NEW!

Big Dutchman®

307*pro* & 310*pro*

The newest generation climate and production computers
for your pig house

307*pro* & 310*pro*
Secure, comfortable, brilliantly simple

- one climate and production computer for all types of pig housing: 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 (310*pro*) – extremely fast
- supports more than 30 languages – including yours!
- customisable home screen
- simple alarm management
- future-proof investment
- compatible with the BigFarmNet Manager software on your PC and the BigFarmNet app

307*pro* and 310*pro* are the basis for a climate and production control 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 five levels:**
  Settings can only be changed by authorised persons.
- **High operational reliability:**
  307*pro* and 310*pro* 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.

Sensors: the technical basis for data collection

Using sensors for climate control in modern livestock production is now state of the art. 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 temperature sensor

DOL 114 sensor for relative humidity

DOL 18 negative pressure sensor

DOL 19 CO_2 sensor

DOL 53 NH_3 sensor

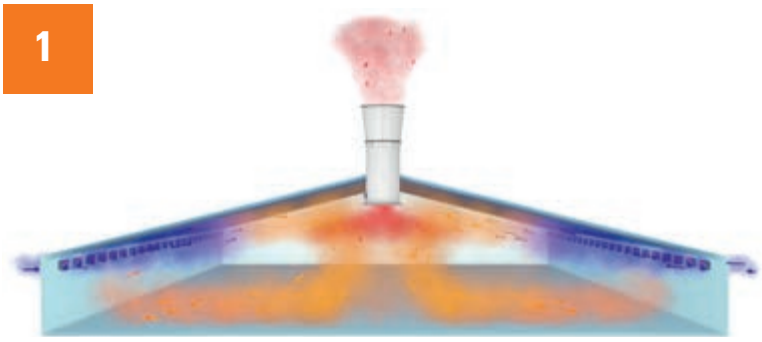
Weather station

WE HAVE THE IDEAL VENTILATION CONCEPT FOR EVERY CUSTOMER

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.

New and unique: the principle of ***adaptive climate control***. With this method, control parameters are constantly adapted to the current situation in the barn based on a ***new self-learning function***. The house climate is thus permanently optimised, which ultimately increases productivity and sustainability and improves animal welfare.
Both computers are available for one or two rooms. They can control any standard ventilation system, including fresh air and exhaust air, heating, cooling, the 378 T emergency opening and alarms.

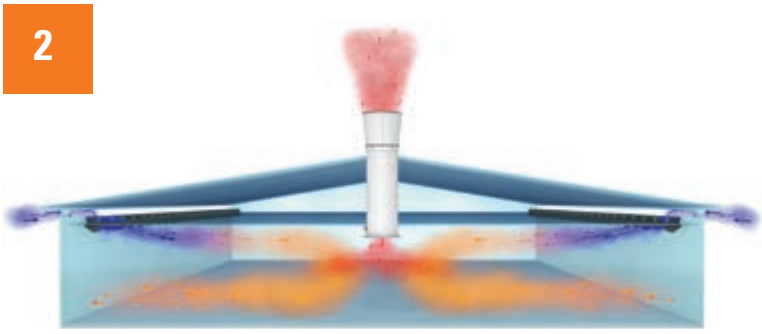
1



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

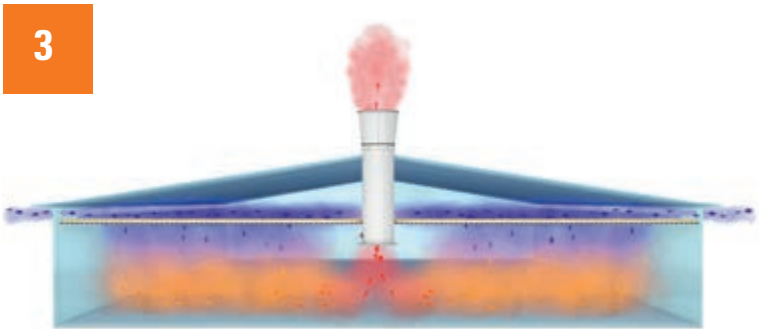
2



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 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

