



BROILER CHICKEN FARMING

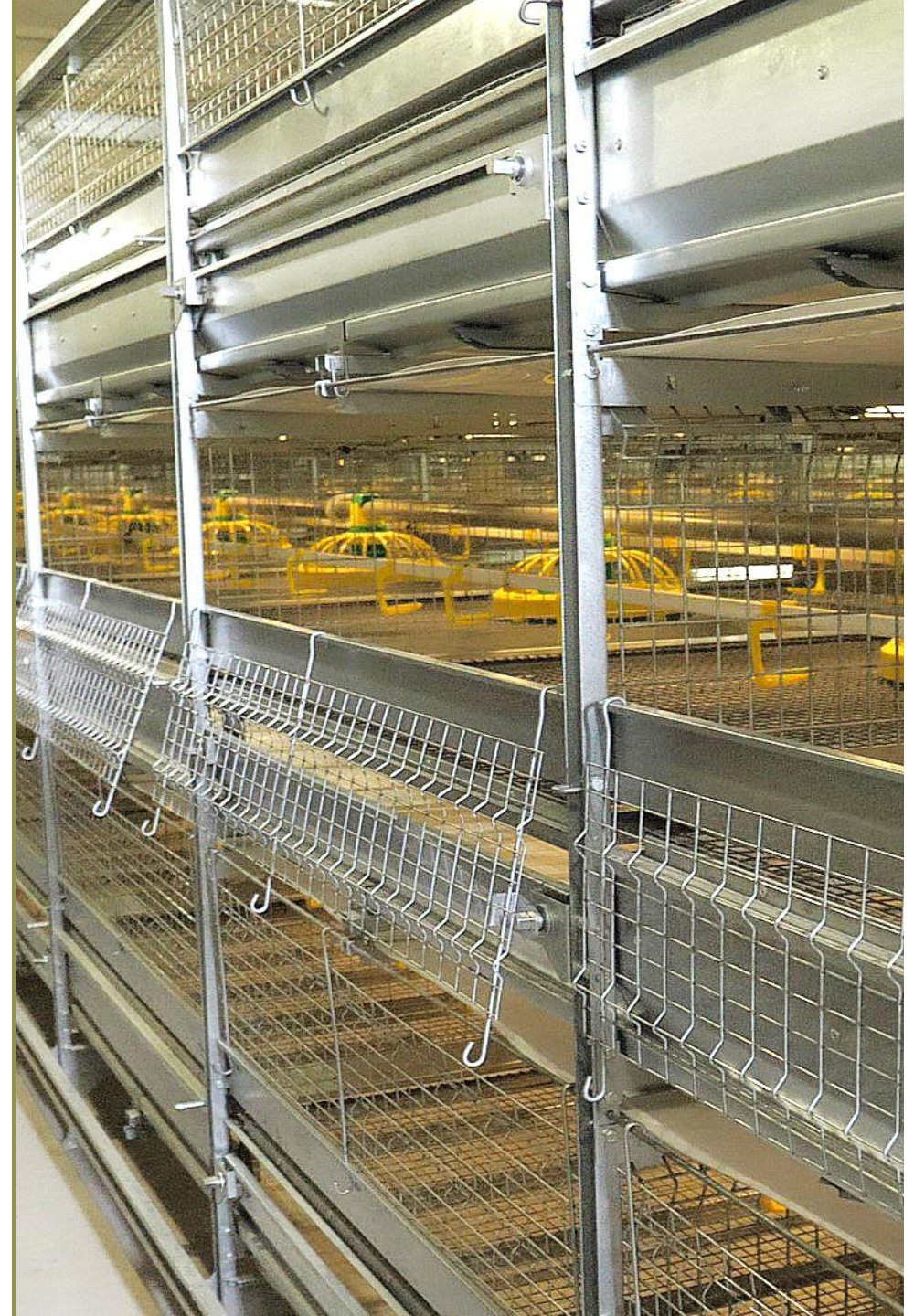
CAGE EQUIPMENT

TEXHA.COM



DESIGN AND TECHNOLOGY

- TEXHA has patented its proprietary technology of fully automated poultry harvesting process marketed under ROBOT brand
- ROBOT technology has been tested at the TEXHA Research and Development Center
- ROBOT technology's benefits have been verified both as part of the scientific studies and during field trials at the facilities of our customer's across the world
- **New** TEXHA has also designed and implemented the automated poultry depopulation process
- TEXHA is number 1 in broiler growing technologies



