



FOCUSED ON CONTINUOUS GENERATION

Nitrogen gas generation solutions for liquid
chromatography mass spectrometry



ENGINEERING YOUR SUCCESS.

FOCUSED ON FAST, RELIABLE SUPPLY

Liquid chromatography mass spectrometry (LC/MS) is used in a range of scientific sectors in applications including drug development, environmental analysis and drug discovery. But LC/MS systems require a consistent, high-purity supply of inert or unreactive gas to effectively separate liquid mixtures and accurately identify the components by their mass – tasks that can be complicated by traditional means of supply.


Developed alongside equipment manufacturers and researchers, including chemists, pharmacists and environmental scientists, Parker nitrogen gas generators are industry-leading, engineered to ensure reliable, cost efficient gas supply for the precision testing customers demand. Developed alongside equipment manufacturers and laboratories, Parker nitrogen gas generators are industry-leading, ensuring laboratories are supplied with reliable and cost-efficient gas supplies that enable precise testing.

"Our gas supplies are safer and more consistent than ever before."

Chemist, Ireland







"The lab's traditional nitrogen supplies were undependable, but since switching to a Parker on-site generator, we can completely rely on the quality of our nitrogen".

Lab Technician, United Kingdom

FOCUSED ON DEPENDABLE PURITY

Nitrogen gas generators offer laboratories a more dependable, pure, safe and cost-efficient gas supply compared to traditional cylinders, dewars and tanks.

Consistent supply

The Parker range of gas generators are installed at the point of use to provide users with a plentiful supply of nitrogen gas when they need it, at the pressure, flow and temperature required. This removes the administration and risks inherent in organising gas deliveries, where deliveries may be incorrect or late.

Traditional supplies also need regularly replacing, and compared to one another, often have differing levels of purity. This can harm the reliability and accuracy of results and the validity of research, but on-site nitrogen generators eliminate these risks.

Reliable purity

Cylinder and dewar nitrogen gas purity can vary due to either the inherent quality of the gas in the vessels themselves, or due to air leaking into delivery systems when cylinders are changed. For scientific processes like LC/MS that require high-accuracy gas supplies, this can pose a problem, risking the precision of instruments and tests performed on them.

Parker nitrogen gas generators and their complex separation and filtration systems ensure consistent purity levels, removing the threat posed by impurities entering the system. This allows for extremely sensitive work to be confidently undertaken.

Reduced downtime

As well as the time taken to order, record and transport them, cylinders and dewars must be replaced and recalibrated whenever they run out of gas. Parker generators produce gas on demand at any time of day, working around research schedules, not informing them, and allowing more research to be carried out.

Nitrogen gas generator maintenance operations are fast and straightforward with long service intervals. This further reduces interruptions to gas supplies and the research schedules that depend on them.

Lower lifetime cost

Alongside having to factor in the fluctuating price of gas, labs using gas cylinders and dewars must also bear in mind delivery, vessel and storage fees. And that's not including the maintenance of the gas delivery system itself.

Gas generators remove practically all these charges, and the cost of the generator can often be recouped in as little as a year. Ongoing costs are also lower, due to ultra-low electricity demands, exceptional energy efficiency and low maintenance requirements.

Safe supply

There are a range of safety issues that can arise when using highly pressurised gases, including the threat of explosions, gas leaks and manual handling injuries. All these put staff, equipment and facilities at risk.

With Parker nitrogen gas generators, these dangers are significantly reduced. Leak detection sensors will automatically switch off machinery and sound alarms to alert staff, and compared to traditional supplies, far smaller volumes of gas are stored at lower pressures within generators, resulting in an all-round safer gas source.

Meet LC/MS equipment requirements

All Parker nitrogen gas generators have been designed and produced alongside laboratories and equipment manufacturers to meet rigorous LC/MS equipment requirements, so operators can be sure that their gas supplies will work seamlessly with their existing equipment and provide the purity required for ultra-accurate testing.



FOCUSED ON COMPLETE GENERATION

Parker gas generators ensure labs are provided with a stable, secure and outstandingly pure supply of nitrogen gas for LC/MS equipment, whatever the flow rate, purity or design required.



POINT OF USE NITROGEN GENERATORS

Constant, high-purity and cost-efficient nitrogen sources delivering ideal performance for a range of drying, sheath and nebulising applications.

PSA LC/MS NITROGEN GENERATOR

Parker PSA LC/MS generators provide LC/MS equipment with a continuous supply of high-quality nitrogen and are approved by all major instrumentation manufacturers.

