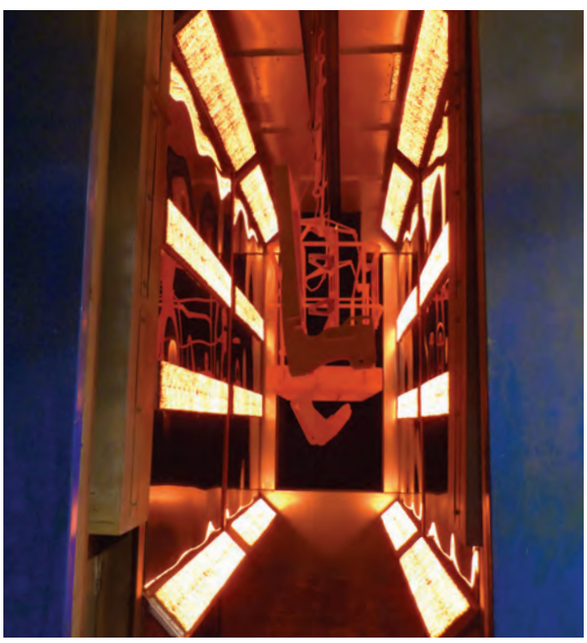
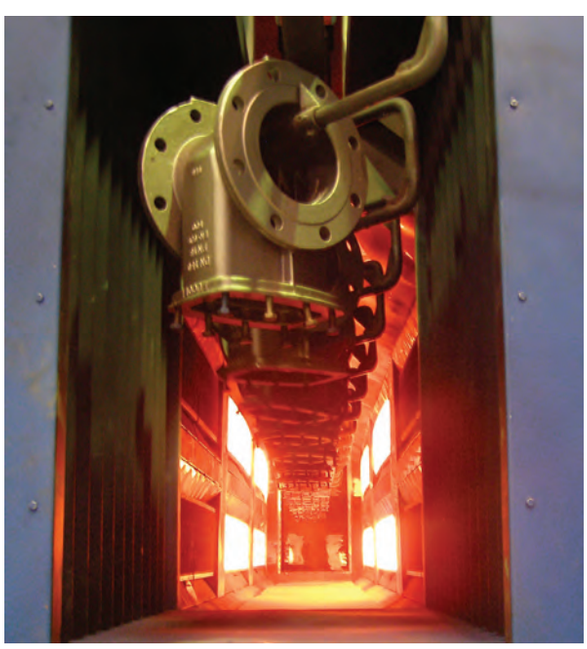
ERATEC
Progress Through Technology

COATING

Gas Infrared Emitter

Boost your productivity with gas IR emitters
in your **powder coating line**





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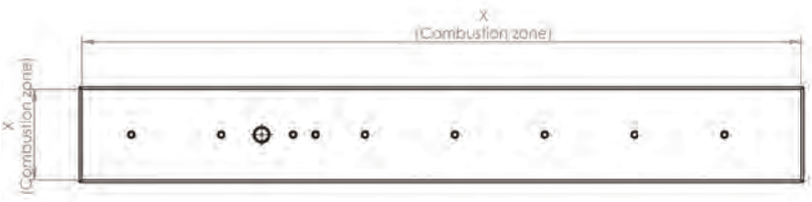
THE GAS INFRARED EMITTER