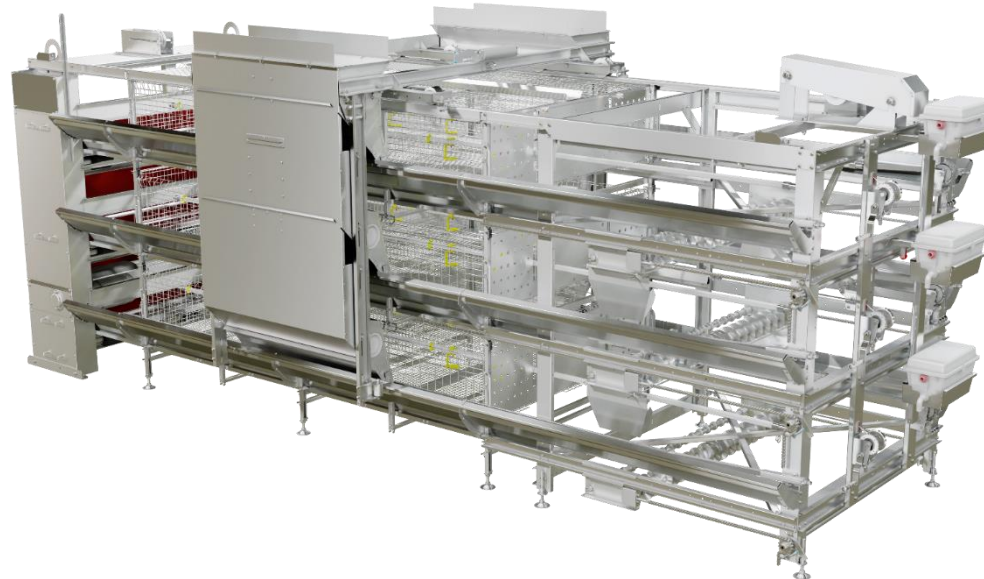
EQUIPMENT MODELS



ROBOT

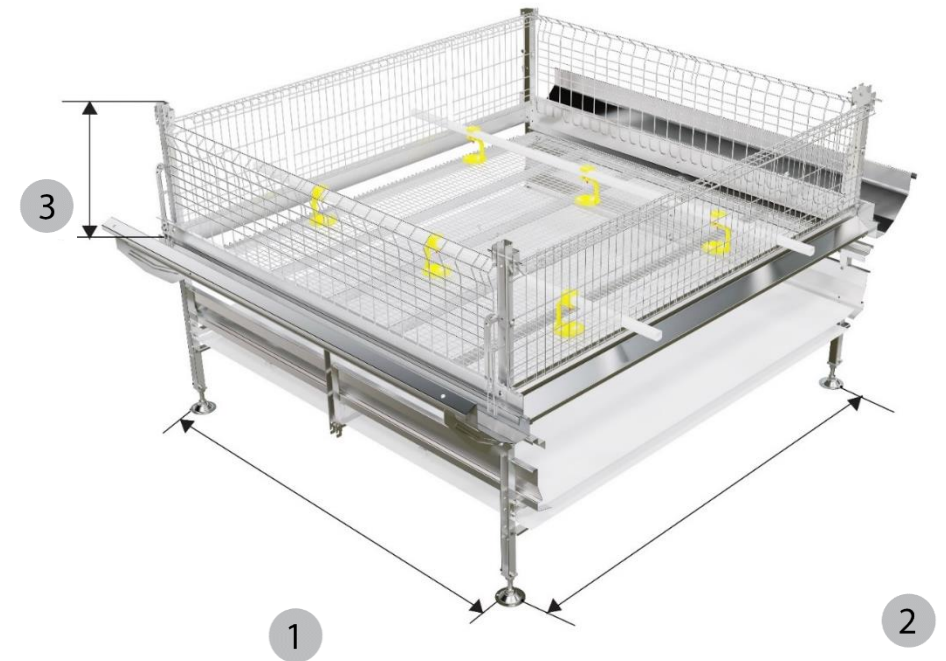


AUTOMAT



Hopper (H, H+)

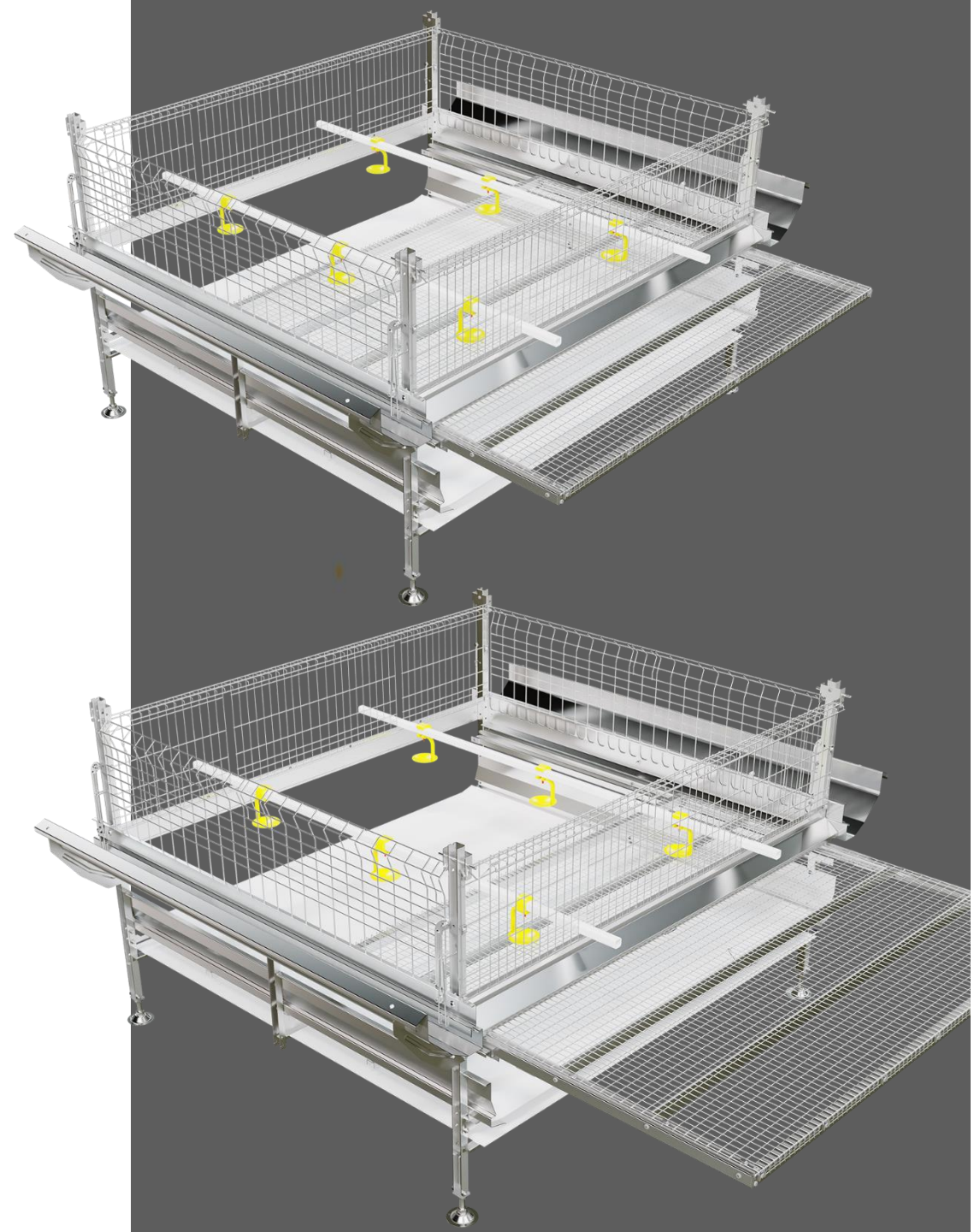
	Automat	Robot	H	H+
Cage width, mm	1 200	1 200	1 200	1 200
Cage depth, mm	1 608	1 608	1 350	1 610
Facade height, mm	383	383	383	383
Distance between levels, mm	654	654	654	654
Cage area, sq.m	1,93	1,93	1,62	1,93
Number of birds per cage*	55	55	50	55
Floor area per bird, sq.cm*	350,8	350,8	324	351
Feeding frontline*	Up to 60 birds / feedbox	4,8 cm/bird	4,36 cm/bird	
Feeding system	Feedbox inside cage		Outside gutter	
Open drinker system	manual	robot	manual	manual



