



Big Dutchman®



307*pro* & **310***pro*

Climate computers for optimum climate control
in every pig house

307pro & 310pro

Innovative climate control: secure, comfortable, easy



- > one climate computer for all types of pig houses: finishing houses, nurseries, sow and boar houses
- > simple operation via 7-inch or 10-inch touch screen
- > software with simple, easy-to-understand icons
- > quad-core processor (310pro) – extremely fast
- > speaks more than 30 languages – including yours!
- > customisable home screen
- > simple alarm management
- > future-proof investment
- > remote access via the Internet and BigFarmNet for quick user support in case of issues (optional)

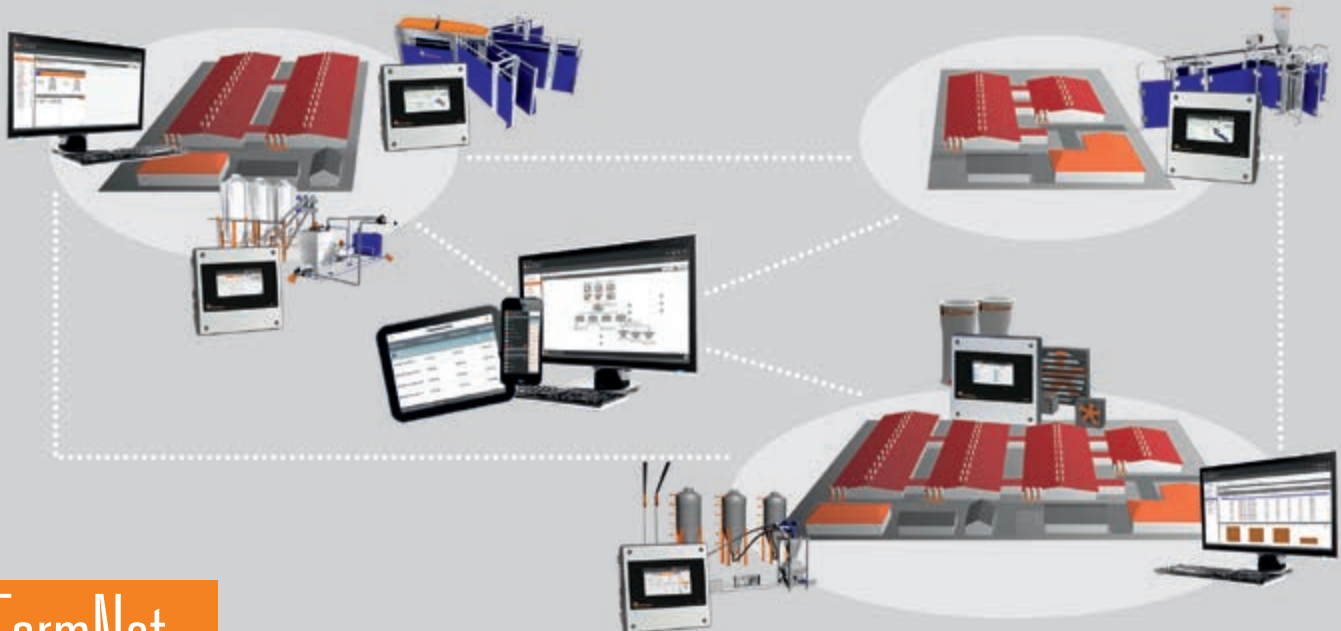
307pro and 310pro are the basis for a ventilation system that works without fail in your barn. The computers' outstanding features include:

- > **Coloured 7-inch or 10-inch touch screen:** Processes that are repeated daily are available at a glance. Relevant curve trends are displayed as graphs.
- > **Customisable user interface:** You can design the display just as you require.

- > **Modular hardware:** Easy to extend whenever you need new functions.
- > **Easy software updates:** Benefit from new functions without having to replace the computer.
- > **Data protection with three levels:** Settings can only be changed by authorised persons.
- > **High operational reliability:** 307pro and 310pro continue working without errors,

even when not connected to the network.

- > **Full integration with BigFarmNet:** With BigFarmNet Manager, you can remote-control the computers on your farm with your PC or by using the app while sitting comfortably at home.



