

DireJet® systems for different ventilation demands



State-of-the-art facility

In close cooperation with Prima-vent A/S in Esbjerg, DK, KE Fibertec has supplied the air distribution systems for DS SM A/S' state-of-the-art surface treatment facility in Roedekro, DK. Different KE-DireJet® systems were chosen, matching the individual production processes. The installation applies both KE DireJet® systems with Ø24 mm nozzles and KE Vario systems with Ø48 mm adjustable nozzles.



FACTS:

End user:	DS SM A/S, Roedekro, DK
Contractor:	Prima-vent A/S, Esbjerg, DK
System type:	KE-DireJet® Vario System

Significant energy savings

The new production facility has been built with a production flow in direction north/south starting with sandblasting continuing to metal coating, painting, and final preparations. Each individual production facility has different ventilation demands. The new design allows for significantly lower air change resulting in large energy savings. The large reduction of the air volume is mainly the result of KE Fibertec's concept and design using Vario and DireJet nozzles.

Work operations typically take place at one end of the building whereas degasing is performed at the other end. Development Manager Oluf Lauridsen, DS SM A/S, informs that they have obtained a considerable improvement of the working environment as well as remarkably cleaner air in the halls compared with similar production processes.

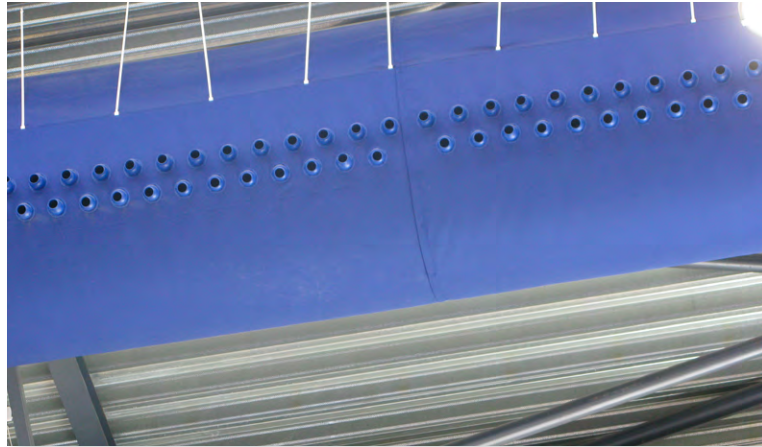
The air distribution comprises two inverted, identical systems that ensure ventilation across the room towards the exhaust panels. With lower air exchange and customized ventilating units, energy savings are significant.



TECHNICAL DATA:

- Air quantity: 550,000 m³/h
- $\Delta T = + 8^{\circ}C / + 20^{\circ}C$
- Duct diameter: $\varnothing 710 - \varnothing 1500$ mm
- Duct length: 631 m





Waste heat is recovered (> 80%) for heating of the halls. The recovered heat is efficiently distributed to the halls by means of DireJet systems thus rendering the KE systems very suitable both for make-up and process air as well as for heating.

Right from project start, KE Fibertec has supplied technical advice in the layout phase of the ventilation systems in close cooperation with DS SM and Prima-vent.

The entire air distribution system is located in the rafter construction thus allowing use of the height of the production hall.

KE's textile systems with preinstalled nozzles reduce installation time and take up less space during transport. The textile systems are very light compared with steel ducts resulting in much quicker and less expensive installation than is the case with steel ducts. The material is fire approved acc. to DS 428, B-S1, dO.

Upon final completion of the building, DS SM was presented an award from the energy company Syd Energi for reducing energy consumption by 30-50% compared with traditional plants.



KE-DIREJET VARIO - THE FLEXIBLE SOLUTION

The latest development of the KE-DireJet System is called KE-DireJet Vario. It is a multi-adjustable nozzle that allows the direction of the air jet to be freely adjusted up to 30° in any direction in relation to the nozzle's centreline.



The KE-DireJet Vario nozzle can be adjusted manually so that the main direction of the air jets can be changed by up to -30° in relation to the nozzle's centre line. This may be particularly appropriate if the room's layout is changed after installing the system. This nozzle adjustment can also be used in situations where a large cooling load needs to be supplied in the room.



The manual adjustment can also change the main direction of the air jets by up to +30° in relation to the nozzle's centre line. As mentioned above, this may be particularly appropriate if the room's layout is changed after installing the system. This nozzle can provide great benefit if it is used in situations where a large heating load needs to be supplied for the room.

If you have a project in the following applications

- sports arenas
- warehouses/terminals
- tall production facilities
- large public buildings/atriums
- showrooms

do not hesitate to contact KE Fibertec's experienced sales engineers and let them convince you that the flexible KE-DireJet® nozzle can do the job - the easy way.



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

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