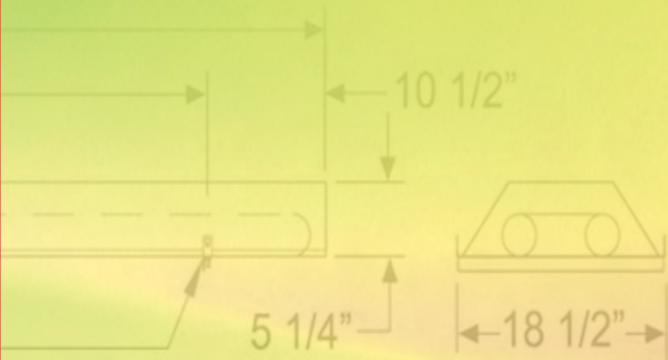
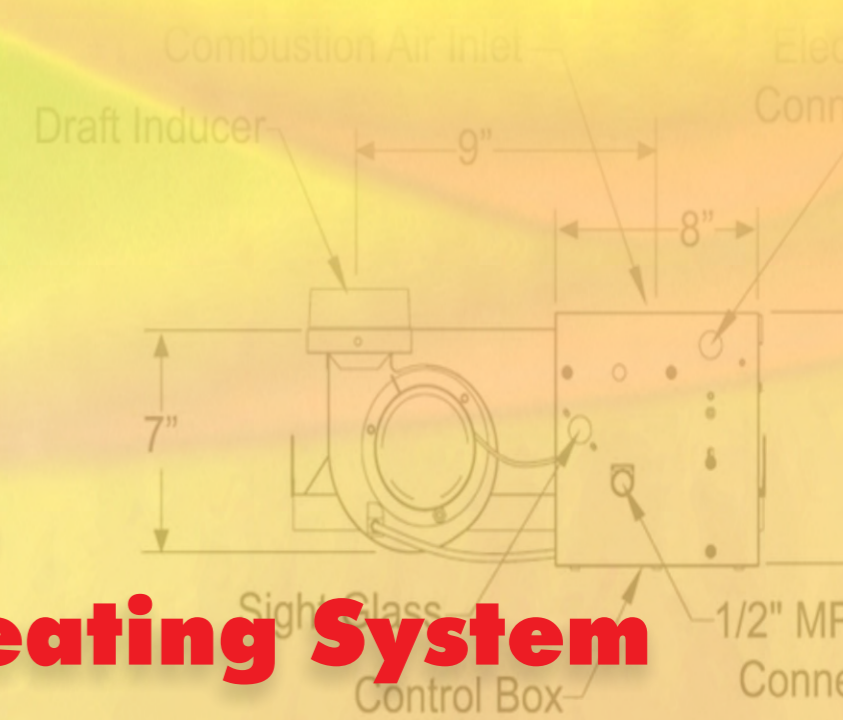




PONRADIANT



Innovative Radiant Heating System



AN ISO 9001 - 2008 CERTIFIED COMPANY

PON-E[®]
INDIA

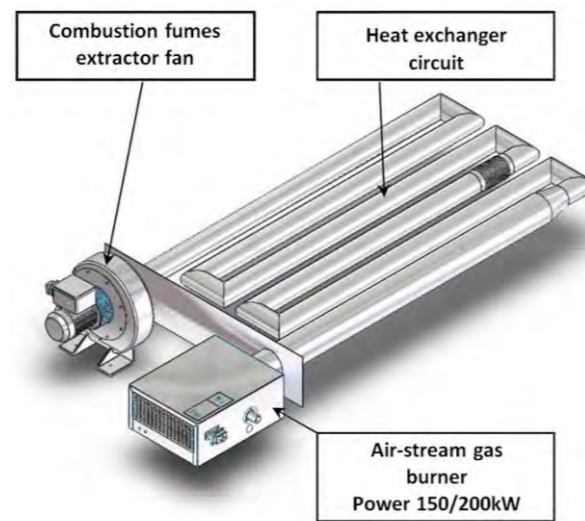
PON ENGINEERS (P) LTD.

Innovative Powder Coating Technology
81, Kalyani Industrial Estate, Vanagarm Road, Athipet,
Ambattur Industrial Estate, Chennai 600 058, Tamilnadu, India
Tel.: +91 44 2688 0660 Tele Fax: 2688 0460
Email: info@ponengineers.com Web: www.ponengineers.com

Radiant Heaters for Industrial Process...

