KUTLUSAN®

CAGE SYSTEMS CATALOG

6 CONTINENT
68 COUNTRY

Since 1996

KUTLUSAN®

Kutlusan: A Leading Brand that Sets the Standard for Quality in Its Sector

Foundation and Growth Process: Kutlusan was established in 1996 with the aim of producing high-quality equipment for Turkey's poultry industry. Initially operating in a 300 m² indoor area, our company expanded in 1998 and moved into a new facility with 1,200 m² of space. In 2003, we relocated to our current factory, operating in a 2,400 m² indoor area, marking a significant step toward becoming a well-recognized brand.

That same year, a 500 m² area within our production facility was allocated to support R&D activities. Today, we operate in facilities covering a total of 58,000 m², including a 21,000 m² indoor production area located along the İzmir-Kemalpaşa and Ankara highway, and 3,000 m² of international sales offices (Kutlusan China, Kutlusan Iran, and Kutlusan Mexico), totaling 24,000 m² of indoor space. Additionally, to research the effects of equipment modifications on broilers and laying hens, we have five R&D poultry houses across two farms with a total indoor area of 10,000 m².

Global Rise: While Kutlusan was known only in İzmir and nearby regions in 1996, by 2012 it had become a recognized and preferred brand across five continents. Our company, which transforms advanced technology, strong human resources, and professionalism into quality and success, has become the choice of conscious investors.

Quality and Customer Satisfaction: Since its establishment, Kutlusan has prioritized customer satisfaction by producing high-standard products using quality materials. With a strong performance in after-sales services, it has created the "KUTLUSAN QUALITY HABIT" and ensured long-term relationships with its customers. Kutlusan stands out as a leader in both production and exports within the industry.

Quality and Customer Satisfaction: Since our foundation, Kutlusan has prioritized customer satisfaction by using high-quality materials to produce products that meet high standards. We have established a "KUTLUSAN QUALITY HABIT" through our successful after-sales services, ensuring continuity in customer relations. Today, we stand out as a leader in both production and export within the sector.

Turnkey Projects and International Partnerships: Kutlusan offers the best service at the most competitive prices through turnkey projects. Furthermore, we continuously expand our product range through partnerships with leading international organizations.

Bureau Veritas Certification

ISO 14001:2015

KUTLUSAN KAFES EKİPMAN VE HAYVANCILIK SAN. VE TİC. A.Ş.

Bureau Veritas Certification

ISO 45001:2018

SIFIR ATIK BELGESİ

TÜRK STANDARDLARI ENSTİTÜSÜ

Bureau Veritas Certification

ISO 9001:2015

Our Mission:

By establishing long-term strategic partnerships with our customers, we aim to make the poultry cage industry more efficient, sustainable, and economical. In line with this mission, we deeply understand the sector's needs, offer innovative solutions, and always prioritize quality. With the experience we've gained in our field of expertise, we focus on developing reliable and effective equipment that supports the success of our customers.

Our Vision:

With our global supply network, we aim to become a leading brand worldwide by producing environmentally friendly products while emphasizing our core values of quality, reliability, efficiency, innovation, and dynamism.

FROM 1996 TO THE PRESENT

1996

Kutlusan was established in 1996 with the goal of manufacturing high-quality equipment for the poultry industry.

1998

Relocated to a new production facility with an area of 1,200 m².

2002

Moved to its current factory and continued operations in a 2,400 m² indoor area, initiating its branding process.

2012

While known only in İzmir and its surroundings in 1996, by 2012, Kutlusan had doubled its production area and become a recognized and preferred brand across five continents.

2018

Achieved exports to 25 countries worldwide and reached a shipment capacity of 10.3 million.

2019

Ranked 822nd among all exporters and 21st among machinery exporters in the "Top Exporting Companies in Turkey" research prepared by the Turkish Exporters Assembly.

2020

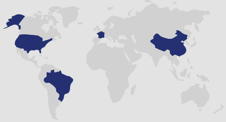
Qualified to join TURQUALITY, the first and only state-supported branding program designed to help companies become global players under their own brand and to create a positive image of Turkish products in international markets.

2021

With 25 years of experience, Kutlusan now exports to 65 countries across five continents and is among the world's leading poultry cage equipment manufacturers.

2024

Currently, Kutlusan is recognized on the list of the world's top cage equipment producers and reaches 68 countries across six continents.



1996

Kutlusan was established in 1996 with the aim of producing high-quality equipment for the poultry industry.

2018

It has achieved exports to 25 countries worldwide and reached a shipment capacity of 12.3 million units.

· 2025

Ranked among the world's leading
cage equipment manufacturers, Kutlusan today serves
68 countries across 6 continents.

INGREDIENTS


1
NUMBER 1
CAGE PRODUCER
of TÜRKİYE
Nº

ADVANTAGES OF KUTLUSAN CAGE SYSTEMS

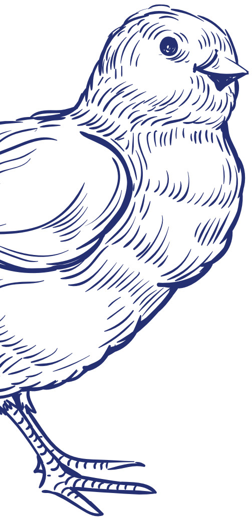
Coating

- All sheet metal and wire components used in the cage system are coated with hot-dip galvanization.
- Hot-dip galvanizing is the process of immersing steel into a bath of molten zinc.
- Galvanized coating provides corrosion resistance and cathodic protection to steel.
- Rust caused by corrosion is not only a visual issue but also a chemical reaction that erodes the metal and shortens its lifespan.
- The most effective way to protect steel against rust is by coating metal surfaces using the hot-dip galvanization method.
- A hot-dip galvanized product can be used for many years without requiring maintenance or repair, and without rusting.
- Coating quality is directly proportional to the thickness of the galvanization layer.
- Including the edge sections of the sheet materials used in the cage system, the minimum coating at each point on both front and rear surfaces measures between 17–37 microns, with a coating weight ranging between 310–350 g/m².
- The surface quality of the materials is classified as Class A according to the TS EN 10346 standard.

Cage Compartments

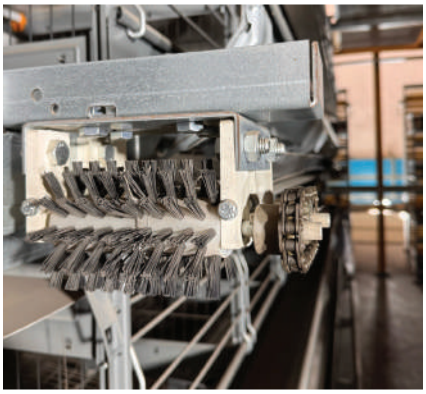
- The breast support plate installed inside each compartment allows chickens to comfortably feed by resting their crops against it.
- Each compartment includes an individual bottom mesh wire, spot-welded from 2 mm diameter wires.
- The bottom mesh wires are installed at a 7° angle, allowing eggs to roll directly into the egg channel without delay.
- This bottom mesh, made of horizontally and vertically interwoven wires, evenly distributes vibrations caused by chicken movements across all wires.
- This design helps prevent the buildup of manure residues on the mesh.
- As a result, egg deformation, dirt accumulation, and cracking are minimized.

Beneath each bottom mesh wire, there are concave-shaped bottom support wires with a diameter of 6.5 mm and a tensile strength of 600–700 MPa, suspended with hanger plates.



- Thanks to their concave and flexible structure, these support wires partially return the kinetic energy lost by the chickens during movement on the bottom mesh, helping to minimize feed consumption.
- The (A)-shaped design between the bottom mesh wire and the manure belt ensures the clean air drawn from the front panel is evenly distributed throughout the system from start to end.
- Clean air reduces the stress levels of chickens, which in turn boosts egg production. It also helps in obtaining drier manure on the manure belt.
- All polypropylene belts, egg fabric belts, and plastic-coated steel ropes used in the system are imported products. Due to the polypropylene material, the belts have enhanced resistance to breakage and stretching.
- The egg fabric belts are produced specifically for the poultry industry and feature a self-cleaning property. The weave structure of the belt is designed to release dirt easily, keeping the eggs clean.

KUTLUSAN



Manure Conveyor System

- The drive and pressure drums in the manure conveyor system are manufactured with rubber coating. This enhances the durability and efficiency of the drums.

Feeding System

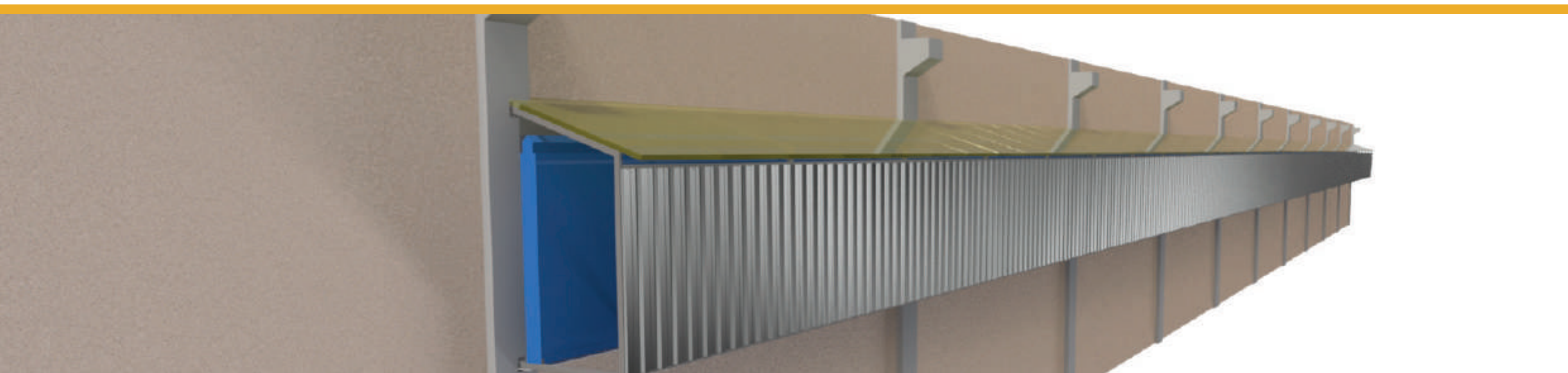
- The new generation adjustable feed regulators located under the feed troughs allow for precise feed distribution according to the required amount.

Watering System

- The cage system utilizes 8-liter water reservoirs that require no maintenance or cleaning for many years.
- These imported reservoirs are UV-protected and antibacterial. Thanks to UV protection, they prevent the formation of bacteria and algae, ensuring efficient watering.

Cooling and Ventilation System

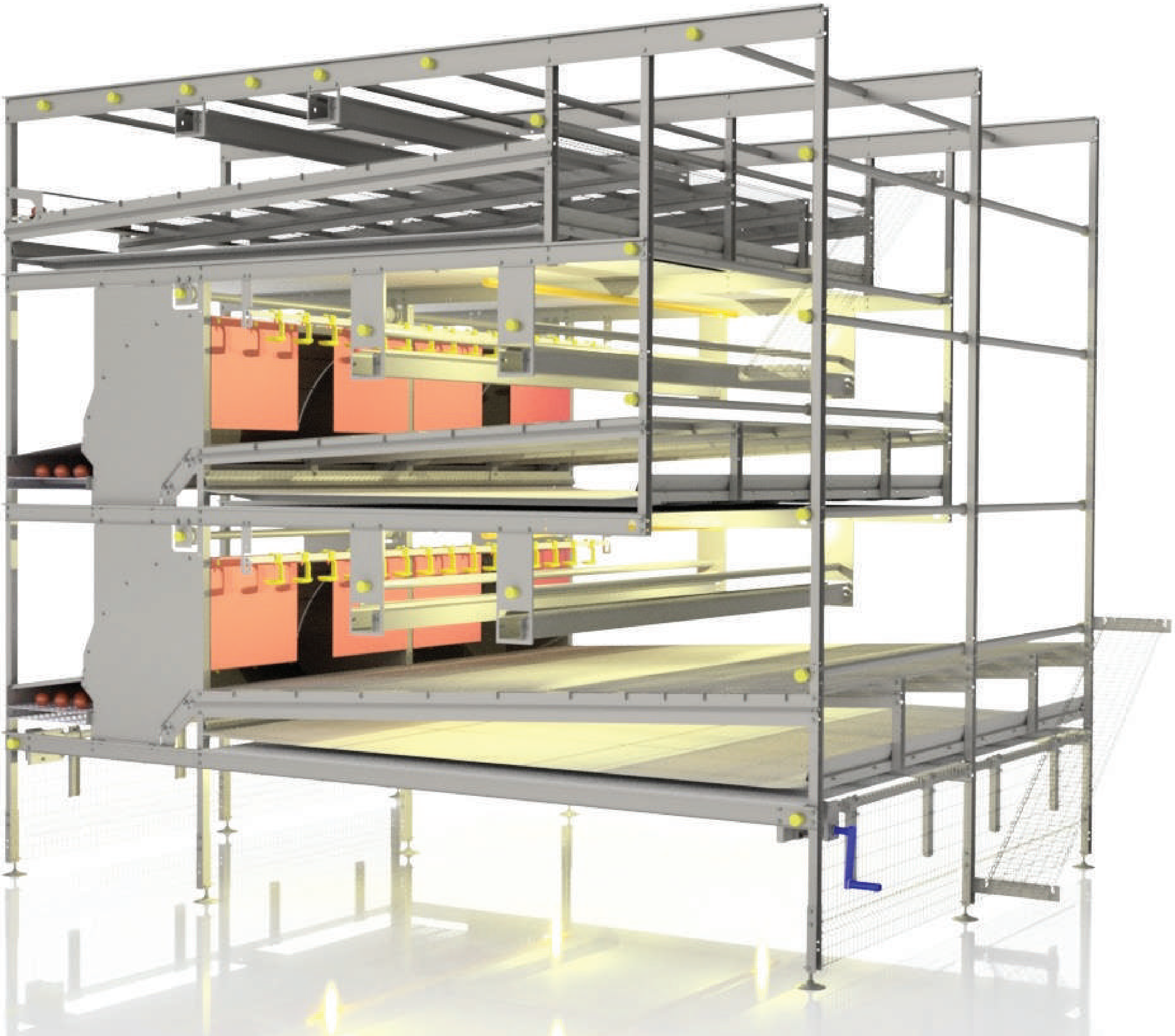
- The cooling and ventilation system uses plastic pads with integrated tank-pump units and galvanized frames. These components minimize lime build-up and ensure efficient distribution of clean air inside the building.



FREEDOM STEPS

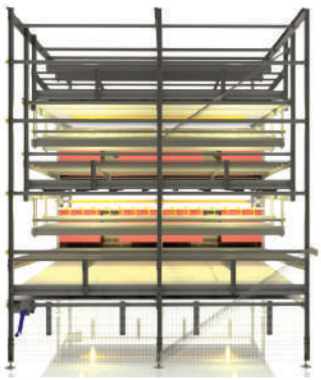
A system developed with Kutlusan’s 26 years of expertise, offering high animal welfare, maximum poultry house capacity, and easy system management.

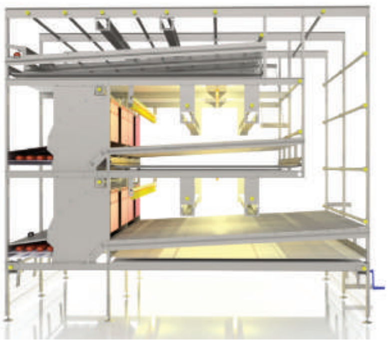
- High Welfare, Maximum Capacity
- Easy-to-Maintain Equipment
- Healthy and stress-free herd
- Optimized System
- Free Movement
- Animal-Focused Design
- Automatic Cleaner
- High-Quality Eggs

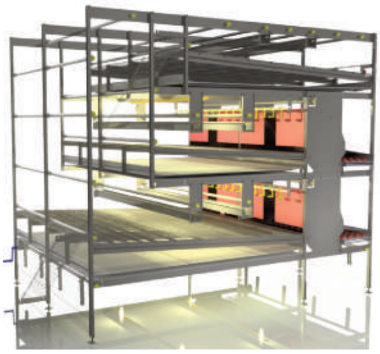


The Freedom Steps system;

- The Freedom Steps system is a cage-free setup that allows birds to express natural behaviors and move freely.
- The system offers a dedicated walkway for caretakers, and the easy open-close mechanism of the rear nest area and egg collection conveyor simplifies management.
- Thanks to these animal-friendly conditions, the flock produces high-quality eggs and maintains a high laying performance.







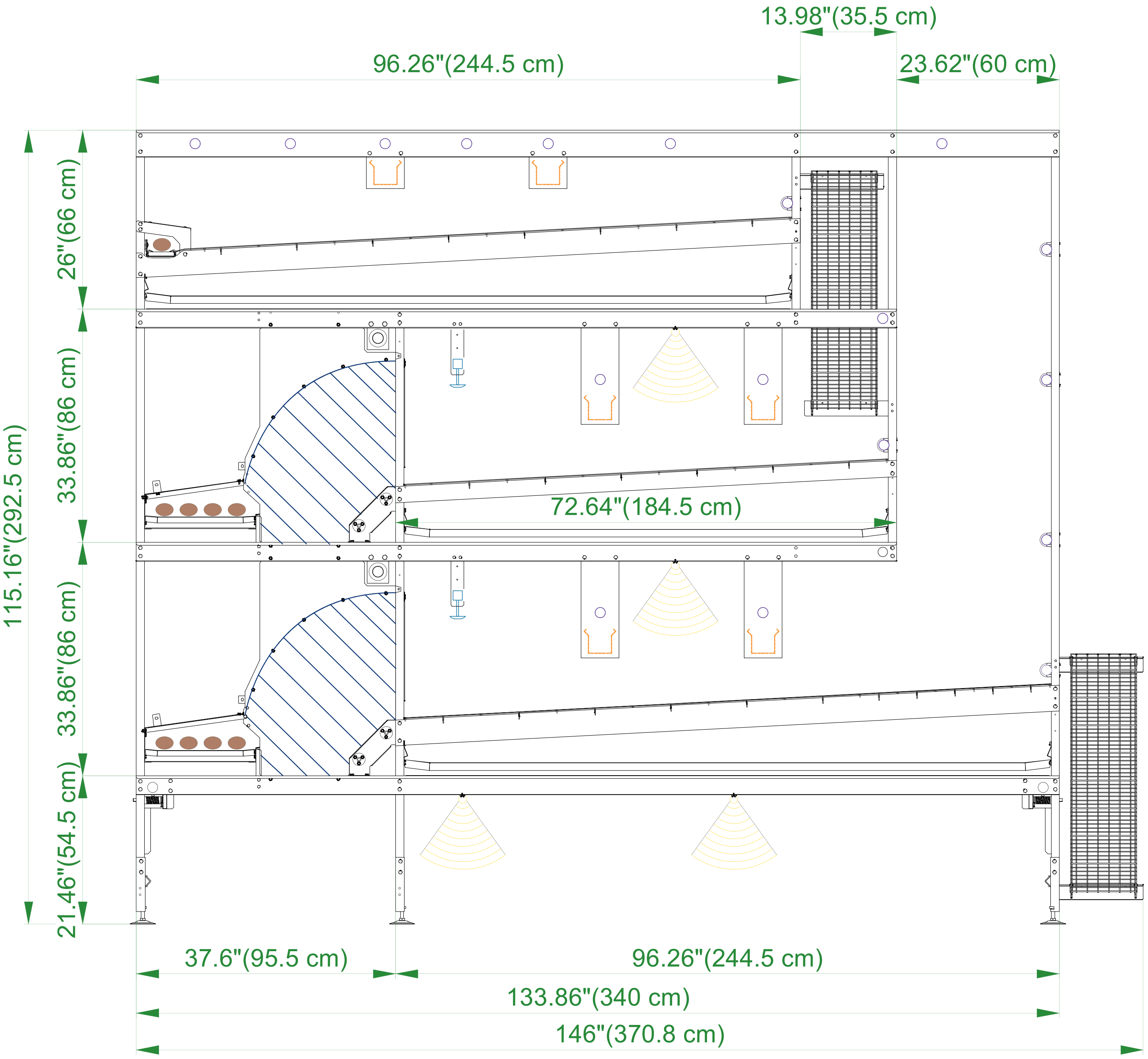
Advantages of the Freedom Steps system:

- Flock movement is crucial for a healthy and stress-free environment. The reduced platform width encourages movement and easy access to feeding and watering lines.
- Hygienic and specially designed nests result in higher nest-laying ratios and improved egg quality.
- The top tier functions as a resting area, equipped with feeding and perching lines.
- The other levels contain feeding, drinking, lighting, and nesting systems.
- Each level includes a manure belt, transporting most manure outside the system — crucial for cleanliness and optimal ventilation.
- Perch locations are strategically placed considering airflow and manure belts within the poultry house.
- The system is designed for even light distribution and ideal ventilation. This ensures the flock spreads homogeneously throughout the house.
- Homogeneous flock distribution helps litter dry evenly. It’s also essential for birds to perform natural behaviors such as dust bathing and preening, reducing aggression and improving welfare.
- Each row operates independently and can be used alone. Moving parts are designed for easy maintenance.

