



# Big Dutchman®



## **Sow management**

Modern housing and feeding systems

# Successful sow management with the right equipment

Achieving a high number of weaned and vital piglets per sow is the goal of every sow manager. By supplying the ideal housing and feeding systems, Big Dutchman can provide the technical prerequisites needed to do so, because in modern sow management, the

correct equipment plays an important role for economic success. This brochure will present the Big Dutchman product range for three areas:

- Insemination
- Gestation

➤ Farrowing  
Whether you are planning a new house or a renovation, the Big Dutchman experts will work with you to develop the ideal concept for your successful and animal-friendly piglet production.

## Insemination area

### With stalls, free-access stalls and separate boar pens

The insemination area is the starting point for the production of healthy piglets. For optimal insemination results, the sows need to be in top condition. The house should be bright and the boar should easily be able to stimulate the sows.

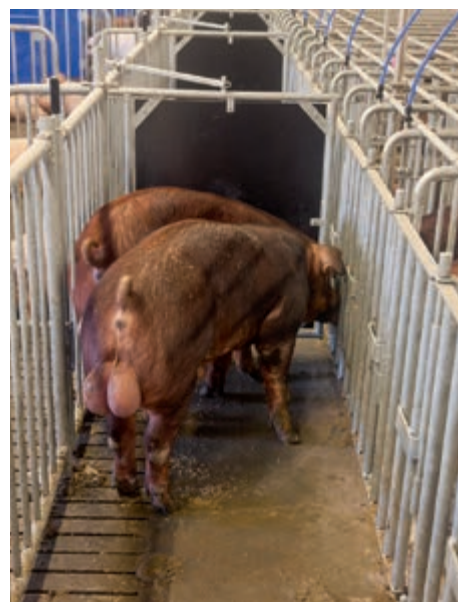
Stall-housing of sows is a good option because it allows the staff to monitor and check each sow individually, and it prevents aggression during feeding. Inseminating the sows artificially is done easily.

Big Dutchman can offer a number of different, well-proven sow stalls:

- BD stall with P-door
- BD Space
- Free-access stall BD



Service centre with stalls and boar-restraining doors



Boar-restraining door to keep the boar in place

The **BD stall** is equipped with a **P-door**, so named because of its shape (up to a stall width of 750 mm). Both door parts can be opened individually to the outside and the inside, thus facilitating insemination. 360° rotating stainless steel feet make for easy mounting on the concrete slatted floor and provide corrosion protection. If a raised stainless steel trough is installed, the sows can rest their heads underneath the trough. In addition, thorough cleaning is made much easier.

Boar-restraining doors allow the boar to be retained in the inspection aisle to stimulate the sows during insemination.



Stall with P-door for trouble-free insemination

**BD Space** is a sow stall that can be used in the insemination area and in the gestation area. It is available with lengths of 1800, 2200, 2300 and 2400 mm, and widths of 600, 650, 700 and 750 mm. Apart from the version with rear door, Big Dutchman also offers BD Space with an additional front door. This is a benefit for the sows because they do not have to back out when leaving the stall.



BD Space stall with rear door and additional front door

The advantage of the **free-access stall BD** is that the sows can leave this stall independently, moving around in the group as they like. For insemination or heat checks, the stalls can be locked centrally.



Integrated insemination door



Free-access stall BD with insemination door

## Sow arena with connected insemination area

In the sow arena, the animals have much room to satisfy their need for movement directly after weaning. This also has a positive effect on the start of the sows' next heat. Any ranking fights occur before gestation so injuries during pregnancy are rare. Every sow has her own feeding space with partitions.



The sow arena offers much room and ample freedom of movement

For artificial insemination and easy heat checks, it is helpful when the service crates are directly connected to the sow arena. During insemination, the sows can then be restrained for a short period. Distances are short and staff have a good overview. Boars can help stimulate the sows in a boar aisle in front of the service crates to induce a heat that is as intensive as possible.



Service crates directly connected to the sow arena



Separate boar pens



Service crates with front door

## Gestation area

### Modern housing systems for pregnant sows

After the sows have been inseminated and their pregnancies confirmed, they are moved from the insemination area to the gestation area. Keeping sows in groups during pregnancy

not only increases their well-being but also improves their body condition. They are thus well-prepared for farrowing. There are several housing systems and the corresponding

feeding options for pregnant sows available from Big Dutchman. The most important factor is that the selected system fits your farm's individual requirements.

