

Principles of Turning | Hands-On Interactive eLearning

Introduction to Lathes - WXPE101-XX01XEN-E2

Objective 7: Describe Common Lathe Operations and Applications

Cutting Variables

There are three main cutting variables that must be considered when setting up a lathe process:

- Spindle Speed
- Feed Rate
- Depth of Cut

These variables work in tandem to determine how well the tool cuts a workpiece and how long the tool will last (also known as tool life).

Move your mouse over each variable for more information.

This page is interactive. Click anywhere to hide the instructions.

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eLearning Course: MXPE101

Amatrol’s Principles of Turning eLearning online eLearning course is an in-depth study of the major types of tooling used for turning operations. The course reviews the components of each type, including insert, tool, and tool holder types. Learners will study the ANSI and ISO nomenclature standards for inserts, tool holders, and boring bars, and learns the proper care of tooling. It also includes practical lessons on assembling and mounting turning tools, including industry-needed skills to aid in future work placement.

Interactive eLearning with Learning Management System

What is a Lathe?

A lathe is a machine tool that produces cylinder-shaped parts. A lathe holds a cylindrical, or a tube-like, workpiece (wood, metal, or other materials) at one or both ends and rotates it while cutting tools shave off layers of material. This operation is known as turning. Lathes are capable of producing a wide variety of parts, including complex parts with close tolerances, or specifications. Lathes may be operated manually by using one or more handwheels, or automatically using a Computer Numerical Control, or CNC. CNC lathes are electrically powered with a computer to control the components and systems.

Principles of Turning eLearning Features Multimedia Curriculum

Amatrol’s unmatched multimedia utilizes text, audio, and stunning 3D animations that engage learners in theoretical knowledge and concepts. This thorough, exceptionally detailed curriculum is built to begin with the basics and steadily advance to more complex concepts. Through partnerships with key industry leaders and leading edge educators, Amatrol developed the right balance of knowledge needed to train learners to work in their chosen field.

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