CAGE-FREE SYSTEM FOR LAYER PULLETS REARING



BALTIKA PULLETS

The Baltika equipment line is designed with respect to the current EU and US requirements for humane animal housing according to the cage-free technology – cage-free rearing and housing of birds.

The equipment has been tested at the TEXHA research center and approved by international certifying organizations for use in commercial poultry farms.



BALTIKA PULLETS

Modern cage-free system for rearing the layers pullets from the first days of life. Designed specifically for rearing the birds that will be further housed in cage-free systems.

The Baltika-4 system perfectly suits for replacing, which is the most identical in design to Baltika Pullets.

From the first day of placing and up to ca.30 days, the chicks are kept in closed spacious cages, after which the cage doors are opened, and the chicks can migrate freely in the space between the rows.

First, the bottom tiers are opened, and then the upper ones, as the chicks keep growing up. While growing, the bird gets used to living in open raws and can be replaced to cage-free systems with no doors and partitions.



5 FREEDOMS











Doors are necessary only in the first weeks of life to adapt the bird to drinking and feeding, as well as for the safety of chickens, so that they avoid injuries when falling from a height. All the rest of the time, the doors are lowered and serve as floors and ladders.

After reaching the age of 90–95 days, chickens are replaced to a cage-free system for laying hens housing like Baltika-4 or EGGoist. The bird can easily adapt to new equipment without stress or injury.

Modern poultry farming is focused on a humane attitude towards animals and corresponds to the concept of 5 freedoms – the absence of hunger, thirst, stress, trauma and discomfort in birds.

Baltika Pullets is the optimal and effective solution in modern poultry farming for rearing the laying hens pullets, as well as breeder pullets.

Cage-free rearing system

Automated raws with 2 or 3 tiers feature integrated feeding, drinking and manure removal systems. Design of all systems ensures safety for chickens from the first day of their life.

The equipment and components are made of high-quality steel with corrosion-resistant coating. Metal parts suffering from loads, as well as drive mechanisms and power units, are made of high-quality processed steel. The use of plastic is minimized and applied only in places where the use of metal is inefficient. The equipment is very reliable and designed for many years of industrial use.

The floor metal mesh is coated with a special corrosion-resistant coating. Manure easily penetrates through the floor mesh onto the manure removal belt. The manure removal system regularly cleans the manure and removes it from the house. Manure does not stagnate, decompose or release ammonia. The hygiene of the poultry house is at a stable high level.



doors closed



doors opened

The mesh design of the batteries provides good ventilation, exhaust air is constantly replaced with fresh air and does not stall.

The sunrise/sunset lighting system simulates a natural day and night shift. Uniformity of lighting and a well-established daily schedule create perfect conditions for the birds development.

Specifications

Number of tiers	2–3	
Width	2 400 mm	94,5 in
Depth	805 mm	31,7 in
Distance between tiers	654 mm	25,7 in
Feeding front	2 400 mm	94,5 in
Height inside the compartment	508 mm	20,0 in
Area	1,93 sq.m	20,8 sq.ft







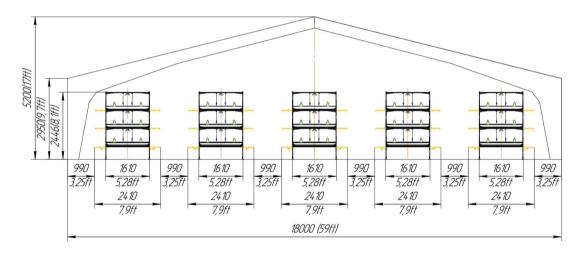


QR code for 360°battery design model

Adaptation of layer pullets

Cage-free batteries line up in long rows with free space in between. The quantity of birds is calculated on the basis of the useful area of the poultry house and the production standards applied.

In the first weeks of life, the chickens sit in cage with the doors elevated. After 30 days, the doors are lowered and fixed in a horizontal position, turning into ladders on which the bird can move freely. All cages are opened, and the bird is able to migrate freely through all tiers of batteries, as well as in the aisles. Also, inclined platforms are installed on the batteries to migrate between the tiers up and down.



Structurally, Baltika Pullets is similar to the Baltika-4 laying hen system, so chickens are guaranteed to adapt to cage-free conditions and do not suffer from stress after replacement to the laying hen equipment.





