Firat Buyukcivelek

Mechanical Architect - GD&T & DfMA Trainer - Consultant

2026 GLOBAL PARTNERS

Mikrocentrum | **TET** | **AGM Akademi**

* Trainings in BENELUX and Turkey are given via global partners. Contact them for scheduling.

CONTACT

EMAIL info@firatbc.com

PHONE +31 611 840 586 / +90 532 695 10 62

WEB www.firatbc.com

LINKEDIN linkedin.com/in/firatbc

"Training, coaching, and consulting in GD&T, DfMA, design optimization, and engineering process improvement."

STANDARDS & APPROACH

All services are based on proven international norms: ISO GPS (ISO 1101), ASME Y14.5, and practical DfMA methods. Focus on the design phase where up to 90% of lifecycle costs are committed.

ISO GPS | **ISO 1101** | **ASME Y14.5**

-> GD&T: ISO GPS or ASME Y14.5 standards, practical applications
-> DfMA: DfM and DfA principles, manufacturing techniques
-> Engineering processes, document management, quality tools

> *"Functionality gets us into the game; Quality and reliability keep us in the game; Manufacturability determines the profit."*
>
> **- David M. Anderson**

THE BUSINESS CASE

-> 90% of product lifecycle costs committed at design stage
-> Design errors cost 10x more to fix in production vs. design phase
-> GD&T misuse leads to scrap, rework, and supplier disputes

2026 - BRIDGING THEORY & APPLICATION

GD&T & DfMA Expertise.

-> GD&T & DfMA Trainings

-> Coaching & Personal Support

-> Consulting & Technical Advisory

90%	300+	2008
of lifecycle costs committed at design stage	engineers trained worldwide	in high-tech industry since

Based in the Netherlands - Available worldwide

SERVICES

What do you need?

For tailored trainings, consultations, coaching, workshops and masterclasses please send an e-mail to info@firatbc.com for a free intake meeting.

Training & Workshops

Interactive GD&T and DfMA courses, in-class or online, from fundamentals to advanced levels. Participants apply ISO GPS / ASME Y14.5 standards and DfMA principles to real designs. Empowered with real-life challenges and optional in-company drawing reviews.

Coaching & Personal Support

1:1 coaching and problem-solving sessions for companies and individuals. Tailored support to review designs, drawings and tolerances, providing practical solutions based on 18+ years of high-tech experience. Coaching helps engineers implement robust, manufacturable designs.

Consulting & Technical Advisory

Strategic consultancy for improving design, manufacturability, assembly, and quality processes. Problem analyses, report-outs, drawing reviews, DfMA evaluations, focus sessions and masterclasses. Recommendations adapted to your company needs.

WHY IT MATTERS

The cost of getting it wrong.

Decisions at the design stage commit up to 90% of total product lifecycle costs. Mistakes in drawings, tolerances, or assembly planning lead to:

-> Costly production errors and rework
-> Delays in time-to-market
-> Increased scrap and warranty issues
-> Miscommunication across teams and suppliers

90%	300+	18+
lifecycle costs at design stage	engineers trained	years of industry experience

Applied correctly, GD&T and DfMA methods help turn complex designs into practical, high-quality products.

COMPANIES IMPROVE

-> Design and engineering processes for clarity, consistency, and efficiency
-> Document management and traceability for accurate, auditable information
-> Quality assurance to reduce risk and guarantee manufacturability

TRAINING PACKAGES

Choose your level.

Fundamentals Package — 3 Days

Choose GD&T Fundamentals or DfMA Fundamentals. Core principles, essential standards, and practical exercises. Delivered in-class or online - build a strong foundation for accurate, efficient, and manufacturable designs.

Advanced Package — 4 Days

Available as Advanced GD&T or Advanced DfMA. Dives deeper into design challenges with extended content and real-life industry examples from high-tech and precision engineering environments.

Deep Dive Package — 5 Days

GD&T or DfMA Deep Dive combining training, coaching, and project-based work. Participants apply principles to real designs. In-company design and drawing reviews add the most value.

