

GEOMETRIC DIMENSIONING AND TOLERANCING (GD&T)



Objectives

Participants will be able to understand drawings with GD&T symbols. Case studies and hands-on exercises using specially selected drawings allow participants to use and apply the information learnt in the course. Participants may also bring company drawings for interpretation during live case studies.

Duration

3 days | 9am – 5pm | 21 hours

Who should attend

Technicians and Engineers in the areas of design, manufacturing and quality control who need to specify, interpret and apply geometric tolerances.

Course Fees

Member: S\$1,783.24
Non-Member: S\$1,979.44

All fees stated are inclusive of Registration Fee and 9% GST

Award of Certificate

Certificate of Completion will be issued to participants who have attended at least 75% of the course.



Please refer to this URL
<https://www.sqi.org.sg/courses/>
or QR Code for soft copy
and updated training schedule



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enquiries@sqi.org.sg



www.sqi.org.sg



+65-6467 4225



1 Sophia Road #05-06/07 Peace Centre S(228149)

Course Contents

Introduction to GD&T

- Why GD&T?
- Problem with Traditional Methods
- “Square” vs “Cylindrical Tolerance Zone

Essential Concepts of GD&T

- Feature, Feature of Size, Location Dimensions
- Basic Rules
- Virtual Conditions
- Bonus Tolerances

Datums

- Datum Reference Frame
- Datum Precedence
- Datum Target
- Feature of Size Datum
- Applications

Form

- Flatness & Applications
- Straightness & Applications
- Circularity & Applications
- Cylindricity & Applications
- Case Studies

Orientation

- Perpendicularity & Applications
- Parallelism & Applications
- Angularity & Applications
- Case Studies

Position

- True Position & Tolerance of Position
- Symmetry & Applications
- Composite Positioning
- “Zero” Positioning
- Calculation of Optimal Positional Tolerance
- Conversion of Conventional Tolerance to True Position
- Case Studies

Runout and Concentricity

- Concept of Multiple Centreline
- Circular Runout and Applications
- Total Runout and Applications
- Concentricity and Applications
- Case Studies

Profile

- True Profile
- Types of Profile Tolerance
- Coverage of Profile Tolerance
- Profile of a Line & Applications
- Profile of a Surface & Applications
- Co-planarity Applications using Profile
- Location Control using Profile
- Orientation Control using Profile
- Case Studies

Exercises

- Final Revision
- Hands-on Exercises

Membership Application

Register membership online at www.sqi.org.sg/membership-join/ or contact us to get the membership application form.

Membership Categories:

- ~ Organisation membership
- ~ Individual membership

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