Heat Exchanger Circuit

The heaters of the line are composed by a burner with gas sucked into an air vein with atmospheric mixing and premixing, by an intake unit and a special steel heat exchanger resistant to high temperatures and to the aggression of external chemical agents. The products indicated below run with methane gas or LPG



1. APPLICATIONS

Radiant heaters are a very flexible and reliable solution designed to be installed in many different industrial processes that requires supply of heat, like the following applications:

- ✓ Marble processing
- ✓ Wood drying and wood processing
- ✓ Coating ovens, static and dynamic drying ovens
- ✓ Metal oxidation processes
- ✓ Degreasing processes
- ✓ Food machinery industry
- ✓ Industrial washing
- ✓ Textile industry
- ✓ Drying plants
- ✓ Foundry industry
- ✓ Many other heating applications

Many industrial processes require a consistent contribution of heat during intermediate working and this is often complicated due to the need for space or the compact production line. Furthermore, incorporating economic, clean and efficient heaters into the process lines can become a great problem if the necessary skills and experience are lacking. Radiant products, which use radiant technology, guarantee exceptional thermal exchange qualities and therefore high thermal efficiency in small spaces. Radiant heaters can be incorporated in compact size inside any industrial process where heat is required.

HEATING OF SURFACES:

Heaters from the Radiant line are widely used for heating surfaces and the features of radiant heating are exalted in this type of application. In fact **radiant heat exchangers produce direct heating of the surfaces without using intermediate thermal carrier fluids** (for example, air), therefore reaching an extremely high thermal exchange yield. Moreover, maximum cleaning of the surfaces treated is guaranteed since there is no movement of air or dust. Radiant gas heaters with radiant heat exchanger are the ideal solution for the heating and drying of marble slabs, resin-bonded surfaces, scrap iron; for all drying ovens and cockles for wood and minerals.

HEATING OF LIQUIDS:

Another field of application for Radiant radiant heaters is the heating of liquids using an exchange circuit inside the basins containing the liquid to be heated. In this way the thermal exchange is direct, without using any intermediate thermal carrier fluids. The exchange tubes are made of stainless steel resistant to high temperatures and external chemical aggression. Radiant liquid heaters can be used in the heating of liquids for industrial degreasing processes, food industry processes and many other applications.

'U' Type Radiant Heaters

'U' tube for application flexibility

Heat-treated aluminised calorised emitter tubes

Lightweight construction

Easy to assemble and fit

Aluminium reflectors designed to maximise downward radiation

Natural gas, propane or butane.



'U' Type Radiant Heaters - Dimensions and Specifications					
Models		PON15U	PON25U	PON35U	PON45U
Input Rating	kW	15.00	24.00	35	50.00
Length (A)	mm	3100	5400	5510	6980
Width (B)	mm	470	470	720	720
Height (C)	mm	175	175	210	210
Heater Weight	kg	32	48	68	84
Gas Connection Supply	mbar	Natural gas – min 17, max 25 Propane – min 25, max 45 Butane – min 20, max 35			
Electrical Supply		230V 50Hz 125W, current rating 0.55A, fuse externally 3A			
Fluel Connection Diameter		127			
Air inlet Diameter		100			

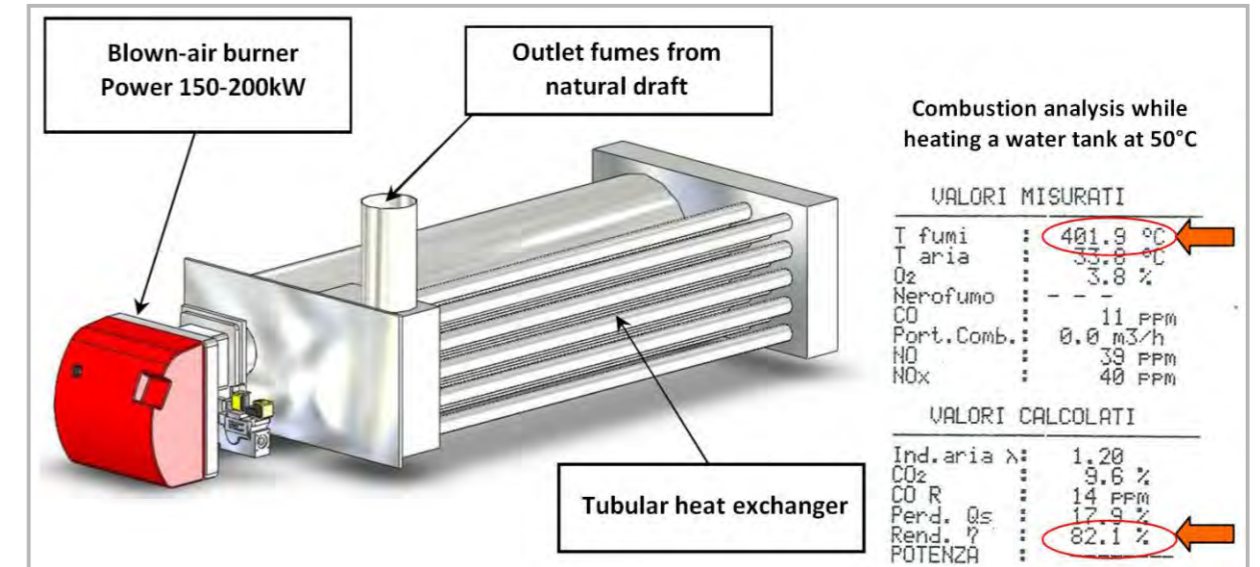
Comparison with traditional systems:

