

WIRE MESH AND FILTER FOR HIGH TEMPERATURE APPLICATIONS

HOT GAS FILTERS + CATALYST SCREENS



HOT GAS FILTRATION WITH WOVEN WIRE MESH



Construction of cylindrical filter elements for high pressure and temperature use requires the highest quality mesh, components and design.

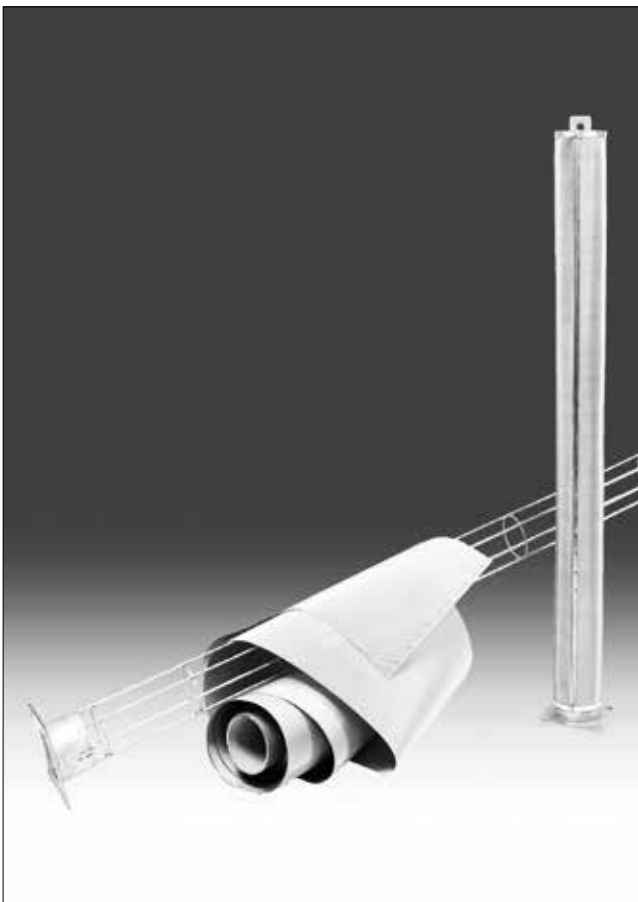
Separation of particles out of hot gas streams is getting of high importance in industry reality. Due to the ongoing requirement of pollution control and energy savings by reuse of hot process gases, an increasing number of applications change into temperature ranges, which don't work for standard polymeric media anymore, and where a change to metallic and other media is needed.

Hot gas filtration utilizing woven wire mesh media is an established and proven technology. By utilization of a wide variety of high grade alloy starting from SS 316 (DIN 1.4404), high temperature alloys like SS 310 (1.4845), FeCrAlloy, Hastelloy and Inconel alloys, a temperature range up to 1,000 degrees Centigrade even in difficult corrosive environment can be handled.

PATENTED BAGFILTER SOLUTIONS

Woven metallic filter media can be brought into various type of filter elements. This includes flat elements or supported tubes up to selfstable cartridge designs. GKD also has mechanically rigid filter media available in high grade alloys to serve typical bagfilter installations. In general elements of any length can be served, whereas sizes up to 3.6 m have been established as common and suitable size. In order to provide

high robustness against the fatigue created by the back-pulse, GKD has developed a patented and proven seam solution to fix the media onto the bagfilter cage. As standard bagfilter cages are not always suitable and stable enough to work with metallic media, GKD also offers modification of existing cages or customized new cage designs.



Components for these filters are produced by GKD to meet high standards.



Performance enhancing patented seam developed by GKD.

FILTER MEDIA FOR HOT GAS APPLICATIONS

GKD works with various types of woven filter media optimized for different process conditions and mechanical requirements. Optimized Dutch Weaves (ODW) work perfectly in applications with reduced mechanical requirement. Due to their special structure, they provide a high dirt holding capacity and excellent cleanability by e.g. backpulsing. In order to make them suitable for higher mechanical loads, they can be modified by bringing them into a GEKUPLATE® which is a sintered wire mesh laminate design. Selfstable elements used in cartridge or tube designs can be manufactured.

For big bagfilter applications GKD offers special filter media which provide high and long-term mechanical stability. These filter media have been specially designed to withstand the high fatigue due to the backpulse cleaning, and to provide a fixed, non changing pore size distribution.

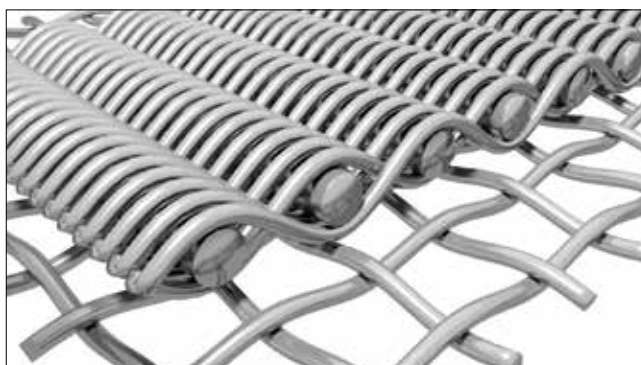
All GKD filter media and filter elements for hot gas filtration can be cleaned externally with common pressure cleaning technologies and thus allow multiple use of the elements. Specially bagfilter elements can be rescreened numerously.