FREEDOM Steps

- Thanks to its layered, space-optimized structure, maximum poultry house capacity is achieved.
- With its animal-focused design, special nest system, clean environment, homogeneous lighting, and ideal ventilation, maximum animal welfare is ensured.
- It also features a design that allows eggs laid outside the nest (although rare) to be quickly and easily directed into the system.

AVIARY CAGE MODEL



▨ NEST BOX

DRINKING LINE

LIGHT LINE

FEEDING LINE

● EGG LINE

○ PERCH LINE

Module Dimensions		
Height	115.16 in	292.5 cm
Width	146 in	370.8 cm
Length	94.49 in	240 cm

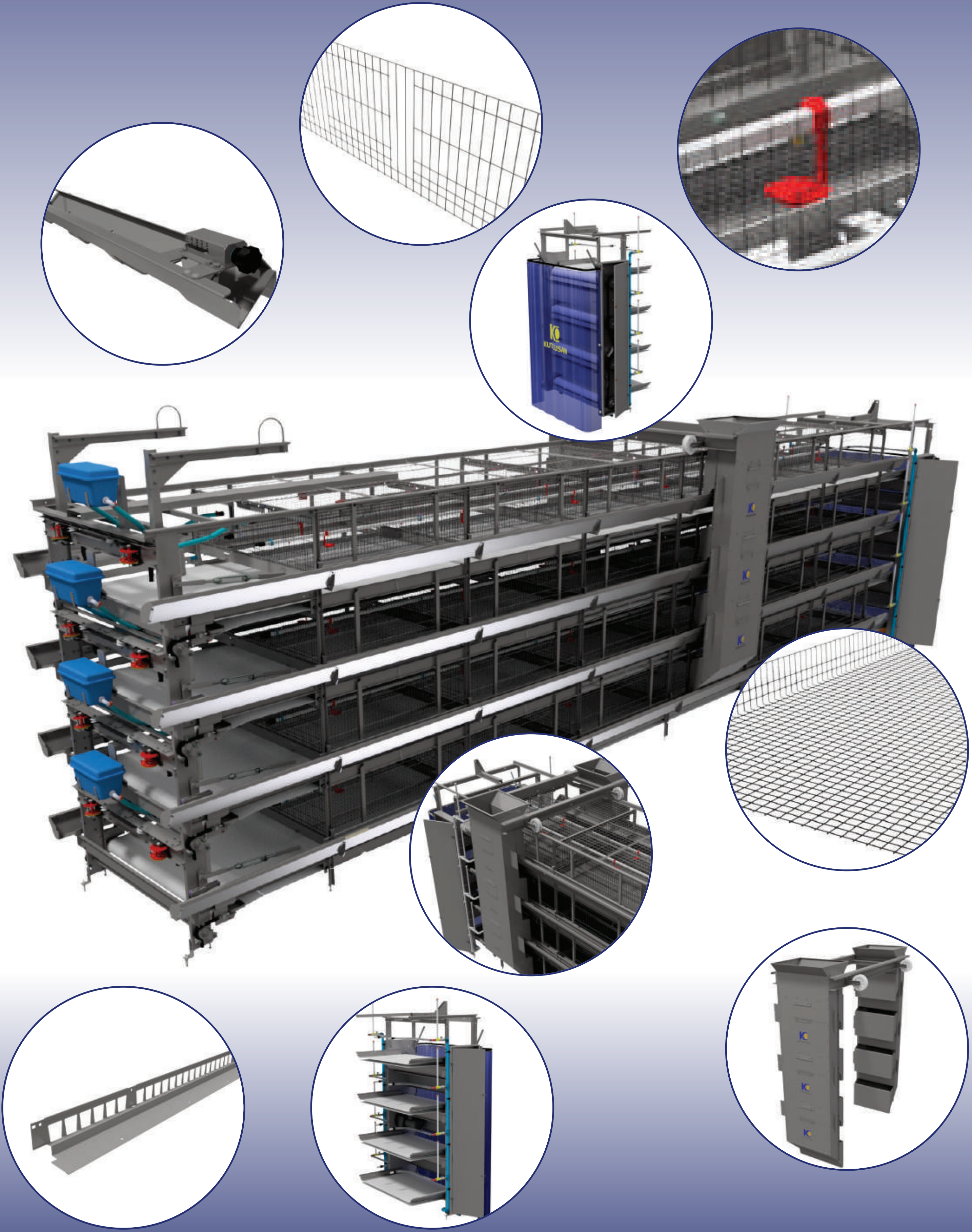
Capacity Information	For 1ft	For 1 yr	For 1m
Available Space	3543,3 in2	8.2 yd2	7.5 m²
Feed Line	144 in	12 yd	12 m
Perch Line	216 in	18 yd	18 m

Kutlusan is a leading brand in its sector and a certified symbol of quality.

Reliable, fast, and professional.

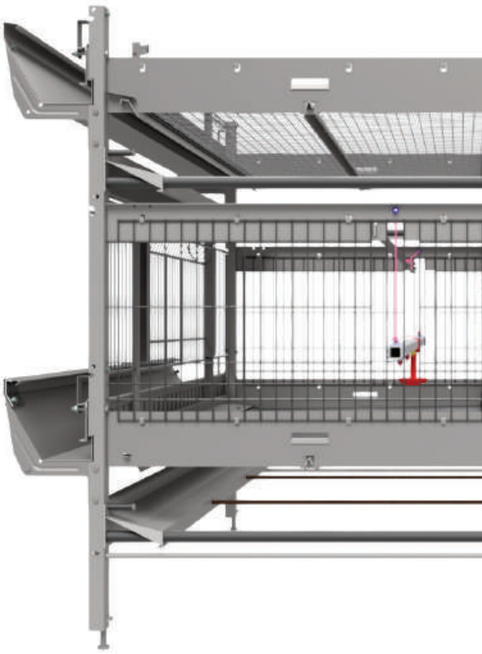
UNIFOR REARING CAGE SYSTEM

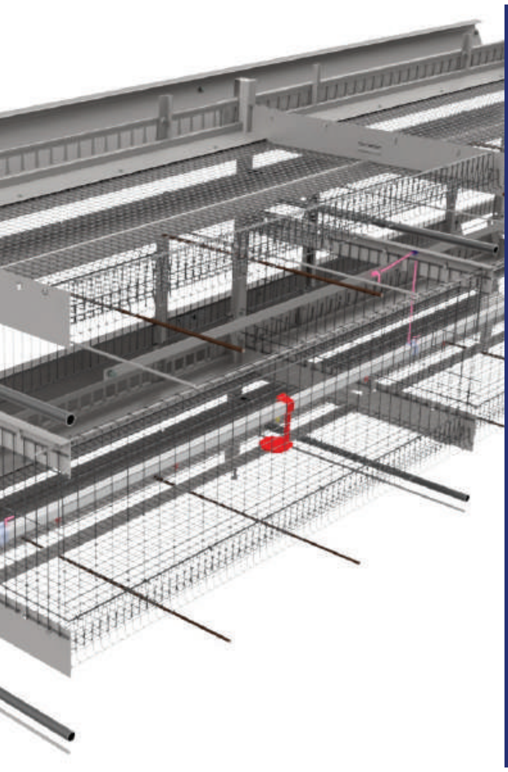
It is designed for chick and pullet breeding.



CAGE UNIT

- It is designed for maximum uniformity. Each unit consists of 1.23 m² and is made from high coating (310-350 gr/m²) galvanized sheet and wire material, supported by 'U-profile' feet in each unit.
- It can be modularly assembled without platforms and additional auxiliary products, from 3 to 6 layers.
- Our cage is ideal for maximum efficiency and can operate smoothly up to 150 meters.
- The cage floor is designed with 19x19 mm galvanized steel mesh, ensuring that even one-day-old chicks can comfortably continue their lives.



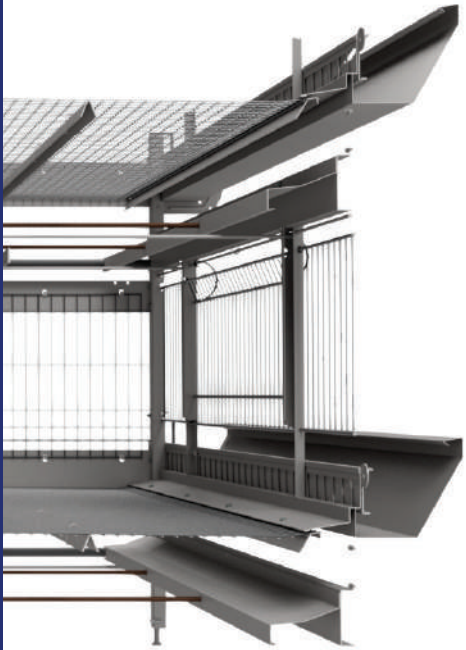


CAGE EYES

- The covers located in the center of each eye of the Unifor chick cage open inward, allowing farmers easy access to the chicks without extra effort or strain.
- The eyes at the bottom are designed to prevent chicks and pullets from being squished or injured.

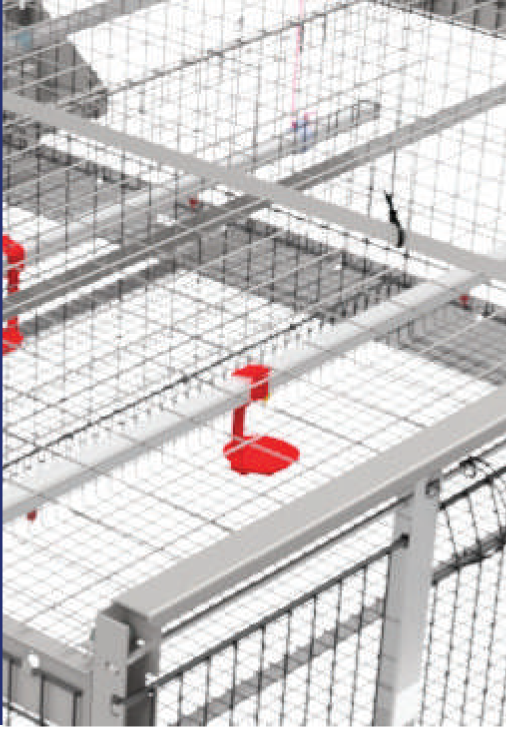
FEEDING SYSTEM

- Thanks to the specially designed feeding platform with 28 small holes, even newborn chicks can easily reach the feed.
- The common problem of feed being drawn into the eyes and mixed with manure in chick cages is eliminated with the Unifor chick cage.



WATERING SYSTEM

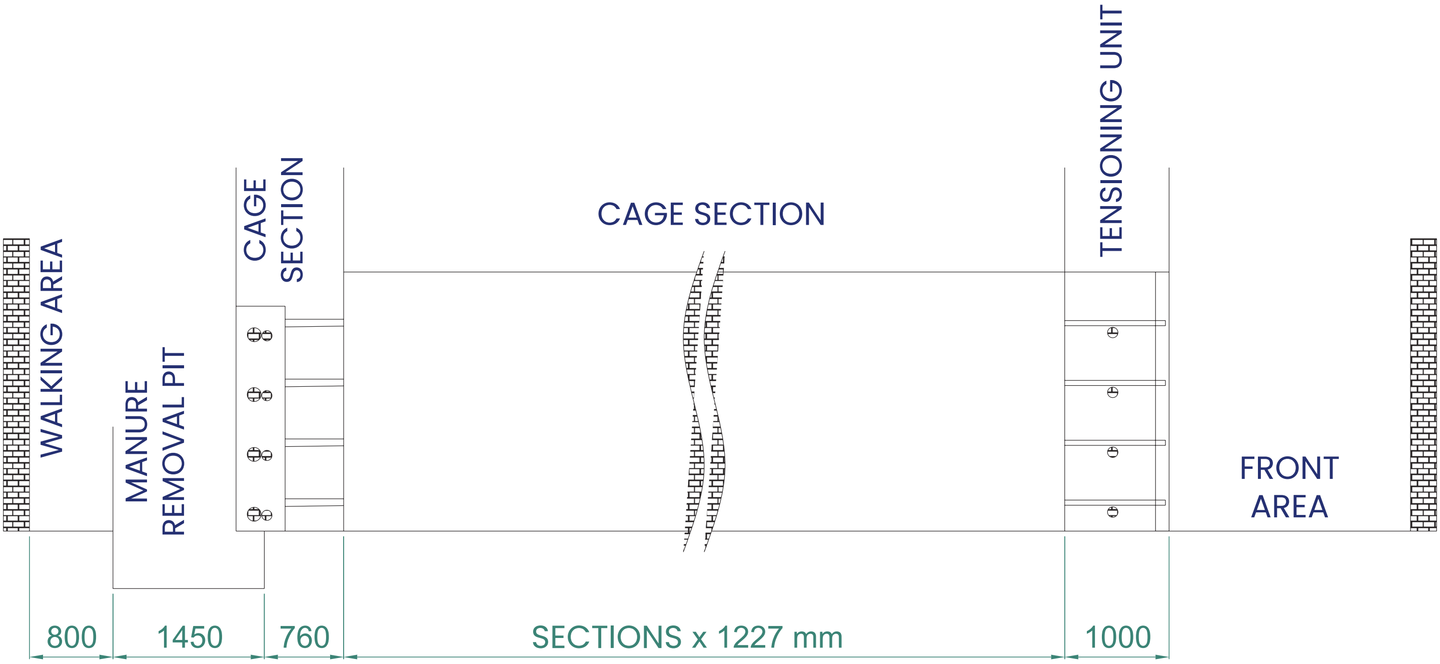
- Each eye of the cage has a 360-degree broiler nipple and 3 plastic-coated stainless steel chick nipples placed in central points for chicks to drink water without waiting in line.
- Nipple lines are adjustable in height with a crane on each layer.
- A water meter placed for each flock allows monitoring daily, weekly, and monthly water consumption.

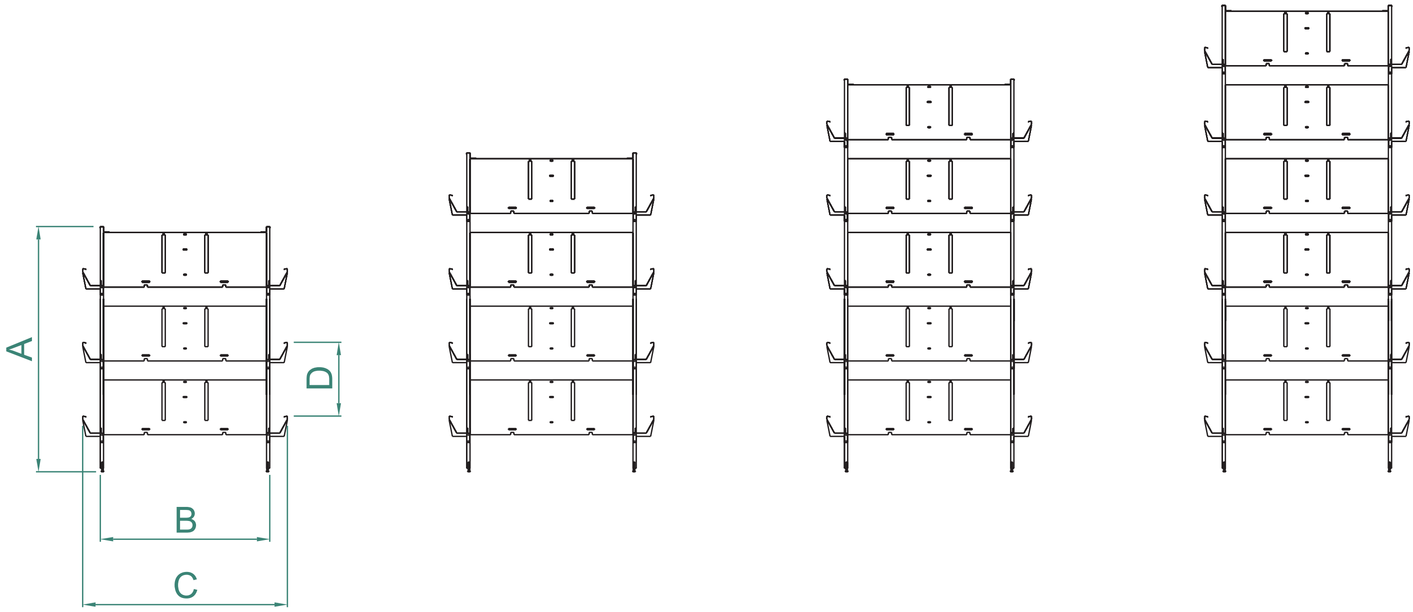


MANURE REMOVAL SYSTEM

- Manure from the chickens accumulates on a Polypropylene (PP) band located beneath the bottom mesh wire and continues throughout the cage.
- The PP band is operated by a manure removal unit located at the back of the cage system, ensuring the manure falls onto a horizontal manure conveyor in the back channel for removal from the cage.
- This robust system makes it easy to clean manure from longer distances in a shorter time.