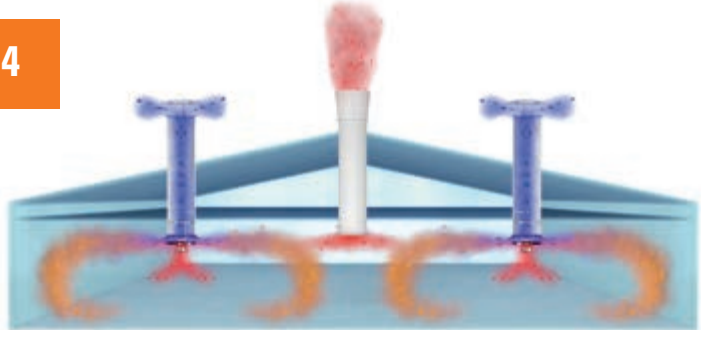
3



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

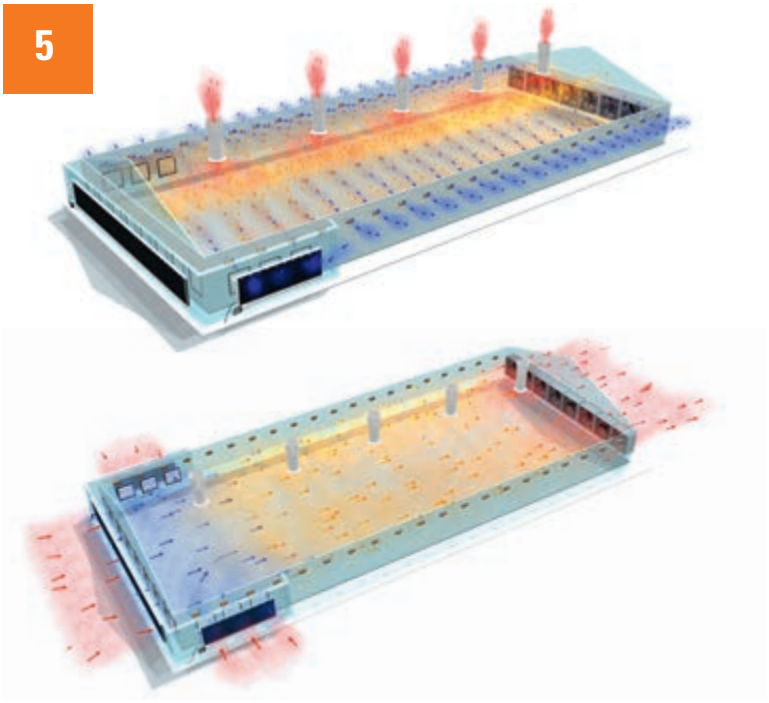
4



Balanced or negative pressure ventilation with fresh air chimneys

- fresh air chimneys: an option for houses where the fresh air cannot be drawn in via the side walls
- the exhaust air escapes through 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