BigFarmNet
technology

The 307pro and 310pro climate computers are the best prerequisite for efficient production and an integral part of the BigFarmNet technology, an all-in-one software and hardware solution for all tasks on your farm – for sow houses and/or finishing houses alike, for a single barn or entire farm complexes, whether you operate at one or many different locations.

WE HAVE THE IDEAL VENTILATION CONCEPT FOR EVERY CUSTOMER: NEGATIVE PRESSURE

The 307*pro* and 310*pro* climate computers fully control your barn's climate with the most modern methods. The temperature in the barn is regulated quickly

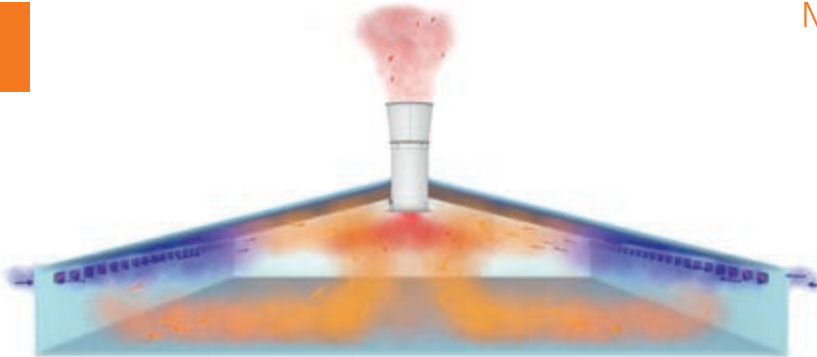
and precisely to the required level (use of PID control technology). Both computers are available for one or two rooms. They can control any standard ventilation

system. The following parameters are controlled:

- fresh air
- exhaust air

- heating
- cooling
- emergency opening
- alarms

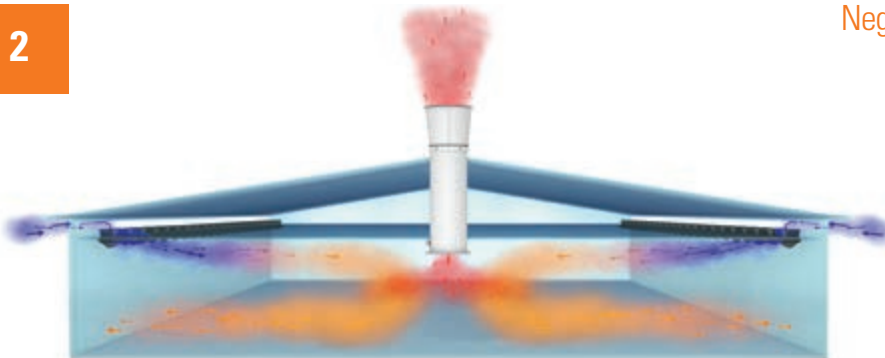
1



Negative pressure ventilation with wall inlets

- wall inlets for fresh air: the advanced inlet control creates a stable air flow, even with minimum ventilation
- the exhaust air escapes through the chimneys distributed on the roof
- possible in houses with and without inserted ceiling below the attic

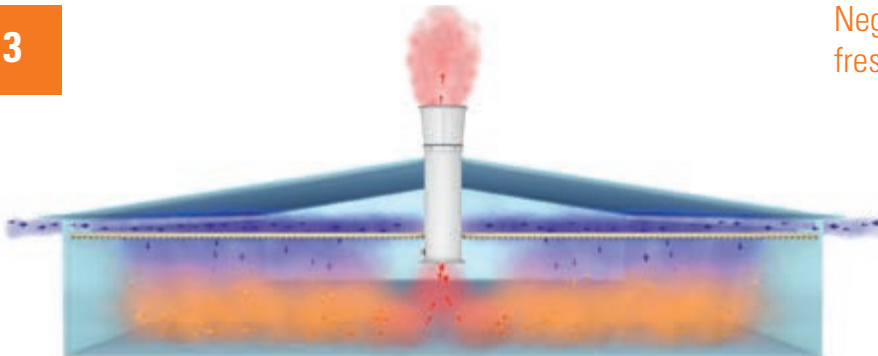
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Negative pressure ventilation with ceiling inlets

