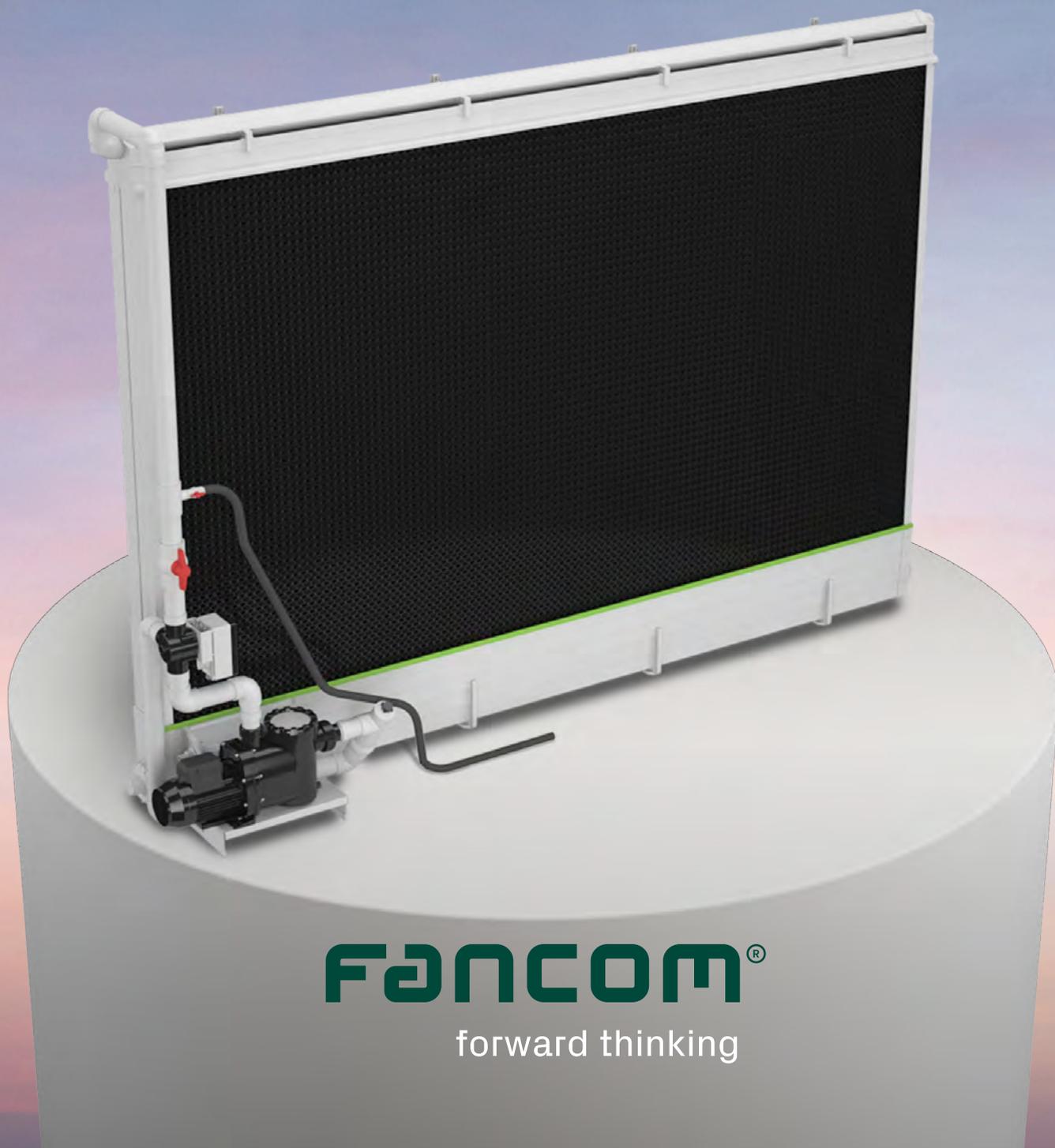


Cooling & heating

For a comfortable
temperature in the house



FANCOM[®]

