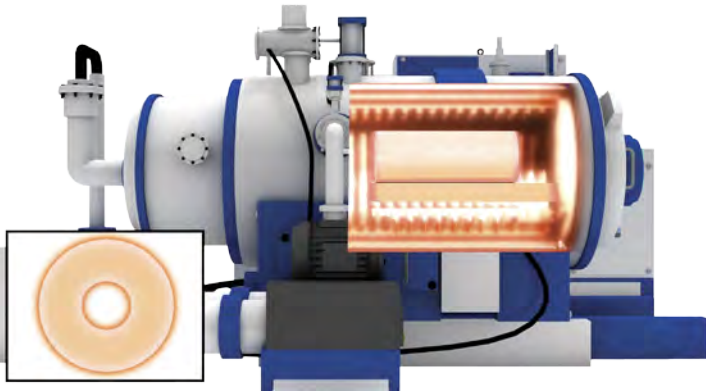


# HEAT TREATING BASICS

*eLearning courses designed to increase productivity and profits*



## Learning made Simple, Visual, and Interactive

Heat Treating Basics is designed to provide learners with a basic understanding of heat treating terminology, equipment, and processes, focusing on the practical application in real world scenarios. Developed with the help of subject matter experts, this course will give you the practical knowledge to work more officiation and make better manufacturing decisions.

Credit Hours **1.5**

## Learning Objectives

- Recall the basic purposes of heat treating.
- Recognize the difference between the broad processes of conditioning and hardening.
- Be able to differentiate between common furnaces and heat treating equipment.
- Identify the common processes applied in modern heat treating facilities.
- Demonstrate an understanding of the basic practices and safety tips for heat treating.

## Table of Contents

### I. Methods and Equipment

- Heat Transfer Methods
- Heat Treating Equipment

### • Surface Hardening

- Thermal Hardening
- Thermo-Chemical Hardening

### II. Heat Treating Processes

- Conditioning Processes
  - Types of Conditioning Processes
- Hardening Processes
  - Through Hardening
    - Quench Hardening
    - Precipitation Hardening

### III. Best Practices and Safety Tips

- Best Practices
- Safety Tips

