

HPC-Flex - multi functional high pressure cooling



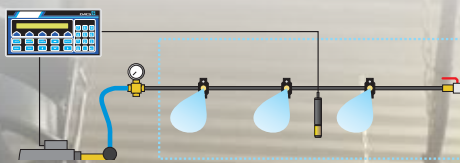
There is a close correlation between cooling system performance and air flow in the poultry house. The HPC-Flex system from DACS is a multi-functional high pressure cooling system tailored to work with any given ventilation system. The HPC-Flex uses the air flow pattern build by the ventilation system to create efficient evaporation and distribution of the cold air. Under ideal conditions the spraying system is capable of cooling the house to temperatures well below outside temperatures.

Two different applications

The HPC-Flex system is very flexible and can be adapted to any given type of building. The very simple solution where one climate zone (e.g. a large poultry building) needs to be cooled (example 1), or the more sophisticated system where one system supplies 2-20 smaller rooms in the same building (example 2).

Security

Since the flow of water through the high pressure pump varies depending on how many rooms the system operates, the pump needs to be speed-controlled via a frequency inverter. In conjunction with an electronic pressure guard, the frequency inverter ensures a constant pressure on the system of 65 bars. The frequency inverter serves as motor protection for the pump and it is programmed to stop after 10 seconds in the event of a sudden pressure drop caused by e.g. lack of water supply or a line break. The inverter will send an alarm if connected to an alarm system.



Example 1

On/off system that starts/stops via a climate controller. This system can be adapted to any given type of building, with either one or two lines installed, depending on house width and type of ventilation system installed.



Example 2

Designed to meet the requirements in more complex buildings with more than one room, e.g. a large sow complex with multiple rooms. In a complex like this, each room has specific requirements for cooling which necessitates that each room is installed with a high pressure valve that opens/closes via the climate controller installed in the room.