

## Kunsthalle Mannheim Museum

### Mannheim, Germany

The Kunsthalle Mannheim museum of modern and contemporary art was opened at the end of 2017 by Federal President Frank-Walter Steinmeier. As Germany's largest new museum building, it is a prime example of both civic commitment and architectural skill. The composition of roomforming cubes is visually connected by a sophisticated façade made of bronze-coloured stainless steel fabric from GKD – Gebr. Kufferath AG (GKD).

The atrium, which is covered by a glass roof and therefore flooded with light, grants fascinating views in all directions. The feeling of wide open space and cosmopolitanism stimulate a sense of curiosity among visitors to explore the other rooms.

This feeling is underlined by the stainless steel fabric façade cladding. The architects went with a significantly higher degree of transparency for the fabric in front of the large-format glazed surfaces than for that cladding the fiber cement panels in front of the cubes. This varying degree of transparency preserves the effect of the architectural concept, regardless of the viewing distance. Despite the colossal dimensions of the building's structure and façade, the woven skin loses nothing of its textile effect even from a distance.

The GKD wove stainless steel wires and tubes of two different diameters – 3 mm and 25 mm – into four-wire warp wire groups made of untreated stainless

steel. The key here was to use weaving techniques to completely balance out the varying stress ratios in the fabric due to the differences in wire thickness, so that the façade would withstand the strict static requirements caused by wind and snow. GKD's many years of experience with coating technologies and their effects on buildings proved invaluable here. For example, the wires were coated in a continuous process, while the tubes were painted together with the closures in a spraying process and all then interwoven with the untreated warp wire groups.

A total of 72 panels, each measuring around 20 meters in length and 3.26 meters in width, were used to create the sophisticated skin which lends the Kunsthalle its versatile face. With the discreet brilliance of the warm bronze tone, the finished fabric reflects the colour of the sandstone used in neighboring buildings. The large, stainless steel fabric façade measures over 4,600 square meters and changes its appearance throughout the day, in all weather conditions, from near or far.



Environment:	urban
Material:	316 bronze coloured stainless steel with a thickness of 3.0 mm for the wire and 25 mm for the pipes
Manufacturer:	GKD
Architects:	Von Gerkan, Marg and Partners
Photographs:	GKD/Constantin Meyer or Kunsthalle Manngem/Rainer Diehl
More information:	gkd.de or impetus-pr.de

