



WORLD WIDE WEAVE

## **Solar protection façade: Energy efficiency and sustainability**

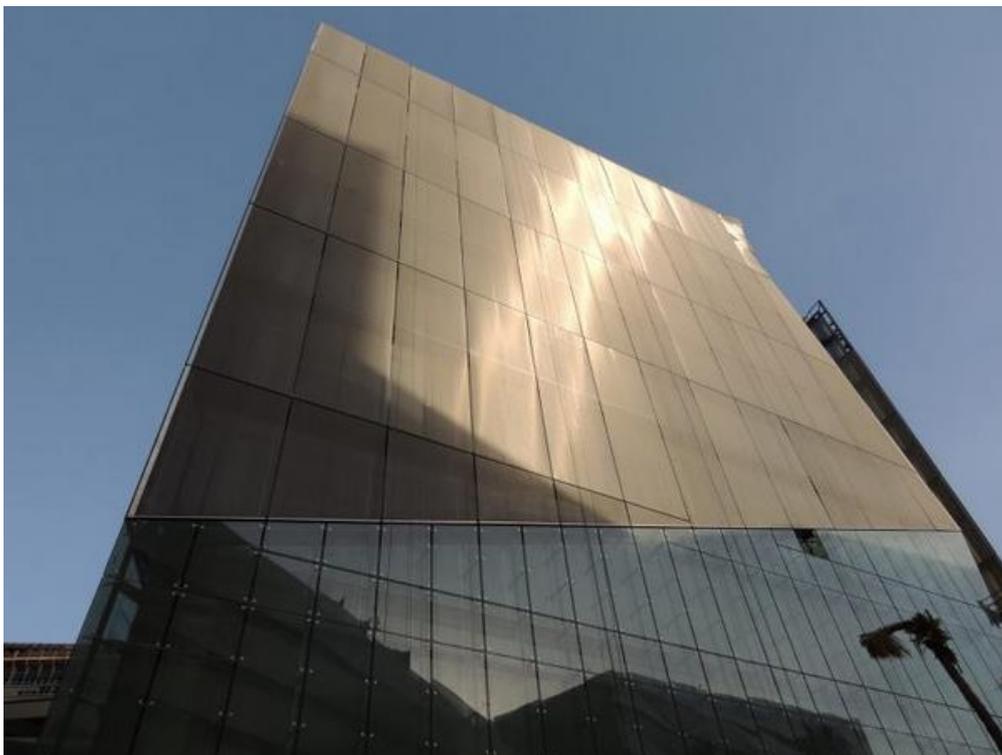
**The new King Abdullah Financial District in Riyadh is a symbol of Saudi Arabia's modernization and consists of some 34 skyscrapers that are connected via skywalks. The Gem Building plays a special role here. For its crystal-shaped façade, Henning Larsen Architects selected Omega 1520 metal mesh from GKD – Gebr. Kufferath AG. The mesh construction employed in cladding the faceted building impresses as sustainable solar protection.**

As one of the largest economic centers in the world, the King Abdullah Financial District is of major significance for the Near East. Over an area of 1.6 million square meters, the new skyscrapers provide offices, stores, and mosques as well as apartments for 12,000 people. A green promenade, the Wadi Hanifa river bed, and five striking buildings in the center form the heart of the district. The Gem Building designed by Henning Larsen Architects from Scandinavia in the form of a rock crystal consists of several towers that are used as residential and office blocks. The multi-edged glass façade was clad in 9,500 square meters of shimmering Omega 1520 metal mesh from GKD, thus further highlighting the crystal character of the building. The transparency that is typical of the mesh creates a pleasant, daylight-bathed atmosphere within the structure. The entire complex, which is LEED-certified, sets exacting requirements for energy efficiency and sustainability. The Gem Building meets these requirements among other things through the use of the metal mesh, which absorbs the sunlight and thus prevents the building from heating up. The weather resistance, durability, and recyclability of the GKD mesh were also a deciding factor for the architects. The mesh panels, each consisting of three-meter-wide and 8.40-meter-high sections, were



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wrapped horizontally around the façade for tensioning top and bottom. The faceted building form posed a major challenge, which the specialists from GKD successfully mastered in their accustomed manner as full service provider.



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### **GKD – WORLD WIDE WEAVE**

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 mesh and spirals), Architectural meshes (façades, safety and interior design made of metal fabrics) and Mediamesh® (Transparent media



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façades). With its headquarter in Germany and five other facilities in the US, South Africa, China, India and Chile – as well as its branches in France, Spain, Dubai and worldwide representatives, GKD is close to markets anywhere in the world.

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