

BALTIKA-4

**CAGE-FREE
LAYING HEN
MANAGEMENT
SYSTEM**



TEXHA®

Baltika product line has been designed in compliance with applicable EU and US **cage-free** poultry farming requirements

Baltika-4 system is suitable for 2nd category egg production. The equipment was tested at TEXHA International Research and Development Center and approved by the international certification bodies for use at the industrial poultry farms.



**QR code for
video of Baltika-4 system**

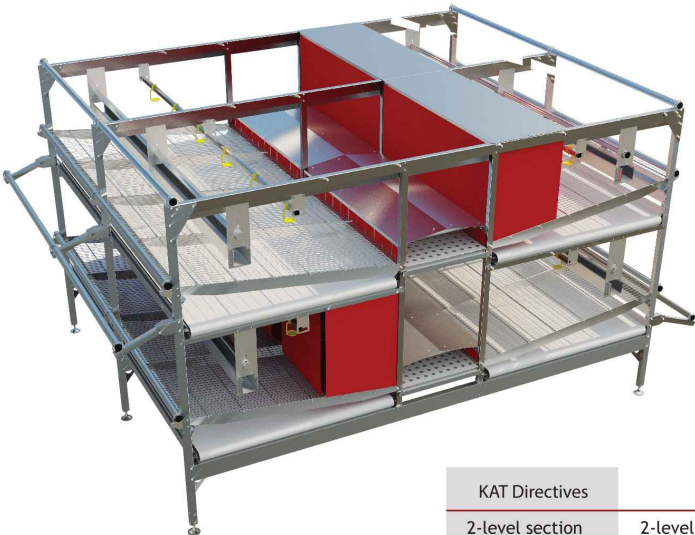
Equipment Design

Useful area is calculated based on the ratio of 9 birds per 1m²/ 10,8 ft².

The battery width is measured along the stands equal to 3,1m/10,2 ft in order to ensure structural reliability and optimal utilization of the useful area of each cell, when installed in the various types of premises.

Distance between the stands equals to 1,22m/4 ft.

The solution incorporates specially designed nests located at each battery level. The nests feature inclined bottoms equipped with the lifting mechanism in order to prevent the bird access to the nest during nighttime.

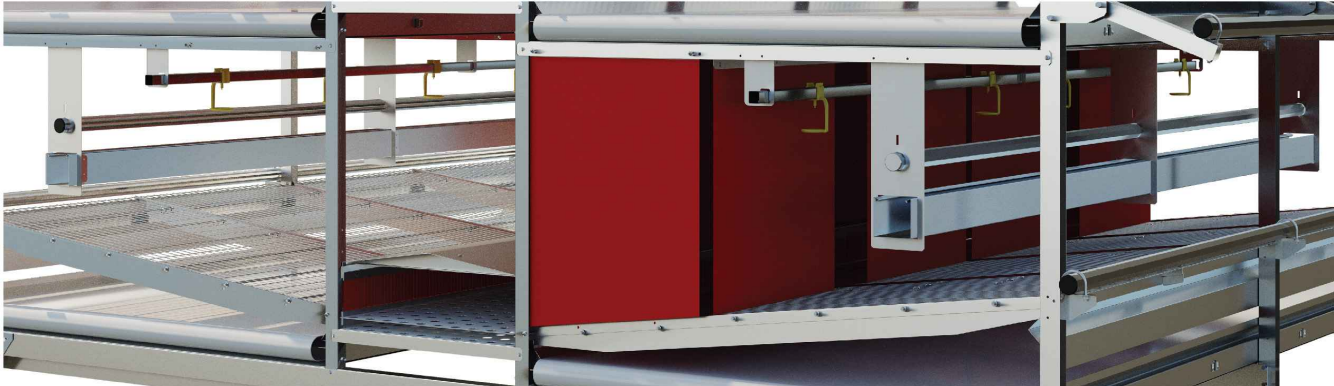


Technical Specifications

	KAT Directives	EU Directives		US- Cage Free
	2-level section	2-level section	3-level section	2-level section
Section width	2 750 mm	2 750 mm	3 100 mm	10,18 ft
Section depth	1 219 mm	1 219 mm	1 219 mm	4 ft
Section height	1 990 mm	1 990 mm	2 760 mm	6,52 ft
Feeding frontline	9 752 mm	9 752 mm	14 628 mm	32 ft
Nest area	0,813 m ²	0,813 m ²	1,219 m ²	11,52 ft ²
Useful section area*	10,84 m ²	10,84 m ²	16,25 m ²	116,48 ft ²
Floor mesh slope	14%	14%	14%	14%
Number of birds per section*	98	98	146	128
Space under battery	450 mm	450 mm	450 mm	1,47 ft
Level height	767 mm	767 mm	767 mm	2,5 ft