forward thinking

Facts & Figures

45+

Years of experience

1600+

1600+ poultry houses annually

210+

Global network of distributors and partners

4900+

Sections for pigs annually

700

Growing rooms for mushrooms annually

1

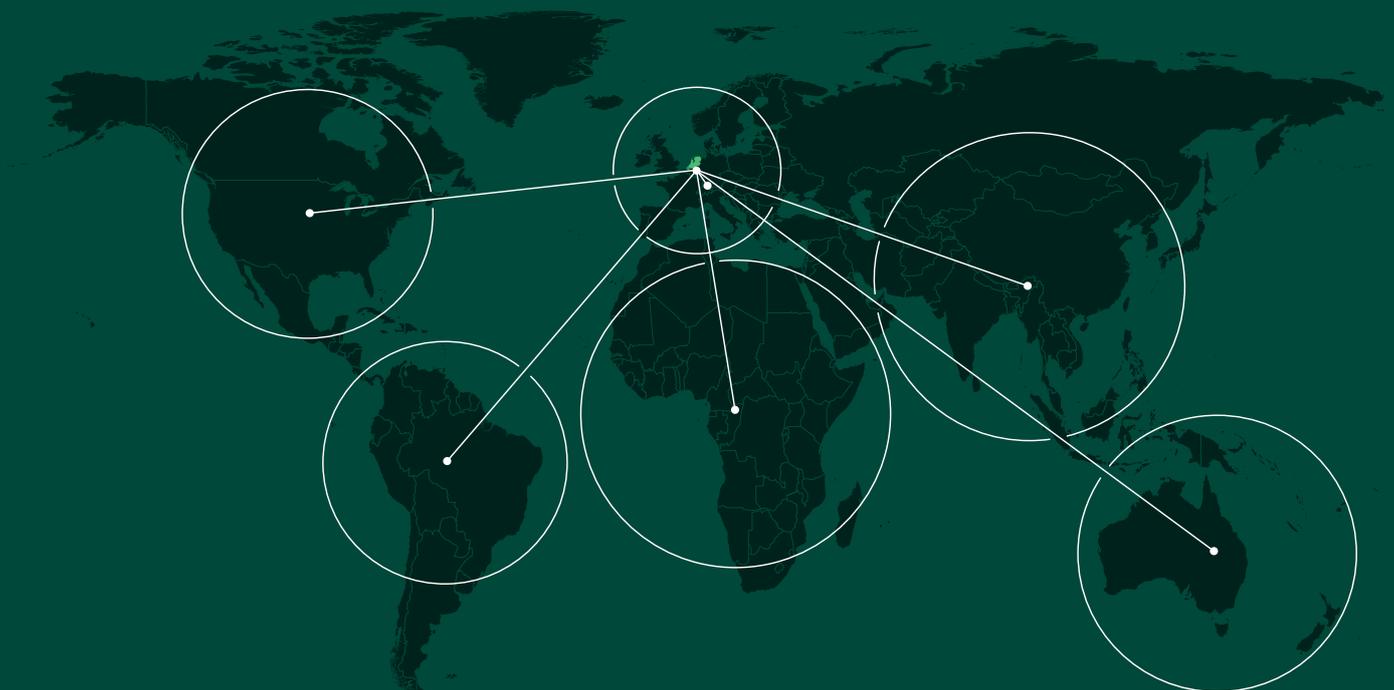
Number one in farm automation



Proven Dutch quality:

Fancom is active in 4 market segment in 63 countries.

All our products are designed and developed in the Netherlands.



