



# Big Dutchman®



## **AviMax**

The multi-tier battery for hygienic, efficient and successful broiler growing

# AviMax transit – the broiler battery with automatic broiler transport

AviMax transit is an original Big Dutchman concept which combines the AviMax broiler cage with an innovative manure belt system that doubles as an efficient new means of broiler transport. AviMax has been designed for maximum profitability and cost-effectiveness. That means:

- three to four times higher stocking density as compared to floor production => significantly increased utilisation of house surface area, reduced energy consumption;
- very hygienic growing conditions => healthy, uniform flock, increased growth rate and improved feed con-

version, as a result it is now possible to produce an additional flock per year;

- quick and easy cleaning and disinfection after every grow-out => reduced time between flocks;
- automatic transport of broilers out of the house at the end of the growing period => economization of working time and costs as well as optimum conditions for container loading to the slaughter house.

Let our experts advise you on the possibilities Big Dutchman has in store for you.

## The advantages at a glance:

- low system height thanks to patented, innovative pivoting floor system;
- easy to operate pivoting floors => quick and cost-saving moving-out of broilers;
- flexible, soft plastic flooring prevents breast blisters, for optimum manure penetration and a hygienic bird area;
- the entire folding cage front can easily be opened => good accessibility for inspection purposes, easy moving-in;
- the large cage height of 500 mm in the bird area and the side grating make for excellent air exchange throughout the entire barn;
- Galfan®-coated wire parts provide a high corrosion resistance and a long service life;
- daily manure removal => reduced ammonia emissions in the barn;
- simple cleaning and disinfection of the entire system => no litter costs, reduced labour requirements.



Four-tier manure belt battery AviMax for successful broiler growing

## Feed and water supply – reliable and comfortable for broilers of any age

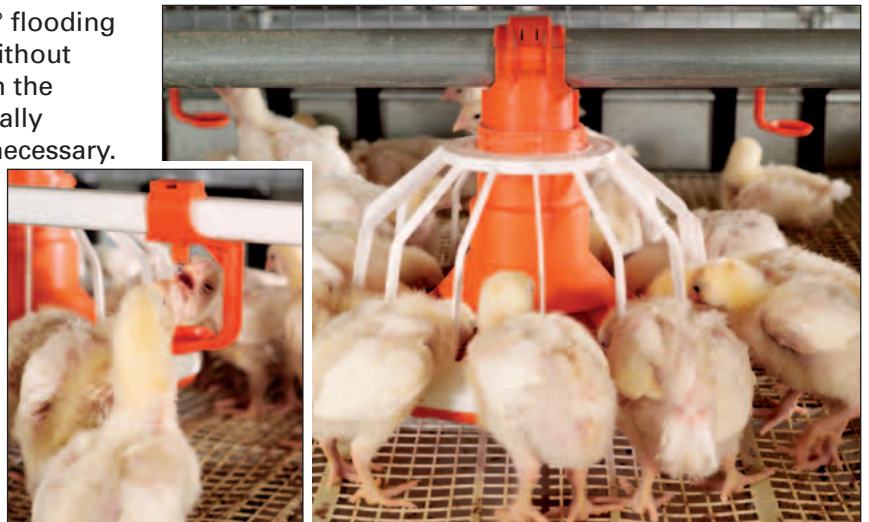
Feed is supplied by means of the reliable FLUXX feed pan which fulfils both the requirements of day-old chicks and those of heavy broilers during the final growing period.

After the day-old chicks are moved in the 360° flooding feature ensures a high feed level in the pan without needing extra work. As long as the pan sits on the ground, the flooding mechanism is automatically active. Additional chick paper is therefore not necessary.

As the birds grow, the pans are raised, the flooding mechanism closes and the feed level drops preventing feed wastage.

Water is supplied by means of two drinker lines with four nipples per feed pan in each compartment. The top-nipple orange with drip cup ensures sufficient supply of fresh and clean drinking water especially on hot summer days.

Feeder and drinker lines can be centrally adjusted and can thus easily be adapted to the size of the birds.



## Galfan® – for increased corrosion protection

Highest product quality and reliability are a core part of the Big Dutchman company philosophy.

For this reason all wire parts of the AviMax broiler battery are Galfan®-coated. Galfan® is a zinc-aluminium alloy that achieves a much longer service life than finally galvanized wire. High-quality Galfan wire parts are also built to withstand the cleaning requirements necessary in modern broiler management.



