



Cooling for Poultry Production



Welfare and productivity w systems

It may be necessary to use cooling in a livestock house to make sure that the house temperature does not get excessively high. Depending on their age and the type of production, the animals are affected to a greater or lesser degree if the house temperature is too high. This has a negative impact on productivity, including reduced feed intake, and can ultimately lead to increased mortality due to heat stress. The negative impacts can be reduced significantly through the use of cooling.

SKOV offers two types of cooling - high-pressure cooling or pad cooling. Great emphasis is attached to quality and flexibility when developing SKOV cooling products. Quality is ensured by using very reliable components with a long service life. Both cooling systems are made of standard components that can easily be adapted to the individual livestock house.

High-pressure cooling in an LPV system

An LPV system uses high-pressure cooling, which adds atomized water particles to the air in the livestock house. The water particles evaporate in the heated house air and thereby cools the air. With correct high-pressure cooling it is thus possible to lower the livestock house temperature with up to 10°C. The SKOV high-pressure cooling can be used without negative impact on the litter.

Pump unit – complete with filters

The pump forms the basis for an efficient cooling system. The pump unit is delivered complete, ready for connection of power and water. Effective filters ensure a reliable system with a long life. Furthermore, the pump can be equipped with an additional phosphate filter and electronic lime decomposer for optimum reduction of lime and minerals in the water.

Piping system

Only stainless-steel, acid-resistant pipes and joints with high durability and long life are used. The holes for the nozzles are made using a special punch pliers after pipe assembly. The nozzles in the patented FlexClamp nozzle holders can be placed anywhere, allowing for optimal positioning above the air intake.

Nozzles

The nozzles are fitted with a filter in front of each nozzle head to reduce the risk of clogging. Furthermore, the nozzle heads are supplied with an anti-lime coating, which further reduces problems with lime deposits in the nozzle head. All nozzles are fitted with an antidrip valve.

With SKOV's cooling

A high-pressure system has many functions in addition to merely cooling the housing air.