### 1. Group pens: a simple and economic solution



View into a gestation house with group pens and dry feeding system

#### ADVANTAGES

- ✓ all animals eat at the same time;
- ✓ the farm manager can easily supervise the stock while the sows are eating;
- ✓ the sows do not need any time to adapt to the system;
- ✓ forming sow groups with identical condition is very simple;
- ✓ feeding space widths between 45 cm and 55 cm per sow;
- ✓ simple pen arrangement;
- ✓ cost-efficient solution.

## 2. Group housing with the free-access stall BD

The free-access stall BD, developed by Big Dutchman, provides sows with the advantages of welfare-friendly group housing and the farm staff with optimal working conditions. It can be used in the insemination area and in gestation houses. The sows can move around freely in the group but receive their feed in stalls. Every sow, therefore, has her own feeding space where she can eat without being disturbed. These stalls are entirely free access, with the sow locking

herself in and releasing herself from the stall at any time. The stall cannot be opened from the outside by other sows.

### Group housing with free-access stalls has the following advantages:

- ✓ all sows can eat simultaneously so there is no stress during feeding;
- ✓ the stall acts as safe retreat for individual sows and thus as protection against more aggressive sows;

- ✓ ideal monitoring conditions for every sow since the stalls can be locked individually or all together;
- ✓ artificial insemination and pregnancy checks are easily possible through the integrated insemination door;
- ✓ high comfort provided for both the staff and the sows.



Open free-access stall BD

Closed free-access stall BD



View into a gestation area with free-access stall BD

### ADVANTAGES

- ✓ the front and door elements operate as an up-and-over door;
- ✓ the stall is also well-suited for the insemination area;
- ✓ an integrated insemination door facilitates insemination and pregnancy monitoring;
- ✓ the open design of the stall allows a good overview for the farm staff;
- ✓ the individual locking device can be operated at the front or at the back of the stall;
- ✓ group locking function (optional);
- ✓ the vertical arrangement of the bars in the front part of the stall reduces the danger of sows turning inside the stall, especially gilts;
- ✓ rubber noise absorbers ensure a low noise level when the stalls are opened and closed;
- ✓ rugged design;
- ✓ available in two different widths (interior dimension 650 mm or 700 mm).

### 3. CallBack<sup>pro</sup>: electronic sow feeding meets free-access stall

The CallBack<sup>pro</sup> feeding system unites the advantages of managing sows in free-access stalls with those of an electronic sow feeding (ESF) system. Similar to an ESF system, the sows are identified by an RFID ear tag to allow

for individual feeding in the free-access stall. All feeding data are logged automatically; deviations generate an alarm. Up to 20 sows share one station, i.e. the group size can be changed in steps of 20. This means that only

the number of feeding spaces needs to be adjusted. The sows easily learn how to use the system and can see the station's interior from outside.



Individual feeding of every sow in a protected space

#### ADVANTAGES

- ✓ smart solution for providing protection to sows while using individual feeders;
- ✓ the sows quickly understand how the feeding system works because of the up-and-over door;
- ✓ retrofitting of conventional houses is no problem;
- ✓ water can be added to the feed (optional);
- ✓ the feeding stations are controlled centrally;
- ✓ the user-friendly 510<sup>pro</sup> controller with touchscreen can be installed at any location;
- ✓ reliable BigFarmNet control.



Easy retrofitting from stalls to CallBack<sup>pro</sup>. In many cases, the feeding system can be reused, and the floor plan can also often remain the same.



The station controller is easy to operate using the 10-inch touchscreen

The 510<sup>pro</sup> station controller can control up to ten feeding stations. It comes with a large, well-arranged 10-inch touchscreen and shows important information such as the number of visits to the station, the quantity of feed consumed and the current status of the identified sow. Another advantage is that the station controller no longer has to be installed at the ESF station: it can also be located in the aisle or the farm office. This makes for better accessibility and protects the controller from the tough conditions in the sow house.

## 4. CallMatic3pro: computer-controlled sow feeding on demand



View of a gestation area with CallMatic3pro

CallMatic3pro is an innovative feeding system for pregnant sows kept in large groups. It ideally combines the advantages of animal-friendly housing and a feeding method specially adapted to the requirements of individual sows.

Individual, computer-controlled feeding means that the supplied feed and thus the nutrients are precisely adjusted to the sow's condition. This method of feeding saves resources and is well suited to new and renovated houses with partially slatted floors or with straw bedding.

A separate leaflet about CallMatic3pro provides more detailed information.



