

Your local *gas generation* partner



Pocket **Guide**

Discover more at www.peakscientific.com

Our Promise

Our commitment is to provide your laboratory 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 your outcomes and strive to be a valued partner in your success by delivering **exceptional service** over the life of the product.



Contents

1.0 Our story	4
2.0 Genius	8
3.0 Solaris	13
4.0 Infinity	17
5.0 Precision	20
6.0 Specialist Solutions	28
7.0 i-FlowLab	34
8.0 Peak Protected	38



About Us

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 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, Europe, China and India.

With over two decades of experience in pioneering reliable gas generator technology, Peak Scientific develops market-leading nitrogen, hydrogen and zero air systems mainly for the fields of LC-MS (Liquid Chromatography-Mass Spectrometry) and GC (Gas Chromatography).

What differentiates us is our world-class technical support and on-going global service care throughout the generator's lifespan.



The **Peak** Way

Peak Scientific is a family owned business and, as such, people are at the core of our unique product offering. Each generator is designed, assembled, tested, maintained and serviced by highly trained and dedicated professionals. The importance placed on people at Peak Scientific is consistent throughout our organization, it is the reason why we are committed to ongoing staff training and a policy of continual improvement in our engineering, manufacturing and field service capabilities - delivered by over 400 employees worldwide.

Our Mission, Values and Vision are structured around our Colleagues, our Customers and our Service. While our approach and atmosphere within the business is fun, friendly and informal, we also maintain a high degree of professionalism.

The personable relationship Peak has with our customers is just one of the many reasons why people enjoy and continue doing business with us.

Manufacturing **Excellence**

Our products are the result of our meticulous Research and Development culture developed over 20 years of being at the forefront of the gas generator market.

Our exceptional R&D capabilities are better equipped than ever to meet changing market demands. Implementing the latest manufacturing technologies and philosophies enables Peak to set new standards for product quality, responsiveness and efficiency - all resulting in a better value for you.

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

Why a **gas generator**?

Peak Scientific offers you a practical and cost-effective alternative to pressurized gas cylinders, dewars or bulk storage of laboratory gas. Traditional sources of gas incur on-going delivery, administrative and rental costs, all of which impact on your overall budget.

A Peak generator provides you with a dependable, easy to use, on-demand gas solution without the safety concerns and hassle of managing supply stock associated with using gas cylinders or other methods of bulk gas supply. What's more, while the price of delivered gas is subject to volatility as well as delivery delays, a generator from Peak Scientific offers a stable long-term investment.

Green Solution

The economic benefits of investing in a gas generator are easy to appreciate but there is also a genuine environmental benefit. Consider the carbon footprint of a pressurized gas cylinder, delivered from depot to your lab then collected again for refilling before resuming the cycle. Depending on geography, that could be substantial transportation distances, not to mention the energy consumption involved in industrial gas manufacture and processing. Engineered with energy efficiency in mind, a Peak Scientific gas generator offers a far more environmentally sustainable source of lab gas over its lifetime.



Convenient

Gas on-demand, no cylinders to change or supply stocks to maintain



Consistent

Consistent gas quality and supply, no impurities or running out of gas



Economical

Eliminate ongoing costs of cylinders, manage lifetime running costs



Safe

No pressurized compressed gas cylinders in your lab



Green

No repeated gas deliveries, energy efficient



Protected

Comprehensive on-site warranty & service plans



2.0 Genius

It's good to know you have a Genius in your lab

Our Genius series is the culmination of over a decade's work in perfecting nitrogen gas generators for LC-MS & LC-MS/MS applications. These generators deliver greater efficiency, superior reliability and improved performance than their predecessors.

See the full range

www.peakscientific.com/genius



Genius XE Series

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)



** Year 2 of warranty subject to generator being serviced at end of year 1 by a Peak approved agent in accordance with fixed annual maintenance schedule. For full terms and conditions visit www.peakscientific.com/warranty-statement*

Genius SQ 24

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



Genius 1053

Producing up to 20 L/min of high purity nitrogen (99.995%), the Genius 1053 is suitable for a range of Spectroscopy applications, such as Circular Dichroism. Developed using PSA (Pressure Swing Adsorption) technology, this generator produces variable purities depending on outlet flow.

