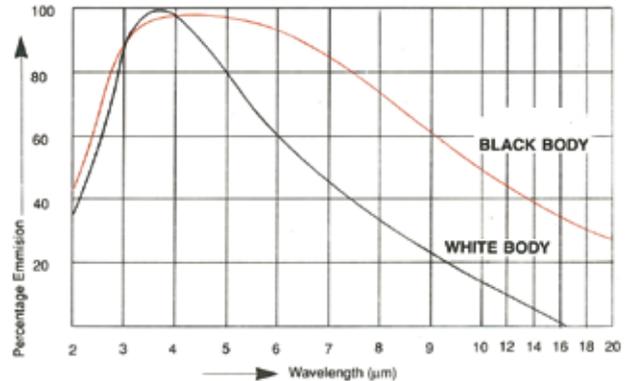


INFRARED CERAMIC HEATERS

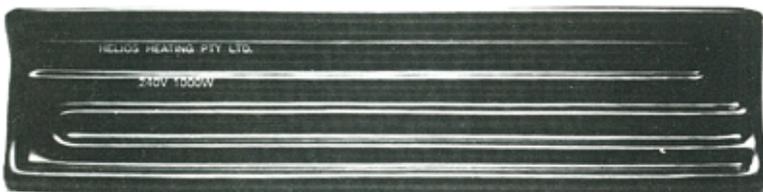
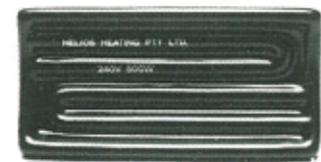
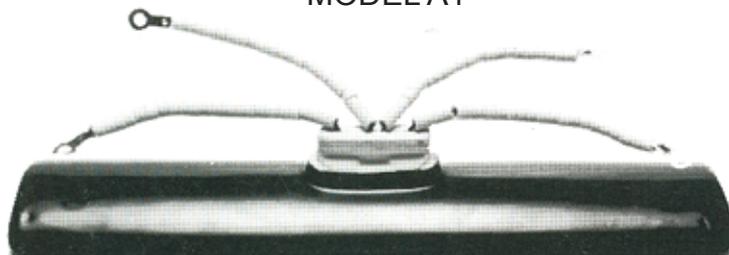
HOTCO BLACK-BODY INFRARED CERAMIC HEATERS.

Established laws of physics refer to an ideal emissive and absorption body as "black". In terms of radiation emission (see graph), the figure 1 is given as the optimum unit for element radiation.

It is for this reason Hotco black body infrared ceramic heaters are manufactured with a metallic oxide coating which is sintered to form a black crystal emitter surface - offering a near perfect "black" radiation element.



The spectrum comparison shows clearly the greater emissivity of the Hotco black body infrared heater when compared to the conventional white ceramic infrared heater.


MODEL A1

MODEL A2

A1 WITH THERMOCOUPLE

A2 WITH THERMOCOUPLE

CODE	MODEL	SIZE (MM)	VOLTS	WATTS	SURFACE TEMP OF HEATER	PEAK WAVELENGTHS	HEAT UP DEG/MIN
A-1-1000	A-1	245 X 60	240	1000	730° C	2.9 UM	160
A-1-650	A-1	245 X 60	240	650	600° C	3.2 UM	100
A-1-500	A-1	245 X 60	240	500	550° C	3.5 UM	85
A-1-400	A-1	245 X 60	240	400	500° C	3.7 UM	70
A-1-250	A-1	245 X 60	240	250	400° C	4.3 UM	45
A-2-500	A-2	122 X 60	240	500	730° C	2.9 UM	160
A-2-325	A-2	122 X 60	240	325	600° C	3.2 UM	100
A-2-200	A-2	122 X 60	240	200	500° C	3.7 UM	70

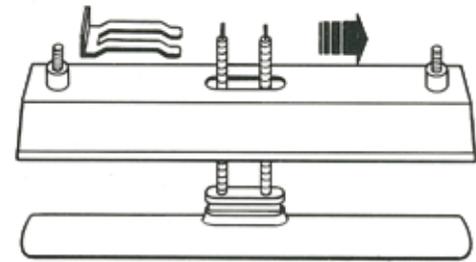
All of the above heaters are available with 'K' type thermocouple fitted.

