10 minutes with… Gerard Catchpole

By Stephen B. Harrison, published in gasworld magazine | 1 July 2020

Thanks for joining gasworld today Gerard. How are you finding life behind the wheel at VICI DBS?

I took over from Heinz Schmidlin at the turn of the year. He moved across to an advisory position because Swiss law says that's the right thing to do when you hit that 'certain age'. But I have been working with the laboratory gas generator team here for four years and Heinz set us in a good direction of growth and product development, which I will continue.

So, what about your latest high purity gas generator developments?

Source: VICI AG

Two new rack mounted laboratory gas generators are getting a lot of attention at present. They will both be ideal for remote ambient air quality (AAQ) monitoring applications. That's where people want to measure traces of pollutant gases such as sulfur dioxide, oxides of nitrogen and hydrocarbons on highly sensitive gas analysers.

What kind of laboratory gases do your instruments produce?

One is a 19" rack-mounted high purity nitrogen generator which is ideal for FTIR analysers that need a purge gas. The nitrogen is also an ideal 'zero gas' for other analysers. It uses a PSA system with a CMS (carbon molecular sieve) to achieve 99.999% purity. That entered the range late last year.

For 2020, we introduced a 19" rack-mounted high-purity zero air unit. In combination with a hydrogen generator, it's ideal for total hydrocarbon measurement using an FID. The big step forward is that the air compressor is built in, which means that it's a totally independent piece of kit.

"I have been working with the laboratory gas generator team here for four years…"

With those capabilities, your lab gas generators must be at the heart of those AAQ monitoring stations…

Correct. The AAQ monitoring stations are designed to measure and report data 24/7/365. Reliability is essential and delivery of gas bottles to AAQ monitoring stations at the top of a mountain, the roof of a tower block or the side of a motorway is tough.

To ensure continuous supply of the instrumentation gases, operators can run two generators side by side, each one at 50% capacity. Then, if one needs servicing the other can ramp up to 100%.

What about the digitisation. Is that built into these new units?

Yes, and that's also a hot topic for remote AAQ stations. They run VICI DBS hydrogen, nitrogen and air generators far from our service centres. With the digitalisation of our equipment and modern communications possibilities, we can advise the AAQ station operator from our offices and guide them through a maintenance procedure.

You are really exploiting the digital revolution, aren't you?

Absolutely. We also use remote condition monitoring so that our service team can anticipate maintenance. Some environmental stations are located at high altitude in the Alps and it's a full day's hike to get there. A lot of kit might be packed into the rucksack for the monthly site visit. So, the technician wants to know they have the correct consumables and spare parts with them.