Features

Innovative CMS and PSA technology ensuring high purity nitrogen

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 reducing noise and vibration

Gas is supplied on demand so generator works to your schedule



Genius XE SCI 2

A premium standalone nitrogen and air solution for the new SCIEX Triple Quad™ 7500 LC-MS/MS System - QTRAP® Ready, Genius XE SCI 2 also supports the higher gas flow requirements of the recently released Echo® MS System.

Features

24/7 performance- next generation high performance premium compressors, ensuring maximum uptime of your LC-MS instrument

ECO (Electronic Compressor Optimisation™) technology for increased compressor durability and reduced carbon footprint

Repeatability- Multi-Stage Purification™ to reduce moisture and contaminants providing consistent quality of gas

Low impact on laboratory with low noise and heat emissions

Significantly reduced footprint, to fit under most standard lab benches



See lab gas in a new light

With flow rates up to 35 L/min, Solaris generators are compact and economical nitrogen gas solutions for labs.

See the full range

www.peakscientific.com/solaris



Solaris XE

Peak Scientific's Solaris XE nitrogen generator has been engineered using membrane technology to meet the gas delivery requirements for labs using LC-MS/MS or multiple ELSDs. 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

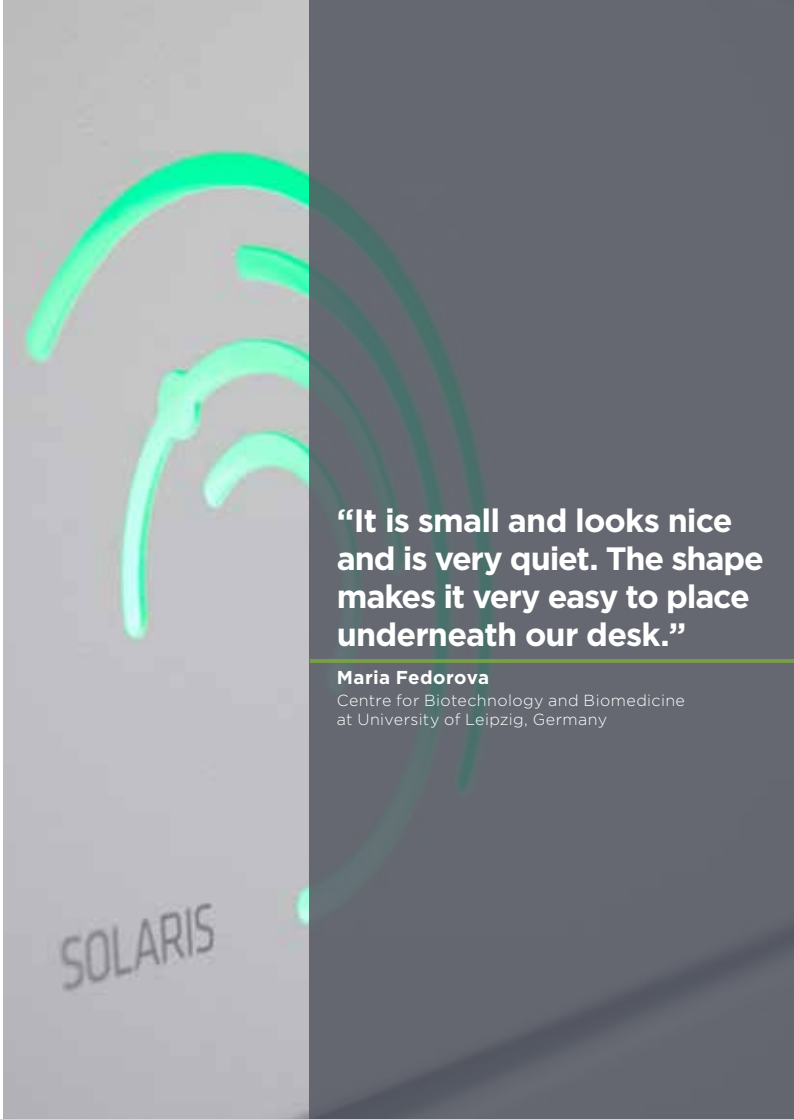
Variable outlet flow, pressure and purity

