

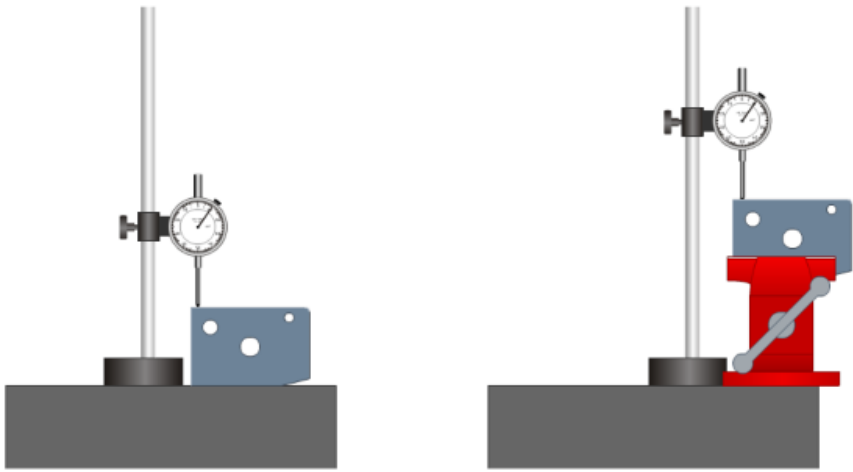
# General Dimensioning and Tolerancing (GD&T) Training | eLearning Course

General Dimensioning and Tolerancing - WXPB203-XX01XEN-E2

Objective 10: Describe Some of the Fundamental Rules Found in ASME Y14.5

ASME Y14.5 Rule (I)

Rule (I) states that all dimensions and tolerances apply in a free state condition. This means that the part should not be restrained by clamps or other holding devices when inspected.



Correct Method to Measure Parts

Incorrect Method to Measure Parts

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## eLearning Course: MXPB203

Amatrol's General Dimensioning and Tolerancing (GDT) eLearning course (MXPB203) provides learners with an understanding of fundamental dimensioning rules, units, types of dimensioning, dimensioning features, and tolerancing methods. Learners study the ASME Y14.5M-1994 standard for uniform dimensions and tolerances, common symbols used for dimensioning, and tolerance practices for part features.

## Teach GD&T Skills

### What is General Dimensioning and Tolerancing (GDT)?

There are a variety of terms and symbols used in dimensioning and tolerancing. They help create a precise and understandable system that ensures parts will be manufactured correctly and will fit properly with mating parts during assembly. The system is comprised of the standards that apply to engineering drawings.

### What are Features and Dimensions?

A **feature** is a part of a whole, a prominent characteristic of something. An example of this would be a person's facial features: his or her eyes, nose, or mouth. In manufacturing, a feature is a general term used to describe a physical portion of a part, such as a face, hole, slot, pin, or tab.

A **dimension** is a measurement, usually expressed in inches or millimeters, used to define the shape, size, or location of a feature. Dimensions on an engineering drawing should be read as the expected size, location or orientation of features or features of size. How they look depends on whether they are in millimeter or decimal inch units. Since the formats are very similar, the type of measurement used is always noted on the engineering drawing.

## Interactive eLearning

### In-Depth eLearning Curriculum Connected to Real-World Skills

Amatrol's eLearning curriculum is unique in that it thoughtfully combines in-depth theoretical knowledge with

practical, hands-on skills. This powerful combination of knowledge and skills solidifies understanding and creates a strong foundation for pursuing more advanced skills. Amatrol's eLearning integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia [eLearning](#) curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

### **Free Learning Management System (LMS)**

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

### **Additional Info**

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#### **Requires:**

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

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#### **Address**

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

#### **Contacts**

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