

*Your local **gas generation** partner*



Gas Generators

For Thermo Fisher Scientific Instruments

ThermoFisher
SCIENTIFIC

Discover more at www.peakscientific.com/thermo

Our story

THE PEAK WAY



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, China and India.

With 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).

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.

MANUFACTURING EXCELLENCE



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 story

PEAK AND THERMO FISHER SCIENTIFIC

Thermo Fisher Scientific is a global manufacturer and distributor of mass spectrometers and analytical tools headquartered in Waltham, Massachusetts. Thermo Fisher Scientific and PEAK Scientific have been working in conjunction since the production of the NG10LA generator in 1998. Since then, PEAK has produced several dedicated gas generator solutions for Thermo Fisher Scientific applications including the N418LA the Corona system and most recently our Genius XE products.

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 Thermo Fisher Scientific's range of LC-MS and other instruments.

There is a PEAK Scientific gas generator solution to match any of the Thermo Fisher-Scientific LC-MS instruments. PEAK have engineered purposely built generators, to meet the most efficient operating standards of Thermo Fisher Scientific instruments, for the MSQ, LTQ, LCQ, TSQ and Exactive series of mass spectrometers as well as solutions for Orbitrap instruments and the ISQ EC Single Quad LC-MS.

Thermo Fisher
S C I E N T I F I C

Our story

PEAK PERFORMERS: OUR WORLD-CLASS PRODUCT PLATFORMS

Four distinct product series define our core offering to supply Thermo Fisher Scientific analytical laboratory instruments. Our best-selling Genius XE Series, designed mainly for LC-MS applications, is a self-contained system featuring integrated compressors, delivering analytical-grade nitrogen at various pressures and flow rates.

The Infinity XE & Solaris XE Series of nitrogen gas generators are silent-running compressor-free systems for laboratories with an in-house supply of clean, dry air - delivering a wide range of flow rates including high-flow for applications such as sample evaporation or multiple mass-spec instruments.

PEAK has also engineered a specialist solution for the Corona VEO Charged Aerosol Detector. The Corona 1010A delivers ultra-high purity nitrogen for this specific Thermo Fisher Scientific instrument.

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

Application	Peak Solution		
	Single Instrument	Two Instruments	
ION Trap LC-MS			
LCQ Fleet LCQ DECA XP+ LTQ XL LXQ Linear Velos Pro Dual	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE35/70 (with Collision Gas Add on)	Genius XE35/70 (with Collision Gas Add on)
ORBITRAP LC-MS			
Orbitrap Exploris 120/MX Orbitrap IOX Orbitrap Astral Orbitrap Fusion/Basic/ETD-Ready/ IC Ready Orbitrap Lumos Orbitrap Tribid Orbitrap Velos/Pro Hybrid Orbitrap Velos Pro Hybrid Orbitrap Elite/ETD Ready Maldi LTQ LTQ Orbitrap XL/ETD Ready Finnigan LTQ/CL/ETD Ready	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE35/70 (with Collision Gas Add on)	Genius XE35/70 (with Collision Gas Add on)
Exactive/Q- Exactive Q- Exactive Hybrid Quadrupole Q- Exactive Focus Q- Exactive Plus Q- Exactive Plus Orbitrap Q- Exactive Plus EMR Orbitrap	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE 35	Genius XE 70
TRIPLE QUADRUPOLE LC-MS			
TSQ Quantum TSQ Access Max TSQ Quantum Ultra TSQ Quantiva TSQ Endura TSQ Altis TSQ Quantis Stellar-MS	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE 35	Genius XE 70
SINGLE QUADRUPOLE LC-MS			
ISQ EC	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE 35	Genius XE 70
CHARGED AEROSOL DETECTION			
Corona Veo Corona Veo RS Corona Ultra CAD (ESA) Corona CAD Vanquish	No compressor	Corona 1010 (nitrogen only)	
	Built in compressor	Corona 1010A	

