

Climate and monitoring for poultry houses

Efficient daily management for better results



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.



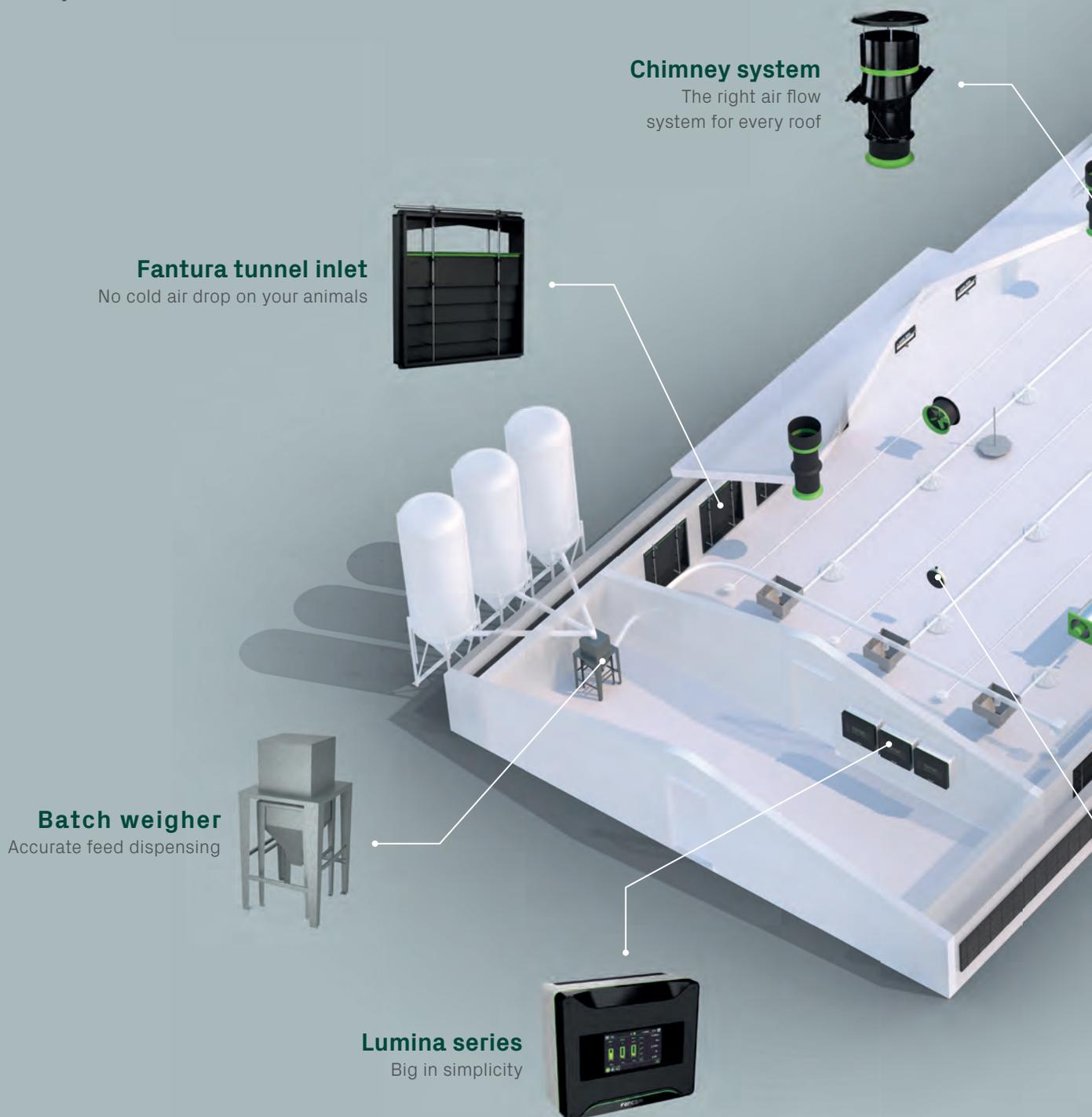
The creative and development processes at Fancom are entirely focussed on achieving superior conditions for pig and poultry producers. Creating the right conditions starts in the house.

