



Big Dutchman®



NATURA

Multi-level systems

for layers in floor and free-range management

NATURA Multi-level systems for layers – flexible, efficient and profitable

NATURA – a well-established concept that stands not only for an animal-friendly housing system, but also implies:

- optimum stocking densities
- high laying performance
- very good hygienic conditions
- a significantly low number of mislaid eggs
- flexible modular system => suitable for every building, as well as large or small flocks
- justifiable monitoring effort

1. Animal-friendly housing system

When a housing system for floor or free-range management is asked for, Big Dutchman does not offer its customers individual components, but rather a **sophisticated housing concept!**

From many years of experience we know that the correct arrangement and coordination of the individual elements – multi-level systems with feed and water supply, nests for undisturbed egg laying, environmental conditions – plays a decisive role for economic success.



2. Optimum stocking densities

Due to its modular design, it is possible to adapt every system to the respective in-house conditions. It goes without saying that the requirements of the EU Directive are complied with.

Our systems can be delivered as a single or multi-level version => usable area on different levels increases the utilisation of housing space. Furthermore, the house floor can be used 100 % as scratch area.

Multi-level systems require a certain building height to make sure that fresh air can enter the house and is distributed evenly in the animal area.

3. High laying performance at a justifiable monitoring effort

Our NATURA-system is designed so that hens feel comfortable, receive sufficient feed and water and have enough room at their disposal to avoid situations

of stress => high laying performance. The optimum arrangement of nest and system leads to a high acceptance of the nest among hens => small share of mislaid eggs, less work.

4. Hygienic housing conditions

We place great importance on in-house hygiene in the development of our systems. For this reason, among other things, the utilisation of manure belts with and without ventilation is essential. Manure belts allow the largest possible amount of droppings to be transported out of the house without too much work. The additional ventilation further reduces the concentration of ammonia in the house air. Besides plastic slats, wire mesh can also be used as flooring on the different levels. It is very hygienic and guarantees optimum manure penetration.



NATURA – intelligently structured system for high egg production

The **NATURA** multi-level system by Big Dutchman is characterised by its consistently structured design. This is an important prerequisite for high egg production and animal-friendly housing. To give hens an ideal start with the NATURA multi-level system, they should be reared in a system with a similar structure. Only then, a smooth transition (week 16 to 18) from rearing to laying with only a short training period is possible.

In order to keep the percentage of mislaid eggs as low

as possible, it is extremely important to observe the instructions for correct management. This includes the implementation of special feeding and lighting programs with the corresponding house illumination and special dimming sequence, the correct litter material or setting of fixed times for the access to the winter gardens and/or the free-range area. Please let our experts advise you.

special approach perch (patent no. 299 19 443.4) ensures that the hens sit facing the aisle => less manure drops into the litter

group laying nest Colony 2+ offers sufficient egg laying room to the hens

nest and system are arranged in a way that allows the hens to easily reach the nest => less mislaid eggs



eggs that are mislaid on the slats roll under the approach perch via the slightly tilted plastic slats => there they stay clean and can easily be collected

manure belt underneath every level => hens rarely get in contact with their droppings, very hygienic conditions

uniform illumination of all levels => minimum amount of mislaid eggs on the slats

nipple drinkers placed close to the nest additionally increase acceptance of the nest => less mislaid eggs

the house floor can be used by the hens 100 % as scratch area => guarantees freedom of movement for the hens and permits high stocking densities

the corridor between nest and installation (NATURA-Nova) can also be used by the farm staff for daily inspection => good overview

plastic slats covering the whole installation guarantee secure foothold of the hens and good manure penetration; the white colour supports a well-balanced illumination of the installation => less mislaid eggs

Every house is divided into different areas of activity: supply area (1), resting area (2), and laying area (3), as well as scratch area (4). The individual areas of activity are separated from one another. This has the following advantages:

- To reach the individual areas, the hens have to move in a zigzag course => increased activity, more frequent visits to the nest, less mislaid eggs.
- Different structural elements further various behavioural patterns, such as feed and water intake, flying, scratching, sand bathing, etc.



