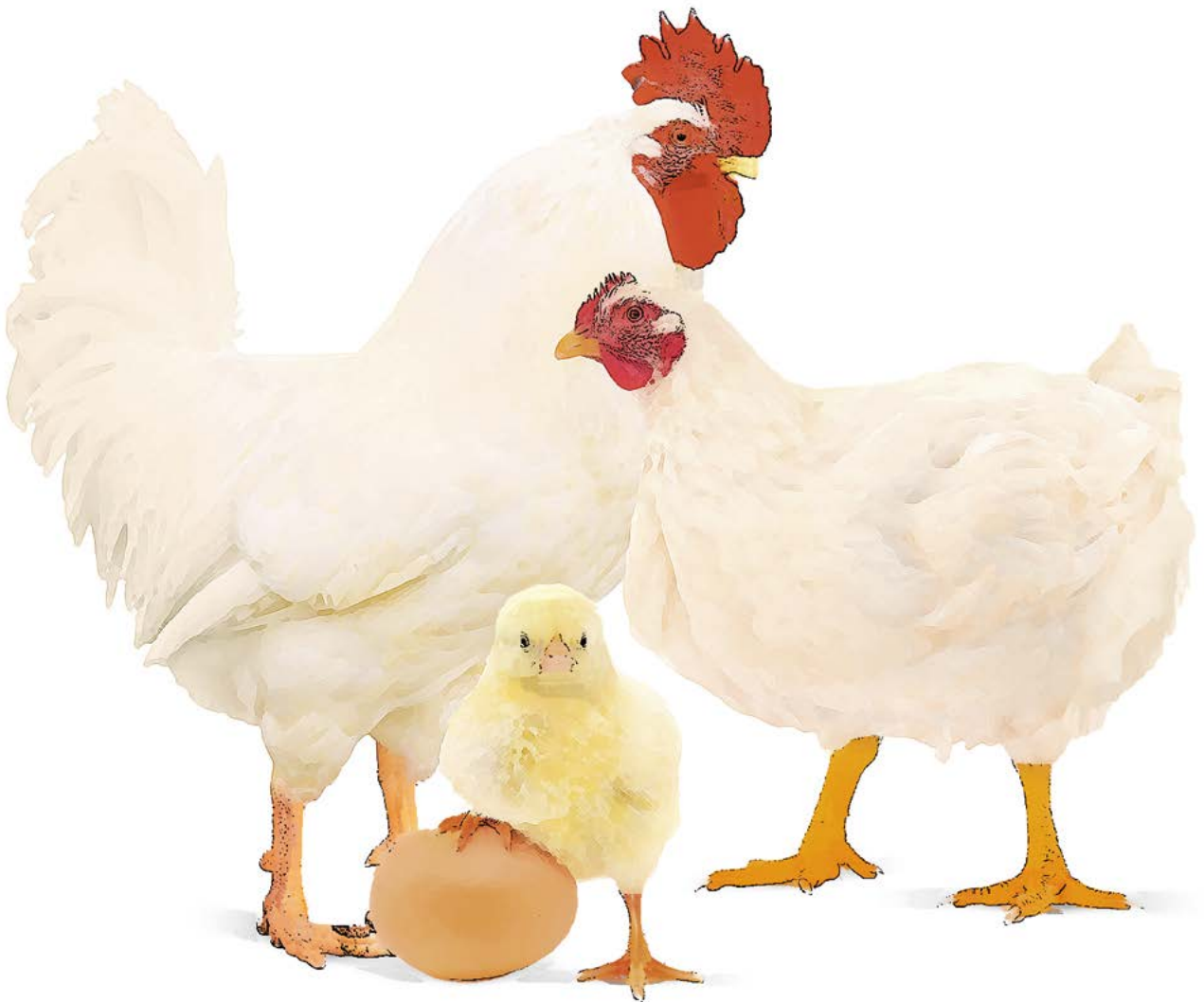




# Big Dutchman®



## **Broiler breeder management**

Globally successful concepts for  
the secure and efficient production of hatching eggs

# Broiler breeder rearing

## Goal: a uniform, healthy and vital flock of pullets

Every producer of broiler breeders endeavours to control the weight of their birds, aiming for a uniform flock by the end of rearing so the hens start laying at the same time. A uniform flock can only develop if all birds have feeding spaces of sufficient width for simultaneous feeding. Additionally, the speed of replenishing the feeding system

must be designed in such a way that the birds receive feed at the same time. This is a prerequisite for the flock to be able to consume the same quantity of feed when a controlled feeding scheme is used. Big Dutchman offers two systems that meet these requirements in an ideal manner: chain feeding and pan feeding.

**Our recommendation:** The best results are achieved when the same feeding system is used for both rearing and production.



Automatic chain feeding with the Champion feed chain, with a chain speed of 36 m/min for rapid and even feed distribution



ReproMatic with FluxxBreeder: a combination of pan feeding and chain feeding that also ensures fast and uniform feed distribution



The pullets have to jump onto raised training slats to reach the nipple drinkers, improving their mobility

## Heidy

### The mobile grader for increased uniformity of young broiler breeders

To reach a high level of uniformity during rearing, the young breeders must be weighed and also graded several times in this period. Big Dutchman's new grading scales Heidy make this task a very straight-forward one.

Apart from weighing, the grading process is also incredibly easy to carry out. Heidy grades the young breeders according to three different weight classes (light, medium, heavy) or can select only the birds that are too light.

Since the scales can weigh a high number of birds (up to 850 per hour), less working time is needed.



Sorting to the right

Sorting to the left

Sorting to the front

Sorting to the back

## Advantages

- ✓ depending on the user, approx. 850 birds can be weighed per hour;
- ✓ 2-way or 3-way sorting;
- ✓ pneumatic cylinders with end cushioning: the birds are lowered very gently after weighing;
- ✓ stainless steel as the main material: no corrosion, long service life;
- ✓ compact design: the grader needs an area of only 0.5 m x 0.5 m;
- ✓ use as a mobile unit: the grader's weight is just 41 kg;
- ✓ easy and thorough cleaning after weighing using a high-pressure washer;
- ✓ optional data transfer to a computer.

