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BP-LTVU Two Stage Gas Infrared Radiant Strips

BS-LTSU Modulating Gas Infrared Radiant Strips

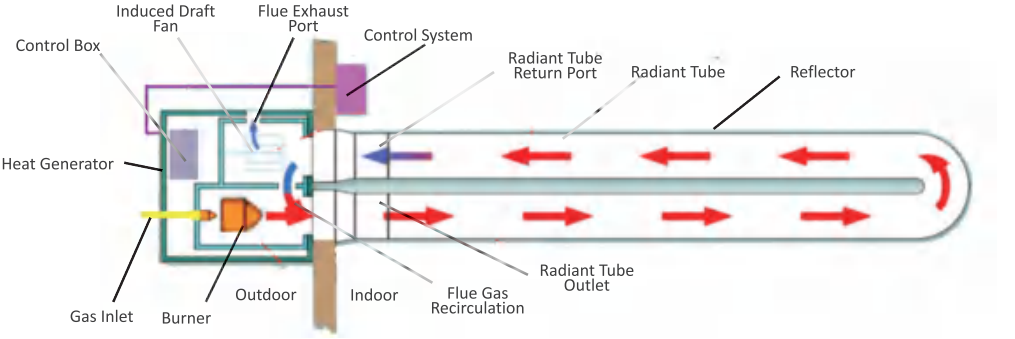
Heat Generator

HOW IT WORKS

The gas burner generates high-temperature flue gas by burning natural gas or propane. Under the action of the induced draft fan, the flue gas flows along the radiant tube, heating the surface of the radiant tube to a certain temperature. The radiant tube and reflector heat objects or the ground below in the form of infrared radiation, achieving heating effects.

The gas radiant strips consists of the main unit (including the burner, combustion chamber, centrifugal circulation induced draft fan, etc.), radiant tube, reflector, control system, and other components.

Radiant Strips Principle Schematic



Radiant Tube and Reflector

Advantages/Benefits

- Energy-efficient: Saves 30% gas and 50% electricity compared to traditional convection heating.
- Clean: No air disturbance.
- Quiet: No noise
- Safe: Heat generator and gas pipelines are usually installed outside the building , with lower building fire rating.

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Features

- Two stage BP series or Pre-mixed modulating Low NOx BS series
- Heat-treated aluminized steel radiant tube
- Three-sided insulation for the reflector
- The heat generator can be installed outdoors,ensuring safe combustion, and no need for indoor installation of a gas leak alarm system
- Installed at the top of the building, not occupying working space
- High-temperature flue gas recirculation combustion technology
- Gas and power lines are installed ourdoors, reducing building's fire rating.
- Combustion uses outside air, with flue exhaust to the outside
- Intelligent temperature control: Single-unit on-site control, PLC multi-unit group control on-site, or remote control (optional)

Technical Parameter

Model	BP-LTVU150	BS-LTSU150	BP-LTVU200	BS-LTSU200	BP-LTVU300	BS-LTSU300
Input Heat Range	100-150kW	75-150kW	150-200kW	100-200kW	200-300kW	150-300kW
Thermal Efficiency	> 92%	> 96%	> 92%	> 96%	> 92%	> 96%
Gas Supply Working Pressure	3-5kPa					
Maximum Natural Gas Consumption	14.49m³/h		19.32m³/h		28.98m³/h	
Maximum Propane Consumption	11.72kg/h		15.63kg/h		23.45kg/h	
Rated Power Supply	380V/50Hz					
Rated Power	3.0kW	3.2kW	3.0kW	3.2kW	3.0kW	3.4kW
Diameter of the Radiant Tube	250 or 300mm		250 or 300mm		300mm	
Maximum Length of Double Radiant Tube	65m		125m		150m	
Gas Inlet Size	1.5"		1.5"		1.5"	
Weight of Double Radiant Tube (including reflector and insulation)	21 or 24kg/m		21 or 24kg/m		24kg/m	
Weight of Heat Generator	190kg	264kg	190kg	264kg	190kg	264kg

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Radiant Strip Control System

The gas radiant heating control system consists of a local control touchscreen temperature control box, black ball temperature sensor, and main control electrical box system.

