



Big Dutchman®



amacs

The professional management and control solution
for egg production

Professional data collection, control and monitoring

With **amacs**, Big Dutchman can offer you a tried and tested hardware and software solution for more efficiency in egg production. amacs controls and monitors all houses that belong to the farm complex. Remote access via the internet additionally allows you to monitor and control houses at different locations using your PC, smartphone or tablet.

Good to know:

- suitable for any farm size, i.e. for individual houses as well as for farm complexes;
- perfect adaptability to your farm's requirements;
- expandable at any time due to the modular design;
- alarm messages are sent to your

smartphone or tablet by email;

- integration of a camera for direct image transmission from the house;
- support via remote maintenance: our amacs specialists can log-on to your farm controller and are thus able to provide fast help in case of trouble – of course only after your express approval.



Monitoring at the control cabinet's touch screen



With amacs, you have everything under control

Your advantages:

- 1. Everything at a glance**
The start screen immediately shows the current state of all houses.
- 2. Real-time visualisation**
All events are displayed in real time on your farm controller.
- 3. Central data management**
Analyses per bird, comparison with reference values: everything is possible.
- 4. Password-protected remote access**
You can access all data and settings remotely – with password protection, of course.
- 5. High flexibility**
Different interfaces for data export are available so you can carry out your own analyses for your farm.
- 6. High speed and overload protection**
We recommend using fibre-optic network technology.
- 7. One-click language change**
17 languages are available.

Stay informed with amacs. More information means better plans and faster reactions. The consequence: top results and reduced production costs!

Available functions and use of farm terminal software

The functions of amacs cover all areas of modern egg production:

- climate control
- production (feed, water, light, ...)
- egg collection in the house
- egg collection on the entire farm up to the packer
- manure drying inside the house





- manure drying tunnels
- energy recordings

i You decide which licenses you want to purchase!

The start screen of the farm controller shows an overview of all houses to be controlled. The individual areas such as climate or egg collection can be accessed directly via individual status icons. The simple menu structure is easy to learn.

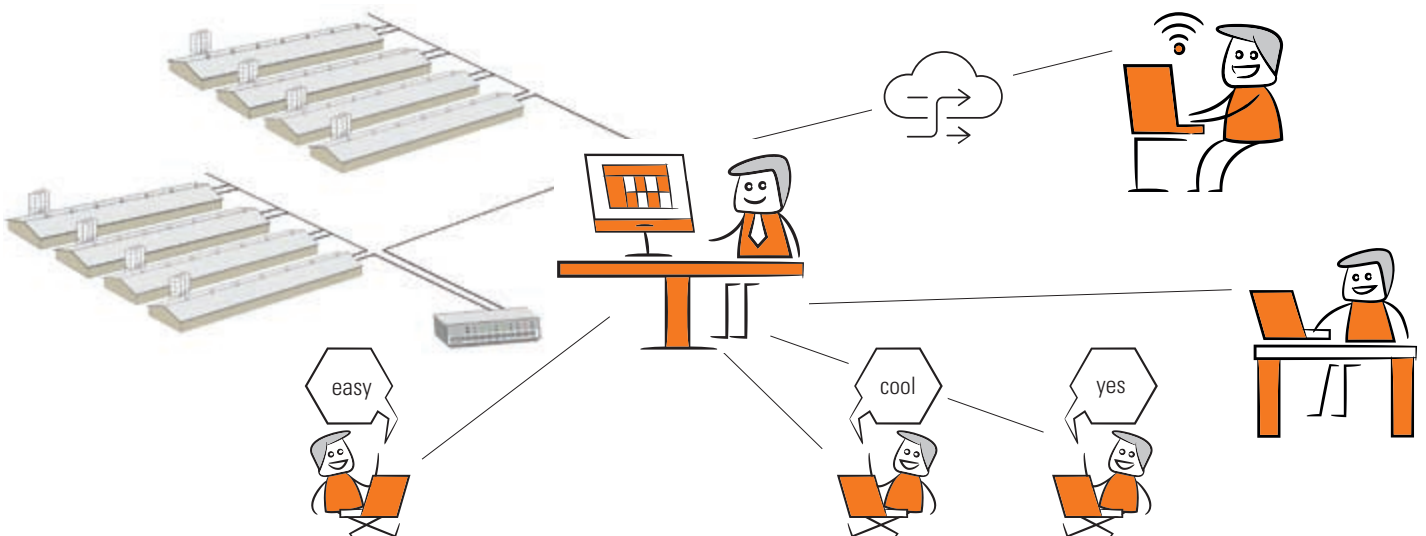


-  Adjustment and control of the entire house climate
-  Adjustment and control of feeding, feed weighing
-  Adjustment and control of water and light program
-  Recording of laid eggs and laying performance
-  Farm-wide egg collection, egg flow control
-  Settings for manure drying, control of the air mixer
-  Production and bird management, calculation of production data, bird weighing
-  Real-time image from the house via network camera
-  Diagrammatic visualisation of data

-  Display and list of current alarms
-  Current system state
-  Freely adjustable timers
-  Accessories, extra counters

Use of farm terminal software on a farm complex

Farm workers with their own PC or notebook can use the farm terminal software to work with amacs independently and in their specific area. Up to 50 users with individual user rights can be created. This also allows tracking of all actions carried out on the farm.