**May be adjusted depending on the cross-breed of birds*



AUTOMATED poultry harvesting process using conveyor belt and manually operated floor shift system



ROBOT SYSTEM

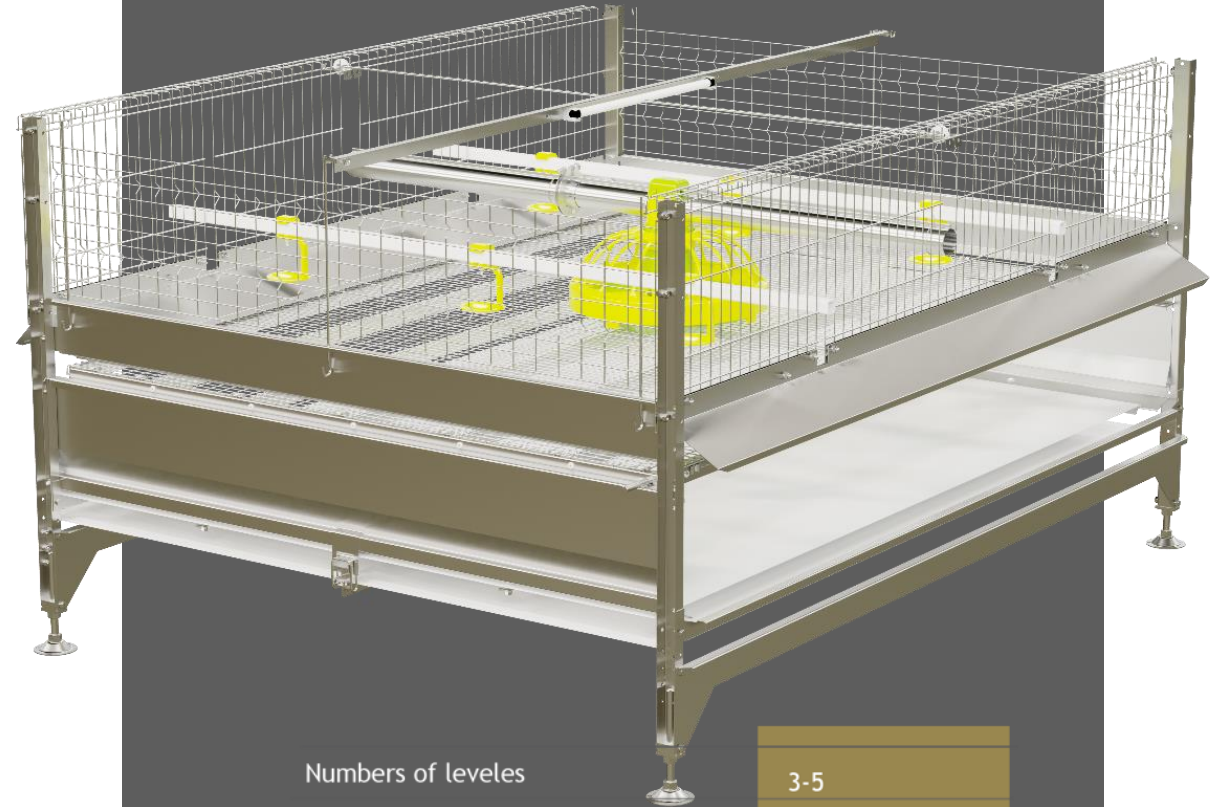
- Reduction of poultry injury rate by 1,5-2 times
- Min labor efforts
- Flock increase by 15%
- No stress for birds
- I category meat yield up to 80%
- Reduced poultry rearing period
- Improved feed conversion performance
- Reduced energy costs and veterinary medicine consumption

ROBOTized poultry harvesting process using conveyor belt and automated floor shift system



Standard values of broiler live weight, when reared during up to 42 days

per 1 m ²	55 kg
Per 1 cell	106,1 kg



Technological Performance

Rearing Period, days	Average Weight of 1 Chicken, kg	Preservation, %	Daily Weight Gain, g	Feed Conversion	Rearing Performance Factor
39	2,575	95,1	66	1,69	371,5
38	2,490	96,3	65,5	1,67	377,9
39	2,596	97,6	66,7	1,63	398,6
39,5	2,580	97	64,5	1,65	384
38,5	2,504	97	65	1,64	384,7
39,5	2,518	95,5	63,5	1,62	375,8
38,5	2,503	97,4	65	1,58	400,8
38,5	2,654	96,8	68,6	1,63	409,4
38,5	2,587	98,3	67,2	1,64	402,8

