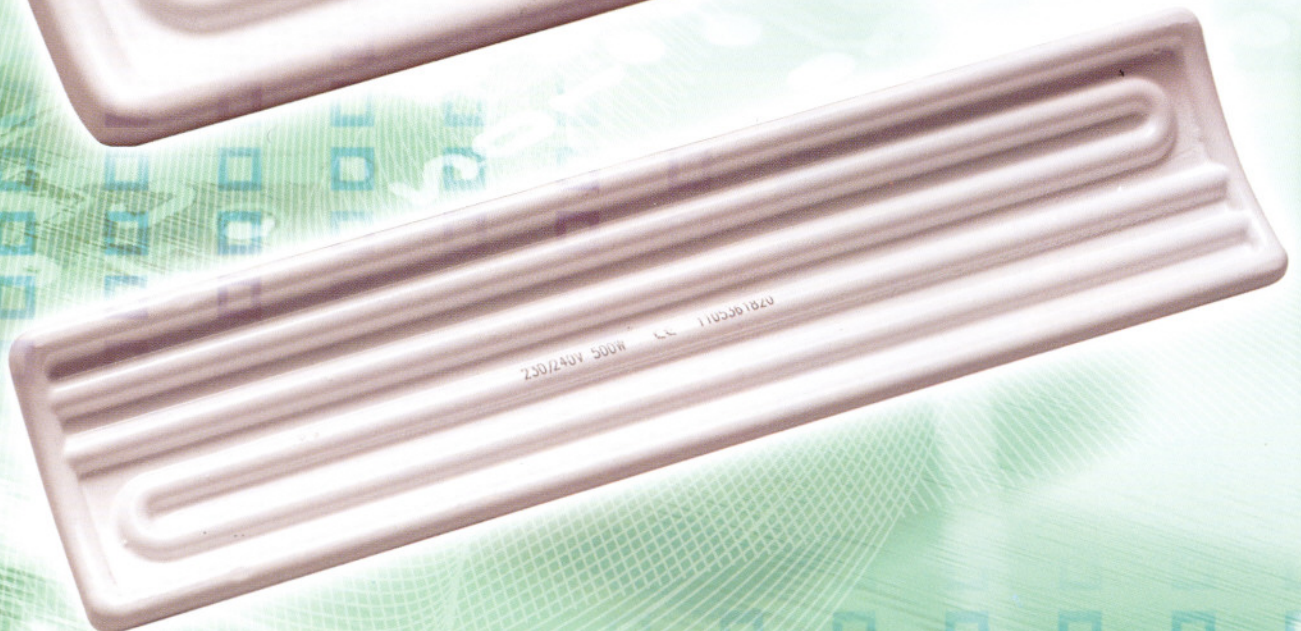




Ceramicx



Infrared Ceramic And Quartz Heating System For Industry

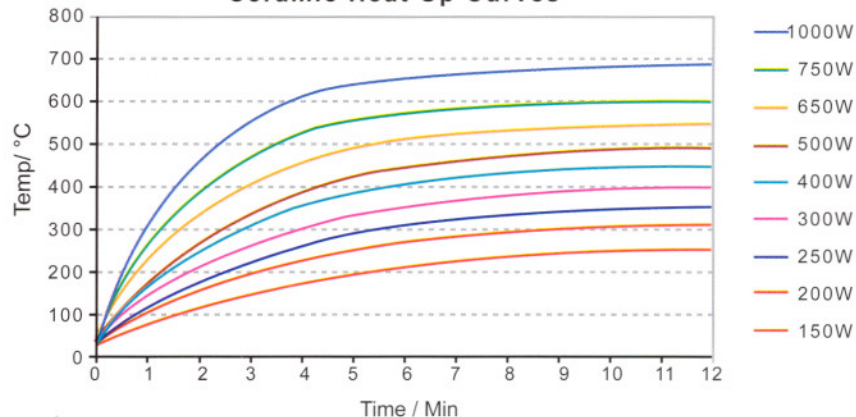
Ceramic Infrared Heaters



Ceramic elements operate in the temperature of 300°C to 700°C (572°F - 1292°F) producing Infrared wavelengths in the 2-10 micron range. Most plastics and many other materials absorb Infrared best in this range. Which makes the ceramic heater the most efficient Infrared radiant emitter on the market.

