Your local gas generation partner

Precision Series
Configurable gas generation system for GC and GC-MS

Discover more at www.peakscientific.com/precision
Streamline your GC workflow

Combining convenience and reliability in a stackable and modular design, Precision is the safe and practical GC gas solution for zero air, hydrogen and nitrogen gas in your lab.

Only Precision gives you all this:

- **Continuous** and **consistent** source of laboratory-grade gas for GC & GC-MS
- **Safer** and **more convenient** than pressurized cylinders, dewars or bulk storage
- **Compact, modular, stackable system** allowing maximum use of valuable laboratory floor or bench space
- High purity **hydrogen**, **nitrogen** and **zero air** gas at flow rates to suit any GC configuration
- **Complete gas solution** for carrier, detector, reference, flame support and sample preparation
- **Proven** and **robust safety systems** including internal leak detection on hydrogen models
- **12 month warranty** across the range, 3 year PEM cell warranty on Hydrogen models
Precision gas generators support thousands of GC applications throughout the world providing any combination of nitrogen, hydrogen or zero air to supply detector and/or carrier gas to support your specific GC setup.

Through our understanding of your priorities to have safer, more efficient, high purity gas in the lab, we have used our expertise to develop the Precision series; a total gas solution for GC and GC-MS.

Core to the Precision Series are the Hydrogen Trace and Nitrogen Trace models, cost-effective alternatives to helium - an increasingly expensive gas for laboratories worldwide as demand outstrips supply.

Complete **GC gas solution**

- **Enhance Workflow**
  Produce gas on demand, minimize disruptions and run samples around the clock without any risk of supply loss or running out of gas mid-analysis streamlining your workflow.

- **Improve Safety**
  Multiple integrated safety features within all models, including internal leak detection on hydrogen models with low stored volume and pressure of gas. Far safer than highly pressurized cylinders.

- **Future Proof**
  Combine different generators into a single stack to suit your lab’s GC configuration with multiple flow rate options to future proof your GC carrier and detector gas supply.

- **Save Space**
  Modular design allows for a small laboratory footprint and if starting with one or two modules, additional units can be stacked on top, minimizing the impact on your lab’s floor or bench space.
Modular configurations

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/](http://www.peakscientific.com/gc-methods/)

**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
Why switch carrier gas?

Comparison of Detailed Hydrocarbon Analysis using ASTM method D6729 & D6729 appendix X2 shows run times can be reduced by as much as 40% when switching from helium to hydrogen. As helium costs increase and availability becomes more uncertain. A switch to hydrogen carrier gas allows you to take control of your gas supply, reduce costs and improve efficiency.

Carrier run time: 125 minutes

Carrier gas run times up to 40% faster with Hydrogen when compared with Helium.

Carrier run time: 74 minutes

- 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
Safety as standard

Precision gas generators greatly reduce risks in the laboratory. Manual handling of highly pressurized cylinders in the lab remains a significant potential hazard. With Precision, not only are highly pressurized and heavy cylinders removed from the lab environment, but multiple safety features are also included as standard such as auto-shutdown on leak detection, mechanical shutdown fail-safe, minimal volume of gas stored and gas generated on demand.

Quality assured performance

All Peak gas generators are tested to comply with a number of internationally recognized standards including CE & CSA. Manufactured at Peak’s ISO 9001 accredited center of excellence and supported on-site by Peak’s global network of Peak field service engineers, Precision delivers a consistently pure GC gas supply laboratories can rely on.

Increase your lab’s productivity

Precision is designed and manufactured to enhance workflow for labs using GC. Removing the hassles and inconvenience of cylinders, such as running out of gas mid-analysis, managing supply stocks and placing orders. Replacing helium cylinders with a hydrogen generator can also bring faster run times, increasing the number of samples your lab can run daily.
“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, North Carolina, USA

“We have gas available on demand and we don’t have to worry about the purity or running out. There are also cost benefits in that we no longer have to order cylinders and pay monthly rental.”
Brian Cowan, Laboratory Manager, Council for Scientific and Industrial Research (CSIR), South Africa

“The Peak generators were highly recommended by Shimadzu and were sold as a package with the GC-MS.”
Federico Cozzi, Laboratory Manager, University of Copenhagen, Denmark

World Class Customer Service

With all Peak Scientific products comes industry leading support from [Peak Protected]™. With Peak certified engineers located across the globe you can be sure that on-site product support is never far away. With Peak, gas is one less thing for your lab to worry about.

