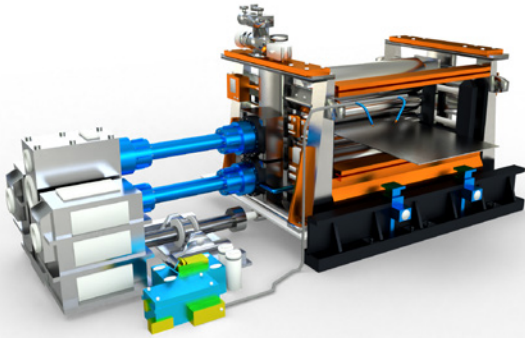


Aluminum Rolling Basics

eLearning courses designed to increase productivity and profits



Learning Made Simple, Visual, and Interactive

The THORS *Aluminum Rolling Basics* course covers the major components of a rolling mill, the support systems essential for operation, and the auxiliary equipment commonly used in production. In addition, the course provides detailed explanations of the rolling process, including both the process steps and the final finishing steps. Presented in THORS' highly visual and interactive learning format, this course helps learners develop a clear, well-rounded understanding of how aluminum rolling is performed in a rolling mill.

Credit Hours **2**

Learning Objectives

- 💡 Recognize the components of a rolling mill, such as mill stands and mill rolls.
- 💡 Describe the support systems of a rolling mill and the auxiliary equipment used.
- 💡 Recall the different types of rolling mills.
- 💡 Develop an understanding of the process steps involved in aluminum rolling, including rolling, annealing, and edge trimming.
- 💡 Identify the finishing steps that are applied to rolled aluminum to enhance its properties, dimensions, and surface quality.

Table of Contents

I. Rolling Mill

- **Components**
 - ▣ Mill Stands
 - ▣ Mill Rolls
 - Work Rolls
 - Back-Up Rolls
- **Support Systems**
 - ▣ Drive System
 - ▣ Gauge Control System
 - ▣ Coolant System
- **Auxiliary Equipment**
 - ▣ Annealing Ovens
 - ▣ Tension Leveling Equipment
 - ▣ Roll Grinding Machinery
- **Types**
 - ▣ Based on the Number of Mill Stands

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I. Rolling Mill (continued)

- Single Stand Mills
- Tandem Mills
- ▣ Based on the Arrangement of Mill Rolls
 - ▣ 2-High Mills
 - ▣ 4-High Mills
 - ▣ Cluster Mills

II. Rolling Process

- **Process Steps**
 - ▣ Rolling
 - Hot Rolling
 - Cold Rolling
 - ▣ Annealing

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II. Rolling Process (continued)

- ▣ Edge Trimming
- **Finishing Steps**
 - ▣ Leveling
 - Roller Leveling
 - Stretcher Leveling
 - Tension Leveling
 - ▣ Coating
 - Alodining
 - Anodizing
 - Painting
 - ▣ Texturing and Embossing
 - ▣ Cutting
 - Slitting
 - Cutting to Length
 - Multiblanking
 - ▣ Packaging

