# INFRA-RED BURNERS SHELL-TEC SERIES

#### **FEATURES**

• Burner body: iron

refractory steel alloy • Metallic fibre:

• Max. oper. temp. of metallic fibre: 1,150°C

• Low gas and air pressure at the burner: 40 mbar

• Relative capacity with radiant flame: 300 kW/m<sup>2</sup>

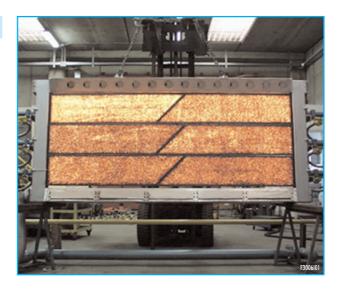
• Relative capacity with traditional flame: 500 kW/m<sup>2</sup>

CH4/L.P./propane/etc.

• Adequate to different types of gas:

• Mixer to be adjusted to the capacity required.

- Wide turndown range.
- High excess air.
- High efficiency.



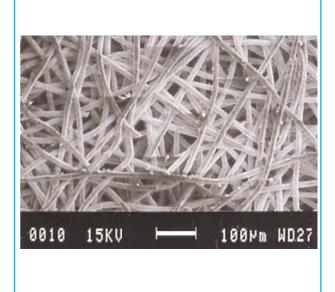
#### **APPLICATIONS**

- Paper drying.
- Heat treat of fabric, glass, rubber and resin.
- Billets heating.
- Foodstuff ovens.

### **DESCRIPTION**

SHELL-TEC radiant panels are made in a special refractory steel, metallic fibre created by SHELL whose average permeability stands at 22 x 10-6 mm. This type of burners are highly resistant to high temperatures. The particular shape of the burner ensures an infrared or direct flame heating according to the surface temperature of the panel and of the mixture pressure.

The burner is built to order; big or small surfaces may be obtained according to the customer's need.



## INSTALLATION

SHELL-TEC burners may be mounted to operate in any position. Flexible connectors may be used for air and gas connections.

Pressure drop in the mixture manifold to the burner must be kept lower than 2.5 mbar.

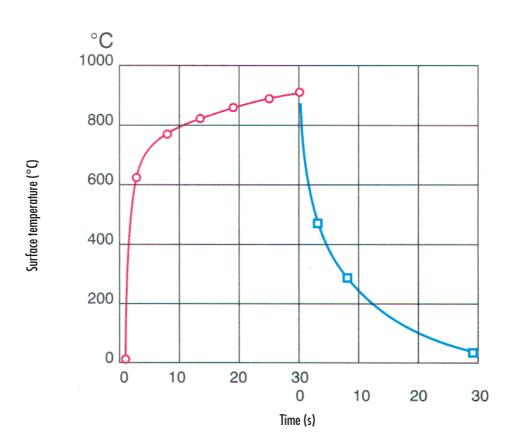
# IGNITION AND FLAME DETECTION

Firing of SHELL-TEC burners is done through a Wand electrode. No richer mixture is needed when lighting the burner because spreading

of the flame is ensured by net structure. Flame detection through a Wand electrode.

Catalog No.	Pilot burner ignition		Electrode ignition	
	Ignition	Detection	Ignition	Detection
SHELL-TEC	(Not available)	(Not available)	Wand	Wand

# TEMPERATURE CHART

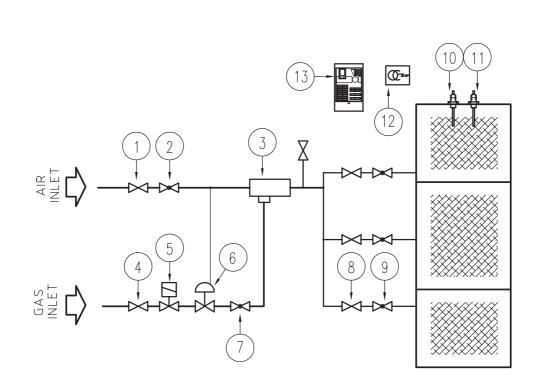


G3006101

N.B. The values listed in the above chart are correct when the air blower is operated on a continuous basis.



# FLOW CHART



Pos.	Model identification
1	Air ball valve
2	Air throttle orifice
3	Venturi mixer
4	Gas ball valve
5	Safety solenoid valve
6	Gas regulator
7	Gas throttle orifice
8	Mixture ball valve
9	Mixture throttle valve
10	Spark electrode
11	Flame rod
12	Ignition transformer
13	Flame detection

D3006I01



NOTE: Based on the company's policy aimed at a continuous improvement on product quality, ESA-PYRONICS reserves the right to bring changes to the technical characteristics of this device without previous notice. Our catalog updated to the latest version is available on our web site www.esapyronics.com and it is possible to download modified documents

WARNING: When operating, this combustion system can be dangerous and cause harm to persons or damage to equipment. Every burner must be provided with a protection device that monitors the combustion. The installation, adjustment and maintenance operations should only be performed by trained and qualified personnel.