



Big Dutchman®



Equipment for Floor Systems

for layers in barns and free-range production

Equipment for floor systems – we can offer you an extensive range of product



View into a house covered with slats and adjacent winter garden

Important elements of housing equipment

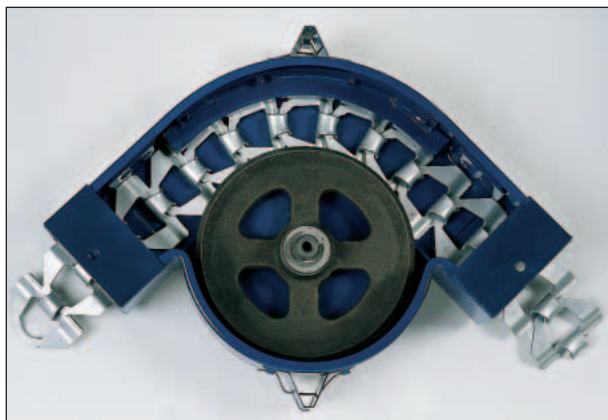
Feeding

For feeding the well-proven Big Dutchman chain feeder system is used. The advantages are obvious:

- the CHAMPION feed chain distributes the feed rapidly and evenly;
- increased egg production due to increased feed conversion;
- maintenance-free 90° corner for trouble-free continuous feeding;
- the perch tube above the trough offers additional perching for the birds and prevents soiling of the feed;
- the rugged plastic legs ensure a long working life, even when they are standing in the litter;
- solid and long-lasting technology.



Hens can feed from both trough sides; the feeding system can be winched to the ceiling for easy cleaning



90° corner with CHAMPION feed chain



Feed trough with additional perching for the birds

ts – from feeders, drinkers, rollaway nests, egg collection and manure removal

Alternative layer management includes the following systems:

- barn production and
- free-range production.

According to the EU-directive 1999/74 of July 19th, 1999 (these will vary according to local legislation)

barn production has to comply with the following:

- 250 cm² of littered area per hen; littered area has to be at least one third of the ground surface;
- 9 hens/m² usable area, of at least 30 cm width, floor slope must not exceed 14 % or 8° and headroom must be at least 45 cm;
- 120 hens/m² group nest or 7 hens/individual nest;
- 15 cm perch/bird, the horizontal distance between the perches is 30 cm, the horizontal distance

between perch and wall is 20 cm, perches must not be mounted above the littered area;

- 10 cm of linear feeders/hen;
- 10 hens/nipple drinker.

Free-range production must additionally comply with the following:

- the exits have to be at least 35 cm high and 40 cm wide; 200 cm total opening for 1000 hens;
- shelter in the free-range area;
- max. 2500 hens/1 ha, resp. 1 hen/4 m² free-range area*;
- throughout the day, the hens have to have unrestricted access to the free-range area*;
- the main part of the free-range area has to be covered with vegetation*.

* complies to Commission Regulation (EC) No 1651/2001 of 14 August 2001 amending Regulation (EEC) No 1274/91 introducing detailed rules for implementing Council Regulation (EEC) No 1907/90 on certain marketing standards for eggs

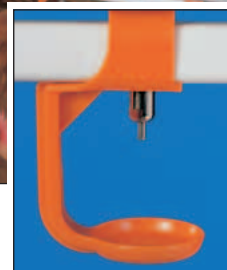
Drinking system

In order to provide the layers with clean and hygienic drinking water, we recommend the use of nipple drinkers. They can be installed as a suspended system or on legs. The suspended version can be supplied with anti-perch wire. Stainless steel nipples with single-arm drip water cups ensure that the birds have good access to the nipples, receive sufficient water and that the manure stays dry.



Clean and hygienic drinking water - no problem with the 360° nipple from Big Dutchman

small drip-cup



INTEGRA plastic slats

The **INTEGRA** plastic flooring recently designed by Big Dutchman is ideally suited for laying hens. Its advantages are:

- hygienic due to its smooth surface;
- secure foothold for the hens;
- integrated perch in the shape of a double bar = maximum comfort when roosting;
- very small upper surface = optimum manure penetration, flooring stays clean throughout the entire batch;
- no contact surface between the slats = easy and thorough cleaning, prevents hotbeds for mites and other parasites;
- no sharp edges and corners = no danger of injury;
- easy to install;
- high durability, long service-life.



INTEGRA – plastic slats for highest demands



View into a layer house – NATURA-Floor with manure belt

Manure pit / manure removal

To improve hygiene in the house, part of the house should be equipped with plastic slats formed as a manure pit. With both feeders and drinkers located on or above the manure pit, this is the area where the majority of the manure is deposited.

For storing and removal of manure we can offer you three different systems:

- The manure is stored in an approximately 80 - 90 cm deep manure pit throughout the entire laying period. Upon completion of the cycle, the manure pit is dismantled and the manure is removed from the house.
- The manure drops into 30 - 60 cm deep manure channels. Every day, a scraper pulled by a stainless steel cable removes the fresh manure from the house. Manure drying can be installed which allows the manure to be removed less frequently (8 - 12 week intervals) this requires an advanced scraper system.
- Within the NATURA-Floor system we have manure belts under the slats, the manure is removed every week => optimum conditions for an ideal house environment.



Manure pit for the storage of manure throughout the entire batch



Manure scraper for the daily removal of fresh manure



Manure belt underneath the supply area of NATURA-Floor

We recommend:

The manure should be as dry as possible and should not be stored in the house any longer than absolutely necessary => fewer problems with flies, lower concentration of ammonia in the house air, optimum climate conditions for the hens.

Colony nests offer high acceptance for the hens and optimum egg quality

In addition to an adequate supply of feed and water, the right laying nest plays an important role within alternative layer management. The prevention of floor eggs, dirty eggs and cracked eggs is a precondition for economic success.

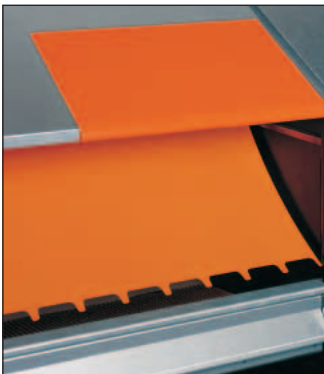
Depending on the house layout and equipment, Big Dutchman nests **Colony** and **Colony 2+** can be delivered as wall-mounted or as a double nest with one or two tiers.



Colony – the group laying nest with ejection system



View into the automatic group laying nest Colony 2+



Ejection system closes the nest

Both nests feature a strong, ridged framework construction and legs with an open U-profile for easy and thorough cleaning.

Colony is characterised by its simple ejection system, whereas **Colony 2+** distinguishes itself because of its tilting nest floor mechanism. Before the nest is fully closed for the night any remaining eggs automatically roll onto the egg belt.

Hens are excluded from both nests at night = no soiling, good nest hygiene.



Tilting floor closes the nest

Egg collection – a suitable system for every house



Hand-gathering table

The Big Dutchman rod conveyor is often installed as a link between the laying nest and the egg collection to bring two-tier product to a single level.

Automatic egg collection is also an essential part of the equipment within the alternative management of laying hens. Savings in time and labour as well as a gentle transportation of the eggs are the main reasons for utilising these systems. Big Dutchman offers well-proven reliable egg collection systems, depending on your individual requirements:

- hand-gathering table;
- rod and curve conveyors.



Transport of the eggs via a rod conveyor to the sorting machine