- ceiling inlets for fresh air: the advanced inlet control creates a stable air flow, even with minimum ventilation
- the exhaust air escapes through the chimneys distributed on the roof, or through wall fans at one long side of the house
- only possible in houses with inserted ceiling below the attic

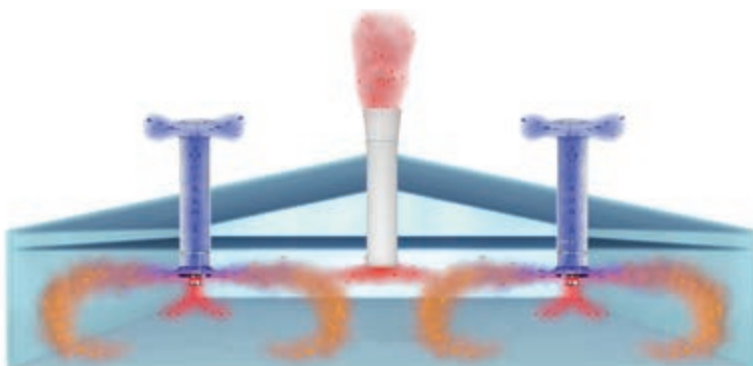
3



Negative pressure ventilation with diffuse fresh air

- the fresh air enters slowly throughout the entire ceiling: very even distribution of the fresh air, especially in the cold season
- the created air speeds are very low, i.e. especially well-suited for piglet rearing
- the exhaust air escapes through the chimneys distributed on the roof

4

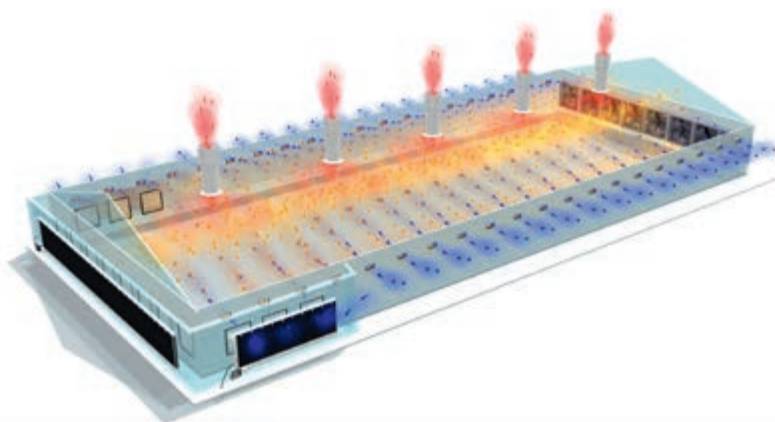


Balanced or negative pressure ventilation with fresh air chimneys

- chimneys for fresh air, also when it is not possible to draw in the air through the side walls
- the exhaust air escapes through the chimneys distributed on the roof, or through wall fans at the long side of the house
- possible in houses with and without inserted ceiling below the attic

