



# Big Dutchman®



## **NATURA® CAGE-FREE**

Modern aviary system for barn and free range egg production

# NATURA® aviary systems for layers: Flexible, efficient, user and bird friendly

**NATURA®** – a well-established and proven system, which not only stands for welfare friendly housing but also is synonymous with Big Dutchman for:

- Optimum stocking density
- Maximum laying performance
- Healthy environment
- Flexible modular system allows you to integrate with virtually all buildings with different sized flocks
- Solid construction

## NATURA – THE SYSTEMS THAT OPTIMIZE PRODUCTION FROM ALTERNATIVE AVIARY SYSTEMS



NATURA Nova Twin – various structural elements increase the hens' well-being

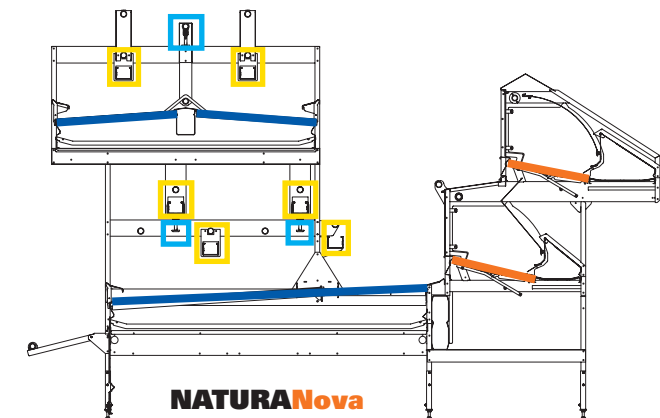
All aviary systems available under the name NATURA are module by design to ensure a bird friendly, high performance environment.

The module design ensures that the position of all essential and mandatory equipment requirements (feed, water, nest, perching and slatted areas) are met and evenly distributed.

Optimum stocking density and bird movement are a major priority and again the NATURA's modular design and configuration enables this to be met.

House hygiene and the hens' health are closely connected. Manure belts underneath each level ensure that most of the manure is transported out of the house with only minimum work required.

Incorporating manure belt ventilation, which uses the house air to help dry the manure, dramatically reduces ammonia in the house.



By changing the layout of any system you affect the bird activity and bird movement within the system, which can benefit:

- Feeding
- Watering
- Nest usage
- Surface usage

To ensure an optimal start, hens should be reared in a similar system. This enables a smooth transition from rearing to laying (16 to 18 weeks) and reduces the period of training which will be required.

In order to keep the percentage of mislaid eggs as low as possible, it is essential to observe the instructions for correct management. This includes the implementation of special feeding and lighting programs with special dimming sequence, the correct litter material and setting of fixed times for access to the winter garden and/or the free range area.

## NATURAStep – FOR EASY MOVEMENT OF HENS BETWEEN LEVELS

NATURAStep differs from other systems presented because of its nest arrangement. This system can be installed in individual rows, as the hens can easily move between the levels, especially the integrated nest level, due to the step design.

The system has 4 feed lines (2 on each level) and a nipple drinker line directly in front of the nest thus

ensuring an even distribution of birds within the system. Due to the flexibility of nests and passages the system can be designed specifically to meet your requirements plus the passages can be positioned to enhance bird movement.

NATURAStep is characterized by a large useful area with easy access for man and birds within the system.



