

Healthy indoor climate and noise-free ventilation solution for class rooms



Installation contractor recommended textile ducting instead of steel

Båring School was recently renovated and expanded so that the school today is both up-to-date and future-proof. Originally a decentralized solution was specified, however, the ventilation contractor HJ Ventilation managed to convince the project owner that textile ducts would be a better solution that would provide more efficient air distribution and thus a good indoor climate.

FACTS:

Architect:	Creo Architects
Engineer:	Moe & Brødsgaard
Installation contractor:	HJ Ventilation, Odense
Materials:	KE Fibertec



Flame retardant textile material with high dust holding capacity

All rooms have been fitted with D-shaped low impulse systems (KE Interior) made of a flame retardant HDC Trevira CS material. HDC is short for High Dust holding Capacity, indicating the capability of the material to carry dust. The higher dust holding capacity, the longer intervals between washes. A correctly designed D-shaped duct system will result in low pressure loss and consequently low energy consumption.

The KE Interior solution will deliver fresh air evenly along the entire duct surface thus avoiding draughts and "dead zones" in the room.

TECHNICAL DATA:

Year of construction:	2015
System:	KE Interior
Colour:	Light Grey
Material:	HDC
Suspension:	D-Alu

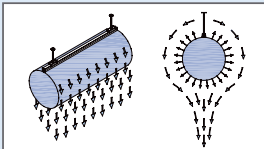




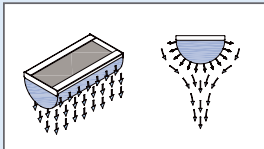
It looks good. The system is flexible and the light material makes installation easy and quick. At the same time we avoid noise and draught problems. In this way we ensure a healthy indoor climate for both children and adults.

Klaus Larsson, Project Manager, HJ Ventilation

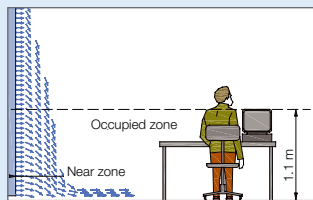
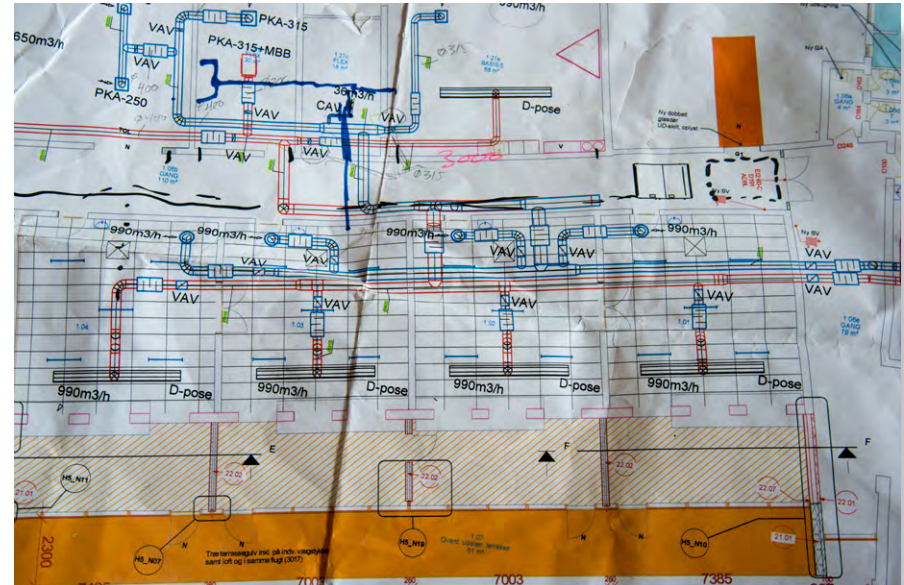
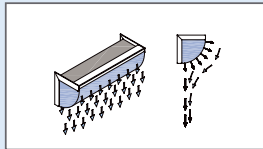
KE Low Impulse System



KE Interior System (D)



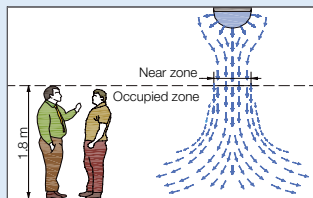
KE Interior System (1/2D)



OCCUPIED ZONE FOR LOW IMPULSE SYSTEMS

The occupied zone is the area in a room which people occupy for a long period of time and is defined as the area where efforts are made to maintain the indoor climate at a general level.

The occupied zone is not a standardised area, but a zone which is defined from one project to another in consultation with the architect and client. The occupied zone is often defined as the zone from the floor up to a height of 1.8 m above people who are in a standing position doing their job, while this height is set to 1.1 m for people who are seated.



NEAR ZONE FOR LOW IMPULSE SYSTEMS

In the case of horizontal low impulse systems, the near zone is defined as the zone under the textile ducting where there is the biggest risk of a "cold downdraught" or of draughts in general. The width of the near zone can be reckoned to be no more than three times the duct diameter.

In the case of vertical low impulse systems, the near zone is defined as the local zone around the duct where the air velocity is too high in relation to the room's comfort requirements (depending on the room category).

Good indoor climate improves learning ability

Recent studies by DTU, the Danish Technological University (Centre of Indoor Climate and Energy) document that there is a clear connection between air quality and temperature and the students' performance in class rooms. Several experiments performed at Danish schools show that by establishing mechanical ventilation the room temperature could be reduced from approx. 25 °C to 20 °C which would improve the performance of the students by up to 10%.

It is important to put indoor climate on top of the agenda - also in schools - to ensure the best possible educational conditions for our children.



KE Fibertec AS is market leader in Textile Based Ventilation. We create good indoor climate through our tailored textile ducts for installation in sports arenas, offices, laboratories, schools etc.



Textile ducts are customizable, easy to install, washable, hygienic, and come in all shapes and colours.

For more information please visit our website: www.ke-fibertec.com.

For more information please contact:

HJ Ventilation A/S
 Tel. +45 66 15 61 15
 kl@hj-ventilation.dk
www.hj-ventilation.dk

KE Fibertec AS
 Tel. + 45 75 36 42 00
 info@ke-fibertec.dk
www.ke-fibertec.com