UNIFOR REARING CAGE SYSTEM





Number of tiers	3	4	5	6
A (mm)	1905	2478	3051	3624
B (mm)	1318	1318	1318	1318
C (mm)	1592	1592	1592	1592
D (mm)	573	573	573	573

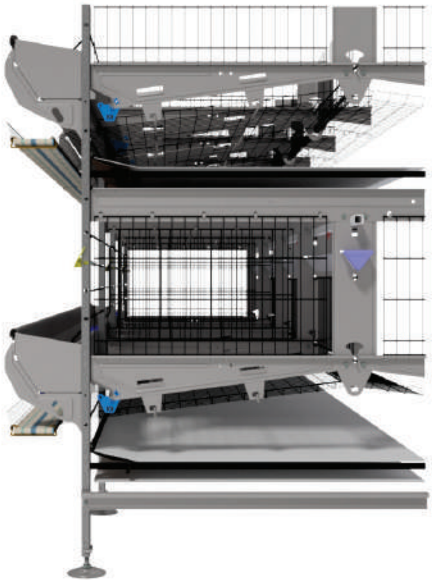
ENRICHABLE-ENRICHED CAGE SYSTEM

EN635, EN675, EN782

- Compliant with EU regulations
- High efficiency
- Easy manure access over long distances
- Comfortable, modular design
- Cage doors that can be opened with one hand
- V-shaped droplet channel
- Crack-free, unbroken eggs
- Enrichable upon demand

CAGE UNIT

- Due to its solid construction, it can be modularly assembled without platforms and auxiliary products, up to 3 to 8 layers, and with platforms up to 14 layers.
- It is designed for maximum efficiency and can work problem-free up to 150 meters.
- Each cage is made from high coating (310-350 gr/m²) galvanized sheet and wire material, supported by 'U-profile' feet every 60 cm.
- By removing partition wires, the system can be transformed into the Enriched Cage System by adding nests, Astroturf nesting floors, and two perching tubes extending from the unit head to the beginning of the nest.
- According to customer demands, the cages can be directly used as enriched types or later converted to enriched types.



FEEDING SYSTEM

- The feed-to-egg conversion rate can be maximized in Enrichable/Enriched Cage Systems.
- The system is designed for maximum efficiency. The automatic feeding cart system ensures homogeneous, safe, and fast distribution of feed with its adjustment tools. The chain feeding system is available as an optional add-on for customers.

WATERING SYSTEM

- The nipple watering line in the center and two steel nipples in each eye allow each chicken easy access to water. The 45 mm deep 'V Drip Channel' ensures the manure remains dry.

CAGE EYES

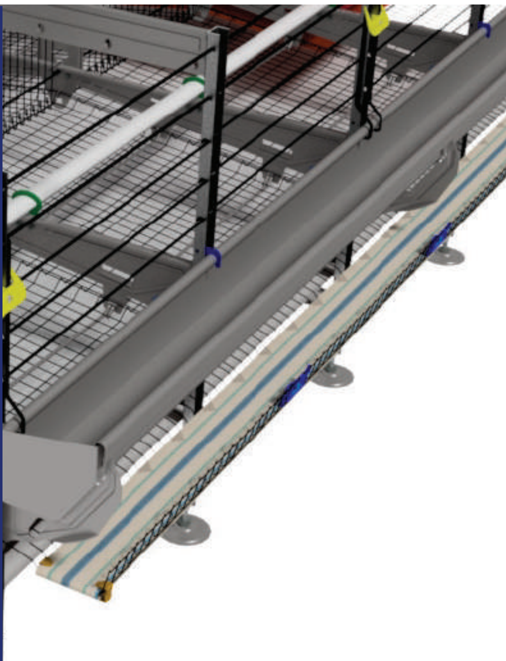
- Each unit of 2.4 meters in length has 4 eyes.
- The eyes are separated by wire partitions.
- The eye depth is 64 cm, the height from feeder to feeder is 68 cm, and the total floor area is 30,720 cm².
- In the design of the cage eyes, maximum efficiency and animal comfort are considered, allowing easy access to animals with one hand through the cage doors, ensuring access without extra force or effort.
- In addition to obtaining clean and unbroken eggs with the bottom mesh wire, a comfortable and smooth surface for the chickens is created.

MANURE REMOVAL SYSTEM

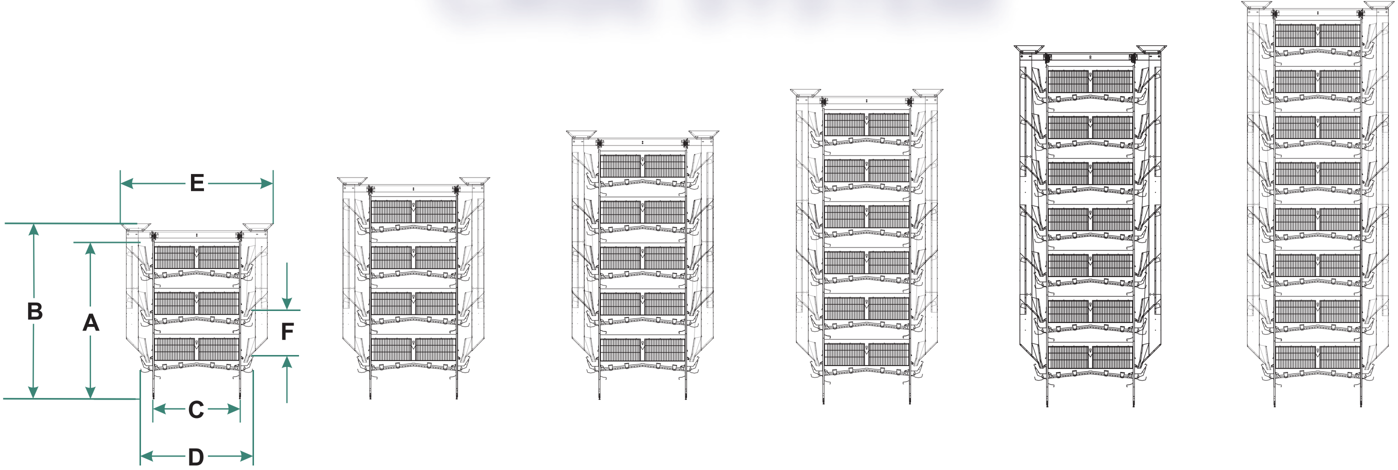
- Manure is removed from the cages through the Polypropylene (PP) manure bands in each layer and the strong, fully galvanized manure removal system with rubber-coated drums.
- This robust and solid system makes it easy to clean manure over longer distances.

EGG COLLECTION SYSTEM

- It is freely mounted on the bottom mesh wire and two flexible bottom support wires. Due to this freedom, eggs quickly roll from the specially designed bottom mesh wire to the egg band with a 7-degree incline, without being delayed, soiled, or broken, even during the movement of the animals caused by vibration.



ENRICHABLE-ENRICHED CAGE SYSTEM



EN635						
Number of tiers	3	4	5	6	7	8
A(mm)	2260	2940	3620	4300	4980	5660
B(mm)	2520	3200	3880	4560	5240	5920
C(mm)	1272	1272	1272	1272	1272	1272
D(mm)	1627	1627	1627	1627	1627	1627
E(mm)	2235	2235	2235	2235	2235	2235
F(mm)	680	680	680	680	680	680

EN675						
Number of tiers	3	4	5	6	7	8
A(mm)	2260	2940	3620	4300	4980	5660
B(mm)	2520	3200	3880	4560	5240	5920
C(mm)	1350	1350	1350	1350	1350	1350
D(mm)	1708	1708	1708	1708	1708	1708
E(mm)	2320	2320	2320	2320	2320	2320
F(mm)	680	680	680	680	680	680

EN782						
Number of tiers	3	4	5	6	7	8
A(mm)	2260	2940	3620	4300	4980	5660
B(mm)	2520	3200	3880	4560	5240	5920
C(mm)	1565	1565	1565	1565	1565	1565
D(mm)	1922	1922	1922	1922	1922	1922
E(mm)	2530	2530	2530	2530	2530	2530
F(mm)	680	680	680	680	680	680

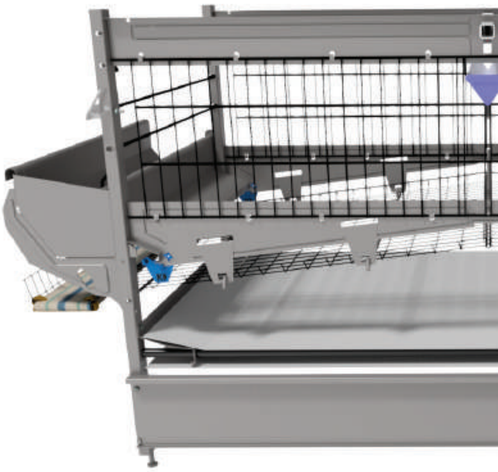
ECOPLUS LAYER CAGE SYSTEM

ECO+ 60, ECO+ 62,5

- Minimum investment cost
- Commercial egg production
- Maximum egg conversion
- Easy access to animals
- Labor saving
- Perforated or non-perforated
- Monoblock or single platform
- High-quality eggs

CAGE UNIT

- The system is supported by ‘U-profile’ feet every 60 cm.
- Thanks to its solid construction, it is available in monoblock configurations up to 3 to 8 layers, single platform configurations up to 6 to 12 layers, and double options up to 9 to 14 layers for egg producers.
- It operates smoothly up to 150 meters.
- The system’s legs are connected to each other, and the eyes are separated by sheet metal parts. These sheet metal parts can be perforated or non-perforated in full sheet form. Depending on customer requests, they can also consist of two sheet metal parts with wire pieces in between.

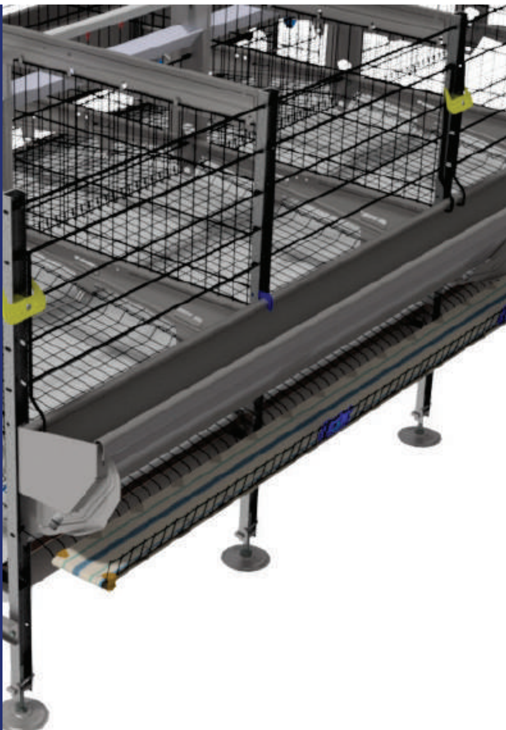


CAGE EYES

- The cage eye structure is made from high coating (310-350 gr/m²) galvanized sheet and wire material.
- The covers on the front of each cage eye are designed to be easily opened with one hand, allowing easy access to the animals for the farm worker. This provides time and labor savings.
- The bottom mesh wire ensures clean and unbroken eggs, as well as a comfortable and smooth surface for the laying hens.

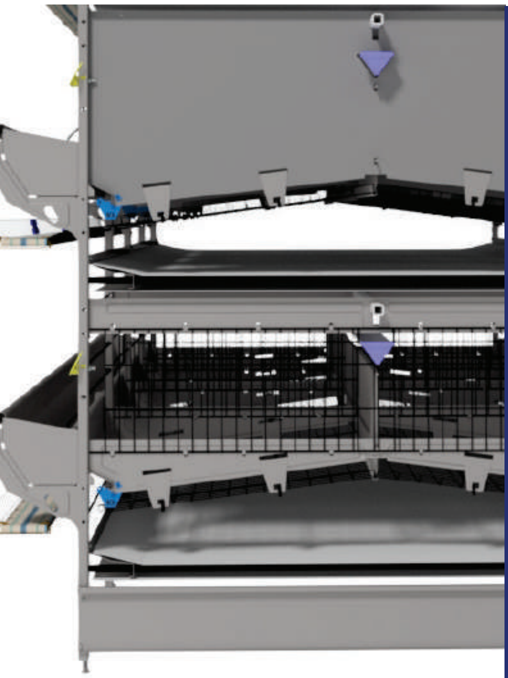
FEEDING SYSTEM

- The feed-to-egg conversion rate has been maximized in the Ecoplus Layer Cage Systems.
- The system is designed to achieve the highest level of efficiency.
- The automatic trolley feeding system ensures uniform, safe, and rapid feed distribution with feed adjustment devices.
- The chain feeding system is optionally offered to customers.



WATERING SYSTEM

- The central nipple watering line and two steel nipples in each cage ensure easy water access for each hen. The 'V Drip Channel' with 45 mm depth helps keep manure dry.



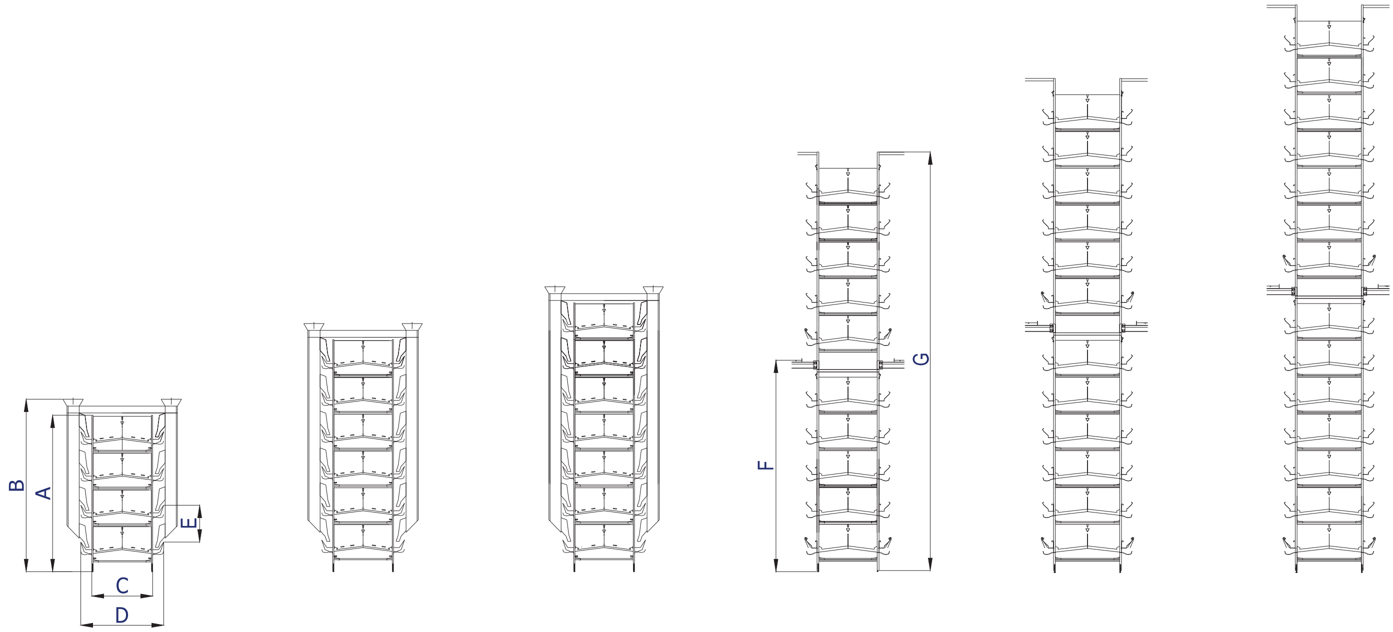
MANURE REMOVAL SYSTEM

- Manure is removed from the cages using Polypropylene manure belts located on each floor, along with a galvanized, durable construction manure transport system and rubber-coated drums. This strong and robust design ensures easy manure removal over long periods and distances.

EGG COLLECTION SYSTEM

- The elevator egg collection system safely collects eggs, minimizing breakage and cracks. Eggs are transported from the cage using polypropylene (PP) belts and brought to the egg room by a plastic belt conveyor.

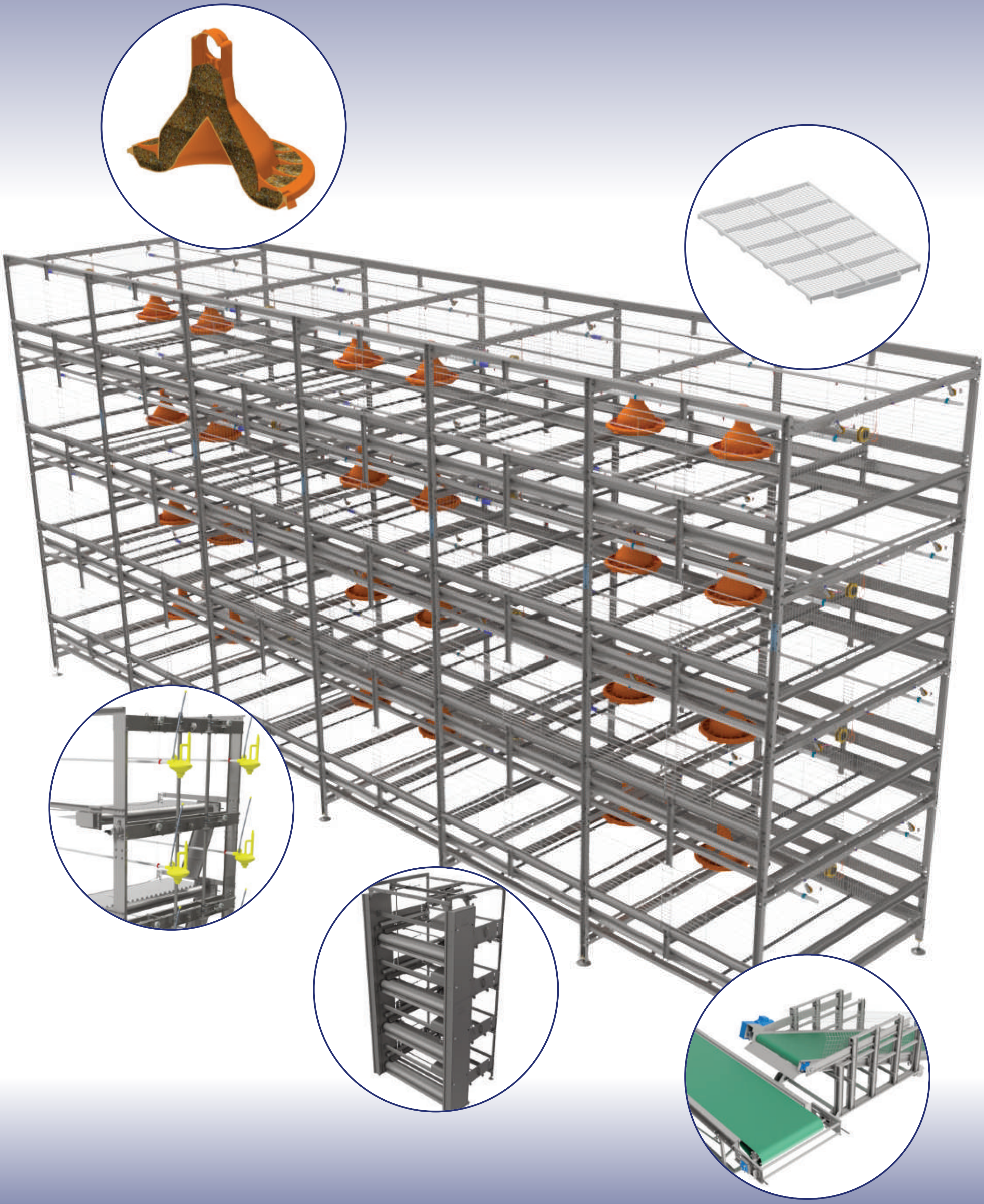
ECOPLUS LAYER CAGE SYSTEM



ECO+ 60						
Number of tiers	4	6	7	10	12	14
A(mm)	2530	3745	4335	—	—	—
B(mm)	2790	4000	4590	—	—	—
C(mm)	1223	1223	1223	1223	1223	1223
D(mm)	1600	1600	1600	1600	1600	1600
E(mm)	590	590	590	590	590	590
F(mm)	—	—	—	3670	4270	4865
G(mm)	—	—	—	6896	8150	9322

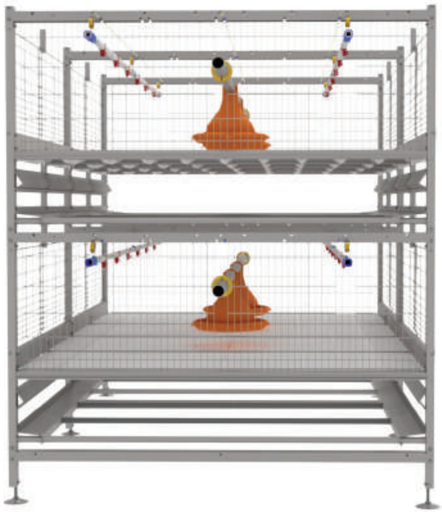
ECO+ 62,5						
Number of tiers	4	6	7	10	12	14
A(mm)	2530	3745	4335	—	—	—
B(mm)	2790	4000	4590	—	—	—
C(mm)	1273	1273	1273	1273	1273	1273
D(mm)	1650	1650	1650	1650	1650	1650
E(mm)	590	590	590	590	590	590
F(mm)	—	—	—	3670	4270	4865
G(mm)	—	—	—	6896	8150	9322

162.5 DRAWER BROILER CAGE MODEL



CAGE UNIT

- All materials used are made from hot-dip galvanized sheet and wire.
- The cages are each 2460 mm in length, 1601 mm in width, and 825 mm in height.
- Each unit contains eight perforated plastic drawers at the bottom of the cage.
- The drawers improve the Feed Conversion Ratio (FCR), making the system more efficient.
- The cage assembly is modular, requiring no additional accessories and includes automatic feeding, watering, manure removal, and broiler transportation equipment.
- The assembly length can reach up to 120 meters.

