

# INFRARED RADIANT HEATERS

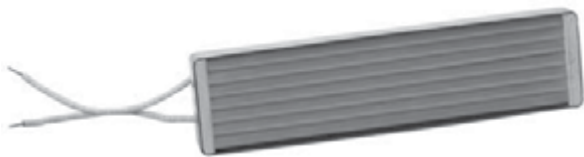
## air heaters

### OVERVIEW

Economic, efficient, and clean, WATTCO™ infrared radiant heaters are designed for comfort heating applications that require radiant heat in indoor, outdoor, and exposed areas through direct infrared heat transfer.

### KEY FEATURES

- » High operating temperatures
- » Quick heat-up and cool-down
- » Sheath material:
  - Metal sheathed fixtures
  - Quartz tube elements
  - Quartz lamp elements
  - Incoloy®
  - Stainless steel emitter strip
- » Special sizes, wattages, and materials available upon request
- » Custom-designed to meet the requirements of your application



TYPE of WORK	NORMAL AIR TEMPERATURE	EQUIVALENT TEMP. with INFRARED HEATING
Heavy Work	66-68°F	55-60°F
Light Work	70-72°F	60-65°F
Seated	74-76°F	65-70°F
Swimming Pool	85-90°F	75-80°F



### BENEFITS

- » Versatile
- » Corrosion and oxidation resistant
- » Easy to maintain
- » Easy to install
- » Durable
- » Compatible with local power supplies
- » Built for safety
- » Maximal dielectric strength and heat transfer
- » Minimal heat loss
- » Maintained wiring cooler
- » Clean heat
- » Easy service
- » Minimal downtime

### SERVICE LIFE

LIFE Please consider the following factors when determining the expected service life of your radiant heater.

- » Watt density
- » Operating conditions

#### Note:

- » High ambient temperature applications or high frequent switching processes will affect the service life of your radiant heater
- » Inquire about the expected service life of a specific application by calling us at **1-800-4WATTCO (1-800-492-8826)**

### WARNING FIRE HAZARD

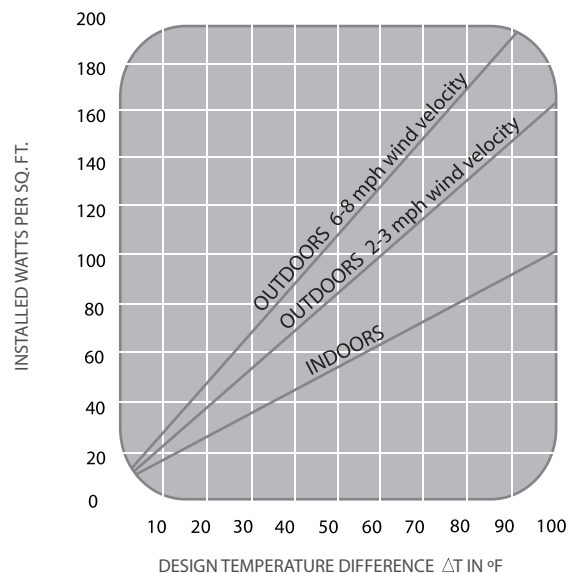
LIFE Please consider the following factors when determining the expected service life of your radiant heater.

- » **Do not contact the heater case and the combustible surfaces.**
- » **Space energized heaters in order to prevent high combustible surface temperatures (194°F/90°C).**
- » **Use ground fault interrupters in the circuit to reduce the risk of short circuits.**

### APPLICATION

Infrared radiant heaters are often regarded as complicated solutions. Making allowances for in-field adjustments to output intensity and heater positioning is mandatory.

FIG. 1 – Recommended installed watts/sq. ft. of floor surface using quartz lamp heaters



Please determine the energy spread in order to optimize your heater.

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### ENERGY SPREAD

Table 1 will help you establish the effective energy spread for the following fixtures:

- » 45°
- » 60°
- » 70°

Use this information to determine an efficient layout for uniform infrared coverage of the application or area.

### KILOWATTS

Refer to Figure 3 to choose the appropriate kW for your application.

**TABLE 1 - RADIANT COVERAGE AT DIFFERENT HEIGHTS REFER TO THESE LISTINGS TO DETERMINE THE HEATED LENGTH.**

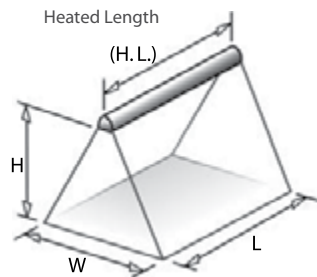


TABLE 1

Radiant Coverage at Various Heights

SPREAD	WIDTH (W)	LENGTH (L)
45°	.83H	H + H.L.*
60°	1.15H	"
70°	1.4H	"

### JAD SERIES HEATERS

APPLICATIONS	CONSTRUCTION TYPE	FEATURES
Conveyorized or batch type ovens Drying Curing	Single tubular element (Type 1)	The mineral insulated alloy sheath heating element prevents splashing and vibration and provides a longer service life than other source types.
Degreasing, Weld preheating, Roll heating, Drying, Sterilization	Double tubular element (Type 2)	Two series wired heating elements in reflectors
Outdoor installations Washdown exposed areas	Hairpin tubular element with moisture resistant terminal housing (Type 3)	N/A
Industrial applications with medium intensity infrared heat: Paint spray, Booths, Curing, Drying Softening resins, Vinyl and Plastics	Quartz tube (Type 4)	Horizontal mounting for tube fixtures
High intensity heat applications	Double quartz tube elements (Type 5)	Horizontal mounting for tube fixtures
High intensity radiation, on/off heating: Baking, Drying, Curing (paint, varnishes, lacquers, adhesives, softening plastics, food processing)	Quartz lamp element (Type 6)	Horizontal mounting for tube fixtures

Please call us at **1-800-4WATTCO (1-800-492-8826)** for further assistance.

### SELECTING YOUR WATTCO™ INFRARED RADIANT HEATER

The following sections will help you select the WATTCO™ infrared radiant heater that meets the requirements of your application.

Please call us at **1-800-4WATTCO (1-800-492-8826)** for further assistance.

#### Note:

- » Compared to quartz tube and metal tube heaters, quartz lamp heaters are the most efficient solutions.
- » Avoid using quartz tube or quartz lamp heaters if there is a risk of vibration or mechanical shock.
- » Protect terminal ends from extreme moisture and contaminating vapors.
- » Use moisture resistant terminal housings to prevent moisture and contamination.
- » Request for a two-fixture model, custom mounting frames, and carts if necessary.
- » The deep reflector model provides more efficient radiation than the standard mounting height.
- » JAD Series heaters come with anodized and chemically brightened extruded aluminum reflector and 200°C supply wires.