amacs ventilation

A healthy house climate is a prerequisite for optimum performance

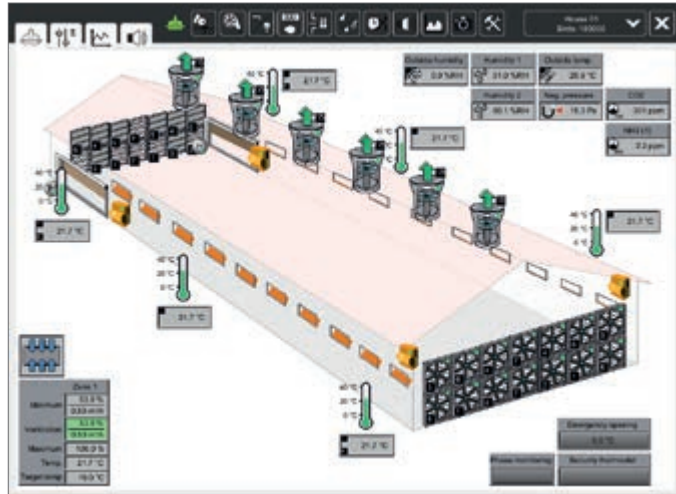
amacs determines the ventilation requirements in your house with state-of-the-art technology. All standard ventilation systems – from negative pressure (side, tunnel, CombiTunnel ventilation) to balanced pressure and natural ventilation – can be controlled. amacs controls and monitors the following climate elements:

- fresh air
- exhaust air
- heating (in the rearing house)
- air mixers for manure belts
- cooling
- control cabinets
- emergency openings
- alarms

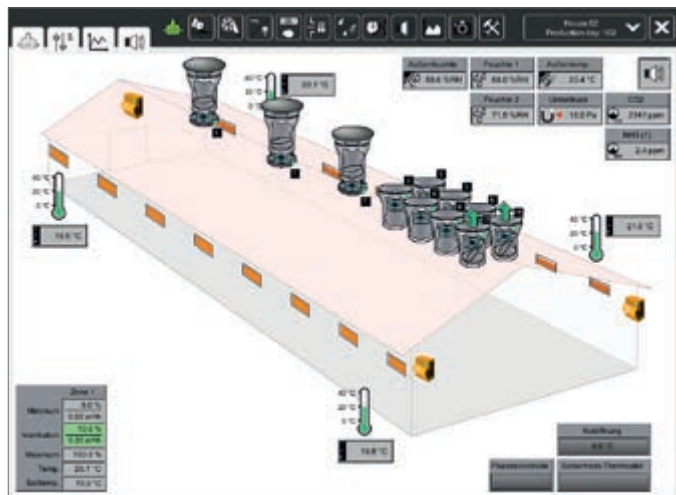
A customised house illustration is a standard function of amacs. All components are displayed in the user software the way they are actually installed.

Modern climate control in layer houses is not possible without the use of sensors. These sensors measure and check changes in the house air and are the basis of any computer-controlled climate system. Big Dutchman offers a wide variety of sensors suitable for livestock buildings:

- temperature sensors (inside/outside)
- humidity sensors (inside/outside)
- CO₂ sensors
- NH₃ sensors
- negative pressure sensors
- weather stations



CombiTunnel ventilation – the ideal ventilation system in case of large temperature fluctuations



Balanced pressure ventilation



Using your PC, you are looking at the current climate situation in your poultry house and would like to increase the temperature by 1°C. No problem. Simply enter the new value and ventilation is reduced immediately.

amacs – extremely fast and easy to navigate!



amacs feeding

Need-based supply of feed to the birds

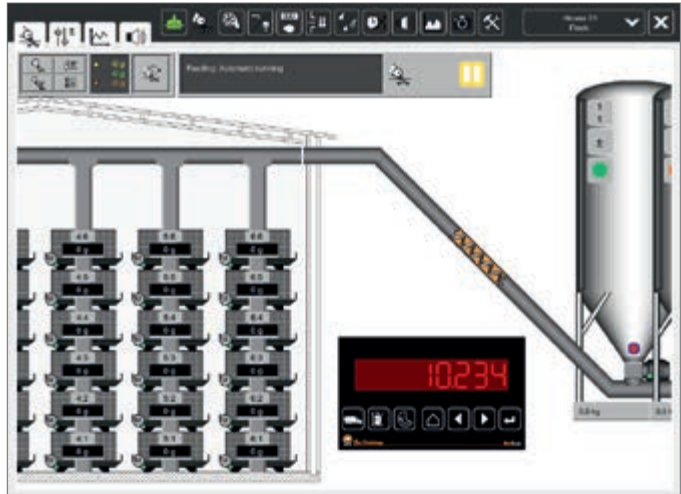
The need-based supply of feed adapted to the age of the birds and to the laying performance is a decisive factor for saving feed costs. amacs controls and monitors the entire feed management. When connected to the UniScale silo scale, amacs records all feed deliveries as well as feed consumption. Even at the same time!