## Pivoting floor with plastic net – hygienic and flexible

Big Dutchman's innovative pivoting floor (patent pending) optimizes housing conditions during the growing phase and permits easy moving-out of ready-to-slaughter broilers.

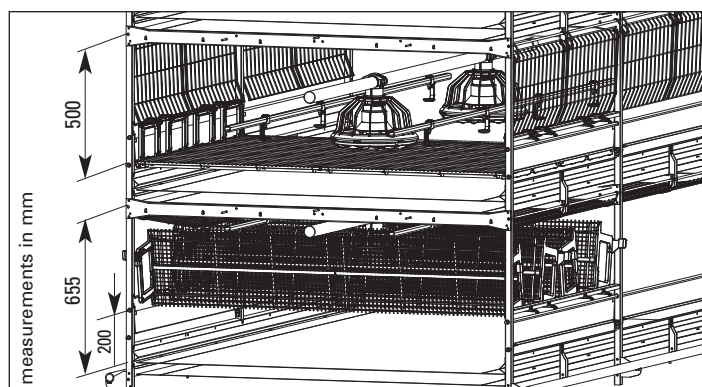
The pivoting floor is covered with a flexible, soft plastic net and ensures excellent manure penetration. That means:

- clean sanitary surface => reduced infection risk and therefore healthy birds;
- no litter required => no mycosis, reduced risk of E.coli, clean plumage and feet;
- soft and flexible flooring prevents breast blisters, minimizes the risk of skin and feet injuries.



## Low system height thanks to patented pivoting floor

The **AviMax transit** broiler cage from Big Dutchman does not require any extra height for moving-out the broilers. This is because the new pivoting floor technology permits a tier distance of just 655 mm. That means a three-tier system is only 2.14 m high and a four-tier system only 2.79 m!



View into an AviMax transit system after birds are moved out



stocking density!

Before the broilers are moved out, the feed and drinker lines have to be raised to the highest position. Also the manure belts on each respective tier from which the broilers are to be moved out have to be cleaned. The clean manure belts then transport the broilers to the lift. To operate the pivoting floor two workers per row are needed. Once the cage fronts are open, the floors have to be swung upwards, starting at the manure belt drive.



For the moving-out procedure, the pivoting floor is simply opened upwards, with little effort, so that the broilers slide onto the manure belt from a very low height of just a few centimetres. While this is done the barn is dimmed (lights out). As the floor is opened upwards into the cage area, there is sufficient headroom above the manure belt for an easy transport of the broilers. Thanks to this innovative moving-out technology, **AviMax transit** requires significantly less height than other systems which might make it possible to install one tier more in already existing houses without having to alter the building => higher

## Manure belt cleaning – simple and efficient

Manure is collected by polypropylene manure belts underneath the cages. After the day-old chicks have been moved in, the belts should be cleaned for the first time no later than one week after the moving-in date. In weeks no. 2 and 3 it is recommended to clean the belts every 2 days and from the fourth week onwards the belts should be cleaned daily. This ensures a relatively low ammonia content of the house air and prevents fly problems. The end-set area is galvanized and therefore well protected against corrosion.

The stainless steel manure scrapers are equipped with a special channel section made of polyurethane which thoroughly cleans the manure belt on every tier. The manure chutes consist of plastic fabric (optional) which encloses the manure removal system and prevents any spillage.



# Lift cross conveyor – automatic transport of birds to the level conveyor

During the growing phase, the lift cross conveyor remains in the upper position, (the “parking position”) to allow free access to the rows. During the moving-out procedure, the manure belt transports the broilers to the end of the system where they are transferred onto the lift cross conveyor.

The transfer is almost at the same level as the belt and is equipped with a manure deflector. This ensures a gentle and clean transfer of the broilers to the lift cross conveyor. In order to



speed up the moving-out process, 2 or 3 tiers may be moved out simultaneously. The lift cross conveyor transports the broilers to the level conveyor which has to be adjusted to the respective tier height. Again, there is only a very slight difference in height which means a gentle transfer of the broilers. Depending on the farm layout and design, the level conveyor transports the broilers outside either at the side or at the gable.

