

# Infrared HotWave™ Radiant/ Convective Heat Treatment Furnace



The Infrared HotWave™ Radiant/Convective Heat Treatment Furnace is a new, efficient, cost-effective, high volume, small footprint furnace that provides heat treatment of metals, metal alloys, and other materials. The heat treatment furnace is based on infrared heating that uses radiant energy and convective heating jointly. This high-powered infrared heating technology can be used for today's advanced heat treatments, annealing, outgassing, alloying, thermal dehydration, distillation, melting, recovery, purification, and casting operations.

MATERIALS PROCESSING AND MACHINING

## Features

- Uses energy-efficient infrared heating process
- Features quick, controllable, directional heating to very high temperatures
- Flexible heating with multiple set points
- Features a small, adaptable footprint
- Capable of melting a variety of materials at one time

## Benefits

- Cost-effective alternative to traditional industrial furnaces
- Infrared heating is inherently clean and operator friendly
- Reduces the time and energy requirements of traditional industrial furnaces
- Adaptable configuration

## Applications

- Coatings
- Glass
- Plastics
- Rubber
- Metals
- Textile

## Patents & Awards

- U.S. Patent No. 8,865,058

## Inventors

Roland Seals

## Technology Readiness Level (1–9)



Actual application of the technology in its final form and in Y-12 production use.

## Partnering Opportunities

Y-12 is seeking an industry partner to fully commercialize this technology.

**If you would like more information, please contact the Office of Technology Commercialization and Partnerships:**  
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(865) 241-5981  
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