Big Dutchman®

ViperTouch

The newest generation climate and production computer
for poultry growing and breeders

ViperTouch

Secure, comfortable, easy

- climate and production computer developed specifically for poultry growing: broilers, turkeys, ducks and breeders
- brilliantly simple operation via touch screen
- freely selectable operating modes: Basic, Flex or Profi
- extremely fast processor and memory
- speaks 32 languages – including yours!
- customisable home screen
- simple alarm management
- compatible with the BigFarmNet Manager PC program and the BigFarmNet app

ViperTouch is the basis for reliable and secure climate and production control in your barn! Its outstanding features include:

- **Coloured 7-inch or 10-inch touch screen**: Functions you use on a daily basis are immediately available in the menu. Relevant curve trends are displayed as graphs.
- **Customisable user interface:** You can design the display just as you require and prefer.
- **Modular hardware:** Easy to extend whenever you need new functions.
- **Software updates** are easy to implement, if necessary.
- **Full integration with BigFarmNet:** With BigFarmNet Manager, you can remote-control the computers on your farm while sitting comfortably at home.
- **High operational reliability:** ViperTouch continues working without errors, even when not connected to the network.

If the standard version is not sufficient, the computer can be upgraded with extension boxes. An additional 10 to 40 relays can be installed in these boxes. There are also relay modules available that can be used for direct connection of single-phase fans or motors.

Modern control cabinet: good structure, simple operation, high degree of protection, clean look

Larger barns, especially new buildings, are often equipped with a control cabinet today. This control cabinet contains all fuses, residual-current devices, motor protection switches, contactors, switches, control lamps, alarm devices, etc. for all system parts installed in the house. Such a cabinet can contain the 7-inch or 10-inch version of ViperTouch. The control cabinet is planned and manufactured individually for each project, based on the equipment in the barn. Each cabinet's wiring is ready for connection upon supply, i.e. the electrician just has to connect the consumers (motors, etc.).
In case of defects, error diagnosis is much easier, since the control cabinet comes with detailed plans.

ViperTouch

Secure, comfortable, easy: climate control

ViperTouch is a climate computer that enables you to control the entire house environment according to state-of-the-art principles.
The controller can be used for all established types of ventilation (natural, mechanical and combined). This includes side, cross, tunnel and CombiTunnel ventilation.
ViperTouch controls:

- fresh air
- exhaust air
- heating
- heat exchanger
- cooling
- emergency opening
- alarms

Freely selectable climate control modes

ViperTouch makes it possible to control the house climate in three different modes, which the user can select at his discretion:

1. **Basic mode** (simple control)
   Simple ventilation systems can be controlled via Basic mode with a thermostat function.
2. **Flex mode** (flexible control)
   In Flex mode, the combination of fresh air and exhaust air can be defined individually.
3. **Profi mode** (advanced control)
   Profi mode allows you, for example, to use PID control (a very precise system for temperature control), to display the perceived temperature with active tunnel ventilation or to view the exhaust air volume in m^3/h/bird.

Sensors: the technical basis for data collection

Using sensors for climate control in modern poultry production is state of the art today. Temperature, humidity, CO_2 and NH_3 sensors effectively measure and monitor changes in the house air. These sensors are therefore the basis for any computer-controlled climate system. Big Dutchman offers a wide variety of suitable sensors.

DOL 12 is a sensor that determines the temperature inside the barn.

DOL 114 is a sensor that measures the relative humidity inside the barn. Due to its two analogue 0-10 V outputs, the sensor can also determine the temperature (optional).