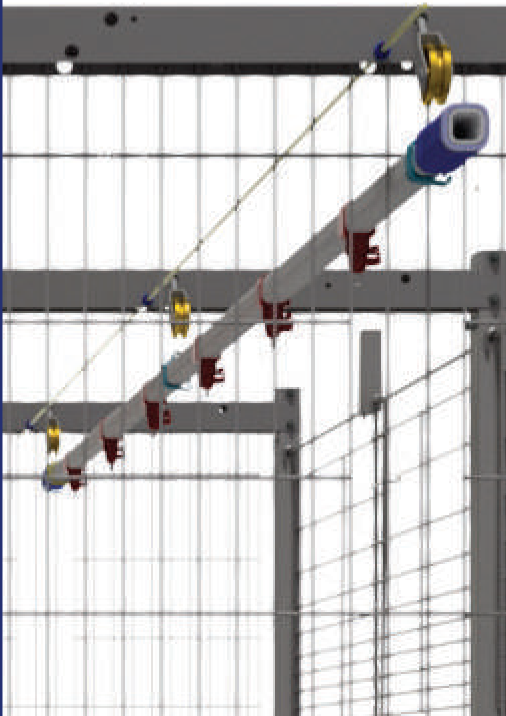


FEEDING SYSTEM

- Feed is automatically delivered from silos to bunkers, which then send it to the feeding trays at specified intervals.
- The feeding trays can be adjusted without plates, ensuring that even day-old broilers can easily access the feed. The trays are positioned at intervals to ensure all animals are fed evenly and adequately.

WATERING SYSTEM

- Each cage has two water lines, one on each side.
- Each floor has six broiler nipples with ball bearings, allowing 360-degree access to water.
- The height of the nipples can be adjusted using a crane system to accommodate the growth of the animals, ensuring easy access to water and contributing to their development.



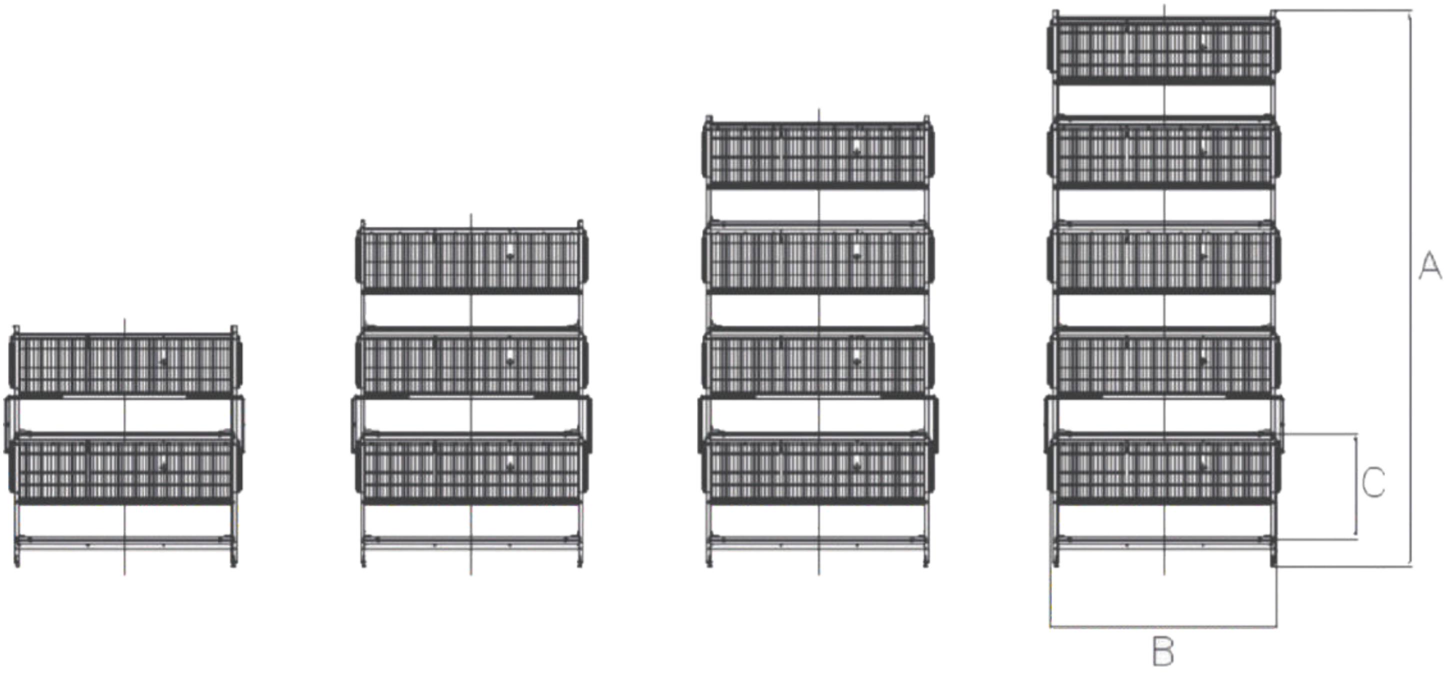
MANURE REMOVAL SYSTEM

- Manure is collected by moving the Polypropylene manure belts beneath the plastic drawers.
- This manure transport system is also used to carry broilers to the transport conveyors, preventing wing and foot bruising and injury during transportation.

BROILER TRANSPORT SYSTEM

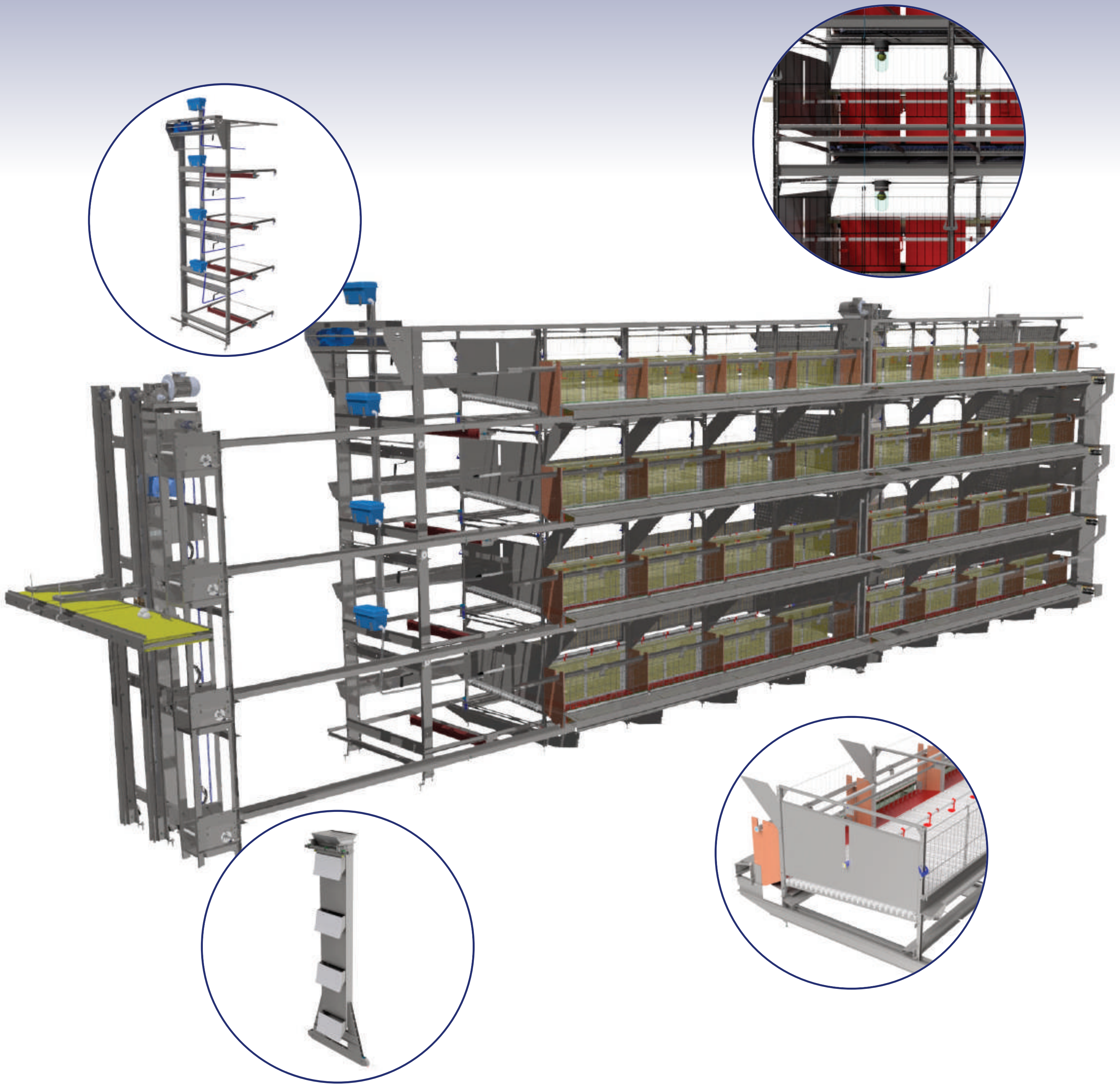
- Broilers fall onto the manure transport belt when the plastic drawers are pulled.
- The broilers are moved to the broiler transport conveyor with the help of the manure removal system.
- Using this transport system minimizes injuries and bruising to the feet and wings compared to manual handling.

162,5 BROILER CAGE WITH DRAWER



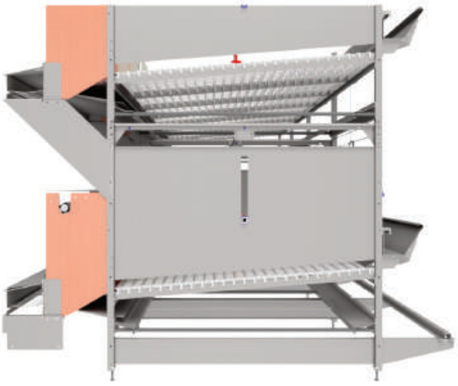
Number of tiers	2	3	4	5
A (mm)	1878	2703	3528	4353
B (mm)	1625	1625	1625	1625
C (mm)	825	825	825	825

RESIDENCE PARENT STOCK CAGES



CAGE UNIT

- Each unit measures 4592 mm and is supported by ‘U-profile’ legs at every 1148 mm interval.
- With its solid construction, it can be modularly installed from 2 to 5 tiers without requiring platforms or additional accessories.
- It is a system that can operate without any issues up to 150 meters in length.
- Thanks to the plastic grid used on the base, it allows females and males to walk without injuries, move freely within the compartment (1.20m x 4592mm), drink water, and access feed with ease.

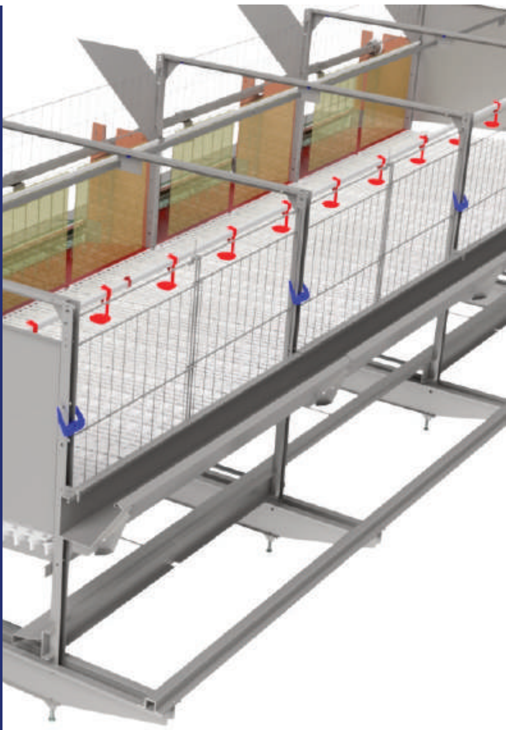


CAGE COMPARTMENTS

- The bottom mesh wires provide the highest quality egg production and maximum comfort for the chickens.
- The doors of the cage compartments operate horizontally and can be easily opened and closed with one hand, making the placement and removal of breeder birds much easier.
- Thanks to the automatic nest on one side of the cage, egg yield is very high, while the rate of broken and dirty eggs is very low.
- Lighting is provided by protected lamps placed inside and in the middle of each compartment.

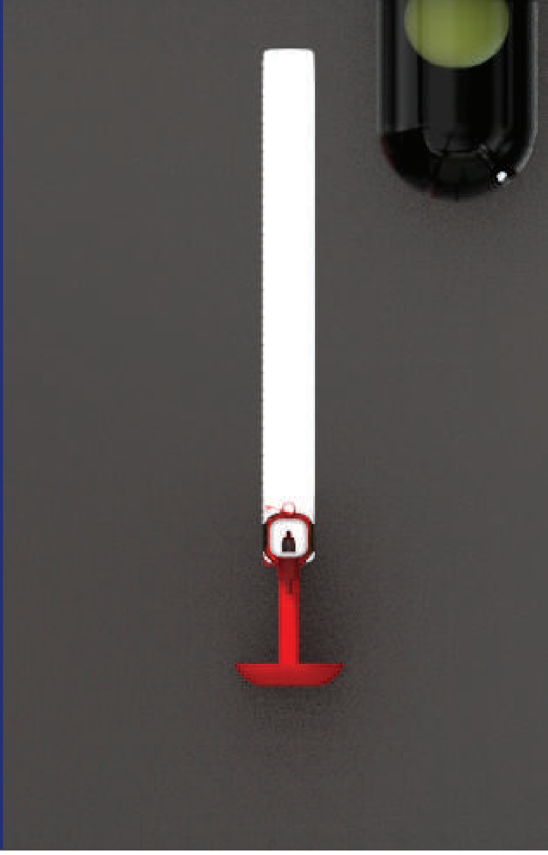
FEEDING SYSTEM

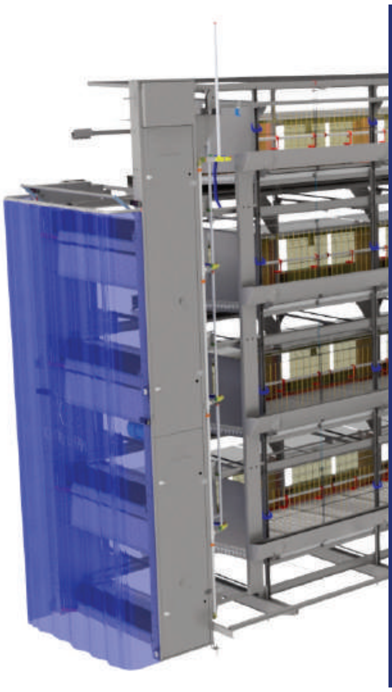
- In breeder cages, a specially designed feeding system operates in the middle of the cage compartment, ensuring maximum feed efficiency and controlled feeding.
- Each female has 15 cm of feed trough inside the cage compartment. Each rooster has a dedicated feed opening to control their feeding individually.



WATERING SYSTEM

- Located on the nest side, the watering system is height-adjustable along the line using a manual winch and is equipped with special steel nipples for breeders.
- This ensures each hen and rooster can easily access water.Cups placed under each nipple prevent water from splashing and soaking the manure excessively.





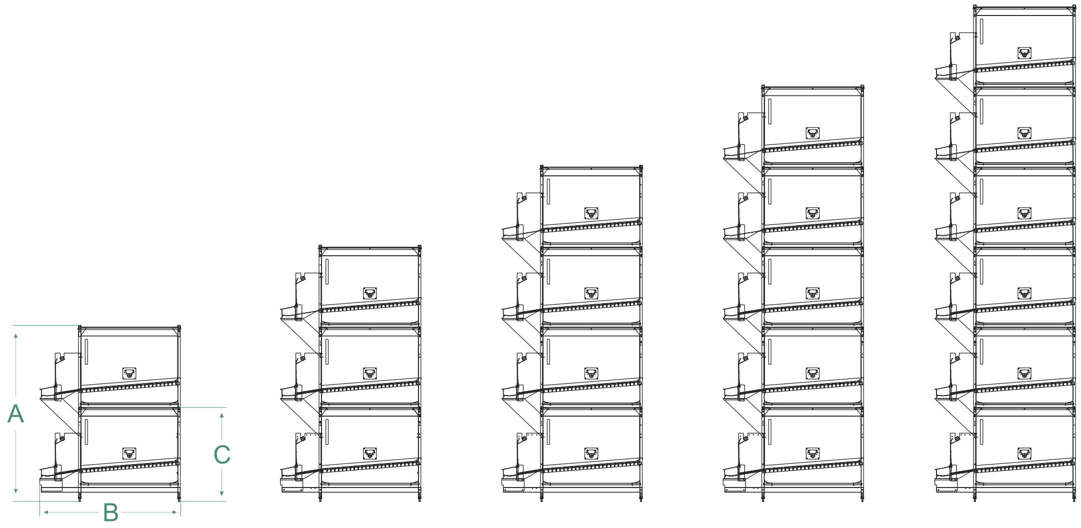
MANURE CONVEYOR SYSTEM

- Manure is cleaned from beneath the cages using Polypropylene (PP) manure belts on each tier, combined with a fully galvanized, strong and durable conveyor system and rubber-coated rollers.
- This robust structure allows easy manure removal even over longer distances.