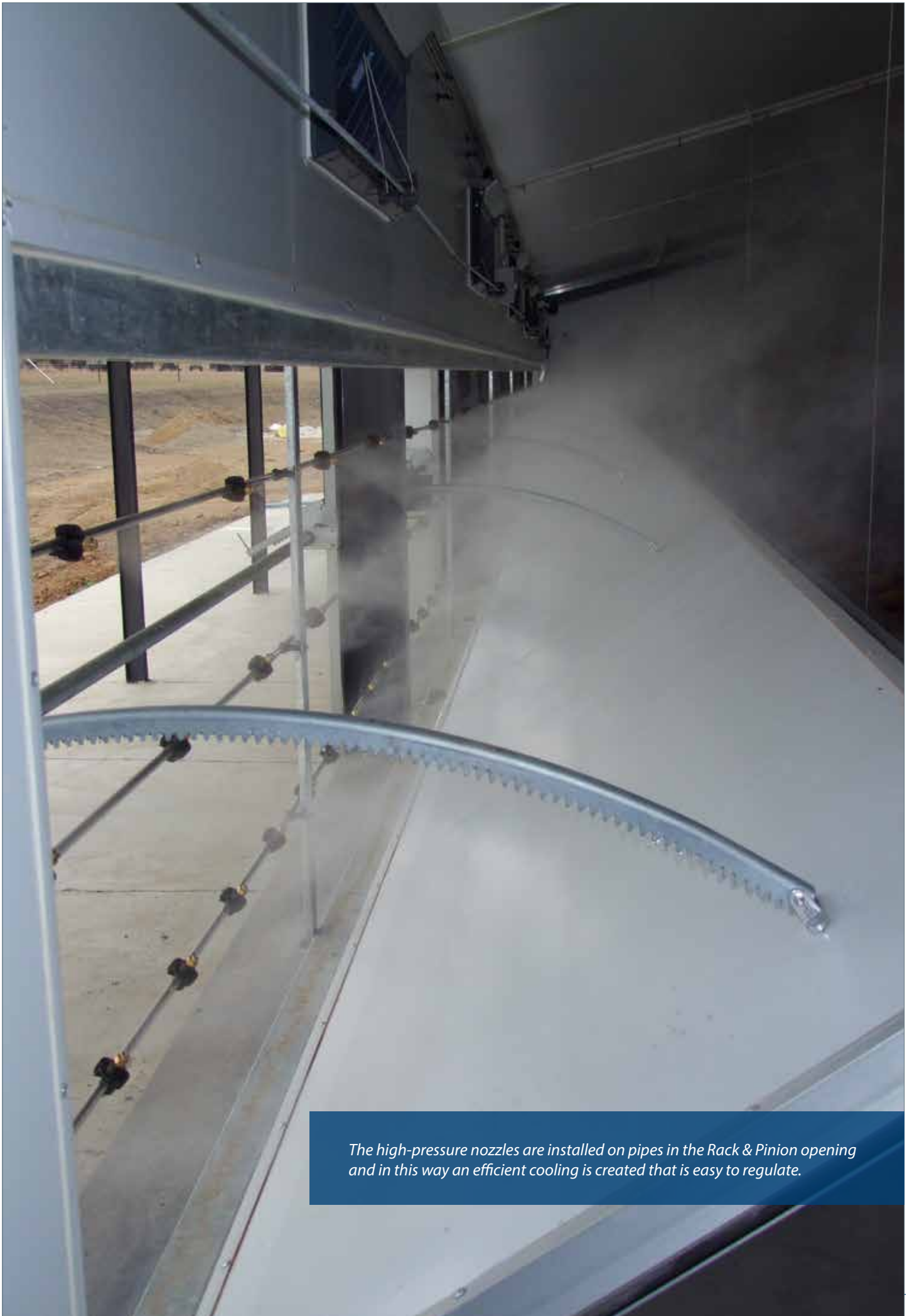
Humidification

A high-pressure system can also be used for humidification of the livestock house. The system can be used to increase the humidity level in the livestock house during periods when it is deemed that the air humidity in the house is too low, and at the same time the humidity can reduce dust problems in the house. Correct humidification can remedy these problems for the benefit of animals and people.

