

# HTC and LTV and BP-LTVU

## Comparison of Industrial Radiant Heating Solutions

### Key Conclusions:

All three belong to industrial radiant heating solutions, but their application logic is clearly different:

- **HTC:** High-intensity ceramic radiant heating, with more concentrated heating, better suited for local work areas and targeted heating in high-bay spaces.
- **LTV:** Low-intensity tube radiant heating, better suited for large-area, balanced, and continuous radiant coverage.
- **BP-LTVU:** Modulating radiant tube system, better suited for large spaces, high-bay applications, outdoor generator layouts, and projects with stricter building safety requirements and stronger system separation.
- For stronger localized heating → choose HTC.
- For wider overall radiant coverage → choose LTV.
- For outdoor generator installation, large spaces, higher safety compatibility, and stronger modulation capability → choose BP-LTVU.

### Comparison Dimension:

Comparison Dimension	HTC	LTV	BP-LTVU
Heating Principle	High-intensity ceramic radiant heating	Low-intensity tube radiant heating	Modulating radiant tube heating system
Heat Transfer Method	More concentrated and direct	More balanced and continuous	Better suited for large-area distributed radiant heating

Comparison Dimension	HTC	LTV	BP-LTVU
Application Areas	Local work areas / activity zones	Main building space / large-area coverage	Large spaces / ultra-high spaces / wide-area coverage
Applicable Buildings	Factories, warehouses, workshops, high-bay buildings	Factories, warehouses, workshops, high-bay buildings	High-bay industrial buildings, aircraft maintenance hangars, etc.
System Coverage Logic	Not mainly intended for uniform heating of the whole space	Better suited for overall radiant coverage throughout the space	Better suited for large-scale system-level radiant coverage
Gas Pipeline Location	Indoor	Indoor ( <i>some projects allow centralized exhaust</i> )	Usually outdoors
Combustion Air Source	Indoor	Indoor	Outdoor
Exhaust Route	Indoor discharge; building ventilation requirements must be met	Indoor discharge or centralized exhaust to outdoor	Direct exhaust to outdoor
Building Safety Requirements	High	High	Relatively more favorable
Modulation Capability	Standard	Standard	Stronger ( <i>2-stage / 3-stage / proportional modulation available</i> )

Comparison Dimension	HTC	LTV	BP-LTVU
Typical Project Orientation	Local thermal comfort enhancement	Overall radiant coverage	High-bay buildings / large systems / outdoor generator configuration
Maintenance & System Logic	Clear standalone unit logic	Clear system structure	Better suited for system-based project planning
Priority for Evaluation	Check local thermal comfort requirements first	Check overall radiant coverage first	Check building safety requirements, large-space conditions, and system separation requirements first

**Quick Selection Guidelines:**

**Prioritize HTC when:** stronger local thermal comfort is required; stronger and more concentrated radiant heating is needed; uniform whole-space coverage is not the main goal; and indoor gas routing with proper ventilation is acceptable.

**Prioritize LTV when:** larger-area, balanced and continuous radiant coverage is required; the project aims to establish an overall radiant heating environment; and factories, warehouses or workshops are the typical application.

**Prioritize BP-LTVU when:** the focus is on large or high-bay spaces; the generator is preferred outdoors; indoor gas piping is not preferred; building safety requirements are emphasized; stronger system modulation is required; or aircraft maintenance hangars are involved.

**Conclusion:**

HTC is a localized enhanced radiant heating solution; LTV is an overall coverage radiant heating solution; and BP-LTVU is an outdoor-generator radiant heating system.

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