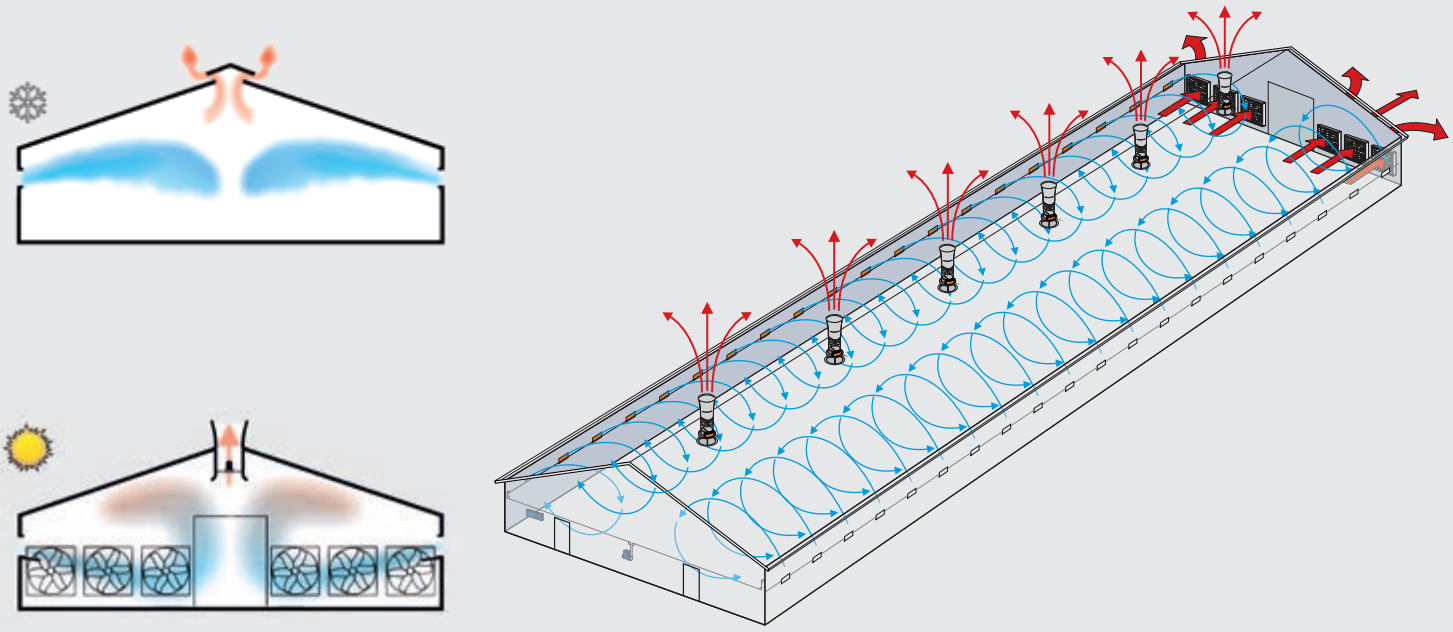
DOL 18 is a negative-pressure sensor that actively measures the pressure in the barn, emitting a 0-10 V signal. Power for this sensor is supplied by ViperTouch.

The DOL 19 sensor measures the carbon dioxide concentration of the house air. Its high-quality infrared measuring cell is able to detect CO_2 in a range from 0 to 10,000 ppm. It is thus possible to control minimum ventilation based on the CO_2 concentration.

The DOL 58 weather station allows including the local weather conditions in the ventilation control. Wind direction, air speed and air pressure are measured for this purpose.

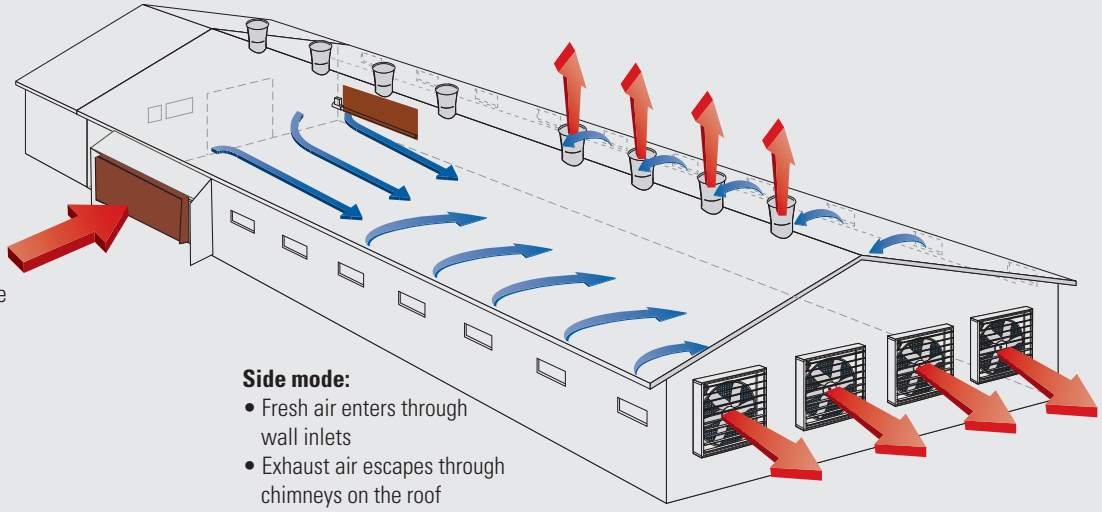
DOL 53 is a sensor that continuously measures the ammonia concentration in the house air. The sensor is very robust and accurate, with a measuring range from 0 to 100 ppm NH_3.