*Depending on building characteristics

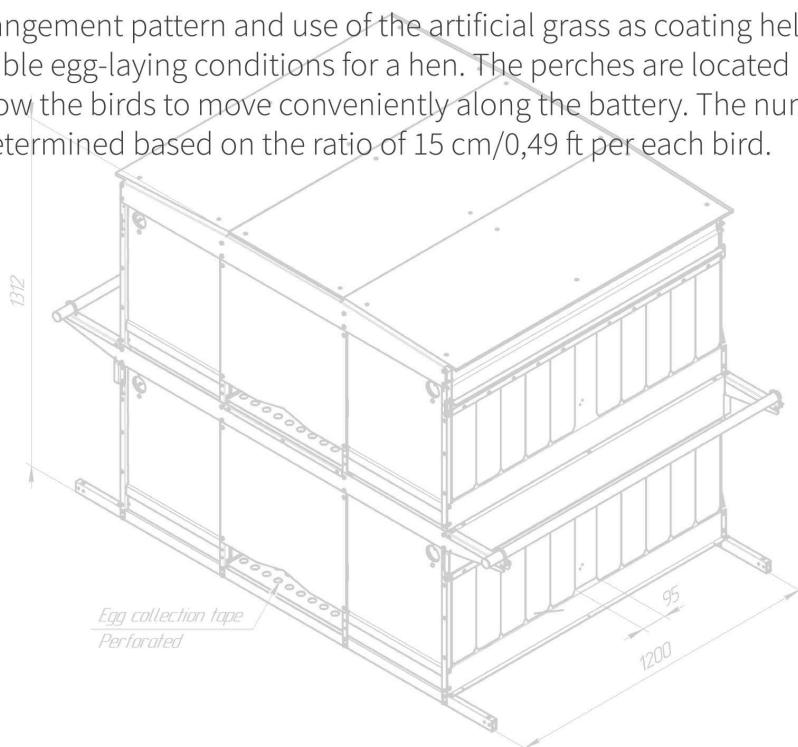




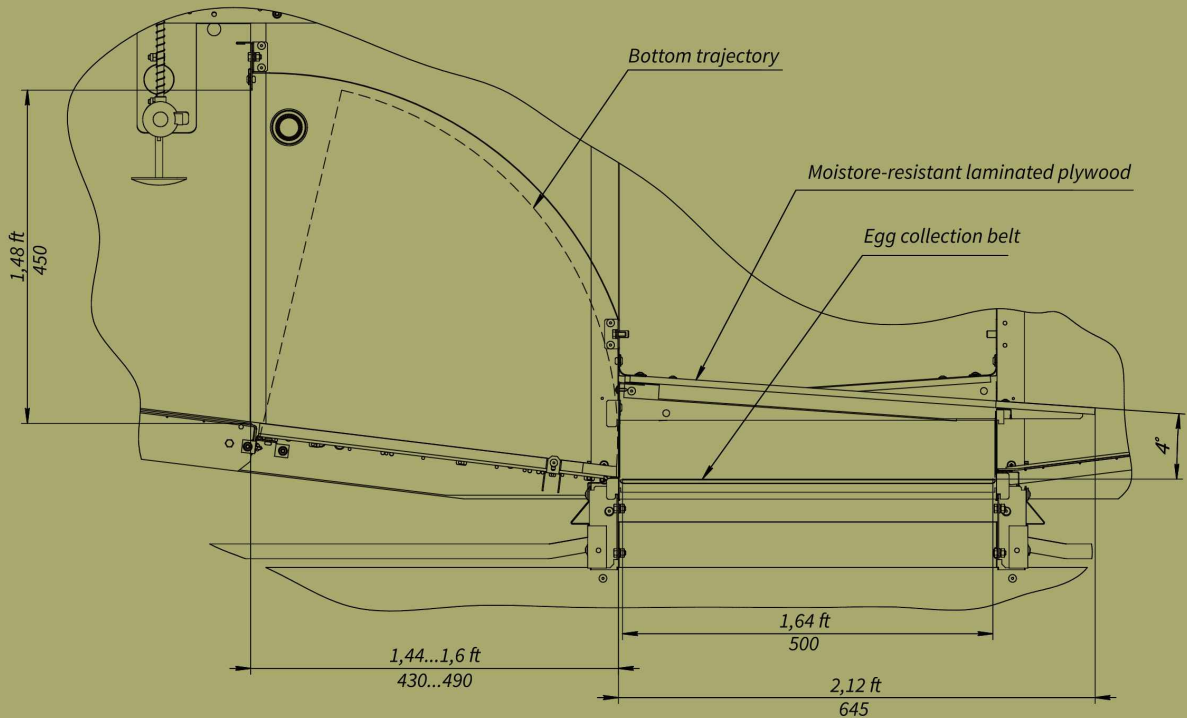
Nests and Perches

The nest area is designed to accommodate 120 birds per 1 m²/ 10,8 ft². The nests are arranged in the checkerboard order at each level on the both sides of the egg collection line running at the middle of the battery.

The nest arrangement pattern and use of the artificial grass as coating help to create the comfortable egg-laying conditions for a hen. The perches are located in such a way as to allow the birds to move conveniently along the battery. The number of perches is determined based on the ratio of 15 cm/0,49 ft per each bird.

