

# Warehouse Air Movement Guide

**Fantech** have a full range of air movement solutions for warehouses/offices. These solutions improve ventilation and air mixing, reduce humidity, and better control temperature with an optional series of intelligent control systems.



# Warehouse Environment

When a warehouse has insufficient ventilation or air circulation it can become stifling as humidity and temperature levels increase. Excess heat or cold can have detrimental consequences for employees and the equipment. A warehouse can be unhealthy and even hazardous, if fumes are left to build up. Understanding the problems caused by poor ventilation and temperature fluctuations, and the types of solutions available, will help create a much healthier environment.

Fantech is committed to the ongoing development of technologies that are designed to improve ventilation in warehouses and lower energy consumption. Fantech have systems that help create a healthier and more productive environment while providing centralised system monitoring with purpose-built controllers and sensors.

Fantech offer a large range of warehouse ventilation and air mixing fans including HVLS fans, spot coolers, destratification fans, aisle coolers and drive-through loading bay fans. When air change is required within a warehouse, Fantech's specialised range of roof or wall mounted exhaust and supply fans will help. Fantech's roof mounted exhaust fans can also help to reduce the temperature inside a warehouse by removing the hot air layer trapped just below its ceiling.

Energy Saver



Individual Fan Control



Quiet Operation



BMS Connectivity



*Zoo fans providing targeted destratification in warehouse aisles*



*Fantech's roof mounted Gamma and smoke spill fans are purpose built for commercial exhaust applications*



*Hunter HVLS fans used for air circulation in large open areas of the warehouse.*

## Office Environment

Indoor air quality can have a negative effect on working practices. The most common effects of poor indoor air quality on employees can be a reduction in concentration, a drop in productivity levels, and increased fatigue.

Fantech can solve this problem with a range of intelligent ventilation systems that help maintain a healthy and comfortable office environment with the optimal working conditions. This range includes innovative electronic VAV Diffusers, Smart Controllers and EC Fan Coil Units.

# Warehouse Air Movement Solutions

Fantech can offer individual warehouse fans or complete air movement systems that come with fans, controllers and sensors tailored to individual project requirements. These air movement systems have 3 synchronised modes of operation from Fresh Air Supply to Air Mixing to Exhausting stale or hot air.

## Key Benefits

- Control up to 6 independent zones with individual fan control and status
- Can be connected to a BMS via BACnet or Modbus for easy system monitoring
- Integrated fan and sensor control based on delta T and the entered ceiling height
- Mechanical Services Switch Board (MSSB) and Fire Indicator Panel (FIP) connectivity

## Air Mixing Fans



## Open Area Cooling & De-stratification

The efficient and easy to install Hunter HVLS fans provide effective air circulation and air mixing in large open areas of the warehouse.

Available with a Hunter touchscreen controller or an Aviator control system.



Danfoss VSDs



## Supply Air Fans



## Fresh Air & Filter Supply

When supply air is required for warehouse ventilation, Fantech have a complete range of roof and wall mounted fans including Filtered Supply Units.



Aviator MINI or MAX controller

## Spot Cooling & Destratification

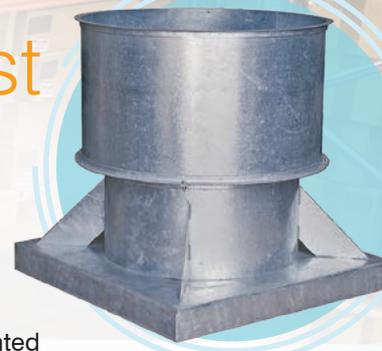
The Aeromix and Zoo ranges of fans can provide spot cooling to specific spaces and help increase air mixing in allocated work areas.



## Exhaust Fans

### Hot Layer Exhaust

Fantech's roof mounted fans help eliminate the hot air layer typically trapped at the highest point under the warehouse ceiling. Fantech also have a range of smoke spill fans that can handle toxic fumes or smoke spill applications.



## Aisle Cooling

ECOtronic and JetVent high velocity fans can be connected to an Aviator control system to provide large volumes of targeted air flow between pallet rack rows and along enclosed drive-thru loading docks.

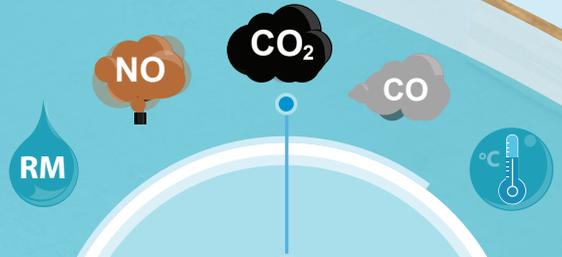


Danfoss VSDs

## Aviator Control System and Sensors

The Aviator Controllers can be used as standalone systems or connected to BMS via BACnet.