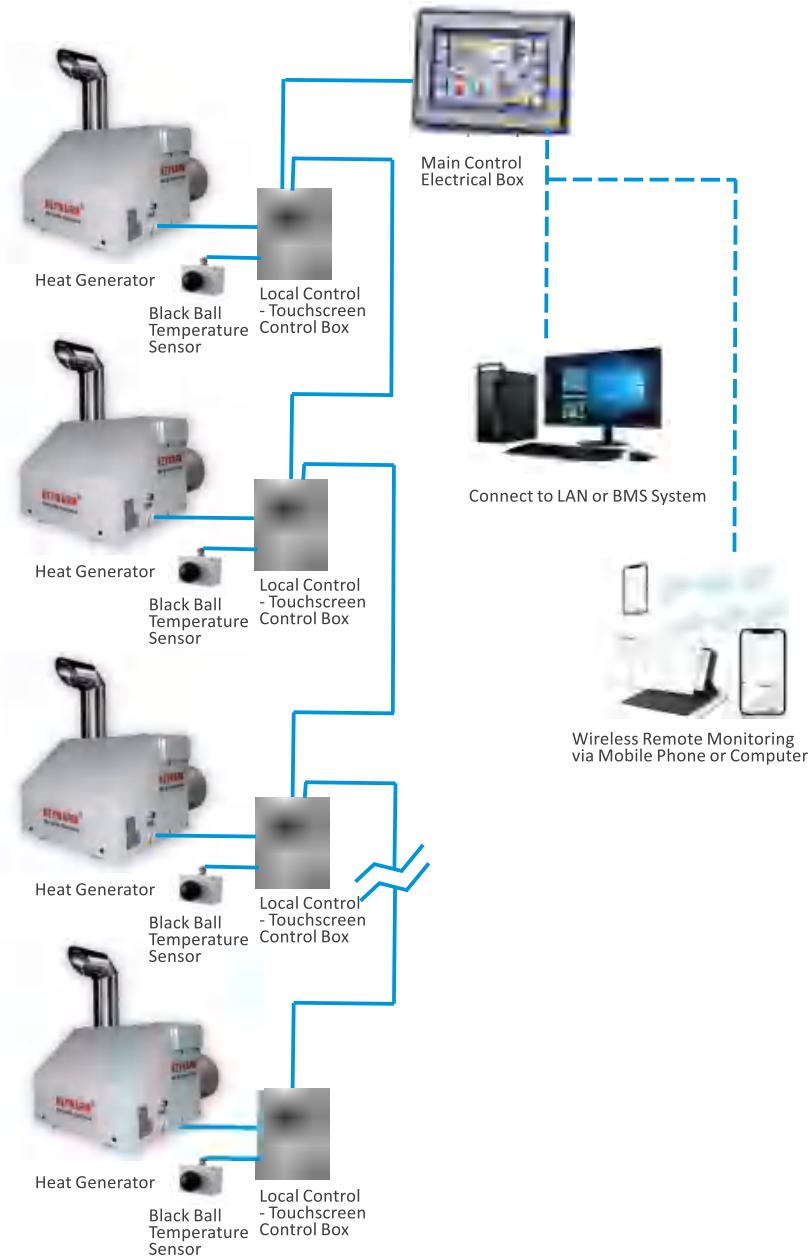
Each radiation generator is equipped with one local control touchscreen temperature control box:

1. Provides real-time feedback on operating status (various fan purging states, ignition, and firing power levels).
2. The display interface visually presents the working status of each electrical component. In case of a malfunction, the corresponding component indicator will display the fault status differently. Additionally, faults are recorded (fault state and occurrence time) for easy troubleshooting.
3. Supports weekly scheduling with 10 time periods per day, accommodating different operational needs.
4. Includes a temperature curve recording function.
5. The interface has user and engineer modes, accessible via password login for better management.

The local control touchscreen temperature control box is equipped with one black globe temperature sensor, which monitors indoor temperature.

