

GD&T BASICS

FUNDAMENTALS COURSE

Learn the Simplified Framework Behind the Tolerances on Your Prints

Section 1: Introduction to GD&T

- Course Introduction
- Simple Example - What is GD&T?
- Terminology & Basic Rules
- The Feature Control Frame

Section 2: Size (S):

- Intro to Features and Material Conditions
- Rule #1 of GD&T (Envelope Principle)

Section 2: Form (F):

- Straightness (Surface)
- Straightness (Feature of Size)
- Flatness (Surface)
- Flatness (Feature of Size)
- Circularity
- Cylindricity

Section 4: Datums Control

- Intro to Datums
- Datum Reference Frame
- Primary Datum Controls
- Basics of Datum Selection

Section 5: Location (L)

- Position vs Coordinate Dimensions
- “True” Position – Basics
- The Position Calculation

Section 6: Orientation (O)

- Parallelism (Surface & Axis)
- Perpendicularity (Surface & Axis)
- Angularity (Surface and Axis)

Section 7: Material Modifiers

- Maximum Material Condition (M)
- Least Material Condition (L)
- Regardless of Feature’s Size & Rule #2

Section 8: Profile Tolerances

- Profile of a Surface – Basics
- Profile In-Depth (Modifiers)
- Profile of a Line

Section 9: Runout Tolerances

- Runout/Circular Runout
- Total Runout

Section 10 – Outcast Symbols to Avoid

- Concentricity
- Symmetry

Section 11 – SLOF Exercises

- SLOF Review for Drawings (Size, Location, Orientation & Form)
- GD&T Fundamentals Final Exam (online)
- Further Review: Drawing Examples of Interpretation / Application Bonus Recordings

Online course access includes live weekly example webinars and our large library of real part examples where we show how to apply specific content from the course.

We promise, once you take our training & understand our GD&T framework, you will drastically improve the way you work with your drawings. We don’t want you to just understand theory – we want you to apply what you learn!

GD&T Basics – Pareto Learning, LLC

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