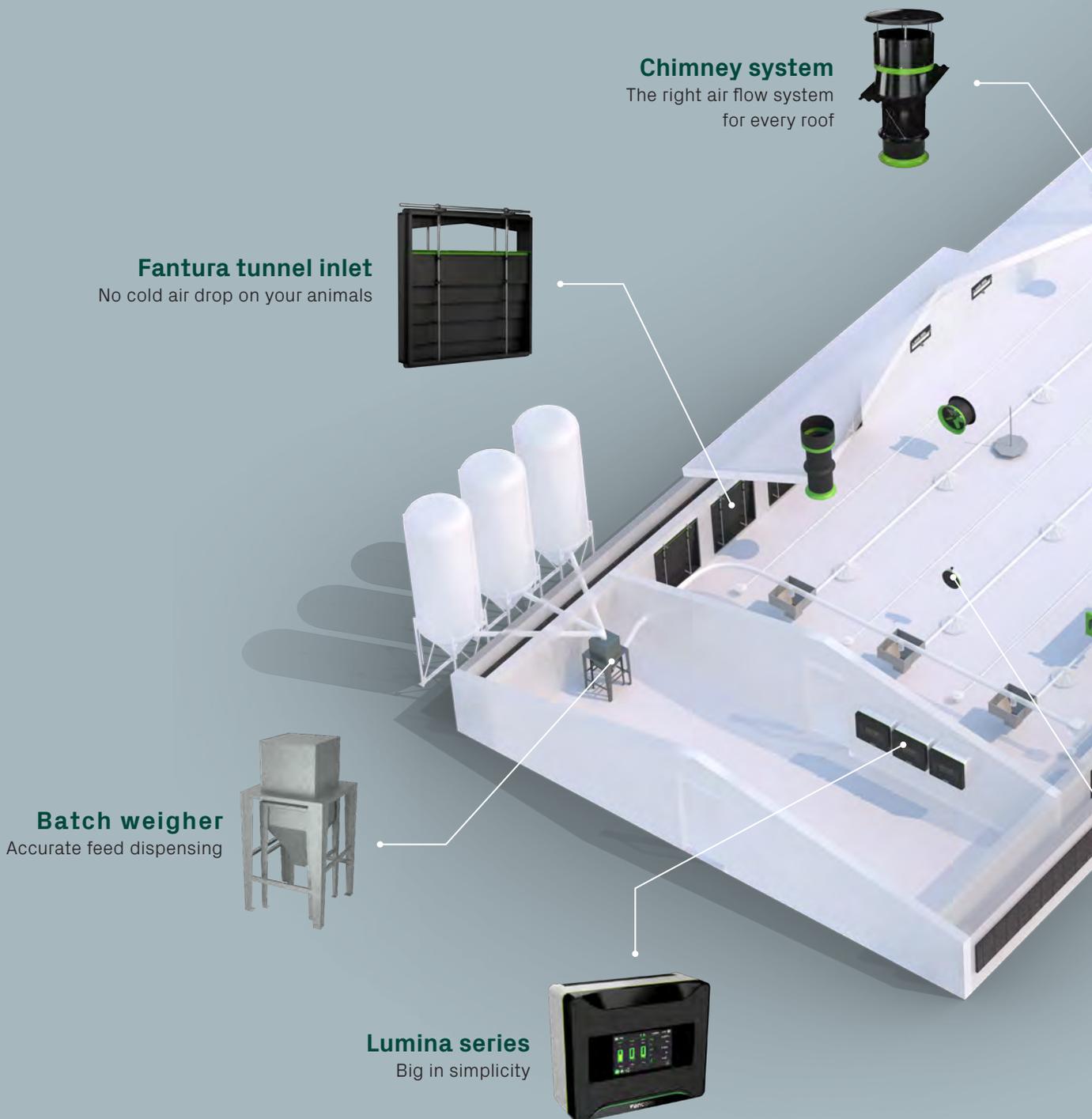
The creative and development processes at Fancom are entirely focussed on achieving superior conditions for pig and poultry producers. Creating the right conditions starts in the house.

FANCOM®

Total house automation

Our management solutions are part of the Fancom system for total house automation. We offer a suitable solution for every type of house, no matter where in the world. A solution where the controller and peripheral equipment use smart intercommunication and where the various processes such as climate control, feed and water distribution and animal weighing interact and operate seamlessly. And are always customised to match your needs.

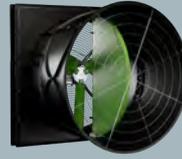
We call this new approach Fancom One; complete control of the entire house from one central point. Here is an example of total house automation for broilers. View more examples on our website and discover what Fancom can mean for your house.





Fantura tunnel inlet

No cold air drop on your animals



IF145Xtra

Energy efficient ventilation



Circulation fans

Efficient ventilation



Animal weighing platform

Insight into animal growth



Cool pad

Avoid heat stress with pad cooling



Heating

The easy way to heat your houses



Climate sensors

Measure how comfortable your animals are

Optimal ambient temperature

The ambient temperature in a house is an essential condition for the welfare of your animals. They must feel comfortable and at ease in the house or barn. Ideally, the temperature is precisely the way the animals like it. In this case the animals are in their comfort zone.