# Broiler breeder management

## Convincing solutions for successful hatching egg production

The correct housing concept, ideal housing equipment and expert knowledge are prerequisites for successful broiler breeder management.

Big Dutchman is your competent partner and provides an extensive product range as well as the necessary know-how!

Central components of the housing equipment include:

- the correct feeding systems for males and females
- accurate feed weighing systems
- high-quality nests
- ideal egg collection systems

The Big Dutchman experts will be glad to assist you so the optimal conditions for healthy males and females, a high fertility rate and a stable hatching egg production are guaranteed.

## HOUSING CONCEPTS

The management of broiler breeders requires very specific equipment and feeding technology. The birds are bred for rapid growth and thus genetically determined to gain weight instead of producing many eggs. This means that neither males nor females should become too heavy to ensure that consistently high laying performances, as well as fertility rates, are achieved over the entire laying period.

The housing equipment (feeding system, drinkers, nests, manure pit) and the ideal position of each component contribute significantly to the successful production of hatching eggs.

The following items are especially important:

- the correct feeding concept
- easy access to the nest
- ample freedom of movement
- the correct size and height of the manure pit

- short rolling-off distances for the eggs
- gentle transport of the eggs
- use of high-quality materials for optimum hygiene

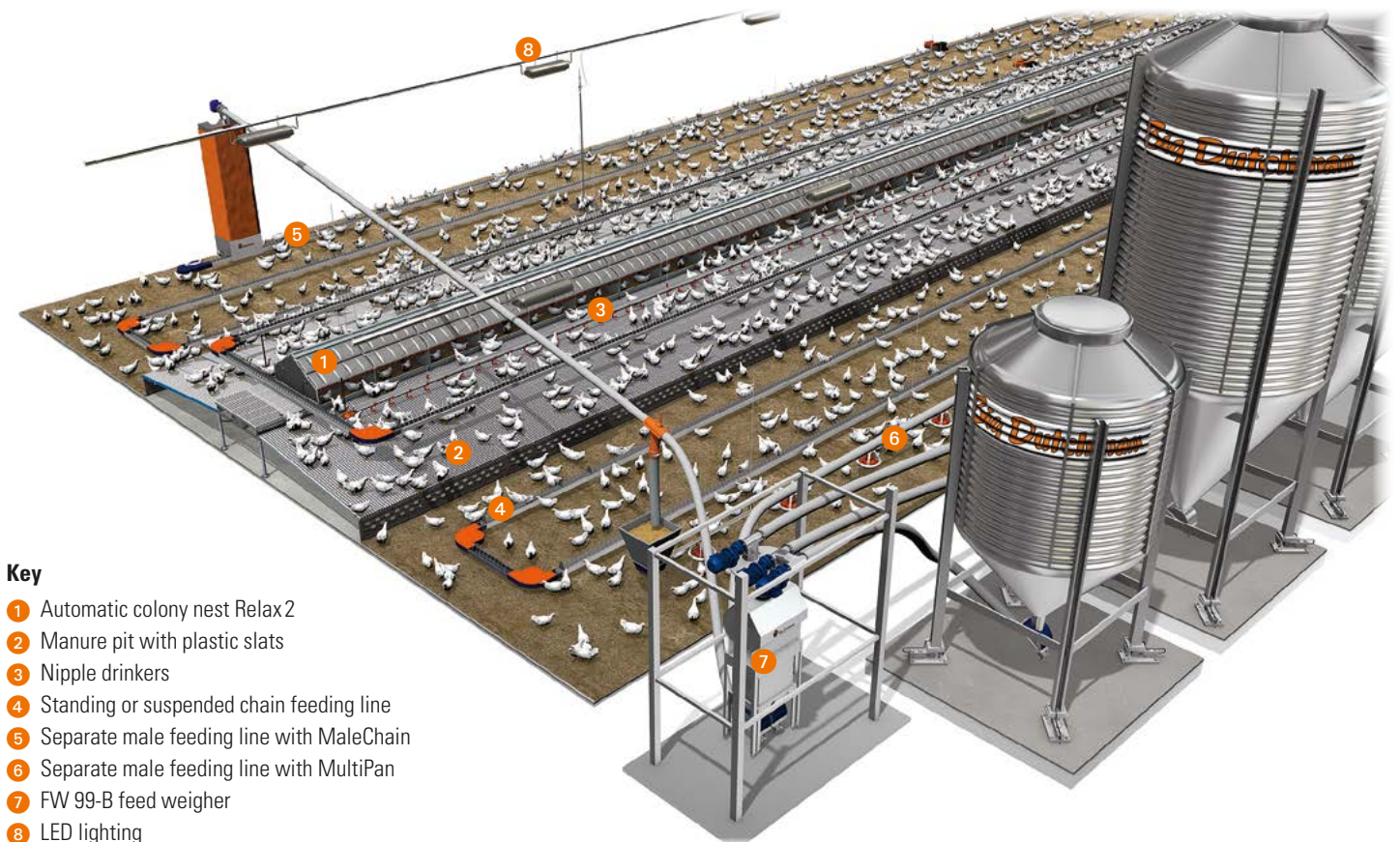
Depending on the selected components – chain or pan feeding system, single or colony nests, etc. – there are different housing concepts which have proven their worth in practice.

## Central position of nest and manure pit

Positioning the nest and manure pit centrally in the house is a common concept for broiler breeders in Europe. The drinker lines are installed above the manure pit, approx. 60 cm

in front of the nest. Either suspended or standing chain feeding lines are mounted to the left and right of the manure pit. Depending on the width of the house, another feed circuit

above the manure pit is an option. The males should be fed separately near the long sides of the house.



### Key

- ➊ Automatic colony nest Relax 2
- ➋ Manure pit with plastic slats
- ➌ Nipple drinkers
- ➍ Standing or suspended chain feeding line
- ➎ Separate male feeding line with MaleChain
- ➏ Separate male feeding line with MultiPan
- ➐ FW 99-B feed weigher
- ➑ LED lighting

## Lateral position of nest and manure pit

A popular concept for broiler breeder houses in Northern and South America as well as Asia is the positioning of the nest and manure

pit at both long sides of the house. A drinker line as well as suspended or standing chain feeding or pan feeding lines are installed

above the manure pit. Males are fed in the centre of the house on the litter.