NATURAStep – large useful area and easy access to the system

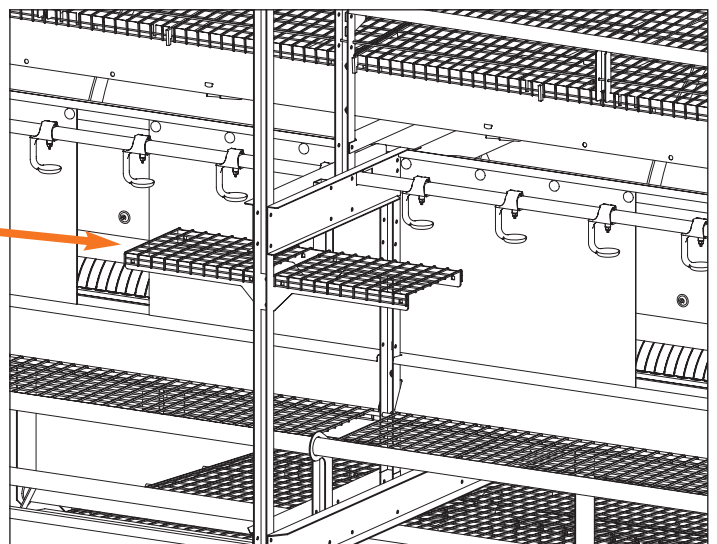
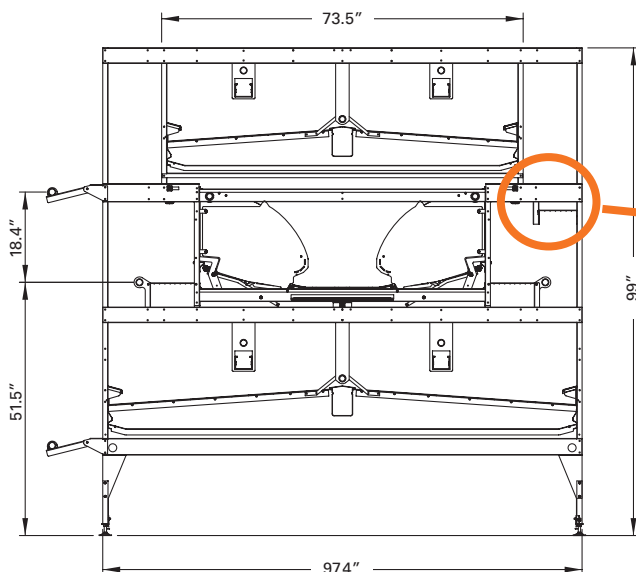


The stepped construction ensures the hens can easily move between all levels

NATURAStep has two manure belt levels and a double-sided nest with central longitudinal egg belt. Its usable surface area is larger than that of the NATURANova with 4.34 ft<sup>2</sup>/running foot of row length. Its height of 8.25 ft requires a minimum ceiling height of 9.0 ft (with bird proof intermediate ceiling).

The different level widths make for a stepping system, which encourages bird movement between levels. As an option we offer systems with integrated ascent support between the nest and the second manure belt level. This additional device significantly reduces bird manure dropping into the aisle.

## NATURAStep



Integrated ascent support

## **NATURA**Nova – OUTSTANDING ACCEPTANCE OF THE NEST

NATURA**Nova** is an aviary system that has proved itself for many years in the field and was designed by Big Dutchman. All versions of the NATURA**Nova** series are characterized by the connection between the nest and the aviary itself. This construction has the following advantages:

- The hens can easily reach the nest, resulting in nest acceptance of up to 99%
- Pullets become familiar with the system quickly
- Farm staff can use the raised inspection aisle for daily checking of the birds allowing for very clear inspection
- 100% of the house surface is utilized as scratch area providing freedom of movement for the hens and optimum stocking density

**Well thought-out and expansive model range offers the right system for every customer and increased flexibility in older existing houses.**

With the different types of NATURA (Nova 250, 260, 270, 280 and Twin) we offer our customers different aviary systems that can be applied depending on the height of the house, its width and usable surface area. All feature the many advantages of the NATURA concept already mentioned, especially regarding bird acceptance and management.

They differ in regards to the system height and the additional manure belt level above the nest.



NATURA**Nova** 250



The raised inspection aisle allows easy access to the nest

## **NATURA**Nova **TWIN** – WITH PORTAL FRAME FOR HOUSE WIDTHS OF MORE THAN 39 FT

NATURA**Nova** Twin consists of two rows of NATURA**Nova** type 260 and portal frame. This means that all the advantages of NATURA**Nova** aviaries also apply to this system. This includes:

- The COLONY 2+ nest offers the hens sufficient space for laying eggs;
- Misplaced eggs within the system can roll under the approach profile due to the slight slope on the floor → in this position they are safe clean and away from the birds until they are easily collected
- Nipple drinkers close to the nest increase nest usage → very few misplaced eggs;
- Big Dutchman designed and patented approach profile (patent 299 19 443.4) in either galvanized or stainless steel ensures that the hens perch facing into the aisle → reduces manure in the litter at the edge of the system;
- An air duct (optional) increases the DM of the manure up to 60% → reduces ammonia in the house

The house heights indicated for each system are the minimum values and we do not recommend you work under this height. Local regulations may need to be considered.