Feeding

The feeding system consists of an outdoor feed silo, a feed pipe to the poultry house, intermediate hoppers and a longitudinal feeding trough that runs inside the cage battery along its entire length. The trough is looped and filled with feed along its entire length using a chain feed dispenser..

For chicken safety, a special protective mesh is integrated into the thoughs, which provides free access to the feed, but does not allow chicks to come into contact with the moving elements of the feed system.



Types of protection

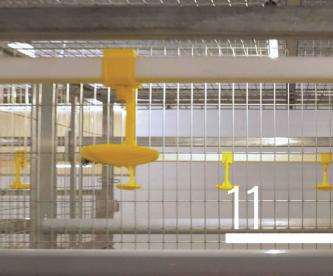
- Trap mesh protects the chicks in the though when the chain is moving
- Protective screen installed above the feed trough and does not allow chickens to get inside

Drinking

The drinking system consists of a suspension filter, a medicator, water consumption sensors, water supply lines to the cages and nipple drinkers. On each tier there are 2 drinking pipes with the possibility of height adjustment, which allows raising the drinking line as the chickens grow and providing them with water from the first day of life. Nipples with up-down movement and 360° rotation are installed on the pipes.







Manure removal

A polypropylene manure removal belt is stretched on each tier under the floor. The manure penetrates through the mesh of the floor and falls onto the belt, and then it is directed to the transverse conveyor and removed from the house. The whole process is fully automated, can be switched on according to the schedule or in manual mode. By means of special plastic scrapers and rollers, the belt is completely cleaned of manure.

Moving scrapers are fixed to the steel rope and remove manure from the concrete floor under the battery. Regular cleaning reduces the level of ammonia and other harmful gases in the house, improves the hygiene of the poultry house and simplifies the maintenance of the microclimate at an optimal level.

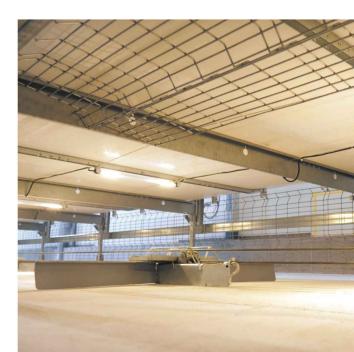
The polypropylene belt is made of primary raw materials at TEXHA's own production facility. It has high wear resistance, resistance to aggressive environment and durability and is adapted for hot washing under pressure.

New Heat-resistant manure removal belt

The new material formula makes it possible to produce a manure removal belt with the same properties as a conventional tape, but with additional resistance to combustion. Recommended to increase fire safety.

Manure belt specifications

Belt thickness	1-1.2 mm (0.04-0.05 in)
Belt width	500-2400mm (1.67-7.87 ft)
Roll length	up to 800 m (2625 ft)





Characteristics of the manure removal belt:

- Resistance to aggressive environment, chemical compounds, detergents and disinfectants
- Resistance to high tensile stresse
- Temperature range from 10 to 60°C
- Smooth surface with low surface adhesion
- Easy cleaning, hot washing and disinfection



Lighting and microclimate

Birds health, growth and productivity depend on temperature, humidity and lighting in the poultry house. The microclimate in the poultry house is crucial in the first days of chickens life, because exactly in this period they are most vulnerable to the environment. But all the rest of the time, while growing, the climate control system must constantly maintain the microclimate at the optimal level.

Day and night shifts are controlled by the artificial lighting system. The light turns on and off smoothly, simulating a natural daily cycle. Economical LED lamps are installed inside the batteries above the feeding troughs.

The optimal microclimate for chickens is maintained in the poultry house. The parameters of temperature, humidity, air composition are controlled by the climate control system. The data from the sensors are processed by the computer and adjustments are introduced to the operation of the climate equipment, if necessary.



Powerful exhaust fans remove excess heat from the house and simultaneously replace the exhaust air with fresh air. Air circulation inside the house is natural, it is also possible to install acceleration fans for redirecting and mixing air flows. If necessary, additional cooling, humidification or heating systems are installed in the poultry house, depending on the regional climate and customer requirements.

Microclimate and lighting systems create equally comfortable living conditions for birds throughout the year, regardless of the season and the duration of the daylight.



Notes



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