### Key

- 1 Automatic single laying nest with two lateral egg belts
- 2 Automatic single laying nest with one central egg belt

- 3 Manure pit with plastic slats
- 4 Nipple drinkers
- 5 Suspended chain feeding line

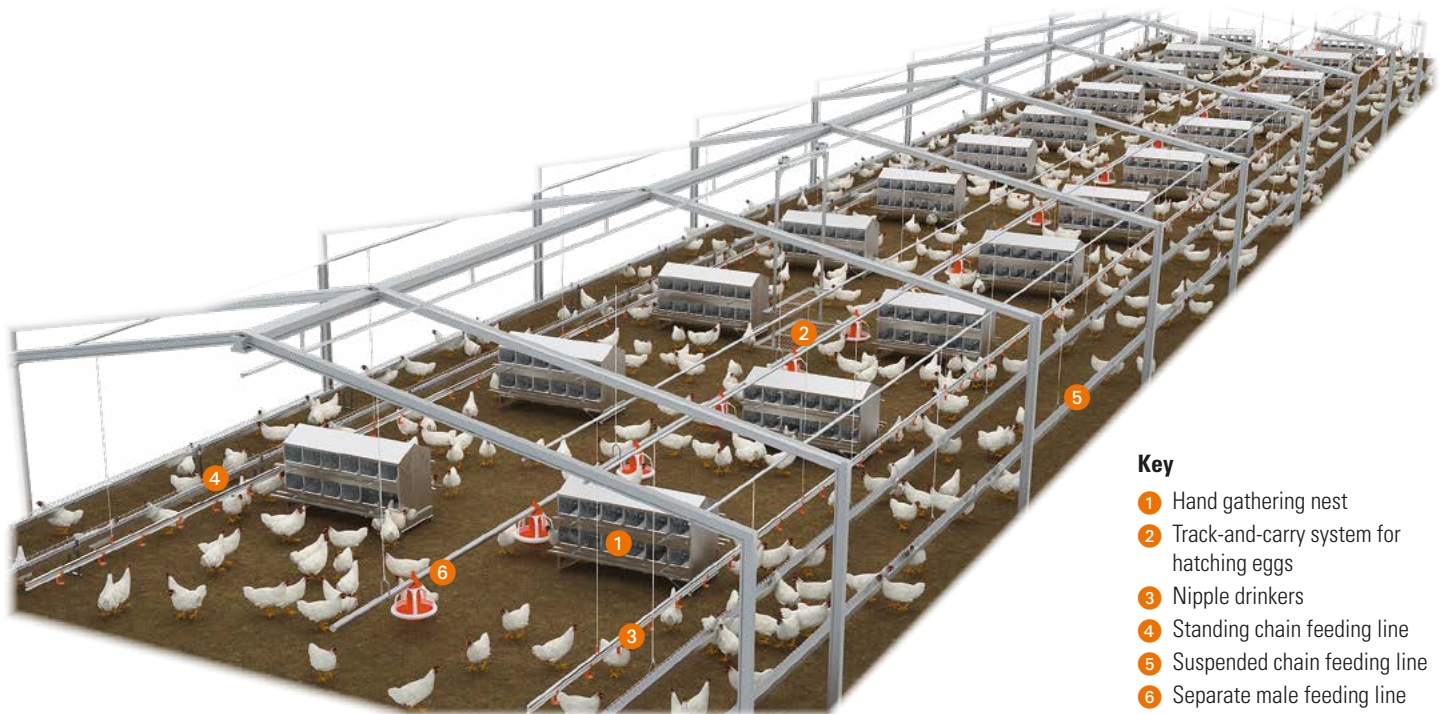
- 6 Suspended pan feeding line
- 7 Separate male feeding line
- 8 Weighed day silo

## Hand gathering nest without manure pit

Hand gathering nests without a manure pit are an option especially for smaller houses. Nipple drinkers and chain feeding circuits

(suspended or standing) are installed at both long sides of the house. If males are fed separately, their feeding and drinking systems

can be situated centrally between the nest rows, where the track-and-carry system for the hatching eggs is also installed.



### Key

- 1 Hand gathering nest
- 2 Track-and-carry system for hatching eggs
- 3 Nipple drinkers
- 4 Standing chain feeding line
- 5 Suspended chain feeding line
- 6 Separate male feeding line

# FEEDING SYSTEMS FOR MALES AND FEMALES

## Chain feeding with the Champion feed chain

### Conveying speed of 36 m/min

Big Dutchman introduced the world's first automatic chain feeding system as early as 1938. A new era dawned for the poultry industry. Thanks to its robust and simple principle, this feeding system has proved itself a million times over. The basic concept – feed hopper, drive unit, corner, trough and the Champion feed chain – has remained unchanged. The entire system, however, is continuously being improved and adapted to today's requirements for modern broiler

breeder management. This particularly includes a high conveying speed of up to 36 m/min and an even distribution of the feed inside the trough. A controlled feeding of broiler breeders can only be carried out successfully with such a rapid feeding system.

Big Dutchman has also developed and launched successfully a chain feeding system for males only: MaleChain.



First automatic chain feeding system in the USA in 1938



### Advantages

- ✓ high conveying speed: rapid and even distribution of feed in the whole house;
- ✓ high conveying capacity of 1.5 t/h;
- ✓ suspended chain feeding system can be raised after feeding: more room for the birds;
- ✓ easy and thorough cleaning after each batch;
- ✓ low maintenance requirements;
- ✓ very robust and durable system.

## Important components of the chain feeding system



### Drive unit

- ✓ chain speed: 36 m/min;
- ✓ motor output: 1.1 / 1.5 or 2.2 kW depending on the chain length;
- ✓ one-line or two-line design;
- ✓ simple height adjustment for the standing version.



### 90° corner

- ✓ hardened guide rail;
- ✓ plastic bearing which needs no lubrication;
- ✓ solid housing with detachable cover;
- ✓ high functional reliability, minimum wear and tear, easy maintenance.



### Feed trough with grille

- ✓ suspended or standing version;
- ✓ feed grille available in many different versions;
- ✓ minimal feed losses;
- ✓ trough coupler ensures a perfectly straight feed line.