Negative-pressure ventilation in side mode



CombiTunnel ventilation

Tunnel mode:
- Fresh air enters through tunnel opening with pad cooling
- Exhaust air escapes through fans in the gable

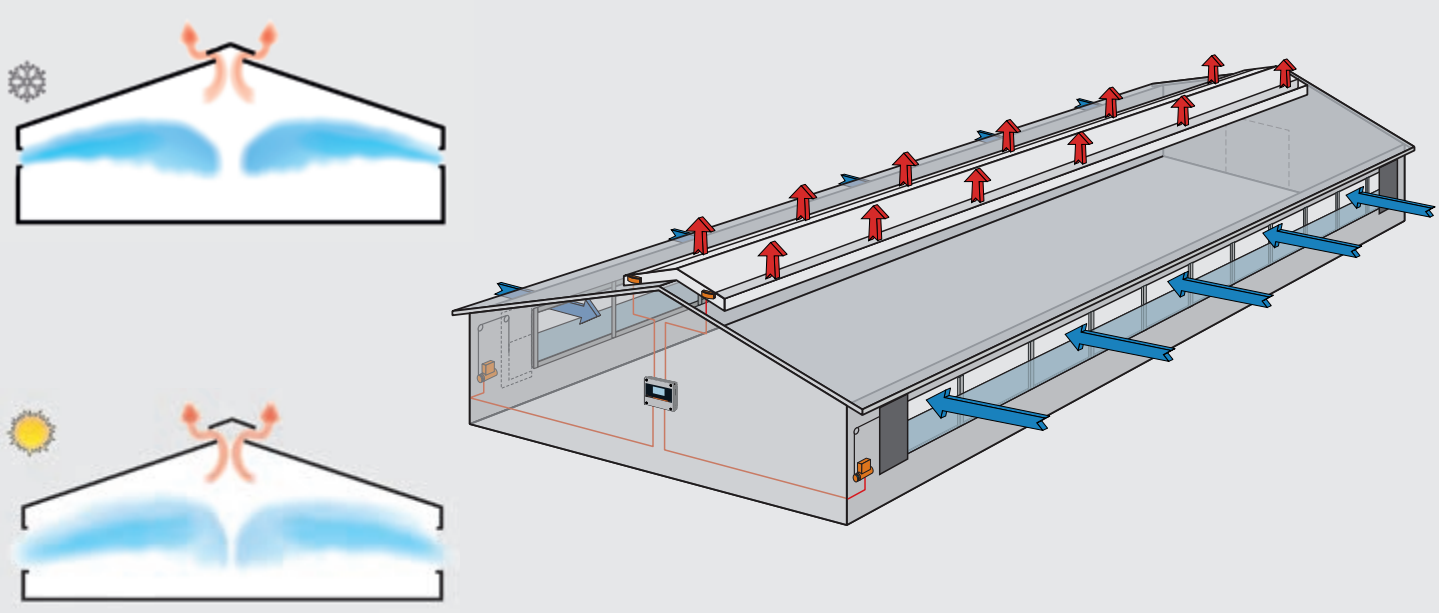


Side mode:
- Fresh air enters through wall inlets
- Exhaust air escapes through chimneys on the roof

