

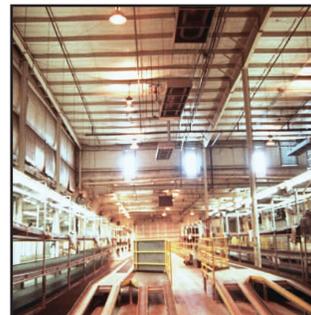
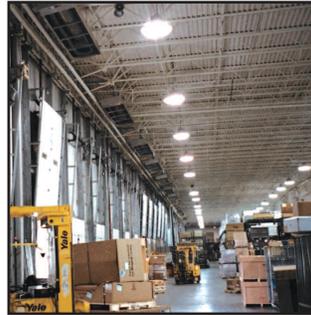
SPACE-RAY®
INFRARED GAS HEATERS

RSTP SERIES

*Pull Through Tube Heater
Negative Pressure*



Solutions For Commercial & Industrial Heating





RSTP Series Infrared Tube Heaters

Solutions For Commercial & Industrial Heating Since 1949

- Industry's workhorse since 1968.
- The original unitized infrared tube heater design certified by CSA.
- Completely factory assembled and tested. No field assembly required.
- Proven in high bay installations...as high as 70' above the floor.
- Ideal for large buildings, aircraft hangars, warehouses, steel mills, and other hard-to-heat industrial heating applications.



Pull-Through System:

- Pull-through System (vacuum) – The products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety.
- Each unit is equipped with an individual draft inducer for maximum venting flexibility.
- Vented, common vented, or indirect vented operation.
- Draft inducer is equipped with permanently lubricated, totally enclosed, fan cooled and heavy duty ball bearing motor for maintenance free operation.
- Rugged heater frame with aluminized steel body construction.
- Completely factory assembled unitized design, shipped in one box, saves installation time and money.
- CSA design certified for indoor and outdoor installations.

Radiant Emitter Tube System:

- Highly radiant efficient tube heaters with tube temperatures averaging 900°F.
- 16 gauge 4" O.D. calorized steel emitter tubes.

- Aluminized steel emitter tubes are calorized for long life, and high radiant efficiency - will not flake or peel, and are corrosion resistant.
- The calorization process produces an emitter tube which is highly radiant absorptive on the interior and highly radiant emissive on the exterior.
- Ideal for high humidity or corrosive environments and outdoor applications.
- 5 year limited warranty on the emitter tube.

Burner & Control Systems:

- Monitoring light system for on-line diagnosis.
- One piece cast iron burner with stainless steel flame retainer.
- 10 year limited warranty on burner.
- Inside or outside air for combustion.
- Burner inspection sight glass.
- Direct Spark ignition system with 100% Gas Shut-Off Safety Control (30 second pre-purge).
- Diaphragm air proving switch for proof of venting before gas flow and ignition.

- 36" stainless steel flexible gas connector included with heater.

Reflector System:

- Highly efficient aluminum reflectors with reflectivity rating of 97.5%.
- Reflectors are built into heater body and designed for uniform floor level radiant energy distribution.
- Reflector ends are enclosed for maximum radiant heat output and minimum convection loss.
- Suitable for horizontal or angle mount up to 90 degrees and for special process applications such as rail car thaw sheds.



RSTP Models & Control Options



From warehouses, distribution centers and manufacturing plants to automotive repair facilities and aircraft hangars, Space-Ray RSTP Series Infrared Gas Heaters are designed to provide comfortable, efficient heating at an affordable cost, regardless of the size of your facility. A highly radiant efficient Space-Ray infrared heating system can normally save a building owner 30% to 50% in annual fuel costs when compared to forced air heating systems.

GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE		VOLTAGE	AMPS	IGNITION TYPE	FLUE CONNECTION	OUTSIDE COMBUSTION AIR CONNECTION
		MIN	MAX					
NATURAL	3.5" W.C.	7" W.C.*	14" W.C.	120 VAC 60 HZ	2.6	DIRECT SPARK	6" Round	6" Round
PROPANE	10" W.C.	11" W.C.**	14" W.C.					

NOTE: For all installations higher than 2000 ft. above sea level, please consult the factory regarding recommended derating of heaters.



122 RSTP17s installed at a railcar thaw shed of a steel company in IN. The company reported annual savings in excess of \$500,000 in fuel costs, reduced maintenance and elimination of charge backs from damaged railcars and 5 minute cycle times at design temperatures.