Open, well-lit trough area

### ADVANTAGES

- ✓ group housing of up to 70 sows per station\*;
- ✓ available for dry feeding and liquid feeding;
- ✓ suitable for both static and dynamic groups;
- ✓ optimised exit area with two gates: the sows cannot enter the station from the exit side;
- ✓ trough unit with or without trough flap;
- ✓ solid side partitions for undisturbed feed intake;
- ✓ use of sound-absorbing materials: low noise level inside and around the station;
- ✓ selection unit (optional);
- ✓ up to two colour markers (optional);
- ✓ two feed types and one separate mineral dosing device (optional);
- ✓ reliable BigFarmNet control.

\* Country-specific requirements must be observed.



The station controller is easy to operate using the 10-inch touchscreen



Single-wing entrance door, electro-pneumatic operation

# Farrowing area

## Farrowing crate, piglet nest with heated lying area, feeding system and slats

Farrowing pens must provide ideal conditions both for the sow and for the piglets during their first weeks of life. Big Dutchman has a wide range of products available for this purpose, from standard pens to variable-restraint pens, from free farrowing to group housing systems.

The penning system is very flexible because its length is nearly freely selectable. This means that any desired pen design can be achieved. The partition of the pen can be 500 mm or 600 mm high.

Both liquid feeding and dry feeding systems are possible, and both can, of course, be

controlled by BigFarmNet. For your piglets, Big Dutchman offers a supplementary feeding system, Culina.

### 1. Standard farrowing pens with 4-post farrowing crate or BD Swing



Farrowing pen with 4-post crate, cast iron slat beneath the sow and heating plate for the piglets

#### IMPORTANT FEATURES

- ✓ adjustable width and length;
- ✓ easy to open with a rear door;
- ✓ available with drive-out at the front;
- ✓ adjustable bars prevent piglet losses caused by crushing and provide the sow with a comfortable resting area;
- ✓ farrowing crates with four posts for good stability;
- ✓ low pen partitions in the area of the inspection aisle for easy monitoring and a better overview;
- ✓ provided with tiltable trough for thorough and easy cleaning (optional).



Farrowing pen with 4-post crate



Tiltable trough





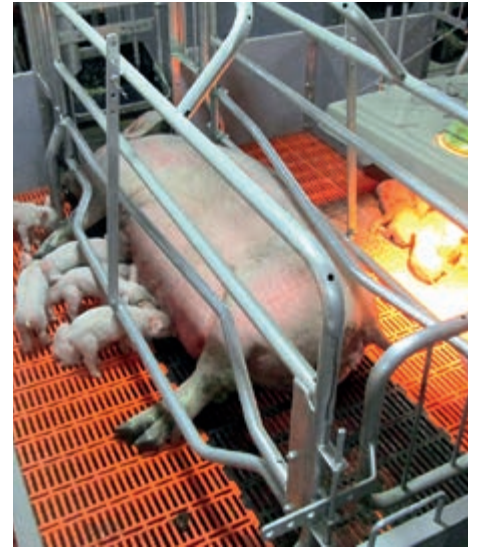
Our second standard farrowing pen comes with BD Swing, which is available in lengths of 2200 mm and 2300 mm. A drive-out at the

front can be selected as an option. The trough is available as a fixed or a tiltable version. Heating plates in the creeps ensure the

piglets' well-being. Cast iron slats are installed for the area underneath the sow.



BD Swing with cast iron slat beneath the sow and heated piglet nest

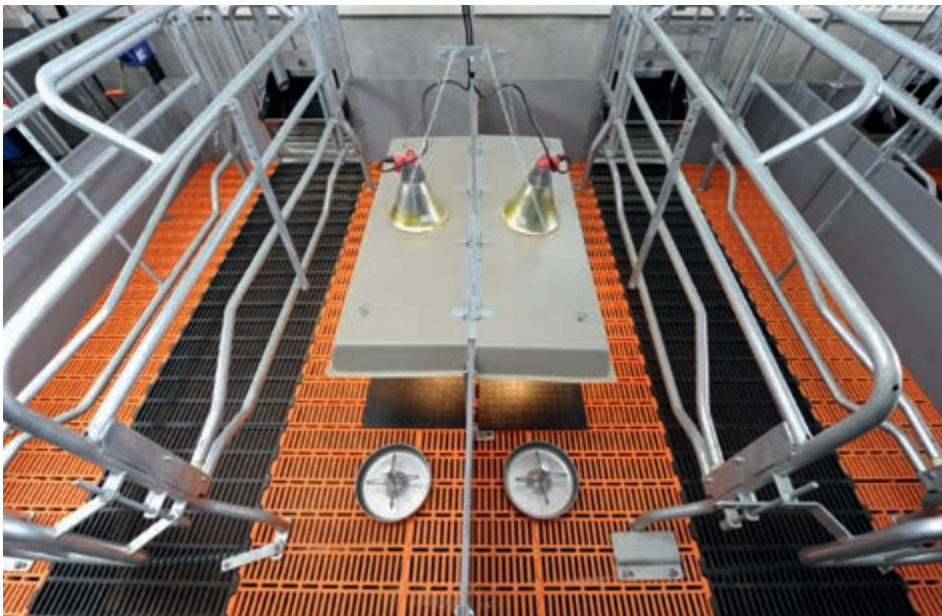


Tiltable trough for thorough cleaning

Big Dutchman can offer different covers for the piglets' creep area. The front part of

