

# What is the definition of Hastelloy?

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## What is the definition of "Hastelloy"?

A superalloy made predominantly of nickel and various percentages of other elements. Hastelloy is designed to withstand high-temperature and high-stress environments in which corrosion-resistance is paramount to performance.

Learn more about *Hastelloy* in the class **Hard Turning 315** below.

## Metal Cutting Training

### Class Information

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Tooling U classes are offered at the beginner, intermediate, and advanced levels. The typical class consists of 12 to 25 lessons and will take approximately one hour to complete.

|                           |  |
|---------------------------|--|
| <b>Class Name:</b>        | Hard Turning 315   |
| <b>Description:</b>       | This class covers hard turning, including its advantages when compared to grinding and strategies for successful implementation. |
| <b>Prerequisites:</b>     | <a href="#">200200</a> <a href="#">200220</a>  |
| <b>Difficulty:</b>        | Advanced   |
| <b>Number of Lessons:</b> | 15   |
| <b>Language:</b>          | English, Spanish   |

Below are all the competencies and job programs that contain the class **Hard Turning 315**. Job programs are our traditional class lists organized according to common job functions. Competencies are our latest job-specific curricula that help tie online learning to practical, hands-on tasks.

Click on any title to view its details.

### Competencies

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### Class Outline

- Objectives
- What Is Hard Turning?
- The Advantages of Hard Turning
- Typical Workpiece Characteristics
- Tool Specifications
- Machine Specifications
- Overhang and Rigidity
- The Machining Elements of Hard Turning
- The White Layer
- Coolant and the Type of Cut
- Coolant and Depth of Cut
- ID Hard Turning
- The Challenges of Hard Turning
- Grinding v. Hard Turning
- Summary

### Class Objectives

- Define hard turning.
- Describe the advantages of hard turning.
- Identify typical workpiece characteristics for hard turning.
- Describe tools used for hard turning.
- Identify ways to increase the rigidity of a machine.
- Describe the relationship between overhang and rigidity.
- Describe the machining elements of hard turning.
- Describe the white layer.
- Describe how the type of cut influences the use of coolant.
- Describe the use of coolant during hard turning.
- Identify proper strategies for ID hard turning.
- Identify common challenges of hard turning.
- Identify when hard turning is the best strategy compared to grinding.

### Class Vocabulary

| Vocabulary Term | Definition   |
|-----------------|--|
| Air Passes      | A cut on a lathe during which there is no depth of cut on an infeed. No cutting occurs during air passes, or skim passes, which can result in rubbing. |