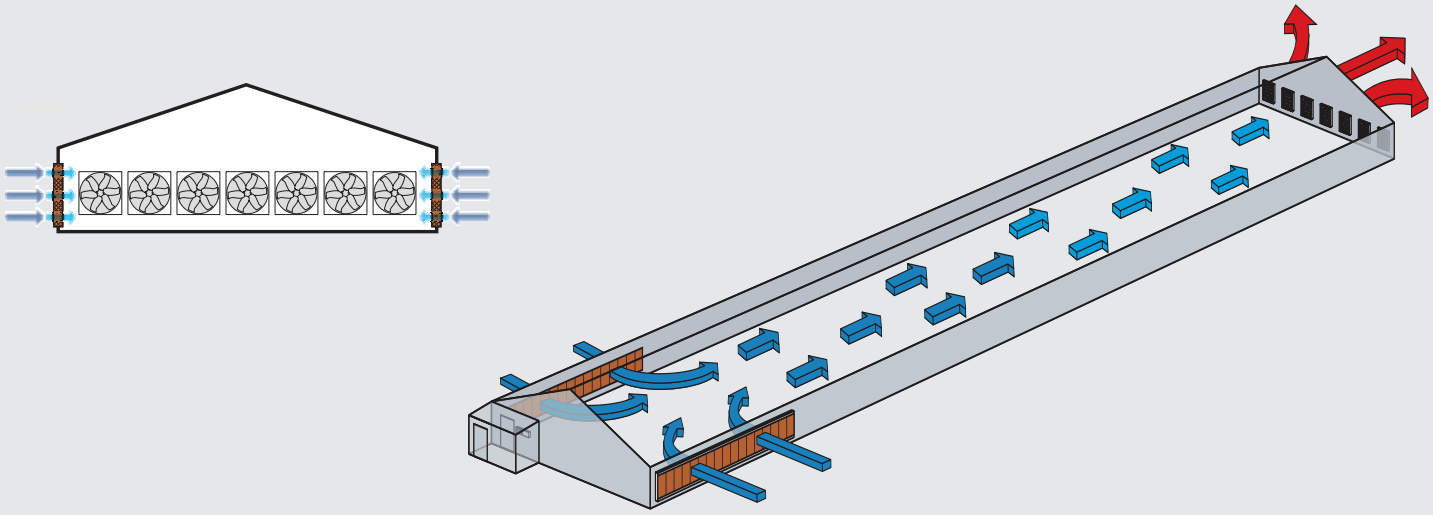
What can ViperTouch record and control?

- 8 sensors for inside temperature, 2 sensors for inside humidity;
- room heating in up to 6 zones;
- two separate climate zones per barn with individual control;
- standard step control of the fans in Basic and Flex mode (16 steps in side mode and 32 steps in tunnel mode);
- 2 different "brooding zones" per barn: one part is heated while antifreeze temperatures are maintained in the other part;
- 4 zone heaters (gas brooders or stand-alone heaters);
- up to 16 MultiStep® groups (in side mode and tunnel mode);
- minimum ventilation in pulse/pause mode;
- the Dynamic MultiStep exhaust air principle for even more energy-saving ventilation (up to 40 %);
- controlled tunnel ventilation with up to 4 actuators;
- night setback of the temperature;
- cooling and humidification;
- display of the cooling temperature via 2 pad temperature sensors (optional);

Natural ventilation with curtain control



Tunnel ventilation with pad cooling



- options for humidity control (via ventilation and/or heating);
- the Earny heat exchanger, which is integrated into ventilation control;
- temperature-controlled emergency opening with 378 T or 378 CT;
- optimised comfort temperature control that considers the air humidity;
- connection of a CO_2 and/or NH_3 sensor to regulate minimum ventilation actively based on the CO_2 and/or NH_3 concentration in the house air;
- connection of additional free sensors, for example for air speed, outside humidity or NH_3;
- active negative-pressure control, i.e. the negative-pressure sensor measures the pressure difference between outside air and inside air;
- natural ventilation using a weather station;
- connection of sensors to monitor exhaust air treatment (conductivity and pH value of the wash water);
- display of trend curves for the entire batch.

„My computer controls the entire broiler house, of course including Earny. The heat exchanger helps me save heating costs, and my birds are healthier."

„ViperTouch controls my whole broiler breeder house. I can fully rely on this control system."

ViperTouch

Secure, comfortable, easy: production control for poultry growing

ViperTouch is not only a state-of-the-art climate computer, but also a very professional production computer. It records all important data regarding growth, feed and water consumption and mortality of your stock (broilers, turkeys, ducks). This enables you to react quickly to changes and to take the required action, which in turn will lead to better performance results and increase economic efficiency.

Extension module "Full Growing"

With the extension module "Full Growing", Big Dutchman offers additional and important functions for poultry growing. The most essential ones are listed in the table below.

Function	Standard Growing	Full Growing
Number of feed silos with FW 99-B	2	5
Feed mixing with FW 99-B	–	✔
Number of light sensors	–	5
Number of bird scales	2	12
Silos with load cells	–	4
Number of time switches	4	8
Number of water meters	6	24

