1200cc/min. The trace model can deliver 250cc, 500cc or 1200cc/min of UHP hydrogen for both carrier and detector gas. One generator is capable of supplying multiple detectors and GC or GC-MS units.

Features

- 99.9995% purity (standard) / 99.9999% purity (trace)
- Suitable for GC detector gas (all) and carrier gas (trace model only)
- Creates hydrogen on demand, minimal storage of hydrogen in the system
- Low maintenance and minimal running costs over product lifetime
- Internal leak detection with automatic shutdown
- Automatic loading pump as standard



GC Gas Calculator

Here at Peak we are always trying to help with your workflow...

Visit www.peakscientific.com/gasflow to calculate the optimal Precision gas generator stack solution for you.

Product

Precision Zero Air

DESCRIPTION

The Precision Zero Air generators are designed specifically to supply clean, dry, hydrocarbon-free air to be used as flame support gas for GC.

As with all Precision Series generators, Zero Air benefits from a compact and modular, stackable design, minimizing the total footprint required for GC gas supply, and providing flexibility to add or remove modules as your laboratory requirements evolve over time.

Features

- Hydrocarbon content (as methane) <0.05ppm for market-leading purity
- Integrates seamlessly with other Precision units
- Minimum lifetime maintenance requirements, no expensive catalyst chamber replacements
- Highly economical source of dry, hydrocarbon free air
- Avoid risk of contaminants entering the system (when switching out empty cylinders)



GC Gas Calculator

Here at Peak we are always trying to help with your workflow...

Visit www.peakscientific.com/gasflow to calculate the optimal Precision gas generator stack solution for you.



“The instrument is quiet and provides high quality gas for our LC/MS system.”

Cindy Li, B. Braun Medical Inc., Sheffield, UK

Peak Protected

Safeguard your laboratory workflow with

[**PEAK** Protected]TM

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.

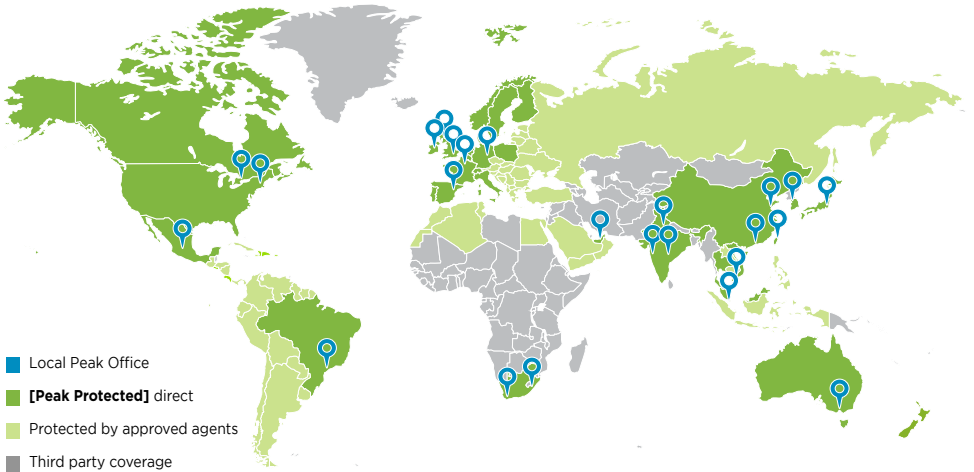
To find out more about our unique warranty, visit www.peakscientific.com/warranty

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.

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!

North America
Tel: +1 866 647 1649

Europe
Tel: +44 (0)141 812 8100

China
Tel: +86 21 5079 1190

India
Tel: 1800 2700 946

For contact details of all Peak local offices around the world, visit:
www.peakscientific.com/offices