

WROUGHT ALUMINUM BASICS

eLearning courses designed to increase productivity and profits



Learning Made Simple, Visual, and Interactive

The THORS *Wrought Aluminum Basics* course covers aluminum production from extraction to casting, providing insights into the different methods of production. The course provides an interactive learning experience and delves into the differences between heat-treatable and nonheat-treatable alloys, the heat treatment and tempering processes used, along with their alloy designation and temper designation.

Credit Hours **1.5**

Learning Objectives

- 💡 Gain insights into the basics of aluminum production through extraction and casting.
- 💡 Recall the various steps involved in the different extraction and casting methods.
- 💡 Develop an understanding of the characteristics and classifications of heat-treatable and nonheat-treatable aluminum alloys.
- 💡 Classify the properties and applications of different aluminum alloy series, emphasizing their characteristics and applications.
- 💡 Identify the different temper designations of wrought aluminum alloys.

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I. Aluminum Production

- **Extraction**
 - ▣ Extraction from Ore
 - Mining
 - Refining
 - Reduction
 - ▣ Extraction from Scrap
- **Casting**
 - ▣ Direct Chill Casting
 - ▣ Continuous Casting

II. Aluminum Alloys

- **Alloy Types**
 - ▣ Heat-Treatable Alloys
 - Heat Treatment Process
 - Heat-Treatable Alloy Series
 - ▣ Nonheat-Treatable Alloys
 - Alloy Tempering
 - Nonheat-Treatable Alloy Series
- **Temper Designation**