TEMPERATURE CONTROL

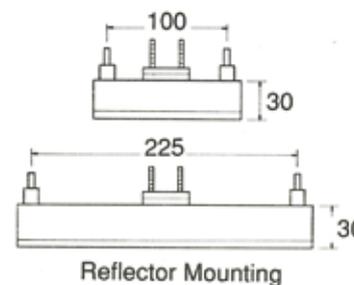
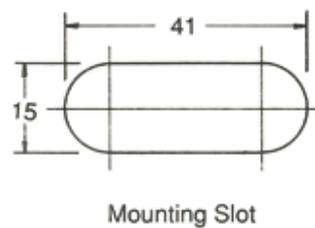
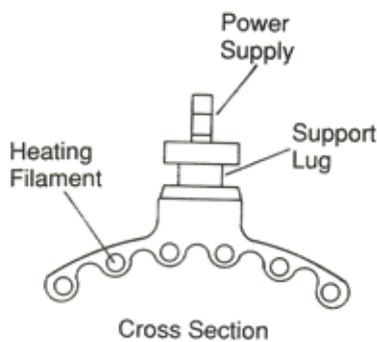
As the temperature of an infrared heater is directly proportional to the wavelength emitted, perfect wavelength control is achieved by connecting a heater with an embedded thermocouple to a solid state temperature controller. Using this control, it is possible to achieve a range of wavelengths from the one emitter. Consult or technical staff for advice.

ALUMINUM REFLECTOR MOUNTS

Polished Aluminum reflectors are designed to reflect all the emitted infrared rays in a controlled direction. Simply insert the heater mounting lug through the slot provided and secure using the spring steel retainer. Each reflector is supplied with sturdy mounting studs for single or multiple frame or chassis installations.



MOUNTING DETAILS

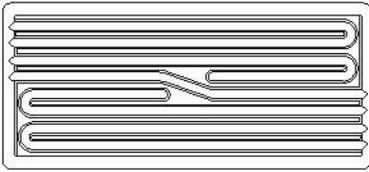


APPLICATION - HEATER SELECTION GUIDE

PROCESS	MODEL A-1					MODEL A-2		
	250W	400W	500W	650W	1000W	200W	325W	500W
Pre Heating foil for vacuum forming		■	■	■		■	■	
Quick drying of gummed and sized paper		■	■			■	■	
Water evaporation					■			■
Drying of skins and sprayed leather	■							
Heating paper pulp prior to pressing				■	■		■	■
Setting PVC paste on fabrics		■				■		
Quick drying of laquered paper	■							
Drying plastic and latex coatings		■				■		
Drying washed, dyed and finished textiles				■	■		■	■
Drying protective coatings in cans	■	■	■	■		■	■	■
Fixing - Stress relieving synthetic threads	■	■				■	■	
Heating and drying adhesives - shoe trade				■	■		■	■
Pre - Heating rubber prior to extrusion		■	■	■		■	■	
Pre - Heating and drying glued wooden furniture		■	■			■	■	
Drying sprayed on glazes to ceramics		■	■			■	■	
Drying and setting laquered sheet metals	■	■	■	■		■	■	■
Manufacturing sealed bubble packs		■	■	■		■	■	

NOTE:

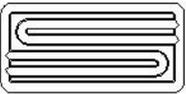
As can be seen in the above shown guide, there are often several infrared ceramic heaters suitable to a particular application. It is for this reason we recommend a practical test be performed on a sample of the material proposed.



