

# Radiant Preheat Gas Burners

Economical to use, versatile in application and simple to operate, Mannings gas burners provide infra-red preheating for circumferential seams on large vessels which would be mounted adjacent to a rotating workpiece during automatic welding operations. They can also be used singly, either vertical or horizontal, or in multiples of up to four burners when connected in series. The main gas supply is fed into a single snap-on self-sealing connector on the rear face of a remote control unit. The set point working pressure switch within the unit shuts down the gas supply if the pressure rises to an unacceptable level. A flame failure kit is fitted to the burner as standard.

Inlet and outlet pressure gauges are mounted on the front panel of the remote control unit together with the temperature controllers for each of the channels.

High pressure gas warning lamps, pilot regulator indicator lamps and a reset push button are all conveniently located on the front panel of the unit.

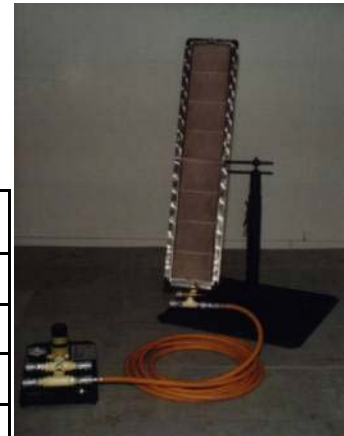
**Other features of the design specification are:**

- \* Workpiece surface temperatures up to 200°C can be achieved.
- \* Natural, butane or propane gas (LPG) can be used. 5 p.s.i. (0.35kg./cm<sup>2</sup>) minimum required.
- \* Even distribution of heat with no local 'hot spots.'
- \* All connections are self-sealing and of quick release design.
- \* Steel construction gives excellent long life characteristics with vitreous enamel finish.
- \* A manual system utilising a 4-way manifold (Ref. 93300) is also available.



**Remote control unit Ref. 91000**

Stock No.	Description	Burner face dimensions		BTU/h (max)	kCal/h (max)	kW (max)
		mm	mm			
97510	Burner M28	396	161	28,000	7,100	8.20
97511	Burner M35	490	161	35,000	8,800	10.25
97512	Burner M40	584	161	40,000	10,100	11.72
97513	Burner M45	676	161	45,000	11,300	13.18
97514	Burner M50	762	161	50,000	12,600	14.65
97515	Burner M60	946	161	60,000	15,100	17.58
Spare burner plaques/gaskets/mesh faces and retaining clips supplied on request						

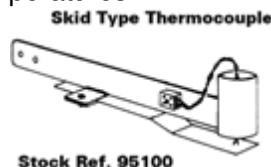


**Burner 97514 with flame failure, hose and 4 way manifold**

## Thermocouples

Thermocouples attached to the workpiece by the capacitor discharge method are unsuitable for preheat temperature measurement on vessels that need to be rotated during an automatic welding process. There are therefore 2 alternatives.

The Skid Thermocouple makes contact with the workpiece surface through a spring loaded 'Leaf Type' contact and may be used for recording workpiece temperatures.



The infra-red pyrometer is a highly accurate instrument with a 'no workpiece contact' capability and is used for 'in flight' gas turbine monitoring systems. The range of models available cover a temperature range from - 50°C to + 4000°C calibrated and certified under laboratory conditions. Portable models are obtainable with digital readout.