Numbers of leveles	3-5
Number of birds per gage	55
Cage width, mm	1200
Cage depth, mm	1608
Distance between levels mm	654
Poultry harvesting opening height, mm	190
Fasade height, mm	383
Door height, mm	288
area per bird, cm ²	350,8
Cell dimensions, mm	16*25
⊗ Floor mesh wire, mm	2

Metal floor mesh

- Improved hygienic conditions in the poultry house
- Reduced microbiological burden and impact on the poultry health, prevention of hock burns
- Durability thanks to the anti-corrosive coating

Improved cage design

- Guiding grooves
 - Form ventilation channel that provides fresh air inflow to every cage
 - Reduce leg and wing injuries during harvesting
- Perforated partition installed only at the battery starting point improves air circulation and ensures consistent microclimate conditions
- Floor shift along the battery during poultry harvesting
 - Reduces poultry injury rate
 - Enables narrowing of the inter-battery aisles to install one extra battery

ROBOT

PROVED IN PRACTICE:

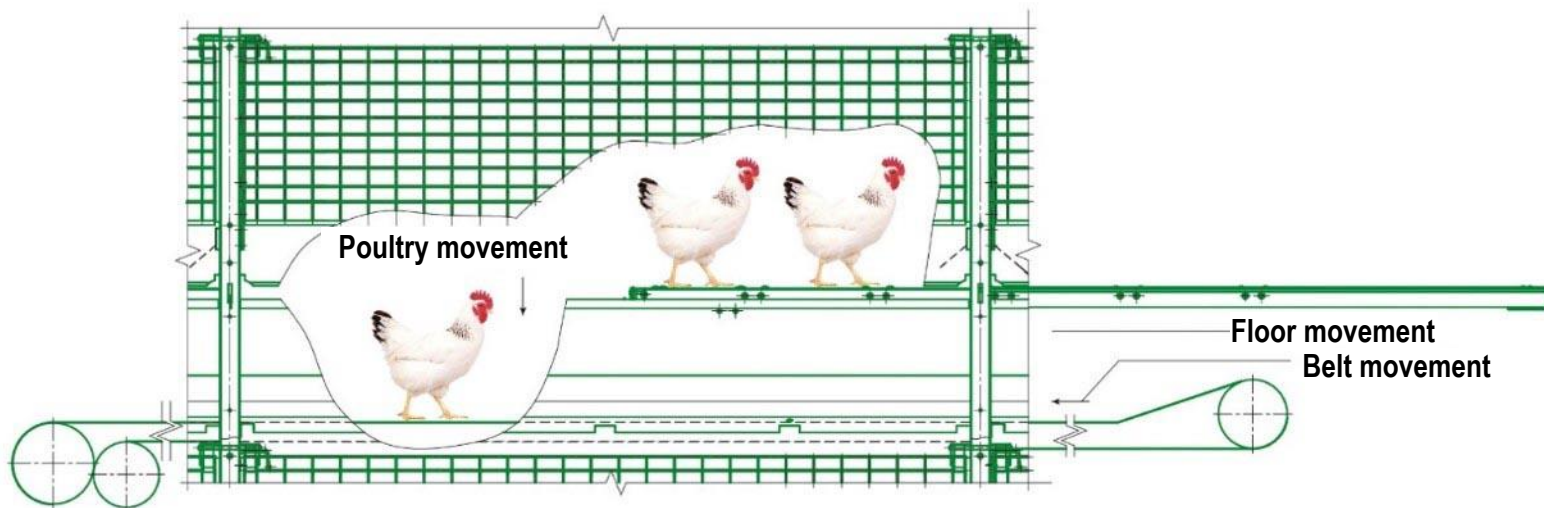
Broiler chicken farming equipment by TEXHA supports **day-old chicks stocking in 4 levels!**

Poultry harvesting process proceeds using the preliminary cleaned litter removal belt. The cage floors are shifted along the batteries, and the birds arrive at the conveyor belt carrying them to the loading table for packing into crates.

ROBOT

In robotized system the poultry harvesting process proceeds in the total darkness without involvement of the facility personnel, which reduces poultry stress, improves injury rate, saves labor and productions costs.

- Ability to set and adjust the harvesting process performance
- Labor cost saving
- Elimination of human factor influence
- Expedited and easily manageable harvesting process
- Enablement of uninterrupted logistic processes
- Reduced bird injury rate
- Improved quality of poultry meat
- Increased useful area of the facility
- Easy maintenance



SIRIUS POULTRY HARVESTING TABLE

Improves performance of the poultry harvesting process, where the poultry is unloaded from the cage batteries for further handling for slaughter.

Shape, dimensions and operational mechanism of SIRIUS table contribute to the poultry harvesting process improvement. SIRIUS table surface rotates with the set speed in order to prevent bird injury during reception and ensure comfortable operation rate for personnel involved.

