

Broiler House Heating Case in Maragondon, Cavite, Philippines

Heating solution for broiler house using 9 Keywarm LTSA35- 15 low-intensity tube
radiant heaters



Keywarm Typical Case

Case Summary

Client	Broiler Farm in Maragondon, Cavite, Philippines
Project Location	Maragondon, Cavite, Philippines
Application	Broiler House Heating
Model	LTSA35- 15
Quantity	9 units
Per House Configuration	9 units per house, front brooding and later expansion
House Size	L 138 m × W 16 m
Building Height	Ridge 3.2 m, eave 1.8 m
Bird Capacity	40,000 birds per house
Fuel Type	Propane cylinder bank
Combustion Air	Introduced from outdoors

Project Overview

In 2017, a broiler house in Maragondon, Cavite, Philippines adopted Keywarm LTSA35-15 low-intensity tube radiant heaters for heating. The house measures 138 m in length and 16 m in width, with a ridge height of 3.2 m and an eave height of 1.8 m, and accommodates about 40,000 birds per house. Each house was equipped with 9 units of LTSA35-15 (35 kW, 15 m linear type), operating with front brooding in the early stage and later expansion of the occupied area. The system uses a propane cylinder bank for fuel supply, and combustion air is introduced from outdoors. To meet the brooding-stage requirements for fast warm-up, dry litter, and a stable indoor environment, Keywarm provided a heating solution centered on low-intensity tube radiant heaters.

Challenges and Responses

Challenges	Responses
The house length reaches 138 m, and the front-brooding / later-expansion operation requires proper heating coverage and heat distribution.	The project uses 9 units of LTSA35- 15 linear low-intensity tube radiant heaters, arranged to match the broiler-house operating pattern and cover both the brooding stage and the later expanded area.
The brooding stage requires a comfortable thermal environment to be established quickly while avoiding damp indoor conditions.	Radiant heat acts directly on the bird activity zone and the litter, helping achieve fast warm-up while keeping the litter dry.
The project uses a propane cylinder bank and therefore requires good system adaptability and stable operation.	The system is supplied by a propane cylinder bank, and combustion air is introduced from outdoors, providing a clear operating logic and stable long-term use.
The broiler house operation also aims to reduce ammonia impact and improve the rearing environment.	Customer feedback shows that after operation, the litter remained dry and the ammonia concentration stayed low, which helped improve the broiler-house environment.

Why This Solution Works

- Radiant heat acts directly on the bird activity zone and litter, which matches broiler-house brooding needs well.
- The front-brooding / later-expansion pattern fits the 15 m linear equipment layout.
- Combustion air introduced from outdoors helps reduce the impact on indoor air.
- Dry litter and low ammonia concentration improve the daily broiler-house environment.

Performance and Customer Value: After commissioning, the house was able to establish a stable brooding environment. Customer feedback showed that the litter stayed dry, the ammonia concentration remained low, and the indoor air environment was improved. For broiler houses using a front-brooding and later-expansion operating mode, this solution balances warm-up efficiency, rearing comfort, and operating stability.

Project Photos



Overall broiler-house interior and radiant heater layout



Equipment and gas-supply connection details



Overall exterior view of the broiler house and propane tanks



Broiler-house environment during operation

Recommended Applications

- Broiler houses
- Brooding houses
- Poultry houses using front brooding and later expansion
- Agricultural buildings requiring dry litter and lower ammonia concentration
- Agricultural projects using propane cylinder-bank gas supply