

EFFECTIVE CONTROLLED VENTILATION AND DEHUMIDIFICATION

For an optimal climate



 **AIRMIX model X**

CONTROLLED VENTILATION / CIRCULATION

The Airmix model X introduces controlled outside air into the greenhouse through a direct connection to the greenhouse roof. This achieves a semi-closed greenhouse principle, making it possible to bring in cool and dry outside air in a controlled manner. This results in an optimal and more homogeneous greenhouse climate. Precise regulation of the greenhouse climate improves crop health and productivity and achieves significant energy savings. The patented Airmix model X is suitable for both new and existing greenhouses.

Smart Ventilation

The Airmix model X is specifically designed to allow ventilation with closed air vents and screen cloths, preventing significant climate variations and energy loss.

This system uses two different methods to bring cool and dry air into the cultivation area: drawing outside air through a separate air vent or from above the screen. This enables controlled ventilation both with and without a screen.

How It Works

The Airmix model X is equipped with a fan, which is also used for horizontal circulation. At the suction side of the fan, there is a suction housing with three valves. The suction channel is mounted above the screen on the greenhouse roof. By means of an additional air vent, outside air can be drawn in (valve 1). When the air vent is closed, the indoor air valve above the screen simultaneously opens (valve 2), allowing air from above the screen to be drawn in. Behind the fan, under the screen, is a valve (valve 3) which allows the drawn air to be mixed with greenhouse air or to circulate only the greenhouse air.

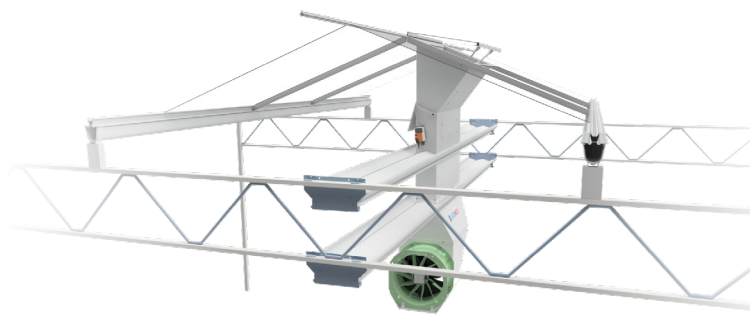
Unique Control

What's unique about this system are the valves, which are controlled by the climate computer and ensure precise regulation of the amount of outside air and/or air from above the screen. The control can be based on both humidity and temperature. All this is made possible with closed air vents and/or screen cloths, optimizing the climate and saving energy. This system is suitable for both single and double screen installations. Moreover, it is installed decentrally, ensuring an even airflow throughout the entire greenhouse.

Modular and Energy-Efficient

The system is modular, making it relatively easy to upgrade an existing Airmix model G installation to an Airmix model X system. Additionally, the Airmix can be equipped with an energy-efficient EC motor which, depending on the situation, can further reduce the system's low energy consumption by up to 50%.





Horizontal and Vertical Air Movement

The air movement achieved by the Airmix creates both horizontal and vertical airflow. The result is a more homogeneous climate and good air circulation among the crops. It is also possible to further direct the airflow using the exhaust guidance system.

Regulations and Compliance

Regulations on light emissions are being enforced more strictly and introduced in more countries. However, complying with these regulations presents challenges, as screens often need to remain closed, leading to increased humidity in the cultivation area. To actively and controlledly dehumidify with closed screens, Van der Ende Group introduced the Airmix. This allows growers to comply with light emission regulations without compromising the quality of the cultivation. At the same time, the Airmix enables an optimal climate when energy screens are closed. This aligns perfectly with the Plant Empowerment philosophy and results in significant energy savings.

Prepared for the Future

To better control the climate and bring fully controlled dry and cool outside air into the cultivation area, Van der Ende Group has developed the Airmix model X. With this system, growers can better meet regulations and have more control over their climate. This prepares growers well for the future.

ADVANTAGES OF THE AIRMIX MODEL X

- Homogeneous climate
- Significant energy savings
- CO₂ retention
- Controlled moisture extraction
- Cooling with a closed blackout screen and artificial lighting
- No light emission
- Suitable for all types of screen systems
- Easy to integrate in new and existing greenhouses
- Reduced pest ingress



Improving Your Business

Van der Ende Group is an innovator, manufacturer and supplier of technical solutions in the area of climate, water, fluid technology and filtration technology. We produce and supply a wide range of pumps, water treatment systems, frequency converters, accessories, fans and industrial filter systems. We provide specialist advice and technical services for horticulture, construction, industry and the public and semi-public sector. Our many innovative and often patented products are sold worldwide. **Check our website for more product information.**



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