



WORLD WIDE WEAVE

## **GKD: Proven innovation expertise**

Saltwater-proof 24 µm mesh proves a visitor magnet

The owner-run technical weaving enterprise GKD – Gebr. Kufferath AG once again addressed the hottest topics in the filtration sector with its presence at the FILTECH event in Cologne, Germany. The innovative processes and products presented during the leading international trade fair for filtration and separation technology attracted keen interest from the expert audience in attendance. The discussions primarily focused on the latest development by the leading filter and process belt technology specialist: a saltwater-proof mesh from the Porometric range with a pore opening of 24 µm and three times greater permeability than conventional fabrics. The advanced knowledge regarding numeric simulation of the bubble point also attracted a great deal of interest. With newly discovered interdependencies, GKD facilitates even faster and more precise checking of pore openings and size distributions. The company also presented these two issues in lectures during the convention held in parallel to FILTECH.

There was quite a rush to see the latest products and findings from the filtration experts, which sat at the heart of the GKD trade fair appearance and were on show for three days. The practical yet also pioneering innovations clearly aroused the interest of specialists from all over the world.

### **New solution for ballast water filtration**

The further diversified Porometric range of fabrics drew a lot of interest. The high porosity of their three-dimensional slit structure with rectangular pores guarantees three times greater permeability than conventional meshes, while maintaining the same separation rate. At the FILTECH fair, GKD presented



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this highly permeable weave with a pore opening of 24  $\mu\text{m}$  as a saltwater-proof mesh that can be used in all standard cartridge filters for ballast water filtration. This aperture, which is 10  $\mu\text{m}$  finer than all other filtration meshes used to date, delivers considerable advantages with its unsurpassed flow rate and excellent filtration performance. The significantly finer particle retention also has a cost-reducing effect on the downstream UV treatment process used in ballast water systems. At the same time, the significantly higher flow rate achieved in the same size filter provides a massive boost for all applications where space is at a premium. The excellent cleaning characteristics of the saltwater-proof filtration mesh also improve process efficiency.

#### **Faster definition of pore size**

The topic of numeric simulation of the bubble point also attracted a great deal of interest among the sector visitors at FILTECH. To measure the pore diameter, GKD developed a process that uses a multi-phase simulation model to determine the capillary pressure constant. With the use of simulation tools, this enables the filtration experts to determine the largest pore opening significantly faster and more precisely than with previous processes. Newly discovered interdependencies now allow the GKD engineers to estimate the capillary pressure constant even without calculations, which in turn enables them to determine the mesh apertures. Absolute pore openings and correct pore size distributions can then be checked even more quickly. Interest in this process motivated numerous users and manufacturers of measuring equipment to visit the GKD trade fair stand to discuss the new findings with the experts.

Both of these topic areas impressively underlined the company's leading engineering and manufacturing expertise. This comprehensive innovative strength can be attributed to the close interaction of research, development,



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and production under one roof. It also makes GKD a popular solution partner worldwide for challenging filtration tasks in the fields of municipal and industrial water processing. The enthusiastic response to the trade fair appearance in Cologne was once again the best evidence of this.

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