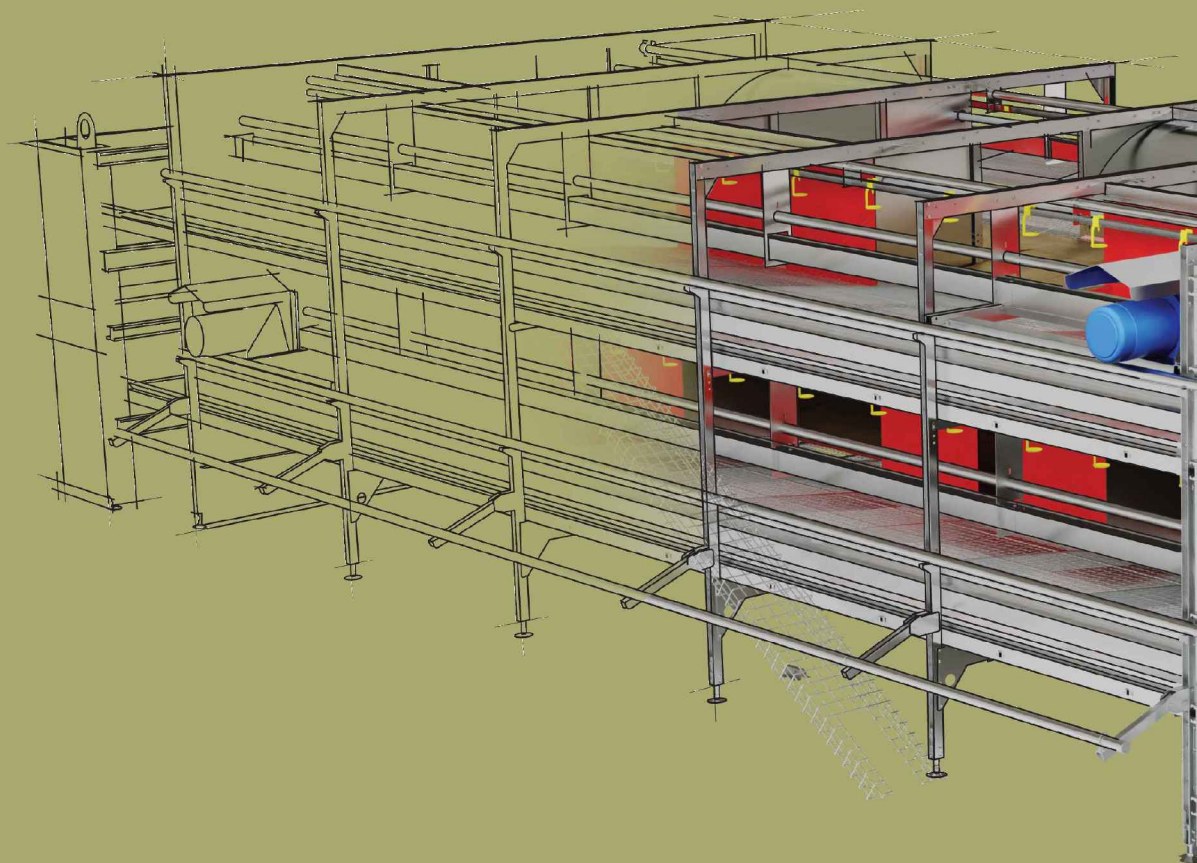


Drawing of Automation Nest with Bottom Lifting

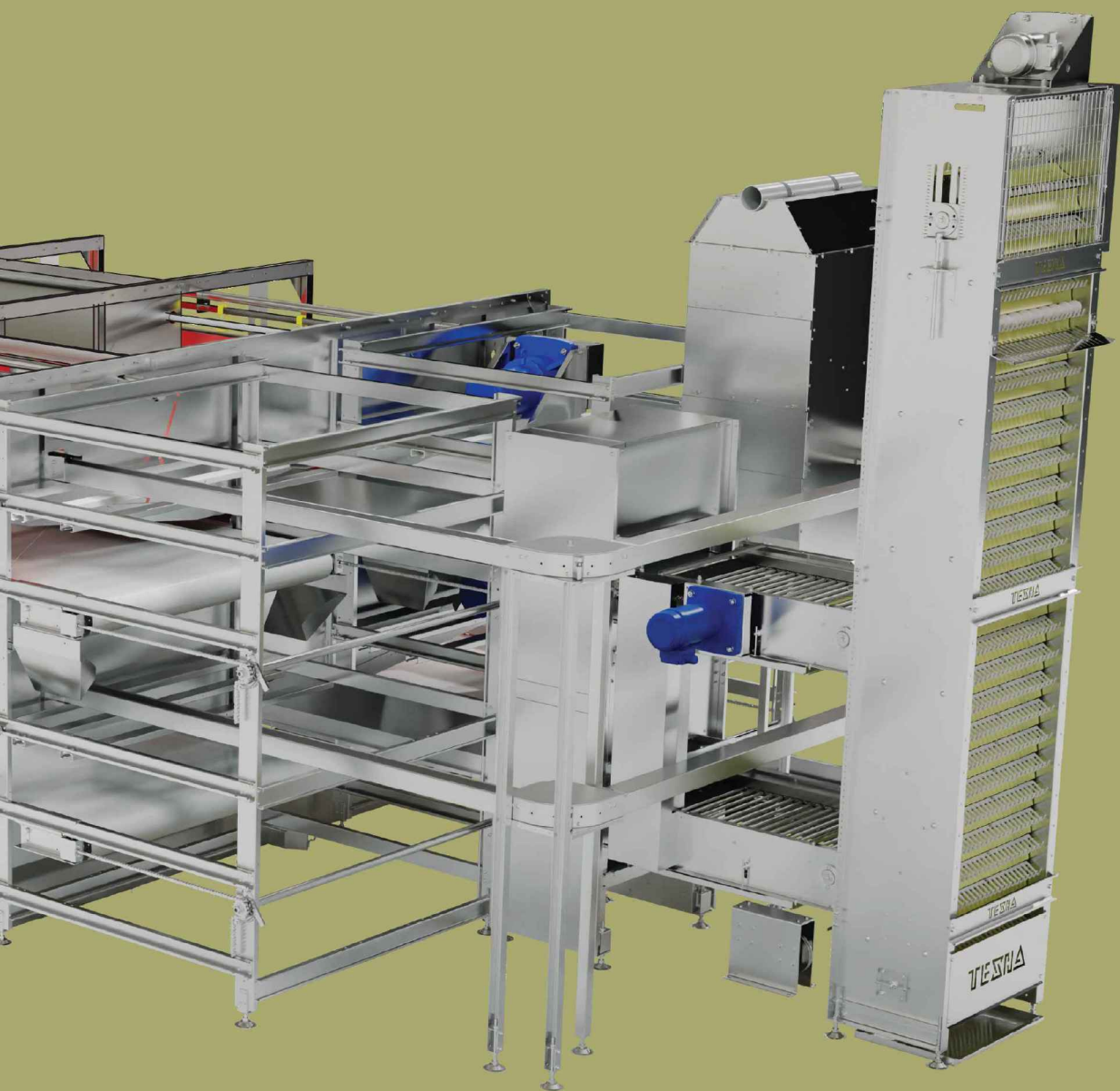


Technical Specifications

Depth	430-490 mm/1,38 ft
Length	1219 mm/4 ft
Floor coating	Artificial grass
Floor slope	14%
Structural material	Galvanized steel
⌀ Floor mesh	3,8 mm/0,15 in
Floor mesh coating	Zinc-plating
Opening / closing time	15 minutes



QR code for battery
construction model



Litter Removal

Litter removal belts are produced at TEXHA's own in-house manufacturing site

Litter removal proves in Baltika-4 solution is fully automated. The system is equipped with polypropylene belts running below both levels and includes special devices for removal of litter from the floor below the battery space.

