Think ahead with poultry people

Complete solutions for Broilers
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Think ahead with poultry people

Vencomatic Group looks for alternative solutions, developing sustainable and poultry friendly systems for layers, breeders and broilers. In worldwide teams, over 350 committed employees serve thousands of customers. Our poultry professionals understand what is required to run a thriving poultry farm, and we happily share this knowledge to help you make your business a success.

_We’ve been there, challenge us!_

“World poultry meat production is predicted to nearly double by 2050 to reach 200 million tonnes. This increase demands the highest possible efficiency in broiler production. To achieve the most efficient growth while maintaining the health of the flock asks the maximum of the birds and the expertise of the farm manager. This demands for an optimal start.”

_Khalil Yaqut, Sales Director CIS / Middle East, Vencomatic Group_
The optimal start

It is widely accepted that it is important to provide the best conditions possible for the day old chicks when they arrive at the farm. To fully realize the genetic potential of modern broilers, a good start is even more critical in the future. However, the broilers’ life starts the moment it emerges from the egg – days before the farmer can start caring for it.

On-farm hatching: the next step in broiler production

In 2004, Vencomatic developed the solution for the optimal start by combining the hatching and brooding phase on the farm. On-farm hatching fulfils the three basic needs of a chick from the start: food, water and fresh air.

On-farm hatching is a standard feature of the Patio system, which was introduced in 2006. Vencomatic now uses this experience to enable on-farm hatching in traditional broiler houses using the new concept X-Treck, with excellent results.

The most remarkable improvement is seen in the health of broilers:
• immediate post-hatch feed and water access provides energy for organ growth and the development of key physiological systems such as the immune system and thermoregulation;
• direct feed and water access boosts the intestinal development and stimulates digestive capacity in the growth period;
• on-farm hatching strongly reduces the risks for cross contamination;
• a higher health status results in uncomplicated management of the birds.

The hatch window

Due to natural variation in embryo development, there is a spread in hatching time of 24 – 40 hours. The first chicks generally hatch after 19 days of incubation, while the last chicks hatch after 21 days. This results in the oldest chicks being about 2 days old at the moment of chick collection from the hatcher.
The X-Treck is a unique concept that enables on-farm hatching in traditional broiler houses. X-Treck provides an optimal start resulting in robust broilers and forms the basis for further profitability in broiler production.

In the X-Treck, setter trays with 18 day-incubated eggs are placed on a rail system that is suspended over the length of the broiler house. The rail system is positioned freely in the air, ensuring an optimal airflow surrounding the eggs during hatching. Controlling the systems’ height with a winching system, the farm manager has an easy to use tool to control the airflow and temperature surrounding the embryo.

**Options**

- Complementary to the X-Treck is an automatic setter tray transport system. It automates the process of transporting the setter trays from the front to the backend of the house. This reduces manual labour and increases user friendliness.
- An electronic winch allows you to further automate the process in the broiler house. It replaces the manual winch and thereby offers a further reduction in manual labour.
- With the In-Cradle system the care for the newly hatched chicks is further optimized. Directly after hatching, chicks land on a synthetic surface where they recover from hatching before accessing the litter floor below. The In-Cradle system is easily positioned underneath the X-Treck.
On-farm hatching

The best conditions for embryos and chicks

- Improved air quality due to the large volume of air per egg.
- Hatching in a quiet setting with the presence of light and litter, mimicking natural conditions.
- The rail system is installed in between the drinking and feeding lines resulting in optimal accessibility to feed and water for the newly hatched chicks.

Essential savings

- Lower costs of day-old chicks.
- Hatchability of fertile eggs improves up to 1.5%.
- Better broiler health resulting in improved feed conversion ratios.
- Constant climate in a closed farm house during hatching reducing heating costs.

Proven components

- Unique design of the setter tray supports for maximum safety of hatching eggs.
- Standard components for various types of setter trays.
- Reduced labour using the automated setter tray transport system.
Vencomatics’ Patio system currently accommodates about 25 million bird places worldwide. On-farm hatching is a standard feature in the Patio system, ensuring direct feed and water access for all broilers directly post-hatch. The system provides a perfect environment for birds from hatching until the end of the growing period. The daily operation of the Patio system is facilitated by highly automated functions.

Ideal environment

Patio provides the ideal environment throughout the broilers’ life: the rail system enabling on-farm hatching is integrated in the system providing the best possible start for all birds. Pre-conditioned air enters the Patio system resulting in an optimum and constant micro-climate. Constant fresh air is supplied at bird level which further stimulates the broilers’ health. The birds in the system are housed on belts made of hygienic and durable polypropylene. These belts are easy to clean and quickly adapt to the room temperature, helping to lower heating costs and providing the right floor temperature as a result.