BigCover can be opened for monitoring. The rear part has an opening for a heat lamp. This

opening can be closed off with a sealing cap when the lamp is no longer required.



BD Swing with cast iron slat beneath the sow and covered piglets' nest area



Piglet nest cover BigCover

## 2. Variable-restraint pen with farrowing frame: ActiWel

With ActiWel, Big Dutchman has developed a variable-restraint pen that provides ideal conditions and plenty of room for the sow and her piglets in their first weeks of life.

The pen consists of a farrowing frame, a heated resting area for the piglets, the flooring and the pen partition. Arrangement of the farrowing frame can be either parallel to the aisle or at right angles to it, with the sow's head against the wall. The low partitions permit a good overview of the room and easy access to the pen.



ActiWel with open farrowing frame: plenty freedom of movement for the sow

During farrowing and the first days of the piglets' life, the farrowing frame may remain closed. This reduces the risk of piglet losses caused by crushing.



ActiWel variable-restraint pen with closed farrowing frame



ActiWel variable-restraint pen in combination with the EasySlider II feeding system

### ADVANTAGES

- ✓ **easy to open:** the farrowing frame is very easy to open and to close in just four steps and within five seconds. The staff do not have to enter the sow area, which makes handling even more comfortable;
- ✓ the specially designed door of the farrowing frame allows easy access so the staff can provide assistance during farrowing;
- ✓ the sow can use the side parts of the farrowing frame as support when lying down;
- ✓ high level of safety during work because the opening and locking points are located outside of the sow area.

### 3. Group housing of sows in the farrowing area

Under the name **Agilo**, Big Dutchman offers three new group housing systems for lactating sows:

- **Agilo HL**
- **Agilo FB**
- **Agilo RS**

An important feature of all three systems is the large amount of space they offer for sows and piglets. In the service centre and gestation area, sows are already often kept in groups. But for lactating sows, group housing is much less common. This is mostly due to the fact that

the requirements regarding animal management and monitoring of such concepts are higher. These requirements are compensated for by the advantages, however, because group housing fits much better with the natural behaviour of sows and piglets.

**agilo**



**Agilo HL:** group housing of lactating sows in a large group movement pen



**Agilo FB:** the sow decides whether she wants to be protected by the farrowing frame, or remain in the group movement area

#### ADVANTAGES

- ✓ with Agilo HL and Agilo FB, the sows are already in the same group before farrowing;
- ✓ for farrowing, each sow and her piglets remain together in farrowing pens for good maternal bonding and a reduced risk of losses caused by overlying;
- ✓ the farrowing pen is opened after some days or the sows and piglets are moved into a group pen in the case of Agilo RS  
→ interaction between the sows and all piglets of the group is allowed  
→ the piglets can express their need for movement  
→ any ranking fights occur early on, reducing the piglets' risk of injury;
- ✓ the sows have ample freedom of movement, which boosts their metabolism and thus increases feed intake, helping to keep the sows in a good condition.

# EasySlider II: individual sow feeding in the farrowing area

*The sows decide when and how much they want to eat*

**EasySlider II** is a computer-controlled individual feeding system for sows in the farrowing pen. It consists of the Vario volume dispenser and a dosing unit. The system transports and dispenses dry feed in the form of meal, crumbs or pellets without any bridging.

With the BigFarmNet software, an individual feed curve can be set for each sow. Moreover, up to 24 eating times per day can be

programmed. Meals can thus be distributed over the 24-hour period, which has a positive effect on digestion and lactation.

Big Dutchman can offer two different control systems:

## 1 Sensor-controlled

The core benefit with this option: the sow can choose for herself when and how much she wants to eat. She only has to actuate a pendulum inside the feed pipe. When the

pendulum connects with the pipe, a contact is activated and the control unit triggers feed dispensing. A portion is dispensed if the sow is entitled to receive feed. After a defined eating time, she can demand the next portion.