Feed management includes:

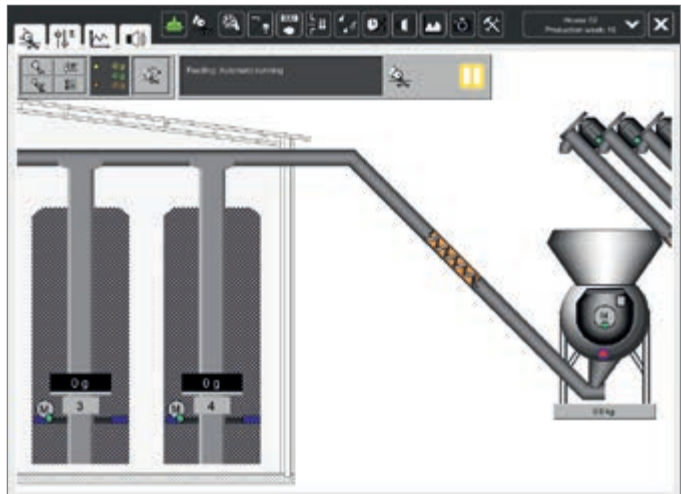
- silo weighing
- delivery control
- batch feed weighers
- dispensing of feed additives, e.g. calcium
- chain feeding
- feed carts

amacs allows you to analyse the feed consumption per tier, per bird and per day – at any time.

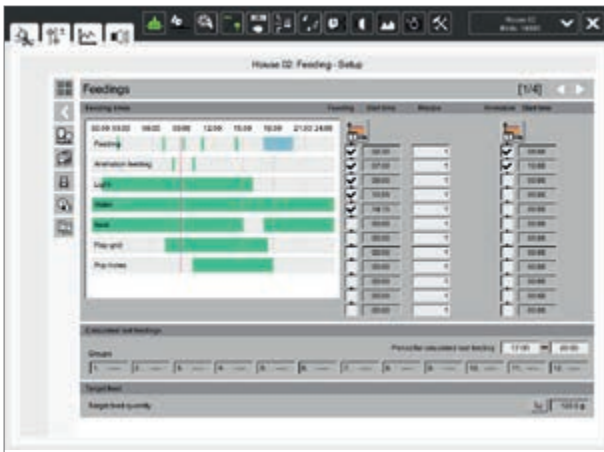
With the production planner, you can plan the entire day of your birds. This can include, for example, the input of feeding times, additional runtimes of the feed chain (to encourage the birds to eat) as well as light and water times. Planning the entire batch in advance is thus possible with just a few clicks. The plan can also be transferred for use in other houses.



Recording of the feed consumption by means of silo weighing with UniScale



Recording of the feed consumption by means of the electronic batch weigher FW 99-B



Planning the birds' day with the production planner



amacs – incredibly accurate and cost-saving!



amacs projects when a silo will be empty and warns the user in time that new feed must be ordered.



amacs water supply and light control

Meeting the water demand and controlling the light program with great precision

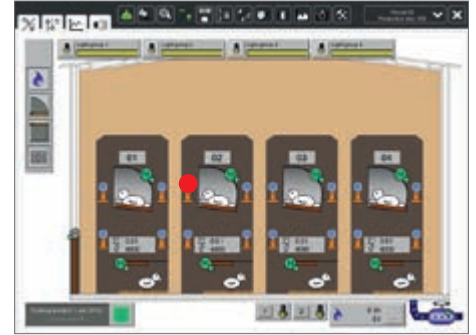
Optimum water supply is very important for a high laying performance. amacs allows you to:

- monitor the water fill level in each line;
- set up automatic rinsing programs (start according to time, water temperature or manually);
- create water counter groups;
- set up water programs.

Using electronic water counters, amacs records the water consumption in ml/day and hen, overall and in l/hour.



Light and water control in a layer system, display of the currently active rinsing process



Light and water control in an aviary house

● *Insufficient water supply is immediately communicated. A red icon indicates the location where the water level is too low.*

The correct light program has a decisive influence on the hens' behaviour, the laying performance and the feed conversion. Any desired light program can be realised with the help of freely programmable timers, a dimmer function and sunrise/sunset simulation. Colour temperatures are also important in bird management. If the ZeusLED is installed, different colour temperatures (e.g. warm white/red) can be used. This can reduce feather pecking.

- With light sensors, an active (true) light control can be realised.
- The so-called control light increases illumination for a specific period (e.g. for the daily inspection rounds) and then decreases it automatically afterwards.
- In alternative systems, amacs controls the opening and closing of nests, popholes and flap grids.



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Control of the egg collection in the house

Egg counters record the laying performance fully automatically. The results are saved in a data base. Big Dutchman can offer the following components to control the automatic egg collection system:

- EggSaver to ensure that eggs roll off safely onto the longitudinal egg belt
- weighed egg channel for automatic belt advancement
- egg counters for longitudinal belts or cross belts and for different egg belt widths
- EggCam egg counting system
- automatic lift control



Egg counters per longitudinal egg belt register every egg



Egg counters per longitudinal egg belt in an alternative system

A comparison with reference data, which are stored in the system according to the breed and age of the birds, immediately shows whether the laying performance is within the target range.

The standard program for egg collection controls the longitudinal belts by means of

frequency converters. The speed can be regulated manually, automatically (using an egg-per-hour control) or in combination with "Digital EggFlow". The main focus is always the advancement of the longitudinal egg belts.



