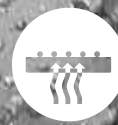


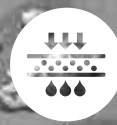
# PROCESS BELTS, FILTER MEDIA AND FILTER ELEMENTS FOR **WATER TREATMENT**



FILTRATION



DRYING



DEWATERING



## CONTENTS

- 02|03 Waste water filtration
  - 04|05 Process water filtration
  - 06|07 Ballast water filtration
  - 08|09 Sludge dewatering/-drying
  - 10|11 Quality + standards
- .....

## FILTER MEDIA AND FILTER ELEMENTS FOR:

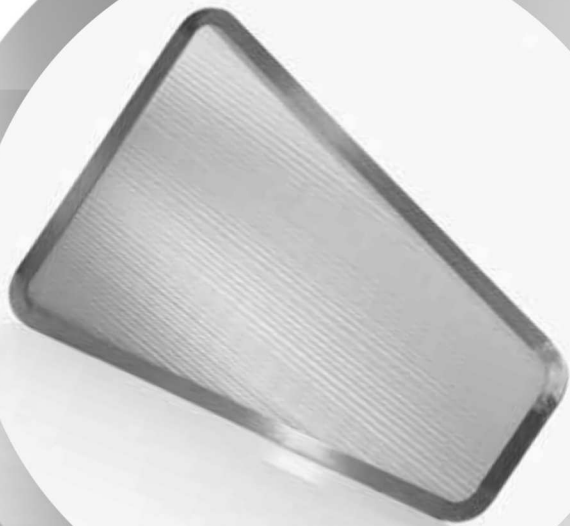
- Micro sieving
- Disc filters
- Drum filters
- Belt filters
- Cartridge filters



# WASTE WATER FILTRATION FOR INDUSTRY AND MUNICIPALITIES

Sieving and filter meshes from GKD are used in the mechanical micro filtration of waste water in many areas: from industrial water treatment to filtration of raw water through to preliminary filtration in sewage plants. GKD's product range also includes stand-alone compact filter equipment.

Optimized Dutch Weaves made of stainless steel are used as the filter medium in many of these applications. Due to their special structure, these meshes are able to separate organic impurities: The slot-shaped pore geometries on the surface of the mesh allow for reliable separation of parti-



cles at the required separating limit. Our filtration meshes are thus able to achieve a particularly high dirt holding capacity with minimal clogging while being easy to clean. GKD supplies filtration mesh for further processing or ready-made filter segments for many applications.

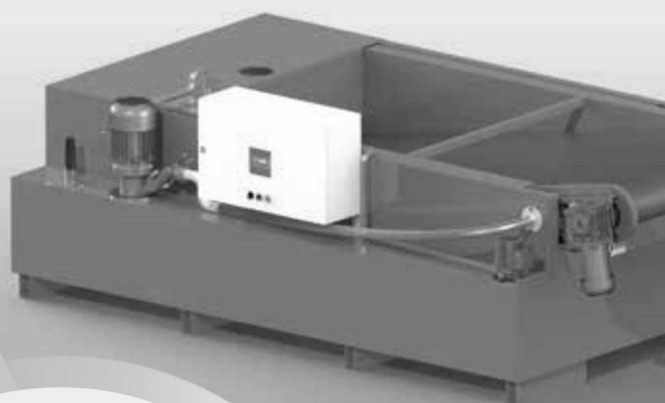


#### **FILTER MEDIA AND FILTER ELEMENTS FOR:**

- Disc filters
- Back flush filters
- Cartridge filters
- Belt filters
- Drum filters

#### **FILTER EQUIPMENT FOR:**

- Washing water
- Circulation water
- Water recovery
- Cooling water



# **PROCESS WATER FILTRATION MORE EFFICIENT SYSTEMS**

With our filter media for belt filters, disc filters, drum filters, cartridge filters and our compact filter equipment, we can increase the efficiency of filter systems for process water: Precise filtration rates are the first prerequisite for the defined purity of the filtrate, as they guarantee long reusability of the water. Our customers can also rely upon a continuously high dirt holding capacity, low flow resistance and favorable

cleaning properties. This is made possible by two factors: We manufacture our meshes on state-of-the-art weaving machines, thus guaranteeing precise reproduction of the mesh geometries. In addition, we use materials that optimally fit the respective requirement, from synthetic monofilament to stainless steel wires. To ensure further optimization of the positive properties of our GKD meshes, we have been continuously



developing our mesh geometries for many years. They can therefore be individually adapted to the respective requirement. Our filter media, filter elements and filter equipment for process water are today used in a wide range of industrial plants, from parts cleaning to industrial laundry.