LFTE Large Full Trough Element
245 x 110 mm
1000W 1200W 1300W 1400W 1500W



FTE Full Trough Element
245 x 60 mm
150W 250W 300W 400W 500W 650W 750W 1000W



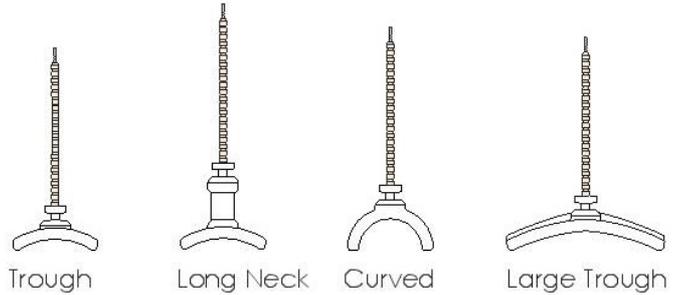
HTE Half Trough Element
122 x 60 mm
125W 150W 200W 250W 325W 500W



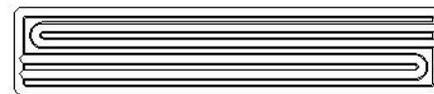
QTE Quarter Trough Element
60 x 60 mm
125W 250W



QCE Quarter Curved Element
60 x 55 mm
150W 250W



FTE-LN Full Trough Element -Long Neck
245 x 60 mm
250W 400W 500W 650W



FTEL-LN Full Trough Element Long - Long Neck
285 x 60 mm
1000W

LN - Long Neck

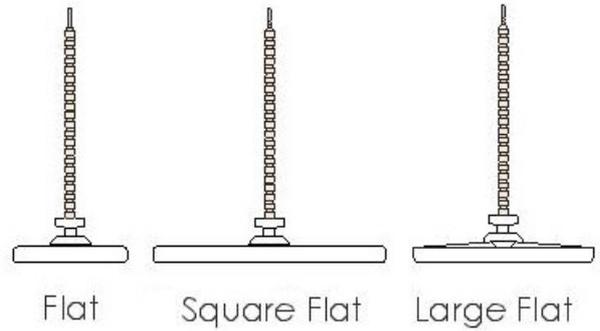
GLAZE OPTIONS



White
Standard



Yellow Black
MOQ 10 pieces



Flat

Square Flat

Large Flat



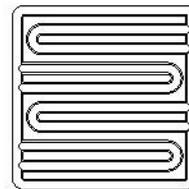
FFE Full Flat Element
245 x 60 mm
150W 250W 300W 400W 500W 650W 750W 1000W



LFFE Large Full Flat Element
245 x 95 mm
650W 750W 1400W



HFE Half Trough Element
122 x 60 mm
125W 150W 200W 250W 325W 500W



SFSE Square Flat Solid Element
122 x 122 mm
150W 250W 300W 350W 400W 500W 650W 750W



QFE Quarter Flat Element
60 x 60 mm
125W 250W

CERAMIC HOLLOW ELEMENTS



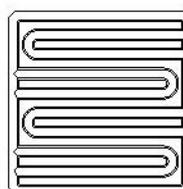
FFEH Full Flat Element Hollow
245 x 60 mm
250W 300W 400W 500W 600W 800W