The main control electrical box can control multiple devices and supports LAN or IoT connectivity, enabling monitoring via PC or mobile devices.

Displays the real-time status of each device, temperature adjustments and display, centrifugal fan operation status, and weekly scheduling control.



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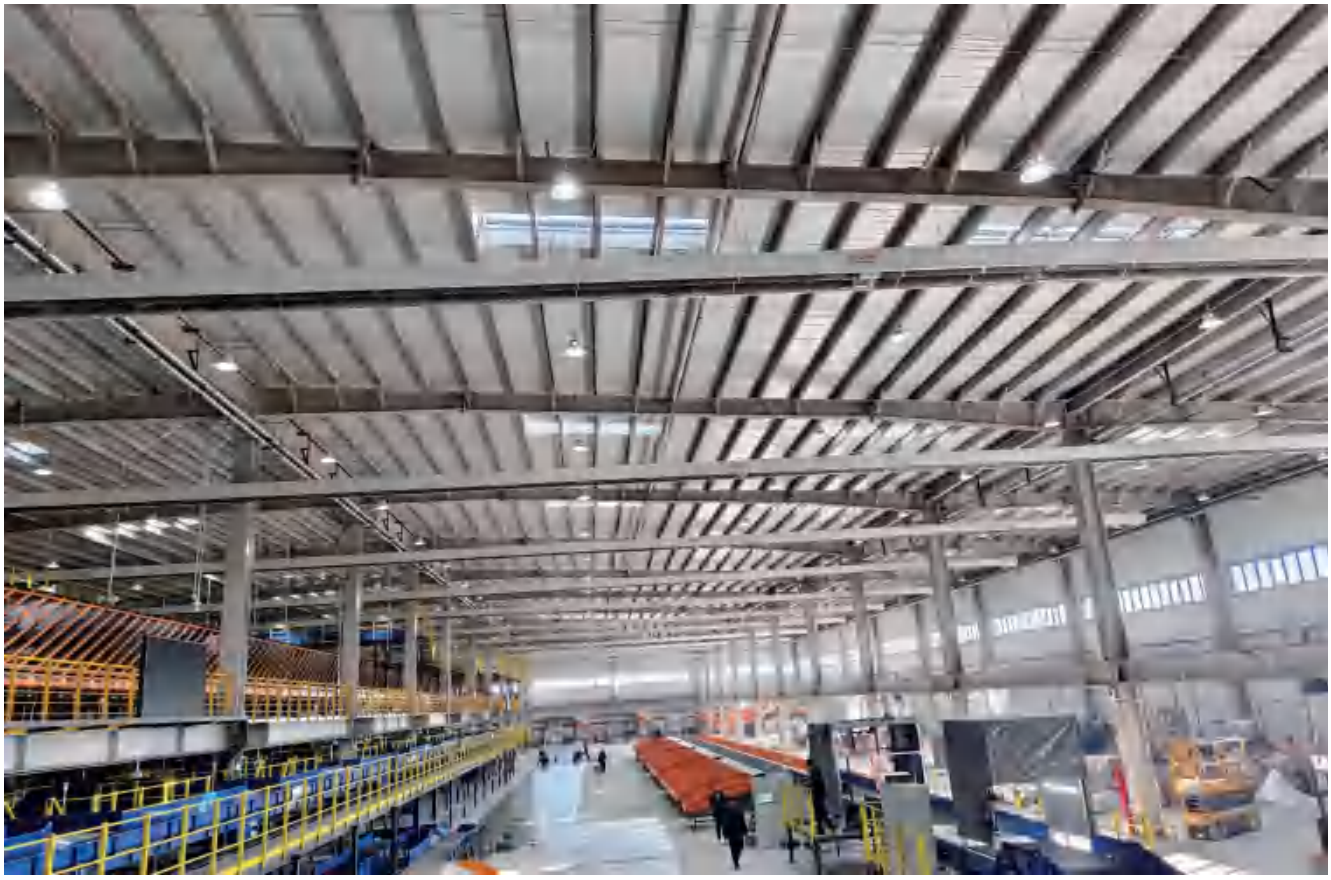
User Cases



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