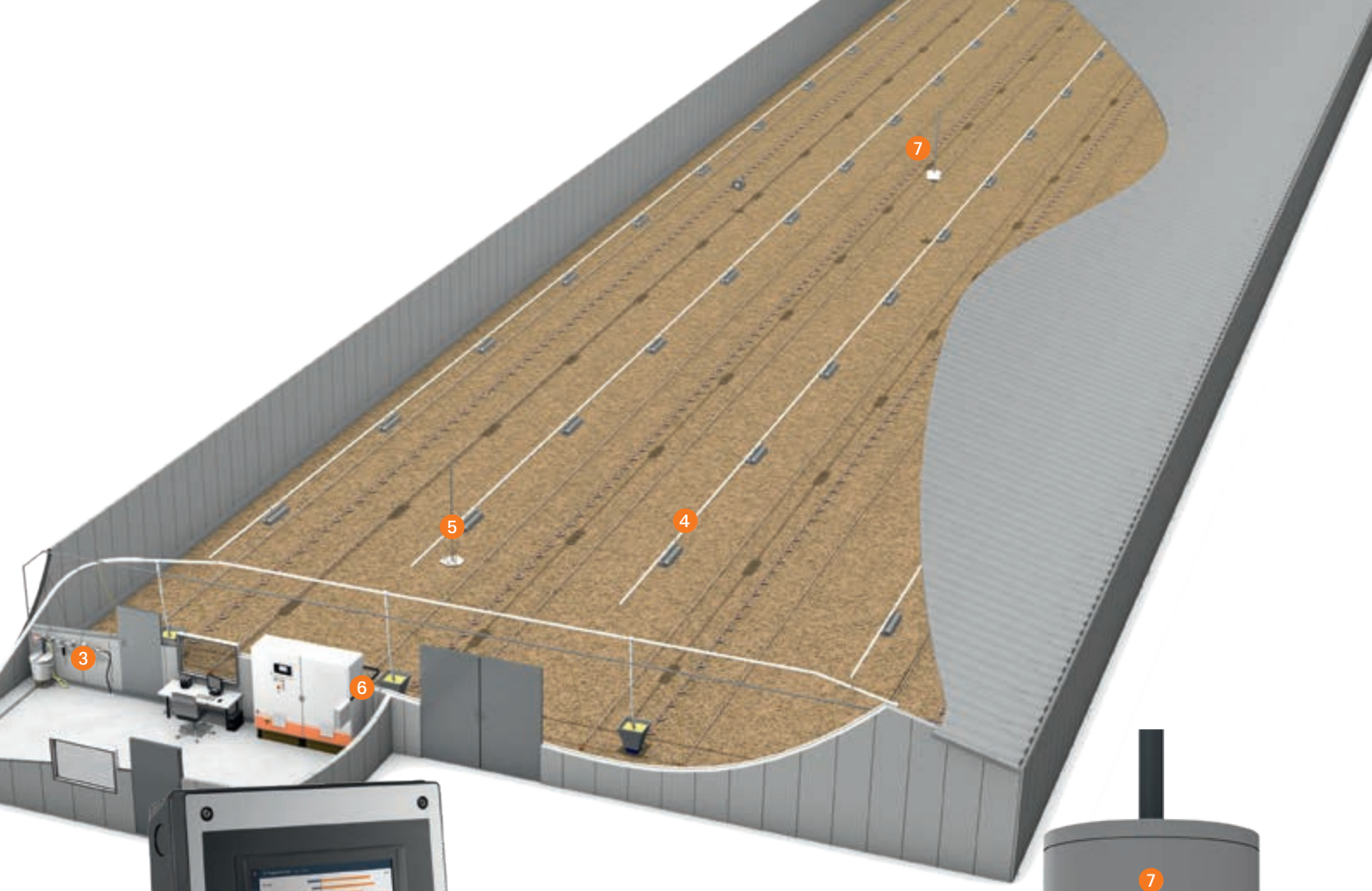
Silo weighing

Feed weighing

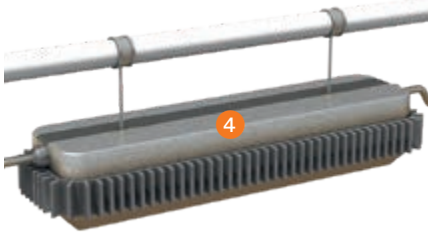
Water consumption

What can ViperTouch record and control?

- feed consumption: total, per day and per bird;
- using the weighing module, up to 4 silo scales with up to 8 weigh bars each can be connected for easy monitoring of the silo contents;
- feed deliveries are registered and logged;
- the FW 99 feed weigher permits mixing of feed components from up to 5 different silos (additional wheat feeding);
- water consumption: total, per day and per bird with up to 24 water meters;
- connection of up to 12 bird scales to record bird weights;
- light control via 7 different sunlight simulators with sequential simulation of the twilight phase for sunrise and sunset; the luminous intensity and colour temperature can also be changed;



House camera



Light control

Bird weighing

AC Touch alarm device

- pause function: helps the producer optimise the period for soaking, cleaning, drying and heating between batches, thus reducing costs;
- up to 8 free time switches for individual tasks;
- catching function to empty the feeding system in a controlled and automatic manner before the birds are moved out while simultaneously allowing individual configuration of the climate during depopulation;
- alarm messages for example in case of power failures, deviations from set values such as temperature, humidity, water and feed consumption, and minimum silo content.

