

Conditioning of inlet air

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By using an air heat exchanger in combination with a heat-cold source in the ground, it is possible to condition the incoming air for the barn. With this system, the heat from the summer period can be reused during the winter and the cold from the winter period can be reused during the summer. This means there will be virtually no temperature fluctuations between day and night, and between summer and winter. This results in a more constant barn climate, with better technical figures and more constant business operations.



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ADVANTAGES

- Less draught
- Less medication
- Improved animal health
- Smaller ventilation system
- More constant business operations



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Reusing ground heat

Two sources are created in the ground close to the pig barn: one source for the storage of heat and another source for the storage of cold. In summer, the heat extracted via the air heat exchanger is stored in the ground. This heat (14-15 °C) is used in the winter to warm up the incoming barn air.

In summer, the cold (8-9 °C) stored during the winter period is used to cool the incoming air. The sources are located at a depth of about 40 metres. What makes this system special is that the ground holds the temperature very well. With a minimal flow of underground aquifers, 90% percent of the energy can be saved.

No heat stress

Because the conditioned incoming air in the summer is much cooler and drier, the pigs don't suffer from heat stress. Even with an outside temperature of 36 °C, feeding times and feeding quantities can remain the same. You can continue to deliver pigs to a fixed schedule. This is a great advantage for you, because you can keep a tight working schedule throughout the year.

No draught in the barn

Another advantage of air conditioning is that it "filters out" the large fluctuations in temperature between day and night that typically occur at the beginning and end of the summer. During these periods, it can be very warm during the day, but very cold at night. In a regular barn, the fans draw in a relatively large amount of cold air during summer evenings, which causes draughts. This system keeps the temperature of the incoming air at a constant level (between 10 °C and 18 °C), so that draught is a thing of the past.

Healthy barn climate

In the winter period, many farmers try to steer a middle course between reduced ventilation and a dank barn on the one hand, and high heating bills on the other. This system keeps the temperature of the incoming air at a constant level between 8 °C -10 °C, while the barn can still be ventilated. Because the incoming air is much warmer, heating becomes practically unnecessary. This can help you save a lot on your energy costs.



Are you interested?
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