## 2 Control via defined eating times

Eating times and feed quantities are pre-determined in the BigFarmNet Manager software. Therefore, a sensor is not required.



ActiWel pen with EasySlider II

## Advantages EasySlider II

- ✓ improved hygiene as the feed in the trough is always fresh;
- ✓ the daily feed quantity allocated to the sow can easily be set in BigFarmNet Manager, i.e. manual adjustments of the volume dispenser are not necessary;
- ✓ the system operates very quietly, reducing stress for sows and piglets;
- ✓ the lower part of EasySlider II can be rotated by 360° so the system is very flexible for all installation situations;
- ✓ the dosing unit can be removed and the feed pipe is open at the upper end, reducing maintenance requirements and allowing thorough cleaning and good hygiene;
- ✓ excellent value for money.



ActiWel farrowing pen with EasySlider



Sensor-controlled: sow actuating pendulum inside the pipe

## Advantages sensor-controlled EasySlider II

- ✓ individual sow feeding in the farrowing pen with virtually no old feed remaining in the trough, leading to less feed wastage;
- ✓ the sows decide when they want to eat so the environment in the house is calmer;
- ✓ BigFarmNet makes it easy to check how often a sow has requested feed, providing a good overview and control of each sow's eating behaviour, thus helping with health monitoring.

## CulinaCup und CulinaFlex<sup>pro</sup>: successful supplementary feeding in the farrowing pen

The size of litters continues to increase in pig production, with 18 or more live-born piglets no longer being a rarity today. Sows giving birth to such large litters must be healthy and strong, since supplying all piglets with sufficient amounts of milk is very demanding. Despite best attempts, not every sow will have enough milk for all her offspring, resulting in vastly varying weaning weights. Sows may also experience exhaustion, which

has negative effects on their fertility after weaning.

Sow managers know how difficult this situation can be. In the past, piglets from such litters were cross-fostered, or placed with nurse sows. However, these options are not always the best solution.

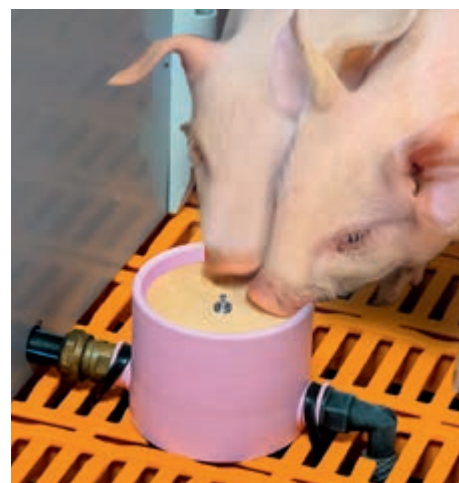
As successful alternatives, Big Dutchman can now offer two supplementary feeding systems for suckling pigs in the farrowing pen:

- ✓ CulinaCup
- ✓ CulinaFlex<sup>pro</sup>

Both systems help you to supply piglets with milk replacers and liquid prestarters, fully- or semi-automatically and continuously. The smaller and weaker piglets, especially, will benefit from this additional food source. A separate brochure provides more detailed information about Culina.



CulinaCup in a farrowing house with the ActiWel farrowing pen



CulinaFlex<sup>pro</sup> in a farrowing house with the Agilo system for lactating sows kept in groups



### ADVANTAGES FOR THE SOW

- ✓ less exhaustion from nursing and better condition;
- ✓ improved fertility after weaning;
- ✓ less weight loss;
- ✓ no stress during the suckling period;
- ✓ healthier sows which remain productive for a longer time, i.e. they can carry more litters.

### ADVANTAGES FOR THE SUCKLING PIG

- ✓ higher weights of up to one kilogram per piglet at weaning;
- ✓ more piglets weaned per sow;
- ✓ less variation in weaning weights, i.e. litters are more even and piglets are heavier;
- ✓ considerably fewer losses;
- ✓ more high-quality piglets, fewer runts;
- ✓ easier start in the flat deck.

### ADVANTAGES FOR THE SOW MANAGER

- ✓ higher rearing performance in the farrowing house;
- ✓ compliance with high hygienic standards;
- ✓ no cross-fostering required;
- ✓ less work due to an automatic system;
- ✓ feed is available 24 hours a day, if necessary;
- ✓ no nurse sows required.