You can immediately see how many eggs have been laid at which location. The system monitors and indicates whether the target numbers have been reached using different colours.



amacs Digital EggFlow

Control of the daily egg collection process with the highest efficiency and best egg quality

The patented control system Digital EggFlow is available as a stand-alone solution or as an amacs module. The system controls the longitudinal egg belt speed based on the total number of eggs coming from the different houses. This makes it possible to utilise the connected graders and packers optimally.

Often, graders and packers are not utilised to their full capacity. Possible reasons include:

- waiting times at the start of collection;
- some houses are started manually;
- the speed of the longitudinal egg belts continuously requires manual readjustments;
- belts with a low filling rate are run until empty.

How does Digital EggFlow help you?

- the belts are started automatically before the workers begin and the egg flow stops directly at the grader;
- it is possible to create arbitrary collection groups that can be changed daily;
- all houses that belong to the same collection group finish egg collection simultaneously – at maximum filling rates;
- the eggs from the next collection group are transported to the cross belt subsequently;
- Digital EggFlow allows the synchronisation of up to ten cross belts for up to four packers/graders.

What are the advantages of Digital EggFlow?

- better egg quality due to fewer checked eggs;
- much shorter collection times for a higher efficiency and cost savings;
- better planning in advance due to higher transparency of the processes at the packer;
- full overview and control because you can react immediately at the touch screen, if necessary.



With Digital EggFlow, graders are utilised at optimum capacity

Customers swear by the following

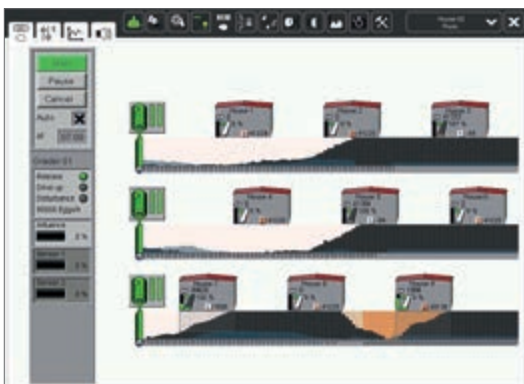
extensions: As an option, Big Dutchman can offer the *stepless cross belt control*. Congestions of eggs at the transfer point between cross belt and grader/packer are detected by sensors. The speed of the longitudinal *and* cross belts is then adjusted automatically by frequency converters.

Additionally, you will see *location-specific alarm messages* about:

- egg congestions at egg transfer points
- emergency stops
- stops due to chain break (only possible if chain break sensors are installed at each drive)
- motor alarms per drive



Control cabinet with 15" touch display for control of the egg flow towards the packer



Optimised egg flow with Digital EggFlow



The farm overview shows the egg flow on three cross belts towards the packer from a total of nine houses. The farm manager sees the egg flow and can plan the sequence according to which the eggs are to be collected.

With amacs Digital EggFlow,
graders are utilised
at optimum capacity.
This saves time and
significantly increases efficiency.





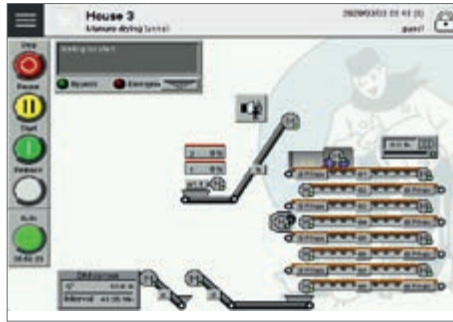
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Control of manure drying systems outside of the house

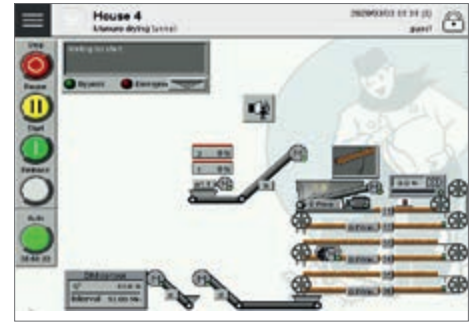
The amacs module for manure drying tunnels allows you to control the manure dryers OptiSec and OptiPlate. The specially developed control is very reliable and operates very safely. amacs controls and monitors the following elements:

- up to 20 manure removal groups;
- up to 20 manure cross belts;
- individual assignment of the manure cross belts to manure removal groups;
- variable belt speed depending on the amount of manure;
- individual belt speed monitoring by means of sensors in each tier;
- partial manure removal based on a percentage;
- fully automatic operation of the dryer with up to twelve starting times per day.

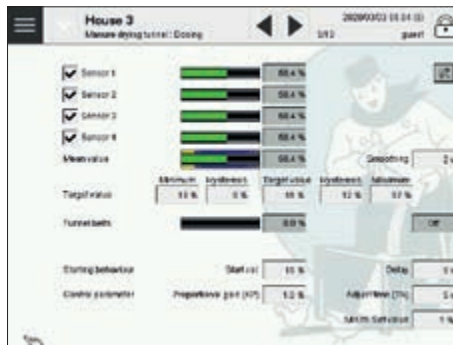
Smooth operation is guaranteed by a separate control cabinet with touch screen. The farm's data can be viewed and monitored on this touch screen. All data are transferred to the amacs farm controller for long-term storage. The manure drying tunnel module can also work as a stand-alone solution (without farm controller). If a network has been established, all data can also be transferred to an external PC in real time (optional). A convenient remote enquiry is thus always possible.