View of a broiler breeder house during feeding: suspended chain feeding system



View of an organic broiler breeder house during feeding: standing chain feeding system with additional perch



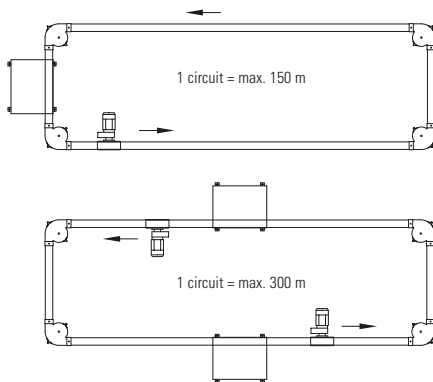
### Reference values for the use of chain feeding systems

Stocking density (birds/m <sup>2</sup> ):	4.5 - 6.5
Type of feeding:	controlled
No. of birds/m trough:	13
cm trough side/bird:	15
Feed demand/bird/day in g:	130 - 185

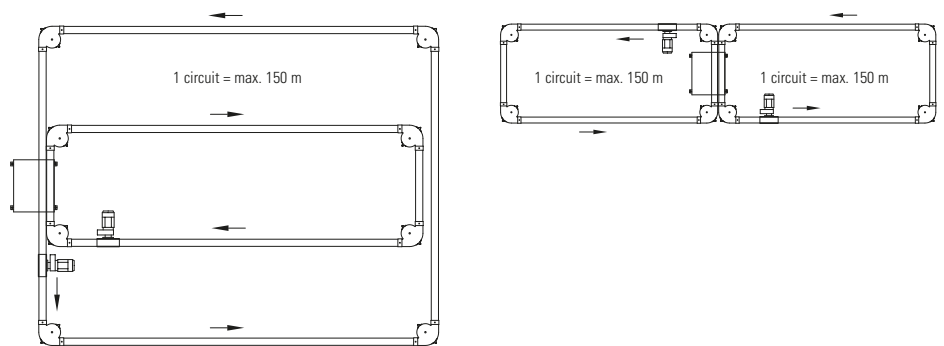
- One circuit should take no longer than 3 to 5 minutes with controlled feeding.
- For 36 m/min drives, Big Dutchman recommends a time control.
- Every additional corner requires that the maximum chain length be reduced by 12.50 m.
- For single-phase motors and for chain feeding in the litter area, the maximum chain length must be reduced by 30 %.

## Planning information for the correct installation of the chain feeding system

### 1 line – 1 direction



### 2 lines – 2 directions



Type of feed hopper	MPF Mini 1 line	MPF Mini 2 lines	MPF 1 line	MPF 2 lines
Feed hopper* (litres)	50	70	110	150
Extension MPF* (litres)	-	-	258	305
Extension Mini* (litres)	240	240	-	-
Legs	○	○	-	-

\* 100 litres amount to approx. 65 kg of feed

- Standard equipment

○ Special equipment

# ReproMatic and FluxxBreeder

## The pan feeding system for females

ReproMatic is a feeding system that combines chain and pan feeding. Developed by Big Dutchman, it is intended exclusively for broiler breeders. An open feed channel with chain is used to convey the feed. The birds feed from the FluxxBreeder feed pan, specifically developed and equipped with 16 feeding spaces. The integrated volume-reducing insert allows the dispensing of small feed quantities so all pans of one circuit can be filled quickly and simultaneously.



FluxxBreeder feed pan



Distribution of feed in the FluxxBreeder pan



View of a broiler breeder house: use of the ReproMatic pan feeding system



Circular arrangement of hens around the pan with 16 feeding spaces



FluxxBreeder can also be connected to an Augermatic pipe by means of an adapter

### Advantages

- ✓ circular arrangement of hens around the pan: 50 % more birds per running metre of feeding system compared with a linear trough;
- ✓ special FO (female only) grille: 11 different feeding window widths and an additional level ring for 4 feeding window heights  
→ 44 setting options  
→ good access to feed for day-old chicks in day-old-to-death production  
→ suited for all breeds  
→ males have no access to the feed;
- ✓ flat, sectioned dish: good distribution of feed inside the pan;
- ✓ good illumination of the pan thanks to openings in the top: the hens can easily see the feed;
- ✓ elevated feed channel and rotatable pan: ample freedom of movement for the birds;
- ✓ high conveying capacity of 2 t/h;
- ✓ open feed channel: easy feed inspection, maintenance and cleaning.

*The advantages of this feeding system are discussed in a separate brochure.*

# Separate male feeding with MaleChain

## Space-saving, robust and easily accessible

Broiler breeders are fed separately according to their sex. This requires a separate feeding system for the males, which is an important

prerequisite for high fertility rates and a good chick quality. Only when the males are fed separately from the females can the male

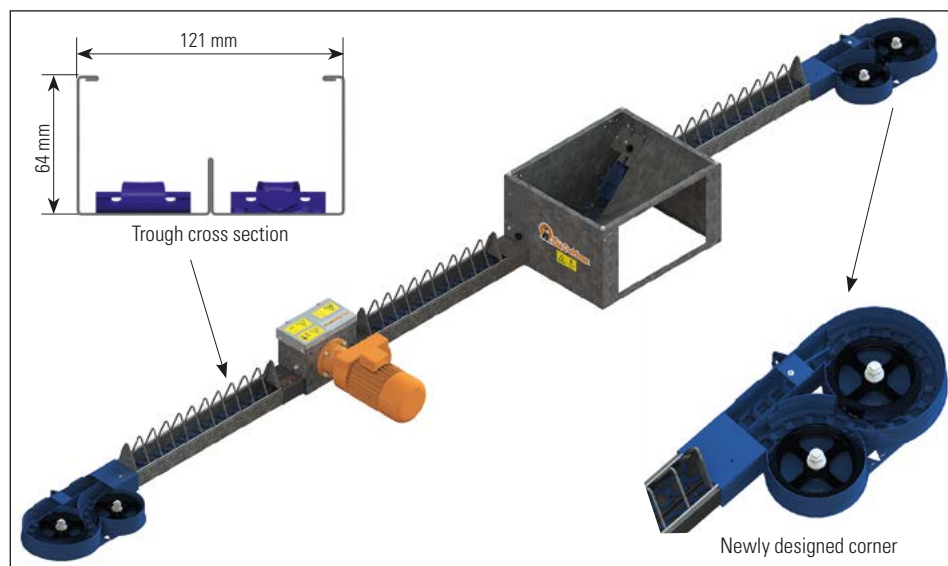
breeders be provided with the correct quantities of a specially-formulated feed.

