



Developing Next-Gen Gas Generators

PARKER'S GAS GENERATORS OFFER THE OPTIMAL BLEND OF SAFETY, RELIABILITY, AND PERFORMANCE

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Q: Please share a few words about Parker's history and role within the industrial gas filtration and generation sector.

A: Parker is a pioneer in lab gas generation technology. In 1979, Parker Balston developed the first commercial analytical gas generator for laboratory use. For over 40 years, our products have been installed in laboratories all over the world and Parker has become recognized as the industry leader offering solutions for GC, LC-MS, FID, FT-IR, and many more. As a respected and trusted industry partner, our focus is continuously adapting to ever-changing market demands and providing high-quality, reliable gas generator solutions that mitigate the challenges our customers face today.

Q: What are the key factors behind the transition from gas cylinders to gas generators?

A: Parker's gas generators are substantially safer than cylinders because only a small amount of low-pressure gas is present at any given time. Conversely, high-pressure cylinders store large amounts of gas at pressures as high as 3000 psi. This presents serious hazards to employees responsible for handling the cylinders and elevates the potential for leaks that could cause a dangerous explosion in the lab.

Q: What do Parker's new line of ChromGas™ generators have to offer?

A: ChromGas™ is Parker's NextGen gas generator solution for gas chromatography, allowing labs

to take control of their gas supply by making their gas onsite and on demand. This new line of hydrogen and zero gas generators is smaller and stackable—freeing up valuable floor space in the lab. Its new state-of-the-art controls feature a user interface panel that elevates user-friendliness, performance monitoring, and convenience. ChromGas™ has remote monitoring capabilities that can provide data analytics to drive increased laboratory efficiencies. These generators exceed NFPA 504 and OSHA 1910.103 and meet CSA, UL, CE, and UKCA providing a safer environment for employees.

Q: What were the major concerns that Parker addressed in the development of the ChromGas™ line?

A: Rather than assuming what the market needs, Parker listened to its customers. We went out and obtained voice of customer to gather customer opinions of our products, competitor products, pain points, and what they would like to see from Parker going forward. The feedback we received helped us understand that labs are still struggling with not only the unreliability and rising costs of gas delivery, but also with safety and storage concerns related to high-pressure cylinders. In addition, we have learned that our technology is truly best in class and has proven to be dependable for our customers. As a result, Parker made modifications and fine-tuned our existing products to reduce lead times, improve serviceability, and address the needs of the market by making our generators more innovative, stackable, and easy to use.

Q: How do the environmental benefits and safety benefits of the ChromGas™ series compare to traditional sources?

A: Generating hydrogen or zero air gas with Parker's ChromGas™ gas generators is a sustainable, environmentally friendly, and energy-efficient approach to providing pure, clean, dry laboratory-grade gas. As a result of lower energy consumption and the need to transport the gas, fewer greenhouse gases are emitted, thereby helping to protect the environment. Onsite gas generation eliminates the risk of employee injury or cylinder damage during transportation, installation, or change-outs, as traditional high-pressure gas cylinders are heavy and are a danger to staff if a valve is compromised. A leaking hydrogen cylinder could lead to a hazardous explosion resulting in serious injury to staff and extensive damage to lab equipment.

Q: Moving forward, what prospective innovations are in development for future models in the ChromGas™ line?

A: ChromGas™ H2F and ZAG are only the beginning. New variants within the ChromGas™ range will be launched in stages. Our H2PEM-PD generator is touted as the highest purity onsite hydrogen generator on the market. Palladium is utilized to achieve such high purities. Currently, testing is underway to develop a ChromGas™ product that continues to deliver the highest purity hydrogen at the best price for our customers. We are also developing a NextGen gas generator series for liquid chromatography-mass spectrometry (LC-MS) applications which meet the continuously changing requirements of LC-MS instruments.

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