A range of aluminised steel reflectors are also available to ensure that most of the radiation generated is reflected forward on to the target area.

Ceramic Heat Up Curves



-Based on FTE test of average surface temperature with an infrared thermometer set at an emissivity of 0.9

(with the element mounted in an aluminised steel reflector, RAS)

-These temperatures also apply to the FFE and the SFSE

-For FTE and HFE divide the wattage by two

-For QTE and QFE divide the wattage by four

Standard Features

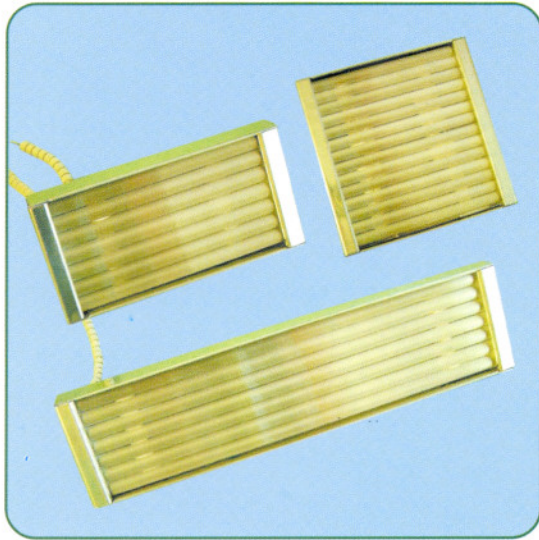
- Iron-chrome aluminium resistance wire.
- Heater Voltage: 230 Volts standard.
(other voltages available on request)
- Useful wavelength range: 2 to 10 Microns
- Average Operating Life: 5,000 - 10,000 Hours.
- Recommended radiation distance from heater is 100mm to 200 mm.
- Supplied with 100mm± 10mm ceramic beaded power leads.
- UL approved