MaleChain is a Big Dutchman innovation for which an international patent has been filed. The system consists of an entire chain loop in just one trough. Big Dutchman has designed new corners and a new trough and can now offer a space-saving feeding system that comes as one complete feed line. The well-proven Challenger feed chain conveys the feed.

The new MaleChain system can be mounted very flexibly, either in a standing or suspended position. A clever system that contains much expert knowledge from Big Dutchman!



Broiler breeder house with separate male feeding with MaleChain



Feed hopper with foil hose

## Advantages

- ✓ the feed is distributed quickly throughout the house: the chain transports the feed coming from the hopper into two directions, reducing stress for the males;
- ✓ birds can be inspected while they eat;
- ✓ the chain promotes natural smoothing of the beak and is therefore perfect for males with untrimmed beaks;
- ✓ the space-saving system consists of an entire chain loop in a single trough;
- ✓ the height can be adjusted in a way that the females cannot reach the feed;
- ✓ well-suited for any house length: the hopper can be installed at the beginning or in the middle of the feed line;
- ✓ the open trough makes cleaning easier;
- ✓ the system is easily retrofitted;
- ✓ good price : performance ratio.



**Please note:** MaleChain is now also available for hens as **FeMaleChain!** Having the entire chain loop in a single trough turns this feeding system into a space-saving option for females as well.



FeMaleChain: the new feeding system for hens



Feed hose: space-saving and convenient

## Separate male feeding with MalePan With fixed connection to the Augermatic pipe



When a pan feeding system is used, a conveying pipe with auger (Augermatic) transports the feed to the pans. The feed lines are raised until the hens cannot reach the pans.

### MalePan (diameter 330 mm)

- 5-arm grille
- ideal for 5 to 9 males
- with or without sliding shut-off
- fixed, stable connection to the pipe
- with a coarse dish for intensive beak smoothing

### MalePan Plus (diameter 330 mm)

- with sectioned dish
- volume-reducing insert inside the pan: fast, simultaneous and even filling of all pans



MalePan with deep dish



MalePan with extra coarse dish



MalePan Plus with sectioned dish

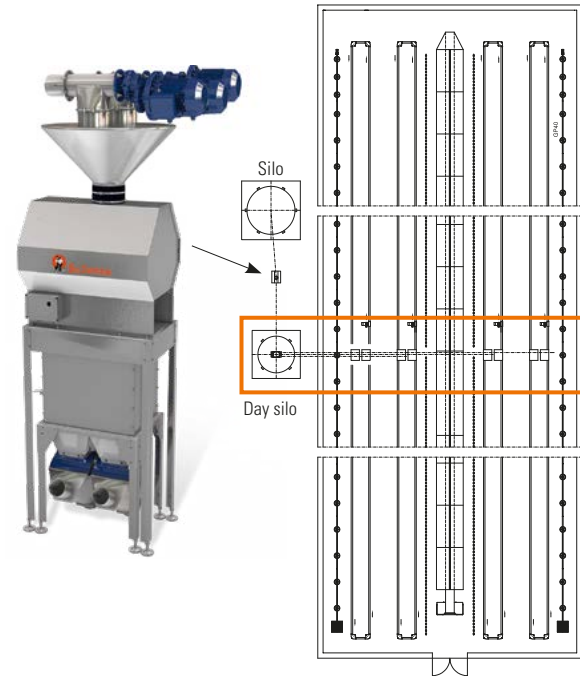
# FEED WEIGHING SYSTEMS

**Controlled feeding** is a significant factor in broiler breeder management. The birds receive a daily feed ration which optimally

meets their needs but also ensures that they do not get too heavy. The feed for both males and females must be weighed very accurately

for this reason. Big Dutchman can offer different solutions.

## FW 99-B feed weigher with day silo



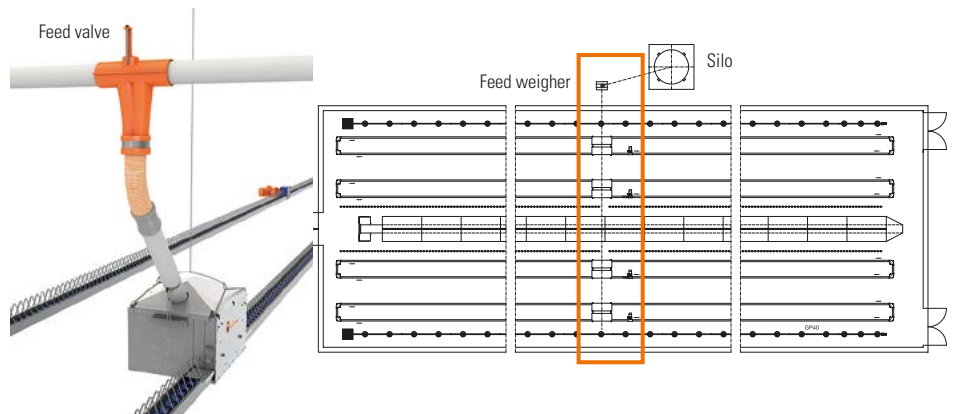
Where a day silo is used, the largest daily feed quantity should be considered when planning the silo's size (approx. 180 g/bird and day). Additionally, the capacities of the FlexVey spirals (0.5 to 4.5 t/h) and of the FW 99-B feed weigher (2 to 7 t/h) should correspond

to this quantity and each other. The FW 99-B feed weigher can mix feed components from up to 5 different silos. From the day silo with outlet for up to 8 FlexVey spirals, the feed is then transported to the hoppers in the house.