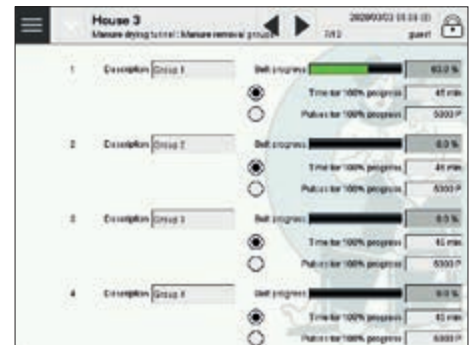
Control of the OptiSec belt drying system



Control of the OptiPlate plate drying system



View of the dosing



View of the belt progress per manure removal group



Dried manure hardly emits any ammonia, is easy to transport and can be used very flexibly



Control cabinet for the OptiPlate plate drying system

amacs – unique control, fully automatic operation!

The belt progress of each manure removal group is shown very clearly on a touch screen. Making changes is easy.



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Control of the manure drying process on the manure belts inside the house

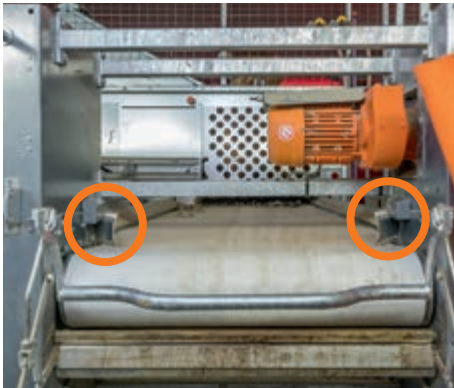
amacs ensures good and uniform manure drying and thus reduces NH₃ emissions in the house. On the basis of the outside temperature, the manure drying temperature and humidity levels, amacs controls air mixers as well as automatic filters, if applicable.



Use of an air mixer at the gable in a cage house



Use of a central air mixer in an aviary system



Permanent straight running of the manure belts during manure removal with AMBA

During manure removal, the automatic manure belt adjustment system AMBA ensures that the manure belts run perfectly straight (option). This new function can be controlled by amacs or used as a stand-alone solution. AMBA has the following advantages:

- no more manual adjustment of the manure belts during manure removal;
- automatic detection of the load on the manure belt indicates when manure must be removed;
- longer service life of the entire manure belt drive.



AMBA (Automatic Manure Belt Adjustment)



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Analysis and graphical illustration of all production data

Exact data are the basis for all decisions and optimisations.

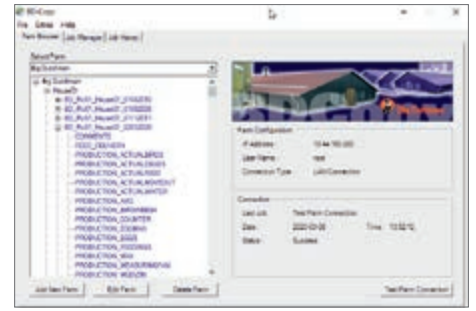
amacs collects many different types of data that can be evaluated easily and quickly at the farm controller: feed conversion, laying performance, mortality, bird weights, operating hours of all amacs-controlled drive units and the entire climate control, for example. All data can be analysed in tables and graphs. They can also be displayed in the form of curves and freely combined on the screen via mouse click (drag & drop).