## Floor systems for the farrowing pen: comfortable for sow and piglets

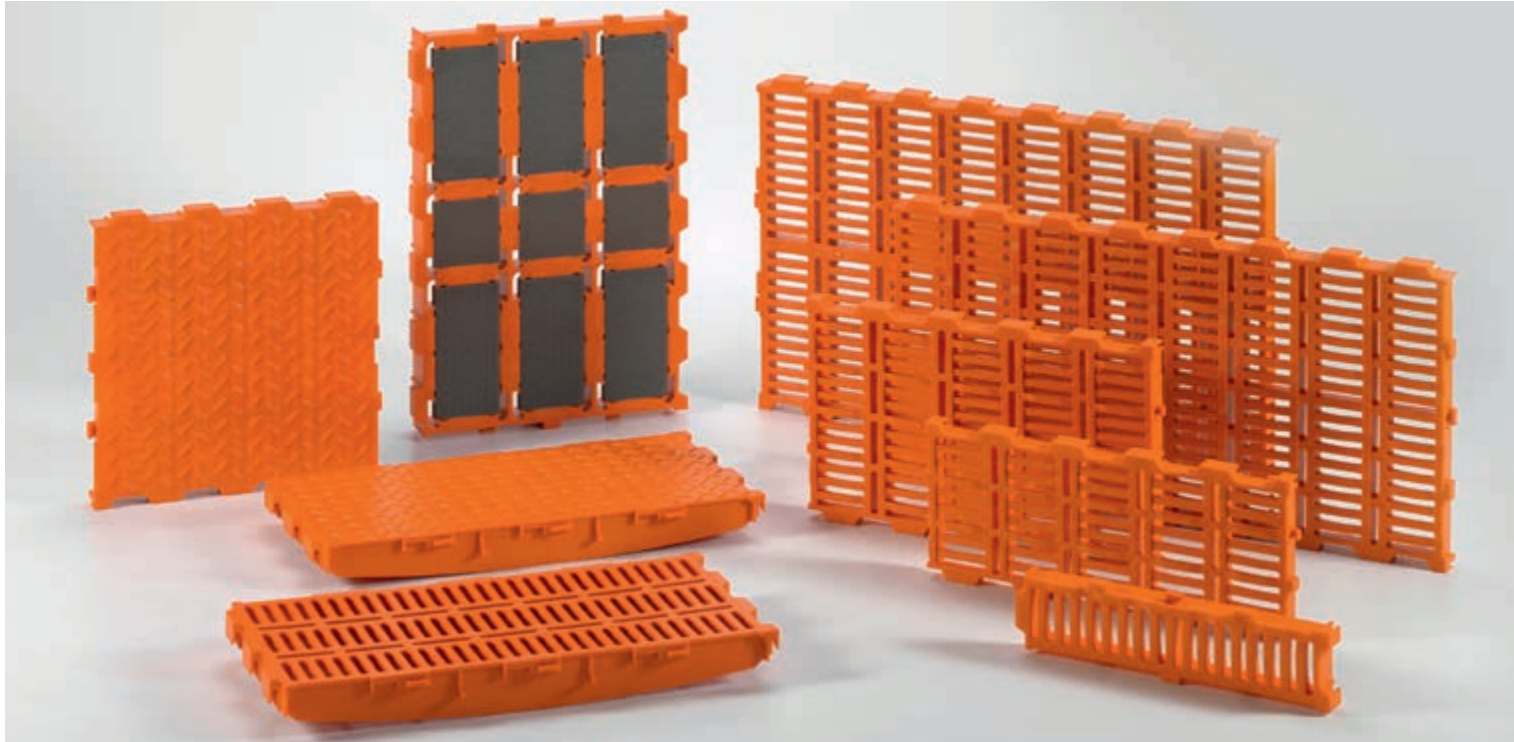
Big Dutchman's plastic floor systems meet the high demands for hygienic and welfare-friendly pig housing. Sows and piglets have different requirements regarding thermal conduction and heat storage. A combination of different slats should therefore be used for the floors in farrowing pens. Cast iron slats ensure a cool lying area for the sow while

heating plates are ideal to warm the piglets. The extensive Big Dutchman product range includes the following options:

- ✓ slats made of high-quality plastic material, available in different sizes and with different solid-to-void ratios;
- ✓ cast iron slats, open or with small solid-to-void ratios;