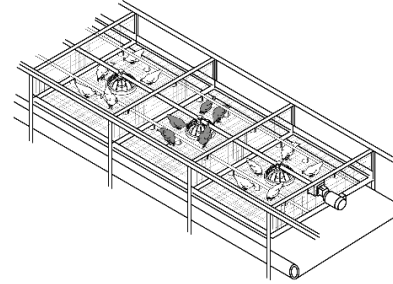


NEW AUTOMATED POULTRY DEPOPULATION PROCESS

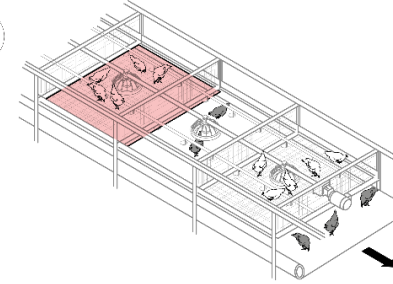
Advantages:

- Removal of 30% of bird population with minimum labor efforts and time spending
- Minimizing human factor influence
- Expedite and efficient depopulation process
- Opportunity to improve process logistics
- Easy maintenance

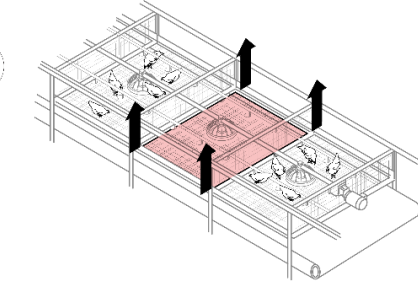
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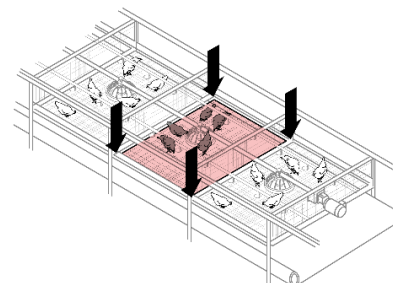
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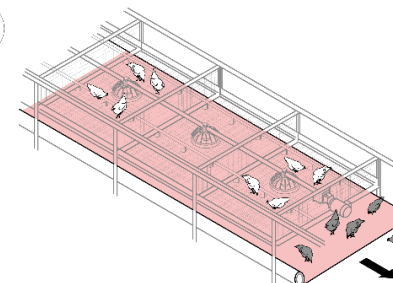
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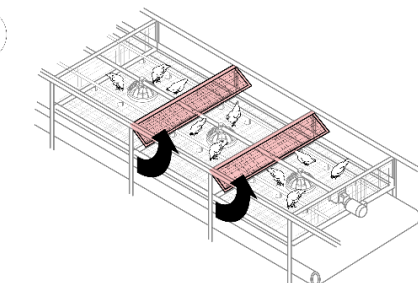
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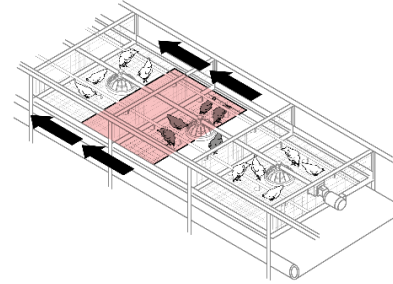
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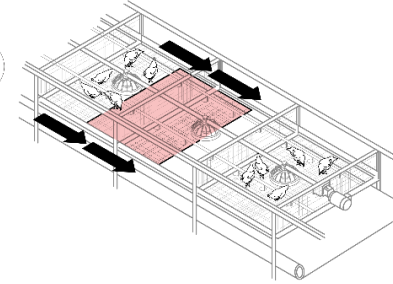
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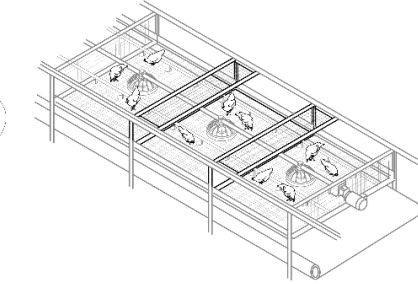
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LITTER REMOVAL SYSTEM

Full process automation

The solution use the belt-based litter removal technology, which ensures quick and reliable litter removal from all levels.

- Metal materials with high corrosion resistance
- Hot dip galvanization of conveyor surface
- Polypropylene belt
 - Manufactured by TEXHA
 - Top-tier raw materials
 - High quality
 - Tested at internal laboratory
 - Quality control



DRINKING SYSTEM

This reliable, efficient and easy-to-use drinking system consists of a water treatment unit, a water distribution system and drinking lines at every level.

- Water treatment unit: filter, flow meter, medicator, pressure gauges, valves and fittings
- Nipples moveable up and down and rotatable by 360°
- High-quality assembly and line connection sealing
- Easy adjustment of drinking line height
- Free access to water even for day-old chick



FEEDING SYSTEM

Automated feedbox filling system allows programming of the feeding parameters and precise adjustment of feed distribution depending on the utilized poultry cross breed. The replenishment sensor measuring the feed fill-up of entire line is installed in the last cell feedbox.

The system incorporates:

- External feed storage bin
- Crosswise feed supply system
- Lengthwise intra-cage feeding system

Advantages

- Continuous availability of feed for broiler chickens.
- Fast feed distribution across all battery levels.
- Low energy consumption of feed distribution process.
- Easy and reliable design.
- Ability to adjust the feed quantity in the feedbox depending on the age of birds.