Batch	Start	End	Production	Feed	Conversion	Mortality	Weight
20180101	2018-01-01	2018-01-07	10000	10000	100%	0%	100g
20180108	2018-01-08	2018-01-14	10500	10500	105%	0%	105g
20180115	2018-01-15	2018-01-21	11000	11000	110%	0%	110g
20180122	2018-01-22	2018-01-28	11500	11500	115%	0%	115g
20180129	2018-01-29	2018-02-05	12000	12000	120%	0%	120g
20180206	2018-02-06	2018-02-12	12500	12500	125%	0%	125g
20180213	2018-02-13	2018-02-19	13000	13000	130%	0%	130g
20180220	2018-02-20	2018-02-26	13500	13500	135%	0%	135g
20180227	2018-02-27	2018-03-05	14000	14000	140%	0%	140g
20180306	2018-03-06	2018-03-12	14500	14500	145%	0%	145g
20180313	2018-03-13	2018-03-19	15000	15000	150%	0%	150g
20180320	2018-03-20	2018-03-26	15500	15500	155%	0%	155g
20180327	2018-03-27	2018-04-02	16000	16000	160%	0%	160g
20180403	2018-04-03	2018-04-09	16500	16500	165%	0%	165g
20180410	2018-04-10	2018-04-16	17000	17000	170%	0%	170g
20180417	2018-04-17	2018-04-23	17500	17500	175%	0%	175g
20180424	2018-04-24	2018-05-01	18000	18000	180%	0%	180g
20180502	2018-05-02	2018-05-08	18500	18500	185%	0%	185g
20180509	2018-05-09	2018-05-15	19000	19000	190%	0%	190g
20180516	2018-05-16	2018-05-22	19500	19500	195%	0%	195g
20180523	2018-05-23	2018-05-29	20000	20000	200%	0%	200g
20180530	2018-05-30	2018-06-05	20500	20500	205%	0%	205g
20180606	2018-06-06	2018-06-12	21000	21000	210%	0%	210g
20180613	2018-06-13	2018-06-19	21500	21500	215%	0%	215g
20180620	2018-06-20	2018-06-26	22000	22000	220%	0%	220g
20180627	2018-06-27	2018-07-03	22500	22500	225%	0%	225g
20180704	2018-07-04	2018-07-10	23000	23000	230%	0%	230g
20180711	2018-07-11	2018-07-17	23500	23500	235%	0%	235g
20180718	2018-07-18	2018-07-24	24000	24000	240%	0%	240g
20180725	2018-07-25	2018-07-31	24500	24500	245%	0%	245g
20180801	2018-08-01	2018-08-07	25000	25000	250%	0%	250g
20180808	2018-08-08	2018-08-14	25500	25500	255%	0%	255g
20180815	2018-08-15	2018-08-21	26000	26000	260%	0%	260g
20180822	2018-08-22	2018-08-28	26500	26500	265%	0%	265g
20180829	2018-08-29	2018-09-04	27000	27000	270%	0%	270g
20180905	2018-09-05	2018-09-11	27500	27500	275%	0%	275g
20180912	2018-09-12	2018-09-18	28000	28000	280%	0%	280g
20180919	2018-09-19	2018-09-25	28500	28500	285%	0%	285g
20180926	2018-09-26	2018-10-02	29000	29000	290%	0%	290g
20181003	2018-10-03	2018-10-09	29500	29500	295%	0%	295g
20181010	2018-10-10	2018-10-16	30000	30000	300%	0%	300g
20181017	2018-10-17	2018-10-23	30500	30500	305%	0%	305g
20181024	2018-10-24	2018-10-30	31000	31000	310%	0%	310g
20181031	2018-10-31	2018-11-06	31500	31500	315%	0%	315g
20181107	2018-11-07	2018-11-13	32000	32000	320%	0%	320g
20181114	2018-11-14	2018-11-20	32500	32500	325%	0%	325g
20181121	2018-11-21	2018-11-27	33000	33000	330%	0%	330g
20181128	2018-11-28	2018-12-04	33500	33500	335%	0%	335g
20181205	2018-12-05	2018-12-11	34000	34000	340%	0%	340g
20181212	2018-12-12	2018-12-18	34500	34500	345%	0%	345g
20181219	2018-12-19	2018-12-25	35000	35000	350%	0%	350g
20181226	2018-12-26	2019-01-01	35500	35500	355%	0%	355g
20190102	2019-01-02	2019-01-08	36000	36000	360%	0%	360g
20190109	2019-01-09	2019-01-15	36500	36500	365%	0%	365g
20190116	2019-01-16	2019-01-22	37000	37000	370%	0%	370g
20190123	2019-01-23	2019-01-29	37500	37500	375%	0%	375g
20190130	2019-01-30	2019-02-05	38000	38000	380%	0%	380g
20190206	2019-02-06	2019-02-12	38500	38500	385%	0%	385g
20190213	2019-02-13	2019-02-19	39000	39000	390%	0%	390g
20190220	2019-02-20	2019-02-26	39500	39500	395%	0%	395g
20190227	2019-02-27	2019-03-05	40000	40000	400%	0%	400g
20190306	2019-03-06	2019-03-12	40500	40500	405%	0%	405g
20190313	2019-03-13	2019-03-19	41000	41000	410%	0%	410g
20190320	2019-03-20	2019-03-26	41500	41500	415%	0%	415g
20190327	2019-03-27	2019-04-02	42000	42000	420%	0%	420g
20190403	2019-04-03	2019-04-09	42500	42500	425%	0%	425g
20190410	2019-04-10	2019-04-16	43000	43000	430%	0%	430g
20190417	2019-04-17	2019-04-23	43500	43500	435%	0%	435g
20190424	2019-04-24	2019-05-01	44000	44000	440%	0%	440g
20190502	2019-05-02	2019-05-08	44500	44500	445%	0%	445g
20190509	2019-05-09	2019-05-15	45000	45000	450%	0%	450g
20190516	2019-05-16	2019-05-22	45500	45500	455%	0%	455g
20190523	2019-05-23	2019-05-29	46000	46000	460%	0%	460g
20190530	2019-05-30	2019-06-05	46500	46500	465%	0%	465g
20190606	2019-06-06	2019-06-12	47000	47000	470%	0%	470g
20190613	2019-06-13	2019-06-19	47500	47500	475%	0%	475g
20190620	2019-06-20	2019-06-26	48000	48000	480%	0%	480g
20190627	2019-06-27	2019-07-03	48500	48500	485%	0%	485g
20190704	2019-07-04	2019-07-10	49000	49000	490%	0%	490g
20190711	2019-07-11	2019-07-17	49500	49500	495%	0%	495g
20190718	2019-07-18	2019-07-24	50000	50000	500%	0%	500g
20190725	2019-07-25	2019-07-31	50500	50500	505%	0%	505g
20190801	2019-08-01	2019-08-07	51000	51000	510%	0%	510g
20190808	2019-08-08	2019-08-14	51500	51500	515%	0%	515g
20190815	2019-08-15	2019-08-21	52000	52000	520%	0%	520g
20190822	2019-08-22	2019-08-28	52500	52500	525%	0%	525g
20190829	2019-08-29	2019-09-04	53000	53000	530%	0%	530g
20190905	2019-09-05	2019-09-11	53500	53500	535%	0%	535g
20190912	2019-09-12	2019-09-18	54000	54000	540%	0%	540g
20190919	2019-09-19	2019-09-25	54500	54500	545%	0%	545g
20190926	2019-09-26	2019-10-02	55000	55000	550%	0%	550g
20191003	2019-10-03	2019-10-09	55500	55500	555%	0%	555g
20191010	2019-10-10	2019-10-16	56000	56000	560%	0%	560g
20191017	2019-10-17	2019-10-23	56500	56500	565%	0%	565g
20191024	2019-10-24	2019-10-30	57000	57000	570%	0%	570g
20191031	2019-10-31	2019-11-06	57500	57500	575%	0%	575g
20191107	2019-11-07	2019-11-13	58000	58000	580%	0%	580g
20191114	2019-11-14	2019-11-20	58500	58500	585%	0%	585g
20191121	2019-11-21	2019-11-27	59000	59000	590%	0%	590g
20191128	2019-11-28	2019-12-04	59500	59500	595%	0%	595g
20191205	2019-12-05	2019-12-11	60000	60000	600%	0%	600g
20191212	2019-12-12	2019-12-18	60500	60500	605%	0%	605g
20191219	2019-12-19	2019-12-25	61000	61000	610%	0%	610g
20191226	2019-12-26	2019-12-31	61500	61500	615%	0%	615g
20200102	2020-01-02	2020-01-08	62000	62000	620%	0%	620g
20200109	2020-01-09	2020-01-15	62500	62500	625%	0%	625g
20200116	2020-01-16	2020-01-22	63000	63000	630%	0%	630g
20200123	2020-01-23	2020-01-29	63500	63500	635%	0%	635g
20200130	2020-01-30	2020-02-05	64000	64000	640%	0%	640g
20200206	2020-02-06	2020-02-12	64500	64500	645%	0%	645g
20200213	2020-02-13	2020-02-19	65000	65000	650%	0%	650g
20200220	2020-02-20	2020-02-26	65500	65500	655%	0%	655g
20200227	2020-02-27	2020-03-05	66000	66000	660%	0%	660g
20200306	2020-03-06	2020-03-12	66500	66500	665%	0%	665g
20200313	2020-03-13	2020-03-19	67000	67000	670%	0%	670g
20200320	2020-03-20	2020-03-26	67500	67500	675%	0%	675g
20200327	2020-03-27	2020-04-02	68000	68000	680%	0%	680g
20200403	2020-04-03	2020-04-09	68500	68500	685%	0%	685g
20200410	2020-04-10	2020-04-16	69000	69000	690%	0%	690g
20200417	2020-04-17	2020-04-23	69500	69500	695%	0%	695g
20200424	2020-04-24	2020-05-01	70000	70000	700%	0%	700g
20200502	2020-05-02	2020-05-08	70500	70500	705%	0%	705g
20200509	2020-05-09	2020-0					

