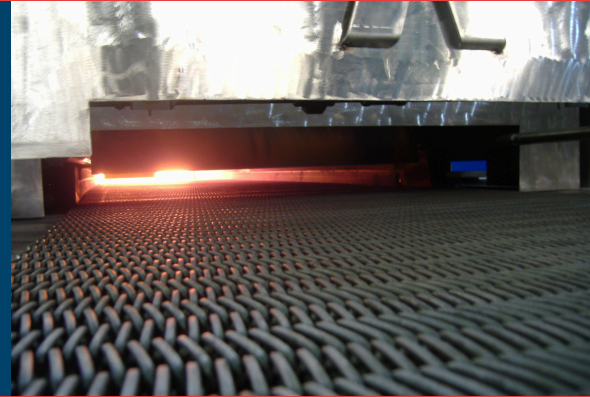


HARDENING FURNACES

Abbott Furnace Company designs and manufactures continuous hardening furnaces engineered to meet the demanding requirements of modern heat treatment processes. Abbott's hardening systems are tailored for precise temperature control, atmosphere consistency, and efficient quenching—ensuring optimal hardness, strength, and performance of your parts.



WHAT IS A HARDENING FURNACE?

A hardening furnace is used to heat metals, such as steel, to a critical temperature where their microstructure transforms, followed by rapid quenching to increase hardness and wear resistance. This process is crucial for producing high-performance parts used in automotive, aerospace, toolmaking, and other industrial applications.

RAPID QUENCHING WITH VARICOOL CONVECTIVE COOLING SYSTEM

Abbott's hardening furnaces can be equipped with our VariCool Convective Cooling System, delivering exceptional cooling control and faster cycle times.

Key Benefits of VariCool:

- *Adjustable Cooling Rates:* Precisely control the cooling curve to meet metallurgical requirements.
- *High-Volume Forced Convection:* Ensures uniform quenching across the entire load.
- *Integrated with Continuous Flow:* No interruption between heat and quench zones.
- *Faster Throughput:* Optimize part hardness and reduce bottlenecks in production.

Whether you're heat-treating small parts or large batches, VariCool technology allows you to customize quench intensity to suit the material and part geometry.

APPLICATIONS:

- Cutting Tools
- Agricultural Equipment
- Gears
- Tools and dies
- Structural components
- Knives and other blades

FEATURES:

- Robust construction
- High-efficiency insulation
- Gas or electric heating options
- Endothermic, nitrogen, or protective atmosphere compatibility
- Continuous belt or pusher-style configurations
- Integrated quench tank or VariCool system