Group laying nest – high acceptance by the hens and optimum egg quality

A low number of mislaid, dirty and cracked eggs have a decisive effect on a good production result. And this is exactly where the strength of Big Dutchman's group laying nests, **Colony** and **Colony 2+**, lies. Easy

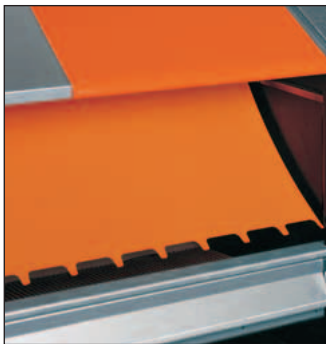
access and the soft nest mat ensure that the nests are well accepted by the hens. Depending on the house layout and equipment, both nests can be delivered as wall-mounted or double nest, with one or two tiers.



Colony – the group laying nest with ejection system



Colony 2+ – the group laying nest with patented tilting nest floor



Ejection system closes the nest

Both nests feature a strong, ridged framework construction.

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 – easy to handle, gentle transport of the eggs

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 transport of the eggs are the main reasons for utilising these systems.

Depending on your individual requirements (pro-

duction size, building size), we have the ideal egg collection system:

- rod and curve conveyors;
- elevator;
- lift-system.



Eggs are transported to the farm packer via a curve conveyor



Egg transfer from the two-tiered Colony 2+ to a curve conveyor



Advantages of a winter garden

- gradual transition from the house into the free-range area;
- winter garden as bad weather alternative in free-range production;
- because of the roofing, the litter stays relatively dry => low ammonia emissions;
- a solid ground surface, if possible made of concrete, prevents an uncontrolled absorption of nutritive substances into the soil;
- it is possible to remove manure, clean and disinfect the winter garden whenever it is required and/or after every grow-out => significantly better hygienic conditions.



INTEGRA plastic slats with integrated perch

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

- smooth, safe surface => secure foothold, healthy undersides of the feet, increased well-being;
- integrated perch in the shape of a double bar => maximum comfort when roosting, min. infection pressure on the undersides of the feet;
- no sharp edges and corners => no danger of injury;
- very small surface area, similar to wire flooring => 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;
- easy to install.



Manure belts collect the droppings

Manure removal – easy enough with dry manure

A by-product of egg production is manure, which can be utilised cost-effectively by the farmer. The manure belts underneath the resting area and the tiers with feed and water supply collect the droppings. This is a pre-condition for clean and healthy hens. With the utilisation of manure belt ventilation, the dry matter content lies at 65 %.

The advantages are obvious:

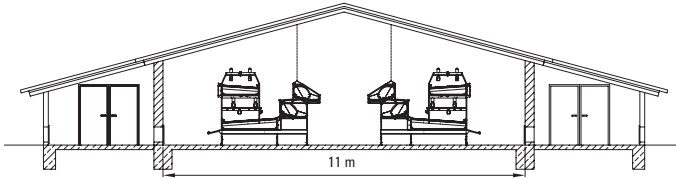
- little ammonia in the house air;
- clean and healthy hens;
- less problems with flies as the manure is removed every 5 to 7 days;
- 50 % less storage requirements as compared to liquid manure;
- easy to spread with a plate-and-flicker distributor;
- dry manure treatment is officially recognised as environmentally sound procedure.

NATURA modular system – the ideal solution for every house

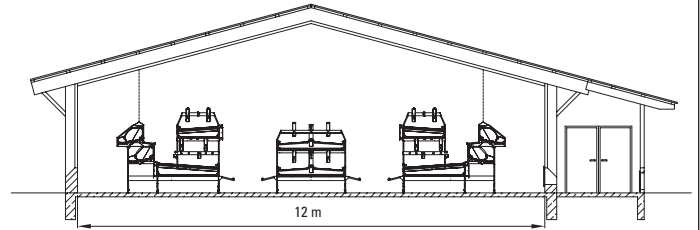
No two houses are alike. Length, width and height are just a few of the variables that need to be taken into consideration when planning a house: is it a floor or free-range production, is the house to be equipped with or without a winter garden, does the building already exist or is it still to be constructed? All these points have to be kept in mind in order to present the customer with an ideal concept. Therefore intensive

preparation and consultation are indispensable for our experts. Only then we will achieve a result that satisfies both you and your hens. The drawings show only some of the many possible equipment variations. Don't hesitate to contact us – together we will find an optimum solution for your individual requirements.

