



WORLD WIDE WEAVE

GKD delivers groundbreaking innovations for the water sector

High-tech filtration mesh and samplers for micro filtration

Leading international technical weavers GKD – Gebr. Kufferath AG (GKD) will be showcasing its extensive portfolio of solutions for the treatment of all kinds of waste and process waters at IFAT, the world's leading trade fair for water, wastewater, waste and raw materials management. With industrial mesh for micro sieving in water treatment operations and process belt solutions for sludge treatment, the company will be responding to key questions from both the industry and local authorities in Munich from May 14 to 18 (Hall A2, Stand 318). In the field of industrial mesh, the trade fair appearance will focus on three topics. The first of these is ODW6, the latest product from the range of optimized plain dutch weaves which is setting new standards in micro filtration at large-scale water processing operations. The second focus area is the measuring basket, which facilitates defined, fractionated sampling to check microplastic loads. The third highlight at this year's trade fair is an extension of the multiple award winning Porometric mesh product range. Beside a new, purely plastic version, GKD now also offers a Porometric hybrid model. Results from recent studies that confirm the excellent cleaning characteristics of the Porometric meshes round off the latest range of topics for the trade fair appearance.

Efficient water processing with high flow rates and superfine filtration rates is one of the most challenging topics faced by the water industry. As the world's leading developer and manufacturer of high-performance filtration solutions



WORLD WIDE WEAVE

for mechanical wastewater cleaning, GKD will be answering pressing questions on this at the 2018 IFAT fair.

Micro filtration > 6 µm with ODW6

In the field of micro filtration, optimized dutch weaves have proven themselves as true all-rounders. The ODW6, available with woven pore sizes of 6 µm in line with IMVT, is the latest further development in this range of meshes. Its special weave with slot-shaped pores on the mesh surface guarantees reliable filtration of all particles > 6 µm. The belts combine this filtration rate in the micro-filtration range with high permeability and dirt holding capacity, as well as mechanical strength. Since particles of the required separation limit pass through the small pores inside the mesh with no issues, the ODW6 meshes guarantee a long service life thanks to their low clogging tendency and good cleaning properties. With this unique characteristics profile, they are currently setting groundbreaking standards in the research project sponsored by the Federal Ministry of Education and Research (OEMP) to filter out microplastics at sewage plants. Compared with the already high particle retention of the ODW20 – the smallest pore opening of optimized dutch weaves to date – the ODW6 belts are capable of filtering out twice as many particles.

Fractioned sampling for microplastics

With the prototype presentation of a basket for defined sample fractionation of microplastics in aquatic environments, GKD is impressively demonstrating its solution expertise for sampling and analytics. This sampling basket facilitates scientifically significant sampling of microplastic loads with the objective of making various scenarios comparable. This modular system was developed in cooperation with the TU Berlin by combining up to six leakage-free filter elements with various filtration rates on top of one another. The



WORLD WIDE WEAVE

modules are equipped with mesh that is matched to the testing environment and objective. The overall size and diameter of the basket match those of the standard filters used in drains, meaning that they can simply be replaced 1:1. Beside sampling in various particle size classes, this even makes it possible to perform flow rate measurements online. With this basket, GKD is also making the huge amount of valuable experience it has gained in the field of sampling over the course of three years available to all other establishments working with microplastics.

Porometric 25 µm "best in class" for filtration

The extremely open, three-dimensional design of the international award-winning Porometric high-performance mesh is characterized by a slit structure with rectangular pores. Boasting the same separation rate, this high porosity offers three times greater permeability than conventional meshes. Porometric combines this unsurpassed performance with high stability. For water filtration, the high-performance mesh is available with pore openings of 20 µm and 25 µm – and further versions up to 100 µm are currently under development. A study undertaken by the Karlsruhe Institute of Technology (KIT) concluded that Porometric displays significantly better release properties and, at the same time, lower backwashing volumes than all other metal and synthetic 25 µm meshes examined. The lower pump performance required as a result of this not only reduces energy consumption but also increases the service life of the components.

Porometric now also available in plastic and as a hybrid

GKD will be presenting a purely plastic Porometric mesh for the first time at the IFAT fair. Boasting almost five times the flow rate that previous standard market synthetic meshes with 20 µm or 25 µm pores are capable of delivering, the innovative synthetic mesh develops new potential to increase



WORLD WIDE WEAVE

efficiency in water treatment operations. At the same time, the use of synthetic material allows both costs and weight to be reduced. For applications in which the use of synthetics complicates filtration due to static charges, GKD also offers a hybrid version of Porometric up to 20 µm. This version combines the respective advantages of metal and plastic in a single weave, i.e. the easy filtration and abrasion resistance of metal with optimized costs and a significant weight saving.

All new solutions presented by GKD at the IFAT fair offer groundbreaking options for challenging applications in the water industry. Whether ballast water filtration, treatment of industrial or municipal waste water, greenhouse watering or the battle against microplastics in urban waters – the leading innovative capacity of GKD is impossible to avoid.

Visit GKD – Gebr. Kufferath AG at IFAT 2018

Munich trade fair

Hall A2

Stand 318

5.920 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. Four 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), Architectural meshes (façades, safety and interior design made of metal fabrics) and Mediamesh® (Transparent media



WORLD WIDE WEAVE

façades). 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.

For more information:

GKD – GEBR. KUFFERATH AG
Metallweberstraße 46
D-52353 Düren
Tel.: +49 (0) 2421 / 803-0
Fax: +49 (0) 2421 / 803-233
E-mail: industrialmesh@gkd.de
www.gkd.de

Please send a reprint to:

impetus.PR
Ursula Herrling-Tusch
Charlottenburger Allee 27-29
D-52068 Aachen
Tel.: +49 (0) 241 / 189 25-10
Fax: +49 (0) 241 / 189 25-29
E-mail: herrling-tusch@impetus-pr.de