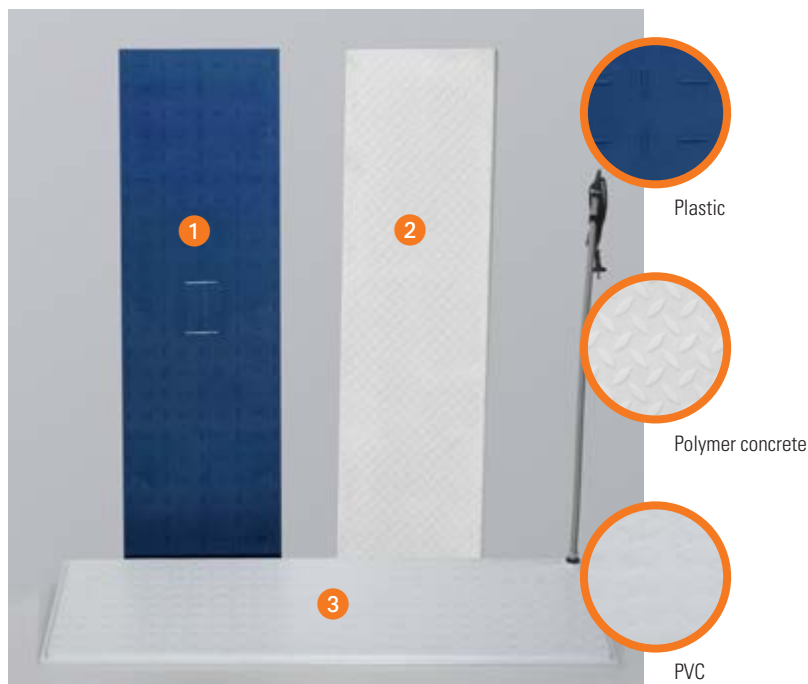
- ✓ heating plates made of polymer concrete or plastic;
- ✓ support bars made of galvanized steel, stainless steel or GRP.

Big Dutchman floor systems allow faeces to slip through the voids easily, do not have any sharp corners or edges and are easy to clean.



Vast selection of plastic slats and cast iron slats – for any pen design and size

## Heating plates for even heat distribution and excellent heat storage



Heating plates create optimal temperatures in the piglets' lying area. The Big Dutchman product range includes heating plates of different materials and sizes. They can easily be integrated into the floor system. Heating plates can be made of:

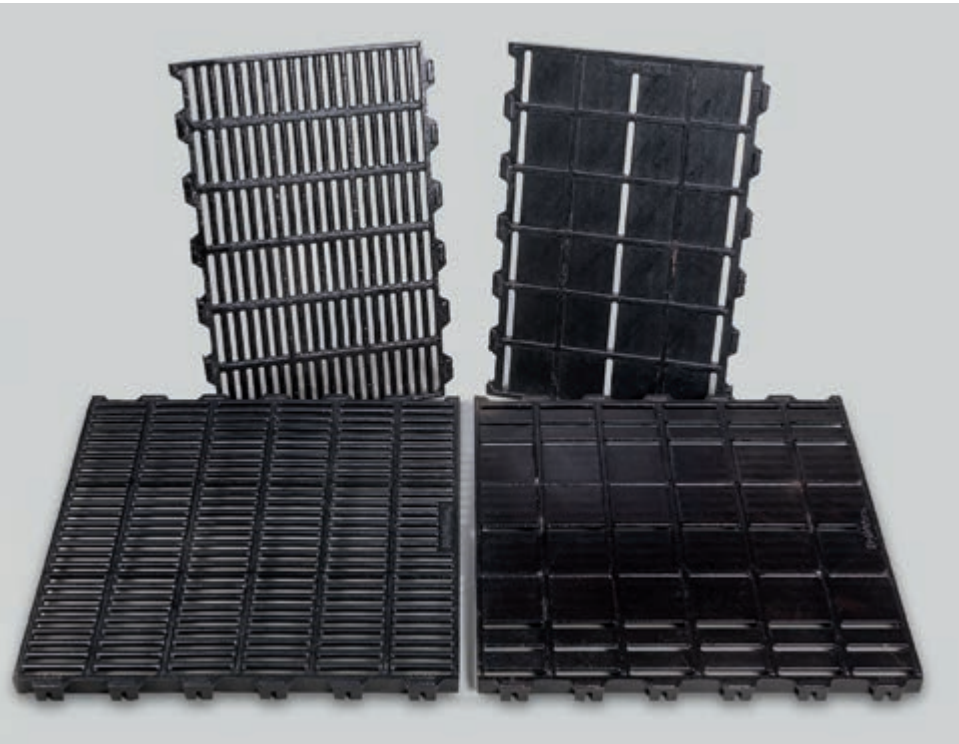
- 1 plastic, ensuring an even heat distribution because they are filled with water;
- 2 high-quality polymer concrete, with a well-structured profile and heated by hot-water pipes or heating wires;
- 3 PVC plates for laying on top of existing slats; these electric heating plates consume little energy because a heating foil is used instead of heating wires.