EGG COLLECTION SYSTEM

- With the elevator egg collection system, eggs are collected safely with a minimal rate of cracks and breaks.
- Eggs are transported from the cage via Polypropylene (PP) belts and delivered to the egg room through a plastic-belted conveyor.

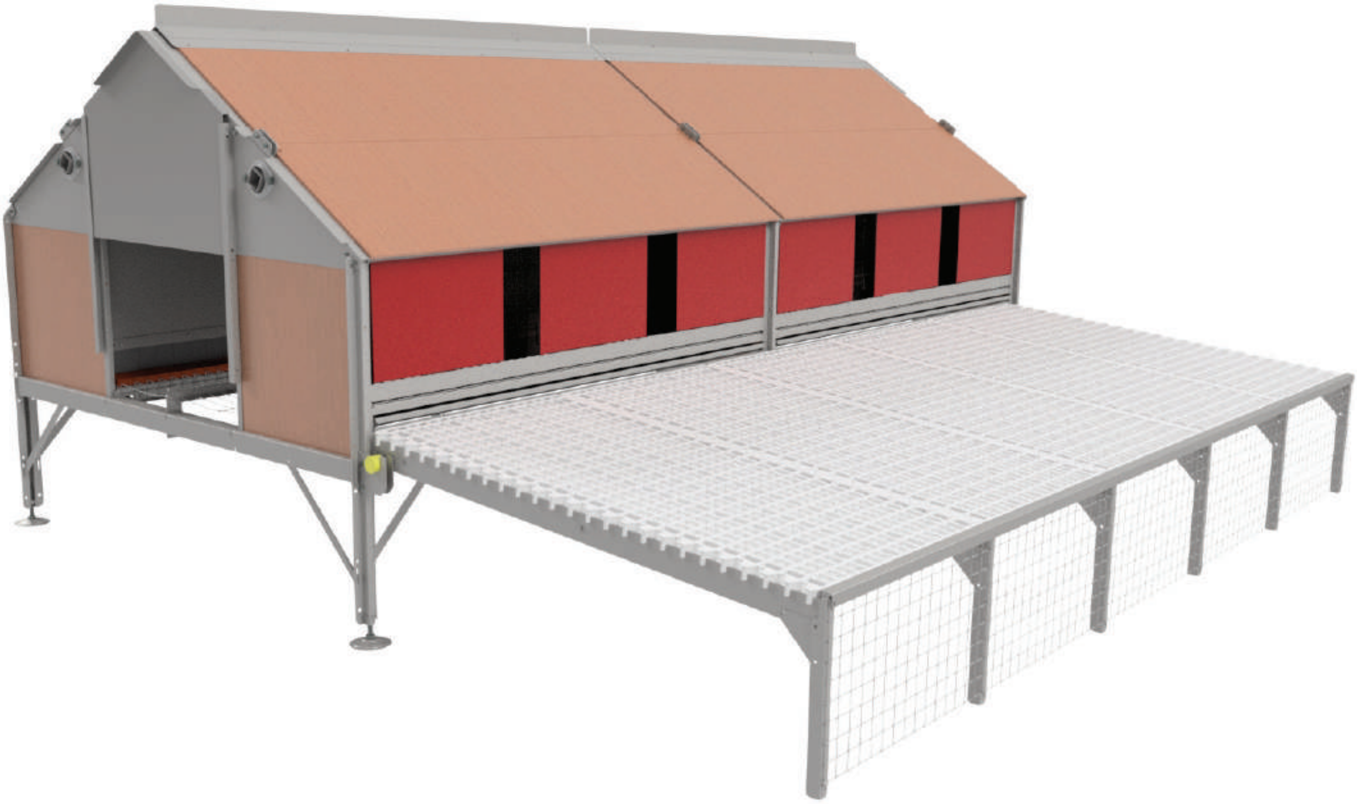
RESIDENCE PARENT STOCK CAGES



Number of tiers	2	3	4	5	6
A (mm)	2155	3133	4111	5089	6067
B (mm)	1716	1716	1716	1716	1716
C (mm)	978	978	978	978	978

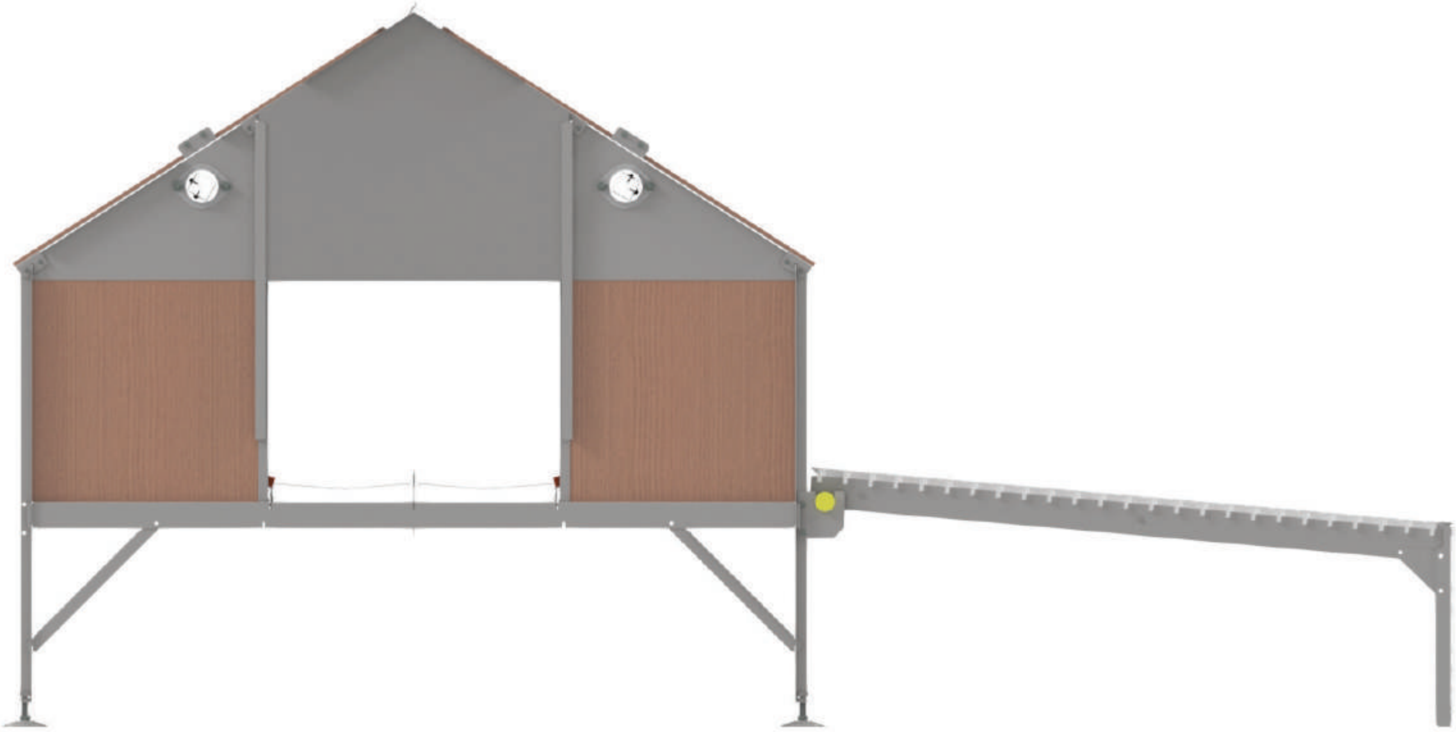
CENTERBELT AUTOMATIC NEST SYSTEM

- Automatic Nest
- Plywood sidewalls
- Minimum broken and cracked eggs
- Minimum dirty egg rate
- Easy access to feed
- Astroturf floor
- 360-degree ball-type nipple
- Natural and warm environment



CAGE UNIT

- The Automatic Nest System provides a comfortable environment for optimal egg-laying conditions.
- With plywood sidewalls and Astroturf flooring, a natural and comfortable space is created for the hens, positively affecting egg quality.
- Thanks to all these features, egg yield and quality in this house are maximized, while the number of dirty eggs is minimized.
- As a result, both the quality and quantity of chicks obtained from these eggs are increased.
- The nest’s efficiency reaches its highest level.

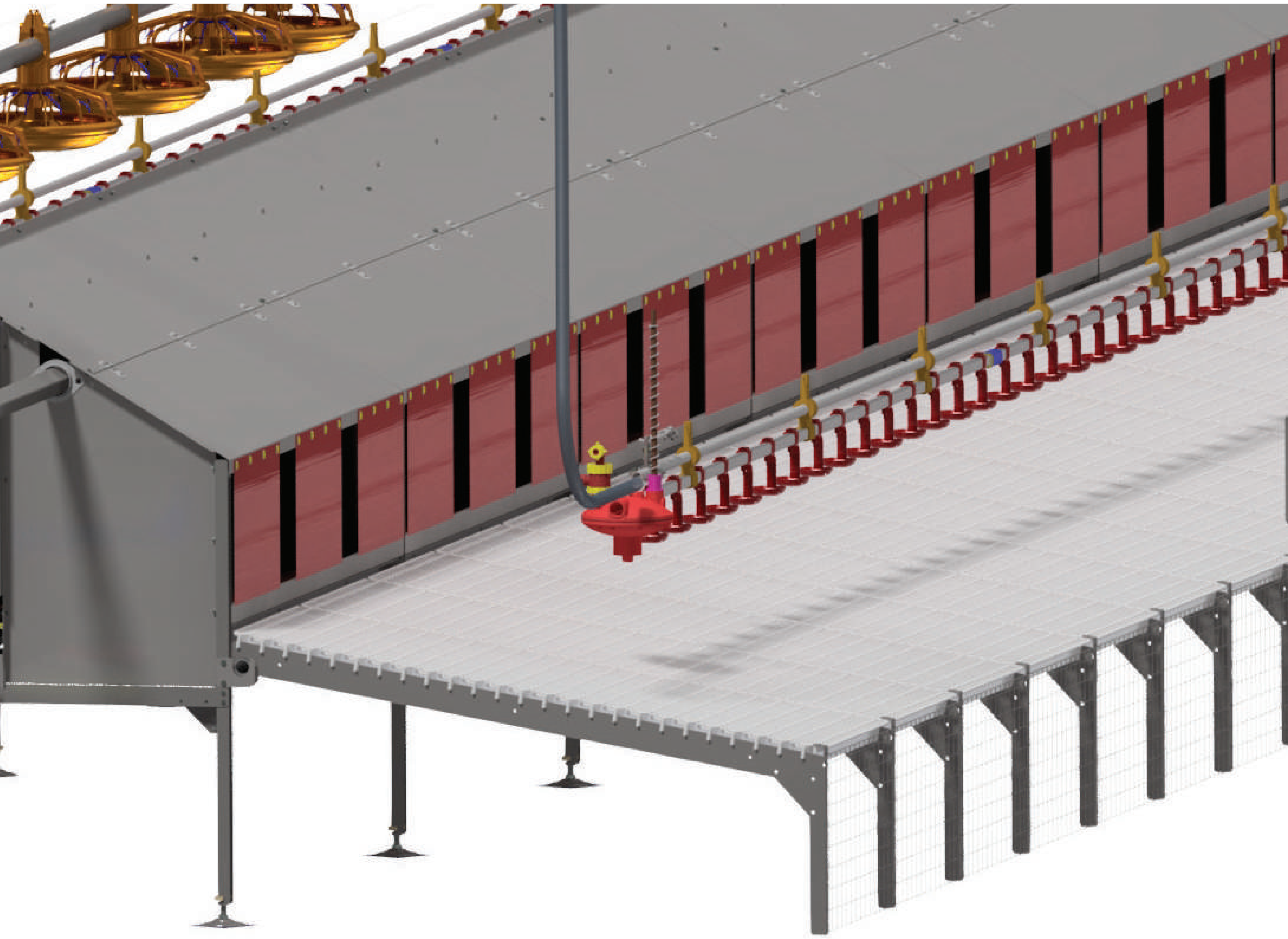


EGG COLLECTION SYSTEM

- Eggs are gently collected using a Polypropylene-belt conveyor placed in the center of the cages, minimizing the risk of cracks and breaks.
- A double-belt egg conveyor system placed in the center of the poultry house collects eggs from both left and right cage rows separately.
- Its special design prevents the eggs from colliding with one another.
- All these features ensure the highest egg yield and quality, while reducing the amount of dirty eggs to a minimum.
- Thanks to the features of our cages, the number and quality of chicks obtained from eggs also increase.

WATERING SYSTEM

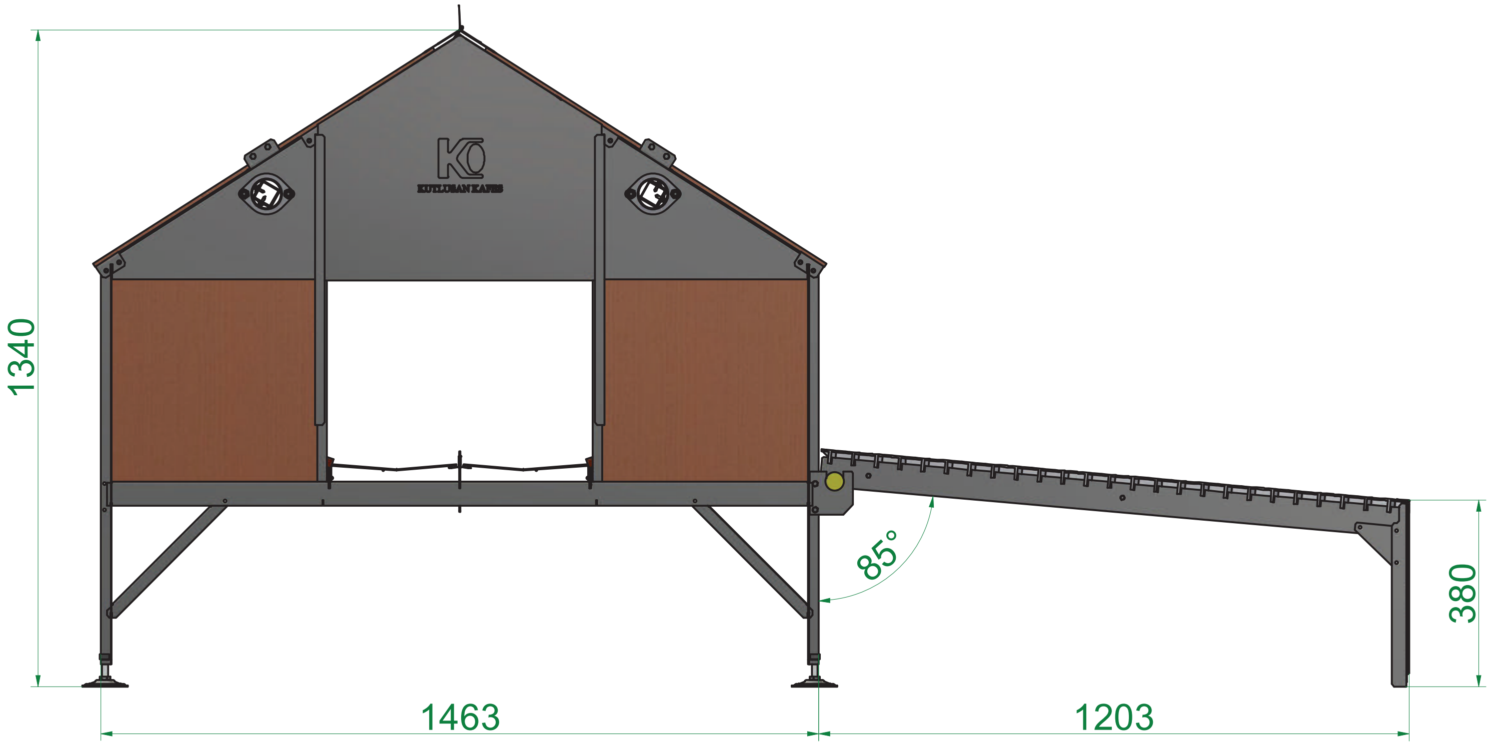
- The system is equipped with 360-degree ball-type nipples installed throughout the cage, providing easy access to water for each bird.
- The water pressure coming from the tanks is regulated using special regulators and supplied to the nipple line.
- The height of the nipple line can be adjusted with a manual winch operated by one hand.

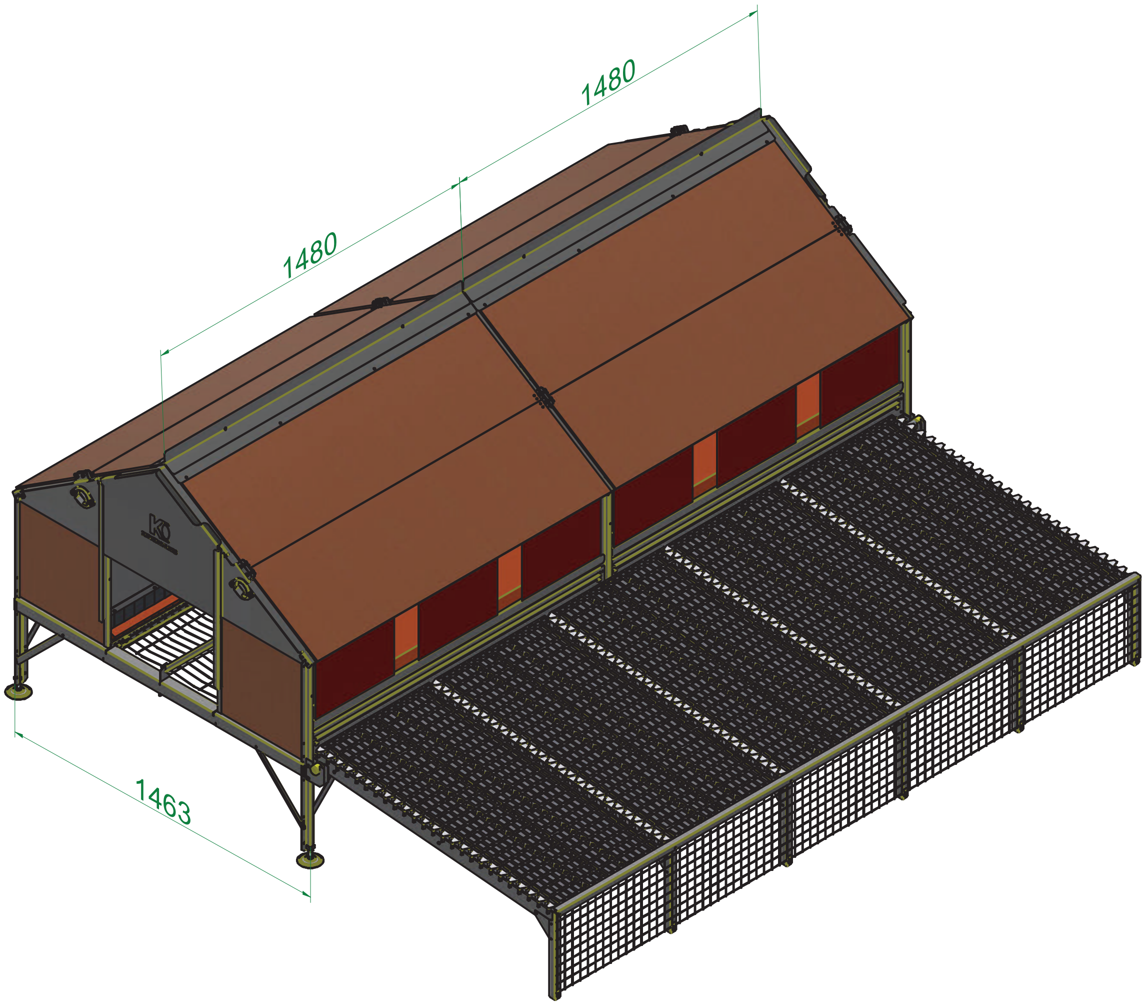


FEEDING SYSTEM

- A feeding system is used to ensure all birds can easily and equally access feed, supporting optimal egg quality.

