

# Livestock facilities

## GENERAL CATALOGUE





# Introduction



**Gandaria Servicios Ganaderos S.L.** through its section of poultry facilities controlled environment provides integrated solutions to capitalise its investment with excellent economic results relating to the transformation rate and high sanitary levels, by carrying out a needs analysis, the geographical situation and climatology of the area.

Gandaria advises and directs the client's project by providing a good after-sales service to obtain an efficient and profitable operation of its exploitation.



# Structure

---



Due to the needs of the poultry facilities, an entirely diaphanous building is necessary to eliminate barriers, provide adequate ventilation and have homogenous lighting. It is considered as a suitable system to solve these needs. A metallic structure based on porticos and lintels without intermediate supports.

Our structures are made of S355 galvanized steel with a high elastic limit. Galvanizing of this sheet plate is Z-600 (600 gr of zinc/m<sup>2</sup>).

The construction system is modular; it does not use welding; all parts are assembled using 8.8 high-quality fasteners.

Both the pillars and trusses are composed by interconnected type C double profile.

In the construction with sheet plate we have two models to adapt to the geographical situation, we have a double C composed of a 250 mm x 100 mm drawer beam for cold climates or high winds, for more benign environments we construct a lighter one with united double C that conforms to an H profile.



We also adapt to any need by using different types of industrial profiles available on the market such as laminated profiles type IPE, HEA, etc.

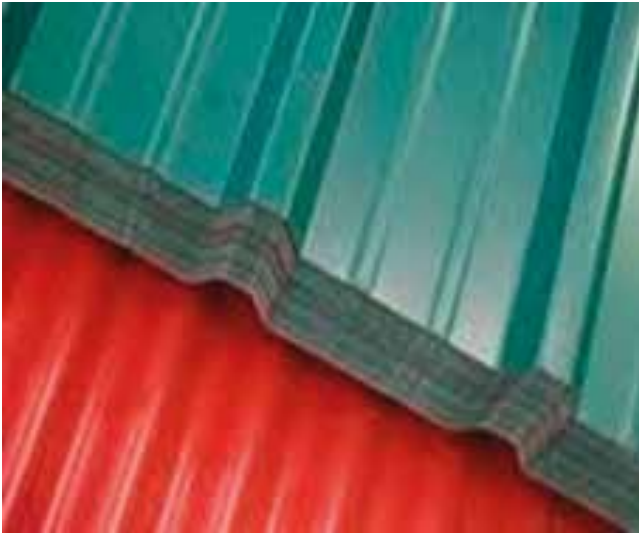
The profile finish can be hot galvanised, protection with chlororubber primer, etc ...

The different elements that make up the structure are assembled by using 8.8 high-quality fasteners. These structures can be designed with recessed anchor plates or hinged with bolts.



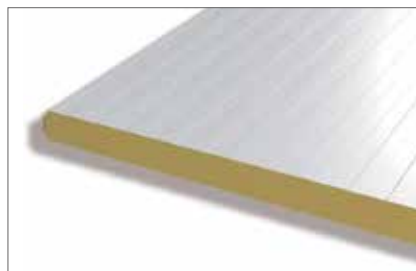
# Roofing

---



A vital element to consider in the construction of the facility is the roof since, through this, the greatest heat transfer or heat loss occurs if adequate insulation is not provided. To achieve this, there are several options available.

◀ One option is the cover with **pre-lacquered sheet plate metal**, with its overlapping system, which ensures leak-tightness by eliminating filtrations. Under this it is necessary to install **PUR AL** plates or similar insulation by leaving an air chamber.



**PUR AL** are polyurethane foam panels coated on both sides with a Kraft aluminium multilayer complex, with high thermal resistance. The range is from 20 mm to 100 mm in thickness.

▲ With sandwich panel on the roof, it ensures leak-tightness and insulation with a single element. Both the plate thickness as well as the polyurethane foam is variable according to the client's needs of the customer.

In very cold climates it is advisable to put false ceiling with air chamber.

# Enclosure

---



Together with the roof, the enclosure is a fundamental element of the insulation, it is a factor to be considered both to maintain the interior temperature and provide a barrier against exterior temperatures.

In “enclosed” facilities, façades are completely made of sandwich panels and all the walls are sealed with polyurethane and finished with a concave sanitary profile, to obtain perfect leak-tightness and elimination of corners to ensure adequate cleaning. The windows are of an air inlet type with a polyurethane core that together with a state-of-the-art computer system guarantee a controlled environment suitable for any type of poultry facility.

In “open” type facilities the façade is usually covered with 60% sandwich panel and the remaining 40% with high resistance canvas windows. One can opt for further measures, where necessary.



# Feeders

---

The **Gan 14** and **Gan 4** plates are made of injected plastic, with high resistance to shocks. Easy assembly and disassembly system for cleaning the plate. A built-in tab that keeps the plate in suspension for handling during cleaning. Regulator with six positions that provides the adequate feed quantity according to the age of the animal and with a chopping board for plate closure in the event of creating a breeding zone in the first days.



