

Industrial Heating System Selection Guide

Radiant Heating • Warm Air Heating • Gas Air Curtains

Purpose:

This guide is designed to help industrial users determine which heating system route should be adopted before selecting specific equipment.

The focus is on system strategy and heating logic, rather than starting with installed capacity or equipment size.

Three Core Heating System Routes:

1. Radiant Heating

Best suited for:

- High-bay buildings
- Spaces with obvious temperature stratification
- Areas with low airflow disturbance
- Projects where thermal comfort is a priority

Key benefits:

- Comfortable and stable heating
- Reduced temperature stratification
- Better heat concentration in occupied zones

2. Warm Air Heating

Best suited for:

- Projects requiring ventilation
- Fresh air make-up applications
- Spaces requiring fast overall temperature increase

Key benefits:

- Rapid air temperature increase
- Better air circulation
- More suitable for whole-space heating coverage

3. Gas Air Curtains

Best suited for:

- Buildings with frequently opened doors
- Areas with significant infiltration heat loss
- Loading docks and logistics entrances

Key benefits:

- Reduces heat loss at door openings
- Improves doorway comfort
- Helps maintain indoor temperature stability

System Routes and Typical Applications:

Heating System Route	Best Suited Conditions	Key Value	Typical Combination
Radiant Heating	High-bay spaces / strong stratification / comfort-focused buildings	Comfortable and stable heating with reduced stratification	Gas air curtain
Warm Air Heating	Ventilation required / fresh air make-up required	Fast air temperature increase	Gas air curtain or radiant heating
Gas Air Curtain	Frequent door opening / high infiltration heat loss	Reduces heat loss at entrances	Radiant heating or warm air heating

Quick Selection Guidelines:

- High-bay space → Radiant heating
- Ventilation-dominant projects → Indirect-fired warm air heating
- Doorway-dominant projects → Gas air curtain
- Complex facilities / multiple heat-loss conditions → Hybrid heating system

Keywarm Engineering Principle:

Keywarm treats industrial heating as a system integration strategy.

The selection of:

- Radiant heaters
- Warm air heaters
- Gas air curtains

Is based on actual heat-loss behavior and real project operating conditions, rather than catalog assumptions or the heating capacity of a single piece of equipment.