NEGATIVE PRESSURE, BALANCED PRESSURE, COMBITUNNEL OR NATURAL VENTILATION

5

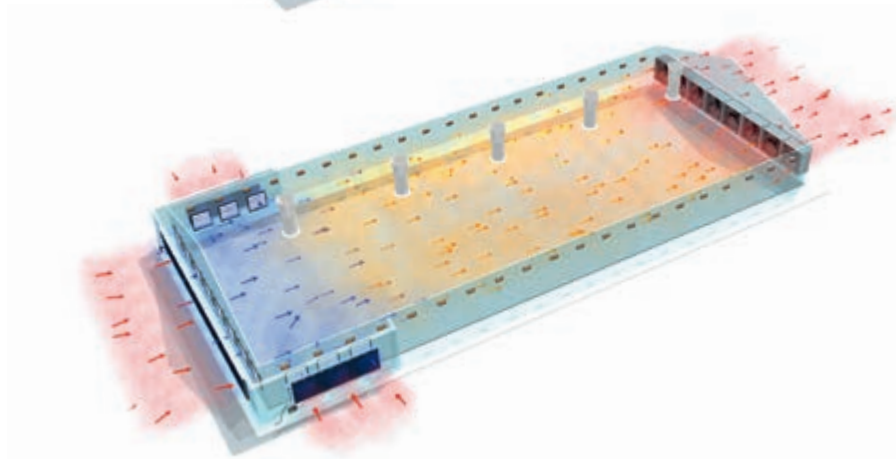


CombiTunnel ventilation

Combination of two ventilation systems

Side mode

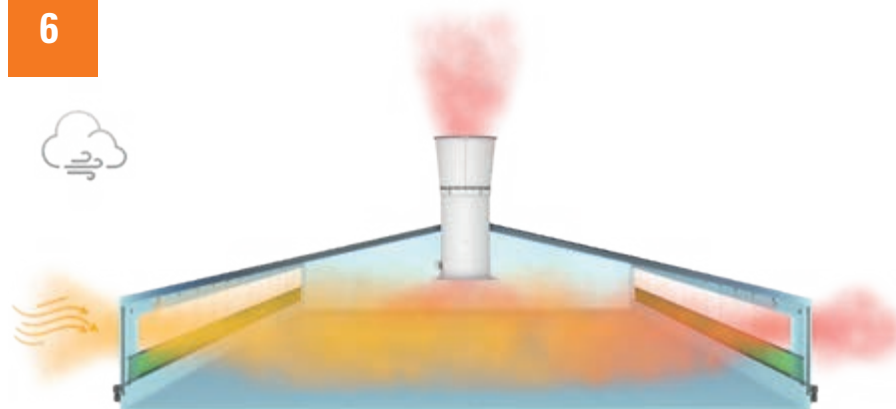
- in case of low outside temperatures, fresh air is supplied through wall or ceiling inlets
- the exhaust air escapes through chimneys or wall fans



Tunnel mode

- the tunnel mode is activated at high outside temperatures
- the tunnel openings are opened as required
- the exhaust air escapes through wall fans in the gable
- the air speed has a cooling effect (windchill)
- with very high outside temperatures, the PadCooling system is also activated

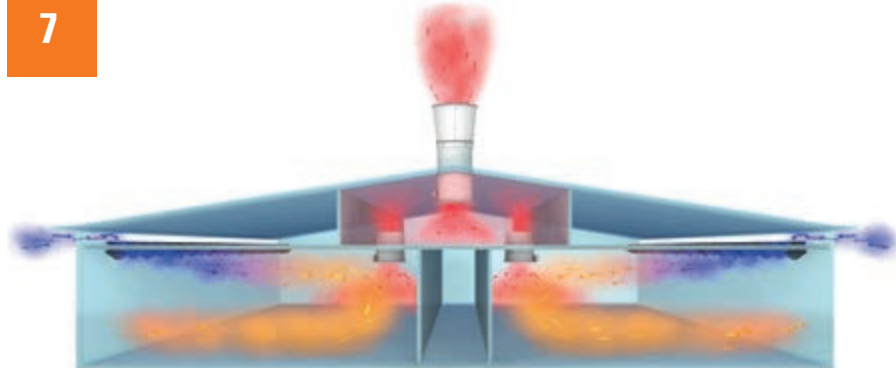
6



Natural ventilation

- the air exchange depends on the wind
- curtains are installed in both sides of the barn
- exhaust air chimneys (without fans) are distributed on the roof
- circulation fans can be used as an option for improved air distribution
- the curtains are controlled either based on temperature or additionally by a weather station (irrespective of the side)

7



Central extraction

- with this type of exhaust air removal, the exhaust air chimneys are either all located at one gable-end or placed centrally on the roof
- central extraction is also installed when using an exhaust air treatment system

BigFarmNet unites all your farm management tasks in one software

➤ Always up-to-date: keep track of everything

Use your computer, 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 in real time.

➤ Everything in one software – comfortable, fast and multilingual

Climate control, water, lighting, feeding and silo and alarm management. The software supports more than 30 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 recorded.