Please check inner page for ordering information

Ceramic Infrared Heaters

	Mean Surface Temperature	Approximate Time Until Top Temperature	Average Weight	Dimensions	Useful wavelength range	Electrical Power Loading
FTE 1000 Watt	685°C	8 Minutes	225 grams	245 x 60 x 31 mm	2 to 10 Microns	6.8 W/cm ² (43.5 W/inch ²)
FTE 750 Watt	602°C	9 Minutes	216 grams	245 x 60 x 31 mm	2 to 10 Microns	5.1 W/cm ² (32.6 W/inch ²)
FTE 650 Watt	553°C	10 Minutes	216 grams	245 x 60 x 31 mm	2 to 10 Microns	4.4 W/cm ² (28.3 W/inch ²)
FTE 500 Watt	486°C	11 Minutes	215 grams	245 x 60 x 31 mm	2 to 10 Microns	3.4 W/cm ² (21.7 W/inch ²)
FTE 400 Watt	452°C	12 Minutes	215 grams	245 x 60 x 31 mm	2 to 10 Microns	2.7 W/cm ² (17.4 W/inch ²)
FTE 300 Watt	400°C	13 Minutes	214 grams	245 x 60 x 31 mm	2 to 10 Microns	2.0 W/cm ² (13 W/inch ²)
FTE 250 Watt	354°C	13 Minutes	213 grams	245 x 60 x 31 mm	2 to 10 Microns	1.7 W/cm ² (10.9 W/inch ²)
FTE 150 Watt	255°C	13 Minutes	212 grams	245 x 60 x 31 mm	2 to 10 Microns	1.0 W/cm ² (6.5 W/inch ²)
HTE 500 Watt	685°C	8 Minutes	119 grams	122 x 60 x 31 mm	2 to 10 Microns	6.8 W/cm ² (43.5 W/inch ²)
HTE 325 Watt	553°C	10 Minutes	118 grams	122 x 60 x 31 mm	2 to 10 Microns	5.1 W/cm ² (32.6 W/inch ²)
HTE 250 Watt	486°C	11 Minutes	117 grams	122 x 60 x 31 mm	2 to 10 Microns	3.4 W/cm ² (21.7 W/inch ²)
HTE 200 Watt	452°C	12 Minutes	115 grams	122 x 60 x 31 mm	2 to 10 Microns	2.7 W/cm ² (17.4 W/inch ²)
HTE 150 Watt	400°C	13 Minutes	113 grams	122 x 60 x 31 mm	2 to 10 Microns	2.0 W/cm ² (13 W/inch ²)
HTE 125 Watt	354°C	13 Minutes	112 grams	122 x 60 x 31 mm	2 to 10 Microns	1.7 W/cm ² (10.9 W/inch ²)
SFTE 750 Watt	602°C	9 Minutes	265 grams	122 x 122 x 24mm	2 to 10 Microns	5.0 W/cm ² (32.6 W/inch ²)
SFTE 650 Watt	553°C	10 Minutes	255 grams	122 x 122 x 24mm	2 to 10 Microns	4.4 W/cm ² (28.3 W/inch ²)
SFTE 500 Watt	486°C	11 Minutes	240 grams	122 x 122 x 24mm	2 to 10 Microns	3.4 W/cm ² (21.7 W/inch ²)
SFTE 400 Watt	452°C	12 Minutes	230 grams	122 x 122 x 24mm	2 to 10 Microns	2.7 W/cm ² (17.4 W/inch ²)
SFTE 350 Watt	42 0°C	12 Minutes	225 grams	122 x 122 x 24mm	2 to 10 Microns	2.4 W/cm ² (15.2 W/inch ²)
SFTE 300 Watt	400°C	13 Minutes	215 grams	122 x 122 x 24mm	2 to 10 Microns	2.0 W/cm ² (13.2 W/inch ²)
SFTE 250 Watt	354°C	13 Minutes	210 grams	122 x 122 x 24mm	2 to 10 Microns	1.6 W/cm ² (10.9 W/inch ²)
SFTE 150 Watt	255°C	13 Minutes	210 grams	122 x 122 x 24mm	2 to 10 Microns	1.0 W/cm ² (6.5 W/inch ²)
LFTE 1500 Watt	596°C	11 Minutes	377 grams	247 x 110 mm	2 to 10 Microns	5.52 W/cm ² (34.4 W/inch ²)
LFTE 1000 Watt	511°C	11 Minutes	360 grams	247 x 110 mm	2 to 10 Microns	3.6 W/cm ² (23 W/inch ²)

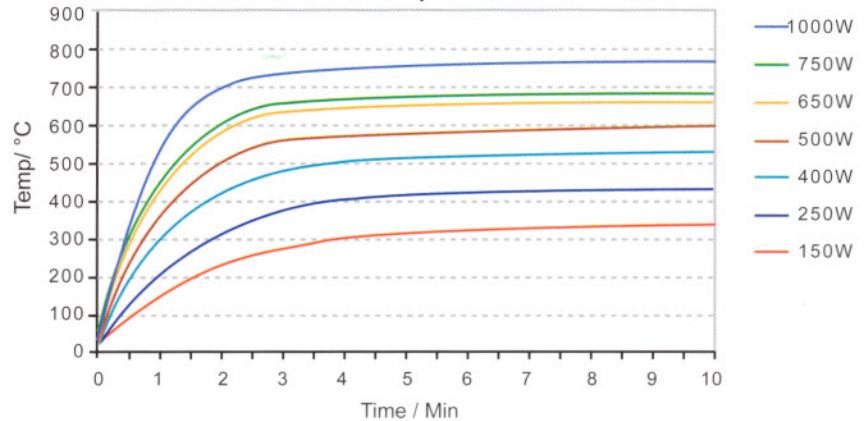
Quartz Infrared Heaters



Quartz infrared heating elements are particularly effective in systems where rapid heater response and/or zone controlled heating is required. They have a broad emission spectrum and hence cover various absorption ranges.

Pillared quartz elements have the same mounting fixture as ceramic elements allowing replacement without difficulty. This is ideal for design alternation involving the use of materials with different absorption characteristics.