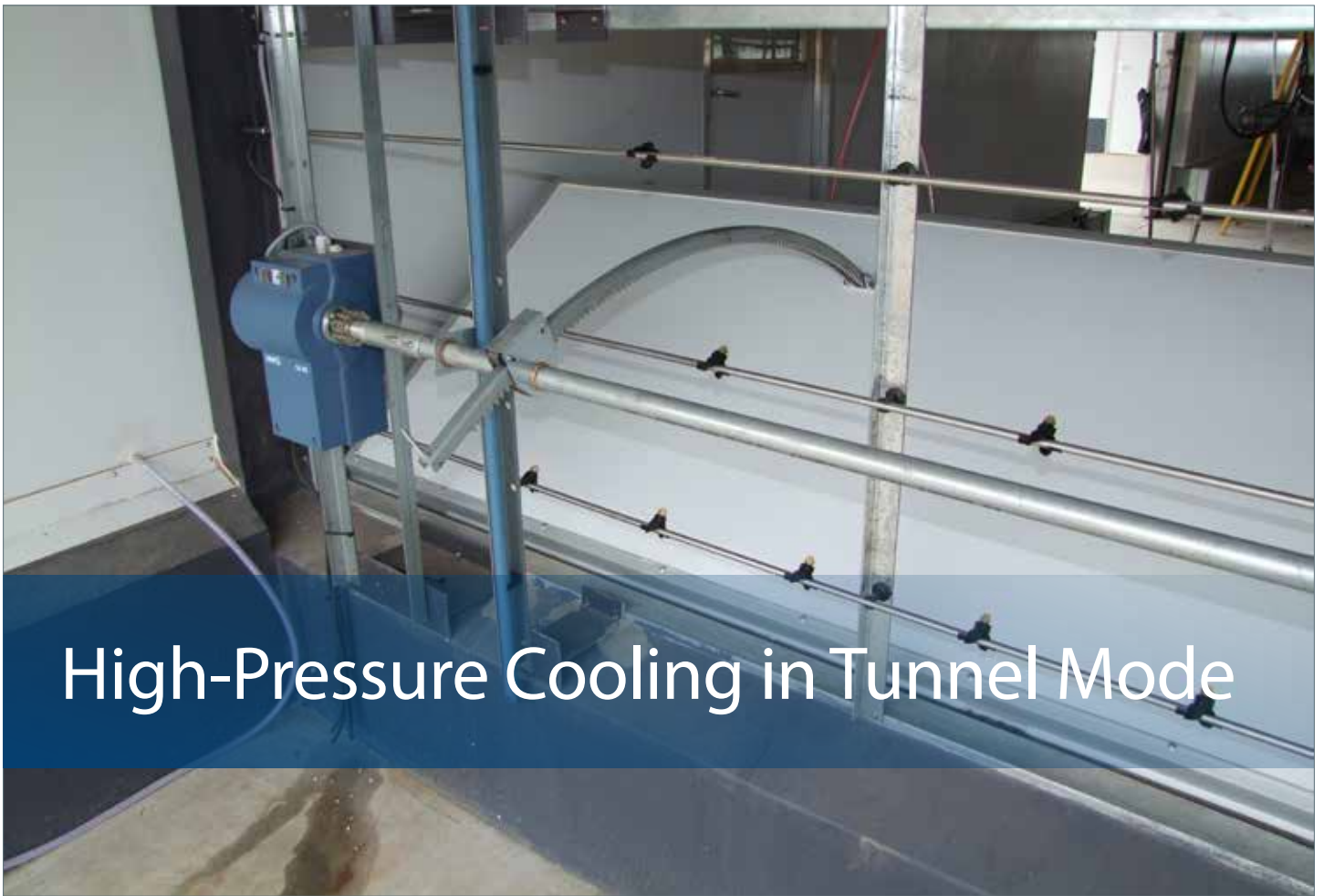
Soaking

Between batches the high-pressure system can be used for soaking the livestock house. With interrupted ventilation, the dense fog of water particles quickly soaks all the dirt on the various surfaces. Cleaning thus becomes quicker and easier.





The high-pressure nozzles are installed on pipes in the Rack & Pinion opening and in this way an efficient cooling is created that is easy to regulate.



High-Pressure Cooling in Tunnel Mode

In areas with very high temperatures and low relative humidity it can be an advantage to use high-pressure cooling in tunnel mode.

When using high-pressure cooling in tunnel mode, the livestock house temperature can be brought down with up to 10 °C. At the same time you get a cooling system that is easier to regulate, and avoid cooling pad maintenance.

High-pressure cooling in Tunnel and Combi-Tunnel systems is placed in the Rack & Pinion opening, where the high-pressure nozzles are installed on pipes.

It is possible to adjust the number of pipes that are used as well as the number of connected nozzles in accordance with the cooling and humidity requirement.





Lower the temperature with cooling pads

Cooling pads can be used for the SKOV Tunnel and Combi-Tunnel systems. The cooling takes place when fresh air is led through cooling pads that are kept damp by sprinkling water. The fresh air is cooled when it absorbs water vapour from the cooling pads.

Great flexibility

SKOV provides a complete cooling pad system that is very flexible and can be easily adapted to most construction types. The cooling system can be installed on the side of the livestock house or alternatively be installed as a stand-alone unit at the side of the building. The system is available at a maximum length of 24 metres and a maximum height of 2.5 metres.

Gutter system with integrated water tank

In contrast to other cooling systems, there is no need for a separate water tank

for cooling pads. The tank is built into the lower gutter and is thus an integrated part of the gutter system.

The tube sprinkling the pads is an integrated part of the upper gutter. Water is supplied directly without the use of the special distributing pads that are used in many other systems.

Easy installation and cleaning

It is easy to install the cooling pads, and the system comes with an efficient pump that has a built-in cleaning filter.

It is easy to access the filter, meaning it is easy to check and clean. Similarly, it is easy to check for and remove foreign matters in the gutter system, if any.



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