FANCOM®

Total house automation

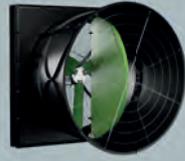
Our control computers are part of the Fancom system for total house automation. We offer a suitable solution for every type of house, no matter where in the world. A solution where the controller and peripheral equipment use smart intercommunication and where the various processes such as climate control, 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



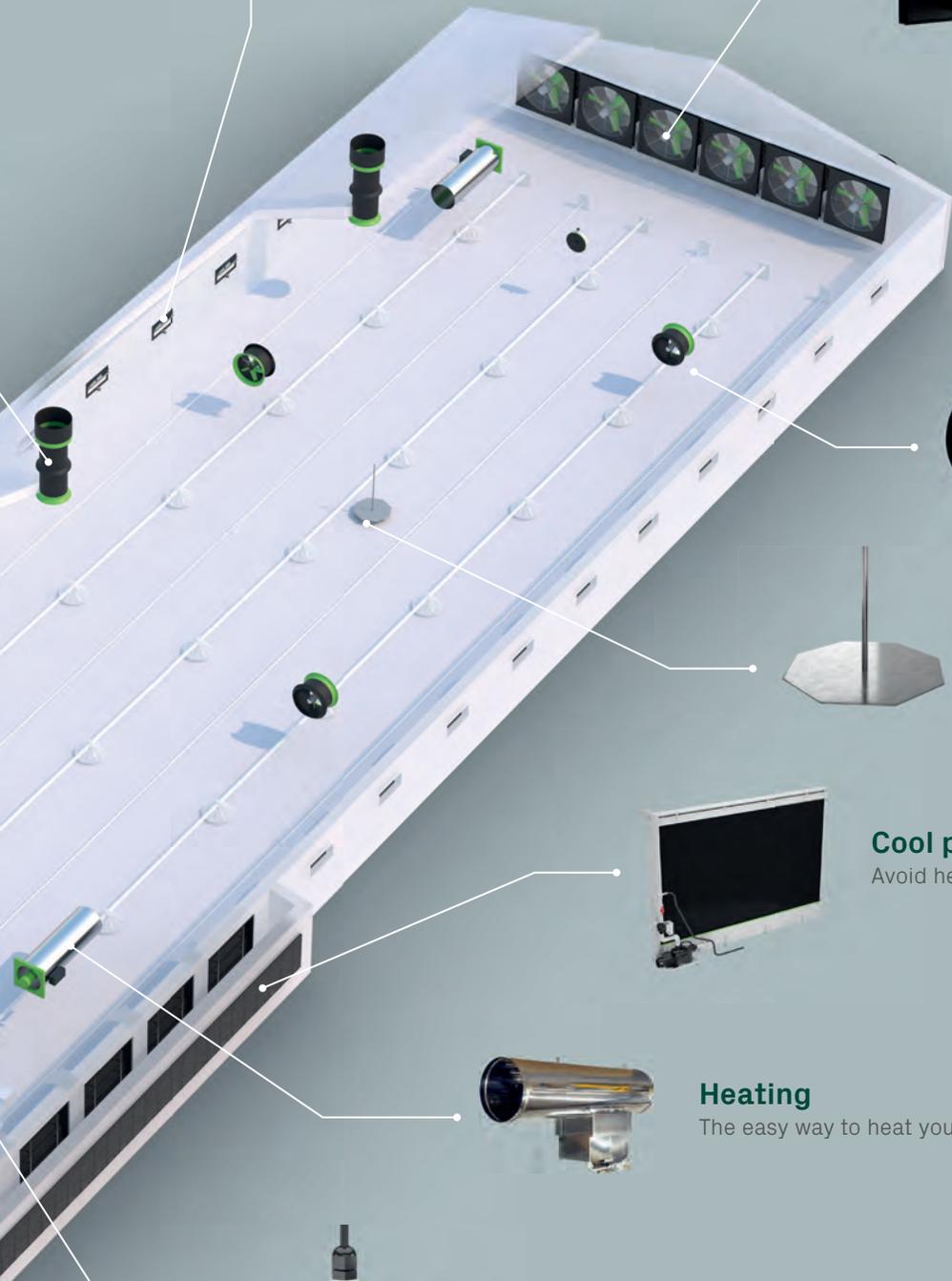
Cool pad
Avoid heat stress with pad cooling