➤ Optimised production results and reduced costs

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

➤ Reliable and future-proof

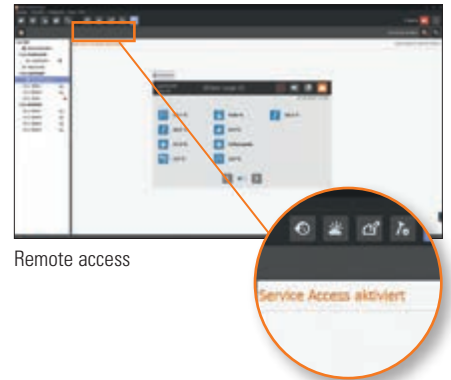
Benefit from the fact that all BigFarmNet applications are thoroughly tested in the field and continuously further developed by Big Dutchman.

➤ 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.



Remote access

Sensors: the technical basis for data collection

Using sensors for climate control in modern livestock production is now state of the art. Temperature, humidity, CO₂ and NH₃ 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 measures the relative humidity in the house. Due to its two analogue 0-10 V outputs, the sensor can also determine the temperature (optional).



DOL 19 measures the house air's carbon dioxide content. Its high-quality infrared measuring cell is able to detect CO₂ in a range from 0 to 10,000 ppm. It is thus possible to control minimum ventilation based on the CO₂ concentration. This saves heating costs and makes for an improved house climate.



DOL 53 is a sensor that continuously measures the ammonia concentration in the house air. It is very robust and accurate, with a measuring range from 0 to 100 ppm NH₃.



The DynamicAir sensor records the volume flow in the exhaust air chimney very precisely. Ventilation in the barn is thus always at the correct level for ideal climate conditions. Especially with minimum ventilation, this can save heating costs.



DOL 18 is a negative-pressure sensor that actively measures the pressure in the barn, emitting a 0-10 V signal. The climate computer usually supplies the sensor with a voltage of 15 to 30 V DC.



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.

Temperature-controlled emergency opening system 378 T

Special attention must be paid to the operational reliability of the ventilation system. For this reason, a fail-safe emergency opening system should be installed. The temperature-controlled emergency opening system 378 T helps to ensure survival of the livestock in case of power failures or technical breakdowns. The system comprises an 18 V DC power supply unit with built-in maintenance-free battery and charger and a separate temperature probe. The temperature at which the emergency opening function is to be activated can be set

manually at the 378 T. In case of an emergency, the fresh air flaps and exhaust air flaps are controlled based on the temperature. The emergency function itself is part of the 307pro/310pro. This means that the climate computer monitors the 378 T and will trigger an alarm if, for instance, the temperature limit for the emergency opening function is set too high. In regions with inconsistent power supply, the climate computer's shut-down can be delayed for up to five minutes using the UPS board (optional).



What can 307pro/310pro record and control?

- up to 16 MultiStep® groups to reduce power consumption;
- DynamicAir optimises the air exchange in the barn by precisely recording the volume flow in the exhaust air chimney;
- cycle ventilation for minimum ventilation rates;
- different heating systems, on/off or stepless for hot-water systems;
- humidity control with/without heat;
- cooling and humidifying;
- extended control based on pre-set curves (temperature, heat, humidity, floor heating, minimum and maximum ventilation rates);
- registration of consumption rates of up to eight water meters;
- water alarm in case of over- or undersupply as compared to the previous day;
- sequential control of two stepless fan groups;
- up to four timers for light/feeding;
- lighting;
- pause function (soaking, washing, drying);
- trend curves;
- frost protection for empty barns;
- ice protection to prevent freezing of the fresh air inlets;
- active control of minimum ventilation rates by means of a CO₂ sensor;
- active pressure control;
- log file for alarm and operation;
- access code.

Extension stages of the 307pro/310pro climate computers

The 307pro (7-inch display) and the 310pro (10-inch display) climate computers are available with different extension stages. You can thus be sure that you will receive exactly the software that is perfect for your barn.

Extension stage	MultiStep® groups	Extension stage	MultiStep® groups
S1 Small, 1 room	1	CT CombiTunnel ventilation	up to 16
S2 Small, 2 rooms	1	N Natural ventilation	–
L1 Large, 1 room	5	CE Central Extraction	6
L2 Large, 2 rooms	5	T Tunnel ventilation	up to 8



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