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





**“It is small and looks nice
and is very quiet. The shape
makes it very easy to place
underneath our desk.”**

Maria Fedorova

Centre for Biotechnology and Biomedicine
at University of Leipzig, Germany

Solaris 10

Peak Scientific's Solaris 10 Nitrogen generator has been developed to provide an optimal gas generation solution for ELSD or Compact Mass Spectrometers, with the goal of reducing instrument downtime and improving workflow efficiencies.

Features

High purity nitrogen for ELSD or Compact Mass Spectrometers

Flows up to 10 L/min at 100 psi and up to 99.5% purity

Compact benchtop form factor

Colour indicative LED lighting for easy status awareness

Optional Solaris Air Compressor stackable module

Manufactured and tested to highest specifications in UK; CE and FCC certified



4.0 Infinity

Compressorless N2 generators for your lab

Compressor-free nitrogen generators for laboratories, Infinity generators are able to run uninterrupted 24 hours a day. Effectively silent in operation these generators can deliver up to 520 L/min of high purity nitrogen.



See the full range
www.peakscientific.com/infinity

Infinity XE 50 Series

Producing up to 520 L/min of high purity nitrogen gas, Infinity XE 50 series can comfortably supply multiple laboratory instruments simultaneously. With 8 models in the range offering various flows and purity capabilities up to 99.5% and a new PurityGuard™ for purity-critical applications (model dependent).

Features

Flow rates ranging from 10-520 L/min*

Variable N2 purities, ranging from 95-99.5%*

Maximum output pressure of 135 psi

Built upon tried & tested membrane technology

Compact, space saving design

Optional PurityGuard™, with auto shutdown feature available on all 50X1 models

* *Dependent on inlet pressure, inlet/outlet flow & inlet air quality*



Infinity 1031

The Infinity 1031 delivers high purity nitrogen and dry air to support Sciex LC-MS systems.

A compressor-free solution, the Infinity 1031 requires an air source to operate. With few moving parts this generator has minimal maintenance requirements and can operate 24 hours day for hassle-free nitrogen.

Features

Capable of supplying most SCIEX LC-MS systems

Exhaust, curtain and source gases from a single generator

24/7 operation at optimum performance if required

Completely silent in operation



5.0 Precision

Streamline your GC workflow with Precision

Combining convenience and reliability in a stackable and modular design, Precision is the safe and practical GC gas solution.

See the full range
www.peakscientific.com/precision



Precision SL

The smallest hydrogen generator for GC-FID, the Precision Hydrogen SL line has been developed to offer a streamlined laboratory-grade hydrogen gas solution for GC flame detectors at a purity of 99.9995%. Precision Hydrogen SL is safe, simple to use, easy to maintain and takes up minimal bench space.

Features

2 models - 100cc and 200cc

99.9995% purity @ 100 psi

One-button start-up and shutdown

Easy end-user managed servicing

Optional auto-water fill or pressurized water fill

Auto-shutdown fail-safe feature

CE, CSA compliant

2 year comprehensive warranty

Available in black or white

** Conditional on replacement of DI cartridge after 12 months.*



Precision Hydrogen

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)

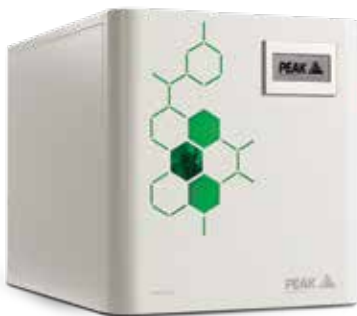
Suitable for GC detector gas
(all) and carrier gas (trace
model only)

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



Precision Nitrogen

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 gas 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



Precision Zero Air

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)





“We decided to make the switch from cylinders to hydrogen gas generators as we wanted to reduce the costs associated with helium such as regular cylinder deliveries and saving time by not needing to change over cylinders.”