Heating
The easy way to heat your houses



Climate sensors
Measure how comfortable your animals are



The ease of automatic processes in the house

As an agricultural entrepreneur you want to have a firm grip on your business operations. But you are also facing a market characterised by more rapid change than ever before. Spiralling costs for feed and energy are placing increasing pressure on your profit margins. And today's market demands sustainable and responsible production methods.



An automatic system saves time and improves your results

Irrespective of the scale of your farm, you still want to be able to control the processes in your house on a daily basis: Are the animals healthy? How can I reduce medication use? How much feed and water is being consumed? Are the animals growing as expected or should I change my delivery schedules? Efficient automation of all the processes in the house provides the answers to these aspects. Automatic systems save time and provide you with valuable information about the growth and health of your animals. And allow you to create superior conditions in the house for optimal growth conditions for your animals.

Computers for climate control

Creating superior conditions in livestock houses starts by regulating an optimal climate in the house, regardless of the outdoor conditions. Your animals are your living capital and the environment they live in influences their development and welfare. The right climate is beneficial to the growth and health of your animals and saves you costs for feed, water and energy. Thanks to a good climate control system, extreme weather conditions and sharply fluctuating day and night temperatures will have no influence on the house climate. You, however, can exert an influence on a sustainable and profitable production process. You are in control, not the conditions.

Computers for monitoring

Abnormal animal behaviour, falling production or weight loss are just a few signs that can indicate a lot about the situation in your house. Fancom has developed a series of accurate and reliable monitoring systems that observe and inspect animal behaviour and the production process. Examples of our monitoring computers are our systems for water monitoring, animal weighing and egg counting. Systems that alert you to deviations and allow a rapid response to the needs of your animals. This will limit any production losses during a production cycle. These monitoring systems are an indispensable tool if you want to create superior conditions in the house.

Ready for the future

The various computers operate in perfect harmony and form a single entity. They closely interact and share important management data. As an integrated system they create a synergy that will always give you the benefit of optimal conditions for animal growth. The individual control computers can be integrated in a clearly arranged switch panel for extra ease of mounting and installation. You can gradually start working towards a future-proof farm and equipping yourself to answer the demands of the future!



Computers for climate control

Fancom's climate computers allow you to easily create the optimal growth conditions for your animals. They excel in quality, flexibility and functionality and form the hub of your farm that will never let you down. With two series of climate computers, we can offer a suitable solution for every type of house.





AURA 14

AURA climate computers

The AURA is a series of simple Fancom control computers, used at section level, with touch-screen operation. The AURA combines smart control capabilities with very simple operation and sets a new standard for house automation: complete, simple and universally applicable.



Lumina 38 Touch Plus

LUMINA climate computers

The LUMINA control computers have been designed for more demanding users. Offering the same ease of use as the AURA, the LUMINA features more extended control functionality, also suitable for multiple sections. Complete control of all processes computers in your house with a single touch.

Lumina software is characterised by the use of clear icons and colours: green means everything is fine, orange means that some aspect needs your attention. Handy navigation buttons on the main screen give direct access to the most important data from the houses. It is now possible to zoom in from each page to retrieve more details.

For added ease of operation, a number of Lumina control computers are also available with an extra large, 12-inch operating screen. This larger screen makes it easier to readout information on the screens, easier to adapt settings and reduces the risk of errors.