Farm-based analysis with BD Copy

BD Copy is a data base conversion program. With this program that was specifically developed by Big Dutchman, you can easily import your amacs data into Microsoft Office applications such as Excel and create your own analyses or diagrams. Furthermore it is possible to activate an automatic download of

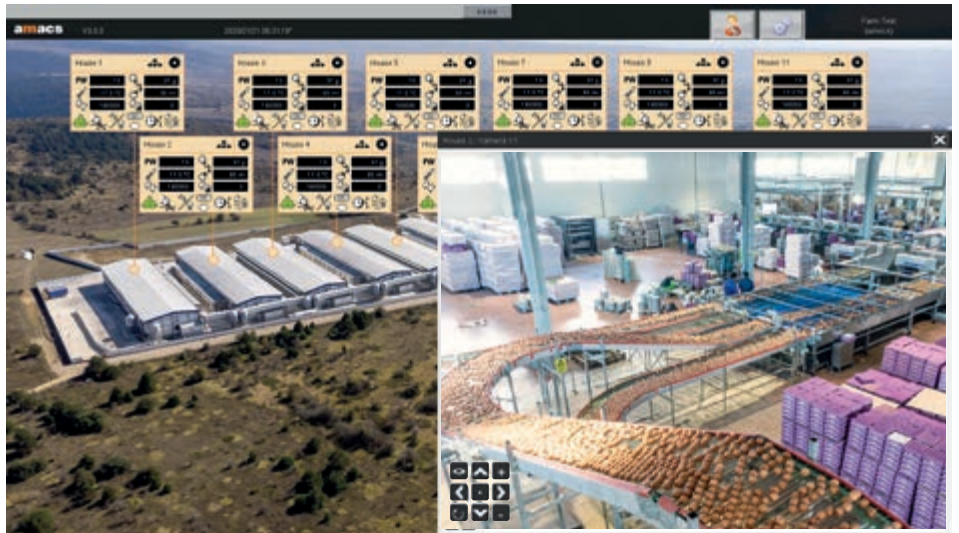
farm data at a pre-set time. Would you like help from Big Dutchman to create house- or farm-based analyses? We will be happy to set them up according to your requirements (option).



amacs

Use of a webcam for direct image transmission from the house

Our network dome camera is suited for in-house use and allows the transmission of live images directly from the house to the farm controller or alternatively directly to the office PC via your browser. With the farm controller, you can tilt and swivel the camera and even zoom in (optical zoom). This allows you to keep track of the processes in the house visually. Using the remote access function, you can even look into the house from home.