ViperTouch

Secure, comfortable, easy: production control for breeder management

ViperTouch is not only a state-of-the-art climate computer, but also a very professional production computer. It records all important data regarding bird weights, feed and water consumption and mortality of your breeders. This enables you to react quickly to changes and to take the required action, which in turn will increase both the production of hatching eggs and economic efficiency.

Extension module "Full Breeder"

With the extension module "Full Breeder", Big Dutchman offers additional, important functions for hatching egg production. The most essential ones are listed in the table below.

Function	Basic Breeder	Full Breeder
Number of feed silos with FW 99-B	5	5
Feed mixing with FW 99-B	✔	✔
Number of feeding destinations – breeders	8	24
Number of light sensors	5	5
Number of bird scales	12	12
Silos with load cells	4	4
Number of time switches	10	10
Number of water meters	8	24
Number of egg counters	–	32

a Separate male feeding with MaleChain or
b Separate male feeding with MalePan

Silo weighing

Destination feeding with electric feed valve

Feed weighing

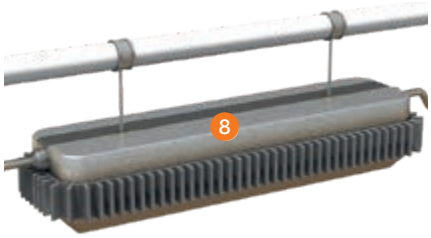
Water consumption

What can ViperTouch record and control?

- feed consumption: total, per day and per bird;
- using the weighing module, up to 4 silo scales with up to 8 weigh bars each can be connected for easy monitoring of the silo contents and for registration and logging of feed deliveries;
- control of destination feeding: up to 24 hoppers per house can be filled with a defined amount of feed, for example for separate male feeding;
- the FW 99 feed weigher permits mixing of feed components from up to 5 different silos;
- water consumption: total, per day and per bird with up to 24 water meters;
- connection of up to 12 bird scales to record bird weights;
- registration of up to 32 egg counters;

AC Touch alarm device

House camera



Light control

Egg counter

Bird weighing with SWING 20

Bird weighing with Nesca

- light control via 7 different sunlight simulators with sequential simulation of the twilight phase for sunrise and sunset; the luminous intensity and colour temperature can also be changed;
- 6 free time switches for individual tasks;
- pause function: helps the farmer optimise the period for soaking, cleaning, drying and heating between batches, thus reducing costs;
- alarm messages for example in case of power failures, deviations from set values such as temperature, humidity, water and feed consumption, and minimum silo content.

BigFarmNet technology

UNITES ALL MANAGEMENT TASKS OF YOUR FARM IN ONE SOFTWARE

Always up-to-date: keep track of everything

Use your ViperTouch controller, your office PC or a mobile device to make inputs – directly in the barn, while you are relaxing at home or even on different farms. All BigFarmNet components update and synchronise automatically, and in real time.

Everything in one software – comfortable, fast and multilingual

Broiler feeding, destination feeding for breeders, light, water, climate control and silo and alarm management. Every user can select from more than 32 languages.

More security

Your entire production is recorded in one single software, which also means that the data of all houses are backed up automatically and all alarms are managed centrally. Inputs at the PC and in the app are approved and recorded at one central point.

Optimised production results and reduced costs

Improve your production results by using efficient analysis tools, and save time and avoid errors thanks to optimised processes.

Reliable and future-proof

Benefit from the fact that all BigFarmNet applications are thoroughly tested in the field and continuously further developed by Big Dutchman.

Only buy what you need

It does not matter whether you have a large farm complex or a smaller, family-owned farm: BigFarmNet meets any requirement and grows with your needs.

Service and support

We are happy to support you personally on site, but can also access your computer for remote maintenance. This can save your time and money if need be.

How to work with BigFarmNet

In the barn
with ViperTouch

In the office
with BigFarmNet Manager

Anywhere you are
with the BigFarmNet app

Broiler breeder farm

Big Dutchman

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Technical details subject to change. en 2/2019