Infinia information management system

The control computers in the house generate valuable data that is an essential source of information on the growth processes of your animals. The Infinia management software for your PC collects and combines this information and presents it in clear graphs and tables. The result is a wealth of management data that allows you to steer towards improvements based on facts and figures.



Practical app operation

The Fancom control computers have a handy Infinia Remote App that allows remote control of the computers via a smartphone. This keeps you in touch with your houses 24 hours a day, no matter where you are. All the latest data from the houses is displayed on the smartphone and in the event of any abnormalities, immediate intervention is possible from anywhere in the world. The Remote App saves time, improves the conditions in the houses and of course the end results!

Accurate ventilation

Accurate ventilation in poultry houses is vital. Poor air quality and temperature fluctuations cause problems in the house with disastrous effects on the health of your animals. Your aim is to create a uniform climate for all the animals in the house in all conditions. The technical results will demonstrate your progress cycle after cycle.

- Up to 10% faster growth
- Improved feed conversion
- Lower mortality
- Higher uniformity



Sustainable

Fancom regulates the entire climate process, from the incoming air right up to air scrubbers for the exhaust air. Our climate policy is aimed at sustainable profits. We save on ventilation and heating and cooling, without compromising quality. On the contrary. Extreme weather conditions and sharply fluctuating day and night temperatures have no influence on the house climate. The temperature, humidity and CO2 or ammonia are continuously monitored and any deviations in the gas balance are automatically corrected by the ventilation system.

Suitable for each house

The computers are suitable to steer all possible climate systems, natural ventilation, tunnel ventilation, combi-ventilation or MTT. Minimum Transitional Tunnel (MTT) is Fancom's advanced ventilation system that ensures an even, uniform climate in every house. The MTT-principle is based on a gradual transition from minimum to maximum ventilation in three steps. The result is a healthy climate for growth throughout the entire production process, from day-old chicks to mature birds.

Unique accuracy

What makes our controllers stand out from the rest is the accurate ventilation based on the actual number of animals present, animal weight and the actual airflow measurement. A unique feature is a number of controls that create the optimal climate for all the animals in the house under all conditions.

1

Based on just a single setting, **the Optisec control regulates** the optimal settings for heating and ventilation fully automatically. This prevents ventilation removing heat from the house unnecessarily and keeps your heating costs under control.

2

The smart MicroControl ensures a good start for the animals by further optimising the minimum ventilation level.

3

The DesertControl automatically ensures that cooled air flows into the house even in the minimum ventilation range and prevents heat stress in young animals.

4

The HumiTemp control takes the humidity in the house into account and always calculates the combination of humidity and temperature (humidex index). This is then used as the basis for the optimal fan position. This automatically ensures that at high outside temperatures in combination with high humidity, ventilation increases to avoid the animals suffering any heat stress.

Performance of Fancom climate computers

	Aura 37	Lumina 35 Touch	Lumina 36 Touch (+)	Lumina 37 Touch	Lumina 38 Touch (+)	Lumina 38H Touch (+)
Sensors						
Temperature	2	4	16	4	16	16
RH inside	1	1	1	1	1	1
Pressure sensor	-	1	1	1	1	1
Ammonia (NH3) or CO2	-	-	1	-	1	1
Outside temperature	1	1	1	1	1	1
Outside RH sensor	-	1	1	1	1	1
Light intensity		1	1	1	1	1
Wind speed and direction	-	1	1	1	1	1
Water meter	3	32	32	32	32	32
Controls						
Mechanical ventilation groups	2	4	10	4	10	10
Natural ventilation groups		2	8			
Heating	2	3	12	3	12	12
Heat exchanger	-	-	-	-	-	1
Cooling	1	2	8	2	8	8
Humidification	1	1	1	1	1	1
Time clocks						
Water	-	1	1	1	1	1
Feed	-	1	1	1	1	1
Universal	-	4	8	4	8	8
Light	-	8	24	8	24	24
Management						
Animal management	√	√	√	√	√	√
Temperature curve	√	√	√	√	√	√
Ventilation curve	√	√	√	√	√	√
Water curve	-	-	√	-	√	√
Feed curve	-	-	√	-	√	√
Registration groups	3	32	32	32	32	32
Ease of operation						
Touch-screen operation	√	√	√	√	√	√
Large screen	5 inch	7 inch	7 inch	7 inch	12 inch	12 inch
FarmManager enables link to PC	√	√	√	√	√	√
Remote control via app	√	√	√	√	√	√
Signalling functions						
External alarms	-	8	20	8	20	20
Fire detection (thermo diff)	-	√	√	√	√	√

