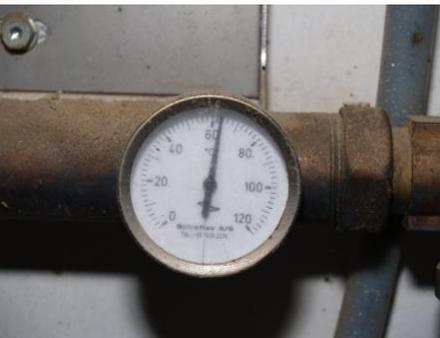


H29 - Heat



Heat supply

1. Weaners have a heat requirement of approx. 20 W / place unit. This heat is supplied as floor and room heating with 5 W / place unit from floor heating and 15 W / place unit from room heating, respectively.
2. Finishers generally do not require a great deal of heat, but it is a good “insurance” to be able to add heat in critical periods.
3. Floor heating may optimise the immediate environment of the pigs and define their lying area.
4. Room heating is regulated via the ventilation control panel and floor heating is controlled manually.
5. The source for room heating should primarily be placed under the air intake, typically along the outer wall.
6. Floor heating is typically used in the first weeks after transfer of the pigs to the facility.
7. The difference between inlet and reflux temperatures must be max. 3-4° C.



Is the temperature too high / too low?

- The pigs huddle: this is a clear indication of too low temperatures.
- The pigs “turn the pen around”: check if the inlet temperature is too high.
- The temperature shown on the floor heat does not correspond with the current temperature. Check regularly.
- Inadequate drying makes the facility cold: Floor and room heating alone cannot dry a facility after wash in cold periods, but are a good supplement.

Additional comments - Heat

1. Heat is normally only required in the first couple of weeks after the pigs have been transferred and for drying and heating the facility after wash. However, on many days the air will be heavy and saturated by humidity and it will then be necessary to add heat to ensure a high quality of air in the facility.
2. A heat supply of 40 - 50 W per m² in finisher facilities will ensure a good air quality all year round. A StaldVent calculation shows that the consumption corresponds to 6-7 kWh per produced finisher. Heat should be added as room heat.
3. The supply of floor and room heating will ensure a good immediate environment and a good quality of air in the facility. The amount of heat required primarily depends on the pigs' age, outdoor temperature, and air humidity and the pen function. Extra heating of the room is essential as the heat required cannot be added from the floor heat alone. The floors would be too warm and the pigs would pull away if the entire effect was to come from the floor.
4. It must be possible to regulate the floor heat in relation to the inlet temperature from the furnace. The heat system must therefore be equipped with a circulation pump and a shunt valve for each section to ensure optimum distribution and mixing of cold / warm water. The inlet temperature must be adjustable and must not be too high (max. 38 - 40° C). If the inlet temperature is too high there is a great risk that the pigs "turn the pen around" and defecate in the lying area. This is one of the reasons why floor heat cannot be used as room heating.
5. Delta pipes and ribbed pipes have a significantly greater effect per running metre. In facilities with diffuse ventilation and low air speed, the effect increases if the heat pipe is surface-treated.

6.

Example of temperature strategy with partially slatted floor, cover and diffuse ventilation

Weight, kg	8	10	14	18	21	25	30
Room temperature, ° C	22 - 24	22	21	20	19	18	17
Temperature u. cover, ° C	28	28	28	28	26	25	22
Inlet temperature floor ° C	38 - 40	38	35				

Remember: Always look at the pigs!