

PRACTICE REPORT 45

Application examples for planners of complex construction projects



Historic building structure with new utilisation

Application area for VENTAFLEX®:
Restructuring of listed buildings
by underground installation of insulated air ducts

Reconstruction of the „Blomenburg“ to a private psychosomatic clinic

5230 m³/h air volume are reliably transported between the building parts without coming into conflict with the listed building structure – for the good of the patients.

Task

The Blomenburg dates back to the middle of the 19th century, a hunting castle in Selent in the county Plön (Schleswig-Holstein). The name giver was the constructor Earl Otto von Blome at his time, who had the building and the spacious park erected in the style of historicism.

The standalone location and the exceptional architecture offered interesting options for the modern reutilisation of the estate: After a fundamental restoration, a luxurious private clinic is going to start operations for patients with stress-related disorders in future.

The upcoming modernization of the building was a challenge for every discipline: stabilizing, energy-saving and other technically necessary actions have to fulfill new standards, but may not interfere with or distort the historic atmosphere in any way. Flexibility is called for here – and this with a very tight schedule. The choice for the ventilation system rightly fell on the buriable air ducts of VENTAFLEX®.

VENTAFLEX® solution

1. 5250 m³/h air volume are guided from the ventilation unit in the side building to the air outlet grille in the central kitchen via 2 supply air leads.
2. The VENTAFLEX® air ducts were mainly installed underground with a surplus cover of 1 m as well as in the flooring of the main building.
3. Insulated VENTAFLEX® air ducts with diameters of 200-520 mm were installed.
4. The great flexibility of the VENTAFLEX® system was the unbeatable advantage at this project. Due to 47 moulded parts the system was able to be installed underground custom-fitted, 133 ducts of the programme „round“ are now invisibly doing their work underground.



Underground installation inside and wall duct to the outside



Advantages due to the VENTAFLEX® system

- + Certified hygiene-conformity** of the ducts according to VDI 6022
- + Individual adaption to the conditions** by customised production
- + Reduction of the operating costs**
 - up to 40 % less energy loss, up to 10 % less pressure loss
- + Special durability** due to GRP-material
- + Tested technology** – handling and installation are self-explanatory and thereby easy to delegate to local specialized companies