Climate sensors

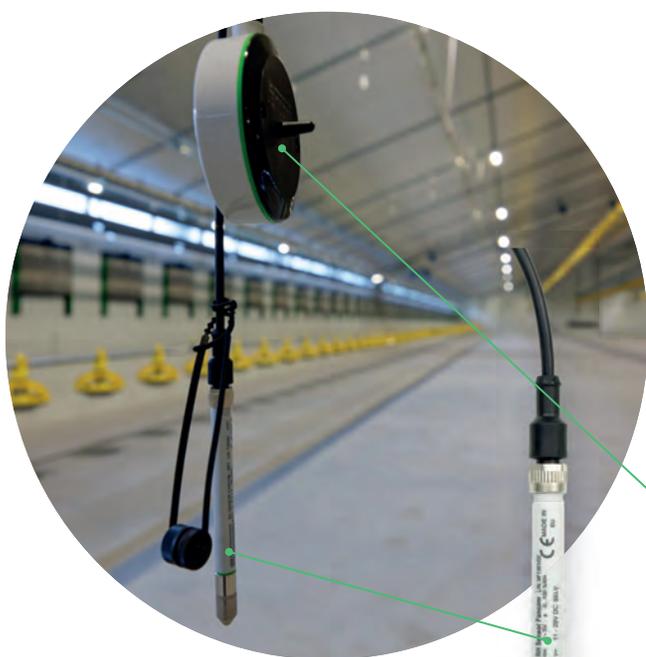
Animals perform better in a good climate. A good living environment is more than just the right ambient temperature and relative humidity. Excessive carbon dioxide and ammonia concentrations are harmful to humans and animals. Particularly in cold periods, many farmers resort to reducing ventilation levels in the house in order to keep the heat in the building. However, reducing the ventilation too drastically can quickly disturb the gas balance in the house.

Optimal performance

A good gas balance is particularly important for young birds as the organs and skeleton develop in the first two weeks of life, and the foundations are laid for a robust immune system. Too high CO₂ values, especially at the start of the production cycle, cause problems with oxygen uptake in the blood and organs. This has a negative impact on animal performance, increases the risk of mortality, and can cause additional mortality at a later stage.

Animal welfare

Too much ammonia in the air can also impact on human and animal health. For instance, it has been shown that an ammonia concentration above 20 ppm can increase the susceptibility of poultry to virus infections. In addition, ammonia negatively affects the resistance to the viruses. That's why Fancom offers a range of reliable climate sensors that continuously monitor the temperature, relative humidity, CO₂ content and, possibly, ammonia in the house. If the values become too high, the minimum ventilation will be increased automatically. The climate controller automatically ensures the correct air quality with the lowest possible heating costs.



RH sensor

Temperature sensor

CO₂ sensor

Ammonia sensor

Water monitoring in the house

The water consumption of is one of the simplest, but above all most accurate tools, that a poultry producer can use to monitor the performance of the birds. A sudden deviation in water consumption usually signals that something is wrong. Sudden higher water consumption may indicate illness, heat stress, or a leak in the system. Monitoring consumption patterns on a daily basis gives insight into water consumption so that potential problems can be identified sooner and any eventual damage prevented.