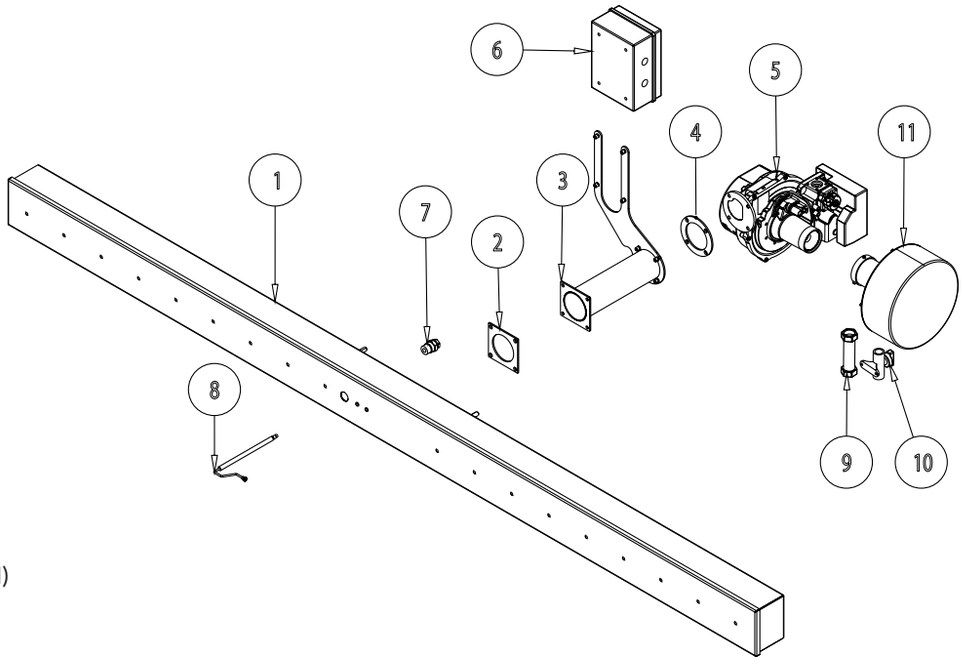
The emitter has a surface equipped with a textile structure of metal fibres, the Bekinit®. This surface radiates the heat to the product. Its size and form are adapted to the process, calculations based on product dimensions, mass flow, coating type, temperature requirements and comparison with historical data of other projects.



Generic drawing of a typical flat rectangular
Eratec gas infrared emitter

ITS COMPONENTS

The infrared emitter is a gas burner. The burner head's glowing surface emits the infrared radiation to your product, directly, effectively and efficiently.



1 - Emitter head
2 - Gasket
3 - Gas air feeding duct
4 - Gasket
5 - Combustion air fan
gas valves group
zero governor
6 - Connection box
7 - Electrode holding
8 - Electrode
9 - Gas feeding duct (optional)
10 - Manual valve (optional)
11 - Combustion air filter
will have air pressure
switch mounted

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THE PERFORMANCE OF THE EMITTER

The Eratec emitters show a homogeneous combustion over the surface and hence a homogeneous infrared radiation.

The power density ranges from 100 to 300 kW/m².

The Eratec gas infrared emitters operate in the large range of wavelengths in the medium infrared spectrum. The maximum infrared intensity is reached around 3 µm, with a surface temperature of up to 930°C and an emissivity of 0.8.

The extremely low thermal inertia allows for an instantaneous heat-up and cool-down.

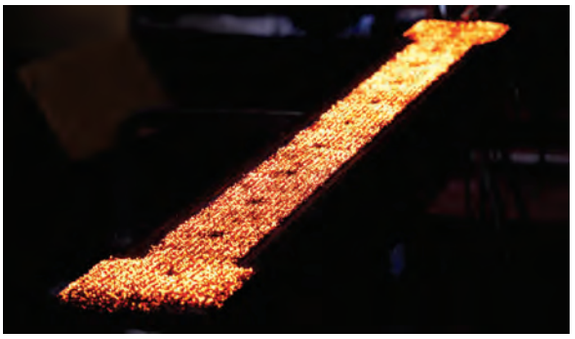
You can modulate power continuously between minimum 100 kW/m² and maximum 300 kW/m².

The emitter is of rectangular shape with a length and width adapted to your project.

