

JOVAS in combination with lowered air inlet systems



pipe ventilation



slurry tray ventilation trough PVC wall

Lowered air inlet systems can be perfectly combined with shallow slurry pits and slurry discharge systems. In the past 15 years, we have developed optimal systems for each animal group. The strong point is the conditioning of the air and the natural air flow. The maximum and minimum temperatures are levelled out, creating a more constant temperature, both within the space of 24 hours and within other time periods. The floor functions as a heat buffer. Thanks to the more constant temperatures combined with effective ventilation, ventilation levels can be reduced by at least 30%, enabling a ventilation level of maximum 110m³ per farrowing sow.



slurry tray ventilation by farrowing



slurry tray ventilation with corner air inlet

> Farrowing sows

For farrowing sows, we have developed two systems that both work to complete satisfaction.

The first is the slurry tray system, whereby the pit under the slurry tray acts as an air intake duct/air buffer. Here, the relatively large surface combined with the big buffer creates the greatest effect of conditioning. Pigs are unable to perspire and can only lower their body heat if the surrounding air temperature is lower or by breathing. By creating a cold air flow close to the sows' nose, it is possible to raise the temperature in the stable and increase the sows' food intake. A seemingly unique combination, but proved by experience. Calculations show that with a piglet price of € 35,- a 2-year earn-back time is possible.

The latest model is an improvement of the pipe intake system. An inlet tube has been specially developed to feed air directly through a pipe from the inspection corridor to the sow's head. This system achieves results similar to those with slurry trays. The incoming airflow works as a pigblower and thus lowers the % of deaths.

> Earn-back time calculation

With slurry tray ventilation, costs of ceiling ventilation, slurry discharge system, quality of the pit walls (non liquid-tight) and ventilation/heating will (partly) be reduced. The total savings will be about € 285,-.

The costs of slurry trays including integrated air inlet are approximately € 325,- (for a 250 x 180 cm farrowing pen). The net extra investment price is about € 60,-.

> Weaners

In this application both the channel ventilation system and ground pipe ventilation are used as well as a combination of the two. Depending on the climate (continental or maritime), a combination is used with heating or a summer and winter inlet. We also apply slurry tray ventilation here, with the same advantages as with the farrowing sows.

> Finishers

Here, channel ventilation is a cheap solution to improve results and to condition the air. From under the solid floors, air is introduced into the pens from outside. If a water channel is used, with deeper pens it will be necessary to feed the air to the inspection corridor not only through the central corridor pit but also to use a bypass. Various systems can be used here including a double floor (gutter) in the water channel, a bypass under the feeding troughs or ventilation pipes in/under the water channel. Also slurry trays and ground pipe ventilation can be applied here.

> Gilts and gestating sows

As with the weaners, two systems can be used here, channel and ground pipe ventilation (or a combination of the two). In addition to the advantages of a well-functioning ventilation system, there are considerable benefits in improved fertility (and/or fewer problems in hot periods). At the moment we're doing research for a slurry tray.



Ground pipe ventilation

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