Water monitoring in our climate controller

A simple water meter is used to register water consumption. Fancom climate controllers have a special water monitoring program. This enables up to eight separate water lines or groups, or the consumption in the entire house, to be registered. Differences between the water lines mutually, or between yesterday's and today's figures are immediately visible. This allows timely intervention in the event of problems, often even before a problem has had the chance to have any negative effects on animal growth and health. The computer also generates alerts if the minimum and maximum flow rate for each line or in each house is exceeded so that any leaks in the system can be identified quickly. Water registration also helps adequate vaccination. It is important for a vaccine to be absorbed as quickly as possible in order for it to be effective and it is vital that poultry producers know precisely when water consumption is maximal.

Monitoring consumption patterns on a daily basis gives insight into water consumption so that potential problems can be identified sooner.



Alarms

It is vital that any malfunctions on your farm are reported reliably and in time. No matter how well-equipped your houses are, unpredictable situations that cause malfunctions can always occur. This is not necessarily an issue, as long as timely intervention is possible. If you are not alerted to problems, what started as a simple issue could potentially have a disastrous impact on the running of your farm. To prevent the risk of malfunctions not being signalled, Fancom offers you a range of alarm monitoring systems.





Octalarm-Touch

The Octalarm-Touch is an alarm device that monitors critical technical processes. As soon as a process malfunction is detected, Octalarm-Touch activates the alarm calls. This enables corrective action to be taken in time, preventing damage and production losses. The Octalarm-Touch is available with eight inputs as standard. The external extension module allows the alarm device to be expanded to 16 and even 24 inputs.

GSM-networks

The Octalarm-Touch can use conventional landlines, GSM networks and communication via the Internet infrastructure, and offers extra security safeguards. A handy functionality allows contacts to be added and configured to determine who receives a call and when.

FB.8 alarm unit

The FB.8 is a monitoring device with a built-in 12V battery and battery charger, featuring 3-phase monitoring as standard. The FB.8 has eight alarm inputs, test button/selector switch and a reset button. The alarm input can be connected as an “open” or “close” contact. Several alarm devices can be connected.



Poultry weighing system

Healthy growth is one of the most important performance indicators in modern poultry houses. However, remarkably high numbers of poultry farmers still rely on periodic manual weighing to monitor the weight of their animals. An automatic weighing system is more reliable, saves time, prevents stress in the house and reduces the risk of introducing disease. An automatic weighing system gives you greater insight into the performance of your animals and you can adjust your management strategy to improve your results. Thanks to this, the extra investment is quickly recovered.



Reliable measurement data

Animal weighing is a dynamic process: mutual differences in weight and activity make it difficult to obtain an accurate idea of the current status. You never know exactly which animals have been weighed. Fancom animal weighing systems factor this in. The system also takes into account average and expected weights calculated using previous measurements. The smart algorithm in the control computer automatically takes all these factors into account and will calculate a reliable representation of the average weight of your birds under all conditions.

How does an automatic animal weighing system work?

An automatic animal weighing system consists of a smart control computer and one or more weighing scales in the house. The animals are weighed continuously and automatically - without them being disturbed. A good system can register up to 3000 measurements per day. This gives a reliable picture of the current situation in a way that would be impossible with manual weighing.



The advantages of an automatic animal weighing system

Continuously weighing your animals provides an up to date overview of the growth process in your house. Abnormal growth patterns are visible more quickly, so you can take timely measures to improve your results. Lack of growth that goes unnoticed in the first days of the fattening cycle is almost impossible to recover afterwards. And too rapid growth has a negative impact on animal development. If your animals are too heavy, they are probably being given too much feed. This leads to unnecessarily high feed costs. And finally, you can accurately predict the end weights to avoid sanctions from the slaughterhouse.

Insight into activity

Because it registers how many times the animals are weighed, an automatic animal weighing system also gives insight into animal activity. A sudden reduction in animal activity is likely to indicate that something is wrong. Early intervention is recommended because reduced activity can lead to feet problems, a reduced feed and water intake and ultimately lower growth. An early warning generated by your animal weighing system can avoid these issues.

