Kiefer
Seit 1877 Luft- und Klimatechnik
Neue Wege mit Luft

Plant engineering
Comfort Air-conditioning

Wagenhallen Stuttgart events venue

Photo © Daniel Stauch

Kiefer implemented the complete plant technology, including the building management system, for the new Wagenhallen events venue in Stuttgart, Germany. With a floor area of around 14,000 m², this complex is home to a large events hall, artists' studios and a dance school.

The Stuttgart Wagenhallen buildings were reopened following a construction period of approximately 21 months. The imposing building, with its preserved 18th century walls, is divided into three large areas: a 4050 m² events hall with standing room for up to 2100 people, a 9500 m² studio and workshop area for artists, and a 450 m² dance school. This venue is one of the most important cultural centres in Stuttgart. As a contemporary and urban platform, it offers plenty of space for innovative exchange between architects, painters, sculptors and creatives.

First constructed as a railway depot, this building has been carefully restored to preserve the original wall finishes and façades. In contrast to the historic supporting structure made of steel and the outer walls of brick, the new fixtures and structural additions that were necessary stand out in subtle shades of colour. In this way visitors can clearly distinguish between the older and newer parts of the building.

The structural design, sound insulation and fire protection system were no longer compliant with current regulations and jeopardised the continued use of the venue for licensing reasons. In 2016 therefore, the district council voted with a large majority in favour of renovating the Wagenhallen. In January 2017, Fritz Kuhn, the Mayor of Stuttgart, launched the project by turning the first sod, with the help of a digger! All in all, the project costs amounted to around €30 million. €12.4 million of this was provided by the German government as a grant towards the energetic refurbishment of the buildings. Those who are going to use the building also contributed to the extension and setup of their particular area.

The top priority for Kiefer's plant engineers was to deliver a well thought-out energetic refurbishment of the existing structure, which remained sympathetic to the original architectural features of the building. One important task was to implement all necessary fire protection measures. Fire dampers were provided in all required fire compartments for this purpose.

The ventilation plant chosen for the events rooms and the foyer was a combined ventilation unit with a highly efficient run-around coil system.

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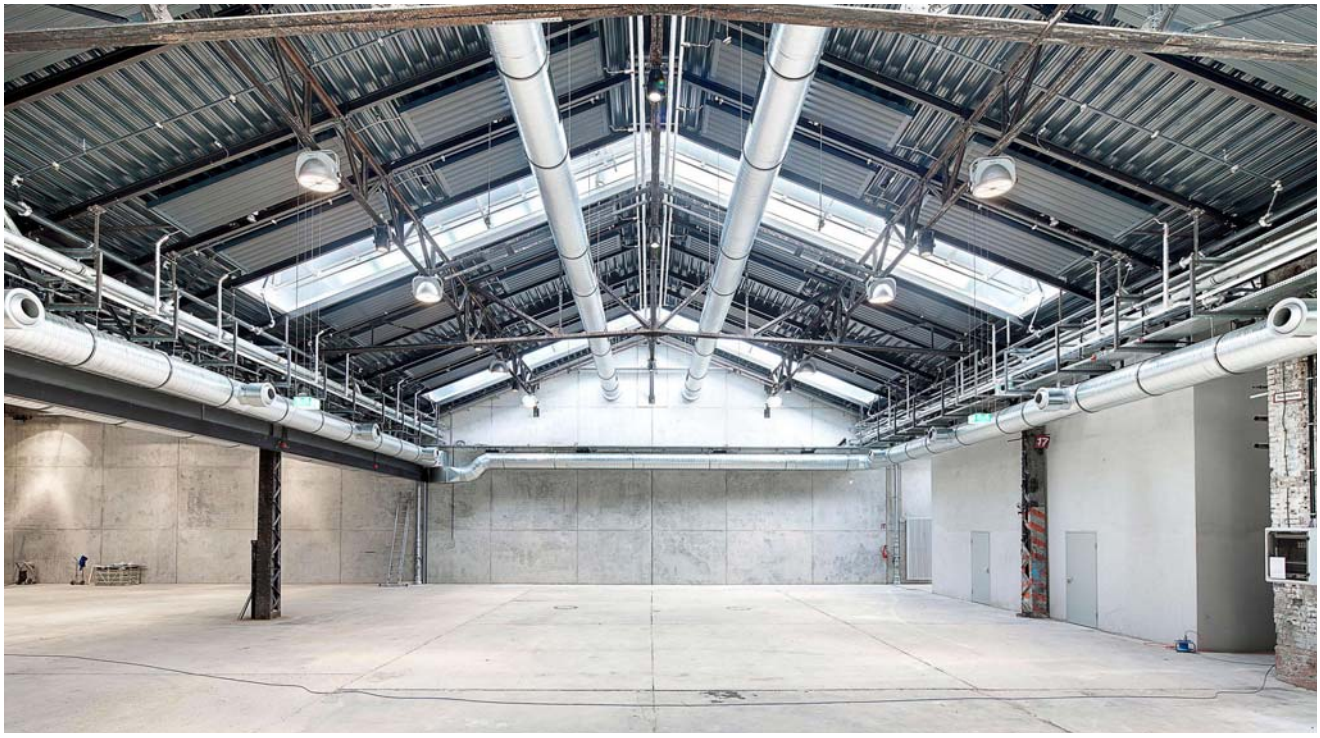

Photo © Daniel Stauch

Air distribution is carried out via a duct network consisting of galvanised sheet metal ducts and spiral ducts.

Description of plant technology

The Wagenhallen building project in Stuttgart involved the renovation of this cultural centre, which is divided into three areas: the events hall; the artists' studios and workshops; and the Ocho Dance School. The renovation included expanding the previous events area, creating additional studio and workshop space, and converting the Ocho Dance School.

The ventilation systems for these spaces were sited in the basement below the various events rooms, from where the air was distributed directly to the floors above. On the actual floors, the air flow rates of individual lines were then automatically matched to the corresponding set-points via variable or constant air flow rate controllers. The plant technology necessary for the operation of the events areas was adjusted in accordance with the new room concept. The ducts, air outlets, spiral ducts and air flow rate controllers were installed below the ceiling in plain sight in the various rooms. The usable area in question is now ventilated by six air conditioning units to ensure a fresh and pleasant ambience.

Technical Data

Object	Wagenhallen Stuttgart
Proprietor	Liegenschaftsamt Stuttgart, represented by the Hochbauamt Stuttgart
Planner	Pfähler + Rühl, Ingenieurbüro für Technische Gebäudeausrüstung GmbH, Lehrensteinsfeld
Architects	Atelier Brückner, Stuttgart
Plant technology	Plant technology, including the building management system into three areas: the events hall, the artists' studios and workshops; and a Dance School.

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