

10 minutes with...

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Thanks for taking 10 minutes out with gasworld. What have we interrupted in your schedule?

It's my pleasure!

We're currently very busy at STÖHR planning for both company growth and technological development. The first involves increasing internal capacities while maintaining high quality and safety standards; the second requires investing adequate time to work on technologies for future challenges.

Tell us a about the company's expertise in helium, our theme this month...

Since the 1950s, STÖHR has specialised in engineering and manufacturing fittings for gases at cryogenic temperatures for four business segments: technical gases, space, maritime engineering, and science.

The science industry in particular is dominated by the use of helium, and we've supplied this segment since the early 1970s, starting with cooling equipment for particle colliders. STÖHR is now listed as valve supplier to helium refineries in the Middle East, and the latest developments show the need for helium cooling of quantum computers at cryogenic temperatures – a new field of application for us.

It's not just temperatures of absolute zero that challenge materials. There are also stringent demands on tightness to the outside for vacuum-jacketing where leakage would destroy the vacuum. No helium user wants to lose this rare and expensive cryogenic gas, and we prevent this loss by applying bellow-sealing. Other challenges include minimum heat loads, which we meet with our special valve designs and use of new materials.

What developments is STÖHR bringing to the market this year?

We've grouped customer requests into four focus areas for further development: first, to increase the maximum pressure level on bellow-sealed valves above the current limit of 420 bar. The coming year will see valves at further increased pressure levels of some hundred bars higher – with bellow sealing and at reasonable valve sizes – compared to the products available on the market today.

Secondly, we're facing increasing demand for very large valve sizes in combination with high pressure levels and low leakage rates. We're talking about heights of over two metres and weight of over one ton, so design, manufacture and testing are a big challenge! Thirdly, future colliders will require valves with even less heat intake. We're evaluating new materials with a view to integrating them into our products in the future.

Finally, Industry 4.0 impacts gas plant operations as well as logistics operations and factory automatisation. We are already seeing sensors, electronic data transmission, cloud-based data collection and reporting for preventive maintenance on some lower-tech products on the market. Our challenge is to apply these technologies for the highly challenging environment of our products earmarked by cryogenic temperatures, installation under vacuum condition or electronic data transfer at shielded conditions. Mere reporting of operation and status data will no longer be sufficient; analysis and recommendations for preventive maintenance are tomorrow's demands.

What's the last stamp in your passport?

My passport was stamped by Indian

“No helium user wants to lose this rare and expensive gas”

immigration when I visited the country to look at some of the innovative projects being developed by their space industry. My trip combined highly sophisticated discussions with knowledgeable customer representatives, with rich and interesting impressions of this colourful country.

What do you see as the biggest challenges in the valves market today?

It's not what drives many others in the industry, such as ongoing price pressures due to internationalisation, or shortened lead times. Of course, we need to take these issues seriously, but for us, it's the need to maintain our highest quality and safety standards simultaneously.

Due to the ongoing increase of applications for liquid gases – not only helium but also oxygen and hydrogen – STÖHR products have a growing range of uses. It is essential for us to be visible and to become a project partner from the very beginning.

If you could give one bit of advice to your younger self, what would it be?

To join STÖHR many years earlier. Now my business partner and I are in such a rush to realise all our ideas!

What's next for STÖHR?

Besides dealing with internal growth, we must continue to find creative developments that keep us true to our company motto: *STÖHR – valves for the extremes.* 