The belt is cleaned from the litter residues by dedicated scrapers made of durable wear-resistant material. Tension stations with auger shafts ensure efficient belt cleaning on the inside. In order to enhance the system reliability, we use two separate belts running at every level: one belt on each side.



BELT SPECIFICATIONS

Belt thickness	1-1,2 mm/0,04-0,047 in
Belt width	1210mm/4 ft

TEXHA offers a new concept of Baltika-4 solution integration into the multi-level poultry house facility, where the equipment and the building itself represent a single unified structure. Here, conventional floor is replaced with the dense mesh flooring, which enables efficient litter removal not only below the batteries, but also from the aisles.

The litter is collected and removed from the poultry house using the polypropylene belt running at the lowest battery level beneath the slatted floor. When litter is gradually accumulated, it is carried towards the drive station, from where it is conveyed to the crosswise unloading conveyor.

NEW

In the drive station area, the belt surface is cleaned by the dedicated scrapers made of the wear-resistant material. Special mechanism presses the scrapers against the work surface of the belt, which allows efficient cleansing of the belt from litter.

The crosswise conveyor is equipped with the rubber-textile belt for removal of litter from the poultry house directly to the inclined conveyor, which, in turn, is used for discharge of litter into a vehicle for further disposal. The inclined conveyor also features a dedicated cover made of galvanized steel.

Significantly reduced poultry exposure to the litter helps to prevent many potential issues related to the health of the flock.

THE LITTER REMOVAL SYSTEM CONSISTS OF

Drive station and tension station

Polypropylene belt

Crosswise and inclined conveyors





Drinking System

Baltika-4 includes a reliable and easy-to-operate drinking system consisting of the water treatment unit, water distribution system and drinking lines at each level.

Water treatment unit: filter, water meter, medicator, pressures gauges, valves and fittings.

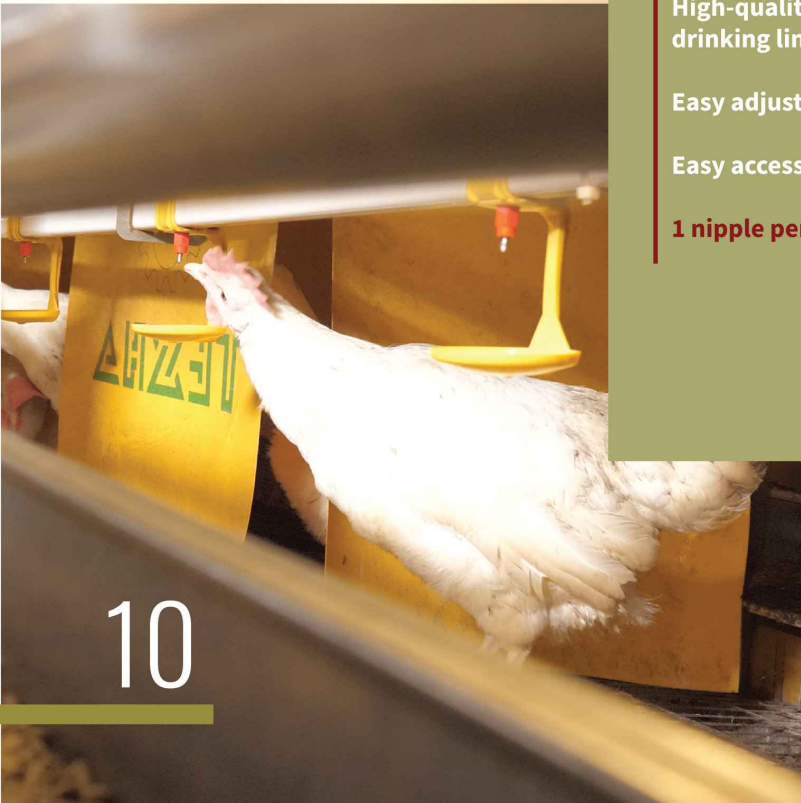
Vertically operated nipple drinkers with drop catcher bowls.