#### FILTER MEDIA AND FILTER ELEMENTS FOR:

- Back flush filters
- Cartridge filters
- Automatic filters
- Disc filters



# BALLAST WATER FILTRATION CARTRIDGE AND DISC FILTERS

Stainless steel filter media and filter elements are the mechanical basis for reliable filtration of ballast water in on-board treatment systems. In these systems, the sea water is filtered during intake and, if required, also before release. After all, ballast water is not only a technical necessity for all shipowners, but also a huge responsibility: If the water is not intensively cleaned, organisms can be

transported into foreign waters. Our Optimized Dutch Weaves (ODW) are used here. These mesh types have slot-shaped pore geometries on the surface of the mesh which separate particles and organisms already at the surface. Our filters with our filter media are therefore able to achieve a particularly good dirt holding capacity while being easy to clean. The overall result is a longer service



life of the system and easy handling – two key requirements of shipowners. We continuously adapt the design of our filter cartridges and filter discs for ballast water treatment systems individually according to the available technology and the required performance profile. This also includes selecting the optimal stainless steel quality. The minimum requirements for ballast water treatment

systems are regulated by the IMO Ballast Water Management Convention. This specifies compliance with exact filtration limits between 10 and 50  $\mu\text{m}$ . Ships calling at ports in the USA also have to meet the stricter requirements of the US Coast Guard. GKD filters reliably meet the requirements of both sets of regulations.



DRYING



DEWATERING

#### ADVANTAGES OF INDIVIDUAL GKD PROCESS BELT SOLUTIONS:

- High degree of lateral stability and high mechanical strength
- Optimal throughput rate
- Optimized for easy cleaning
- Extremely high temperature resistance
- Resistance to chemical influences
- Individual manufacturing specifically geared to the process
- Belts with wear indicator
- SPEED-DRAIN high-performance belt