A network of up to 50 EC fans with sensors can be connected together for a tailored demand control solution. The fans can be controlled individually or in groups, with status feedback. The optional Aviator Touch screen can be used as an Interface with the MAX or MINI controller and mounted up to 500m from the controller.



Aviator Touch Graphic User Interface

# Optimised Office Environment

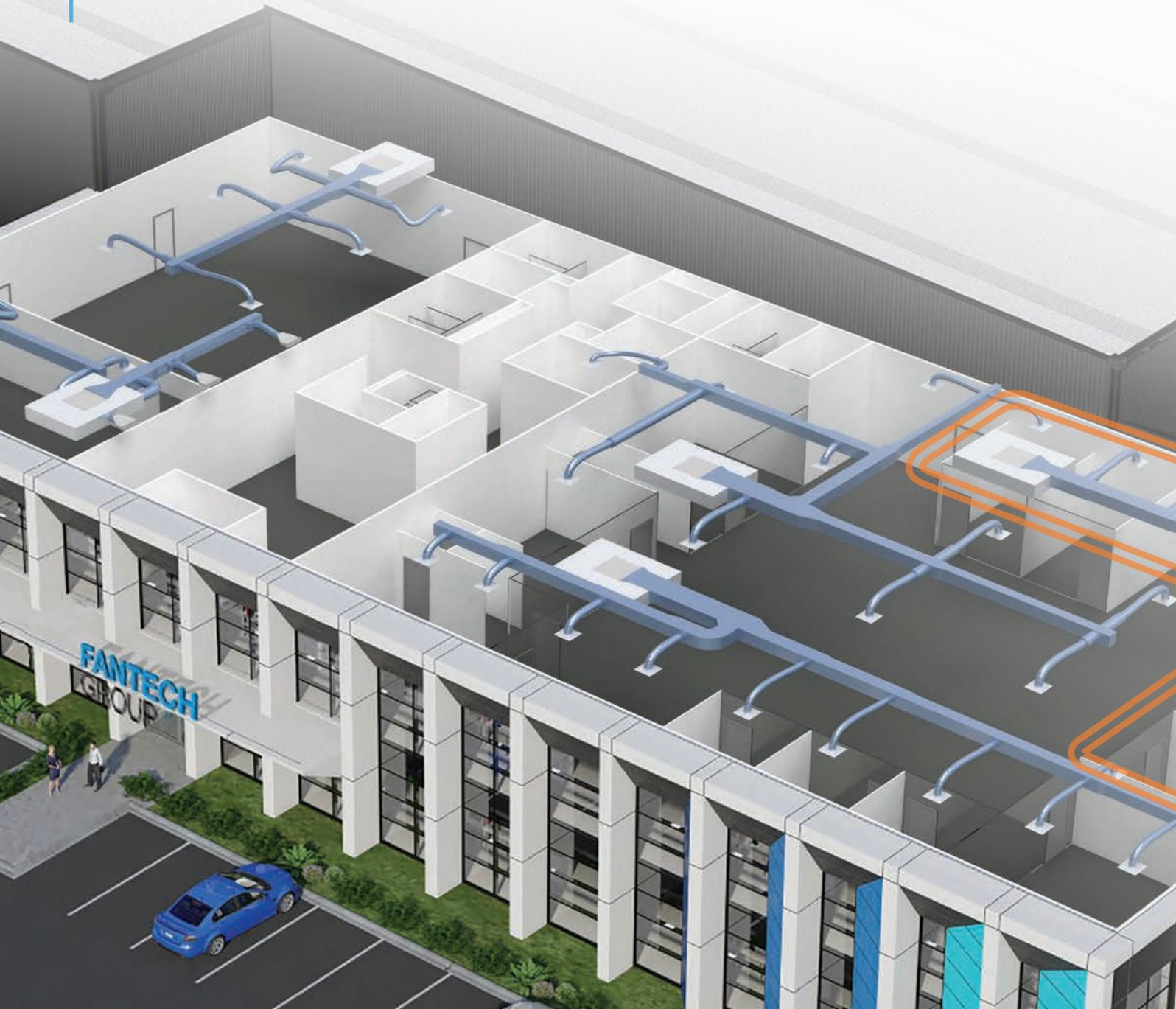
Fantech's **AirLink** air quality solution is designed to simplify and increase the efficiency of a HVAC air management system in an office environment.