Quartz Heat Up Curves



- Based on FQE test of surface temperature with an infrared non-contact thermometer set at an emissivity of 0.7 (with the element mounted in an aluminised steel reflector, RAS)
- For HQE and QQE divide the wattage by two and four respectively
- These temperatures can also be assumed for pillared elements

Standard Features

- Iron-chrome aluminium resistance wire.
- Heater Voltage: 230 Volts standard.
(other voltages available on request)
- Useful wavelength range: 5 to 8 Microns
- Average Operating Life: 5,000 - 10,000 Hours.
- Recommended radiation distance from heater is 100mm to 200 mm.
- Supplied with 100mm± 10mm ceramic beaded power leads.
- UL approved

Please check inner page for ordering information

Quartz Infrared Heaters

	Mean Surface Temperature	Approximate Time Until Top Temperature	Average Weight	Dimensions	Useful wavelength range	Electrical Power Loading
FQE 1000 Watt	772°C	4 Minutes	330 grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	6.5 W/cm ² (42 W/inch ²)
FQE 750 Watt	690°C	4.5 Minutes	328 grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	4.9 W/cm ² (31.5 W/inch ²)
FQE 650 Watt	664°C	5 Minutes	328grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	4.2 W/cm ² (27.3 W/inch ²)
FQE 500 Watt	593°C	5 Minutes	327grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	3.2 W/cm ² (21 W/inch ²)
FQE 400 Watt	542°C	5.5 Minutes	326 grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	2.6 W/cm ² (16.8 W/inch ²)
FQE 250 Watt	438°C	6 Minutes	325 grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	1.6 W/cm ² (10.5 W/inch ²)
FQE 150 Watt	343°C	6 Minutes	324 grams	247 x 62.5 x 22 mm	1.5 to 8 Microns	0.9 W/cm ² (6.3 W/inch ²)
HQE 500 Watt	772°C	4 Minutes	211 grams	124 x 62.5 x 22 mm	1.5 to 8 Microns	6.5 W/cm ² (41.7 W/inch ²)
HQE 325 Watt	720°C	4.5 Minutes	210 grams	124 x 62.5 x 22 mm	1.5 to 8 Microns	5.2 W/cm ² (33.3 W/inch ²)
HQE 250 Watt	593°C	5 Minutes	209 grams	124 x 62.5 x 22 mm	1.5 to 8 Microns	3.2 W/cm ² (20.8 W/inch ²)
HQE 200 Watt	470°C	5.5 Minutes	208 grams	124 x 62.5 x 22 mm	1.5 to 8 Microns	1.9 W/cm ² (12.5 W/inch ²)
QQE 250 Watt	772°C	4 Minutes	136 grams	62.5 x 62.5 x 22 mm	1.5 to 8 Microns	6.5 W/cm ² (41.7 W/inch ²)
QQE 150 Watt	635°C	5 Minutes	136 grams	62.5 x 62.5 x 22 mm	1.5 to 8 Microns	3.9 W/cm ² (25 W/inch ²)
SQE 1000 Watt	772°C	4 Minutes	393 grams	124 x 124 x 22 mm	1.5 to 8 Microns	6.5 W/cm ² (41.7 W/inch ²)
SQE 750 Watt	690°C	4.5 Minutes	390 grams	124 x 124 x 22 mm	1.5 to 8 Microns	4.9 W/cm ² (31.3 W/inch ²)
SQE 650 Watt	664°C	5 Minutes	388grams	124 x 124 x 22 mm	1.5 to 8 Microns	4.2 W/cm ² (27.1 W/inch ²)
SQE 500 Watt	593°C	5 Minutes	387grams	124 x 124 x 22 mm	1.5 to 8 Microns	3.3 W/cm ² (20.8 W/inch ²)
SQE 400 Watt	542°C	5.5 Minutes	384 grams	124 x 124 x 22 mm	1.5 to 8 Microns	2.6 W/cm ² (16.7 W/inch ²)
SQE 250 Watt	438°C	6 Minutes	380 grams	124 x 124 x 22 mm	1.5 to 8 Microns	1.6 W/cm ² (10.4 W/inch ²)
SQE 150 Watt	343°C	6 Minutes	380 grams	124 x 124 x 22 mm	1.5 to 8 Microns	1.0 W/cm ² (6.3 W/inch ²)

Quartz Tungsten And Quartz Halogen Heaters.