CENTERBELT AUTOMATIC NEST SYSTEM



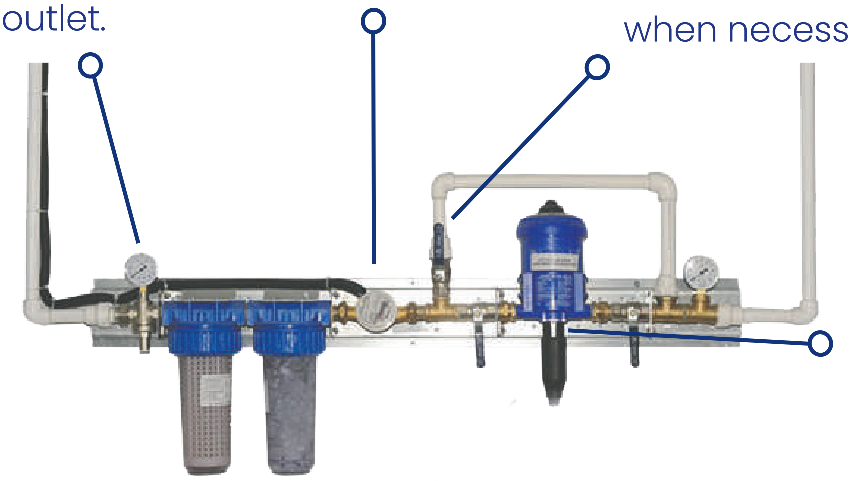



TURKEY'S NO.1
CAGE MANUFACTURER
We've caged quality
all around the world...

STANDARD SYSTEMS USED IN CAGES

Watering System

Components of the medicator:



Controls the water pressure at the inlet and outlet.

Measures the amount of water passing through the line.

Used to deactivate the Dosatron when necessary.

Provides the desired amount of medication, vaccine, or vitamin to the drinking water in equal and accurate proportions.

MEDICATOR

- Located at the entrance of the poultry house on the main water line, this group consists of a medicator, water meter, pressure regulator, pressure gauges, and filters.
- A medicator is a water-powered dosing pump that injects concentrated chemicals into the water line. Vaccines and medications are administered at set intervals through the medicator.
- Each poultry house is equipped with a water meter that enables daily, weekly, and monthly tracking of water consumption.
- Fine filters at the line entrance prevent foreign substances in the water from reaching the cage watering system.
- High-pressure resistant PPRC pipes are used in the medicator group.

UV DEVICE

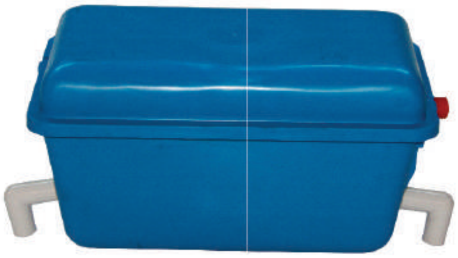
- Used to disinfect tap or well water entering the poultry house.

DOSING TANK

- Placed beneath the medicator, this tank features a motorized mixing system to ensure the concentrated medication drawn by the medicator is prepared homogeneously.

RESERVOIR

- The imported water reservoirs are UV-protected and antibacterial.
- Thanks to UV protection, bacteria and algae formation is prevented, ensuring efficient watering.
- 8-liter reservoirs, which require no maintenance or cleaning for many years, are used in the cage systems.



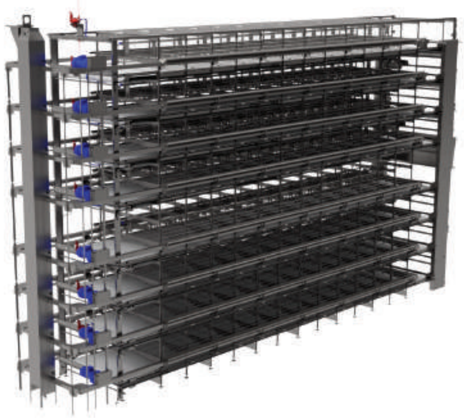
REGULATOR

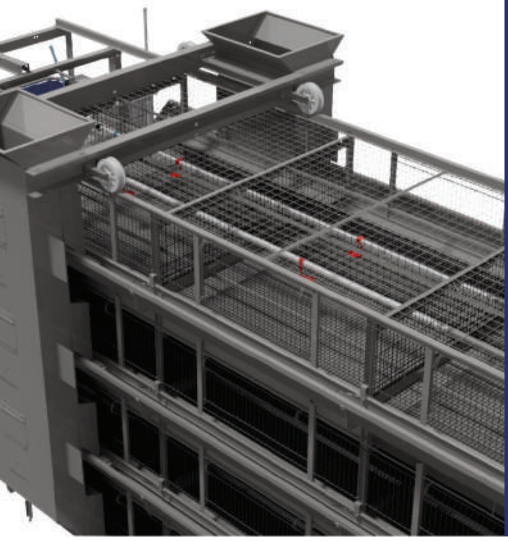
- Positioned at the beginning of each tier and row, allowing the adjustment of desired water flow in the drinking line via pressure control.

FEEDING SYSTEM

CHAIN FEEDING SYSTEM

- The chain feeding system operates automatically with a timer.
- Chains are driven by 1 Hp motors on each floor and row.
- Feed from the silo is evenly distributed to all levels via a feed tower located at the beginning of the line.





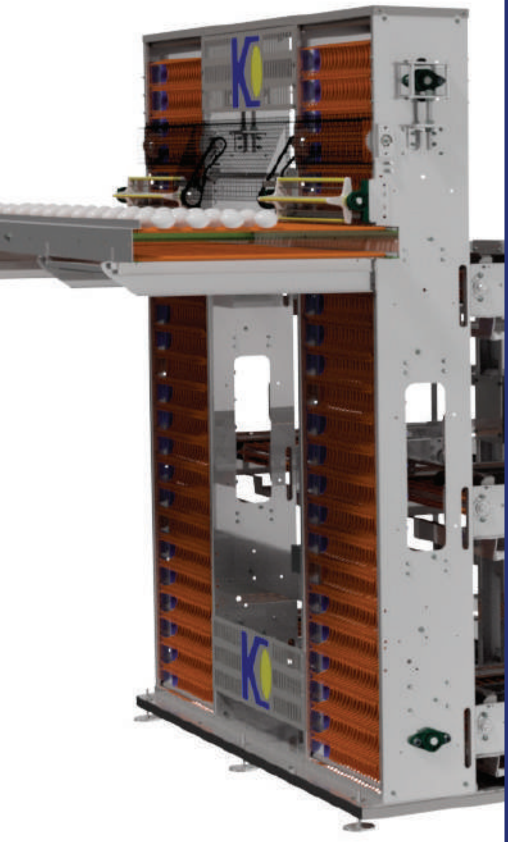
TROLLEY FEEDING SYSTEM

- Trolley feeders operate automatically with a timer.
- Feed adjustment apparatuses are designed to deliver the desired feed amount.
- This system ensures homogeneous and equal feed distribution along the entire cage row.
- Since one feeding motor is used per row, energy and maintenance costs are reduced.

EGG COLLECTION SYSTEM

ELEVATOR-TYPE EGG COLLECTION SYSTEM

- Eggs are transported via 95 mm wide polypropylene egg belts to the egg conveyor.
- Egg belts are cleaned with brushes located at the rear of the house, reducing dirty egg ratio.
- Each tier’s eggs are collected separately and simultaneously across all rows.
- Eggs are transferred directly to the conveyor from the belt, minimizing hidden cracks.
- Depending on house capacity and number of platforms, the system is powered by 1 to 4 motors.
- Compared to the elevator system, this solution offers significant energy savings.
- Egg belt speed inside the house is 3.94 m/min.



LIFT-TYPE EGG COLLECTION SYSTEM

- Similar egg belts and cleaning brushes as above.
- Eggs from all rows and tiers are collected simultaneously.
- The system consists of entry conveyors, egg diverters, plastic egg carriers, and egg transfer units.
- Egg belt speed is 1.34 m/min, and motor speed is adjustable to control egg collection speed.

MANURE REMOVAL SYSTEM

MANURE REMOVAL SYSTEM

- Manure falls onto polypropylene (PP) belts located below the wire mesh floor.
- PP belts are driven by a manure transfer unit at the rear of the cage, dropping the manure onto a horizontal conveyor inside a rear channel.
- Belts can be easily tensioned with a stretching system at the front of the cage.
- The unit is operated via an electric panel that controls all lines automatically.
- PP belt rollers are made of Ø133 – 5 mm thick seamless steel pipes, rubber-coated for better traction.
- A scraper beneath the drive roller automatically cleans manure stuck to the belt.

SILO AND AUGERS

SILO

- Used for feed storage in poultry cages.
- Made of hot-dip galvanized sheet metal with 8.8-grade bolts and nuts.
- Special sealing compound is used at all connection points.
- Easy to transport, maintain, and install; durable and long-lasting.
- Feed levels are managed via sensors and can be monitored through Kutlusan’s control panels and screens.

12 TON

15 TON

18 TON

25 TON

33 TON

AUGER (SCREW CONVEYOR)

Transfers feed from the silo to the feeding system. Operates through a rotary mechanism, ensuring efficient feed delivery to desired points.

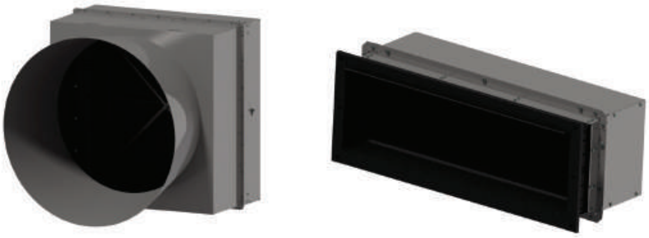
SUCCESSFUL FARMS WITH KUTLUSAN

OPTIONAL CAGE MODEL

COOLING AND VENTILATION SYSTEM

Kutlusan has extensive experience in domestic and international cooling and ventilation projects, successfully implementing solutions for poultry houses ranging from small capacities to single buildings with up to 250,000 birds.
The Cooling and Ventilation System consists of the following components:

- Fans
- Cooling pads
- Pad frames
- Tank and pump group
- Fully automatic computer-controlled panels



SILO WEIGHING SYSTEM (LOAD CELL)

- Used to display the feed level in the feed silo.
- Thanks to the load cell system, the feed level inside the silo can be easily monitored and controlled.
- The weight measured by the load cells placed on the silo legs is sent to the PLC Control Panel of the Load Cell system for processing.
- Since the silo filling is monitored by sensors, feeding of broilers via augers is carried out automatically.

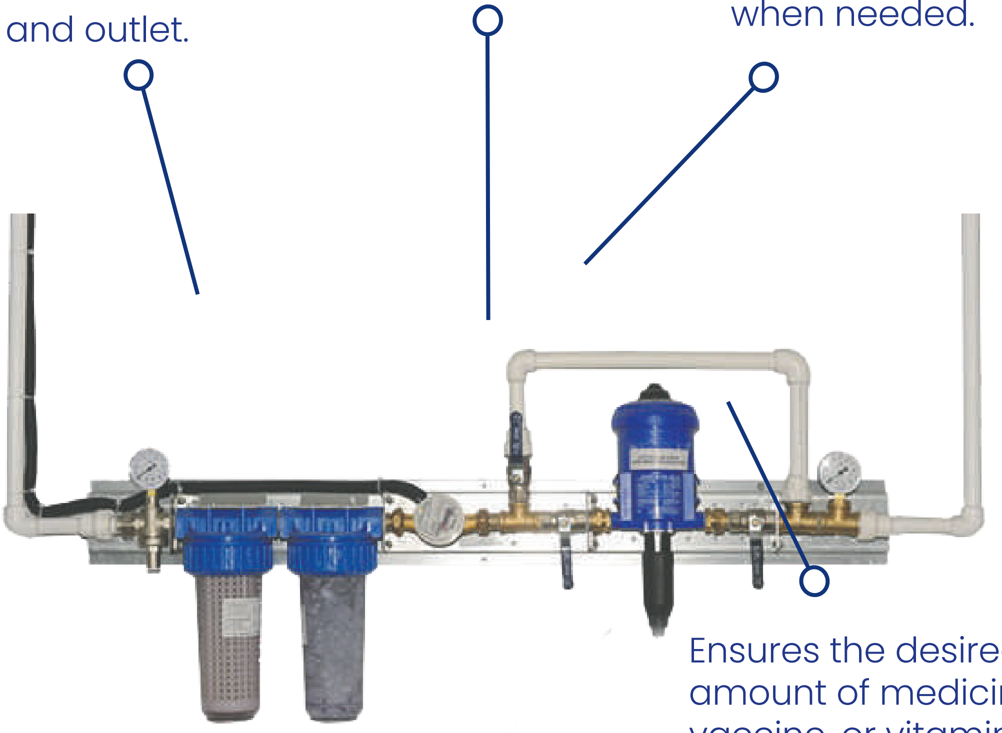
MEDICATOR GROUP

Installed before water enters the nipples, the medicator group includes all necessary controls.

Advantages:

- Proportional dosing
- Operation under low pressure and weak flow
- Externally adjustable dosing
- Wide dosing range

Components of the Medicator:



Controls the water pressure at both the inlet and outlet.

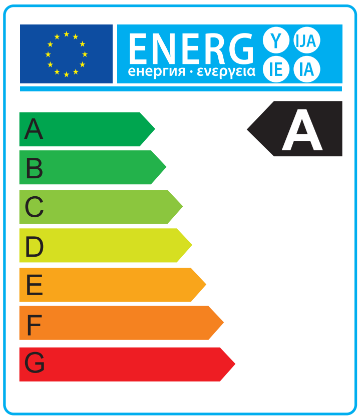
Measures the amount of water passing through the line.

Used to deactivate the Dosatron when needed.

Ensures the desired amount of medicine, vaccine, or vitamin is evenly mixed with the drinking water at the required ratio.

LIGHTING SYSTEM

- Used to display the amount of feed inside the feed silo.
- Thanks to the Load Cell System, the feed level in the silo can be easily monitored and controlled.
- The weight measured by the load cells placed on the silo legs is sent to the PLC Control Panel and processed.
- Since feed filling of the silos is controlled by sensors, feeding of the broilers is automatically carried out via augers.



DAY LIGHT

☐ 6500K 🟨 3000K
☐ 4200K
🟨 E27 ☐ B22 ☐ E14
☐ AC85-265V
☐ AC170-265V
🟨 AC 220 - 240V

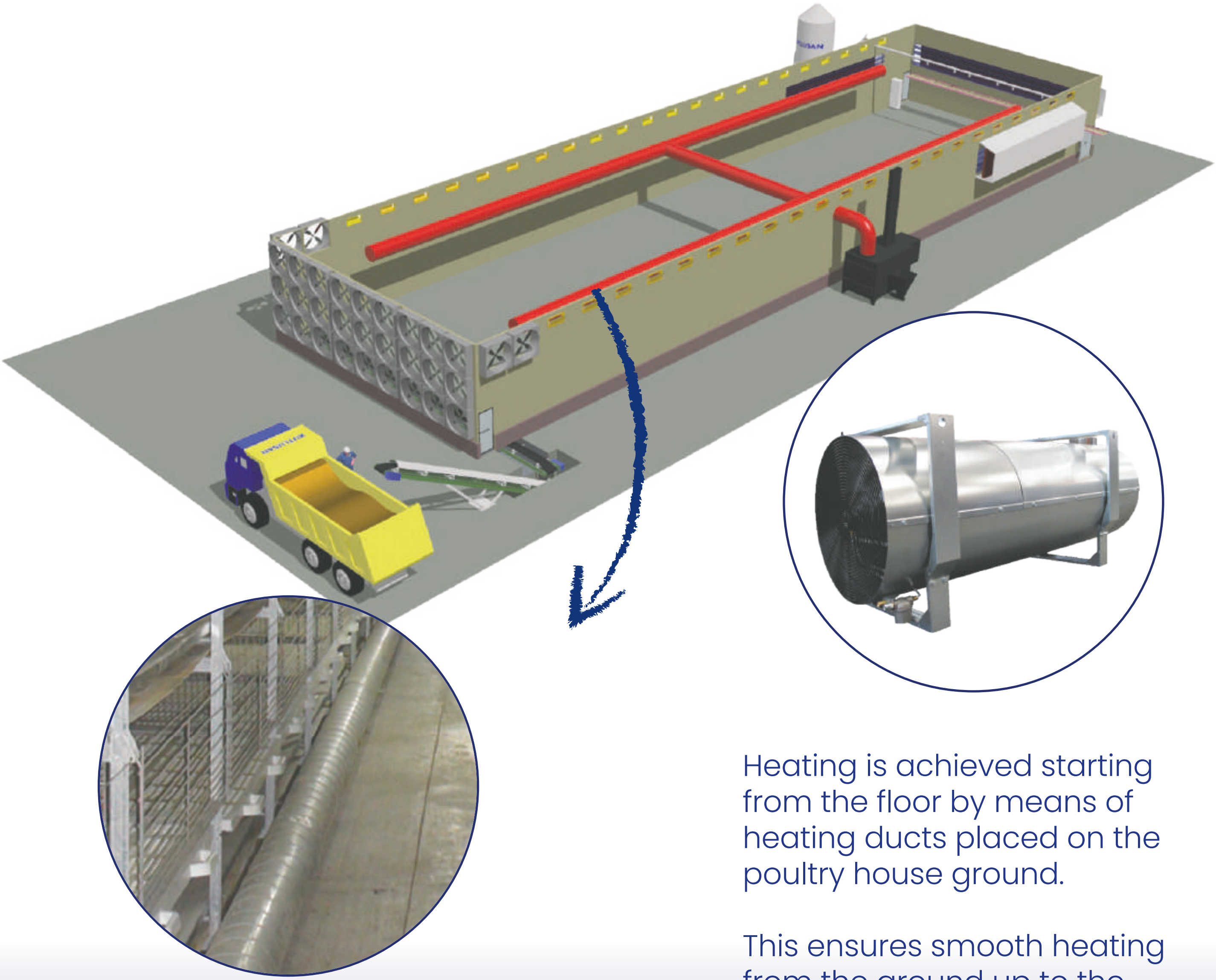
7W

410-600 lm

TECHNICAL SPECIFICATIONS			
ITEM	**SYMBOL**	**VALUE**	**UNIT**
POWER	P	7.0 +/- %10	W
VOLTAGE	VOLT	AC 220-240	V
CURRENT	I	0.06A MAX	A
FREQUENCY RANGE	F	50-60	HZ
POWER FACTOR	FACTOR	0.5	pf
BEAM ANGLE	DEGREE	220	DEGREE
OPERATING TEMPERATURE	TOPR	10_50	C
RELATIVE HUMIDITY	RH	10%-90%	RH
LUMINOUS FLUX	LM	410-600	LM
COLOR TEMPERATURE	T	3000	K
LIFESPAN	HOUR	30000	HOUR
DIMMABLE	LED	YES	E27

HEATING SYSTEM

- Specially designed heating systems are used to maintain the required temperature inside the poultry house.
- The heating starts from the floor with heating ducts placed along the ground of the poultry house.
- This allows for a consistent and problem-free heating from the floor up to the ceiling of the poultry house.