5



CombiTunnel ventilation

Combination of two ventilation systems

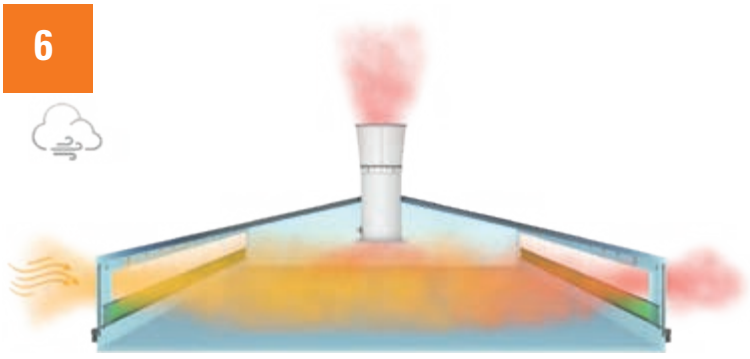
Side mode

- 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

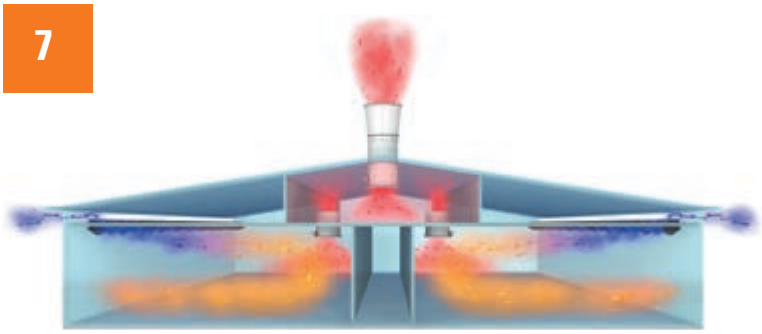
6



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 optionally be used for improved air distribution
- the curtains are controlled either based on temperature or additionally by a weather station (irrespective of the side)

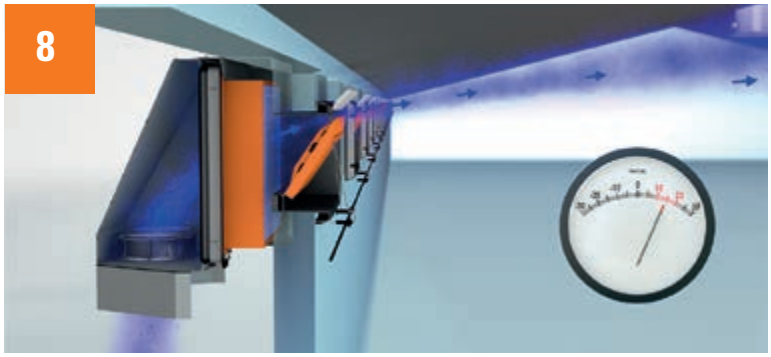
7



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 air cleaning system

8



Positive pressure ventilation with PRRS filtration

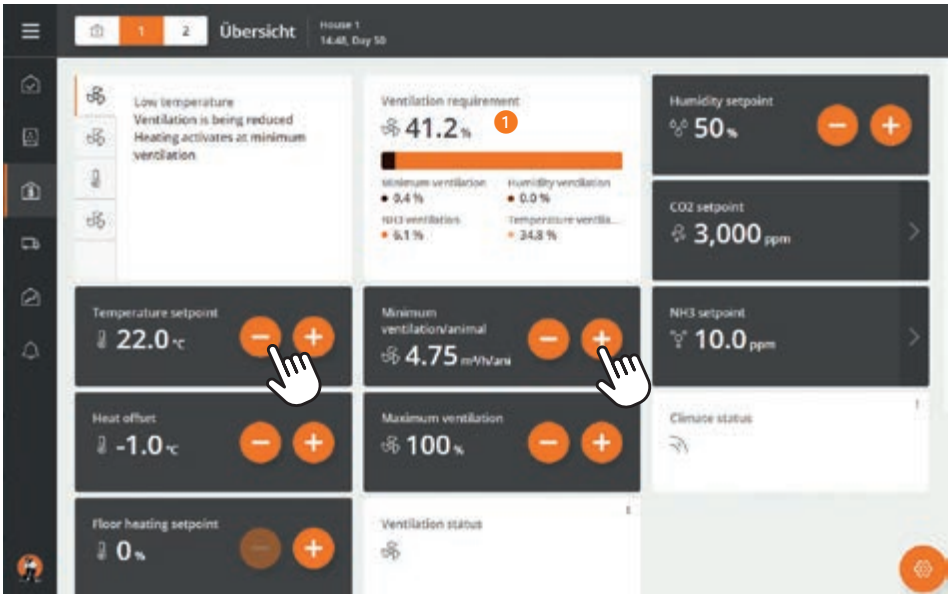
- wall inlets equipped with mechanical filters (particles up to a size of 0.3 µm are filtered) and energy-saving EC fans for fresh air ensure a high hygiene status
- due to the positive pressure ventilation system, no unfiltered fresh air can enter the house through leaks
- possible in houses with and without inserted ceiling below the attic
- easy to retrofit

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 307*pro*/310*pro*. 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 307*pro* and 310*pro* 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);
- sequential control of two stepless fan groups;
- ice protection to prevent freezing of the fresh air inlets;
- frost protection for empty barns;
- active control of minimum ventilation rates by means of a CO_2 sensor;
- active pressure control ensures a high biosecurity in barns with fresh air filtration that are operated under positive pressure;
- trend curves;
- log file for alarm and operation;
- access code.