<u>RADIANT HEATERS</u>	<u>AIR HEATERS</u>	<u>STEAM HEATERS</u>	<u>ELECTRIC HEATERS</u>
<ul style="list-style-type: none"> - Clean heating process (no combustion products inlet in the process); - High reliability with multiple smaller burners: the production process can continue without stopping even if one burner is out of use; - Highest efficiency (95%); - Direct heat exchange; - High thermal emission: so low installation thermal power is needed; - No use of intermediate thermal fluids; - Very high energy savings in gas fuels; - Very low electric consumption; - Almost no maintenance. 	<ul style="list-style-type: none"> - Low efficiencies (around 60%); - Very low thermal inertia of the air; - Need to switch on the system very often in order to maintain a constant heating temperature. 	<ul style="list-style-type: none"> - Very high thermal power needed; - Complex solution to design and to install (minimum 2 heat exchangers needed, need of an external steam generator, need of insulated pipes, circulation pumps, valves, etc.); - Low efficiency; - Very expensive installation cost. 	<ul style="list-style-type: none"> - Very high electric power needed; - Expensive running costs compared with gas systems; - Dangerous if some water is involved in the heating process; - Maintenance needed very often to substitute electrical resistors.

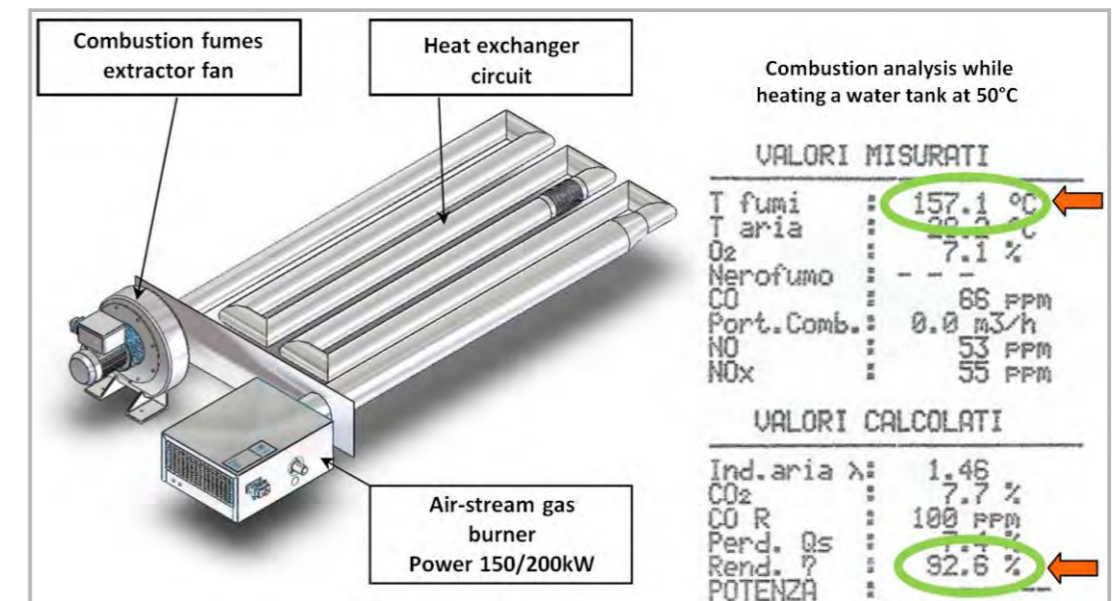


COMPARING EFFICIENCIES WITH TRADITIONAL BLOWN AIR BURNERS:

Traditional burners (82% efficiency):



Radiant gas Tube Heater (92% efficiency):



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