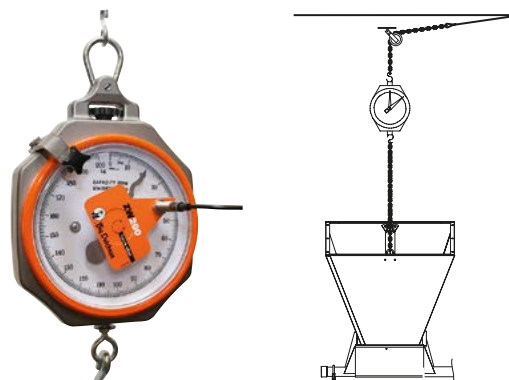
## Destination feeding with feed weigher and pneumatic feed valve

For destination feeding, FW 99-B dispenses the weighed feed quantity directly into the feed hoppers one after the other via valves. The ViperTouch controller can control up to 24 destinations. Every destination (hopper) thus receives the set quantity of feed.



## Dial-type crane scale

Using a mechanical scale with sensor is a simple way of weighing feed for separate male feeding. The weigher is integrated into the Augermatic feed hopper's suspension system. The filling process is started manually or by time clock. As soon as the set quantity of feed is inside the hopper, the weigher closes the automatic outlet or deactivates the FlexVey drive.



Use of the dial-type crane scale

## MFW 8 weighing computer

The Big Dutchman MFW 8 weighing computer in combination with load cell ensures that feed for separate male feeding is weighed securely and very accurately. Up to 8 destinations are possible. The feed quantities for the specific destinations are set at the controller in the service room, i.e. entering the bird area is not necessary. Another advantage, especially in houses with low ceilings, is the low construction height of the load cell.



MFW 8

Load cell

Accurate feed weighing for MaleChain

## Nipple drinkers

Made of stainless steel: Top nipple or 100 ml screw nipple



Nipple pipe of 22 mm and 28 mm diameter

The Big Dutchman range of products for broiler breeders includes the Top nipple and the 100 ml screw nipple, both made of stainless steel. Calculations should allow approximately 10 to 12 birds per nipple. Where the breeders consume larger amounts of water, e.g. in warmer climates, Big Dutchman recommends a nipple pipe with a diameter of 28 mm.

The drip cup collects splash water without hindering the birds from drinking. In addition to the one-arm cup, Big Dutchman offers a two-arm version.

If the drinker lines are suspended, an anti-roost unit is always used. Big Dutchman has different systems available that effectively prevent the birds from perching on the drinker line. The drinker line should be positioned in front of the nest.



Top nipple with one-arm drip cup

Screw nipple with drip cup, vertical actuation only

Two-arm drip cup

Nipple pipe with aluminium profile and double anti-roost wire

# NEST AND MANURE PIT

With Relax 2, NXB and a hand gathering nest, Big Dutchman can provide the ideal nest for any need. The following characteristics are important:

- high nest acceptance
- high standard of hygiene

- short rolling-off distances and gentle transport of the eggs
  - easy nest and egg belt inspection
  - a nest ejection mechanism that stops hens from sleeping and brooding inside the nest
- The corresponding manure pit with plastic

slats improves hygiene in the house because a large percentage of the droppings is produced and stored here. Alternatively, the new SIMBA belt system for manure pits can remove the manure from the house at regular intervals. It is installed below the slat level.

## Relax 2

### The colony nest with divided roof and nest locking mechanism

Relax 2 is an automatic colony nest that poultry farmers are already using very successfully. The nest has been developed specifically to meet the needs of broiler breeders and to generate a high hatching egg quality.

The back wall automatically closes the nest after the laying phase. This ensures that the nest remains clean and that the hens do not brood there.

The almost screwless snap-on system allows for quick and easy assembly.



Divided nest roof that is easy to open, also centralised



Simple egg belt inspection

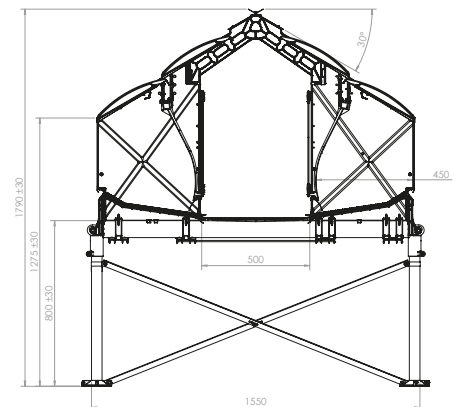
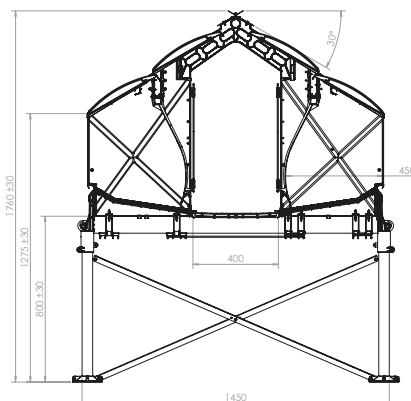


Daily nest inspection by simply opening the nest roof; can also be centralised using a winch

## Advantages

- ✓ use of high-quality materials and a perforated nest insert made of plastic: high nest acceptance;
- ✓ nest depth of 45 cm: eggs have a short rolling-off distance;
- ✓ clever nest design without wood: optimal hygiene and cleaning;
- ✓ divided and very light nest roof: easy inspection of nest and egg belt;
- ✓ solid nest legs made of plastic: no danger of corrosion;
- ✓ egg channel available in two widths: 400 mm or 500 mm or with divided egg belt (2 x 200 mm).