Configure the screen of your 310pro computer according to your needs

1. Current heating demand in the barn
2. Target temperature: can be adjusted and is kept at the desired level (patented, self-learning PID control)
3. Minimum ventilation: can be adapted to the exact number of pigs for ideal oxygen supply
4. Target humidity: can be adjusted
5. Target CO_2 concentration: can be adjusted
6. Target NH_3 concentration: can be adjusted

Extension stages of the 307*pro*/310*pro* computers

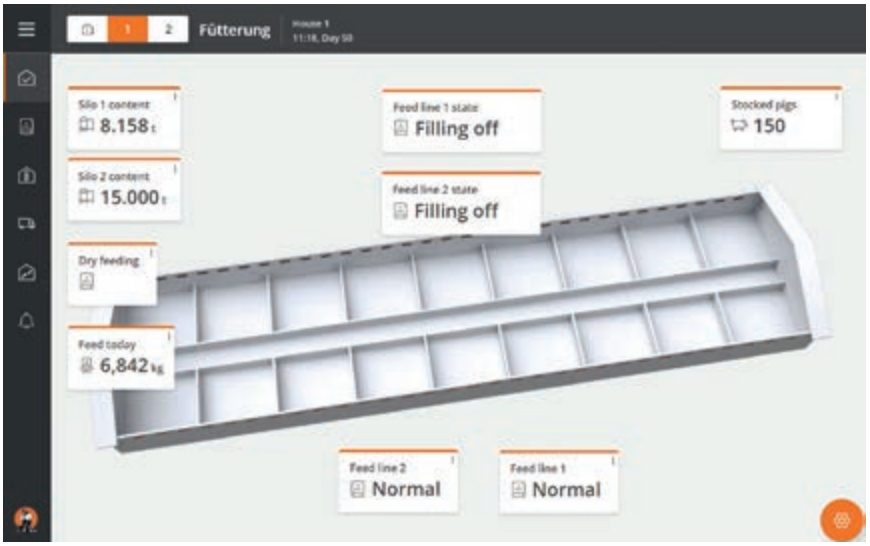
The 307*pro* (7-inch display) and 310*pro* (10-inch display) computers are available with different extension stages. You can thus be sure that you will receive exactly the software that is perfect for your barn.

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

307*pro* & 310*pro*

Secure, comfortable, easy: production control in your pig house

Our 307*pro*/310*pro* climate computers are now also production computers!
This means that you can use them to control for example your Big Dutchman DryRapid dry feeding system with multiple feed circuits, view the fill levels of your silos, control the lighting system and check water consumption.



What can 307*pro* and 310*pro* record and control?