ENGINEERING SUPPORT

By utilization of state of the art simulation tools, GKD is in the position to support customers already in the phase of designing the filter system, in order to find the right balance between sizing and costs of the systems for the always unique and individual applications.



ODW media structure



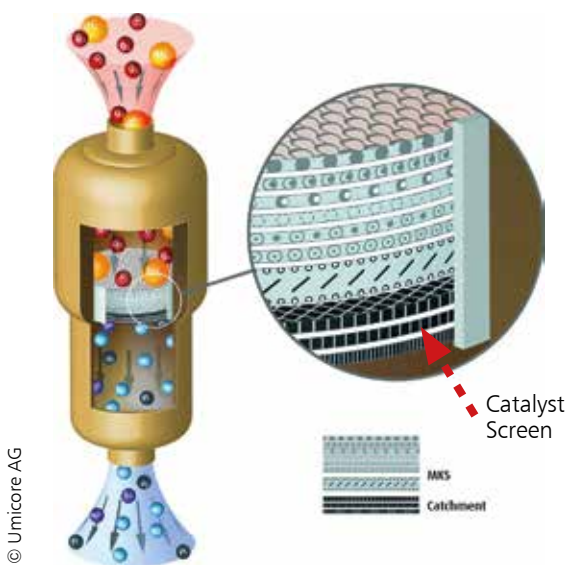
GEKUPLATE® with ODW + support structure



Rigid Media for bagfilter applications

CATALYST SCREENS FOR SUPPORT AND FILTRATION

GKD produces wire mesh screens for the catalytic oxidation process. This process is a high temperature operation with temperatures between 800 degrees Centigrade and 950 degrees Centigrade and a pressure range between 1 and 15 bars. The GKD wire mesh is used as a separation screen.



SPECIFICATION OF CATALYST SCREENS:

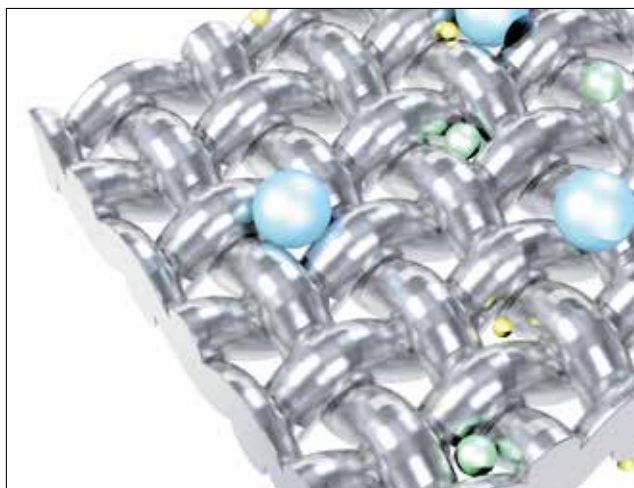
- _ HIGH TEMPERATURE MATERIAL AISI 314 / 1.4767
- _ DEFINED PORE SIZE
- _ PRODUCTION WIDTH FROM 1,000 MM – 6,500 MM

SERVICE:

- _ STOCKHOLDING OF WIRE MESH
- _ SHORT DELIVERY TIMES
- _ CLEANABILITY OF THE SCREENS, UP TO 3,100 MM
- _ GLOBAL SERVICE



Catalyst screens



Square mesh for catalyst screens

GKD - GEBR. KUFFERATH AG

Metallweberstraße 46
 52353 Düren
 Germany
 T +49 (0) 2421 803 - 0
 F +49 (0) 2421 803 - 233
 industrialmesh@gkd.de
 www.gkd.de

GKD - GEBR. KUFFERATH AG

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 woven mesh and spirals), **METALFABRICS** (façades, safety and interior design made of metal fabrics) and **MEDIAMESH®** (transparent media façades). GKD continuously develops new fields of application through its manufacturing technology and process expertise. We use GKD meshes to create efficient systems, equipment and components that are perfectly integrated into our customers' processes across all industrial sectors. GKD is active on the international stage from its headquarters in Germany, five further production sites in the US, South Africa, China, India and Chile, as well as branches in France, Spain, Dubai and representatives all over the world.

BUSINESS UNIT: INDUSTRIAL MESH

State-of-the-art mesh and filter solutions made of metal and plastic wires, as well as technical fibers – for use in all industrial sectors. With innovative web technologies and the latest simulation methods, we develop and produce efficient technical weaves, semi-finished products, components and filter equipment – optimally matched to the most diverse mechanical process engineering requirements. We use our high-level laboratory expertise to continually refine and further optimize our products. Leading manufacturing standards, certified processes and comprehensive testing procedures secure end-to-end high quality in all GKD filter media. This approach allows us to produce some of the most reliable, high-performance filter media in the world. Our innovative capacity, many years of experience with application processes and customer proximity, coupled with our cost-focused and user-centered approach, have made GKD the first choice international partner for industrial mesh.

CLOSE TO THE MARKET AROUND THE GLOBE.

- ① GKD GERMANY, Düren (headquarters)
- ② GKD FRANCE, La Roque d'Anthéron, Croisilles
- ③ GKD SPAIN, Barcelona
- ④ GKD USA, Cambridge, MD
- ⑤ GKD LATIN AMERICA, Santiago de Chile
- ⑥ GKD SOUTH AFRICA, Randfontein
- ⑦ GKD INDIA, Jaipur
- ⑧ GKD CHINA, Beijing, Qufu
- ⑨ GKD MIDDLE EAST, Dubai

