

PRACTICE REPORT 41

Application examples for planners of complex construction projects



Ventilation of the exhibition halls in Friedrichshafen

You can find more project examples under www.ventaflex.de

Modernisation measure: An impressive „air-six-cylinder“

Representative and highly functional air guidance
for a supply- and exhaust air volume of 12 x 35.000 m³/h

Task

The exhibition had its premiere on school premises of the city in 1950. After several expansions and involved moves to other event locations, new exhibition grounds were built directly near the airport in 2002. Meanwhile internationally frequented events have been taking place in 12 halls on 85,000m²; with annually 700.000 visitors the exhibition grounds at Lake Constance are one of the biggest event locations of its kind in Germany.

2017 a new ventilation concept was developed, which should improve the air quality in the halls as well as optimize the efficiency of the system – and by this the operating costs. Another important aspect was the new system, integrating in the existing representative architecture of the exhibition halls. In the best case the visitors of the exhibition Friedrichshafen will not notice the change to a new technology neither optically nor acoustically – they just feel comfortable doing their activities either at the exhibition or at the congress.

VENTAFLEX® solution

1. A total of 12 weather resistant recirculating air cooling devices with great output, metal clad for optical reasons, were put up
2. The VENTAFLEX® air conduction fit the clear architecture of the hall facade perfectly
3. The system was partly connected to the distribution which had been installed in advance. VENTAFLEX® air conduction with diameter 920 mm was installed.
4. The high insulation value of the VENTAFLEX® ventilation ducts clearly reduces the operating costs
5. An increase of the cooling capacity was achieved by the installation of additional VFR-units with air heat exchanger
6. The ventilation of the halls takes place on two ducts, the exhaust air is directly sucked away noiselessly on four ducts at the moment of entering the building

Advantages due to the VENTAFLEX® system

- + Individual adaption to the conditions** by special components
- + Reduction of the operating costs** – up to 40 % less energy loss, up to 10 % less pressure loss and up to 99 % less leakage loss
- + Particular durability** due to GRP-material
- + Up to 70 % less weight** – important for statics and handling

