



Wire mesh and filters for polymer filtration

Filter cartridges, filter discs, filter media

Woven metal mesh and filter solutions



ODW – Optimized Dutch Weave

Optimized filter media for extruded polymers

Production of high quality fibers, films and raw materials of polymeric filtermedia does require also high quality filtration media. GKD has been active in this field for decades, and is constantly working with their customers to improve the processes, by implementing new and optimized filter media in the product lines. These activities lead to quality improvements on the final product, longer service life for production tools and filter systems. The result is improved productivity and reduced costs.

Optimized dutch weaves

Optimized Dutch Weaves (ODW) from GKD are used where precise filtration rates are required involving high flow rates and high dirt-holding capacities.

High flow rates, precise filtration rates

By using particular wire size / mesh count combinations, Optimized Dutch Weaves (ODW) or

Reverse Optimize Dutch Weaves (RODW) are produced, which exhibit a specific rectangular geometry, whereby high flow rates, precise filtration rates and a low tendency to clog are assured. Extremely robust overall constructions can be put into effect by means of a suitable combination of Square mesh or Tela mesh and Optimized Dutch Weaves.

Ideal filter medium for high-viscosity media

Optimized Dutch Weave has proven itself outstanding as a filter medium in filter cartridges and filter discs for high-viscosity media like polymers or prepolymer products. The media is successfully in use in cartridge filters as well as in standard or backflushable screen changers. Optimized Dutch Weaves are available in the range of 10 μm to 80 μm .



Square weave



ODW



Fiber felt

Filter media selected for individual solutions

Each production line and material does have specific requirements for filtration. Whether it is a high dirt load or special treatment of gels, GKD has the right media available to optimize the process. For basic filtration needs, the standard line of square meshes are used, starting from 25 micron up to 3 mm. For production lines with micron rates between 10 and 80 micron, the Optimized Dutch weave (ODW or ORDW) provide increased performance for gel treatment and dirt holding capacity.

For the finest filtration applications, twilled dutch weaves offer retention rates down to nom. 1 micron. GKD also employs the qualities of metal fiber felt in applications, where the high shear rates of this media is required.

In order to get the best filter for the specific process, GKD supports the customer process engineer,

by developing viable layup options for the screens. Also we offer material options to combat certain corrosive conditions such as are present with fluoropolymers. Alloys such as 904L or Monel are used to weave the filter media in these cases.

Properties

- ◆ Filtermedia available from 4 to 3000 micron
 - ◆ Selection according to process requirements
 - ◆ Standard and higher grades stainless steels as per media requirements.
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Spinneret Screens



Filter Cartridges

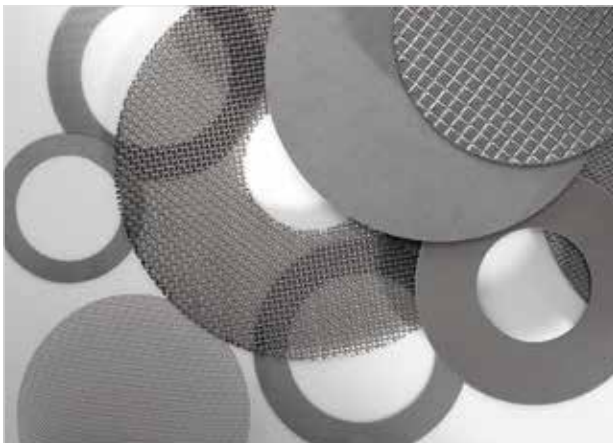
Filters and elements

Clean filter elements

GKD-Filters are produced to the highest standards in the industry. Every filter goes through a 100% quality check. Every fabricated filter is individually cleaned. In addition, all media to be used in the finished filters are cleaned prior to punching, in order to effectively avoid contamination in the filter layouts. GKD-Filters work as problem solvers.