- Four models available
- 20L/min to 50L/min flow rates
- Up to 99.5% purity
- Plug and play designs
- Proven analytical performance
- Extremely quiet
- Available with or without an integral oil-free compressor



NITROFLOW LAB

The Nitroflow Lab can be used for a range of LC/MS applications and provides excellent gas purity thanks to proprietary oil-free filtering through hollow fibre membranes.

- Variable flow rate from 1-32L/min
- Up to 99.5% purity
- Up to 8 bars of pressure
- Quiet operation
- Approved by all major LC/MS manufacturers
- Self-contained design

MEMBRANE LC/MS NITROGEN GENERATOR

Compressorless nitrogen generators, the Parker Membrane LC/MS Nitrogen Generator provides large amounts of high-purity nitrogen for LC/MS operators, and has been tested and approved by all major manufacturers.

- Up to 228L/min flow rate
- Up to 8 bars of pressure
- Up to 99.5% purity
- Complete air to nitrogen systems
- Minimal operator attention required



HIGH-PURITY POINT OF USE NITROGEN

Parker's point of use nitrogen generators provide gas at purities of 99.5% or above.

HPN2

Durable and reliable generators for life science, spectroscopy and chemical analysis applications.

- 5 to 14L/min flow rates
- Available with or without an integral compressor
- Purities from 99.5% - 99.999%
- Plug and play design
- Economy mode increases compressor life and lowers running costs
- Approved by all major manufacturers

UHP-ZN2

Generating industry-leading nitrogen purities, the Parker UHP-ZN2 gives operators assuredly accurate results.

- Ultra-high purity nitrogen – <0.1ppm hydrocarbon content
- Engineered for maximum reliability and minimal operator attention
- Compact, plug and play, low-noise design
- Economy mode increases compressor life and lowers running costs
- Internal heated catalyst for carrier-grade nitrogen
- Available with or without an integral compressor



MULTI-FLOW NITROGEN GAS GENERATORS

Parker single-source multi-flow nitrogen gas generators provide multiple sources of gas for specialised LC/MS applications.

LC/MS 64/65

The LC/MS 64/65 are specially designed to meet the drying, sheath, nebulisation and collision gas requirements of Agilent Technologies QQQ & Q-TOF instruments.

- Two continuous streams of high-purity nitrogen
- Up to 99.999% purity
- 200ml/min and up to 30L/min flow rate
- Plug and play unit
- Featuring an integral oil-free compressor
- Extremely quiet

NITROFLOW TG2

Designed for three gas mix LC/MS instruments, the Parker NitroFlow TG2 is one of the most powerful, dependable and quiet integrated TriGas generation systems on the market.

- Up to 80L/min flow rate
- Zero air produced at pressure above 110 psig
- Nitrogen produced at pressure above 80 psig
- Exhaust dry air produced at pressure above 80 psig
- Gases generated using scroll compressor and gas dehydration membranes
- Output gases purified with proprietary series of purifiers, polishers and getter materials



LARGE FLOW NITROGEN SUPPLY

NITROSOURCE

Designed to replace bulk nitrogen supplies in large laboratories, the Parker NITROSource PSA generator range produces large quantities of high-purity gas to supply multiple labs at the same time. Installed in labs across the globe, the NITROSource range is suited to applications including LC/MS, LC/MS/MS, nebuliser gases for APCI and ESI, ELSD, Turbo Vaps and chemical solvent evaporation.

- Produces nitrogen gas with oxygen content as low as 10ppm
- Flow rates up to 155m³/hr
- Output pressure up to 11 bar
- Low servicing costs
- Long working life

FOCUSED ON TOTAL RELIABILITY

Parker LC/MS nitrogen generators provide a dependable supply of high-purity nitrogen gas that's trusted by laboratories across the world.

Each model has been developed and tested alongside the world's leading analytical instrument manufacturers and all provide cost, safety, usability and reliability benefits compared to traditional cylinder and dewar gas supplies. Compact, quiet and low-maintenance, they ensure research equipment can perform accurately.

Global support

Over 50,000 Parker gas generators are installed across the globe; each backed up by a world-class support and distribution network that ensures maximum generator performance and efficiency. This increases the effectiveness of instruments to improve the accuracy of research.

For more information or a discussion of your LC/MS generation requirements, please contact Parker or an authorised Parker distributor.

Next-generation LC/MS nitrogen

- On-site nitrogen generators for precise LC/MS research
- Outstanding and reliable nitrogen purity
- Lower total lifetime costs
- More efficient lab operations
- Safer than cylinders, dewars and tanks

"Parker were able to provide a specialised solution to our laboratory's nitrogen gas requirements, with expert support through the whole process"

Researcher, Germany



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www.parker.com/gsf

Your local authorized Parker distributor