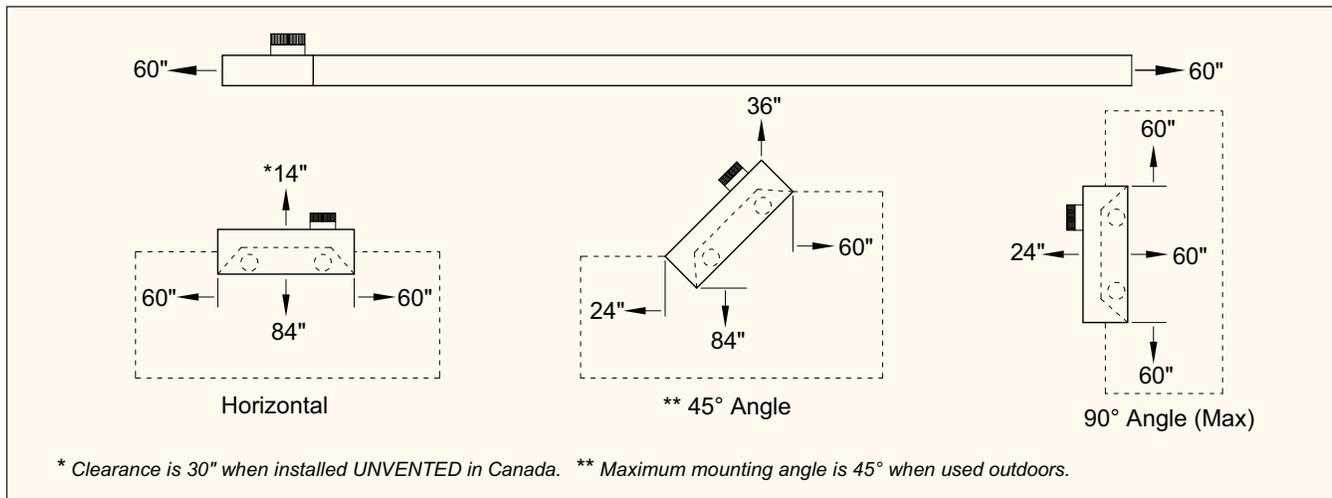
RSTP Mounting Heights, Clearances & Dimensions

Minimum Recommended Mounting Heights

MODEL	HEIGHT AT HORIZONTAL	HEIGHT AT 45° ANGLE
RSTP 15C	14 feet	12 feet
RSTP 17C	16 feet	14 feet

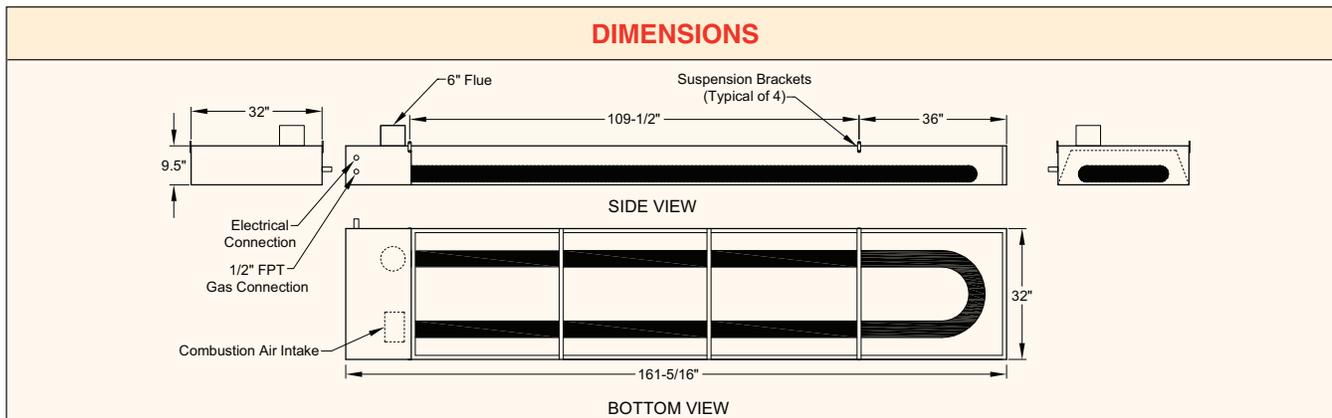
This chart is intended as a guide only, as heaters may be mounted at various heights and angles. Mount heaters as high as possible. Minimums are shown as a guideline for human comfort and uniform energy distribution for complete building applications. Please consult your local Space-Ray Representative for a detailed analysis of your particular infrared heating requirements.

Minimum Clearances To Combustibles



Dimensions

MODEL	TUBE DIAMETER	TOTAL TUBE LENGTH	OVERALL DIMENSIONS	REFLECTOR WIDTH	REFLECTOR HEIGHT
RSTP 15C	4"	26'	13' - 5"	32"	9"
RSTP 17C	4"	26'	13' - 5"	32"	9"



Combustion Air Ventilation

Combustion air and venting requirements for all gas-fired heating equipment must be provided per the National Fuel Gas Code NFPA54 or the authority having jurisdiction over the installation. In contaminated atmospheres or high humidity areas, optional outside air for combustion can be supplied. Heaters can be common vented, vented, or indirect vented. Refer to the Installation and Operation Instructions for further information. A vented installation must be vented to the outside of the building with a flue pipe. An indirect vented installation requires a minimum ventilation flow of 4 CFM per 1000 Btu/hr of total installed heater capacity on natural gas by either gravity or power ventilation (4.18 CFM per 1000 Btu/hr for propane). For indirect vented applications, building exhaust openings must be located above the level of the heaters and inlet air openings must be located below the level of the heaters.

For Your Safety

OPERATE SPACE-RAY GAS INFRARED HEATERS WITH PROPER CARE AND OBSERVE ALL SAFETY PRECAUTIONS. Installation and service must be performed by a licensed contractor. The installation must conform to local codes. In the absence of local codes, the installation must conform to the National Fuel Gas Code ANSI Z223.1 (latest edition, also known as NFPA54) or CAN/CSA-B149 installation codes (latest edition). These codes are available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, MA 02269, or the Canadian Gas Association, 55 Scarsdale Road, Toronto, Ontario MB3 2R3 Canada.



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