24 Hour Response
Rapid response service engineer network, guaranteed on-site within 72 hours globally, 48 or 24 hours available in some regions.

Manufacturer Approved Parts
All components in Precision are engineered and tested to ensure optimal performance in your generator.

95% First Time Fix
Having dedicated Peak engineers around the world means most issues are resolved on first visit – 95% of the time in fact.

Installation
A dedicated Peak engineer will visit your lab to install and setup your generator.

Certified Engineers
Over 100 dedicated, fully certified direct Peak Service Engineers globally, with expert knowledge in troubleshooting and fixing any generator.

Global 24hr Technical Support
Around the clock support by phone or online with our global technical helpdesk.
## Precision Series

<table>
<thead>
<tr>
<th>Model Description</th>
<th>Gas Type</th>
<th>Flow Rate</th>
<th>Purity</th>
<th>Max Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision Nitrogen, 250cc</td>
<td>Nitrogen</td>
<td>250 cc/min</td>
<td>99.9995%</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Nitrogen Headspace 250cc</td>
<td></td>
<td>250 cc/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Nitrogen, 600cc</td>
<td></td>
<td>600 cc/min</td>
<td>99.9995%</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Nitrogen, 1L</td>
<td></td>
<td>1 L/min</td>
<td>99.9995%</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Nitrogen Trace, 250cc</td>
<td>Zero Nitrogen</td>
<td>250 cc/min</td>
<td>99.9995% / &lt;0.05ppm NMHC</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Nitrogen Trace, 600cc</td>
<td></td>
<td>600 cc/min</td>
<td>99.9995% / &lt;0.05ppm NMHC</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Nitrogen Trace, 1L</td>
<td></td>
<td>1 L/min</td>
<td>99.9995% / &lt;0.05ppm NMHC</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Zero Air, 1.5L</td>
<td>Zero Air</td>
<td>1.5 L/min</td>
<td>&lt;0.05ppm NMHC</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Zero Air, 3.5L</td>
<td></td>
<td>3.5 L/min</td>
<td>&lt;0.05ppm NMHC</td>
<td>80psi</td>
</tr>
<tr>
<td>Precision Zero Air 7L</td>
<td></td>
<td>7 L/min</td>
<td>&lt;0.05ppm NMHC</td>
<td>80 psi</td>
</tr>
<tr>
<td>Precision Zero Air 18L</td>
<td></td>
<td>18 L/min</td>
<td>&lt;0.05ppm NMHC</td>
<td>80 psi</td>
</tr>
<tr>
<td>Precision Zero Air, 30L</td>
<td></td>
<td>30 L/min</td>
<td>&lt;0.05ppm NMHC</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Air Compressor</td>
<td>Compressed Air</td>
<td>Suitable for various Precision Combinations</td>
<td>N/A</td>
<td>145psi</td>
</tr>
<tr>
<td>Precision Hydrogen, 100cc</td>
<td>Hydrogen</td>
<td>100 cc/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen, 200cc</td>
<td></td>
<td>200 cc/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen, 300cc</td>
<td></td>
<td>300 cc/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen, 450cc</td>
<td></td>
<td>450 cc/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen 1.2L</td>
<td></td>
<td>1.2 L/min</td>
<td>99.9995%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen Trace, 250cc</td>
<td></td>
<td>250 cc/min</td>
<td>99.9999%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen Trace, 500cc</td>
<td></td>
<td>500 cc/min</td>
<td>99.9999%</td>
<td>100psi</td>
</tr>
<tr>
<td>Precision Hydrogen Trace, 1.2L</td>
<td></td>
<td>1.2 L/min</td>
<td>99.9999%</td>
<td>100psi</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Water Bottle 4L</th>
<th>Water Bottle 8L</th>
<th>Hydrogen Leak Detector (GC in-oven)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4L Water bottle for use with Precision Hydrogen &amp; Hydrogen Trace</td>
<td><strong>4L Water bottle for use with Precision Hydrogen &amp; Hydrogen Trace</strong></td>
<td><strong>8L Water bottle for use with Precision Hydrogen &amp; Hydrogen Trace</strong></td>
<td><strong>Hydrogen Gas Detector for use with Precision Hydrogen &amp; Hydrogen Trace</strong></td>
</tr>
</tbody>
</table>

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**Need help calculating your GC gas flows?**

Visit: [peakscientific.com/gasflow](http://peakscientific.com/gasflow)

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**Contact us today** to discover more!

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