



Geometric Dimensioning and Tolerancing Training: Level 2

Onsite – 24 Hours

Training Description

This three-day training provides participants with an in-depth look at Geometric Dimension and Tolerancing (GD&T) characteristics and how this system ensures parts or assemblies will fit together. Participants will learn how datums determine measurement setup and relate to coordinate systems. In addition, participants will learn tolerance zone shapes and frameworks, and how to read Feature Control Frames. The skills learned in this training enable the confident use of GD&T on the job, improve communication, and lessen the occurrences of common mistakes. This training consists of instructor-led presentations, class discussions, and practice exercises. Participants will work through practical examples and workbook exercises to provide practice in interpreting and analyzing GD&T. This course is delivered onsite and is intended for anyone who needs to understand the theory and practice of ASME Y14.5 – 2018 Geometric Dimensioning & Tolerancing. Participants should have some knowledge of interpreting technical drawings or inspection experience.

Training Objective

This training will teach participants the connection between GD&T and ensuring that parts or assemblies will fit together. Participants will learn how datums simulate conditions of use. After taking this training, participants will have a robust knowledge of GD&T tolerance characteristics (symbols) and will be able to confidently apply GD&T in their own work environment.

Skill Attainment

Participants will be able to:

- Understand how datums determine measurement setup and relate to coordinate systems
- Understand tolerance zone shapes and frameworks
- Identify the difference between the GD&T categories
- Recognize the GD&T characteristics (tolerance types)
- Be able to read Feature Control Frames
- Associate inspection equipment & procedures
- Perform tolerance calculations

Training Agenda:

- Measurement Fundamentals
- Introduction: GD&T and Drawing Practice
- GD&T Related Principles
- Geometric Characteristics
- Tolerances of Form
- Tolerances of Orientation
- Tolerances of Location



- Tolerances of Runout
- Tolerances of Profile
- Composite Tolerances of Location