Monitoring the egg transport via webcam

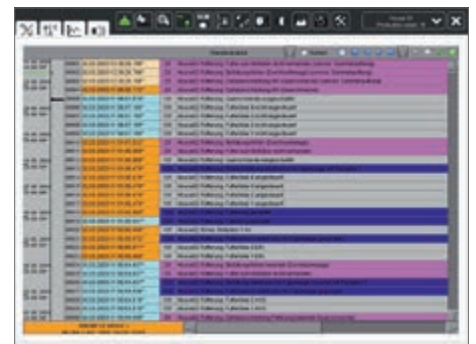


amacs

Alarm messages and message history

Power and fuse failures, deviations of temperature and water values or low feed levels in the silo are important reasons for an alarm. With amacs, you are always on the safe side. All alarms can also be transmitted to your mobile phone via email. By forwarding an alarm message, you can generate a feed delivery, for example.

The amacs alarm option does not replace the self-sustaining alarm system that is required in any case! Thanks to a chronological message history, errors can be recognised and tracked more easily. Event filters facilitate analyses. The message history also functions as a farm operation log because all inputs are recorded.



Chronological message history

amacs – no need for a separate farm operation log!



Clear text messages explain exactly what is going on and where the error occurred. No time-consuming search for the error is necessary.

Overview of the most important amacs connection and control functions

Climate control	per house
• Negative pressure ventilation as side, tunnel, ceiling, CombiTunnel ventilation	yes
• Balanced pressure ventilation	yes
• Natural ventilation	yes
• Control based on windchill in tunnel mode	yes
• Optimisation of operating hours of fans	yes
• Negative pressure sensors	1
• Humidity sensors, inside	2
• Humidity sensors, outside	1
• Temperature sensors, outside	1
• Temperature sensors, inside	12
• CO ₂ sensors for control of minimum ventilation	1
• NH ₃ sensors	2
• Sensors for air speed	1
• Sensors for wind direction and speed	2
• Fan groups	16
• Stepless fan groups	3
• Ridge flaps	6
• Fresh air inlets	24
• Fresh air fans and winches (optional) for FAC/FUMUS, controlled	
• Tunnel air inlets	
• Heating groups	6
• Recirculation fans	6
• Earmy heat exchanger	2
• Spray cooling with FoggingCooler	2
• Pad cooling with RainMaker	1
• Thermostat function for special functions (analogue or on/off)	10
• Status display emergency opening	yes

Feeding	per house
• Groups feed registration	12
• Split feeding	12
• Feed carts/row	4
• UniScale silo scales, two houses share one scale	8
• Batch weigher FW 99-B/day silo/pulse scale	1
• Cross augers	4

Bird weighing	per house
• INCAS or SWING 30 bird scales	24

Light	per house
• Light groups on/off or dimmable	10
• Light sensors per light group	4
• Colour temperature light program, e.g. for Zeus LED	yes

Water	per house
• Water counters	12
• Visualisation of drinking behaviour (L/h)	yes
• Time-controlled water supply through solenoid valve	12
• Automatic rinsing function for each water line	288
• Shut-off at high flow rates	yes
• Water alarm in case of higher/lower values compared to previous day	yes
• Water level monitoring at the ventilation lines	yes

Functions for alternative egg production	per house
• Control of nest ejection with position feedback	yes
• Control of flap grids with position feedback	yes
• Control/monitoring of popholes with feedback	yes

Manure drying	per house
• Air mixers/radial fans	8
• Temperature and humidity sensors	8
• Control of OptiSec/OptiPlate manure drying tunnels	yes
• AMBA with load detection	144

Special functions	per house
• Alarm input fire alarm system	yes
• Alarm input phase monitoring	yes
• Timers, free assignment	10
• Day counters, free assignment (e.g. gas meter)	10
• Operating hour counter for all drives	yes
• Free alarms per functional area (e.g. RCCB release control cabinet)	10
• Energy monitoring per house or per farm	20

Egg counting and egg collection	per house
• Egg counters	288
• Longitudinal egg belt collection groups	4
• Sensors for longitudinal egg belt	4
• Advancement of the longitudinal egg belts	yes
• EggSaver groups	8

Control for all houses: Digital EggFlow	per house
• Graders/packers	4
• Cross belts with partial belt stop	10
• Stepless cross belt control	yes
• Egg pressure sensors/packers for stepless cross belt control	4
• Chain break monitoring	yes
• Egg transfer point monitoring	yes



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