Type	400	500
Length (m)	2.41	2.41
Width (m)	1.45	1.55
Total height (m)	1.76	1.79
Nest length/compartment (m)	1.20	1.20
Nest depth in bird area (cm)	45	45
Egg belt width (mm)	400	500
<b>No. of birds/nest</b>		
- light breeds	240	240
- heavy breeds	220	220



# Manure pit with plastic slats for the Relax2 nest

## Flexible setting up, an option for every house type

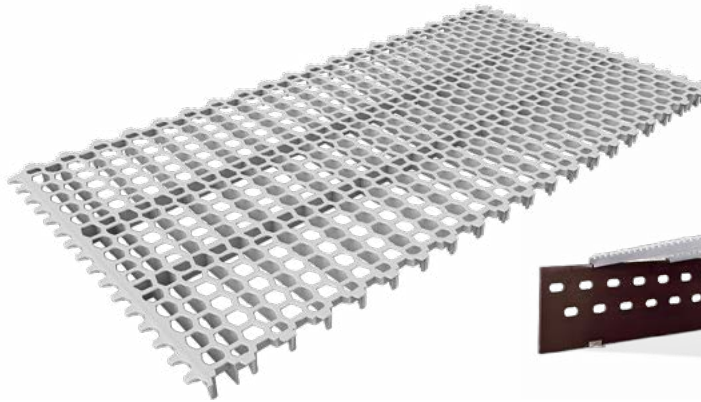
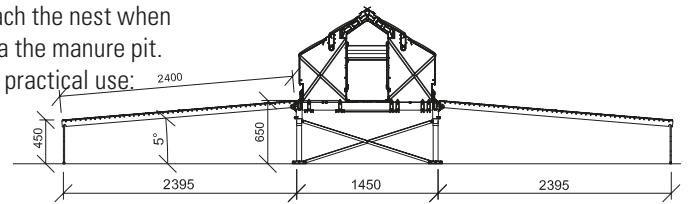
To improve the hygiene inside the house, part of the building should be used as manure pit and equipped with slats (where possible made of plastic). Droppings can be stored here while the birds are inside the house and can then be removed after each batch.

The correct design (width and height) of the

manure pit is especially important to make sure that the hens can easily reach the nest when they leave the litter area via the manure pit.

Recommended values from practical use:

- jump height: 450 to 550 mm
- angle: 5°



The plastic slat newly developed by Big Dutchman has the following advantages:

- ✓ comfortable and soft anti-slip surface: secure foothold for the birds, easy mating, healthy feet;
- ✓ small surface area similar to wire flooring: good manure penetration, slat stays clean during the batch;
- ✓ no contact surface between the slats: prevention of hotbeds for mites and other vermin, easy and thorough cleaning;
- ✓ no sharp edges and corners, i.e. no risk of injuries or breast bruises;
- ✓ simple and rapid installation.

## Nesca 2

### The poultry scales for automatic weight determination

Nesca 2 is the newly developed and patented Big Dutchman poultry scales that are integrated into the colony nest. The scales automatically determine the weight of hens that visit the nest to lay their eggs. Nesca 2 records the largest possible range of weights of a great number of hens, whether they are heavy, light or "lazy" (i.e. not moving about much), without requiring any additional effort from the staff.

Nesca 2 consists of a bottom wire mesh which rests on two load cells.

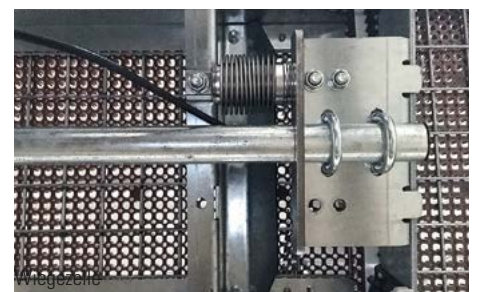
The load cells transmit their results to the production computer via a weighing module.



Nesca 2 installed below the nest bottom

### Advantages

- ✓ automatic weight determination;
- ✓ number of manual weighings can be reduced to make work easier and to save time;
- ✓ the period for weighing can be defined individually, for example before feeding or during the main laying phase;
- ✓ automatic differentiation between males and females during weighing.



# SIMBA

## The automatic belt system for manure removal from houses with manure pits

SIMBA, a new system for manure removal via a single-layer belt developed by Big Dutchman, removes manure – usually stored below the

slats in the manure pit – from the house at regular intervals. This significantly reduces ammonia emissions and thus improves the

environment in the house. The low jump height additionally makes it much easier for the hens to reach the nest.



Winding manure removal system below the slat level with a jump height of just 280 mm

The special feature of this manure removal system is the new pivoting unit: it deflects the manure belt above the house floor during manure removal and winds the belt around the manure belt drive's drum. The manure drops onto a cross belt that takes the manure from the house. Scrapers ensure that the belt is cleaned.

After manure has been removed, a cable winch pulls the wound belt back below the plastic slats. Limit switches automatically turn off the system as soon as the belt has been fully unwound.



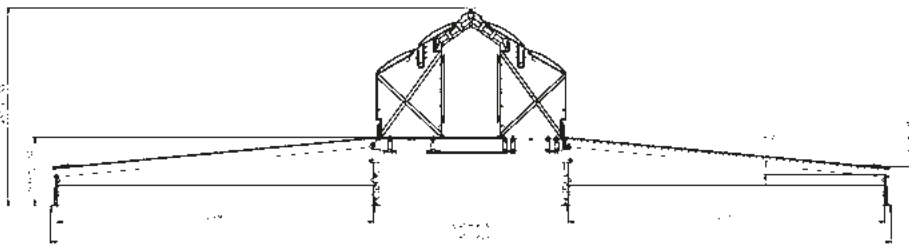
Specially developed drive unit



Manure belt being wound around a drum



The manure is transferred to a floor-level cross belt



### Technical data

Section length	mm	2412
Egg channel height	mm	500
Jump height	mm	280
Manure belt width	mm	2310
(more narrow belts available upon request)		
Max. manure belt length	m	100
Manure belt speed	m/min	6.7

### Advantages

- ✓ much improved environment in the house;
- ✓ low jump height of only 280 mm makes reaching the nest easy for the hens and increases nest acceptance;
- ✓ bird-friendly system that is good for the environment;
- ✓ very reliable system with safety switches;
- ✓ regular manure removal over the entire batch reduces ammonia emissions;
- ✓ much lower risk of flies and bugs;
- ✓ corrosion-resistant substructure made of stainless steel;
- ✓ floor underneath the slat level is easy to clean after the batch while the manure belt is wound around the drum;
- ✓ complicated installation of a manure cross channel is not necessary;
- ✓ low maintenance requirements;
- ✓ simple installation.

