BETTER RENOVATING
WITH VENTAFLEX®

FINISHED INSULATED AIR DUCTS FOR COMPLEX CLIMATE SYSTEMS

VENTAFLEX®
Unrivaled economically

VENTAFLEX®
More efficiency in air guidance

Plugging the cost leak

Outdated air-technological systems can cost the user ‚dearly'

Old air-technological systems with commonly insufficient insulation usually only reach tightness class A and therefore have a high energy loss: Stop this cost trap! Moreover they don't comply with the modern hygienic requirements, the material is often corroded and contaminated with deposits – in short: a renovation becomes due.

New efficient systems: the combination is the key!
Not only the RLT systems have to be renewed when renovating, but also the ventilation ducts.
A climate-technological system can only prove its performance in a successful combination and the energy gets lost ‚on its way' – and not because of bad insulation or leakage. The VENTAFLEX® system offers the ideal solution due to material (PUR rigid foam) and supplies (VentaSnap).

Renovation case old building

Old building structure with new climate technology

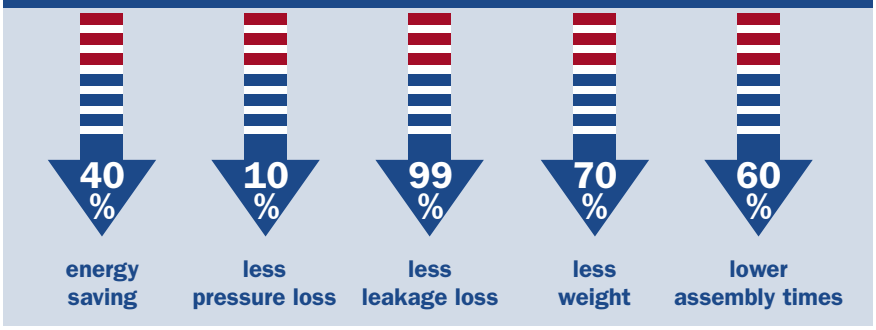
Limited carrying capacity or lacking space are great challenges when retrofitting existing buildings with modern RLT systems. In short: Statics, spaciousness, design, preservation order requirements and performance play an important role when chosing the ventilation system.

Solution: VENTAFLEX®

Figures, which convince

A whole string of good arguments speak for the application of VENTAFLEX® air ducts when it comes to equipping existing building structure with most modern technology. It is the special features of the material and the thought out construction method of the system which make planners, structural engineers and builders take the right decision: for VENTAFLEX®.

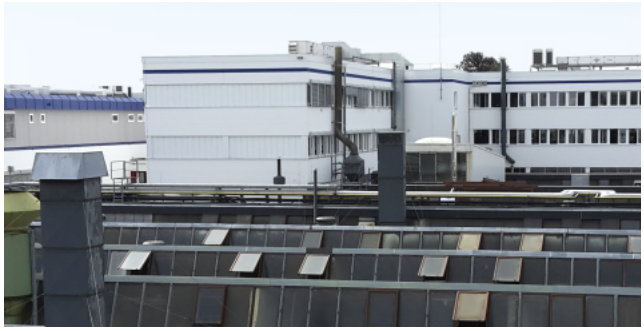
Compared to the conventional uninsulated spiral duct the VENTAFLEX® air ducts show exeptionally good values:



FINISHED INSULATED AIR DUCTS FOR COMPLEX CLIMATE SYSTEMS

Plus factor material

The weight cannot be beaten …



Historic sawtooth roof of a production hall with low load capacity. The retrofitting of an air-technological system could be a costly strengthening of the statics.

This is not so with the application of VENTAFLEX® air ducts. The low weight of the system was statically harmless and the historic building structure was completely maintained.