High-quality assembly and reliable sealing of drinking line connections.

Easy adjustment of drinking line height.

Easy access to water for every hen.

1 nipple per 10 hens



Feeding System

Feed distribution system is fully automated and is intended to deliver fresh and uniform feed to every hen at every level and to ensure even distribution of feed in the feeding tray.

The feed supply conveyor is equipped with dual augers operated from separate drives, which allows significant reduction of the hopper filling time and idle time of the system.

The perches located above the feeding tray prevent contamination of feed with litter.

Feeding frontline: 100 mm/0,32 ft per 1 bird.

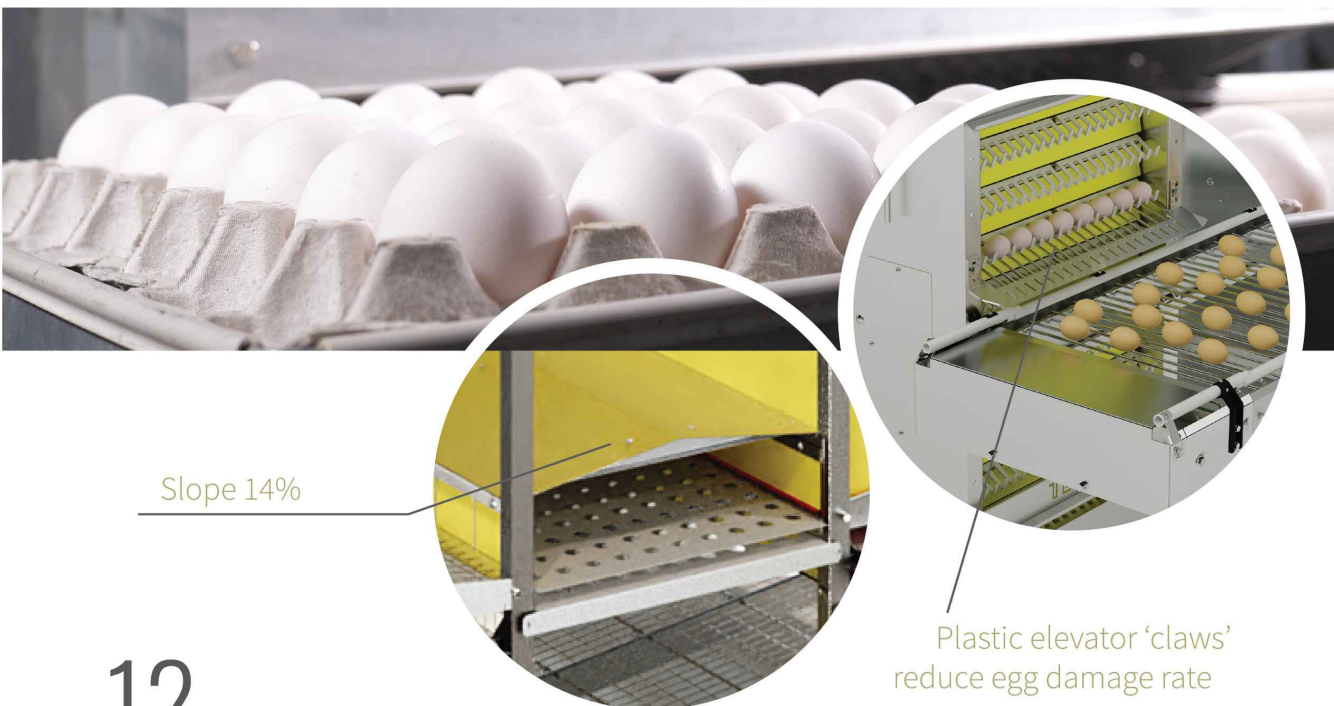
EggStream Egg Collection System

Clean eggs are the key advantage of our system!