Too cold

If the temperature is too cold, the animals will adapt their behaviour. They will huddle together to take advantage of each other's body heat. Or they will increase their feed intake because more energy is needed to raise their body temperature. This diverts the energy value of the feed to maintenance instead of growth or production. In more serious cases, the animals may become ill, while in extreme cases mortality result from too low temperatures.



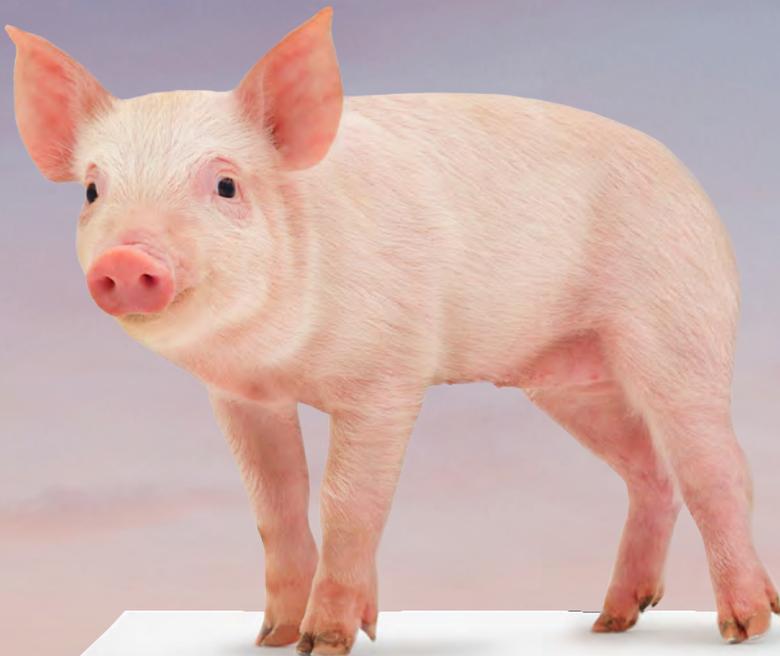
Too warm

If the temperature is too high, the animals will seek out cooler spots in the house and their breathing rate will increase. They will eat less, which manifests as poorer growth or performance. The risk of heat stress in the house increases. This also has negative impacts on animal health.

It is therefore vital to ensure the correct temperature for reasons of animal health and welfare and to create the perfect climate for good technical results. Most houses are equipped with heating or cooling systems to maintain the thermal comfort zone for the animals and prevent cold and heat stress. This is the best way to maintain the health and performance of your animals.

The following pages provide an overview of our cooling and heating systems.

Your animals benefit from a healthy climate in the house under all circumstances.



Efficient cooling improves animal performance

High occupancy at high temperatures is a challenge for every livestock producer. The risk of heat stress in the house increases with high outside temperatures. Heat stress occurs when high temperatures and high humidity prevent an animal from regulating its own body temperature. This impacts on animal health. A suitable cooling system offers excellent possibilities to keep the animals in their comfort zone and prevent heat stress. So your animals will continue to grow, even with a full stocking density and extremely high outdoor temperatures.

Even with maximum extremely high outside temperatures, your animals will continue to grow



Pad cooling

Pad cooling cools the incoming air using water that flows through a synthetic pad installed in front of the air inlet. A major benefit of this cooling method is its capability to cool air to 6-8 °C coupled with extremely low energy consumption.