FEEDBOX KoChiBo

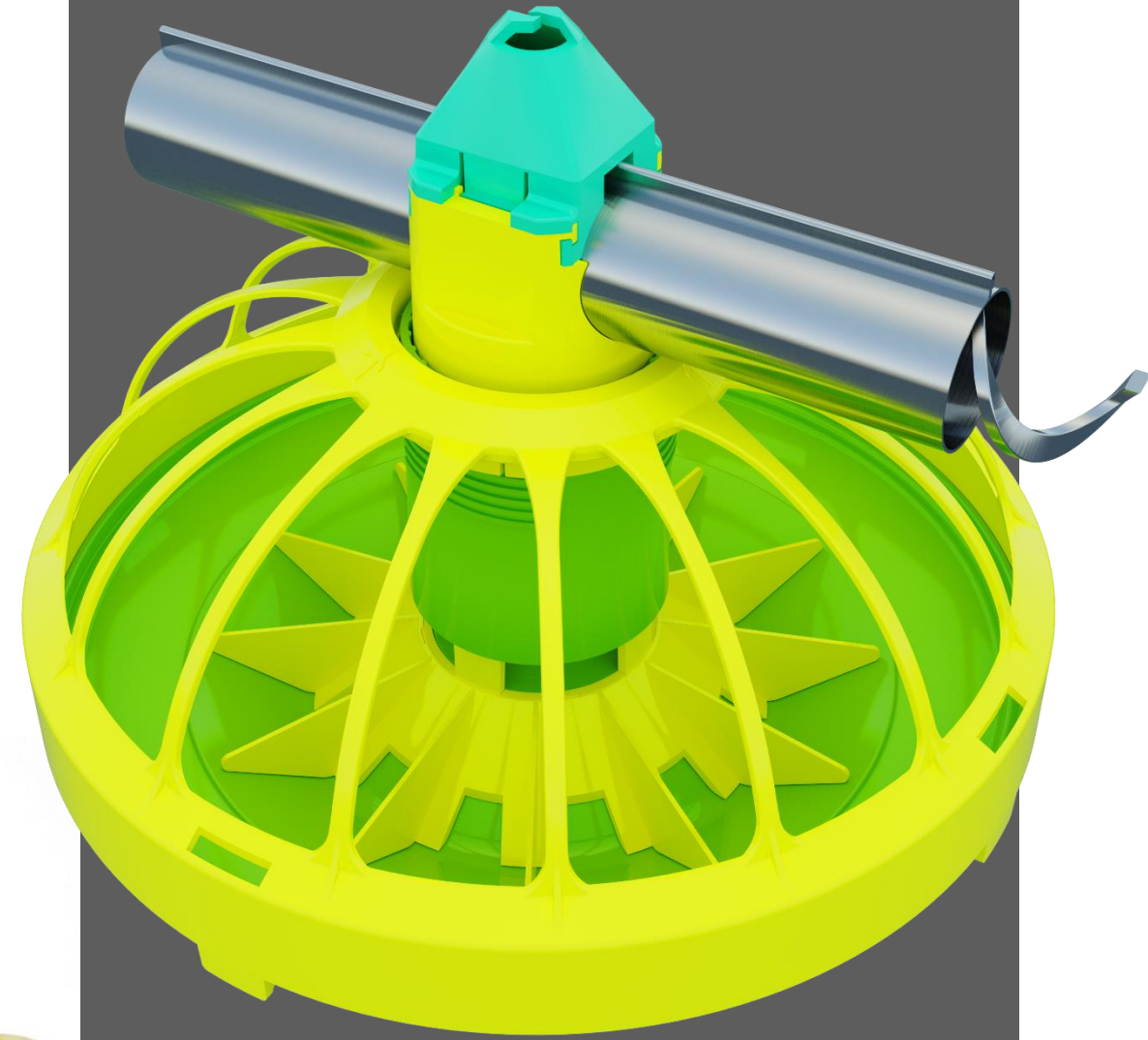
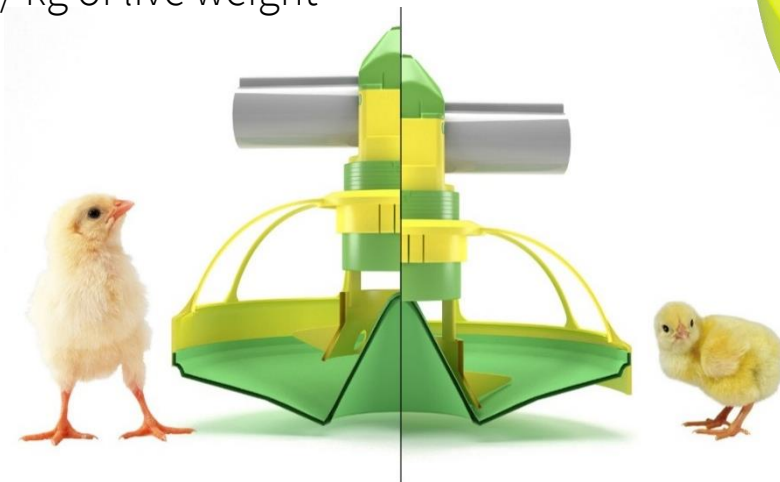
Use of **multi-purpose KoChiBo** feedbox is a key to successful broiler chick fattening. This feedbox has been specifically designed for meat business and adapted for cage farming method.