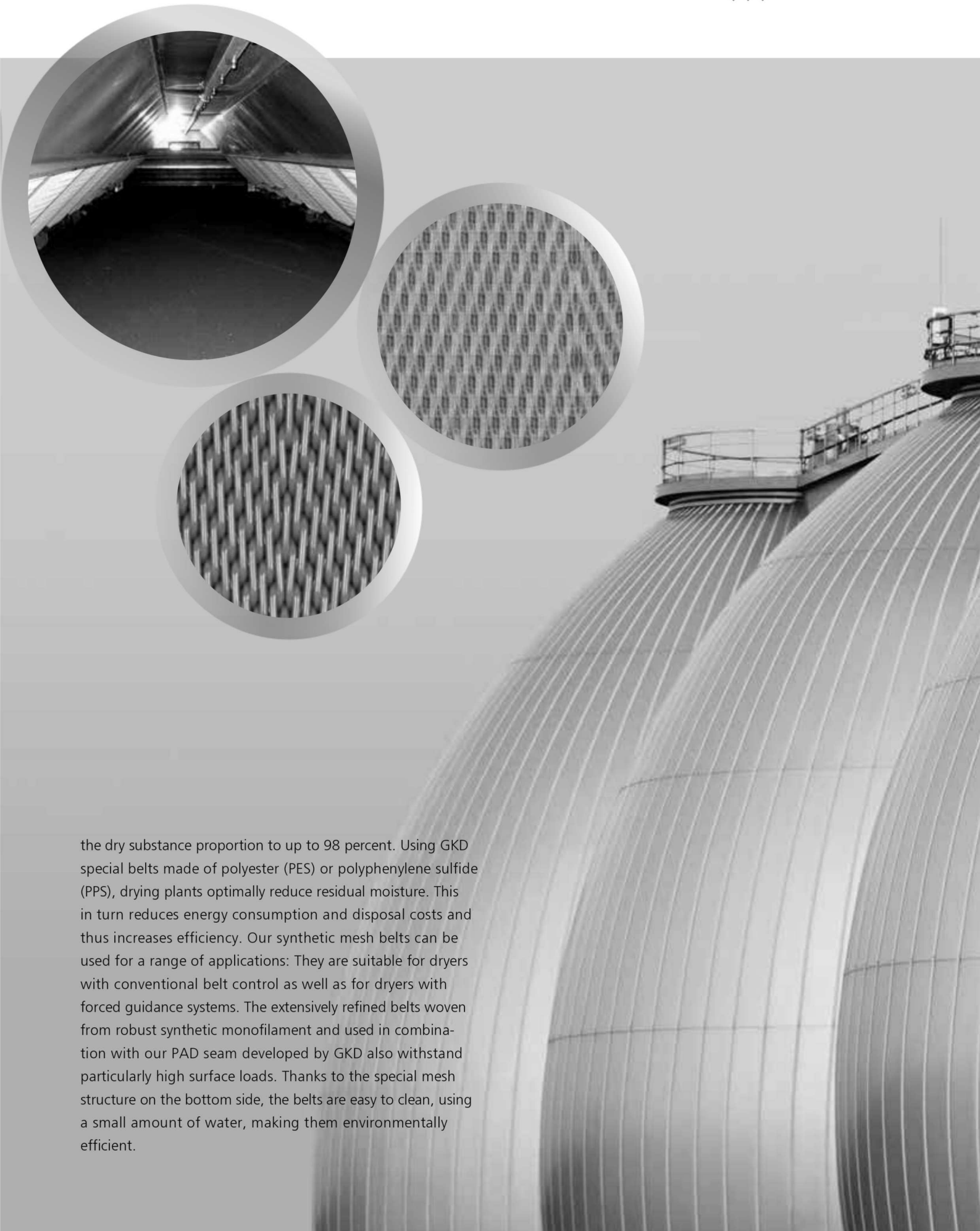


# SLUDGE DEWATERING AND DRYING WITH PROCESS BELTS

Whether for industrial sludge, product and chemical sludge or in municipal sewage plants – process belts from GKD dewater sludge reliably and effectively. The combination of the right plastic monofilament, weave type and mesh size makes our mesh particularly effective and robust while guaranteeing resistance to abrasion and chemical influences. Because they are manufactured on heavy-duty weaving machines for metal mesh and reinforced through a thermal fixing process, GKD process belts also boast a particularly high level of mechanical stability. This ensures the best belt running properties, thereby making a key contribution to fault-free operation. Belt presses and belt dryers significantly reduce the sludge volume, thus lowering costs associated with transport, disposal and recycling – for efficient and environmentally-friendly processing. Process belts from GKD are the ideal equipment here.

Thanks to many years working together with leading manufacturers of belt presses, we at GKD know what is important when it comes to hold-down belts, drainage belts and dryer belts. With our wide range of standard as well as custom-built products, we always offer customers the ideal solution for dewatering all types of sludge. As such, today we manufacture process belts made of polyester (PES), polyamide (PA) or polyphenylene sulfide (PPS) with widths of up to eight meters, which are suitable for any requirement. All belts are available with a variety of seams. A particular highlight is the PAD seam developed by GKD. It is thinner and thus guarantees better belt running properties and greater durability. For individual solutions, our customers can contact GKD staff from sales and technology for advice. Sludge drying plants reduce the weight and volume of sludge and increase





the dry substance proportion to up to 98 percent. Using GKD special belts made of polyester (PES) or polyphenylene sulfide (PPS), drying plants optimally reduce residual moisture. This in turn reduces energy consumption and disposal costs and thus increases efficiency. Our synthetic mesh belts can be used for a range of applications: They are suitable for dryers with conventional belt control as well as for dryers with forced guidance systems. The extensively refined belts woven from robust synthetic monofilament and used in combination with our PAD seam developed by GKD also withstand particularly high surface loads. Thanks to the special mesh structure on the bottom side, the belts are easy to clean, using a small amount of water, making them environmentally efficient.



# CONSISTENT QUALITY + UNIFORM STANDARDS

GKD also stands for consistently high and reproducible quality standards worldwide. These production standards are the result of a consistent GKD quality management in accordance with ISO 9001 and based on ISO/TS 16949. All GKD subsidiaries work in accordance with these standards; this helps GKD stay flexible and competitive in this globalised, economically closely intertwined world. Further, this gives our customers in the automotive and other industries all around the world the certainty that they can always expect consistently high quality in all GKD products. In addition, the standards stipulate

responsible occupational safety and sustainable environmental protection, which also includes the protection of all resources and constant cost optimisation. The GKD standard is based on seamless product and process control. This begins with the complete incoming inspection of raw materials and ends only when we have received confirmation that all products meet the required properties in industrial use. If necessary, we can develop individual inspection plans in close collaboration with our customers. In addition, we are of course certified in accordance with DIN EN ISO 9001.



#### CERTIFIED GKD QUALITY

- Own Standards for constantly high product quality worldwide
- Optimal reproducibility
- Tracking of all materials used
- Transparent processes



**BG ETEM**  
Energy textile electrics  
media products  
AMS certified company according  
to VG and OHSAS 18001  
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