… tightness …

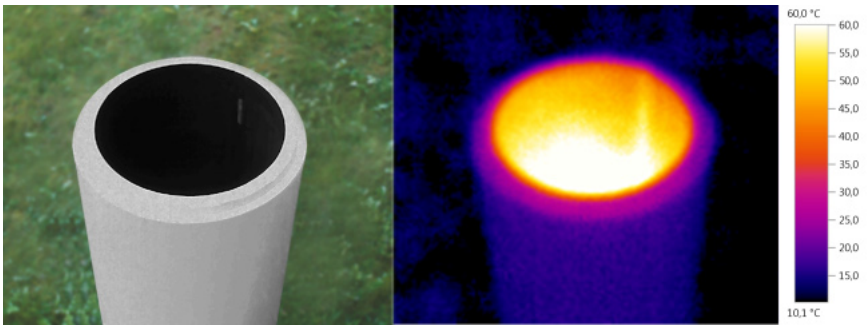
Energy saving with VENTAFLEX® air ducts: an example from experience
If – with a tightness class A in old installations – about 13 % of the necessary air gets lost, at least 13 % more air has to be made available (at least – because 13 % of the additional incoming air gets lost in turn).

A powerful fan is needed to maintain the indoor air quality. The current consumption of the fan is bigger to the third power, if 10 % more air volume flow is needed, the fan has to accelerate 33 % more power – this generates extra costs in the operation of the system. Costs which don't occur with the VENTAFLEX® system with tightness class D+.

Comparison at the example „Project Museum“: ————> Supply air	VENTAFLEX® tightness class D+	Old installation tightness class A
Surface m³	280	280
Volume flow m³/h	8500	8500
Operating pressure Pa	300	300
Leakage air flow m³/h	16	1109
or leakage l/s	5	308
Leakage air flow rate = loss	**0,2 %**	**13 %**
The VENTAFLEX® air ducts can reduce the leakage of the system up to 99% compared to inventory		

… and insulation

Thermal protection due to thick insulation
The thermal camera shows the heat protection of the VENTAFLEX® air ducts. The ducts are made of PUR rigid foam in the core. This takes care of ideal insulation values (WLG 022).

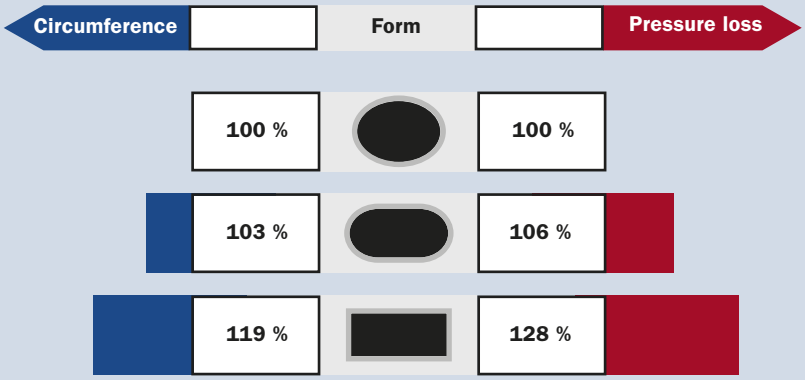


Space-saving and flow-optimised: VENTAFLEX® air ducts oval

Form and function

Flow properties:
Round is better than square

Comparison: Form of the air duct and pressure loss



Impact of the duct form on material consumption (→ weight/ statics) and pressure loss (→ energy consumption/ operating costs) for the same cross-sectional area

Round and oval air ducts have a significantly better flow than rectangular air channels. That way round air ducts have 20 % less surface than square channels at the same performance. Because of low pressure loss a small fan can be used. With the application of VENTAFLEX® air ducts round and oval operating costs are sustainably saved.

.

Time is money

Installation in record time

Finished insulated ducts, pre-assembly of components ex factory, easy transportation and good positioning due to low weight:
All this accelerates the installation of a VENTAFLEX® ventilation system. Especially if you have to intervene into an ongoing operation and the downtimes of production lines have to be reduced to a minimum.

VENTAFLEX GmbH
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

03.2020