QFEH Quarter Flat Element Hollow
60 x 60 mm
125W 200W



HFEH Half Flat Element Hollow
122 x 60 mm
125W 200W 250W 300W 400W



SFEH Square Flat Element Hollow
122 x 122 mm
250W 300W 400W 500W 600W 800W

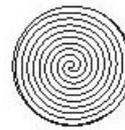


Type J
 + Iron
 - Copper Nickel

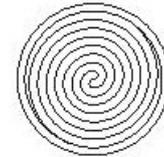


Type K
 + Nickel Chromium
 - Nickel Aluminium

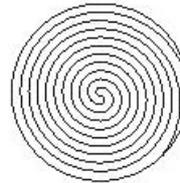
EDISON SCREW ELEMENTS



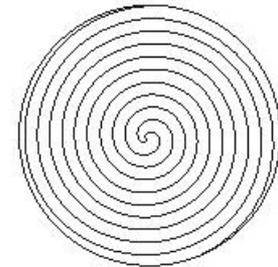
ESEB



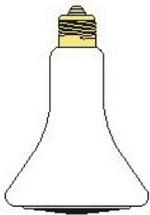
ESES



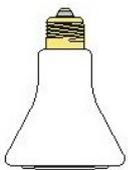
ESER



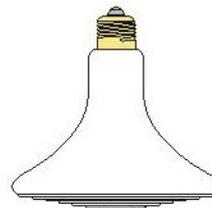
ESEXL



ESER
 Edison Screw Element Regular
 Ø95 x 140 mm
 150W 250W



ESES
 Edison Screw Element Small
 Ø80 x 110 mm
 60W 100W

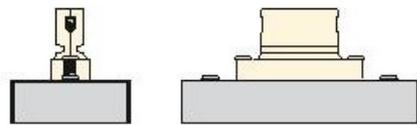


ESEXL
 Edison Screw Element
 Extra Large
 Ø140 x 137 mm
 300W 400W

QUARTZ ELEMENTS

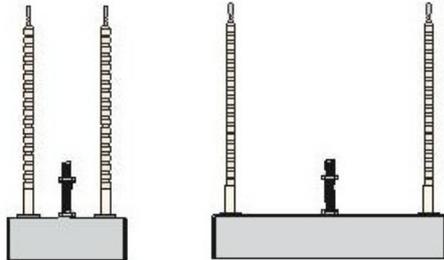
STQH100	100 x 100 mm	Wattage Range 150 - 400 Watts
STQH112	112 x 112 mm	Wattage Range 150 - 400 Watts
STQH140	140 x 140 mm	Wattage Range 150 - 650 Watts
STQH150	150 x 150 mm	Wattage Range 150 - 650 Watts





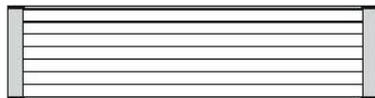
Pillared

Quartz



Quartz

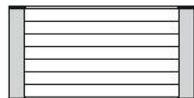
Square Quartz



FQE Full Quartz Element

247 x 62.5 x 22 mm

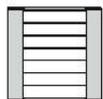
150W 250W 400W 500W 650W 750W 1000W



HQE Half Quartz Element

124 x 62.5 x 22 mm

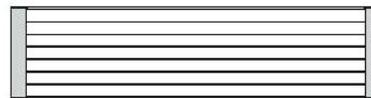
150W 250W 325W 400W 500W



QQE Quarter Quartz Element

62.5 x 62.5 x 22 mm

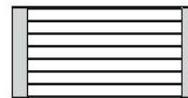
150W 250W



PFQE Pillared Full Quartz Element

247 x 62.5 x 22 mm

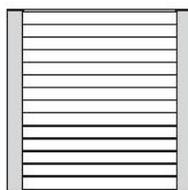
150W 250W 400W 500W 650W 750W 1000W



PHQE Pillared Half Quartz Element

124 x 62.5 x 22 mm

150W 250W 400W 500W

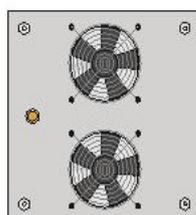


SQE Square Quartz Element

124 x 124 x 22 mm

150W 250W 400W 500W 650W 750W 1000W

FastIR

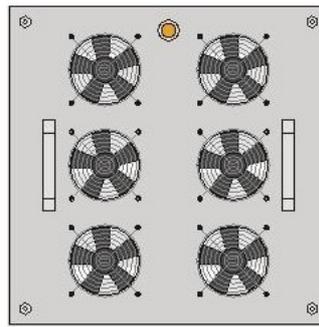
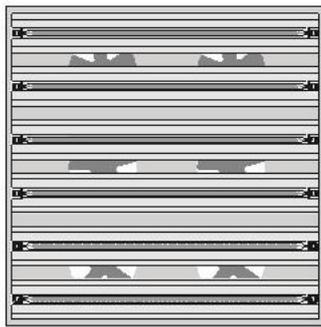


FastIR 305 305 x 305 x 150 mm

Suitable for 1000W Quartz Tungsten/Halogen Heaters QTM/QHM (tubes supplied separately)