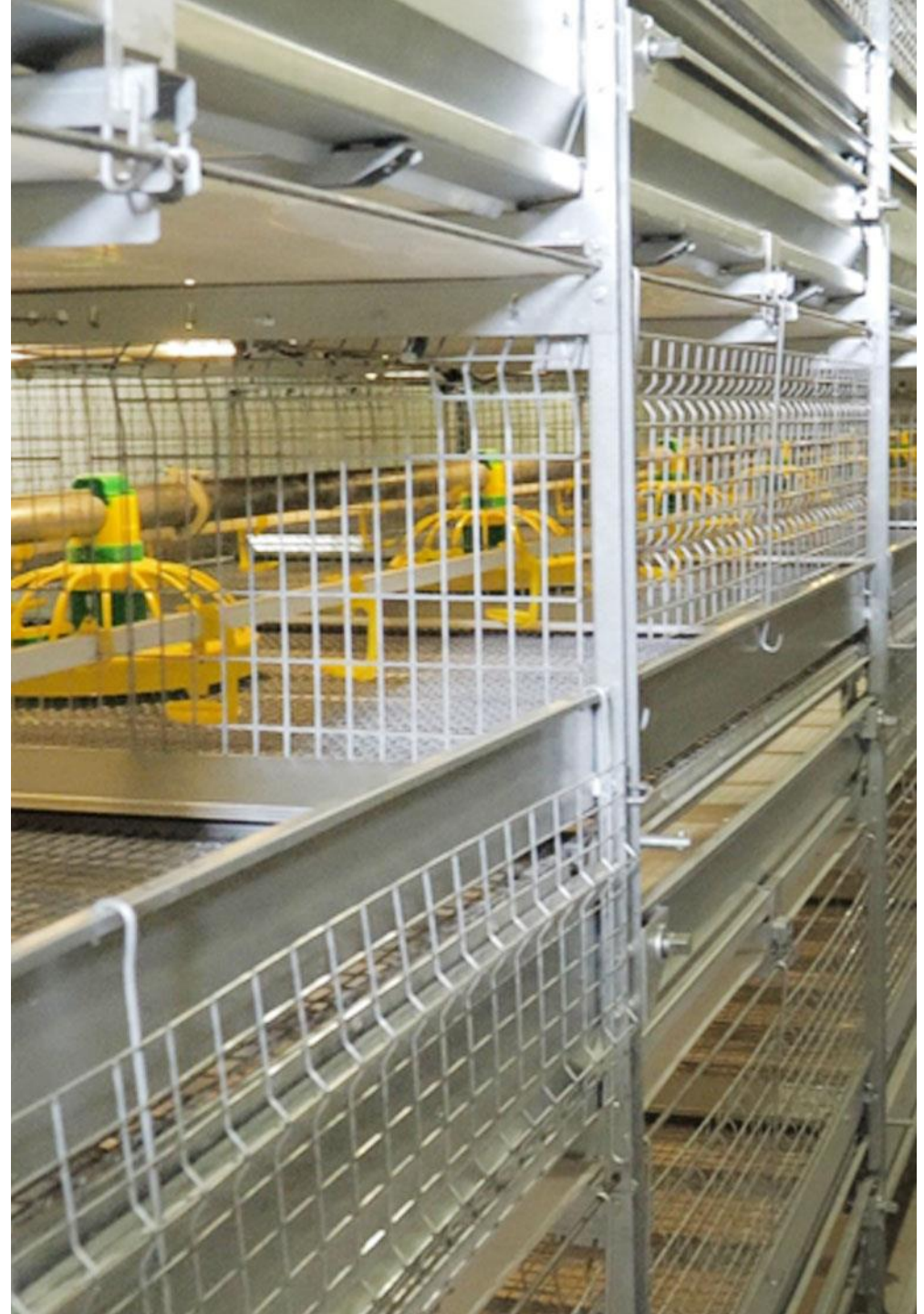
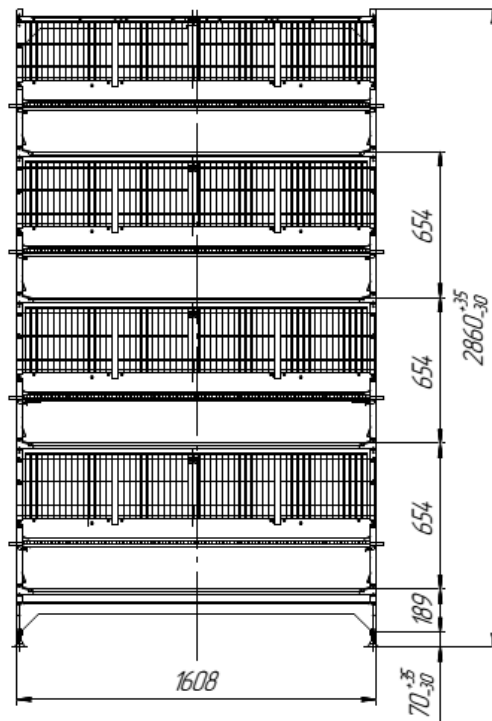
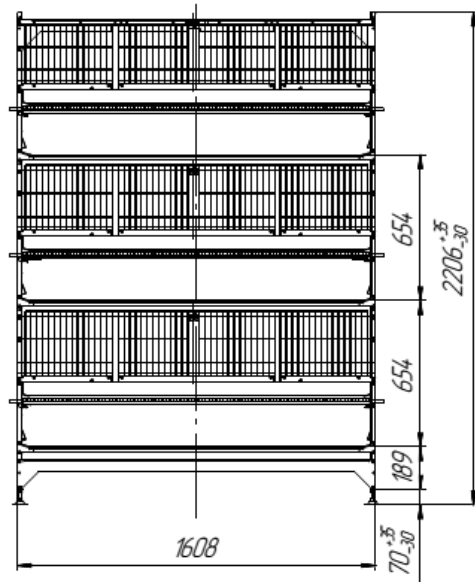
Two adjustment systems