**For new buildings we recommend to plan significantly higher ceilings.** This is particularly important for optimum environmental control.



NATURA**Nova** 260 – with increased surface area due to an additional slatted area with manure belt above the nest



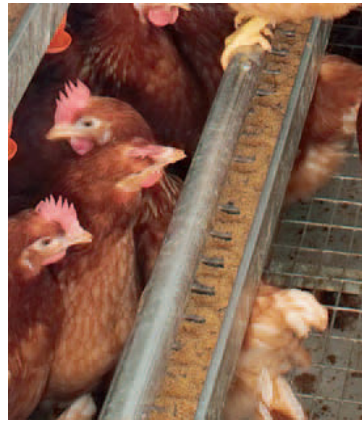
NATURA**Nova** Twin – the portal frame offers the hens a large scratch area

## FEEDING AND WATER SUPPLY

For feeding, the well-proven **CHAMPION®** chain feeding system is used. The advantages are:

- Rapid and even distribution of the feed
- Perching above the feed trough reduces soiled feed within the system and minimizes feed loss
- Maintenance free 90° corners for trouble-free continuous feeding

The hens have 360° access to fresh drinking water throughout the system. Each compartment is equipped with stainless steel nipples, providing every hen with easy access to water at any time. Drip water cups prevent corrosion and help to keep the manure dry.

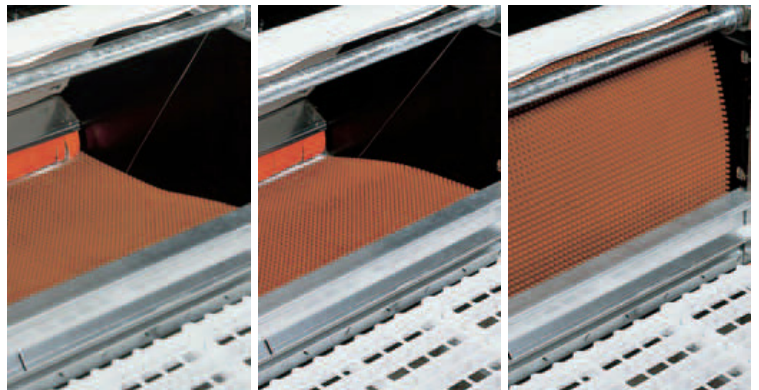


## COLONY 2+ – THE GROUP LAYING NEST WITH HIGHER ACCEPTANCE BY THE HENS

The egg belt is located in the center to allow the eggs be laid directly in front of the belt. This design ensures the shortest possible roll-off distance for the eggs, **minimizing the amount of cracked and checked eggs.**

Before the divided nest floor completely closes the nest, it is first raised in the center, increasing the inclination of the rear part of the nest floor and **removing any eggs from the nest area.**

The nest floor is raised completely, allowing any dirt to drop off the nest insert as well as closing off the nest to **prevent hens from entering and brooding inside.**



## EGG COLLECTION – EASY TO OPERATE AND GENTLE TRANSPORTATION OF THE EGGS

Depending on individual requirements we offer a comprehensive product range of egg collection systems. This includes curve, rod and vertical conveyors, lift systems as well as table drive systems and manual collection tables.

Ask a representative about the new **EGGTRAX** egg collection system.



## MANURE REMOVAL – A SIMPLE PROCESS LEVELS

A by-product of egg production is manure, which can be utilized cost effectively by the producer. The manure belts beneath the tiers collect the droppings; this is a prerequisite for clean and healthy hens. With the utilization of manure belt ventilation, the dry matter content of the manure can be reduced up to 60%.