Application		Peak Solution	
		Single Instrument	Two Instruments
FTIR			
Harshaw TLD Model 5500 Harshaw TLD Model 6600 Plus	No compressor	Solaris 10	-
	Built in compressor	Solaris 1010A	
FTIR			
Thermo Nicolet FT-IT Spectrometer (4700, 5700, 6700, 8700, i550)	No compressor	PG28L	-
	Built in compressor	Qualify flow rate	
EXTRACTION SYSTEMS			
ASE 150/200/300/350	Built in compressor	Genius 1053	-
AutoTrace SPE	Built in compressor	Qualify flow rate	-
ICP-MS			
iCAP Q ICP-OES iCAP 6000 Series iCAP 7000 Series	Built in compressor	Genius 1053	-
EXEMPTIONS			
LC-MS with HESI or HESI-II*	No compressor	Solaris XE	Infinity XE 6010
	Built in compressor	Genius XE 35	Genius XE 70
* Typical settings as recommended by Thermo Fisher Scientific do not exceed 30L/min, however at max gas settings with the HESI and HESI-II probe the gas demand can exceed the capacity limit of the Solaris XE and Genius XE 35 generators. In this instance the Infinity XE 6010 and Genius XE 70 will meet the gas demands for a single instrument and the Infinity XE 6020 will meet the gas demands for two instruments. These settings are unlikely to be used for analysis as they are not optimum. The application flows must be verified before selecting the appropriate gas generator.			

Application		Peak Solution	
		NSI Mode	ESI Mode
FAIMS CARRIER GAS			
Quantis* Fusion OrbiTrap Exploris 240/480** OrbiTrap Eclipse** OrbiTrap Fusion Lumos**	Built in compressor	Genius XE 35 Solaris XE	
TSQ Altis**	Built in compressor	Genius XE 70 Solaris XE	
Altis Quantiva Lumos	Built in compressor	Genius XE 35 Solaris XE	Genius XE 70 Infinity 6010

* Thermo advises customer unlikely to run ESI at highest gas setting

** Not yet ESI enabled, once ESI enabled we understand flow rates will increase

Peak Gas Generator Recommendations For Thermo GC

Detector	Carrier Gas		Detector Gas		
	Hydrogen	Nitrogen	Hydrogen	Air	Nitrogen
MS	Precision Hydrogen Trace	-	Not Applicable		
FID	Precision Hydrogen Trace	Precision Nitrogen Trace	Precision H2 / Precision SL	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 H2 / Precision SL	Precision Zero Air	Precision Nitrogen

		Peak Solution	
Application		Single Instrument	Two Instruments
Transmission Electron Microscope	Built in compressor	iFlow Mini	iFlow Mini



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	650 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

* 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.

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I would say that there are many **benefits** to making the **switch from gas cylinders to a gas generator**. I never have to change out nitrogen bottles nor do I have to store them. I have created **more space** in my lab.

Kirk Davis, Chemist

Foresite, inc, Illinois, US - Thermo Fisher LC-MS user

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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 6010

DESCRIPTION

Producing between 10-130 L/min of high purity nitrogen gas, the Infinity XE 6010 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 rates up to 130 L/min*
- N₂ purity up to 99.5%
- Versatile solution with varying Nitrogen flow, pressure & purity capabilities
- In-field expansion of nitrogen capacity to meet growing lab demands
- Optional second outlet for Dry Air



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Infinity XE 6010	up to 130 L/min	Nitrogen	135 psi	405 x 940 x 995 mm 15.9 x 37 x 39.2"	For multiple LC-MS/MS instruments

* Dependent on inlet pressure, inlet/outlet flow & Nitrogen purity setting

“

I would be **happy to introduce PEAK generators** to other researchers. I used to have a bad impression of Hydrogen, but PEAK generators have **safety features** which can stop the generator promptly if anything happens to it.

Dr. Akiyoshi Hirayama

Project Assistant Professor
Institute for Advanced BioScience,
Keio University
Japan

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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 and FPD are available at flow rates of 100cc, 200cc, 300cc and 450cc. 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 model)
- 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



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Precision Hydrogen	100 - 450 cc/min	Hydrogen	100 psi / 6.9 bar	380 x 540 x 406 mm 14.9 x 21.2 x 15.9 in	Detector Gas, Fuel gas
Precision Hydrogen Trace	250 - 1200cc/min	UHP Hydrogen	100 psi / 6.9 bar	380 x 540 x 406 mm 14.9 x 21.2 x 15.9 in	Detector Gas, Carrier gas

Product

Corona 1010A

DESCRIPTION

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

Features

- Suitable for applications requiring high purity nitrogen
- Available with or without an external compressor
- Dedicated solution for Thermo Fisher 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



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Corona 1010A	up to 5L/min	Nitrogen	80 psi / 5.5 bar	406 x 417 x 540 mm 16 x 16.4 x 21.3 "	Thermo Fisher Scientific Corona Veo CAD, Dionex ERS/Vanquish CAD

Product

Precision Hydrogen SL

DESCRIPTION

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



Product	Flow Rate	Gas Output	Pressure	Size (HxWxD)	Application
Precision SL	up to 200 cc/min	Hydrogen	100 psi / 6.9 bar	250 x 160 x 355 mm 9.9 x 6.3 x 14"	GC flame detectors

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!

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