## Mounting

The slats are mounted easily and quickly. They interlock perfectly, thus ensuring a high stability of the floor system. All plastic slats can also be precisely cut every 10 cm to fit the required dimensions. Heating plates can be integrated without problems.



Mounting example: simple integration of a heating plate thanks to supporting brackets



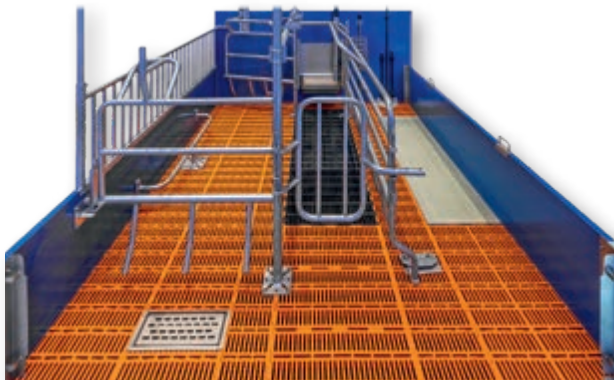
Farrowing pen with 4-post crate



Pen for free farrowing

## Layout examples: animal-friendly and easy to mount

Big Dutchman's flexible and modular system makes it possible to fit virtually any pen shape and size. Both the plastic and the cast iron slats offered by Big Dutchman have rounded links and are free of burrs, ensuring increased comfort for sows and piglets. The optimum solid-to-void ratio keeps the floor clean. If necessary, the slats can be lifted even after having been laid. The Big Dutchman plastic slats are, of course, also an excellent choice for piglet rearing pens.



ActiWel free-movement pen



Agilo RS group lactation pen

# MAKE DATA-BASED DECISIONS ACHIEVE PREDICTABLE RESULTS

The first BigFarmNet licences were activated in 2010. Today, there are more than 23 000 active licences. This is proof that digitalisation helps optimise production. With BigFarmNet, you can access your data from anywhere in the world and with any device: use your smartphone, tablet, laptop or PC to control your computers remotely. The user interface is easy to use and very intuitive. BigFarmNet provides you with the full overview and control of your production, at all locations and in real time, making sure that you stay safely on track for success.

## ➤ Everything always up-to-date

Use your controller, PC or smartphone to make inputs – directly in the sow house, while you are relaxing at home, or even from different farms. All BigFarmNet components update automatically on all devices.

## ➤ Everything in one software – fast and comfortable

One software unites all applications: liquid and dry feeding systems, ESF stations, feeding systems for suckling pigs, climate control, silo and alarm management. This means that you need to input any information only once.

## ➤ More security

Your entire production is recorded in one single software, which also means that the data of all systems are backed up automatically and all alarms are managed centrally. Centralised data input and uniform user interfaces reduce the risk of incorrect entries.

## ➤ Optimised production, 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 developed. Big Dutchman ensures stability, connectivity and constant improvement of the system.

## ➤ 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.

With the clever BigFarmNet technology and the mobile app, you can control feeding systems and ESF stations directly in the house. Monitoring and managing animal, feeding, climate and other data is, of course, also possible, even when you are not on the farm. The following feeding systems are controlled by BigFarmNet:

- CallBackpro
- CallMatic3pro
- EasySlider II
- CulinaFlexpro

Sow ID	Feed Type	Consumption	Target	Period 1	Period 2	Period 3	Period 4
101	AUT0	41	40.0%	40.0%	40.0%	40.0%	40.0%
102	AUT0	32	32.0%	32.0%	32.0%	32.0%	32.0%
103	AUT0	33	33.0%	33.0%	33.0%	33.0%	33.0%
104	AUT0	36	36.0%	36.0%	36.0%	36.0%	36.0%
105	AUT0	39	39.0%	39.0%	39.0%	39.0%	39.0%

EasySlider II: overview of feed quantities consumed by each sow per day



In the house: station controller 510



In the office: control, manage, analyse, ...



Always up-to-date – wherever you are!



**Big Dutchman**

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

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

**Brazil: Big Dutchman (Brasil) Ltda.**  
Phone +55 16 2108 5300 · bdb@bigdutchman.com.br  
www.bigdutchman.com.br

**Russia: 000 "Big Dutchman"**  
Phone +7 495 229 5161 · big@bigdutchman.ru · www.bigdutchman.ru

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

**China: Big Dutchman (Tianjin) Livestock Equipment Co., Ltd.**  
Phone +86 10 5632 0188 · bdcnsales@bigdutchman.com  
www.bigdutchmanchina.com