

Ideas out of experience!

MEIER-BRAKENBERG

Stable cooling

High-pressure cooling

Low-pressure cooling



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Perfect stable climate

What is the point of cooling?

Cooling by up to 10 °C - Maintaining animal performance

An optimal temperature range stands for vital, healthy animals with good performance.

Pigs and chicken, for example cannot sweat. Fattening pigs are very quickly outside their temperature optimum. The stress factor and behavioral problems increase. Sows are more likely to show a decrease in reproductive performance.

Dairy cows are even more likely to develop heat stress and react with poor fertility and reduction of milk yield.

Regardless of the animal species, good feed intake and milk yield is always associated with a species-appropriate stable climate.

Reduction of airborne dust in stables - Increase of well-being for humans and animals

In addition to lowering the temperature, a high-pressure cooling system is utilized to regulate the air moisture. It dedusts the air, optimizes humidity and improves the health of the animals. There are fewer respiratory diseases and there is less need for use of medication. Spraying of solutions is also possible.

The improved indoor climate contributes to health protection and occupational safety for employees.

Energy saving

A well cooled stable saves energy because the ventilation rate can be reduced. Evaporative cooling is a very energy efficient cooling method.



Cooling by spraying water

In both low-pressure and high-pressure cooling, fine water droplets are atomized in order to benefit from evaporative cooling. The water droplets are transformed from liquid to gaseous state of aggregation.

This process requires energy which is taken from the environment in form of heat energy, thus lowering the ambient temperature. The finer the droplets, the larger the surface area and the better the evaporation of droplets, thus increasing efficiency.





High-pressure cooling



High pressure cooling nozzles made of stainless steel mounted on a stainless steel tube, no corrosion.

Water at a pressure of 70 bar is atomized very finely into the stable air via high-pressure nozzles on a stainless steel line. The MBWeich 4 Touch control system works fully automatically; if desired, it can either be

operated combined with the ventilation system or each stable area can be controlled separately. Several stables can be operated using one control and one pump.

In brief:

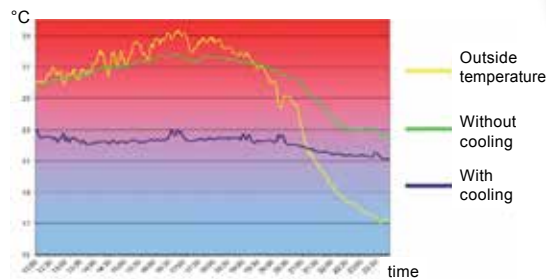
- Very fine atomization of water resulting in high cooling capacity.
- Menu-driven, easy to operate control MBWeich 4 Touch, temperature sensor controls spraying intervals, moisture sensor to limit humidification >> automated system operation.
- Short spraying intervals provide effective cooling, animals remain dry. Integrated pressure release allows constant atomization under high-pressure.
- Dust binding program for reduction of respiratory problems, soaking program for stable cleaning.
- Individual planning for each stable.



Fully automatic control via temperature and humidity sensor.



Quadruple filter unit consisting of large and fine filters.



Cooling effect based on atomization



pump station



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Low-pressure cooling



Combined soaking-cooling nozzle for pig farming.



Central control for dairy farming.

The basis of low-pressure cooling is a very easy-to-install system of PVC lines and atomizing nozzles. The installation and arrangement of lines and nozzles is geared to individual conditions and air flow in the stable. Depending on the individual design, single, double or quadruple nozzles are used. Water pressure of at least 3.5 bar is sufficient for operation.

The low-pressure cooling unit is controlled by the easy-to-operate menu-guided cooling control MBWeich200 which is equipped with a temperature sensor. Automatic control depending on the specified cooling temperature.

In brief:

- Ideal combination option with soaking unit for pig farming >> three functions: soaking, cooling and disinfection.
- Economic cooling system, easy and uncomplicated self-installation.
- Integrated pressure release prevents delay yield of nozzles. A magnet valve opens for seconds, the pressure decreases, nozzles stop spraying immediately, thus allowing short spraying intervals, e.g. spraying 2 to 6 seconds and 6 to 12 seconds interval. Temperature peak break in stables by up to 5 °C.
- Individual system planning.



Easy to operate cooling control unit MBWeich200 with temperature sensor.

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Dual cooling nozzle on a cooling line in a fattening pen