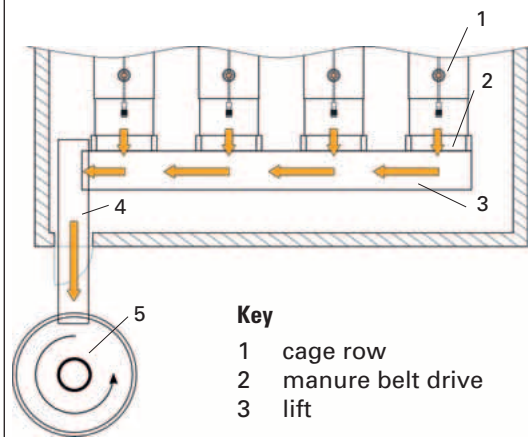
As an option, the level conveyor can also transfer the birds to a rotating table. A table provides enough space for the workers to load the broilers into boxes for the transport to the slaughter house. Depending on the transport requirements, it is also possible to prepare everything for direct container loading.



## Two examples of different moving-out methods for:

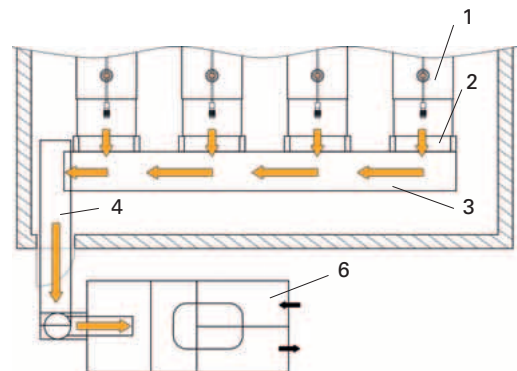
† 6 000 broilers/h ( crate transport)

† 10 000 broilers/h ( container transport)

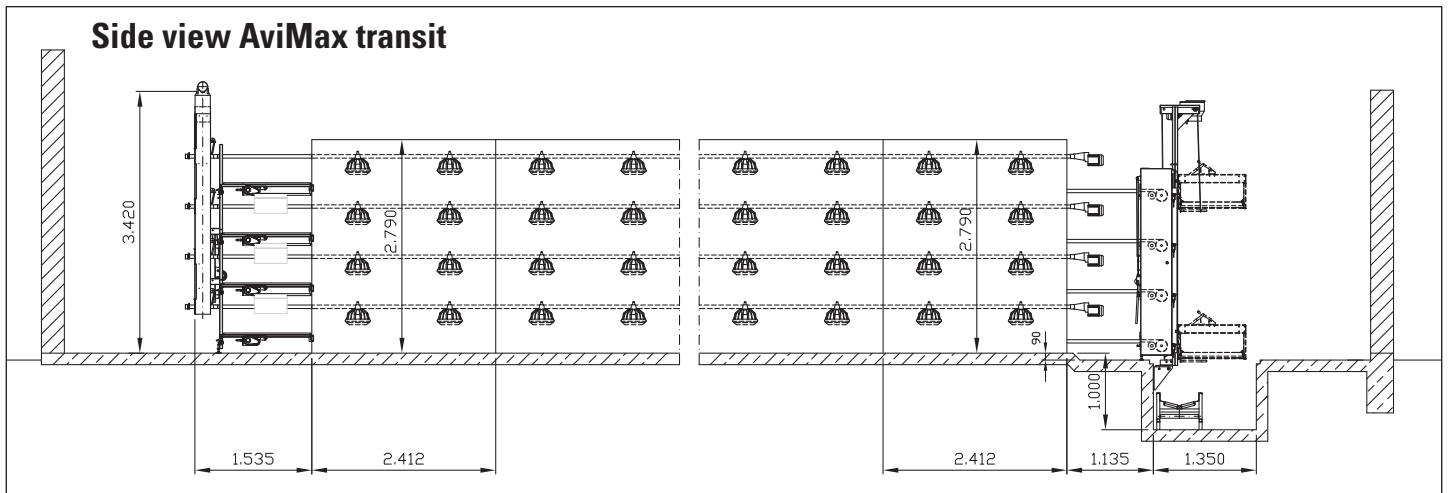
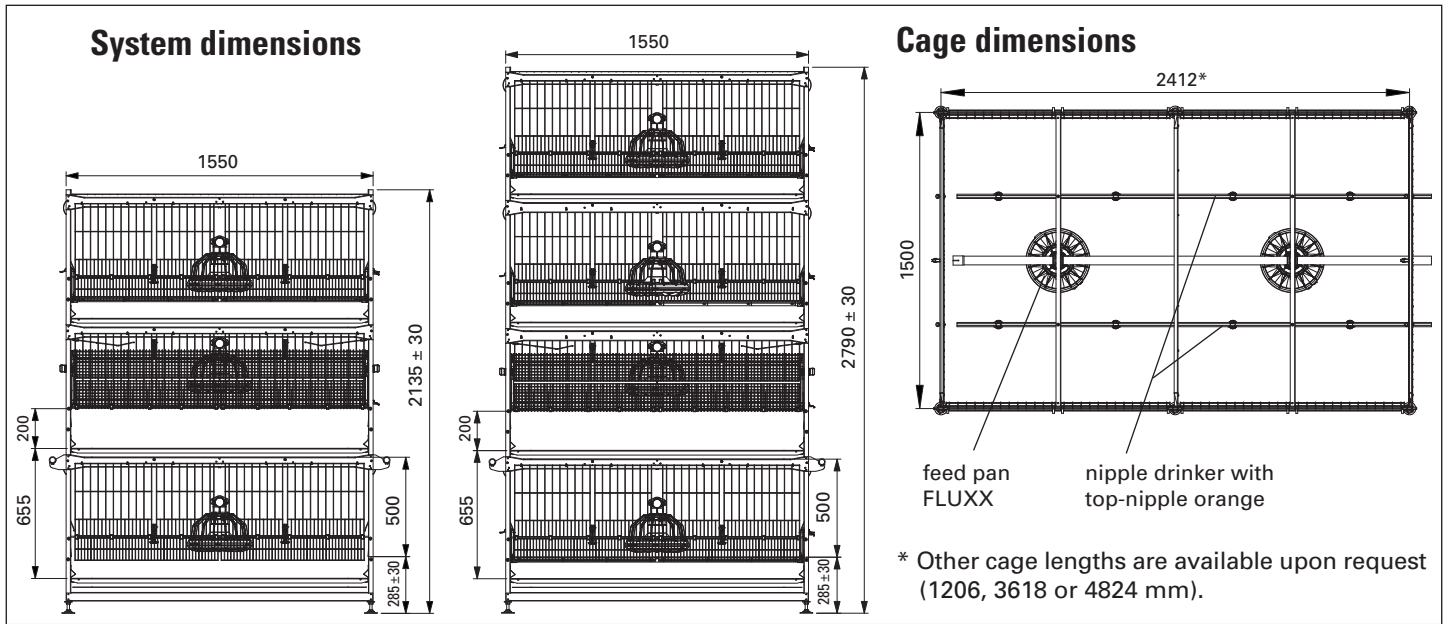