Federico Cozzi

Laboratory Manager, Copenhagen University
Department of Plant and Environmental Sciences,
Denmark

Modular configurations

GC flame detector gas

- Precision Zero Air
- Precision Nitrogen (option for make-up gas)
- Precision Hydrogen

GC H₂ carrier gas with FID

- Precision Zero Air
- Precision Nitrogen (option for make-up gas)
- Precision Hydrogen Trace

GC-MS carrier gas

- Precision Hydrogen Trace



The Precision Series can be stacked in multiple variations depending on your lab's particular GC requirement, whether it is to supply GC carrier gas on its own, delivering flame support gas to detectors or for other detectors like TCDs or ECDs.

The Precision Series can also be purchased with an optional, stackable air compressor module for labs without a suitable air supply for the nitrogen or zero air generators.

For a full method list visit: www.peakscientific.com/gc-methods/



• **GC N₂ carrier gas with FID**

- Precision Zero Air
- Precision Nitrogen Trace
- Precision Hydrogen

• **GC-ECD or GC-TCD carrier & detector gas**

- Precision Nitrogen Trace



Every lab needs a specialist

Beyond our core ranges of laboratory gas generators, we have developed tailored solutions to meet the specific demands of many key analytical applications and instrument types.

See the full range

www.peakscientific.com/solutions





**“It’s a very compact model
and easy to use.”**

Sandeep Supal

Umedica Laboratories Pvt. Ltd, India

CHROMATOGRAFI NITROGEN

Corona Nitrogen 1010

Our Corona 1010 has been engineered to meet the specifications of the Thermo Scientific Corona Veo Charged Aerosol Detector.

This system can be purchased as a single nitrogen unit for laboratories with an external air supply or with a stackable air compressor for laboratories without an external air supply.

Features

Suitable for applications requiring high purity nitrogen

Available with or without an external compressor

Dedicated solution for Thermo Scientific's Corona and Vanquish instruments

Tried and tested membrane technology delivers laboratory-grade nitrogen

Gas is supplied on demand so generator works to your schedule

12 month comprehensive on-site warranty



NG Series

The NG Series delivers ultra high purity nitrogen at flows of up to 5 L/min for GC, DSC and DMA applications, as well as other laboratory applications requiring up to 5 L/min of ultra high purity nitrogen. The NG series can be supported by in-house air or supplied with an integrated compressor.

Features

Suitable for applications such as GC, DSC, DMA

Available with or without an external compressor

Contains self-regenerating Carbon Molecular Sieve technology

Available in either 3 L/min or 5 L/min model



TOC 1000

The TOC 1000 has been engineered using the latest in PSA and air catalyst technology to supply clean, dry, CO₂ and hydrocarbon-free air for Total Organic Carbon analyzers using combustion catalytic oxidation.

Features

1000cc TOC-grade air @ 50psi outlet pressure

<1ppm CO₂, <0.05ppm CH₄,
<0.1ppm NO_x/Sox

Tested and validated on leading TOC instrument manufacturers' equipment

Plug and play supply for TOC instruments with minimal set-up required

Can operate 24/7 with no compromise on performance

NPL (National Physical Laboratory) validated performance of catalytic chamber

Space-saving small bench-top form factor



PG Series

The PG14L and PG28L gas generators from Peak Scientific are suitable for laboratory instruments requiring CO₂ free gas like FT-IR analysis.

Using Pressure Swing Adsorption technology to remove CO₂ contaminants and moisture from air, these generators provide a consistent flow of air to ensure little background noise in laboratory analysis.

Features

Purge Gas (PG) generators from Peak Scientific offer gas which is free of contaminants

Ideal for commercial labs with a high throughput rate of samples

High performance filters and PSA ensure maximum reduction of moisture (< -70°C dew point).