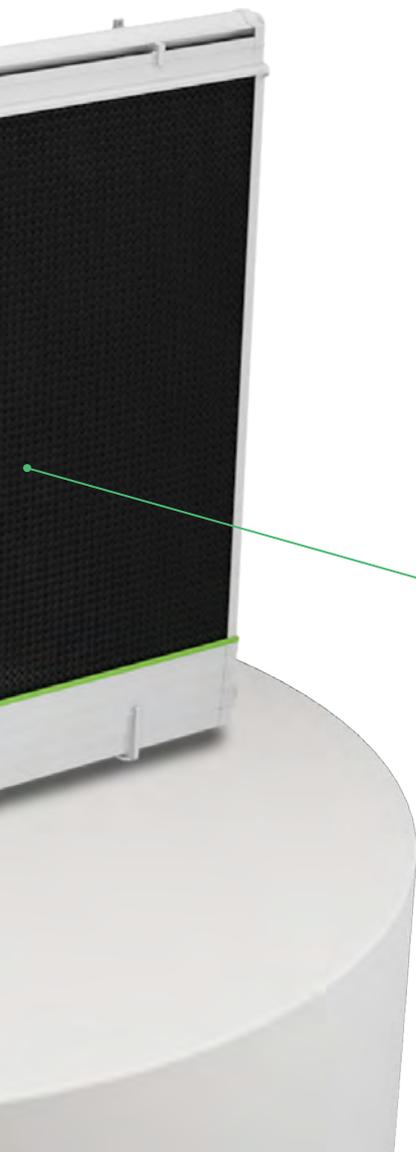
The Greenline Pad cooling system consists of a synthetic cooling pad with a large evaporative element made of finely meshed polypropylene. The special deflector ensures that water is well distributed over the pad so the available cooling capacity is fully utilised. The Fancom controller provides linear control of the cooling capacity. This means that conditions in the house will be accurately regulated to suit the needs of the animals and prevents temperature fluctuations. This gives greater advantages compared with existing pad cooling systems that only offer on/off or modulating control.

Long operational life

The system has an extremely long operational life as all the component parts are made of UV-resistant PVC or stainless steel. A high-pressure cleaner can be used to simply spray the plastic pad. This boosts hygiene and ensures soiling does not reduce the optimal cooling capacity of the pad. In addition, the pads have a durability that is five times longer than paper cooling pads.

Easy to install

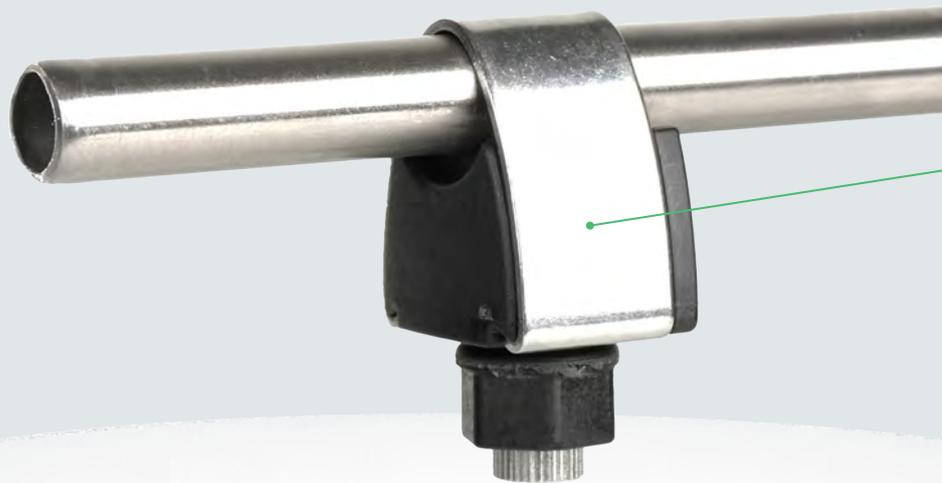
Greenline Pad Cooling is available in lengths ranging from 6-24 metres with capacities from 55,000 to 220,000 m³/h. The basic, 6 metre set comes complete with pump unit, connections, piping and accessories. An extension set is used to extend the system to achieve the required cooling capacity. Water circulates through the system and is collected in an integrated water reservoir, so no extra water tank is required. Special clip profiles make installation quick and easy.



Mist cooling

This is an excellent way of cooling incoming air in houses equipped with air inlets and/or tunnel inlets using a high-pressure mist. During this evaporation process, heat is extracted from the air, lowering its temperature. High-pressure misting introduces water in the form of minute water droplets into the house. These water particles evaporate in the heated house, cooling the incoming air and the air in the house. Evaporation takes place before the water droplets reach the floor which prevents the bedding or litter becoming damp. High-pressure cooling is simple, effective and extremely reliable.

