

Fundamentals of GD&T Two-Day Workshop

(Based on ASME Y14.5M-1994)



Course Developer: Alex Krulikowski, President of Effective Training Inc.

Learn GD&T from the experts. Professionals across the globe turn to ETI for training in geometric dimensioning and tolerancing. ETI's president, Alex Krulikowski, has helped more than 60,000 students learn GD&T through his textbooks, self-study courses, computer-based training programs, and online learning center. Now you have the opportunity to learn GD&T in a course developed by Alex at an ETI public workshop.

Learning to interpret and apply GD&T properly will help you and your company:

- Save money at the design stage
- Enable global sourcing
- Reduce drawing errors
- Increase productivity
- Increase part tolerances
- Assure that mating parts will assemble
- Eliminate scrap
- Improve inspection accuracy

About the Course

If you have a basic understanding of mechanical drawings, we can teach you the terms, rules, symbols, and concepts of GD&T as prescribed in the ASME Y14.5M-1994 Standard.

You'll get an in-depth explanation of geometric symbols, including each symbol's requirements, tolerance zones, and limitations. The class includes a comparison of GD&T to coordinate tolerancing; an explanation of tolerance zones; Rules #1 and #2; form and orientation controls; tolerance of position; runout and profile controls. Throughout the class, you'll hone your newly acquired skills with over 300 practice problems. This complete course in GD&T fundamentals is the most thorough and comprehensive training on the market.

Westland, Michigan

January 12 & 13
March 9 & 10
April 20 & 21
June 8 & 9
July 13 & 14
September 14 & 15
October 19 & 20
November 9 & 10

Who Should Attend

This workshop is a valuable tool for individuals who create or interpret engineering drawings: product and gage designers; process, product, and manufacturing engineers; supplier quality engineers; CMM operators; buyers/purchasers; checkers; inspectors; technicians; and sales engineers.

Workshop Highlights

The workshop is based on a series of goals and objectives. It includes numerous practice problems and in-depth coverage of dimensioning and tolerancing. You will learn the benefits of GD&T and leave with the ability to interpret GD&T on drawings. CEUs will be awarded for successful completion of the course.

Each workshop participant receives:

- A copy of *The Fundamentals of GD&T*, by Alex Krulikowski
- A *GD&T Ultimate Pocket Guide*
- A *Fundamentals of GD&T Exercise Workbook*
- An official certificate of completion
- Continental breakfast, morning and afternoon snacks

PLUS

- ETI's Digital Design Dictionary software (\$79 value)
- A 30-day pass to the Fundamentals of GD&T web training (\$159 value)



Quantity discounts available.

ETI offers a 10% discount on three or more registrations. Call 1-800-886-0909 for more information.



www.etinews.com

Enrollment is limited to 15 seats. Call 1-800-886-0909 or visit our website to register, today.

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Course Agenda and Highlights

Introduction

Engineering drawings
GD&T/coordinate dimensioning comparison
Eight key GD&T terms

Terminology

GD&T modifiers and symbols
Rule #1 and Rule #2
Basic dimensions, virtual condition, bonus tolerance

Form Controls

Flatness
Straightness
Circularity
Cylindricity

Datums

The datum system (planar datums)
Interpreting datum targets
FOS datum specifications (RFS)
FOS datum specifications (MMC)

Orientation Controls

Perpendicularity
Angularity
Parallelism

Tolerance of Position Controls

Definitions, conventions, advantages, basic theories
RFS and MMC tolerance of position applications
Cartoon gages for tolerance of position (MMC) applications
Tolerance of position special applications
Calculating distances on parts dimensioned with tolerance of position
Fixed and floating fastener formulas

Concentricity/Symmetry Controls

Concentricity
Symmetry

Runout Controls

Circular runout
Total runout

Profile Controls

Profile tolerancing
Profile of a surface
Profile of a line

Final Exam

Closing comments

Do you have GD&T questions?
Bring your drawings to class
and get the answers!

Full 2009 ETI public workshop schedule:

Fundamentals of GD&T 2-Day: January 12 & 13, March 9 & 10, April 20 & 21, June 8 & 9, June 22 & 23, July 13 & 14, September 14 & 15, October 19 & 20, November 9 & 10

Advanced Concepts of GD&T 2-Day: February 2 & 3, May 4 & 5, August 4 & 5, August 3 & 4, October 5 & 6

Tolerance Stacks 2-Day: February 16 & 17, May 18 & 19, August 17 & 18

Statistical Tolerance Stacks 1-Day: May 20

**ETI now offers GD&T live web training.
See our upcoming live web public workshop schedule at www.etinews.com**

Visit www.etinews.com for more details, pricing, and registration information.



www.etinews.com

Call 1-800-886-0909 or visit our website to enroll today.