Position generator where required, wall mountable for small labs

Most cost effective than any other gas supply as the FT-IR detector needs a constant flow of gas



Scalable high-flow, high purity N₂ solution for labs

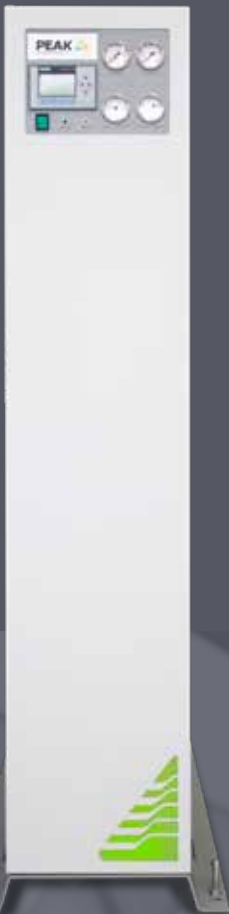
i-FlowLab is a modular & expandable on-site nitrogen generation system. It is capable of delivering a continuous & consistent supply, at a range of purities (up to 99.9995% N₂) and flow rates to meet the full & varying gas demands of your combined laboratory applications, such as LC-MS, gloveboxes, fume hoods, sample evaporators and more.

See the full range

www.peakscientific.com/iflowlab



Key Features



- **Consistent & Convenient** - Constant, reliable, stable & on-demand gas supply that eliminates the inconvenience of changing cylinders or dewars.
- **Economical & Sustainable** - A cost effective total laboratory nitrogen gas supply solution that eliminates the need for bulk delivery.
- **Expandable & Scalable** - i-FlowLab has the capacity to meet and exceed your current gas demands with the ability to expand as your laboratory grows.
- **Energy Efficient** - An innovative 'Eco-mode' ensures the lowest running costs by automatically managing production based on your daily demands.
- **Safe Supply** - Eliminate the handling of cylinders or storage of highly pressurized gases.
- **Verified Compliance** - Exceeds standards of EIGA, EC Food Grade, European Pharmacopoeia, JECFA and US Food & Drug Administration (CFR Title 21) . Peak IQ/ OQ certification also available.
- **High Quality Engineering** - Peak is an ISO 9001 certified manufacturer and i-FlowLab is expertly engineered to ensure performance and reliability.

i-FlowLab

i-FlowLab from Peak Scientific provides a total laboratory solution for on-site generation of nitrogen gas, delivering a continuous and consistent supply of high-purity nitrogen at the required pressure and flow rates to meet the full and varying demands of your laboratory or research facility.

Features

Consistent, constant, reliable, on-demand supply of on-site gas

No instrument or application downtime as a result of running out of stored gas

Bring control of your nitrogen supply in-house

No more administration costs

Scalable / Expandable, increase nitrogen production

Economical, fast return on investment and low cost of ownership with predictable running cost



Scalable

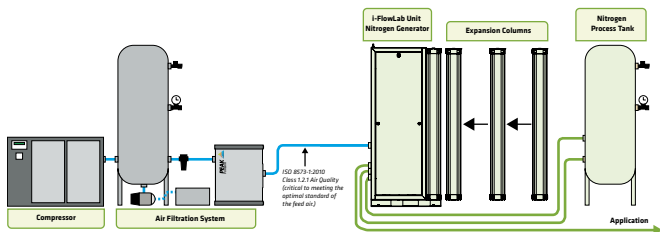
Up to ten CMS column banks can be added to each single i-FlowLab unit in less than a day, increasing nitrogen production capacity with minimal downtime.

Modular

Multiple units can be synchronized to meet demands based on application flow-rates and purity requirements (more units = greater flow-rates at specified purity).

95 - 99.9995% N₂ purity, at 21 - 4253 L/min

Example System



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.

Safeguard your laboratory workflow with [**PEAK Protected**][™]

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.



Rapid Response

Complete maintenance care with 24 hour rapid response breakdown cover



Service Plans

Complete maintenance care with guaranteed response time breakdown cover



Replacement Parts

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



Technical Support Hotline

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



Installation

Trained Peak FSE will visit to install and commission your generator



IQ/OQ

Certified assurance for applications requiring documented qualification

Find out more about Peak generator service plans at **www.peakscientific.com/protected**



Contact us today to discover more!

Web: www.peakscientific.com

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

Web: www.peakscientific.com/products