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Gansu Shengyue Breeding Co., Ltd. Qingyang Breeder Farm Heating Case Study

LTSA35-18 low-intensity tube radiant heating solution for 10 breeder houses in Qingyang, Gansu

Keywarm Case Study

Case Snapshot

User	Gansu Sunjoy Poultry Development Co., Ltd.
Location	Zhenyuan County, Qingyang, Gansu, China
Application	Breeder farm heating
Buildings	10 breeder houses

House Size	120 m × 13.5 m × 3.5 m per house
Model	LTSA35-18
Unit Specification	35 kW, 18 m linear low-intensity tube radiant heater
Per House	8 units installed per house
Climate Condition	Winter minimum temperature about -20°C
Target Temperature	Required house temperature: 33°C

Project Overview

The Qingyang breeder-farm project of Gansu Sunjoy Poultry Development Co., Ltd. is located in Qingyang, Gansu, where winter minimum temperature can reach about -20°C. The project covers 10 breeder houses, each measuring 120 m × 13.5 m × 3.5 m. Such long poultry houses place high demands on winter warm-up performance, temperature uniformity and heat coverage along the full building length. To meet this requirement, the project adopted LTSA35-18 linear low-intensity tube radiant heaters as the main heating equipment, with 8 units installed in each house. By arranging the units in two evenly distributed rows, the heating system was designed to support the required indoor temperature of 33°C during winter operation.

Project Challenges

- Each house is 120 m long, so poor equipment layout could easily create temperature differences between the front and rear sections.
- The local winter minimum temperature is about -20°C, requiring reliable warm-up and heat retention performance.
- The target house temperature is 33°C, so both heating speed and indoor thermal stability matter.
- The solution needed a clear layout logic that also supports later operation and management.

Keywarm Solution

- The project uses LTSA35-18 linear low-intensity tube radiant heaters (35 kW, 18 m) as the main heating equipment, with 8 units installed in each house.
- The heaters are arranged in two evenly distributed rows, located 6 m from the front end, 12 m from the fan end, and 2 m from the side wall, creating a clearer heat-coverage path.
- Low-intensity tube radiant heating does not rely only on heating the entire air volume first; instead, it delivers heat more directly to the occupied activity zone inside the house.
- The regularized layout also supports standardized replication, operation and maintenance across all 10 breeder houses.

Why the System Works

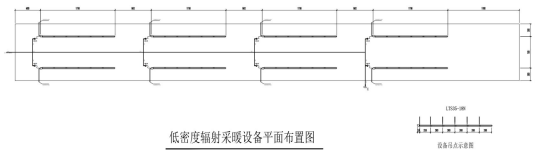
- It better matches the heat-coverage requirement of long poultry houses.
- Two evenly arranged rows help create a more continuous heated zone along the building length.
- Clear spacing from the front end, fan end and side wall helps balance heating effect and on-site layout conditions.
- Low-intensity tube radiant heating is well suited to breeder-house applications that require a stable thermal environment.

Performance & Customer Value

Through the standardized deployment of LTSA35-18, the project established a clear and repeatable radiant-heating path for 10 breeder houses in Qingyang, Gansu. Under winter ambient conditions as low as -

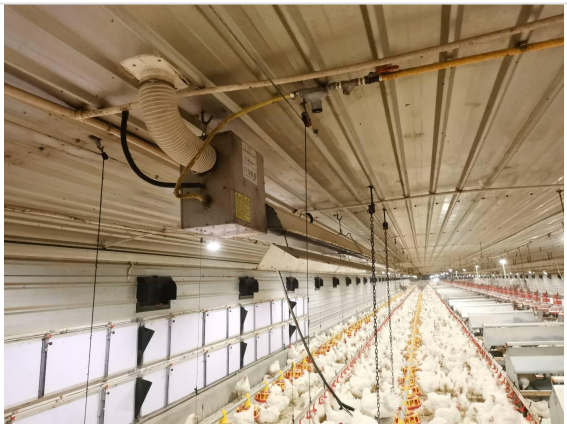
20°C, the system was configured to meet the required house temperature of 33°C with a layout better suited to the building form. Compared with approaches that depend primarily on heating the whole air volume, low-intensity tube radiant heating focuses more on creating continuous and stable heat coverage along the poultry-house length, which is more aligned with breeder-house requirements for uniform thermal conditions and stable operation.

Project Photos

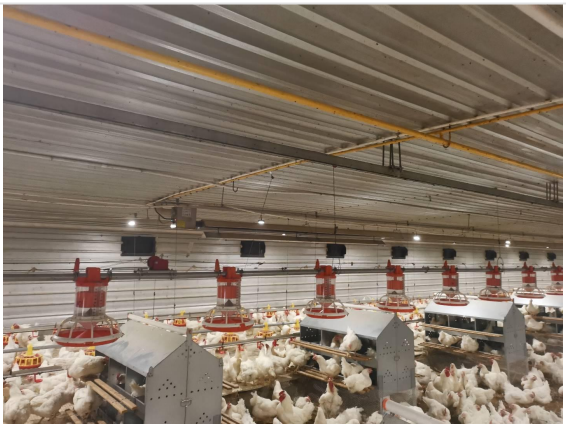


Equipment layout drawing showing the two-row arrangement logic

Relationship between the heater and the breeding area



LTSA35-18 close-up and along-wall installation scene



Aisle and occupied activity zone inside the house

Recommended Applications

- Breeder houses
- Brooding houses
- Layer houses
- Poultry buildings requiring a stable thermal environment
- Agricultural projects suitable for standardized and repeatable layouts