It can be used with constant diffusers for open plan spaces such as a reception area and cubical type offices in a building.

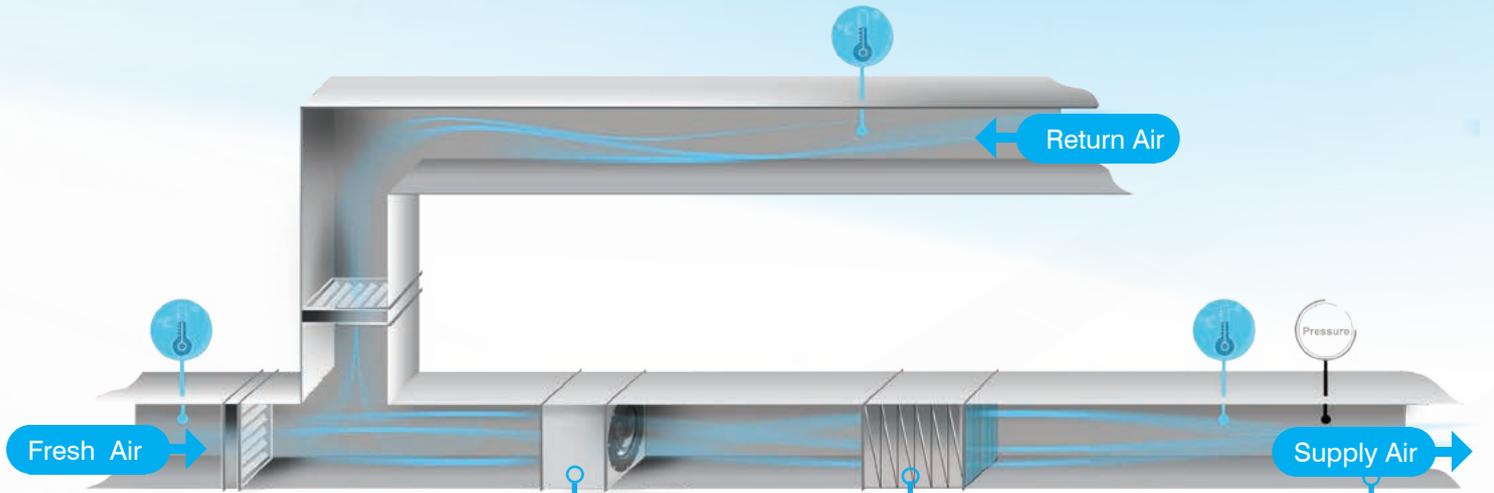
AirLink is particularly well suited to areas where small thermal zones exist, such as enclosed offices and meeting rooms. In these types of areas an AirLink control system can be used with Rickard electronic VAV diffusers to manage precise air distribution and individual comfort control. Since a thermostat is built into every Rickard diffuser, optimal thermal comfort is achieved within all areas of the building.

## Key Benefits

- Easy Integration with most DX air and water cooled systems, as well chilled and hot water system
- AirLink controllers can eliminate expensive BMS requirements or used as a standalone system
- Can reduce number of required fan coil units when using VAV diffusers for zone control
- Better thermal comfort control by using VAV diffusers to create smaller thermal zones
- Lowers running costs by minimising energy consumption with less overshoot



Fantech's AirLink controllers create seamless connectivity between supply air and air distribution



Air or Water Cooled FCU/AHU  
(Ducted packaged or split AC units)



AirLink  
Controller



Adaptable **Rickard electronic VAV diffusers** with the option of onboard temperature monitoring, occupancy detection and air flow sensing for precise air distribution and individual comfort control.

**AirLink**  
HVAC Management System



# Ventilated 'Drive-Thru' Loading Docks

Large enterprises are taking advantage of enclosed docks to increase warehousing efficiencies. The range of roof mounted JetVent Air Movers can be used as an air replacement system for cooling or moving toxic gasses out of an enclosed dock within seconds. JetVent creates a high-velocity column of air that continually circulates fresh air throughout the entire dock creating a healthier, more comfortable work environment.



## Compact Cooling

The Compact Cooler series of portable fans is designed to increase comfort and lift productivity by providing relief for people working in warm to hot locations. They deliver large volumes of air and include wheels and handles to ensure easy manoeuvrability.



## Pedestal & Wall Mounted Cooling

The Fantech range of robust Pedestal Fans are available in stand or wall mounted configurations. They are designed to increase comfort and lift productivity by providing relief in targeted work areas.



**FANTECH**  
Intelligent Ventilation

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