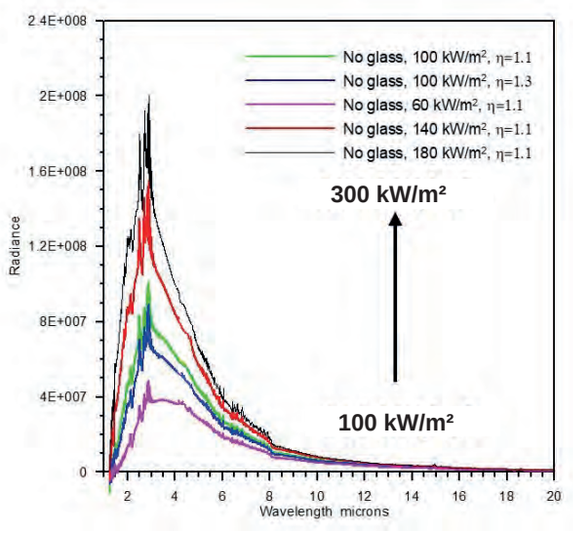
For example, for an emitter of 2000x100 mm, we have a net surface of 0.2m² corresponding to a power range from 20kW to 60kW.

When designing the emitter, the below table gives an indication of power ranges as a function of dimensions.

Feel free to design your emitter and choose your dimensions.



Eratec infrared emitter with homogeneous combustion over its surface



Power distribution over wave length distribution of the Eratec gas infrared emitters

Power range (kW)	length (mm)			
	1000	1500	2000	2500
100	10-30	16-48	20-60	24-70
width (mm) 150	16-48	24-70		
200	20-60			

Indication of power range as a function of emitter dimensions

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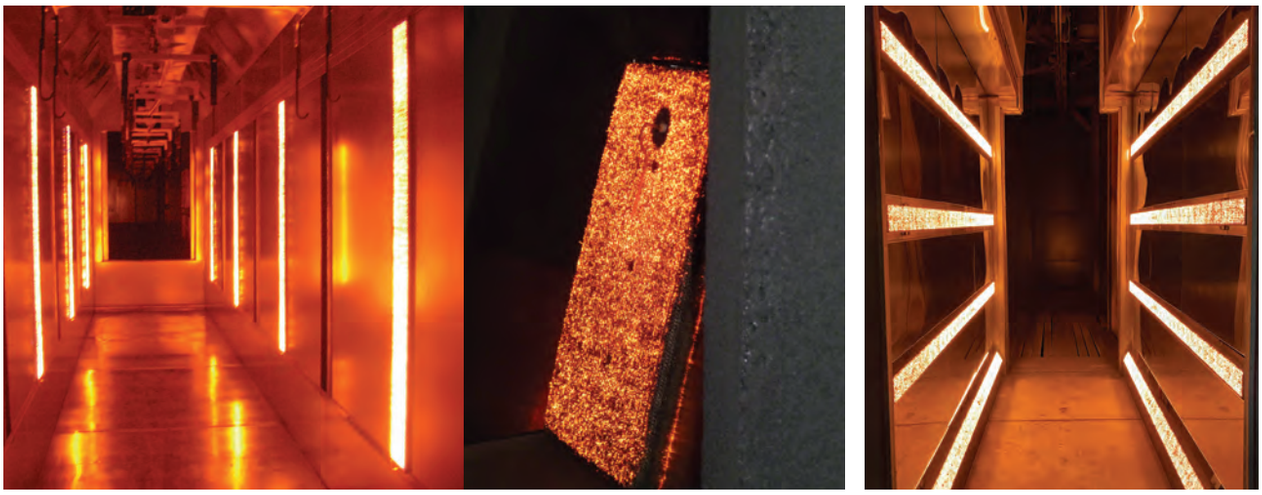
INTEGRATE ERATEC GAS INFRARED EMITTERS IN YOUR COATING LINE

In order to:

- Enhance gelification of the powder
- Ensure a good coating surface tension
- Accelerate heat-up of the parts
- Boost productivity of the line
- Solve quality issues
- Save energy overall



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Eratec - Head Office
R&D, Sales & Production
80 rue René Descartes
38090 - Vaulx-Milieu
FRANCE
Phone : +33 474 821 900

Northern Europe Agency
Cyclamenlaan 13
8400 - Oostende
Belgium
Phone : +32 473 946 673

www.era-tec.com
contact@era-tec.com

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