

A touch of Genius.

In what has been a year of opportunity for visionary science led companies, it is comforting to report that innovation is alive and well, not only in the multi nationals, but, in some of the smaller scientific businesses also.

Peak Scientific Instruments, the Scottish based, global gas generator manufacturer has enjoyed a buoyant year fueled, behind the scenes, by a desire to improve its products and become a 'best of breed' manufacturer. To accelerate this period of product development and growth the company has given itself a bold brand makeover by modernizing its highly recognizable Pyramid brand mark and emboldening its Logotype to stand it in good stead as the company gears up for a new assault on fresh and existing customer bases.

Robin MacGeachy, CEO said; "our Pyramid device has had a long association with the business and held a significant degree of brand equity. The new Peak logo gives us more brand standout."

Simultaneously, the company has taken huge steps in improving the quality and functionality of its generators. Peak engineers have re-designed its core range of Nitrogen gas generators and implemented a series of highly beneficial improvements unique to the marketplace. These improvements include ingenious little touches that reduce vibration and noise. *Robin commented; "Our design engineers have worked tirelessly to improve on the existing range of systems. They can be justly proud of their achievements and we have called the new range 'Genius' to reflect the innovative developments devised for our products."*

The new range overall includes four models. 'Genius NM32LA' is the smarter brother of the NM30LA. The new model can now fulfill the requirements – pure nitrogen - for almost all LCMS Models available in the market today. The new 'Genius NM32LA' removes oxygen, moisture and other gases to leave clean, dry phthalate free Nitrogen. Two internal air compressors make this model independent from in-house air supplies. Fitted castors allow the unit to nimbly fit into tight lab spaces and the unit has been approved by major mass spec manufacturers for their LCMS applications.

The 'Genius NM-3G' has been re-designed with additional compressor capacity. This allows the

generator to cycle the compressors more frequently, maximizing compressor life. The smart in-built Alert System warns the users of any impending issues but manages the compressors to maintain a full output flow for the generator. It also has anti vibration, low noise, improved drainage and is safer to use.

Two models of the new range fit into the 'High Value' bracket and replace previous generator designs while the remaining two models are technically advanced, particularly in terms of safeguards, and fall emphatically into the Premium category. These safeguards are unique to Peak Scientific generators and effectively deliver *'reassurance and confidence for critical functions'*. The safeguard technology works by having three internal compressors instead of two. The spare compressor can take on the work load if one of the others fail, ensuring that a constant outlet flow and pressure of nitrogen is maintained. This guarantees the customer an uninterrupted supply of gas even if there is a technical problem.

The generator can then be repaired without the customer ever experiencing 'down-time' or going without gas. This is an excellent facility for critical environments. The additional compressor capacity also facilitates a better duty cycling of the compressors, thus prolonging compressor life.

"These generators are a completely new design in terms of engineering and end user benefits. The ergonomics and aesthetics have also been improved and overall we now feel confident we offer the best gas generators on the market. Our after sales service is still world class, though you may not need it very often with these new models" said Ann McLaren, Events and communications manager.

The 'High Value' versions are now smaller in size and fit unobtrusively under a standard lab bench. We have reduced the noise emitted from the internal compressors to offer less acoustic pollution to the customer. Vibration and heat emissions have also been reduced to an absolute minimum. The new models feature *'alert'* and *'service due'* LEDs to make the customer aware of problems and service requirements. They also offer a 230v single phase plug and play system and are easy to install.

The 'Genius' models all come on castors to fit easily under standard lab benches and feature improved sound insulation for quieter operation.

The Premium generators also come with a PLC and integrated fault diagnosis, alarm and control panels. The new model has been tested in the field for over 1 year to ensure the design is sound and ultra-reliable.

Max operating temperature has been raised to 30 degrees centigrade and to prevent failure due to usage in excessive ambient temperatures, the system now features a thermostat measuring ambient temperature. This causes the system to alarm if the generator has been running in such an environment for too long a period (thus preventing system damage).

These design-led improvements, that we lovingly refer to internally as ‘tinkering’, are the result of in-depth product analysis, customer feedback and Peak Scientific’s desire to innovate and be market leaders. They have sourced high performance, robust parts and incorporated these into the generators construction. The compressors are stored in a separate compartment, which is well insulated to reduce noise. Heat generated by the compressors is not just vented, but utilized to re-heat the air going into the membranes, reducing the risk of condensation and moisture build up.

They have designed a lot of other clever improvements, such as improving internal layout for more efficient operation and easier access for maintenance. In a nutshell, the Peak Scientific ‘Genius’ range offers lots more reliability which means virtually no downtime, they are more robust, quieter, give off less vibration and they take up less room in the Lab.

Touch of Genius indeed.

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