- Feed level adjustment
 - Feed volume adjustment
- Depending on the chick age

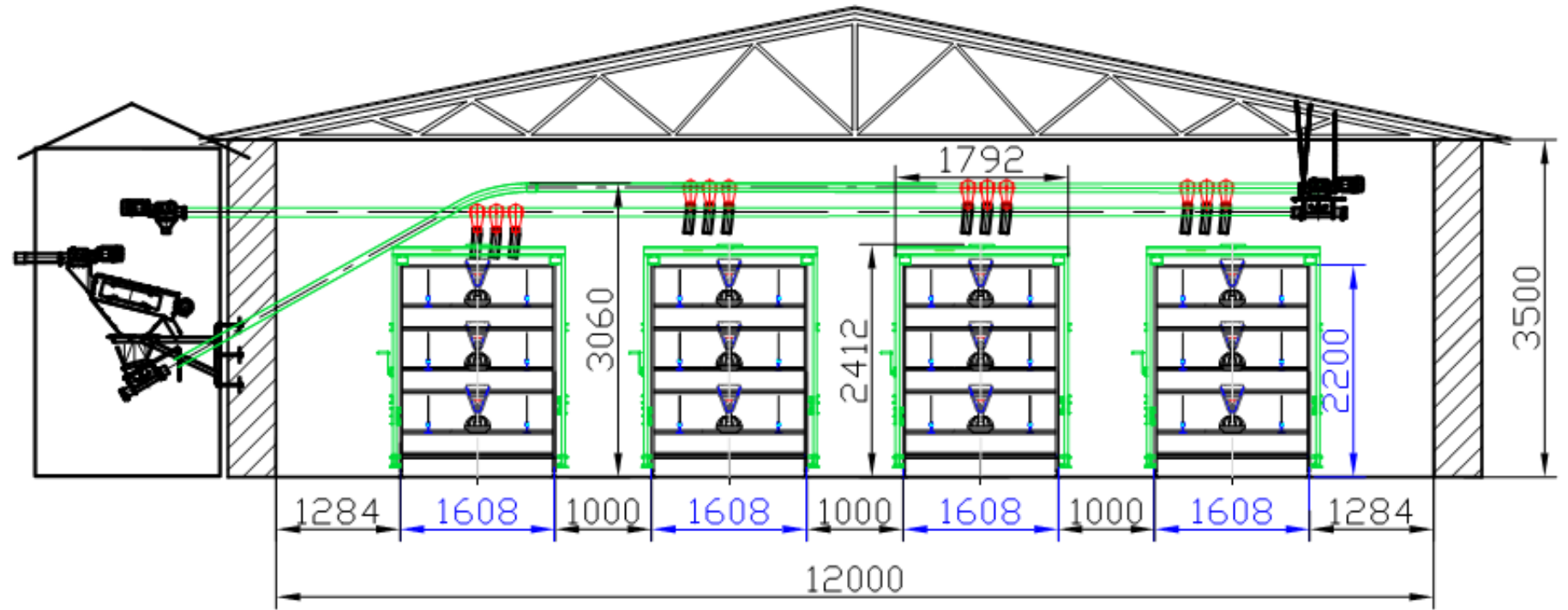
Feed conversion –

1,62 – 1,64 kg / kg of live weight

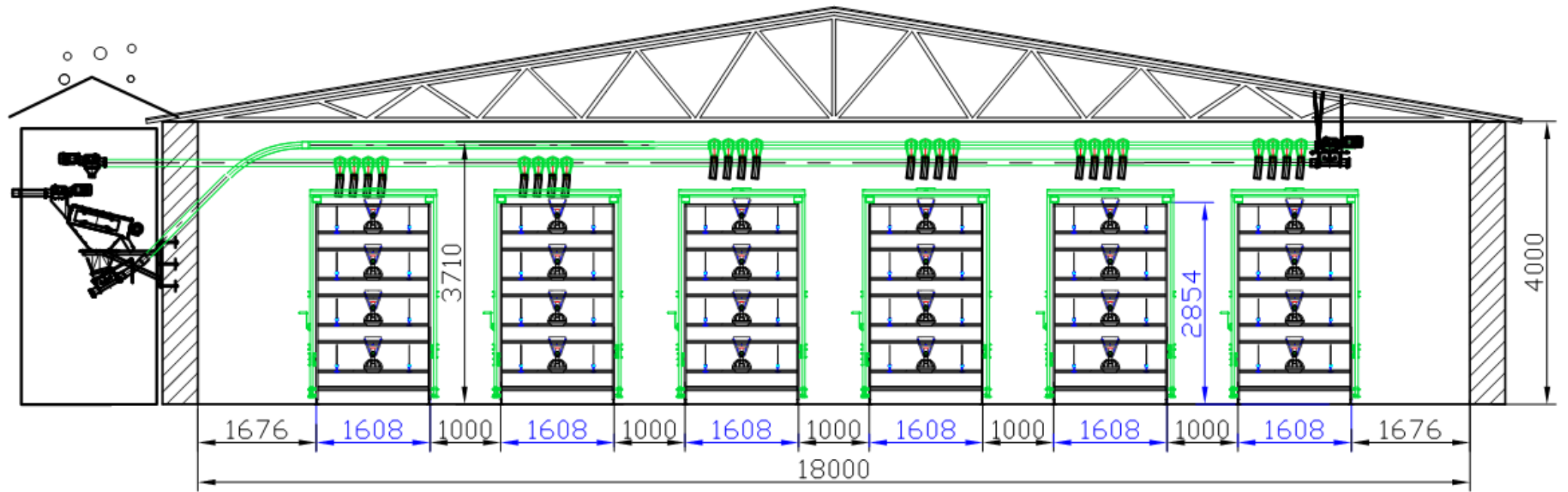




LAYOUTS



TYPICAL PROJECTS



TYPICAL PROJECTS

LIGHTING SYSTEM

ADVANTAGES

- Use of LED lamps with energy consumption:
 - o 10 times lower as compared to the filament lamps
 - o 2,5 times lower as compared to the luminescent lamp
- Lighting intensity adjustment in 0-100% range for sunrise / sunset functions
- Compliance with the international environmental requirements
- High level of protection against external impacts
- Warranty and post-warranty service



MICROCLIMATE

The microclimate system may consist of the one to four following sub-systems in various combinations:

- Ventilation
- Heating
- Humidification / cooling
- Automation

Ventilation system by TEXHA:

- High performance
- Energy efficiency
- Low noise level
- Durability of equipment
- Reliability and cost effectiveness