Air quench systems

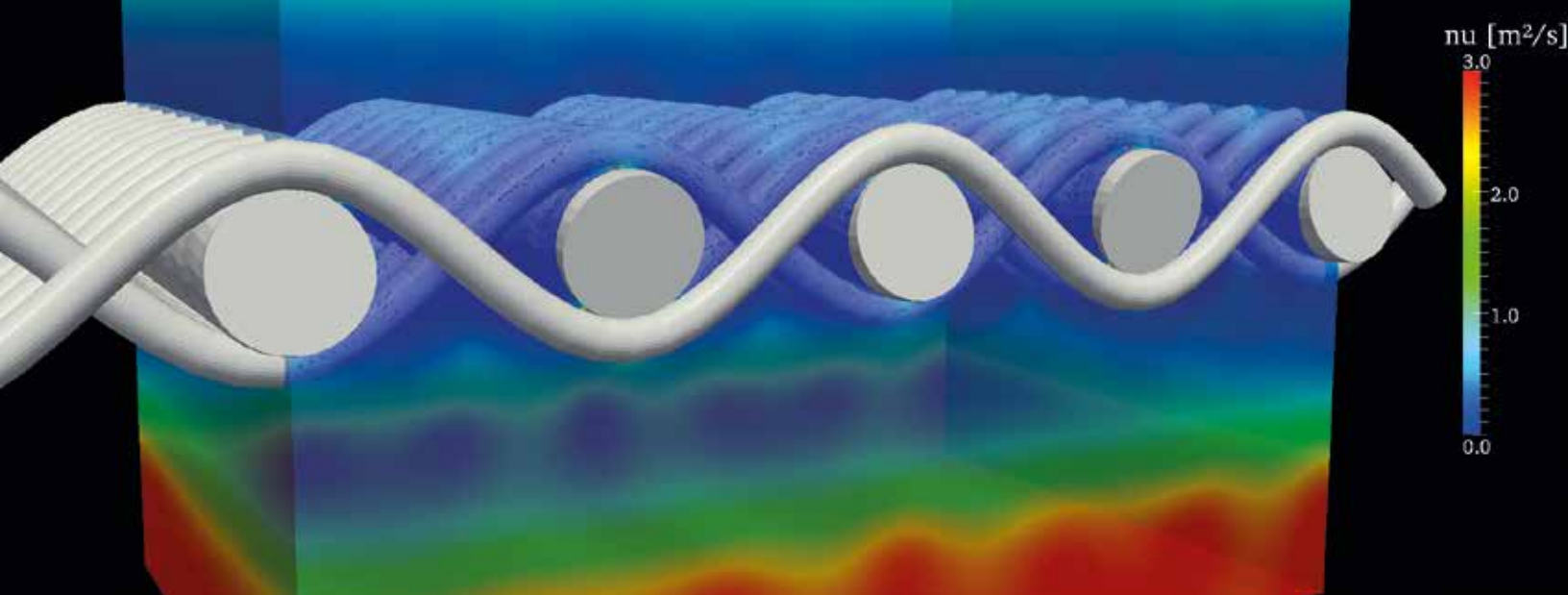
GKD offers a tailored range of media and individual designs of air quench systems for fiber and nonwoven plants. These include elements for cross and also radial quenching. These systems can be made out of mesh laminate, in order to provide a self-stable design tube design, or combinations out of perforated plates and mesh, which can be used for inside/out and outside in quenching systems.



Unframed Filter Discs



Air Quench Element



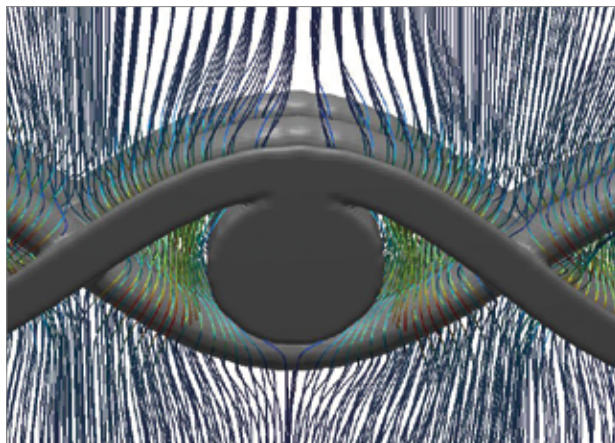
Simulation

research and development

Very flexible software tools and very precise media models open the possibility to simulate the filter elements in a very accurate way. Based on detailed media models and complete physical properties of the polymer, differential pressures and mechanical loads can be simulated. It allows GKD to make

highly accurate predictions about the pressure drop of individual media and layups.

The tools which are available work for newtonian and also for non newtonian liquids.





FOR A HEALTHIER, CLEANER, SAFER WORLD

Technical weavers for industry and architecture

GKD is the world's leading developer and manufacturer of solutions produced from metal, hybrid, and synthetic mesh and spirals. The products are used around the world, both in industrial settings and the field of architecture.

Industrial meshes and highly efficient filtration solutions from GKD are used to filter exhaust gases, microplastics, and much more. Among other things, they also serve as strike protection on airplanes and are used as conveyor and process belts.

GKD **architectural fabrics** combine aesthetics and function in a vast range of building applications – in-

cluding outstanding international projects by renowned architects and planners.

With innovative weaving technologies and simulation procedures, GKD generates technical weaves, semi-finished products, components, and filter equipment – precisely tailored to an enormous variety of requirements.

Constant innovation and certified production process ensure great performance and reliability.

Solutions from GKD make the world healthier, safer, and cleaner.

GKD - products and service close to customers, worldwide.

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- 02 **GKD USA** Cambridge (MD)
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