**The advantages are:**

- Significantly reduced ammonia within the house
- Cleaner healthier hens
- Reduced fly infestation due to regular manure removal
- 50% less storage requirement compared to liquid manure
- Easily spread with both plate and flicker distribution machines
- Drying manure is officially recognized as an environmentally sound procedure

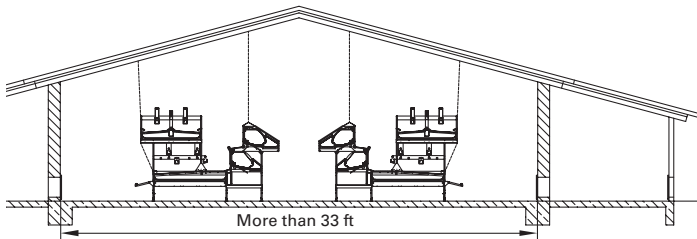


## NATURA AVIARY SYSTEMS – EXAMPLES FOR DIFFERENT HOUSE CONCEPTS

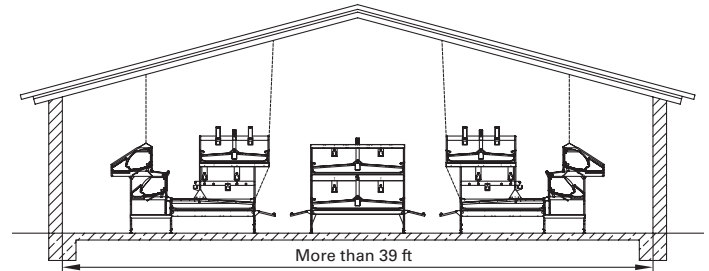
No two houses are the same. Length, width and height are just a few of the variables that need to be taken into consideration when planning a house; is it a barn or free range production, is the house to be equipped with or without a winter garden, does the building

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 the ideal concept. Therefore intensive preparation and consultation are indispensable. Only then will we satisfy our customers and their hens.

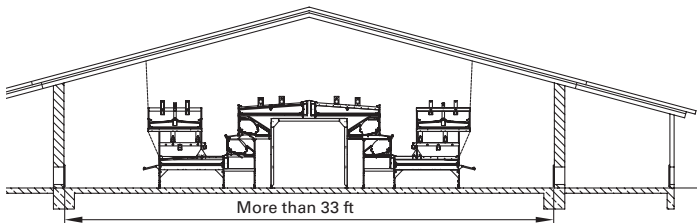
### NATURA Nova (winter garden on both sides)



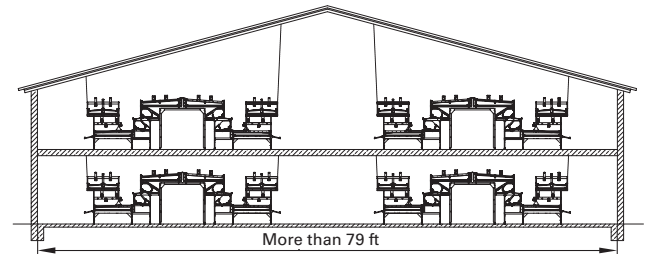
### NATURA Nova + NATURA® 2000



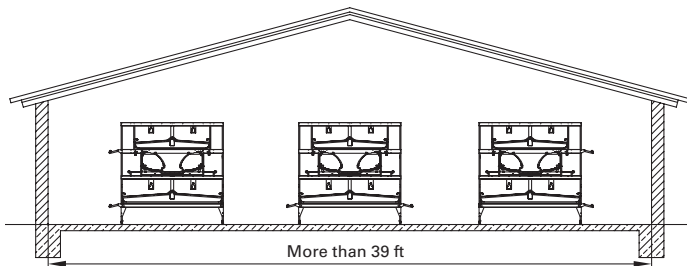
### NATURA Nova Twin (winter garden on both sides)



### 2x2 NATURA Nova Twin



### NATURA Step



The house widths indicated are only approximate values.

### Winter garden – gradual transition from house to free-range area:

- The litter stays dry due to the area being roofed
- By concreting the floor in this area manure does not impregnate the earth
- The winter garden is washable, resulting in a healthier bird environment



**Big Dutchman.**

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Technical details are subject to change. 7/2017

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