

## Textile Based Ventilation in the Wind Power Industry

### Uniform air distribution without draught problems

Andresen Towers in Nyborg, Denmark, is an affiliate of Ib Andresen Industri A/S with head office in Langeskov, Denmark. Andresen Towers develops and manufactures customized solutions for the wind power industry, including Siemens.

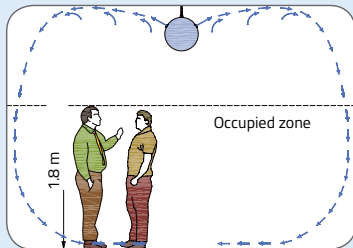
In 2013 a new ventilation system was installed in the 100 metre long production hall at the factory in Nyborg. The installation consists of three sections including both textile and steel ducts.

The purpose of the steel ducts is solely to carry air to each section ensuring that the volume of air is the same in all three sections. The air distribution into the room takes place via the round textile ducts.

**FACTS:**

Contractor: Andresen Towers A/S  
Installation contractor: Euro-Vent ApS  
Materials: KE Fibertec AS

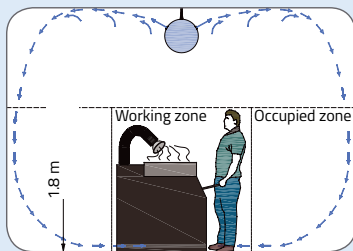




**Occupied zone for High Impulse Systems**

As with low impulse ventilation, the occupied zone is not a standardized 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.



**Working zone for High Impulse Systems**

In the case of industrial premises, it may also be appropriate for high impulse systems to divide the room up into a working zone as the state of the air may vary from the general level as a result of industrial processes.

Heat and pollution sources are often present which require special measures to be able to maintain a satisfactory indoor climate in the working zone. If processes are carried out which cause extreme pollution, textile based ventilation should therefore be supplemented with local extraction vents.



**Flame retardant materials**

The textile ducts are made of LDC material that is woven of flame retardant FR yarns. The materials meet the demands of the Danish fire standard DS 428, B-s1, d0 and the EU standard EN 13501-1.

According to DS 428 up to 5% surface area may be fitted with plastic nozzles etc. (material class F) provided it is encircled by material of class B-s1, d0.

**TECHNICAL DATA:**

- Year of construction: 2013
- System: KE DireJet® with Ø18 mm nozzles
- Colour: Light Grey (RAL 9002)
- Material: LDC-FR
- Suspension: Safetrack



For this solution a KE-DireJet® system with Ø18 mm nozzles was chosen that guarantees a 100% active and directional delivery of air. It provides efficient and draught-free air distribution throughout the room, and the nozzles ensure that fresh air will also reach floor level.

The KE-DireJet® system is an active high impulse system for mixing ventilation.



We are very pleased with the solution for Andresen Towers. KE Fibertec has supplied a ventilation system that works perfectly and that ensures a healthy indoor climate for the employees.

**Project & Sales Engineer Jacob V. Andersen, Euro-Vent ApS**

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](http://www.ke-fibertec.com)



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