



WORLD WIDE WEAVE

Aerodynamic proving ground

Flow-conditioning screens in wind tunnels

In Formula One racing, victory or defeat depends not only on the qualities of the driver but also on the optimal design of the racing car. Apart from the tires and the motor, it is the aerodynamics which give these projectiles those crucial seconds of advantage. In fact, according to the experts, the aerodynamics are even the most important performance criterion of the vehicles. The racing teams test models and individual parts intensively in their own wind tunnels to measure drift or drag and to make modifications to the chassis on the basis of their findings. It is here that flow-conditioning screens made of stainless steel wire mesh from the technical weaver GKD – Gebr. Kufferath AG are in use worldwide. One example is the second wind tunnel for the Formula One racing car of the Panasonic Toyota Racing Team in Cologne.

What began in 1978 for the traditional metal weaver with the supply of retention screens and safety screens made of woven bronze mesh has in the meantime developed into an international reference list of wind tunnels with flow-conditioning screens made of stainless steel wire mesh. The clientele for the wind tunnel projects so far accomplished using GKD-mesh includes such big names of the automotive industry as Porsche, Mercedes, Audi, BMW, Honda, VW or General Motors as well as the Formula One teams of Ferrari, Benetton Renault and Panasonic Toyota. The antiturbulence screens of the Dueren-based high-tech weavers are also the first choice of aerospace industries like DaimlerChrysler Aerospace (DASA) in Bremen, the German Aerospace Center (DLR) in Cologne and the



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National Aeronautics and Space Administration (NASA) in the USA. And numerous international research facilities like the Institute AéroTechnique and the Université de Provence in France, the University of Liège in Belgium as well as German universities in Munich, Erlangen, Darmstadt, Stuttgart or Oldenburg also make use of GKD's wind tunnel competencies.

Optimal screen quality

A consistent, turbulence-free air stream is essential for any wind tunnel construction. The integrated flow-conditioning screen made of stainless steel wire mesh, with their positive properties like lifelong durability and resistance to heat and cold, are a guarantee for optimal throughflow. All over the world, the technical weaver GKD – Gebr. Kufferath AG stands for high-precision weaving quality, exact mesh width and wire strength. The screens are practically maintenance free, completely recyclable and, thanks to a special attachment technique, optimally and permanently tensioned. Using mesh panels more than eight meters wide, filigree soldered seams are made on site which connect the screen sections almost invisibly and permanently. From planning and integration of the flow-conditioning screen through customized weaving and on-site installation to subsequent maintenance service, GKD takes care of the complete engineering.

2006 the Panasonic Toyota Racing Team put the second wind tunnel into operation. This is where the Formula One racing cars for Ralf Schumacher and Jarno Trulli were further optimized.

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GKD – GEBR. KUFFERATH AG



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The owner-run technical weaver GKD – GEBR. KUFFERATH AG is the global market leader for metal and plastic woven solutions as well as transparent media facades. Under the umbrella of GKD – WORLD WIDE WEAVE the company combines three independent business units: SOLID WEAVE (industrial meshes), WEAVE IN MOTION (process belt meshes) and CREATIVE WEAVE (architectural meshes). With its six plants – including the headquarters in Germany and other facilities in the US, South Africa, China, India and Chile – as well as its branches in France, Great Britain, Spain, Dubai, Qatar and worldwide representatives, GKD is never far from its customers.

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