



SCHWANK STW-JZ LOW INTENSITY TUBE HEATER FOR CAR WASH AND HARSH ENVIRONMENT APPLICATIONS

GENERAL HEATER SPECIFICATIONS

CSA International approved natural or propane gas fired radiant tube heaters as manufactured by Schwank Inc. Heater size(s) and capacity(s) as noted on drawing or schedule.

The radiant tube heater shall consist of a moisture resistant stainless steel control box containing a burner assembly, dual pressure switches, electronic ignition control, gas valve, control transformer and burner status indicator lights; and additionally shall consist of aluminized steel radiant tubing and reflectors, hangers, tube couplers and elbows, and/or turbulators and tees as needed.

- A. The burner shall be of the fixed air pressurized type with independent operating controls capable of operating singly or in tandem with other units. The burner head shall have the infrared ceramic media for improved combustion, resulting in lower sound levels and reduced detrimental emissions. The burner package shall be of modular construction allowing easy removal for maintenance or servicing.

All controls and the combustion blower shall be located inside the moisture resistant stainless steel cabinet to prevent dirt and moisture accumulation, thereby reducing maintenance requirements.

As standard equipment, the burner assembly shall have two separate factory-set and sealed air safety switches, one to monitor inlet air pressure and one to monitor flue pressure (in the event of a blocked air intake or blocked exhaust vent, the system will shut off). The burner assembly shall have status lights visible from the floor, to indicate the status of the burner operation, a factory mounted igniter, and a flame observation port.

- B. The radiant combustion chamber tubing (first 10 ft.) shall be 16 gauge electric resistance welded aluminized steel (alumatherm steel on 175 and 200 mBtuh heaters) with 1.05 ft.² of radiating surface per running foot.
- C. The radiant heat exchanger (10 ft., 20 ft., 30 ft., 40 ft., 50 ft. or 60 ft. downstream of the 10 ft combustion chamber tube) shall be 16 gauge welded aluminized steel.
- D. All radiant tubing will have swaged ends for ease and continuity of assembly and to increase the mechanical integrity of the system. An aluminized steel coupling shall be used at each joint of tubes to ensure consistent expansion with tubes and minimize leakage.
- E. The reflectors shall have end plate hangers and extend below the radiant tube to entrap convection heat and provide higher radiant efficiency. The reflector / tube system shall have intermediate webbed hangers that promote free passage of entrapped convection heat along the length of the system, thereby providing increased and more uniform infrared heat output.
- F. The standard configuration shall be comprised of end plate hangers fastened to the reflectors at each end of straight tube run. Webbed hangers shall be located at the end of each reflector to support the reflectors and tubes.
- G. All internal burner electrical connections shall be coated to provide moisture resistance, and the Direct Spark Ignition Control shall be completely potted to protect electronics from condensing moisture.

August 2004