Our products for automatic animal weighing

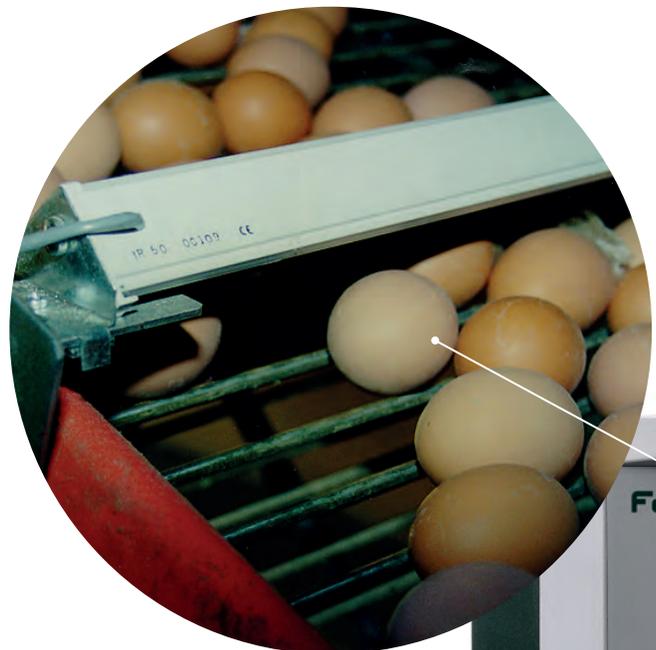
- Lumina 47, suitable for two weighing scales in one house for broilers and turkeys
- 747, suitable for a maximum of eight weighing scales in a maximum of eight houses, with separate programs for weighing rearers, broilers, parent animals and turkeys
- Weighing scale
- Turkey weighing scale for weighing turkeys

Egg counting

The Fancom egg counting system is suitable for all types of layer housing systems.

Registration of feed and water consumption

The Fancom egg counting system has a huge range of possibilities. 480 counters, divided over eight groups or houses, can be connected to count eggs, but also to register feed and water consumption. The egg counting computer registers production per day, per group and per counter, in numbers and laying percentages. The computer displays this data for today, and for the past seven days. The most important production data is displayed in weekly overviews and saved for up to 70 weeks. The FarmManager management program for your PC generates a clear presentation of egg production data in graphs and tables. Any differences quickly become visible. The egg counting computer can also be remote operated and controlled.



Continuous insight into egg production

An automatic egg counting system doesn't only give a reliable result of the numbers of egg produced, it also shows how production is progressing at any moment. Production differences per row caused by malfunctions or illness show up immediately. An egg counting system can also help you identify sub-adequate ventilation or poor feed and water intake, which would otherwise have a negative impact on egg production, at an early stage.

Optimise packing capacity - flow control

The computer regulates the speed of the egg belts so the supply on the collection belt is automatically and precisely geared to the packing capacity at all times. This gives huge time savings, and offers the added bonus of fewer start/stops, which considerably reduces the risk of cracked eggs and gives less wear and tear.

For all types of housing

The Fancor egg counting system is suitable for all types of housing system - aviary systems, cages or floor housing. With cage housing systems, the egg counting computer ensures that all the houses are emptied simultaneously and takes a pre-set mix of eggs from different houses into account if required. Automatic lift control is also possible.

Electronic egg counters

The counter is completely sealed and therefore resistant to the aggressive conditions in a layer house, even when the houses are being sprayed clean. The counters use infrared technology to count the eggs without touching them. This prevents damage and soiling. Small counters are available for mounting on the egg belts and larger counters for mounting on the collection belt.



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.



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.

Fancom house systems all over the whole

Countless poultry farmers all over the world benefit from optimal conditions in their houses by using one of our systems



UK
Lumina 38



Portugal
Lumina Switch box



Italy
Lumina



Korea
Lumina Touch Plus



**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