

# PRACTICE REPORT 51

Application examples for planners of complex construction projects

**VENTAFLEX®**  
More efficiency in air guidance



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## Sports hall of the new “Ramstein High School”

**Application area for VENTAFLEX®:**  
Specifically arranged T-pieces provide consistently distributed oxygen into the great air space of the sports facility

## Oxygen-rich and odorless environment for athletic maximum power

54 of VENTAFLEX® custom-fit manufactured T-pieces with jet nozzles precisely provide the athletes with fresh air

### Task

According to the principles of the American "21st Century Learning" the new "Ramstein High School" was built on the Air Base Ramstein for approximately 66 Mio Euro. Five years of planning- and construction time for this project show with how much diligence in architecture and building technology it was catered to the demanding pedagogical approach. This is how generous class rooms, administration- und community areas emerged, being convertible by flexible partition walls. And – traditionally American – especially great dimensioned sports facilities. Next to several outdoor grounds an extensive sports hall was built, which was supposed to comply with the most modern technical standards.

One important aspect was the supply of the hall with well-tempered, oxygen-rich air. A system was looked for, which takes care of a consistent distribution of fresh air in the complete room, compatible to the light architecture and an installation under the roof of the hall. In this respect VENTAFLEX® scored especially by the fact that any individual components can be produced custom-made for any requirement.

### VENTAFLEX® solution

1. Different prefabricated components  $\varnothing$  730 with the length of 2 and 3m were installed.
2. Special feature were the 54 T-pieces 730/200/50 with outlets 90 degrees and diameter 200/30 for jet nozzles of 200.
3. The installation of T-pieces in combination with the jet nozzles take care of a better ventilation of the complete hall.
4. 75 VentaSnap clamps 730/50 take care of a secure connection of the individual duct pieces.
5. The hall keeps its architectural representative character by the discreet, light grey colouring of the VENTAFLEX® air ducts.



*Jet nozzles take care of targeted air flow*

### Advantages due to the VENTAFLEX® system

- +** **Saving of time at installation** by planning and pre-installation
- +** **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
- +** **Up to 70 % less weight** – important for statics and handling
- +** **Discreet optics** by light grey colouring
- +** **Tested technology** – handling and installation are self explanatory, accordingly easy to delegate to local specialist companies

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