Manufacturing Technology Training
An IMTMA initiative

Geometric Dimensioning & Tolerancing (GD&T) in Design through Manufacturing
Date : 14 to 16 December, 2021
Time : 1340 Hrs to 1700 Hrs (Online Mode)

INTRODUCTION

Understand the role of GD&T in reduction of manufacturing cost and lead time as well as enhanced product reliability. Thorough knowledge in GD&T – the essential link, connecting the functional departments in a manufacturing industry – is must for engineers. Many a times lack of proper understanding / misconceptions about GD&T lead to depriving the true benefits of GD&T in terms of enhanced reliability of the product, saving in manufacturing cost, reduction in lead time, etc. Learn the fundamentals of GD&T in detail with application examples.

Keeping this in view, Indian Machine Tool Manufacturers' Association (IMTMA) is organising a 3 days online training programme on **"Geometric Dimensioning and Tolerancing (GD&T) in Design through Manufacturing"**.

FOCUS AREAS

- Tolerance, types of tolerances, why tolerance is required?
- History, Introduction and understanding the need for GD & T
- Fundamental rules of GD&T per ASME - Rule1 and Rule2
- Coordinate vs Geometric tolerancing
- Definitions of Terms and Symbols: Feature, FOS, FCF, MMC, LMC and RFS
- DRF thro definition of datums and DOF restrained by primary, secondary and tertiary datums
- Calculation of bonus tolerance per MMC / LMC - Learn through Exercises
- Five groups of GD&T parameters - Form, Orientation, Location, Run out and Profile
- Form tolerances and applications
    - Straightness
    - Flatness
    - Circularity
    - Cylindricity
- Orientation tolerances and applications
    - Parallelism
    - Perpendicularity
    - Angularity
- Location tolerances and applications
    - Position
    - Concentricity
    - Symmetry
- Run out tolerances and applications
    - Circular run out
    - Total run out
- Profile tolerances and applications
    - Profile of a line
    - Profile of a surface
- Learn to Interpret above through Case Studies and Exercises
- Inspection Methodology for GD&T Parameters

KEY TAKE AWAYS

After undergoing the programme, participants will be able to -

- Understand the concepts of GD&T features and correctly interpret GD&T symbols in Engineering Drawings
- Learn about using Geometric tolerances at RFS, MMC and LMC conditions and Calculate Bonus tolerance
- Learn Interpretation of GD&T Parameters
- Learn GD&T through Case Studies and Exercises
- Gain an insight into inspection of GD&T features using conventional methods

FEE PER PARTICIPANT (PER LOGIN)

Rs. 6000/-
+18% GST
IMTMA Members/ Micro Companies/ Individuals/ Educational Institutions / Students/ IMTMA Non Members/ Others

USD 220/-
Overseas Participants

Group Concession : 20% for 3 to 5 and 30% for 6 and more delegates being nominated from the same company

FACULTY

This program will be conducted by Mr. **Ganapathi K N**.

Mr. Ganapathi K N, is presently working as Advisor at IMTMA, having 16 years of industrial and 16 years of Academic/Training experience. He is a mechanical engineer with post graduate in metal casting science and engineering. Prior to IMTMA, Ganapathi has worked at various capacity in manufacturing companies. He has thorough knowledge of Materials, Metallurgy, Metal casting and heat treatment processes. He has carried out many specialised programmes on GD&T, metal casting technologies, Metallurgy and heat treatment for industries. He has also taught these topics to post graduate engineering students.

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REGISTRATION : Prior registration with an online advance payment is must. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.