



GKD

Entrepreneurial spirit, innovative strength and production competence have been key factors in GKD's formula for success for over 80 years. Based in Düren, Germany, we are one of the world's leading technical weaving mills. As internationally established specialists for woven metal and plastic meshes, we are consistently setting new standards and breaking new ground in the fields of Filtration and Separation.

SOLID WEAVE™ by GKD means high standard products and specifically woven individual solutions. Meshes are available in widths of up to eight meters. Numerous new products and filtration solutions, often unconventional but subsequently widely acclaimed, have been developed here over the past decades.

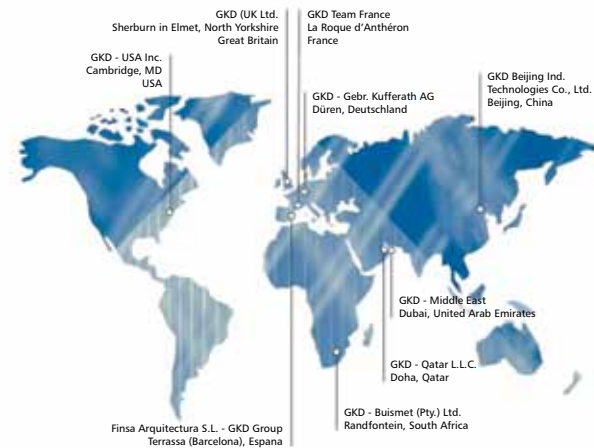
Manufacturing

Our looms are state of the art and range in capability from fine micron fabric to wide, robust cloth. All have a purpose and allow us to meet specific filtration, size and durability characteristics for the application at hand.

Post weaving processes include a wide range of fabricating, such as cutting, slitting, punching, rolling, edging, assembling and welding. Of course, the engineering and design service starts this process. Ultrasonic cleaning, automated plasma cutting and our continuous heat treatment furnaces are particularly valuable and keep us self sufficient in providing premium screens. Our in-house furnace operation allows us to match the thermal settings to the specific metallurgical characteristics of the materials in order to achieve the correct end results.

Top-Quality

GKD is ISO-certified as expected. But our commitment to quality is institutionalized in all aspects of the company. We are known around the globe as the specialists in every field of business we operate. We provide products with exceptional performance, consistency and life expectancy. Flexibility and a constant drive for improvement keep us on the permanent lookout for optimization.



GKD is committed to providing product and service wherever it is needed, world-wide.



SolidWEAVE
premium woven sand control screens



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WORLD WIDE WEAVE



WORLD WIDE WEAVE

PREMIUM

woven sand control screens



Material test (x-ray)



Strength tests



Glass bead testing

Premium Woven Sand Control Screens

Sand Screens or Well Screens are used in the Petroleum Industry to remove particles from production fluids. The Well Screens are tubular in shape and include a perforated base pipe. The Screens are used where fluids enter a production stream and must pass through the filter layers. In that context of filtration our **Premium Woven Sand Control Screens** prevent particles of the desired micron size and larger from passing through the mesh. GKD produces many different weave designs. The **best performance**, considering pore size stability, robustness, strength and permeability comes from our **RDTW mesh**.

The GKD RDTW mesh offers:

- Stable pore structure control with high flow rates
- Excellent retention rates
- Extremely durable with outstanding burst and collapse resistance values
- Matched to specific conditions
- Readily available in T 316 L, Incolloy 825, and Alloy 20
- 60 micron to 600 micron as required
- Value effective through performance and durability

Technical Advantages

Our lab capabilities allow us to test the filtration characteristics to determine flow rates, pore sizes, retention capabilities and pressure changes.

We offer:

- Sieving tests
- Strength tests
- Material test (x-ray)
- Glass bead testing

TYPE (micron rate)	POROSITY	AIR PERMEABILITY /FLOW in l/m ² x sec (dp=2mbar)
60 micron	49%	1864
100 micron	50%	2091
125 micron	48%	2320
150 micron	50%	2460
175 micron	52%	2260
200 micron	50%	2350
225 micron	52%	2830
250 micron	56%	3360
275 micron	57%	4080
300 micron	59%	4720
350 micron	64%	5840
400 micron	65%	5940
600 micron	66%	6140



Sieving tests

CFD - Simulation of Woven Sand Control Screens (Exclusively from GKD)

GKD has utilized the efficient software GeoDict for generating virtual wire meshes since 2008. Virtual structures from tri-dimensional computer topographies of real wire meshes are used to constitute tri-dimensional models of geometry in GeoDict. The software is applied in order to choose a mesh design and to optimize it. Mesh-parameters like the maximum glass bead, filter efficiency, retention rate, decrease in pressure and bubble point are simulated and calculated by the software. This results in individual, technical solutions for customers which boost the efficiency and upgrade production quality and performance

Additional development of the simulation technology provides the complexity of weave geometry affected by the flow and solids properties. In order to ensure that the simulation is realistic, weave samples are scanned in a CT-scanner and imported into the software WeaveGeo by GKD. FlowDict and FilterDict software is used in conjunction as well. The remarkable tools allow a premium screen to be developed for specific well characteristics — a custom offering without the time delays and cost of trial and error.

Provide us the opportunity and we can show you the amazing results.

Footnote: GKD developed the simulation software GeoDict in cooperation with Fraunhofer Institute for Technology and Mathematics (ITWM) in Kaiserslautern, Germany and also developed the additional tool, WeaveGeo.

