

# GEOMETRICAL DIMENSIONING AND TOLERANCE

AND

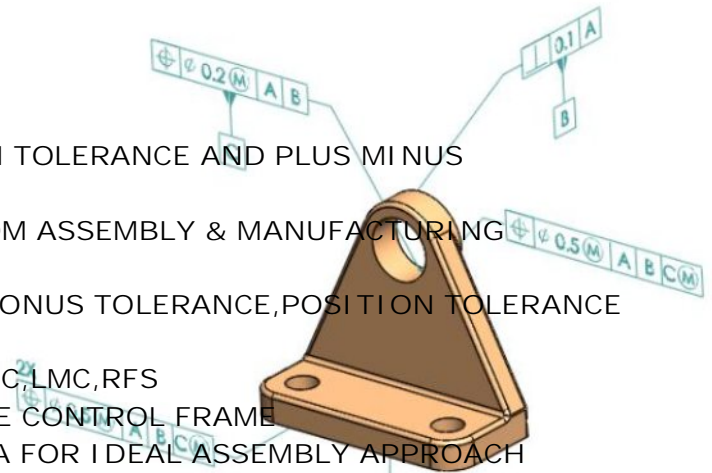
## TOLERANCE STACK UP ANALYSIS

### 3 DAY TRAINING

#### 3 DAY WISE TRAINING AGENDA

##### 1<sup>ST</sup> DAY

1. IMPORTANCE OF GD&T
2. DIFFERENCE BETWEEN POSITION TOLERANCE AND PLUS MINUS TOLERANCE
3. DATUM SELECTION PROCESS FROM ASSEMBLY & MANUFACTURING APPROACH
4. CONCEPT & CALCULATIONS OF BONUS TOLERANCE, POSITION TOLERANCE CALCULATIONS
5. CONCEPT & CALCULATION OF MMC, LMC, RFS
6. CONCEPT & READING OF FEATURE CONTROL FRAME
7. TOLERANCE SELECTION CRITERIA FOR IDEAL ASSEMBLY APPROACH



##### 2<sup>ND</sup> DAY

1. DIMENSIONING SYSTEMS, UNIT SYSTEMS, FUNCTIONAL DIMENSIONING SYSTEM
2. FLOATING FASTNER CALCULATION FOR ASSEMBLY STACK AND ASSEMBLY SHIFT CALCULATION FOR ASSEMBLY CLEARANCE FIT
3. INTERFERENCE AND CLEARANCE FIT CALCULATION FOR 2 PART ASSEMBLY
4. WALL THK CALCULATION FOR SINGLE PART ANALYSIS
5. BLUE-PRINT READING TECHNIQUES FOR ASSEMBLY DRAWINGS AND PART DRAWINGS
6. INSPECTION PROCESS THROUGH DIFFERENT PROCESS EQUIPMENTS LIKE VERNIER CALLIPER ETC
7. ACCEPTANCE OR REJECTION REPORTS FOR QC BASED ON GAUGE DESIGN

##### 3<sup>RD</sup> DAY

1. Tolerance stack up methods for GD&T and Plus Minus systems
2. Tolerance stack up using datum shift
3. Tolerance stack up using bonus and position tolerance
4. Creating Reports for Stackup
5. Axial Stackup
6. Linear Stackup

## Topics Covered

1. ASME Symbol, Rules
2. Tolerance Selection Methods
3. Boundary Calculation, and Material Modifiers
4. Core Concepts of GD&T
5. Form, Profile, Orientation, Run out, Location Tolerance
6. Datum Structure
7. Position Tolerance and Bonus Tolerance Calculation
8. Composite Feature Control Frame
9. Inspection Methods
10. Tolerance stack up methods for GD&T and Plus Minus systems
11. Tolerance stack up using datum shift
12. Tolerance stack up using bonus and position tolerance
13. Creating Reports for Stackup

✓ 5 projects will covered under GD&T

✓ 5 projects will be covered under Tolerance Stack up Analysis

✓ 24 Hours of Training