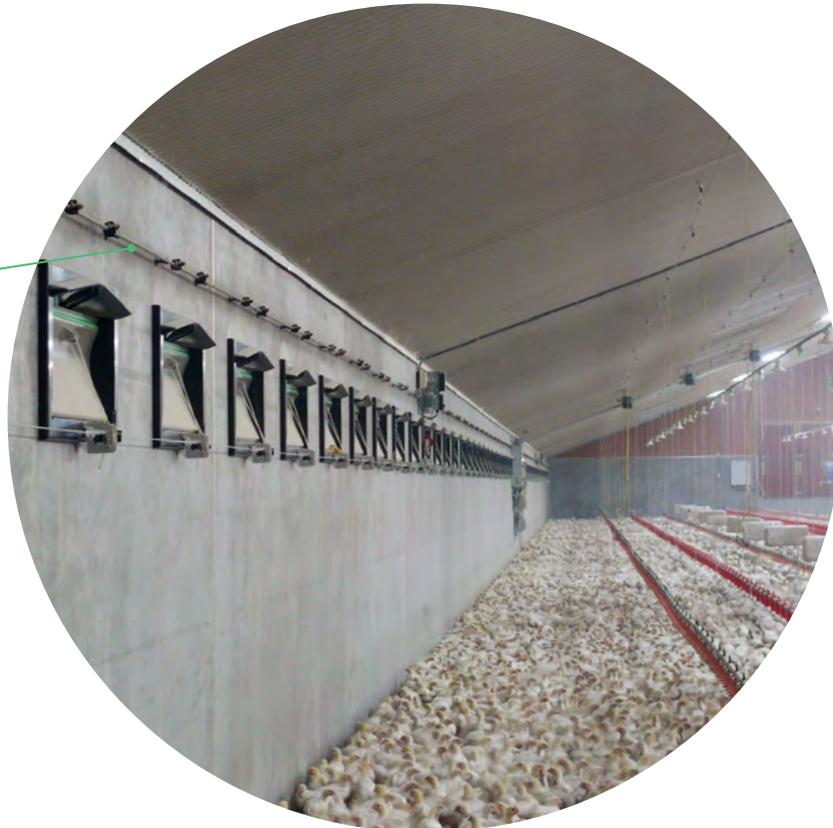
High-pressure cooling
is simple, effective and
extremely reliable.



Simple system

The high pressure mist system is installed in the house. A stainless steel piping system with nozzles runs the length of the house above each air inlet. High pressure produces a fine mist around the inlets that effectively cools the incoming air. The finer the mist, the greater the cooling effect. If the outside air is very dry, the cooling effect will be high, this cooling effect will be less with humid air. Depending on the outside temperature and humidity, a cooling effect of 2 to 10 °C can be achieved. However, as a result, the relative humidity will increase. The optimal cooling control in the Fancom climate computer monitors humidity levels in the house and prevents issues caused by wet floors or wet litter.

The cooling system consists of a pump unit, an acid resistant stainless steel piping system and nozzles. The self-cleaning nozzles are available in three sizes: 0.2, 0.3 and 0.4 mm. Apart from being used to cool the air in the house, the high-pressure mist cooling system can also be used to humidify the house, soak the surfaces when the house is empty and for disinfection.



Heating

For a comfortable temperature in the house

Heating the house is essential at low outdoor temperatures and particularly with young animals. Direct heating in the form of convection heaters or an indirect system such as pipe heating are both options.



Convection heaters

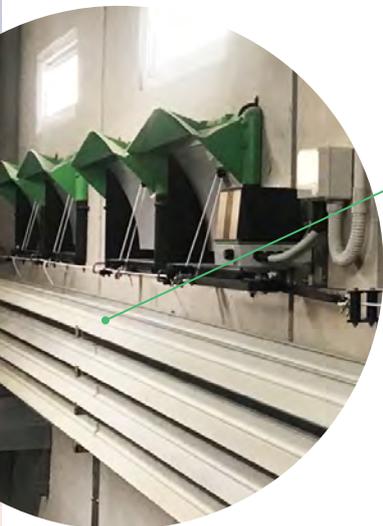
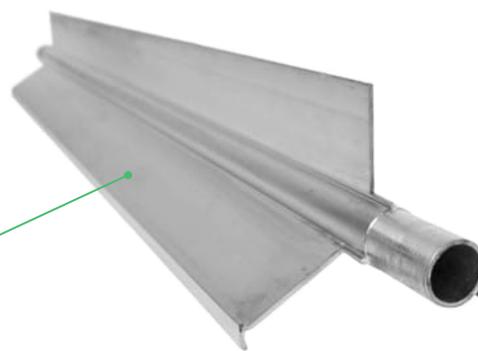
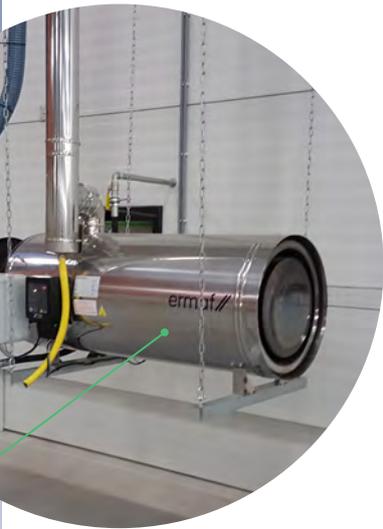
Fancom offers a series of fully automatic convection heaters with capacities ranging from 70 to 120kW in models suitable for natural gas and diesel. There is also a special 33kW version for pig houses.