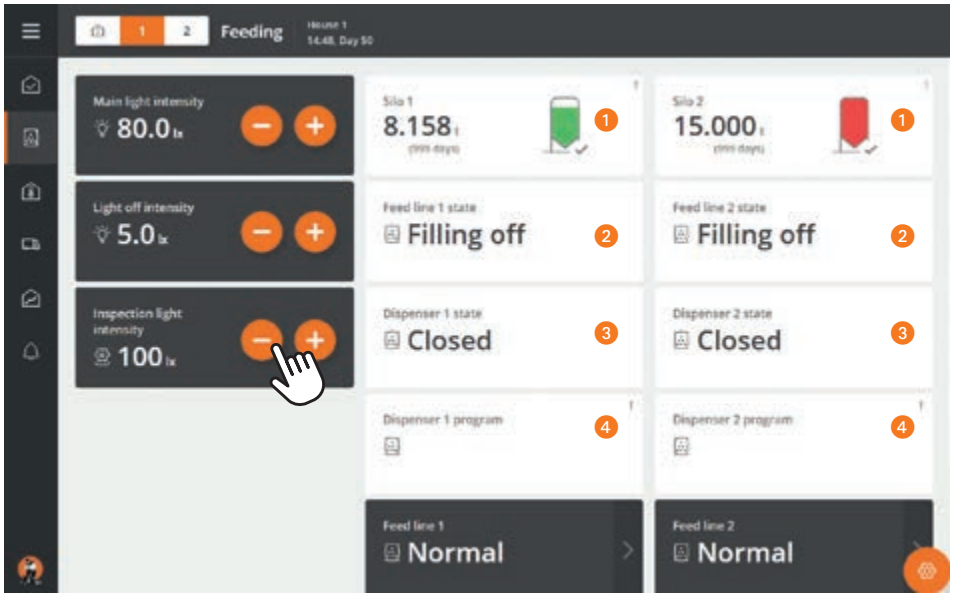
- feed consumption: total, per day and per animal;
- using UniScale, up to 4 silo scales with up to 8 weigh bars each can be connected for easy monitoring of the silo contents;
- feed deliveries are registered and logged;
- automatic silo change;
- the FW 99 feed weigher permits mixing of feed components from up to 5 different silos;
- feed can be recorded according to the runtime or by a pulse scale;
- opening and closing of volume dispensers;
- multiple feed circuits with DR 1500 and use of FlexFley spirals to transport feed from the silo to the barn;
- start of the feed circuits using feeding programs or by pressing a button;
- water consumption: total, per day and per animal with up to 8 water meters that can be named;
- light control simulating sunrise and sunset;
- pause function: helps the farmer optimise the period for soaking, cleaning, drying and heating between batches, thus reducing costs;
- up to 4 free time switches for individual tasks;
- separate production alarm in case of deviations regarding water and feed consumption, leaks, low feed levels in the silo and power failure;
- free alarms to monitor electrical components such as protective motor switches;
- 2 energy counters can be connected and named.

Silo weighing with UniScale

FW 99 feed weigher

Light control

Water meter

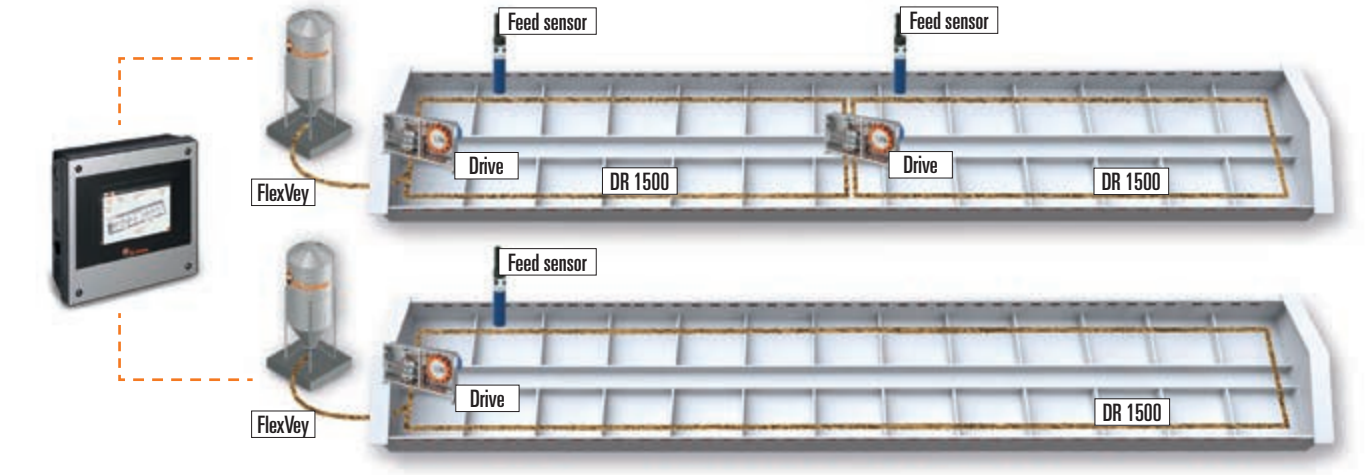


Example for a screen displaying important parameters for lighting and feeding; the user can freely select additional parameters