COURSE METHOD

Not another listen-only course.

Real industry cases, quizzes, and constant interaction. The goal: you finish as a better engineer.

-> Real industry cases
High-tech, semiconductor, defense, precision engineering sectors

-> Interactive quizzes
Test understanding throughout - not just at the end

-> Open discussion
Questions welcomed at any time; no topic is off-limits

-> In-company reviews
Optional - your own drawings and components, adds maximum value

-> Post-training support
Follow-up coaching available to reinforce learning

DELIVERY FORMATS

-> In-class - Online - Hybrid
-> Open enrollment or dedicated in-company sessions
-> Available in English (BENELUX & Turkey via global partners)

CURRICULUM HIGHLIGHTS

-> GD&T: Size tolerances, form, orientation, location, datum systems, MMC/LMC, profile, surface roughness
-> DfMA: Materials, traditional and modern manufacturing, welding, casting, DfA, surface treatments, tolerance analysis
-> Both: Real case studies, drawing reviews, quiz sessions, post-training support

TESTIMONIALS

What engineers say.

Firat is very well versed in GD&T. Very methodical, giving examples and inviting you to think along. He has a lot of real world experience on the subject and can answer any question.

J. vd Boom — Mechanical Engineer

An exceptionally friendly and intelligent trainer, with a deep passion and extensive knowledge. Firat encourages open discussion and even offered to support us after the course ended.

M. — Senior Project Engineer, Assembly

His ability to clearly explain complex topics made the session both insightful and engaging. He bridged theory with ASML practical engineering challenges. Highly recommended.

A. Vouzavalis — Mechanical Engineer, ASML

Very passionate and experienced teacher, has a lot of knowledge about manufacturability with real examples from the industry.

S. Bierens — Heat & Mass Engineer

The training gave me insight about multiple manufacturing technologies and practical cases where DfM principles helped solve technical escalations related to mechanical failures.

S. V. Magalha — Mechanical Engineer

Full run-through of GD&T symbols, terminology and best practices. Real case-by-case examples and live practice sessions. Excellent for refreshing knowledge and aligning with industry best practices.

G. L. G. Vales — Production Engineer

DfMA training built a multidisciplinary foundation with intensive knowledge on design perspective and productisation. A training every mechanical design engineer should take.

E. Ates — Design Engineer

70+ testimonials at www.firatbc.com

CURRICULUM EXAMPLES

What you will learn.

GD&T - 3 Days

- Introduction to GD&T
- Size Tolerances
- Terms, Definitions, Abbreviations
- Form Tolerances & Tolerance Zones
- Datum Systems
- Orientation Tolerances
- Location Tolerances
- MMC and LMC
- Run-out & Profile Tolerances
- Surface Roughness
- Advanced Topics

DfMA - 5 Days

- DFMA History, Trends & Innovations
- Engineering Materials
- Traditional Production Techniques
- Sheet Bending Methods
- Welding and Joining Methods
- Casting Methods
- Modern Manufacturing Techniques
- Design for Assembly (DfA)
- Surface Treatments
- GD&T Fundamentals
- Tolerance Analysis

READY TO START?

Lets build a programme tailored to your team.

The DFMA training was incredibly valuable. Firat did an excellent job covering key principles to optimize product design for efficient manufacturing and assembly.

O. Sen — Price & Cost Analysis Engineer

Very happy with the existence of a DfM competence with Firat as lead. His useful knowledge during several presentations already stood out from the rest.

P. Daamen — ASML Design Engineer

The DfMA training was extremely valuable both in terms of knowledge and experience. Professional guidance, clear explanations, and applied examples all contributed to a thorough understanding.

A. E. Catalkaya — Price & Cost Analysis Engineer

A unique training combining theoretical studies with real experience from high-tech companies. One of the best courses you can attend as a Mechanical Design Engineer.

E. Ozguven — Mechanical Design Engineer