



# SPACE-RAY®

INFRARED GAS HEATERS FOR INDUSTRY SINCE 1958

LARGE CAPACITY

## ETS/ETU Series Tube Heaters



Space-Ray infrared heaters heat like the sun by transferring heat energy directly into the area to be heated. This heating technology creates a comfort zone at the floor level, not at the ceiling, and is much more efficient than conventional forced air heating systems.

### PULL-THROUGH SYSTEM

- ☐ The products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety.
- ☐ Totally enclosed combustion chamber and no draft hoods.
- ☐ Heavy duty draft inducer with permanently lubricated, totally enclosed, fan cooled, and heavy duty ball bearing motor for maintenance-free operation.
- ☐ Draft inducer can be rotated 45° or 90° for sidewall venting.
- ☐ Up to 75 feet sidewall vent capability.

### BURNER SYSTEM

- ☐ Heavy duty cast iron burner.
- ☐ 10 year limited warranty on burner.
- ☐ Inside or outside air for combustion.
- ☐ Certified up to 50 feet outside combustion air duct.
- ☐ Reliable direct spark ignition system and 100% gas shut-off safety control.
- ☐ 30 second pre-purge prior to ignition.
- ☐ State-of-the-art step opening redundant combination gas valve for quiet ignition and added safety.
- ☐ Diaphragm air switch for proof of venting before gas flow and ignition.
- ☐ 3-step monitoring light system.
- ☐ Burner inspection sight glass.

MODEL	INPUT BTU/HR	MINIMUM MOUNTING HEIGHT
ETS180	180,000	18 FEET
ETS200	200,000	18 FEET
ETS225	225,000	20 FEET
ETS250	250,000	20 FEET
ETU180	180,000	18 FEET
ETU200	200,000	18 FEET
ETU225	225,000	20 FEET
ETU250	250,000	20 FEET

Indicate model number based on BTU/Hr. input (e.g., 225,000 BTU/Hr.), total emitter length (e.g., 50 feet), and gas type (e.g., natural gas). The unit selection for a straight tube would be ETS225-50-N and for a U-tube would be ETU225-50-N.



### RADIANT EMITTER TUBE SYSTEM

- ☐ Heavy duty 4" O.D. titanium alloy Alumi-Therm and aluminized steel combustion chamber and heavy duty hot-rolled steel emitter tubes.
- ☐ 3 year limited warranty on emitter tubes.
- ☐ Optional 90° elbows.
- ☐ Suitable for horizontal or angle mounting up to 45 degrees.

### REFLECTOR SYSTEM

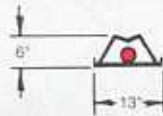
- ☐ Highly efficient aluminum reflectors with reflectivity rating of 97.5%.
- ☐ Optional end, corner, side, and u-bend reflectors.
- ☐ Individual reflectors can be rotated up to 45° to direct heat where needed.
- ☐ Easy to use mounting brackets.

## SPECIFICATIONS

### ETS BOTTOM VIEW

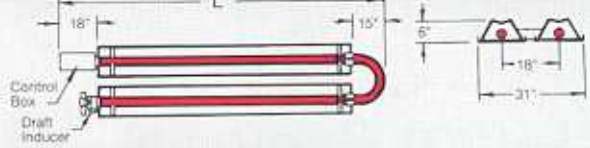


### ETS END VIEW



MODEL	TOTAL TUBE LENGTH (FT)	OVERALL DIMENSION "L" (FT)
ETS 180, 200, 225, 250	50'	52' 9"
ETS 180, 200, 225, 250	60'	62' 9"
ETS 180, 200, 225, 250	70'	72' 9"
ETS 180, 200, 225, 250	80'	82' 9"

### ETU BOTTOM VIEW



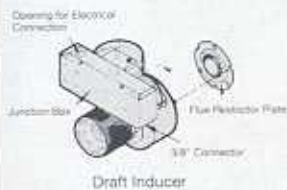
### ETU END VIEW



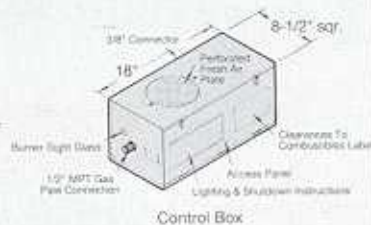
MODEL	TOTAL TUBE LENGTH (FT)	OVERALL DIMENSION "L" (FT)
ETU 180, 200, 225, 250	50'	27' 9"
ETU 180, 200, 225, 250	60'	32' 9"
ETU 180, 200, 225, 250	70'	37' 9"
ETU 180, 200, 225, 250	80'	42' 9"

### ETS AND ETU

#### DRAFT INDUCER



#### CONTROL BOX



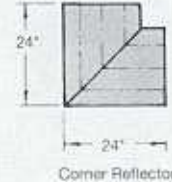
Flue Connection: 6" Round. Fresh Air Connection: 6" Round.

### ETS OPTIONS

#### 90° ELBOW



#### CORNER REFLECTOR



NOTE: OPTIONAL SIDE REFLECTORS AND DEFLECTOR KITS ARE AVAILABLE

### CLEARANCE TO COMBUSTIBLES

MODEL NO.	SIDES	CEILING	BELOW			45°	45°
			FIRST 20 FEET	OVER 20 FEET*	ENDS	FRONT	REAR
ETS180 - ETS250	84"	18"	132"	72"	48"	84"	24"
ETU180 - ETU250	84"	18"	132"	72"	48"	84"	24"

\*Emitter tube 20 feet downstream from Control Box

### GAS AND ELECTRICAL SUPPLY REQUIREMENTS

GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE MIN	SUPPLY PRESSURE MAX	VOLTS	AMPS	TYPE IGNITION
NATURAL	3.5" W.C.	7" W.C.	14" W.C.	120VAC	2.6	DIRECT SPARK
PROPANE	10" W.C.	12" W.C.	14" W.C.	60HZ		

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

### COMBUSTION AIR AND 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, direct 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. on 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. OBSERVE ALL SAFETY PRECAUTIONS AND OBSERVE LISTED CLEARANCES TO COMBUSTIBLES. 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 with the National Fuel Gas Code ANSI Z223.1 (latest edition also known as NFPA 54) or CGA 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 M3B 2R3 Canada.

**SPACE-RAY®**

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