# NXB

## The automatic single laying nest with locking mechanism



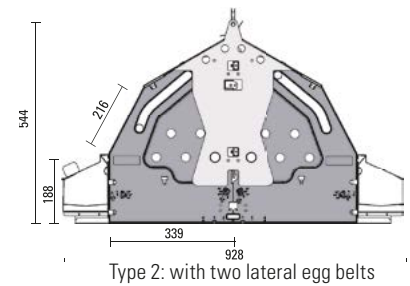
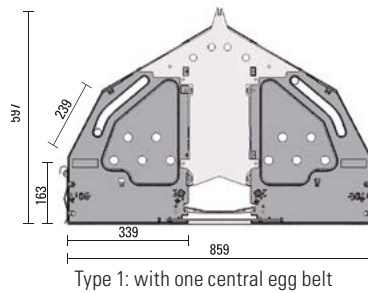
View of a house with NXB nest and lateral manure pit

NXB nest with plastic partitions

NXB is a single laying nest for broiler breeders. Each hen can use a separate nest hole to lay her eggs without being disturbed. The partitions between the holes are made of plastic and can be opened subsequently. The perforated nest insert is self-cleaning and easy to install and remove. The nest roof is made of metal and allows for easy access to the egg belt for inspection purposes. A locking tube closes all nest holes for the night, ensuring that the hens cannot brood inside the nest.

NXB	Type 1	Type 2
Length/section (m)	2.44	2.44
Total height (mm)	597	544
Nest depth (mm)	339	339
Nest hole width (mm)		
- 10 nest holes	244	244
- 9 nest holes	271	271
- 8 nest holes	304	304
Nest hole height (mm)	239	216
Entrance height (mm)	163.5	188

Depending on the breed, a stocking density of up to 5.5 birds per nest hole should be planned.



## Advantages

- ✓ automatic single laying nest with 10, 9 or 8 nest holes per side;
- ✓ perforated nest inserts made of plastic: high nest acceptance;
- ✓ NXB is available in three different widths: suitable for all breeds;
- ✓ the roof can be opened easily: optimal egg belt inspection;
- ✓ the nest floor and substructure are zinc aluminium coated: high protection against corrosion;
- ✓ the nest can be winched up by a central suspension system for servicing between batches: thorough cleaning.

# EGG COLLECTION SYSTEMS

The secure transport of the hatching eggs from the house is extremely important for economic success. Big Dutchman therefore offers different egg collection systems,

focusing specifically on a smooth egg transfer from the longitudinal belt to the cross belt. Choice of the correct system is a crucial question, especially in larger houses.

- EggSort table drive
- EggTrax
- cross belt all the way to the grader

## EggSort

### The table drive for a gentle egg collection

EggSort ensures maximum smoothness during egg collection because there are virtually no transfer points. The longitudinal egg belt runs over the table, which also means that no additional drive units are needed.

- ✓ ideally suited for the manual collection of eggs;
- ✓ standard drive speed: 2.6 m/min, optionally VarioSpeed;
- ✓ available for different egg belt widths (2 x 200 mm, 245 mm, 400 mm and 500 mm);
- ✓ integrated egg belt brush for clean egg belts;
- ✓ robust and completely galvanized design for a long service life.



Divided longitudinal egg belt with triangle-shaped holes  
 → high number of holes leads to very clean eggs  
 → three-point bearing ensures egg stability on the belt

## EggTrax

### Reinforced egg belt drive unit: smooth egg transfer from the longitudinal to the cross belt

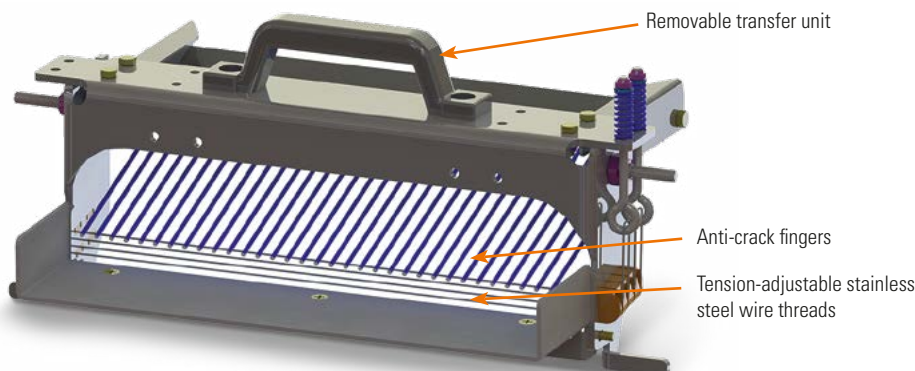
EggTrax ensures a safe and smooth transfer of the eggs from the longitudinal to the cross belt. The reinforced drive unit operates at a speed of 2.6 m/min and is available for different egg belt widths of 245 mm, 350 mm, 400 mm and 500 mm.

Advantages of the well-proven EggTrax transfer unit include:

- ✓ tension-adjustable stainless steel wire threads (optional) guarantee a smooth transfer of the eggs while simultaneously allowing feathers, dust and eggs without shells to fall down between the threads;
- ✓ anti-crack fingers provide a light pressure

on the eggs, which ensures a controlled transfer to the cross belt;

- ✓ an integrated egg belt brush keeps the egg belts clean;
- ✓ the transfer unit can be removed single-handedly and be cleaned with a high-pressure washer.



# Egg cross belt

## From EggTrax to the grader

Starting at a specific farm size, using a cross belt for automatic egg collection is absolutely necessary. Big Dutchman provides individual solutions that meet the requirements on your farm.

The core part of each solution is the plastic-coated conveyor chain that consists of two hardened outer chains with welded-on cross bars. For the standard conveyor chain, these cross bars are arranged on the same level. This makes for a smooth transfer of the eggs to the conveyor chain. The distance between the cross bars allows for an ascending gradient of up to 20°. Standard bends of 180°, 90° and 45° are available to create curves. Conveying widths of 350 mm, 500 mm and 750 mm are possible.



System solutions for hatching egg production.  
Proved worldwide, successful worldwide.



# Big Dutchman.

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

**North America: Big Dutchman, Inc.**  
 Phone +1 616 582 4000 · info@bigdutchmanusa.com  
 www.bigdutchmanusa.com

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

**Russia: 000 "Big Dutchman"**  
 Phone +7 495 2295 161 · 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