Extensive safety features

All the convection heaters are made of high quality stainless steel and resistant to the often aggressive conditions in the house. The heaters comply with European safety requirements and certification, and with the specific requirements of various countries outside Europe.

High performance with minimum energy consumption

Our heaters are easy to control and use and deliver a high performance with minimum energy consumption. Using Fancom convection heaters will safeguard a constant temperature in the house for optimal growth conditions and minimal heating costs.



Pipe heating

With pipe heating, the incoming air is heated by warm water flowing through the aluminium pipes. The pipes are mounted flush against the wall, in the air inlet duct or under the ventilation ceiling. The delta pipes and twin pipes are made of anodised aluminium, which offers benefits include rapid heating, light weight and no corrosion.

A delta pipe is a heating profile with three fins around a 22 mm tube. The delta pipes can be mounted under the ceiling or to the wall using a special bracket. The twin pipes are flat aluminium profiles around a 22 mm tube. There are also a special 28 mm twin tubes for higher heat output. Preferably mount the twin tubes on the walls of the section. Delta and twin pipes are supplied to length, including plastic couplings, attachment materials and control system.

The rapid, high heat output of these systems quickly warms up the sections. Both systems provide efficient radiant heat directly to the animals so heat loss is minimised.

Superior conditions in the house

The creative and development processes at Fancom are entirely focussed on achieving superior conditions for pig and poultry producers. And for mushroom growers.

Creating the right conditions starts in the house. That is why we firmly believe in the value of total house automation. With smart house technology that manages and controls all the processes in the house from a central location. Ventilation and heating, feed and water distribution, lighting, animal weighing and egg counting - all controlled and monitored perfectly.

You can create insight by collecting and linking as much data as possible from these automated processes. Insight into animal health and behaviour, insight into feed and consumption, insight into growth and development. Valuable information that enables more efficient and profitable production in a way that respects animals and the environment.

In our opinion, there are no limits to what complete farm automation can do. Whatever our customers need to know - we can automate and measure it. And the more informed they are, the better control of animal welfare and results. Creating the right conditions for healthy and future-proof farming. Our ambition together with our customers is to ensure that whatever happens inside the house has an impact outside.

We call the driver behind creating an impact Forward Thinking - the way of thinking, acting and working that typifies Fancom. We set the bar high for ourselves and the people around us based on the belief that things can always get better. And must. Our automated processes facilitate control inside the house. Outside the house, making a meaningful impact requires a thorough understanding of the challenges facing our customers. They operate in a sector that has to balance the interests and tensions of nature, technology, data, politics and social sentiment. Against the background of this dynamic, we challenge ourselves to develop ever-smarter systems. We are at the forefront of development and innovation. Yesterday, we provided the solutions to today's challenges. Today, we are working on the solutions to tomorrow's challenges. Always anticipating developments. This is precisely what we mean by Forward Thinking.

By combining the power of innovation, leadership, empathy and partnership, Fancom guarantees solutions that benefit operational management, people, animals and the environment. Today and tomorrow.



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Forward thinking

Fancom BV

Wilhelminastraat 17
5981 XW Panningen

P.O. Box 7131
5980 AC Panningen
The Netherlands

+31 (0)77 - 306 96 00
fancom@fancom.com
www.fancom.com