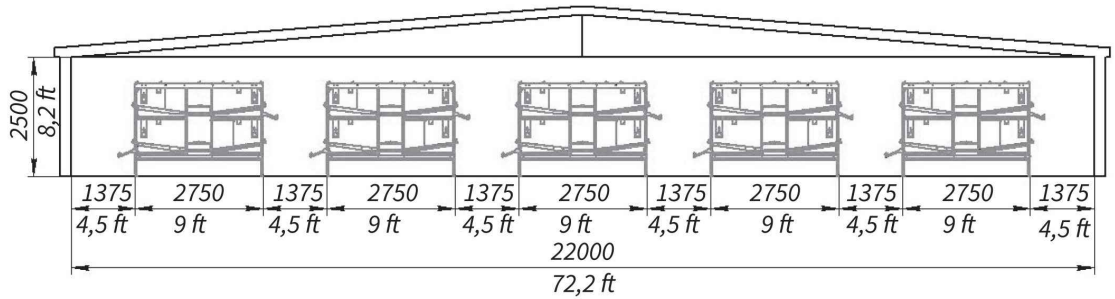
Specially designed egg collection tunnel covering helps to protect the eggs from dust, litter and from pecking by the birds. The covering slope efficiently prevents accommodation of litter.

Belt conveyor of the egg collection system runs at the middle of the battery. Such arrangement helps to increase both the useful area of the cell and the maximum poultry population. This perforated polypropylene belt has a width of 0,5 m/1,64 ft.

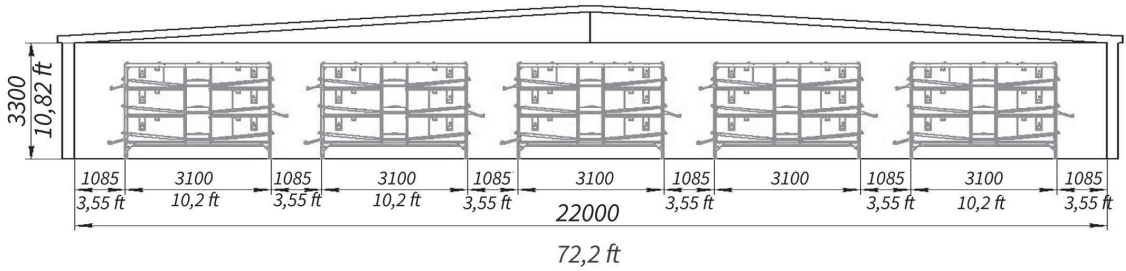
The belt runs through all levels of the egg collection system, except for the ground level, in order to ensure successful retrieval and handling of eggs to the collection points.



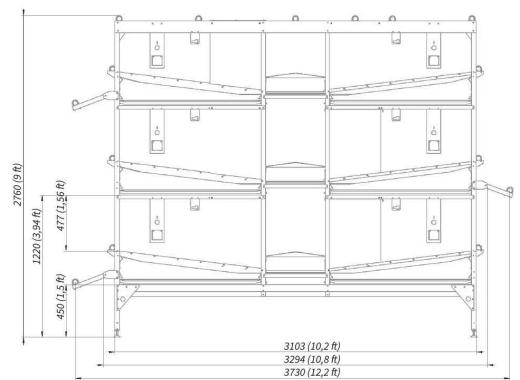
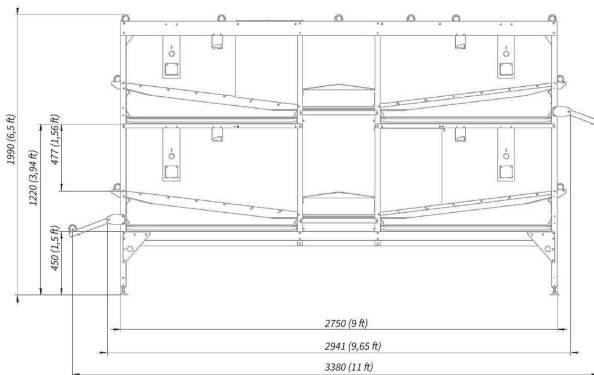
TYPICAL PROJECTS



2-level section



3-level section



Lighting

Reduction of energy consumption by 10 – 15 times as compared to the filament lamps and by 2 – 3 times as compared to luminescent lamps

Sunset/ sunrise switching system to eliminate stress for birds

Automated lighting intensity control in 0% - 100% range

Easy system installation

IP67 protection rating, suitable for high-pressure jet washing and disinfection

Compliance with environmental standards



Microclimate

Automated regulation
Air temperature control
Carbon dioxide level control
Humidity control

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