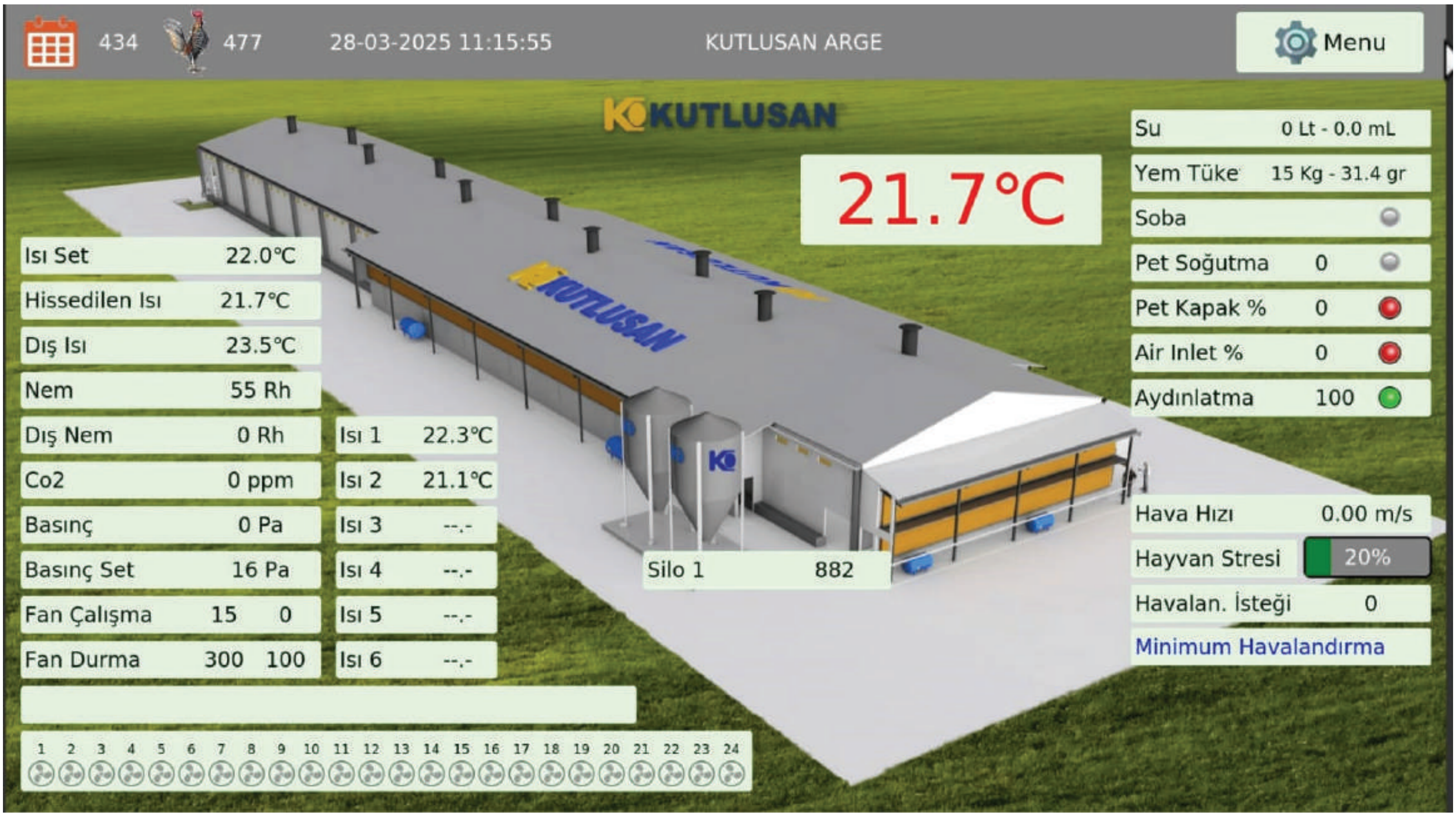
By using specially designed heating systems, the internal temperature of the poultry house is maintained at the required level.

Heating is achieved starting from the floor by means of heating ducts placed on the poultry house ground.

This ensures smooth heating from the ground up to the ceiling of the poultry house.

POULTRY HOUSE CONTROL AND MANAGEMENT SYSTEM (PHCMS)

- High resolution
- High-performance processor
- Modbus and Ethernet protocol support
- User-friendly interface
- Functional design
- Remote access via Ethernet cable



434 477 28-03-2025 11:15:55 KUTLUSAN ARGE

21.7°C

Isı Set	22.0℃
Hissedilen Isı	21.7℃
Dış Isı	23.5℃
Nem	55 Rh
Dış Nem	0 Rh
Co2	0 ppm
Basınç	0 Pa
Basınç Set	16 Pa
Fan Çalışma	15 0
Fan Durma	300 100

Isı 1	22.3℃
Isı 2	21.1℃
Isı 3	--.-
Isı 4	--.-
Isı 5	--.-
Isı 6	--.-

Silo 1 882

Su	0 Lt - 0.0 mL	
Yem Tüke	15 Kg - 31.4 gr	
Soba		●
Pet Soğutma	0	●
Pet Kapak %	0	●
Air Inlet %	0	●
Aydınlatma	100	●

Hava Hızı	0.00 m/s
Hayvan Stresi	20%
Havalan. İsteği	0

Minimum Havalandırma

The combination of speed, performance and functionality

The color touch screen has a large and graphical interface that clearly displays all functions. The icons used on the pages are easy to interpret, guiding the user quickly to the relevant sections. On the main screen, a standard poultry house model is displayed, along with basic heating, cooling, and ventilation parameters.

On the left and right edges of the screen, information such as the number of animals, their age, average indoor temperature, system status, poultry house name, communication status between the screen and microprocessor, active alarms, date, time, language in use, and a drop-down menu that shows various user levels can be seen.
Shortcut buttons provide access to menu pages and operations such as the alarm menu, graph menu, main screen, and a quick access screen with menu shortcuts.

The touch screen currently supports Turkish, French, Korean, English, Spanish, Chinese, Thai, Persian, Arabic, and Russian languages. A user settings page is available for adding, deleting, updating users, resetting to factory default values, and importing/exporting user information via USB. Settings can only be changed by authorized personnel.

TOUCH SCREEN PAGE EXAMPLES

Figure 1: Main page

434 477 28-03-2025 11:15:55 KUTLUSAN ARGE

21.7°C

Isı Set 22.0°C
Hissedilen Isı 21.7°C
Dış Isı 23.5°C
Nem 55 Rh
Dış Nem 0 Rh
Co2 0 ppm
Basınç 0 Pa
Basınç Set 16 Pa
Fan Çalışma 15 0
Fan Durma 300 100

Isı 1 22.3°C
Isı 2 21.1°C
Isı 3 --.-
Isı 4 --.-
Isı 5 --.-
Isı 6 --.-

Silo 1 882

Su 0 Lt - 0.0 mL
Yem Tüke 15 Kg - 31.4 gr
Soba
Pet Soğutma 0
Pet Kapak % 0
Air Inlet % 0
Aydınlatma 100
Hava Hızı 0.00 m/s
Hayvan Stresi 20%
Havalan. İsteği 0
Minimum Havalandırma

Figure 2: Setup

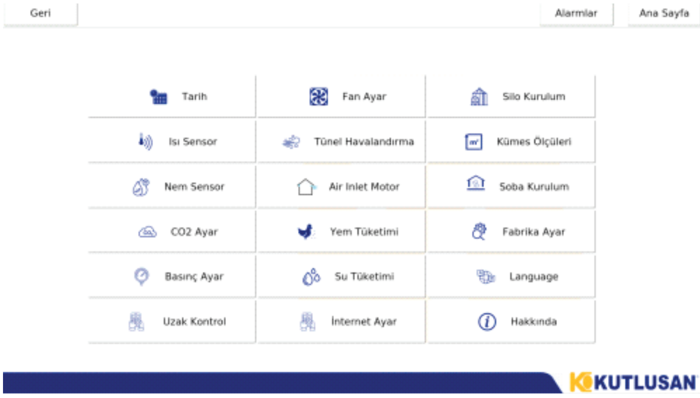
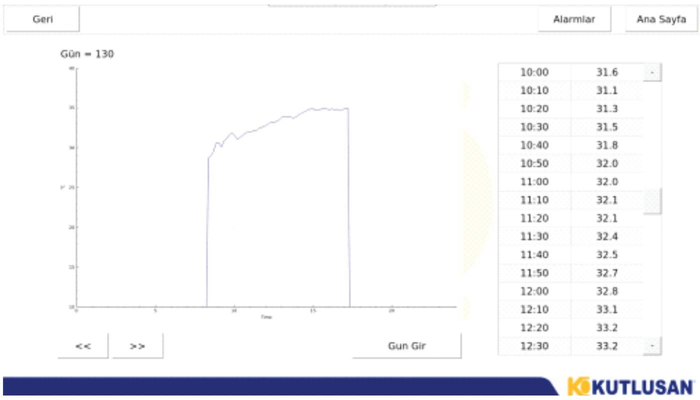
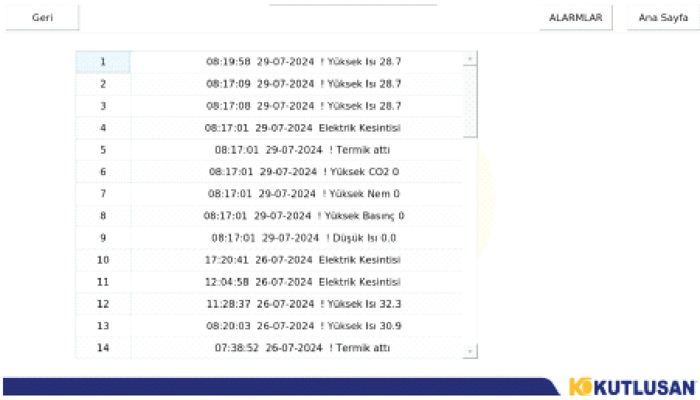


Figure 3: Graphs page



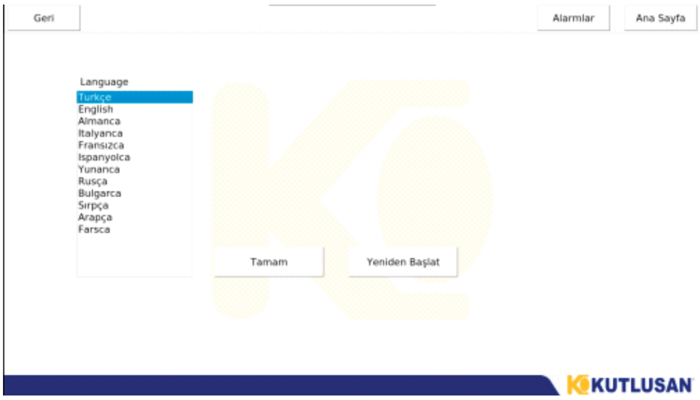
10:00	31.6
10:10	31.1
10:20	31.3
10:30	31.5
10:40	31.8
10:50	32.0
11:00	32.0
11:10	32.1
11:20	32.1
11:30	32.4
11:40	32.5
11:50	32.7
12:00	32.8
12:10	33.1
12:20	33.2
12:30	33.2

Figure 4: Alarms page



```
1   08:19:58  29-07-2024  ! Yüksek Isı 28.7
2   08:17:09  29-07-2024  ! Yüksek Isı 28.7
3   08:17:08  29-07-2024  ! Yüksek Isı 28.7
4   08:17:01  29-07-2024  Elektrik Kesintisi
5   08:17:01  29-07-2024  ! Termik attı
6   08:17:01  29-07-2024  ! Yüksek CO2 0
7   08:17:01  29-07-2024  ! Yüksek Nem 0
8   08:17:01  29-07-2024  ! Yüksek Basınç 0
9   08:17:01  29-07-2024  ! Düşük Isı 0.0
10  17:20:41  26-07-2024  Elektrik Kesintisi
11  12:04:58  26-07-2024  Elektrik Kesintisi
12  11:28:37  26-07-2024  ! Yüksek Isı 32.3
13  08:20:03  26-07-2024  ! Yüksek Isı 30.9
14  07:38:52  26-07-2024  ! Termik attı
```

Figure 5: Language page



RELIABLE SOFTWARE FOR HEATING, COOLING, AND VENTILATION OF POULTRY HOUSES

- Software adaptable for new functions
- Daily programming for minimum ventilation based on animal count, fan capacity, and daily needs
- Advanced damper control function with pressure and flow rate calculation
- Advanced heating and cooling equipment control
- Automatic selection of ventilation mode (tunnel, minimum, transitionaloutputs
- Fan control based on CO2 levels
- Ventilation based on external temperature and humidity
- Power outage detection
- Water and feed consumption management
- Configurable alarm inputs
- Configurable alarm outputs
- Advanced alarm management
- All equipment and poultry house structures can be quickly customized thanks to its parametric structure
- Control based on perceived temperature
- Stepless fan control

Figure 6: Tunnel Fans

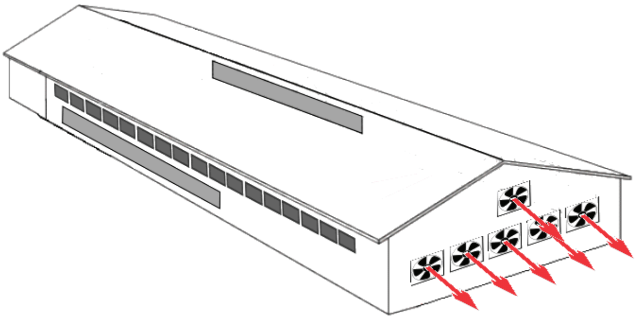
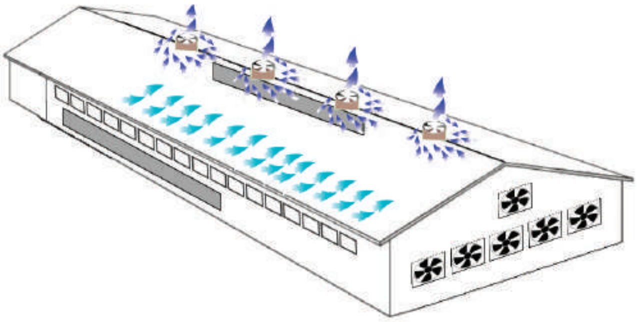
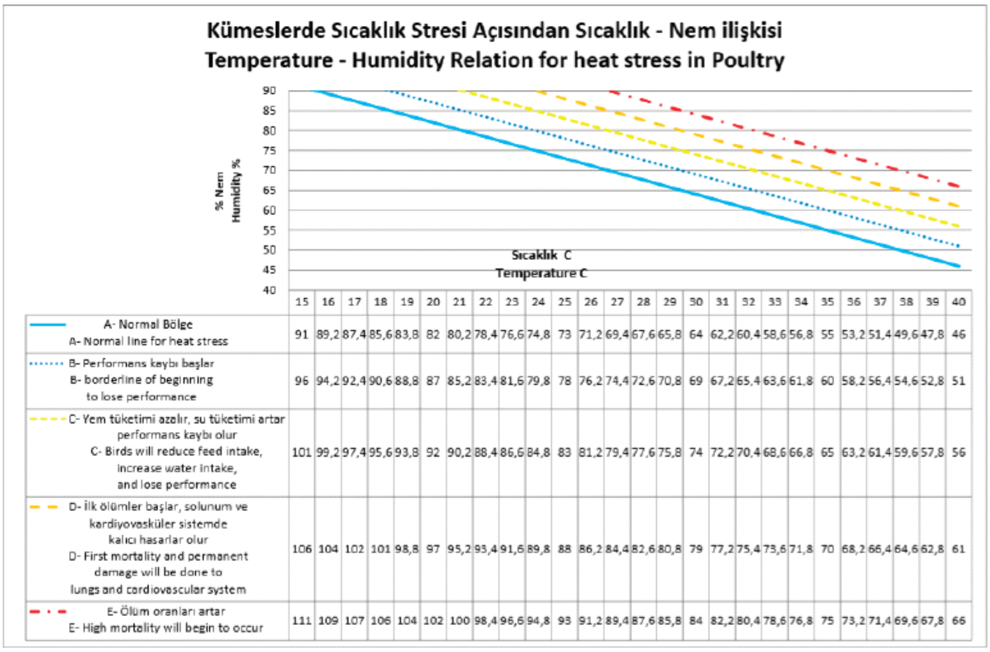


Figure 7: Air-inlet and Exhaust Fans



SOFTWARE BASED ON SCIENTIFIC DATA – ORIGINAL SOFTWARE

The intelligent poultry house control system software is developed based on academic research and scientific data. The following graphic showing the relationship between temperature and humidity, which has a major impact on animal comfort, is an example from academic studies.



	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
── A- Normal Bölge A- Normal line for heat stress	91	89,2	87,4	85,6	83,8	82	80,2	78,4	76,6	74,8	73	71,2	69,4	67,6	65,8	64	62,2	60,4	58,6	56,8	55	53,2	51,4	49,6	47,8	46
······ B- Performans kaybı başlar B- borderline of beginning to lose performance	96	94,2	92,4	90,6	88,8	87	85,2	83,4	81,6	79,8	78	76,2	74,4	72,6	70,8	69	67,2	65,4	63,6	61,8	60	58,2	56,4	54,6	52,8	51
- - - - C- Yem tüketimi azalır, su tüketimi artar performans kaybı olur C- Birds will reduce feed intake, increase water intake, and lose performance	101	99,2	97,4	95,6	93,8	92	90,2	88,4	86,6	84,8	83	81,2	79,4	77,6	75,8	74	72,2	70,4	68,6	66,8	65	63,2	61,4	59,6	57,8	56
— — D- İlk ölümler başlar, solunum ve kardiyovasküler sistemde kalıcı hasarlar olur D- First mortality and permanent damage will be done to lungs and cardiovascular system	106	104	102	101	98,8	97	95,2	93,4	91,6	89,8	88	86,2	84,4	82,6	80,8	79	77,2	75,4	73,6	71,8	70	68,2	66,4	64,6	62,8	61
— · — E- Ölüm oranları artar E- High mortality will begin to occur	111	109	107	106	104	102	100	98,4	96,6	94,8	93	91,2	89,4	87,6	85,8	84	82,2	80,4	78,6	76,8	75	73,2	71,4	69,6	67,8	66

POULTRY HOUSE – LIGHTING SYSTEM

- Up to 12 dimmable lighting events can be set daily.
- Switch-on and switch-off time entries and status settings are used for lighting.
- With the “Dimming Temperature Difference” feature, the system increases the set temperature when the animals are inactive to prevent them from getting cold.

