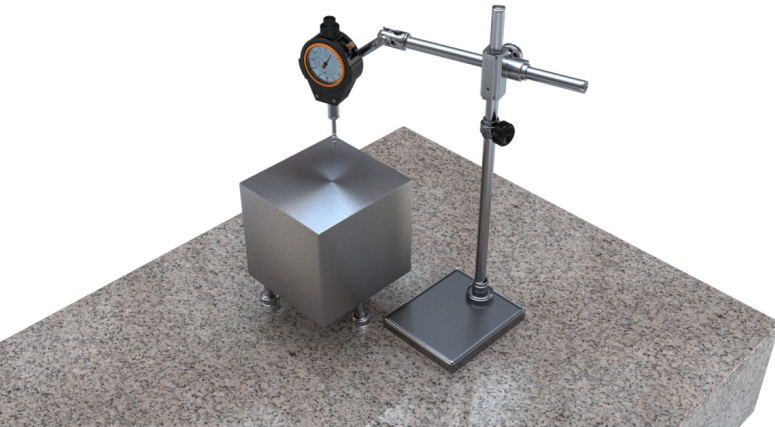


# GD&T MEASUREMENT BASICS

*eLearning courses designed to increase productivity and profits*



## Learning Made Simple, Visual, and Interactive

The THORS *GD&T Measurement Basics* course introduces the learner to the world of Geometric Dimensioning and Tolerancing (GD&T), including the importance of GD&T measurements, the definition of GD&T characteristics, and common shop floor measurement methods to measure each characteristic. Presented in THORS' highly visual and interactive learning format, this course will help shop floor operators become familiar with the common measurement tools and procedures required for effective GD&T inspection of parts.

Credit Hours **2.0**

## Learning Objectives

- Understand the importance of Geometric Dimensioning and Tolerancing (GD&T) measurements.
- Define each GD&T characteristic.
- Examine the different shop floor tools and their application.
- Differentiate among form, orientation, location, profile, and runout tolerances.
- Recognize the common shop floor measuring techniques for each GD&T characteristic.

## Table of Contents

### I. Form Tolerance

- **Straightness Tolerance**
  - ▣ Straight Edge
  - ▣ Level
  - ▣ Dial Gauge
- **Flatness Tolerance**
- **Circularity Tolerance**
  - ▣ V Block
  - ▣ Bore Gauge
  - ▣ Micrometer
- **Cylindricity Tolerance**

### II. Orientation and Location Tolerances

- **Orientation Tolerance**
  - ▣ Parallelism Tolerance
  - ▣ Perpendicularity Tolerance
  - ▣ Angularity Tolerance
- **Location Tolerance**
  - ▣ Position Tolerance
  - ▣ Concentricity and Coaxiality Tolerances
  - ▣ Symmetry Tolerance

### III. Profile and Runout Tolerances

- **Profile Tolerance**
  - ▣ Profile of a Line Tolerance
  - ▣ Profile of a Surface Tolerance
- **Runout Tolerance**