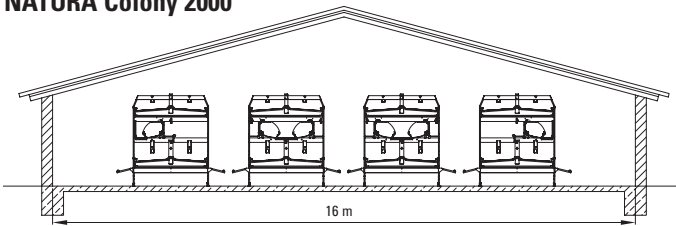
NATURA Nova



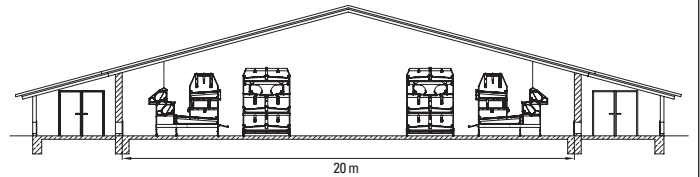
NATURA Nova + NATURA 2000



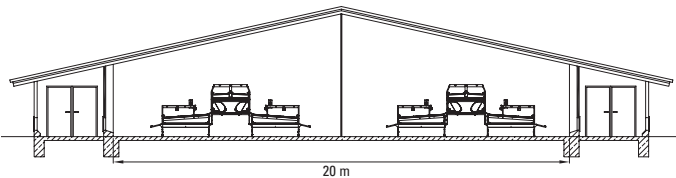
NATURA Colony 2000



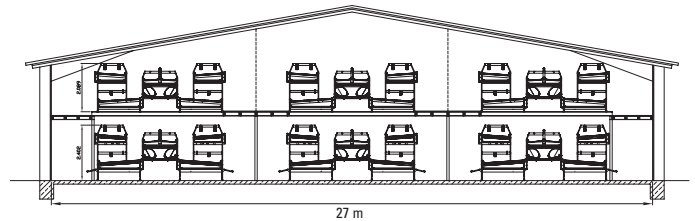
NATURA Nova + NATURA Colony 2000



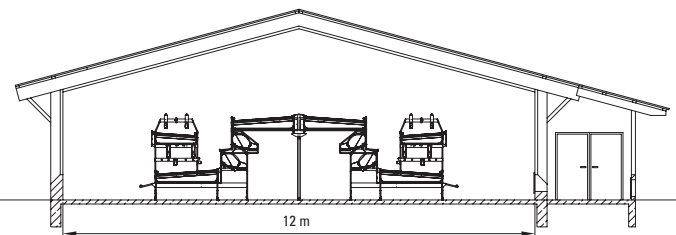
NATURA Floor



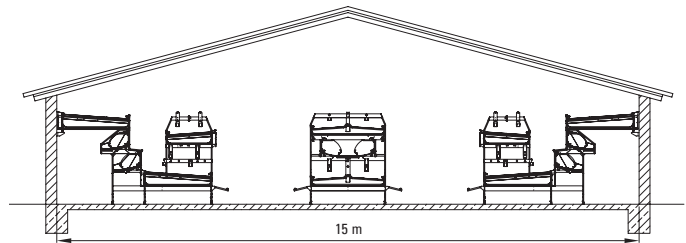
NATURA Floor - 2 Etagen



NATURA Nova 230 Twin



NATURA Nova 230 + NATURA Colony 2000



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