4 Tube - 4kW

5 Tube - 5kW

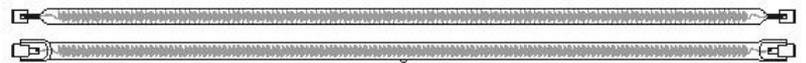
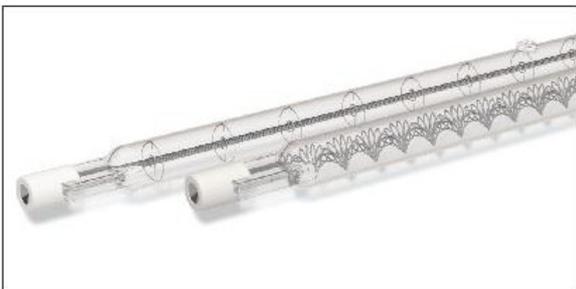


FastIR 500 500 x 500 x 150 mm
 Suitable for 2000W Quartz Tungsten/
 Halogen Heaters QTL/QHL
 (tubes supplied separately)

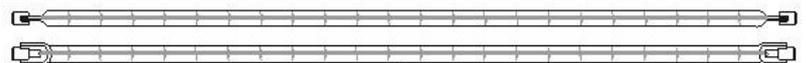
6 Tube - 12kW

7 Tube - 14kW

QUARTZ TUNGSTEN / HALOGEN



Quartz Tungsten



Quartz Halogen

Quartz Tungsten

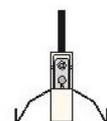
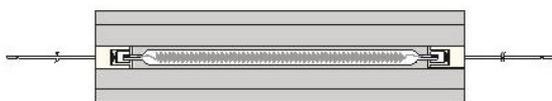
QTS Quartz Tungsten short	Ø10 x 224 mm	750W
QTM Quartz Tungsten Medium	Ø10 x 277 mm	1000W
QTL Quartz Tungsten Long	Ø10 x 473 mm	1500W 1750W 2000W

Quartz Halogen

QHS Quartz Halogen short	Ø10 x 224 mm	750W
QHM Quartz Halogen Medium	Ø10 x 277 mm	1000W
QHL Quartz Halogen Long	Ø10 x 473 mm	2000W

Range of different sizes, wattages, voltages and termination options available,
 please send details to sales@ceramicx.com

Quartz Tungsten / Halogen Reflectors (tubes supplied separately)



QTSR Quartz Tungsten Short Reflector	246 x 62 mm
QTM Quartz Tungsten Medium Reflector	297 x 62 mm
QTL Quartz Tungsten Long Reflector	493 x 62 mm

Non standard sizes available, please supply details to sales@ceramicx.com

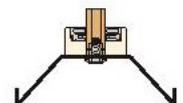
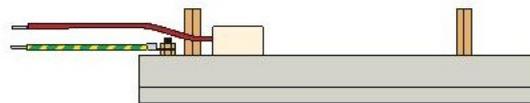
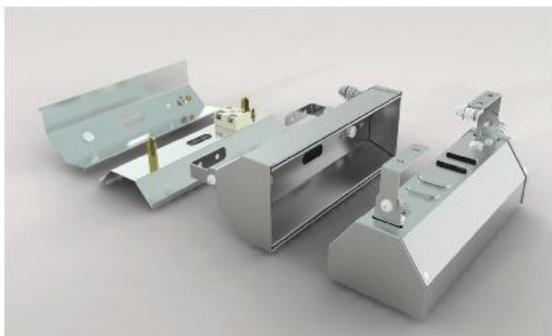
CUSTOM PANEL HEATERS

Custom Panel Heaters

Available with anodised aluminium or ceramic glass face.
 Range of Wattages and supply Voltages
 Multi- zone options with removable miniature thermocouple plug



REFLECTORS / PROJECTORS



RAS Reflector Aluminised Steel supplied without heaters

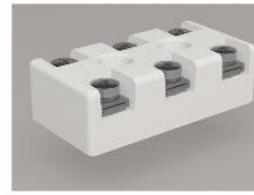
PAS Projector Aluminised Steel supplied without heaters

RAS 5		100 x 60 x 1,254 mm
RAS 4		100 x 60 x 1,004 mm
RAS 3		100 x 60 x 754 mm
RAS2		100 x 60 x 505 mm
RAS1		100 x 60 x 254 mm
RAS 0.5		100 x 60 x 160 mm
PAS 5		94 x 76 x 1,258 mm
PAS 4		94 x 76 x 1,008 mm
PAS 3		94 x 76 x 758 mm
PAS2		94 x 76 x 508 mm
PAS1		94 x 76 x 258 mm