### Key

- |                     |                     |
|---------------------|---------------------|
| 1 cage row          | 4 level conveyor    |
| 2 manure belt drive | 5 rotating table    |
| 3 lift              | 6 container loading |



# Technical details and planning specifications



## Recommended broiler numbers per cage based on the bird weight (50 kg/m<sup>2</sup>)

Final weight (g)	no. of birds/cage	no. of birds/feed pan	no. of birds/drinker
1500	120	60	15
1800	100	50	12,5
2250	80	40	10
2500	72	36	9
2800	65	32.5	8.1
3000	60	30	7.5

## We recommend:

*The better the individual elements of a broiler project – manure belt battery, moving-out concept, house ventilation – the better the overall result!*  
 Big Dutchman is able to offer you optimum solutions.



**Big Dutchman**

### Germany

**Big Dutchman International GmbH**  
 Postfach 1163 · 49360 Vechta · Germany  
 Tel. +49(0)4447-801-0  
 Fax +49(0)4447-801-237  
 E-Mail: big@bigdutchman.de

### Asia

**BD Agriculture (Malaysia) Sdn. Bhd.**  
 No. 20, Lorong Keluli 1 B,  
 Kawasan Perindustrian Bukit Raja,  
 Seksyen 7, 40000 Shah Alam,  
 Selangor Darul Ehsan · Malaysia  
 Tel. +60-3-3361 5555 · Fax +60-3-33 42 2866  
 e-mail: bdasia@bigdutchman.com

### USA

**Big Dutchman, Inc.**  
 3900 John F. Donnelly Dr.  
 Holland, MI 49422 · USA  
 Tel. +1-616-392-5981 · Fax +1-616-392 6899  
 e-mail: bigd@bigdutchmanusa.com