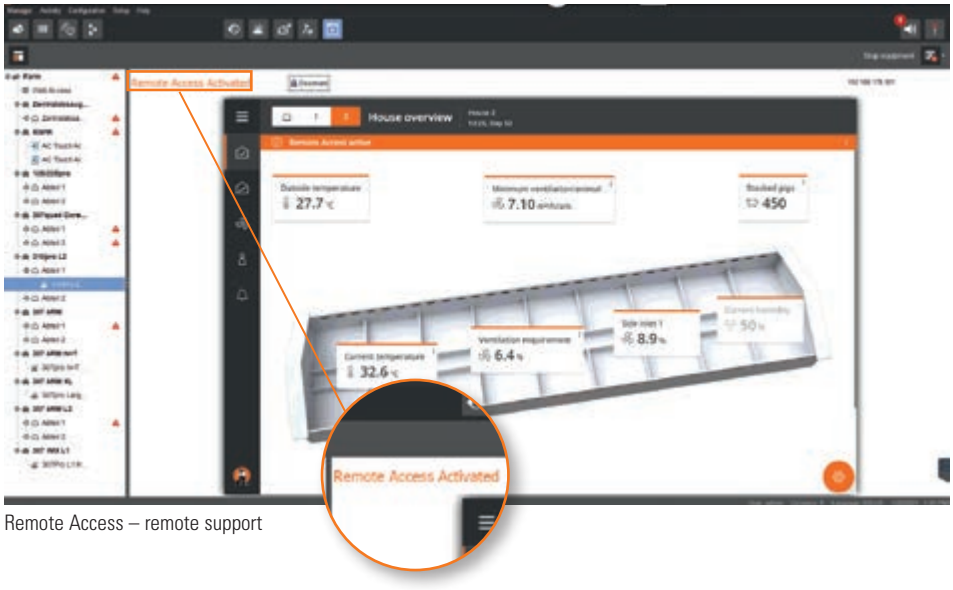
Configure the screen of your 310pro computer according to your needs

- Main light target value: can be adjusted
- Night light target value: can be adjusted
- Luminous intensity during inspection rounds: can be adjusted
- 1 Feed levels in the silo
- 2 Feeding status of line 1 and 2
- 3 Opening status of volume dispenser 1 and 2
- 4 Time program to open and close volume dispensers
- Manual start of the feed lines

Control of one or more feed circuits with FlexVey and DR 1500



Remote Access: get help remotely and save time and money



Remote Access – remote support

The popularity of the remote access and remote maintenance options in Big Dutchman computers is increasing. The reason is obvious, considering that this functionality significantly expands possibilities for direct support.

- fast connection and smooth operation based on web technology;
- the user can continue to work at the farm PC because the remote control is a background feature, of course protected by a password;
- Big Dutchman service staff and service partners can provide quick and easy support and access the necessary information without having to visit the farm – subject to your approval, of course.

BigFarmNet technology

UNITES ALL MANAGEMENT TASKS OF YOUR FARM 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 farm complex or a single-family 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 office
with BigFarmNet Manager

In the barn
with 307*pro* / 310*pro*

Anywhere you are
with the BigFarmNet app

Big Dutchman

Europe, Middle East & Africa:
Big Dutchman International GmbH
P.O. Box 1163 · 49360 Vechta, Germany
Tel. +49(0)4447 801-0 · Fax -237
big@bigdutchman.de
www.bigdutchman.de

USA: Big Dutchman, Inc.
Tel. +1 616 392 5981 · bigd@bigdutchmanusa.com
www.bigdutchmanusa.com

Brazil: Big Dutchman (Brasil) Ltda.
Tel. +55 16 2108 5310 · bdbr@bigdutchman.com.br
www.bigdutchman.com.br

Russia: OOO "Big Dutchman"
Tel. +7 495 2295 161 · big@bigdutchman.ru · www.bigdutchman.ru

Asia/Pacific: BD Agriculture (Malaysia) Sdn. Bhd.
Tel. +60 3 334 83 555 · bdasia@bigdutchman.com · www.bigdutchman.com

China: Big Dutchman (Tianjin) Livestock Equipment Co., Ltd.
Tel. +86 10 6476 1888 · bdcnsales@bigdutchman.com
www.bigdutchmanchina.com

Technical details subject to change. en 1/2021