

Process Radiant Heaters

Overview

- Metal Sheath, Medium Intensity & Medium Wavelength
- Wide Area Quartz Panels
- Ceramic Panels



Chromalox has been recognized as the predominate source of metal sheath radiant heaters since 1948. Since that time, radiant heat has become the preferred process heating method for a multitude of applications in various industries. This is due to the unique properties of the infrared heating process which provide a number of significant advantages over other conventional heat transfer methods.

High Efficiency — Infrared heaters create radiant energy to directly heat the product as opposed to a convection oven which is dependent on air circulation as the heat transfer medium. This results in more efficient energy usage and lower operating cost. By eliminating the air medium, radiant heating also reduces the losses associated with hot air ovens.

Shorter Oven Lengths — As a result of the greater heating rates, most products can be heated much more rapidly than in a convection oven. Due to shorter product heating cycles using radiant heat, less oven length is required to do the job. This can result in an oven length reduction of 30 to 50% as compared to convection oven designs.

Cleaner Environment — There are no dirty or contaminating products of combustion present with electric infrared heaters. Since infrared is not dependent on air as the heat transfer method, the air circulation in an infrared oven is kept at a minimum. The greater the volume of air circulated and the faster it is circulated,

the greater the dirt factor and the product rejects due to dirt. Powder coatings and light weight materials can be heated rapidly due to low volume of air and low velocities.

Close Product Temperature Control — Infrared heat can be easily controlled and directed. Electric infrared heaters can be “zoned” to provide a high heating zone in one zone and a lower heating rate in another. Infrared heaters are very responsive to control changes; accurate and consistent product temperature control to within extremely close tolerances are possible.

Lower Initial Cost — Due to the simplicity of an electric infrared heating system, initial costs and maintenance costs are lower.

When infrared is the method deemed most suitable for your application, the Chromalox product line provides the largest selection of elements, fixtures and controls. There are many factors to consider: size, heater response, heater efficiency and heater pricing. Chromalox is a major supplier of INCOLOY® sheath, ceramic, quartz panel and ceramic composite panel types of elements.