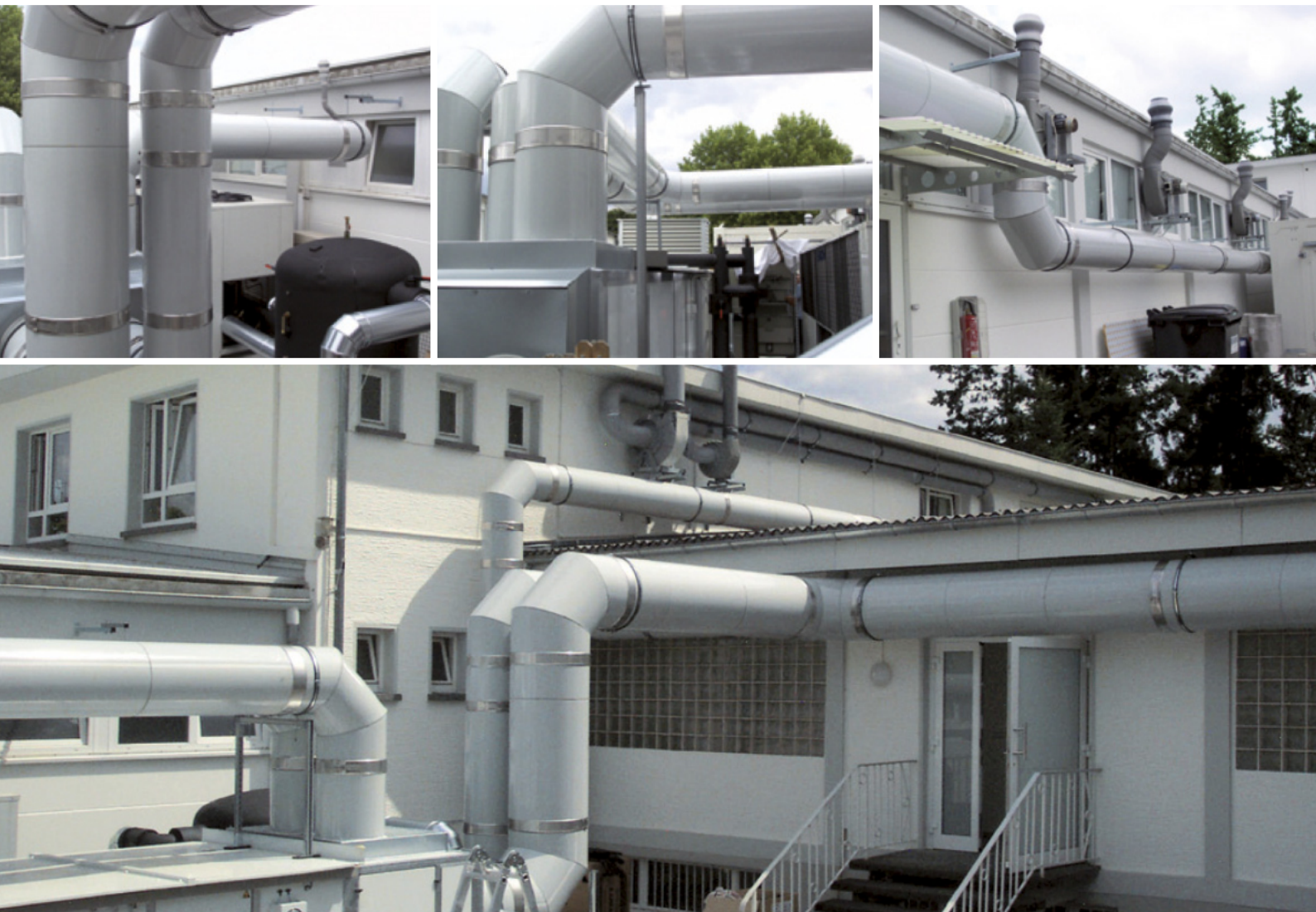


PRACTICE REPORT 19

Application examples for planners of complex construction projects

VENTAFLEX®
More efficiency in air guidance



Laboratory in Rülzheim: System with visible installation

**Application area for VENTAFLEX®:
Air guidance system for laboratory technology
for the extraction of air purity**

Laboratory in Rülzheim: Ventilation system with visible installation

Volume flow: max. 20.000 m³/h with flow velocity: approx. 6m/s
and connection to textile air hoses in the interior area

Task

There was a contact to the company Klocke Pharma since the first meeting at the ISH in 2009.

The challenge of the upcoming project was the visual demand of the client and the limited weight which could only be brought on to the building. These are the strengths of the VENTAFLEX® duct system. Smooth GRP surfaces in light grey, low weight due to PUR foam, insulation and use of the VentaSnap connection clamp for optical improvement at visual installation gave the answers to the imposed requirements.

When renovating the ventilation system of the laboratory technology the supply- and exhaust air were equipped with the VENTAFLEX® ventilation system. In order to be able to reach air purity all connection points were sealed with the special VENTAFLEX® glue SH 100. The main function is to keep the ventilation system free of smallest particles. The Lambda value of 0,22 W/mK (WLG 022), as described in the subsequent practice comparison, relevantly influenced the decision to use VENTAFLEX®.

Practice comparison VENTAFLEX® to glass wool insulated spiral duct

Requirements for insulated air guidance system:
Length: 50 m
Series: 630
Insulation thickness: 5 cm
 Δt : 20 K

Therefore the following performance has to be applied:

VENTAFLEX® air duct: 900 W
other duct: 1.430 W

VENTAFLEX® solution

The used products:
ISO 50 VENTAFLEX® air duct, insulated in diameters 520 mm and 370 mm as well as prefabricated assemblies and molded parts and diverse custom-made special components
Material: Pure rigid foam, 45-50 mm
Inner- and outer coating: GRP (glass-fibre enforced plastic)

Advantages due to the VENTAFLEX® system

- +** **Certified hygiene conformity** of the ducts according to VDI 6022
- +** **Individual adaption to the conditions** by customised production
- +** **Saving of time at installation** by planning and pre-installation
- +** **Discreet optics** by light grey colouring
- +** **Up to 70 % less weight** – important for statics and handling
- +** **Reduction of the operating costs** – up to 40 % less energy loss, up to 10 % less pressure loss and up to 99 % less leakage loss

VENTAFLEX GmbH & Co. KG

Siemensstraße 46

D-48341 Altenberge

Tel +49 (0) 2505 - 938290

Fax +49 (0) 2505 - 93829 -10

info@ventaflex.de

www.ventaflex.de

VENTAFLEX®
More efficiency in air guidance