



INTERNATIONAL INSTITUTE OF
GEOMETRIC DIMENSIONING & TOLERANCING
2 Loring Road • Hopkins, MN 55305 • (952) 936-9499
www.iigdt.com

Establishing “Precision-GD&T” as the Basis for Supporting “Global Engineering Economics”

The International Institute of Geometric Dimensioning and Tolerancing (IIGDT), a Minnesota based company, is the leading developer and provider of “Precision Geometric Dimensioning & Tolerancing” (Precision-GD&T) courses, materials and consulting services, internationally recognized for quality and providing global industrial value.

Dr. Greg Hetland is the Founder and President of the IIGDT and is a recognized leader in the dimensional tolerancing and physical metrology fields. His 30+ years of industrial experience spans the aerospace, defense and commercial industries as an engineer, manager, consultant, educator and author.

This foundational knowledge, combined with years of direct training, has provided Dr. Hetland with visionary insight towards global simplification methods. His proven and “simplified approach” to GD&T training allows both new and even the most experienced GD&T users to fully understand the fundamentals to advanced principles in an accelerated time frame.

In Dr. Hetland’s opinion, 80%+ of all mechanical discrete part engineering drawings, “do not” reflect design intent clearly and a greater percentage would not represent “functional intent” nor meet product/equipment reliability expectations. The magnitude of this statement translates into multiple billions, possibly even trillions of dollars each year lost in potential profit and progress. The specific problem lies in the global lack of advanced understanding of this engineering language used by the majority of all technical disciplines.

Dr. Hetland’s analysis to date indicates the magnitude of these negative cost implications indicate up to \$0.40 per dollar of current operational costs. However, the educational and project deployment “investment” required to achieve optimum efficiency levels is surprisingly less than 10% of a company’s current loss.

With the current state of financial challenges and economic down-turn in workforce, companies are faced with even greater technical challenges and increased demand for mechanical devices and assemblies with higher sophistication in function at unprecedented expectations of price reduction. This compound demand is complicated by ongoing feature tolerance truncation, thus the functional variation (tolerance) allowed by the designer to all supporting technical disciplines/departments continually decreases. The magnitude of these impacts are compounded even more due to the majority of individuals in all supporting technical disciplines “not trained” to the degree necessary to fully understand the true scope of tolerance definition as specified by the designer, nor the critical implications of feature classifications and tolerances in their particular arena.

Business benefits to support decisions to “invest” into aggressive GD&T training are: higher profit margins by increasing capabilities, competencies and efficiencies; increased yield and reduced scrap/rejects by greater ability to predict and control processes; fewer misunderstandings and production delays by increased confidence levels which is a direct result of skills enhancement; and increased recognition for total customer satisfaction, thus greater opportunity for larger market share.

Dr. Hetland continues his observations of companies suffering unnecessary financial loss and recommends to companies to launch strategic training initiatives in the area of Precision-GD&T to achieve the maximum return on their investment. For information, contact IIGDT @ 952-936-9499 or visit www.iigdt.com.