Ceramicx Ireland produces extremely penetrative infrared emitters using two types of tungsten filaments: the porcupine or star type filament for fast medium wave emitters, and the supported filament for short wave halogen emitters.

The emitters heat up and cool down within seconds making them particularly suitable for systems requiring short cycle times.

**Fast Medium Wave
Quartz Tungsten Heaters**



The tungsten filament used in these heaters is the porcupine or star type coil, which can be operated at temperatures up to 1500°C (2732°F), with peak wavelength emissions of approximately 1.6 microns. It reaches top temperatures within seconds.

As well as having excellent structural rigidity, this coil is designed to minimize light output and maximize IR emission thereby increasing IR radiant efficiency.

**Short Wave
Quartz Tungsten Heaters**



These heaters are filled with Halogen gas to allow the supported tungsten filament to reach temperatures as high as 2600°C (4712°F).

With peak wavelength emissions of approximately 1 micron they are extremely penetrative and allow rapid on/off cycles.

FastIR Infrared Heating Systems

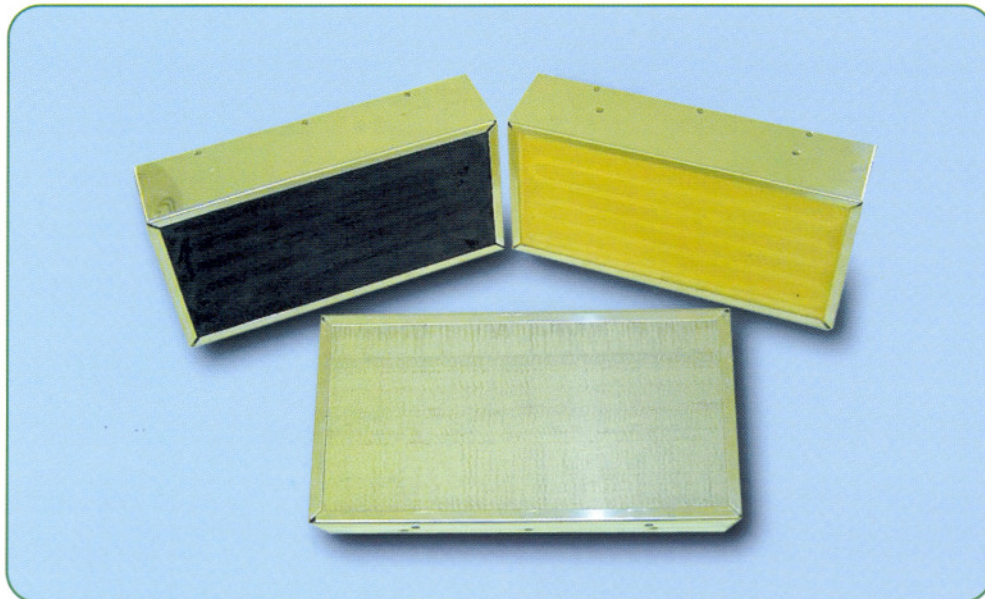


These compact, robust heating systems form an ideal installation for quartz tungsten glass tube emitters.

Optimum efficiency is achieved by highly polished aluminised steel reflectors and rear mounted axial flow fans, which eliminate rear convection losses.

The external body, which is manufactured from mild steel in red powder coat finish, can be maintained at "touch safe" temperatures.

Infrared Panel Heaters



Infrared Panel Heaters

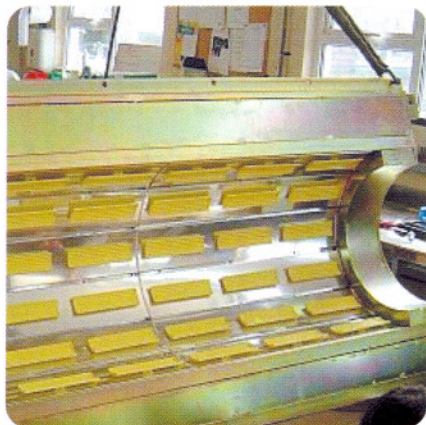
In these custom built infrared heaters, the heating coils are embedded in a special ceramic fibre-board which insulates, adds durability and shock resistance. They are a neat, easily mounted and readily expanded heating solution.