Figure 8: Lighting Program Settings Page

Ay Prg.	Açılma	Kapanma	Durum
1	06:00	12:00	Açık
2	13:00	18:00	Açık
3	08:55	09:00	Kapalı
4	06:30	06:00	Kapalı
5	07:30	07:00	Kapalı
6	08:30	08:00	Kapalı
7	09:30	09:00	Kapalı
8	10:30	10:00	Kapalı
9	11:30	11:00	Kapalı
10	12:30	12:00	Kapalı
11	13:30	13:00	Kapalı
12	14:30	14:00	Kapalı

Karartma Fark Isı	0.0

Gün doğumu süresi (Dk)	10
Gün batimi süresi (Dk)	10
Maximum Işık	100
Minimum Işık	20

DIMMER – ADJUSTABLE LIGHT INTENSITY IN THE POULTRY HOUSE

Figure 9: Lighting Schedule, On-Off, Sunrise-Sunset Durations

Ay Prg.	Açılma	Kapanma	Durum
1	06:00	12:00	Açık
2	13:00	18:00	Açık
3	08:55	09:00	Kapalı
4	06:30	06:00	Kapalı
5	07:30	07:00	Kapalı
6	08:30	08:00	Kapalı
7	09:30	09:00	Kapalı
8	10:30	10:00	Kapalı
9	11:30	11:00	Kapalı
10	12:30	12:00	Kapalı
11	13:30	13:00	Kapalı
12	14:30	14:00	Kapalı

Karartma Fark Isı	0.0

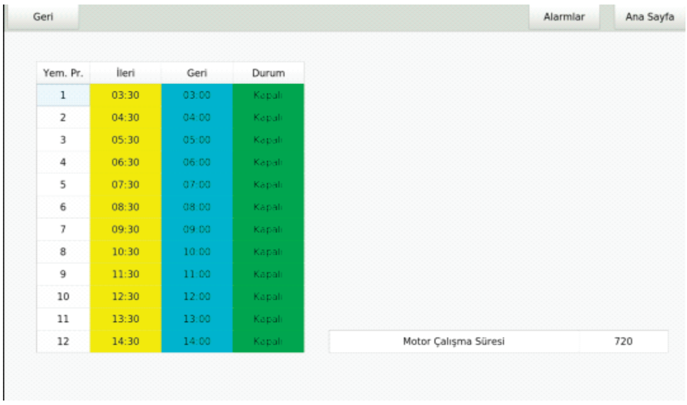
Gün doğumu süresi (Dk)	10
Gün batimi süresi (Dk)	10
Maximum Işık	100
Minimum Işık	20

- Sunrise and sunset durations are written in minutes. Maximum and minimum light intensity levels can be set as desired to regulate the light level.

POULTRY HOUSE – AUTOMATIC FEEDING SYSTEM

- The movement of the feed trolley is coordinated according to scheduled times.
- There are a total of 12 time zones.
- Time zones can be set as On-Off using the status parameter.
- Feeding control can be selected parametrically as either trolley-based or chain-based.

Figure 10: Time Settings



Yem. Pr.	İleri	Geri	Durum
1	03:30	03:00	Kapalı
2	04:30	04:00	Kapalı
3	05:30	05:00	Kapalı
4	06:30	06:00	Kapalı
5	07:30	07:00	Kapalı
6	08:30	08:00	Kapalı
7	09:30	09:00	Kapalı
8	10:30	10:00	Kapalı
9	11:30	11:00	Kapalı
10	12:30	12:00	Kapalı
11	13:30	13:00	Kapalı
12	14:30	14:00	Kapalı

Motor Çalışma Süresi	720

POULTRY HOUSE – SILO WEIGHING SYSTEM

- Used to display the amount of feed inside the feed silo.
- Offers rich input-output options.
- Includes 4 outputs, 4 isolated inputs, 2 RS232-485 communication ports, and Modbus protocol (offered as standard).
- One load cell is used for each leg, with a total of 4 or 6 load cells used based on the silo capacity.
- Allows feed consumption to be monitored by communicating with the relay card control system.

Figure 16: Silo

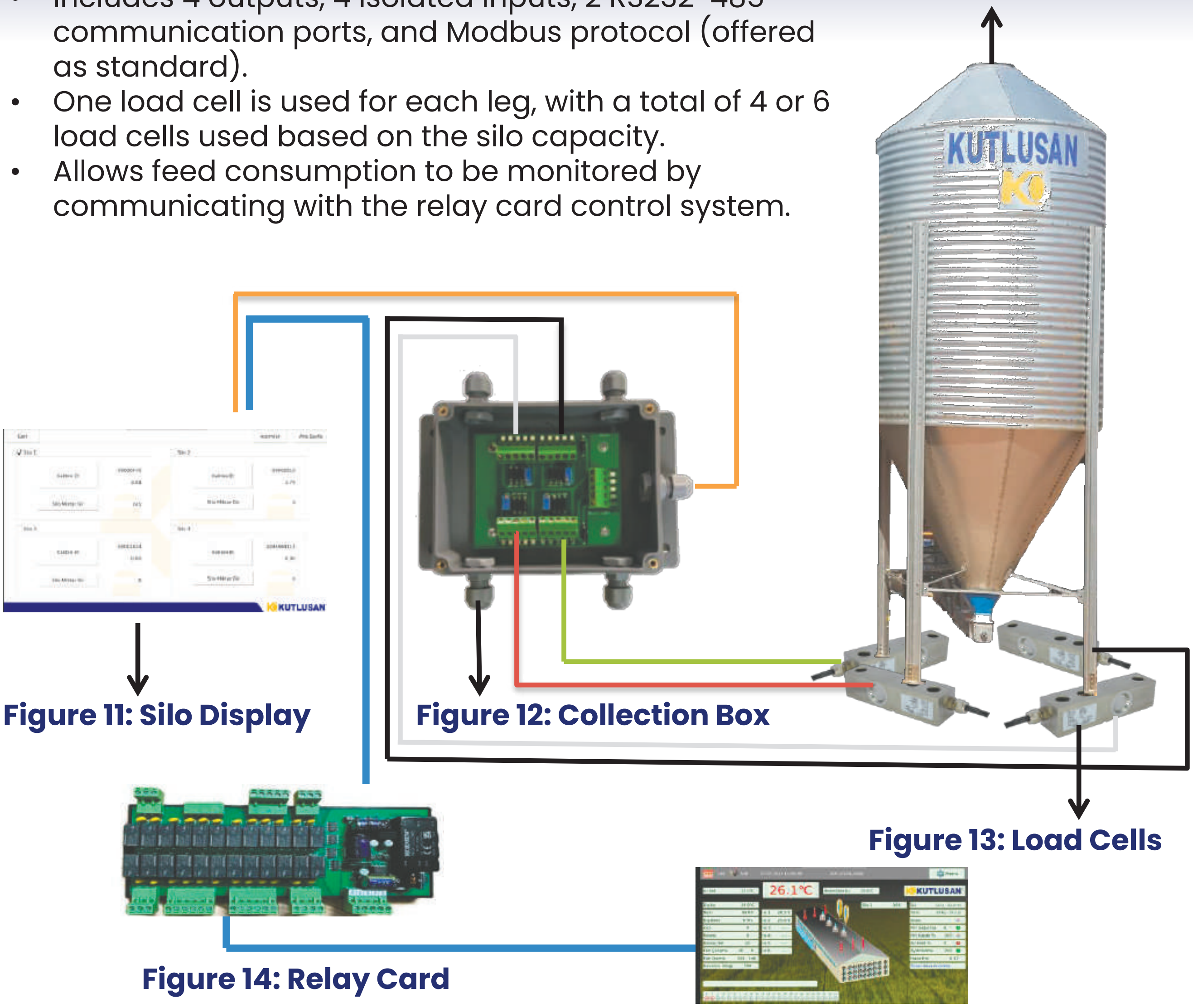


Figure 11: Silo Display

Figure 12: Collection Box

Figure 13: Load Cells

Figure 14: Relay Card

Figure 15: Touch Screen

POULTRY HOUSE – WATER CONSUMPTION

- Up to 6 water meters can be connected to the system.
- Water consumption for each row can be read from separate meters.
- The total water consumption during a specified time interval is displayed in liters on the screen.
- Liter–Pulse calibration is made in accordance with the system.

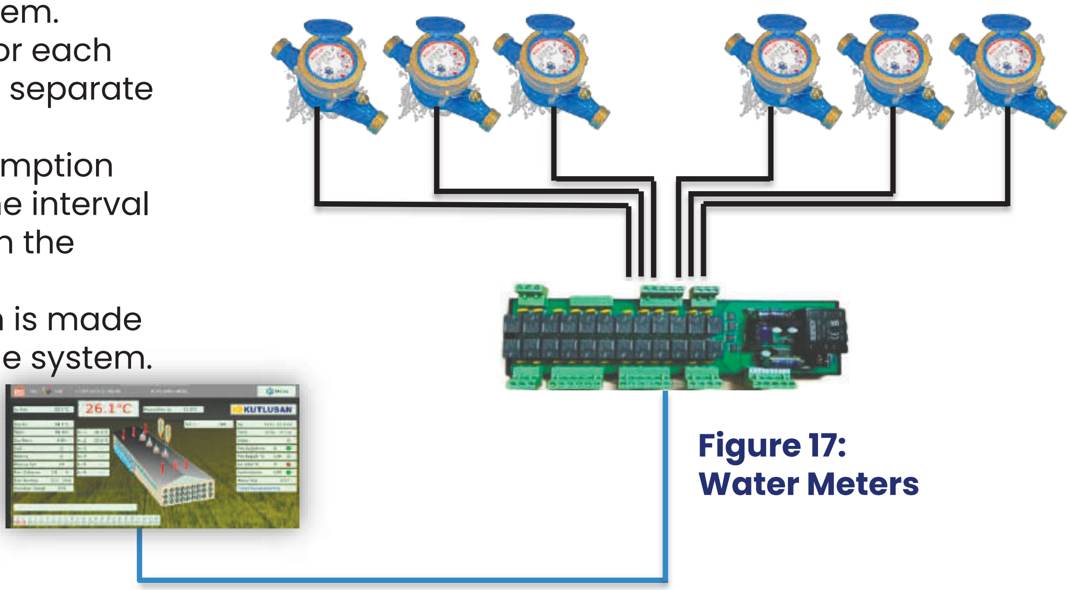


Figure 17: Water Meters

KUTLUSAN POULTRY HOUSE CONTROL SYSTEM – KPHCS – ADVANTAGES

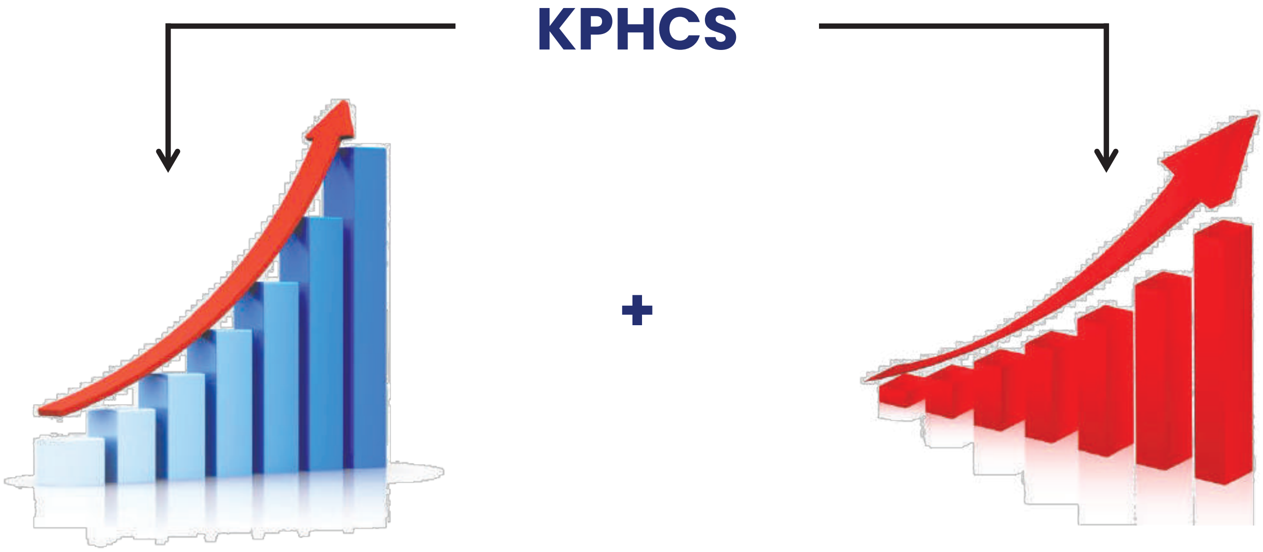
- Faster Growth
  - The system automatically calculates the target indoor temperature based on the age of the animals and maintains it with minimal fluctuation. This prevents large temperature swings, which significantly affect growth and feed consumption.

- Reduced Energy Consumption
  - With precise control, overheating or overcooling is avoided.
  - Only necessary fans are operated, increasing efficiency.
  - Fan/pad priority is adjusted based on local water and electricity costs, making the cheaper method preferred.
  - Perceived temperature control with wind effect reduces the need for mechanical cooling.

- Increased Animal Comfort
  - Time management and climate control in the poultry house are adjusted according to the age and breed of the animals, helping them grow stress-free.

- Prevention of Unexpected Disasters
  - The alarm system notifies about unexpected temperature rises or air quality deterioration, and emergency scenarios are activated.
  - Alarm system usage may also lead to reduced insurance premiums.

- Reduced Labor and Human Error
  - The system operates continuously 24/7 at the same performance level. It makes faster and more accurate decisions than humans and does not require rest, sleep, etc.



KPHCS

+

Increased Profit

Increased Efficiency

ELECTRICAL PANEL – EASY OPERATION

Figure 18: UPS

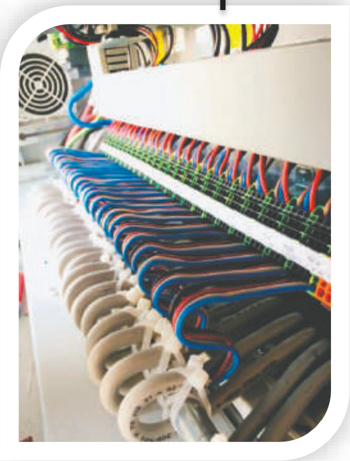


Figure 20:
Terminal Connection

Figure 21:
Switchgear Components

Figure 22: Buttons

Figure 23: Inside View of Electrical Panel

KUTLUSAN IS ALL OVER THE WORLD

6 CONTINENT

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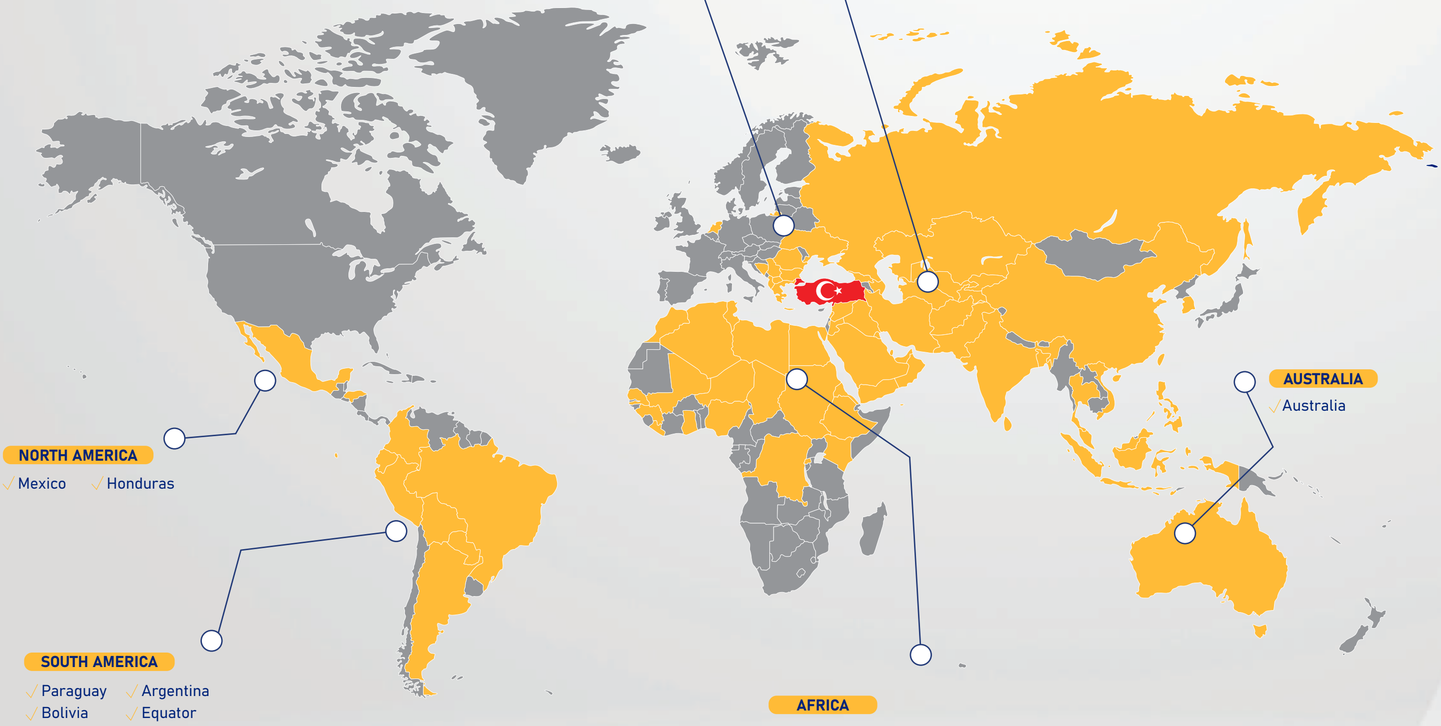
✓ Kazakhstan
✓ Turkmenistan
✓ Afghanistan
✓ Vietnam
✓ Malaysia
✓ Palestine
✓ Kuwait
✓ Yemen
✓ Uzbekistan
✓ Pakistan
✓ Thailand
✓ Indonesia
✓ Lebanon
✓ Saudi Arabia
✓ United Arab Emirates
✓ Iran
✓ Jordan

EUROPE

✓ Greece
✓ Serbia
✓ Bulgaria
✓ Romania
✓ Albania
✓ Kosovo
✓ Bosnia Herzegovina
✓ North Macedonia
✓ Netherlands



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✓ Honduras

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