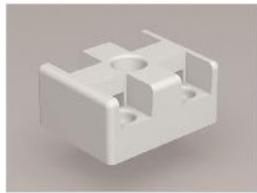
ACCESSORIES



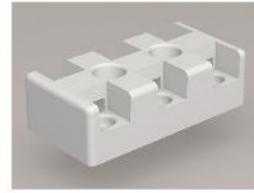
2P Ceramic Terminal End Block
with stainless steel fittings
40 x 32 x 20 mm



3P Ceramic Terminal End Block
with stainless steel fittings
62 x 32 x 20 mm



2P Ceramic Terminal End Block Small
No fittings
40 x 32 x 20 mm



3P Ceramic Terminal End Block
No fittings
62 x 32 x 20 mm



2P Ceramic Terminal Mini End Block with brass, nickel galvanised fittings
21 x 18 x 15 mm



TB1 Ceramic Terminal Block
with brass fittings
27 x 16 x 20 mm



TB2 Ceramic Terminal Block with brass, nickel galvanised fittings
32 x 28 x 21 mm



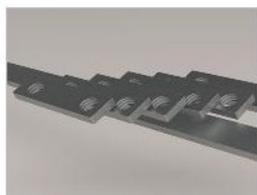
TB3 Ceramic Terminal Block
with brass fittings
52 x 30 x 22 mm



R7s Ceramic Holder
For standard QT/QH heater range



Flat Ceramic Base Holder For Halogen/ Tungsten heaters fitted with a flat ceramic base



Stainless Steel Buzz Bars
8 x 2 x 1000 mm



STQH Holder
For all types of STQH type heaters



Mounting Bracket
73 x 57 x 25 mm



Steel Wave Spring and Clip Set



Ceramic Beads
loose per Kg



Ceramic Beads
Strung per Kg



E27 Edison Screw Bulb Holder
Ø53 x 74 mm



Infrared Glass Lamp
225W 230V
Ø122 x 175 mm



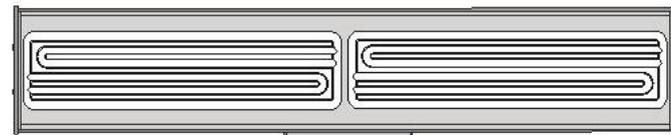
Reflector for Ceramic Bulbs
Ø220 x 110 mm



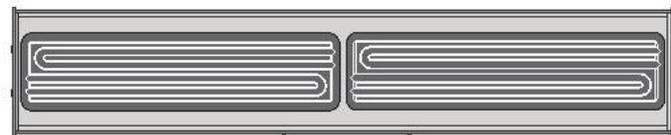
High Temperature NPC Cable
Flexible nickel plated copper core.
Silicone impregnated glass lappings.
Silicone coated fibreglass braid.

- 0.75 mm sq. per metre
- 1.5 mm sq. per metre
- 2.5 mm sq. per metre
- 4.0 mm sq. per metre

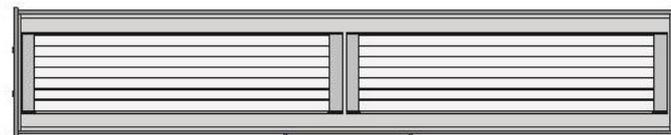
COMFORT HEATING



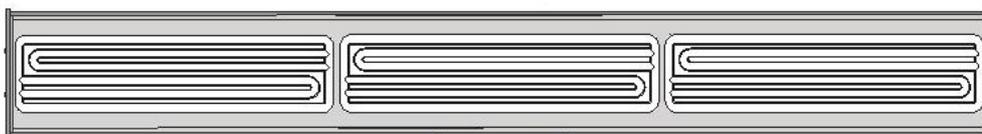
COMFORT IR 2 CIR2S
800W 1000W 1300W 508 x 99 x 91 mm
White glazed elements / stainless steel body



COMFORT IR 2 CIR2B
800W 1000W 1300W 508 x 99 x 91 mm
Black glazed elements / black powder coated stainless steel body