In these custom built infrared heaters, the heating coils are embedded in a special ceramic fibre-board which insulates, adds durability and shock resistance. They are a neat, easily mounted and readily expanded heating solution.

Available:

- in a range of different sizes
- with surface face of anodised aluminium and glass (which is easily cleaned)
- in a range of wattages for varying supply voltages
- with multizone options and removable thermocouple plug

Infrared Engineering Applications

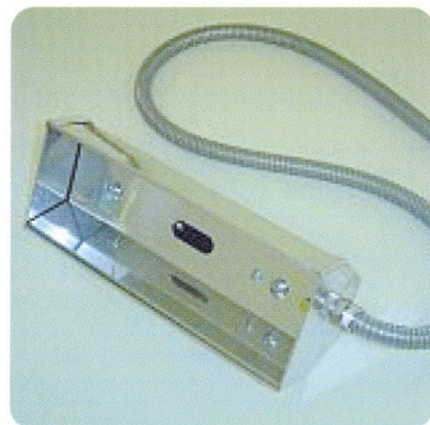


Custom built to solve your heating problems, infrared platens can be designed to operate with either Ceramic or Quartz emitters. Variations in platen size and element type available, depending on the area to be heated and the application involved.

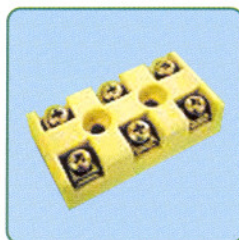
The platens can be wired in-house using either high temperature wiring or Buzzbar distribution systems and can also be zoned for greater control of the heated area. Contact us for further details.

Designed to cater for a wide range of Ceramic and Quartz Elements, the aluminised steel (or stainless steel by special request) projectors are the ideal solution in areas where positional heat is required quickly, economically and effectively.

The P.A.S. can be fixed directly to walls and angled to give the most effective coverage of the area to be heated. They are very effective in areas where doors are continuously being opened or insulation is poor.



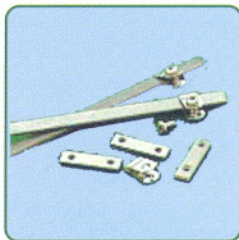
Infrared Product Accessories



High temperature ceramic terminal blocks. They are used with buzz bars to produce power distribution systems.



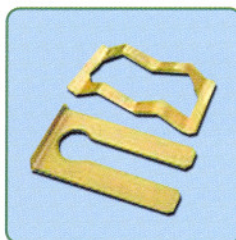
High temperature porcelain holder used in operation of ceramic IR bulbs.



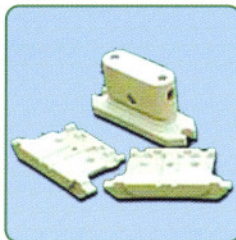
These Buzz Bars (Dimensions: 8mm x 2.0mm) can be used with the Ceramic Terminal Block to produce a flexible and maintenance free power distribution system.



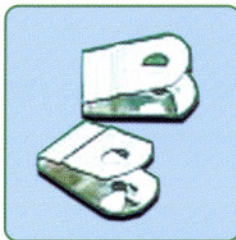
Highly polished reflector for use with ceramic IR bulbs.



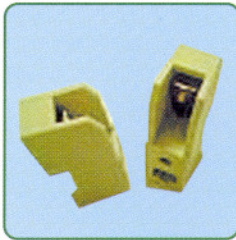
Used in the mounting and installation of all Ceramic elements and the PFQE element. Included with these heaters as standard. One piece spring/clip also available



Ceramic Ireland Ltd. has the ability to manufacture specialised dust pressed components for any type of use.



Can be used to connect power leads to buzz bar distribution systems in combination with a fixing screw (supplied)



The Ceramic R7s holder is used for mounting of heaters with the R7s termination. Max temperature: 350°C (662°F)



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