

Tooling for Grinding eLearning | Industrial Machining Training

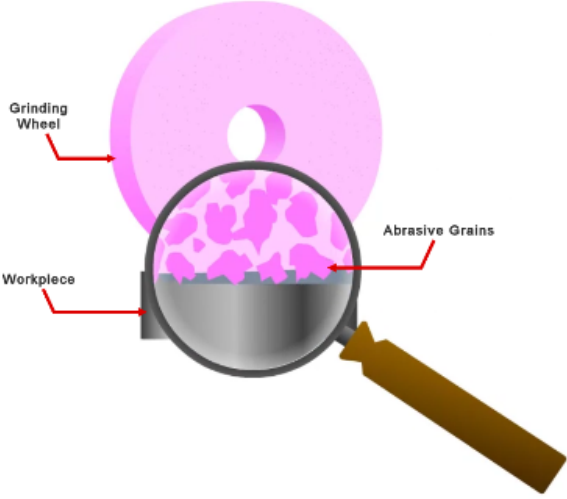
Grinding Wheels - WXTL204-XX01XEN-E2

Objective 1: Define Grinding and Describe Two Categories

Grinding

Grinding is the process of removing material from a **workpiece** using abrasive grains held together with a bond. Abrasive grains are hard and sharp. They function like individual cutting tools, removing thousands of tiny material chips.

In advanced **manufacturing** applications, abrasive grains are bonded into wheels, rotated at high speeds, and applied to the workpiece.



The diagram illustrates the grinding process. A large, light blue grinding wheel is shown at the top, with a magnified view of its surface below. The magnified view shows a dark grey workpiece being ground by the wheel. The grinding wheel is composed of abrasive grains (represented by small blue and red particles) held together by a bond. Labels include 'Grinding Wheel', 'Workpiece', and 'Abrasive Grains'. A magnifying glass is used to focus on the interaction between the wheel and the workpiece.

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eLearning Course: MXTL204

Amatrol's Tooling for Grinding eLearning (MXTL204) provides an in-depth study of the major types of grinding wheels used for grinding operations. This industrial machining course covers: grinding wheels and the grinding process; grinding wheel nomenclature; proper care of grinding wheels; dressing and dressing tools; and mounting a grinding wheel.

Teach Industrial Grinding

What is Industrial Grinding?

Grinding is the process of removing material from a workpiece using abrasive grains held together with a bond. Abrasive grains are hard and sharp. They function like individual cutting tools, removing thousands of tiny material chips. In advanced manufacturing applications, abrasive grains are bonded into wheels, rotated at high speeds, and applied to the workpiece.

Most grinding operations fall into one of two categories: surface grinding and cylindrical grinding. Surface grinding removes small amounts of materials to produce precision surfaces on machined parts. Surface grinding can also machine a workpiece to a precise size. Cylindrical grinding produces a high-quality finish or close tolerances on a rotating, cylindrical workpiece.

What are Grinding Wheels?

Grinding wheels are described by referring to certain parts. It is necessary to know the different parts of a grinding wheel to communicate clearly in the shop. The periphery is the part of the wheel that is farthest from the center. Each wheel has two sides. On a straight wheel, the sides are the planes on either side of the periphery. The face is the part of the wheel that comes into contact with the workpiece.

Interactive eLearning

Tooling for Grinding eLearning Features Multimedia Curriculum

Amatrol's peerless interactive multimedia [curriculum](#) utilizes text with voiceovers, pictures, videos, stunning 3D

animations, and interactive quizzes and reviews that engage learners in theoretical knowledge and concepts. This thorough, detailed curriculum begins with the basics and advances to complex concepts. Through partnerships with key industry leaders and leading educators, Amatrol developed the right balance of knowledge to train learners to work in their chosen field.

Additional Info

Requires:

- Computer ([see Computer Requirements](#))

Address

**Amatrol
2400 Centennial Blvd
Jeffersonville, IN 47130**

Contacts

**email: contact@amatrol.com
phone: (800) 264 8285**