ELITE DAIRY VENTILATION

ELITE Dairy ventilation system is an integrated system suitable in regions with a continental climate, which experiences hot summers and severely cold winters. This system consists of a natural ventilation module, mechanical ventilation module, management module, and complementary cooling module.

System - summer

Lack of "chimney" effect in warm periods does that most of the air exchange is created by the wind pushing air through the curtains. ISOCELL® Z-wall and chimneys will be entirely open to facilitate as much air exchange as possible. For safety measures, the ISOCELL® Z-wall will close in case of strong winds, and rainfall and by integrating with both our DOL 434 climate controller equipped with the rain sensor, it is easy to adjust the air inlets. Mechanical ventilation is an integrated part of the ELITE Dairy system, and it is necessary to use it during the hot summers to combat heat stress. Big Air PüRe ceiling fans will rotate at higher speeds creating downward air movement and a strong velocity that cools the cows at the feeding table and in the walkway with airspeed.

During the summer and winter, the fans also dry the ground and animal bedding and eventually reduce the humidity in the barn.

For additional cooling in extremely warm regions, we highly recommend adding a complementary cooling module to the system. High-pressure misting is recommended as a cooling module that can effectively prevent milk production decrease due to heat stress, especially during hot, dry weather. The ELITE Dairy system's individual elements are adjustable easily with our DOL 434 climate controller, which is also equipped with heat stress alerts and Temperature Humidity Index (THI) reading and adjustment.



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System - winter

Warm air generated by the cows rise, and exits through the adjustable chimneys by an airflow pattern called the "chimney" effect. The warm rising air by convection creates a vacuum that lets in fresh colder air from the adjustable side curtains.

As for the roof, our Lumiridge provides greater insulating capabilities than the traditional roofs, and it can be combined with the chimneys. Adjustable chimneys ensure the correct air exchange for optimal climate conditions inside the barn. Mechanical ventilation is an integrated part of the ELITE Dairy system, and it is also needed to ensure animals' comfort as most barns cannot unfortunately, just rely on natural ventilation alone to give the desired result. Big Air PüRe ceiling fans rotate slowly, helping the natural ventilation circulate the cool, dry air coming from the wall openings towards the chimneys. Big Air PüRe ceiling fans also create a circular air movement and recirculate the heat that has been accumulated under the ceiling. This action ensures uniform climate conditions in the barn and fresh air for the cows during the winter without creating a cold draft.

Secco's ELITE Dairy ventilation system ensures:

- · Low running costs.
- Precise and more optimum climate in both summer and winter.
- · Cooling through air velocity and misting.
- · Efficient and easy climate control.
- Abundant luminosity in the barn.





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