Patio design

The Patio system is set up in cells, with two system rows separated by a corridor per cell. Each row consists of 6 identical tiers on top of each other equipped with feed, water and litter.
Maximum animal comfort

The energy saving and dimmable LED-lighting system provides uniform light distribution at bird level. Per tier lights are controllable for maximum animal comfort during the growing period and during unloading. Feeding and drinking lines are arranged closely providing maximum feed and water access while leaving room destined for the birds to rest.

Climate control

Fresh outside air enters the Patio house via the attic. After adjusting it to the right temperature and humidity the air is transported to the outer corridors. The advanced air inlet valves and self-governing balance valves ensure an optimized air distribution at bird level.
Smart automation

For all key procedures an effective automated solution is integrated in the Patio system:

- automatic setter tray transportation system including in-feed and expel functions;
- semi self-opening and closing transparent doors maximize accessibility to birds on each tier;
- moveable Patio belts allow for a uniform automated littering system and simultaneous unloading of both birds and manure without manual handling;
- maximized hygiene due to water discharging technology designed in the side walls and Patio belts;
- Patio combines on-farm hatching with minimum floor use: 3x less than a traditional floor house;
- automated inspection platform in each corridor facilitating easy inspection of the birds.
Project management

Broiler production sites may consist of single or multiple broiler houses, utilities for climate control, heating and water provision, and facilities for centralized broiler harvesting. Vencomatics’ project specialists support you with advice on a smart and efficient layout of your broiler production site. Feel free to contact us for further information.
The Vencopan Broiler is a feeding system designed for the effective feeding of broilers. The winchable system fits every phase of the broilers’ life. By lowering the pan on the floor, the feed level in the pan increases, so even the newly hatched chicks can easily access the feed in the pan. When winched, the feed level is minimized to an adjustable minimum in order to prevent feed spillage. The pans are easy to clean with the optional double rotation system.
Effective climate control

Our climate specialists offer you the solutions for a constant optimal climate in your broiler house during all phases of the broilers’ life. Using Agro Supply’s heat exchanging systems, the costs of effective climate control are minimized.

Clima+ design

The Clima+ 200 allows you to fully control the climate in your broiler house in all weather conditions with an optimal energy use. The Clima+ 200 heat exchanger uses warm air from inside the house to heat up fresh air from outside. Along with the heat exchangers’ high thermal efficiency of up to 80%, the use of the preheated air is further optimized by its distribution via the Louvre system. Pre-heated air from the heat exchanger is brought directly into the broiler house through a Louvre box. The warm air is projected towards the roof, where it is caught in the catchment sheet. From here the circulation fans spread the air throughout the house. This ensures an even temperature and uniform climate throughout the entire house.

Intelligent software governs this technology and is developed based on a thorough understanding of climate control in poultry houses. Therefore we get the utmost of our equipment resulting in substantial savings in heating costs and a reduction in CO₂ emissions. The Clima+ 200 creates a perfect and constant climate in the house resulting in optimal litter quality and low ammonia emissions.
Complete solutions for Broilers

Complete heating

The Clima+ 200 can be used as a complete heating system by extending it with a heating unit. This heater in combination with recirculation of air enables you to control the temperature inside the poultry house regardless of the weather conditions. The heater can be integrated in the Clima+ 200 and thereby makes heaters inside the house redundant. The complete heating system enables you to create perfect and constant climate conditions for optimal bird performance.
**Energy savings**

The difference in temperature between the air from inside the house and fresh air from outside effectuates the heat recovery of the Clima+. For example, with an inside temperature of 34°C and outside temp of 4°C the Clima+ 200 type 2.5 ensures a heat recovery of 225 kW. A reduction in heating costs of up to 70% can be achieved.

**Smart design**

- Robust windbreak mesh pre filtering fresh air.
- Use of stainless steel and polyester for durability.
- Easy access for thorough cleaning.
What suits a team of poultry people better than an egg shaped building? We are accommodated in one of world’s most sustainable buildings: the Venco Campus. This building reflects our mission of being the number one global player for sustainable, poultry friendly systems.

The Venco Campus serves as an international knowledge and innovation centre for the poultry industry. We strongly believe in open innovation through collaboration. Your experience is of great value to us and we invite you to come and explore what poultry innovation can offer you.

Together we bring the poultry sector to the next level.