



WORLD WIDE WEAVE

## **Maximum throughput, minimum pressure drop**

**GKD: Flow-optimised ODW meshes with unrivalled efficiency**

**When it comes to filtration, the crucial factors for the efficiency of the process are filtration rate, throughput rate, retention rate and lifetime of the filter media. Through purposeful modification and further development, GKD – GEBR. KUFFERATH AG, the international technology leader in the field of woven metallic filter media, has succeeded in making further significant improvements to the flow capacity of its optimised dutch weave meshes (ODW), a filter media that has already proven its worth in numerous filtration processes. These flow-optimised ODW meshes combine long-term reliability of filtration rates in the microfiltration range with almost three times higher throughput rates than the "revolutionary" innovations recently presented on the market. This is possible due to a specific mesh construction with an 8.5-times lower pressure loss coefficient than the products currently being offered by the competition. Other performance factors that contribute to the superiority of these flow-optimised ODW meshes are their low tendency to clog, easy cleaning and long service life.**

The basis of the high performance of ODW is their special mesh construction. The special weave creates a slot-shaped pore geometry on the mesh surface, whose openings are smaller than the pores inside the mesh. In this way, particles above the specified separation limit are reliably retained on the mesh surface. Smaller particles pass easily through the mesh interior without causing clogging. This explains the high dirt holding capacity of ODW. At the same time, this mesh construction also ensures trouble-free



WORLD WIDE WEAVE

cleaning, as the separated particles build up on rather than in the filter media and can be detached through simple backwashing. Further winning features of ODW meshes are filtration rates in the microfiltration range, high permeability and the long-term process reliability they guarantee. Because their resistance is considerably lower than conventional meshes, less filter surface is required and pump power can be set lower – a fact which impacts positively on energy consumption and thus on the carbon footprint of the filtration plant as a whole. Due to the specific weave of the mesh, substantially more stainless steel wire is woven on the surface compared to the other meshes available in this sector. This explains not only the great stability of the individual pores but also the unrivalled overall mechanical strength of ODW meshes, which is far beyond anything other filter media with comparable throughput rates can offer. As a result, ODW meshes are also significantly more reliable in long-term operation.

#### **Pore size determined with IMVT formula**

The sophisticated mesh geometry is reproducible at any time with the highest precision thanks to the state-of-the-art loom technology used by GKD. Required pore size is determined using the established formula of the IMVT. Initial lab results of the successful further developments were showcased by GKD at the ACHEMA 2015. The throughput rate of GKD's even further optimised ODW is three times higher than comparable products that are currently being touted on the market as revolutionary innovations. This excellent flow capacity is due to the more porous mesh structure of the ODW. In combination with the even further improved filtration rates, the larger open surface contributes to even more efficient filtration processes. GKD's declared aim for 2016 is the development of flow-optimised ODW with even finer pore openings. Peter Wirtz, Business Unit Manager of GKD - SOLID WEAVE, is absolutely convinced that this goal is within reach.



WORLD WIDE WEAVE

"Although our flow-optimised ODW meshes are already far better than any other product available in this sector, we are working at full speed on optimising them even further." The high-performance ODW meshes are already available for immediate delivery, as GKD has them in stock in standard sizes with a range of pore openings.

*4.042 characters incl. spaces*

#### **GKD – GEBR. KUFFERATH AG**

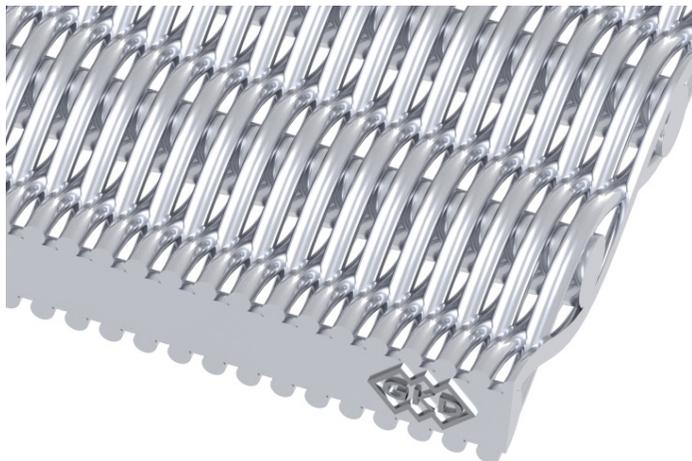
The owner-run technical weaver GKD – GEBR. KUFFERATH AG is the global market leader for metal and plastic woven solutions. Under the umbrella of GKD – WORLD WIDE WEAVE the company combines four independent business units: SOLID WEAVE (industrial meshes), WEAVE IN MOTION (process belt meshes), CREATIVE WEAVE (architectural meshes) and COMPACT FILTRATION (compact filter systems). With its seven plants – including the headquarters in Germany and other facilities in the US, Great Britain, South Africa, China, India and Chile – as well as its branches in France, Spain, Dubai, Qatar and worldwide representatives, GKD is never far from its customers.

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Picture 1: Through purposeful modification and further development, GKD has succeeded in making further significant improvements to the flow capacity of its optimised dutch weave meshes (ODW).

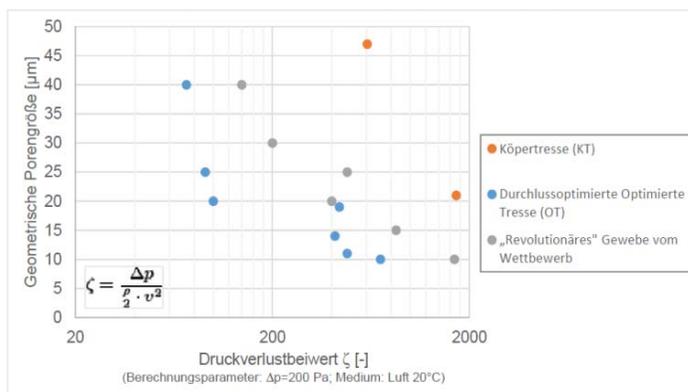


Picture 2: The special weave creates a slot-shaped pore geometry on the mesh surface, whose openings are smaller than the pores inside the mesh.

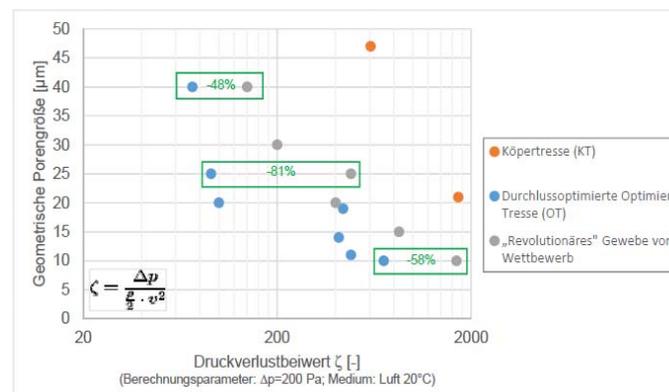
Picture 1-4 © GKD

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Picture 3: These flow-optimised ODW meshes combine long-term reliability of filtration rates in the microfiltration range with almost three times higher throughput rates than the "revolutionary" innovations recently presented on the market.



Picture 4: The throughput is possible due to a specific mesh construction with an 8.5-times lower pressure loss coefficient than the products currently being offered by the competition.

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