COMFORT IR 2 CIR2Q
800W 1000W 1300W 508 x 99 x 91 mm
Quartz elements / stainless steel body



COMFORT IR 3 CIR3S 1500W 1950W
760 x 99 x 91 mm White glazed elements / stainless steel body

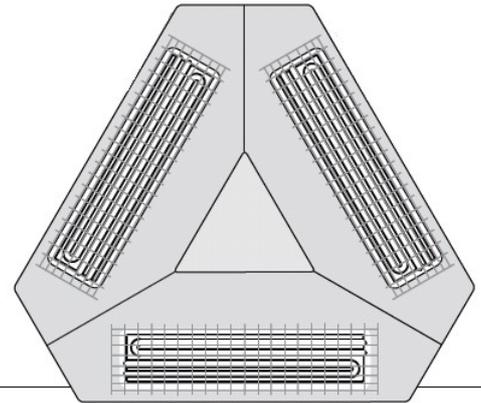
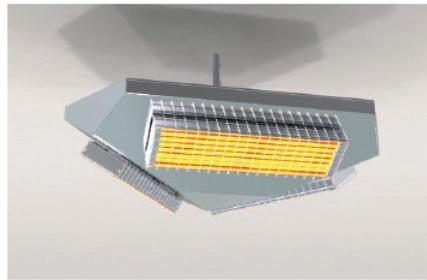
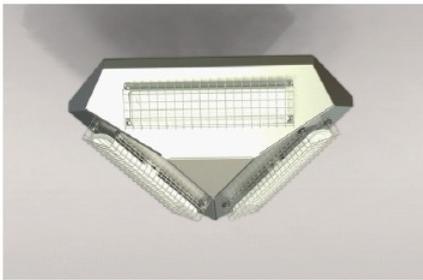


COMFORT IR 3 CIR3B 1500W 1950W
760 x 99 x 91 mm Black glazed elements / black powder coated stainless steel body



COMFORT IR 3 CIR3Q 1500W 1950W
760 x 99 x 91 mm Quartz elements / stainless steel body

COMFORT IR UNITS

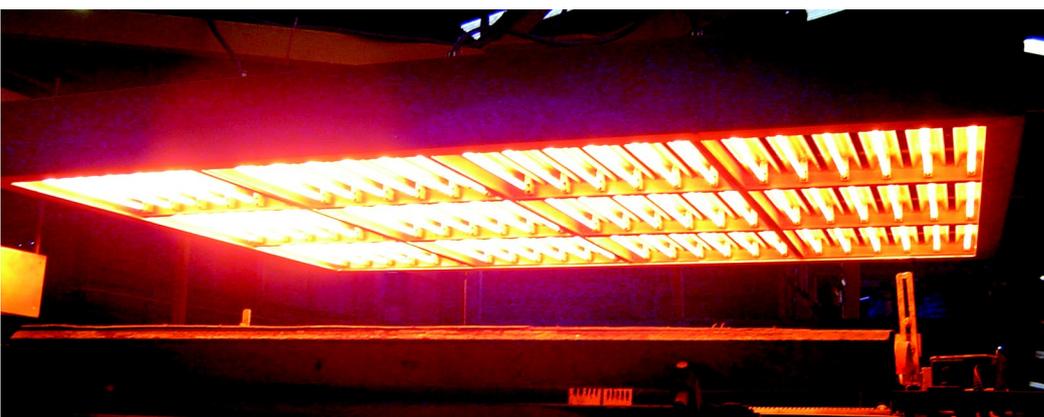


COMFORT IR 360 CIR360S1950W 450 x 450 x 160 mm White glazed elements / stainless steel body

COMFORT IR 360 CIR360B1950W 450 x 450 x 160 mm Black glazed elements / stainless steel body

COMFORT IR 360 CIR360Q1950W 450 x 450 x 160 mm Quartz elements / stainless steel body

PLATENS DESIGNED BY CERAMICX IRELAND



www.thermalproducts.com.au

Phone: (03) 9464 0822

178 – 180 Holt Parade, Thomastown, Victoria, 3074

Fax: (03) 9464 0630 Email: sales@thermalproducts.com.au