



WORLD WIDE WEAVE

## **Advantage over continuous vacuum belt filters**

**GKD: VACUBELT<sup>®</sup> filter belts for key industries**

**At FILTECH 2018, leading international technical weavers GKD – Gebr. Kufferath AG will be presenting their range of VACUBELT<sup>®</sup> filter belts for key industries. Whether phosphogypsum or salt dewatering in fertilizer production, FGDP gypsum dewatering at power plants or cooling lubricant filtration in the metal processing industry: filtration efficiency, productivity, and process reliability are the key success factors in an increasingly challenging global competitive environment. The VACUBELT<sup>®</sup> filter belts, developed for specific processes, also make a key contribution to this in continuous vacuum belt filter systems. Besides the special mesh design, the exemplary efficiency and cost-effectiveness can be attributed to the seam technology. With their decades of practical process expertise, the experts from GKD will also be on hand to discuss individual challenges at the leading trade fair for filtration and separation technologies in Cologne, Germany.**

Continuous belt filter processes have strict demands of the system components. Efficiency and productivity are largely dependent on the performance and downtimes of the filter belts used. With its range of VACUBELT<sup>®</sup> filter belts, GKD offers a technology that sets standards in exacting filtration processes throughout the world.

### **Cooling lubricant filtration**

The highly permeable VACUBELT<sup>®</sup> 3354 polyester filter belt offers greater cooling lubricant filtration security and facilitates high process efficiency without addition of filtration aids. Its outstanding lateral stability keeps the filter belt tracking accurate throughout its service life. The risk of bent-over



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edges or irreversible kinks along the length of the belt is significantly lower with VACUBELT® 3354. The specific mesh design guarantees good cake discharge and easy cleaning. A long useful life, as well as durability and stability, therefore qualify the innovative filter belt for use in central systems in large-scale metalworking operations – for example at a leading automotive supplier.

### **Phosphogypsum dewatering**

A successful harvest not only requires sowing seed, but also spreading fertilizer. After nitrogen, phosphorous is the most important mineral – with ever increasing demand. After all, this nutrient is not only important for plants. Humans and animals also need the mineral for healthy teeth, bones, and a strong immune system. Around 220 million tons of phosphorus are currently mined each year and processed to create fertilizer, with a rising trend. With the constant expansion of global production capacities, the amount of phosphogypsum is also on the rise. This is a by-product from the manufacturing process that needs to be efficiently dewatered prior to final storage. The high-performance VACUBELT® filter belts play a key role in this processing step. GKD designs and thermally matches these belts individually to the specific phosphogypsum properties, which themselves differ from process to process. Thanks to the specific manufacturing method, these belts excel through their high degree of lateral stability and optimum controllability. For example, the filter belts produced on special looms do not develop any creases, even in very large systems that measure up to 4.50 meters wide and over 70 meters long. This belt type is also rugged enough to handle the high mechanical, thermal, and chemical loads associated with the process, while its high degree of air permeability and low clogging tendency guarantee the requisite dewatering efficiency. Optimum cake discharge and excellent cleaning properties thanks to the smooth mesh surface serve to further substantiate the success of this belt type. The



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excellent belt running characteristics displayed by the VACUBELT<sup>®</sup> filter belts can be attributed to the seam technology they employ. The PAD seam, which is particularly flat in comparison with conventional hook seams, significantly reduces particle penetration due to its smaller open area and thereby makes a key contribution to the long service life of the belts.

### **Salt dewatering in potash fertilizer production**

Process conditions in potash fertilizer production are characterized by high temperatures and corrosive media. VACUBELT<sup>®</sup> 5060 filter belts demonstrate their exceptional efficiency in salt dewatering applications. Their single-layer design with apertures of up to 490 µm guarantees high dewatering performance. At the same time, the mechanically rugged and laterally stable belts impress with a long service life and excellent tracking stability. The PAD seam available from GKD closes off the seam area more effectively and has a longer useful life. Excellent cleaning properties and effective cake discharge underline the high productivity and cost-effectiveness of this belt type.

### **FGDP gypsum dewatering**

This is why the world's largest coal-fired power plants use VACUBELT<sup>®</sup> filter belts for FGDP gypsum dewatering. Thanks to its specific mesh design, the VACUBELT<sup>®</sup> 2015 fulfills the strictest requirements. Produced from pure polyester monofilaments, it excels through a particularly high degree of air permeability with less total open area yet more pores per square meter. Compared with standard market filter belts, it guarantees significantly faster dewatering and is less likely to clog. A high degree of lateral stability, even in large widths, as well as thermal resistance help ensure a long service life. Coupled with its excellent cleaning properties, the sum of all these advantages is what makes this belt type so superior for FGDP gypsum dewatering.



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**GKD – Gebr. Kufferath AG at FILTECH 2018**

**March 13 – 15**

**Kölnmesse**

**Hall 11.1**

**Stand D38**

*5.724 characters incl. spaces*

**GKD – WORLD WIDE WEAVE**

As a privately owned technical weaver, GKD - Gebr. Kufferath AG is the world market leader in metal, synthetic and spiral mesh solutions. Three independent business divisions bundle their expertise under one roof: Industrial Mesh (woven metal mesh and filter solutions), Process Belts (belts made of mesh and spirals) and Architectural meshes / Transparent media façades (façades, safety and interior design made of metal fabrics). With its headquarter in Germany and five other facilities in the US, South Africa, China, India and Chile – as well as its branches in France, Spain, Dubai and worldwide representatives, GKD is close to markets anywhere in the world.

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