Plate with five centimetres in height, which allows easy access to chickens on arrival at the farm, nine centimetres for a perfect fall of the feed. Plate designed with fins and anti-waste edges that prevents the fall of the feed to bed. 45 mm in diameter and 1.5 mm thick galvanized steel tube with the possibility of placing dishes at different distances. The connection of the tubes is carried out through a 200 mm x 1.8 mm galvanized sash, this provides greater rigidity and solidity than the traditional bell-mouthed ends. Galvanized steel end unit with an electronic capacitive detector and additional stroke end to avoid feed jams and waste. The starter hopper is made of top quality plastic with no corners and with an outer weight sensor.



# Troughs

The water supply in good healthy conditions is essential for the correct development of animals, the teat line system is hygienic, reliable and efficient.

The **pressure regulator** provides the line with optimum pressure for the ideal water supply in the teats.



Regulador de presión



Tetina

Depending on the length of the line, one or two output regulators are available. End of line with tilting air outlet valve, water level indicator and tap for cleaning. Stainless steel teat, a multi-directional high flow of maximum quality, guarantees its perfect operation without any dripping.



Unidad final del bebedero



Recuperador de agua



Línea de bebederos



# Ventilation

---

The fans that Gandaria Ganaderos manufacture are designed so that the relation between flow and consumption is optimum, incorporating IE3 energy efficiency motors according to European standards.

The large flow fans (between 19,000 and 43,000 m<sup>3</sup>/h) have galvanised steel structures with aluminium and magnesium alloy for long duration and shutters with a centrifugal opening system to prevent air input. All fans have the protective measures required by current legislation, such as grids, pulley protectors, etc.

We study the best ventilation option (tunnel, com-bi-tunnel, bi-tunnel, transversal ...) depending on the area's weather conditions.



# Refrigeration

---



Gandaria has the widest range of products to provide solutions to any customer needs, such as refrigeration modules, booths, high and low-pressure fogging, etc.

The cooling systems are controlled automatically to ensure the animal's comfort throughout the entire fattening stage.

For a perfect operation, a study of the required wetting surface and location of the corresponding air inlets is carried out.

# Heating

---

Adjusting to the client's requirements, we equip the installations with gas bells of up to 12,000 Kcal/h, propane or diesel oil canons, heat generators, biomass boilers, etc...



## Control and electrical panel

---



The control of a farm is fundamental for the proper function of the farm, it must be reliable, complete and have communications for viewing and changing parameters from a remote device. Gandaria has a wide range of capabilities to meet all needs, it additionally provides statistics and water and feed consumption.

The electrical panel manufactured by Gandaria, belonging to the Silos Córdoba group of companies, is made with high-quality components to ensure a smooth operation. It also adds systems such as the phase controller that ensure the correct motor rotation and of course everything that is required for the lasting and reliable core of its operation. It always installs a synoptic to view the entire farm operation, so that on entering it can detect problems at a glance and accurately point out what equipment is to be intervened.

All boxes are equipped with emergency interior lighting and ventilation. It also incorporates a system of switches for manual or automatic actions to perform specific actions such as the cleaning phase.

# Ambience lighting

---



We carry out a needs analysis of each poultry facility, we install efficient lighting with low energy cost based on LED lights of the latest generation, which provides at the same time appropriate animal well-being, so as to program the hours and intensity in accordance with breeding periods.

# Water treatment and control

---

For water treatment and control, we incorporate complete tables with medication dispenser and chlorinator or acid pump, as required.

They all have pulse counters that provide an exact consumption to detect possible incidents.

As for other treatments, as an option, the required equipment can be installed according to prior water analysis.





# Climate control



Climate control is done through a state-of-the-art automaton. Occasionally it has the required collection systems (external, interior, temperature probes, humidity, CO2 and ammonia) and performs the functions with preset or variable curves depending on the handling.

It consists of a touch screen and remote control through a computer or mobile phone, so as to check, at any time and from any place, the optimum operation of its farm or change of parameters, if deemed necessary.

It includes a programmable telephone alarm for the notification of incidents that may occur.



# Silos

---

We have a wide variety of silos and all the necessary accessories for their installation and perfect operation. We have silos of different diameters and heights, as well as a central or side exit.

We remove areas with high risk of oxidation using at least Z-600 galvanized steel or galvanized sheet plate, which is subsequently pre-lacquered.

We attenuate the adhesion phenomenon of the product stored in its interior with a flatter wave design. We also offer smooth sheet plate silos on request.

6 available diameters: 191 cm, 255 cm, 280 cm, 305 cm, 344 cm or 382 cm with 1 to 4 rings

Sheet plate thickness from 0.8mm to 1.2mm or greater.  
Mechanical load, pneumatic load or combined.





Pol. Ind. El Pabellón, Parc. 1.9  
06380 - Jerez de los Caballeros  
España  
T +34 924 75 00 08 F +34 924 75 18 45

[gandaria@gandariaspain.com](mailto:gandaria@gandariaspain.com)  
[www.gandariaspain.com](http://www.gandariaspain.com)



Management  
System  
ISO 9001:2008



[www.tuv.com](http://www.tuv.com)  
ID: 9105037140

