aCADemix ®

Transferring Technology...

Tolerance
Stack-up Analysis

COURSE

CERTIFIED
Training & Support
Provider

SOLIDWORKS

Sensitivity Report

39.23
16.98
12.05
9.13
7.12
5.56
4.13
3.00
1.20
0.60
0.50
0.50

24.1 24.2 24.3 24.4 24.5 24.6 24.7
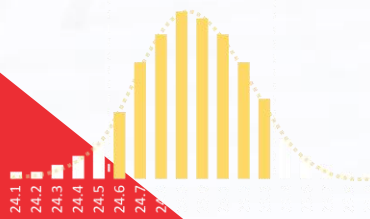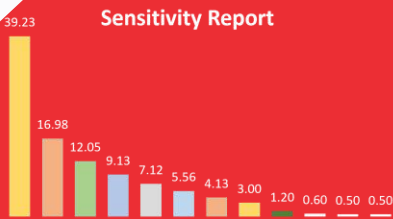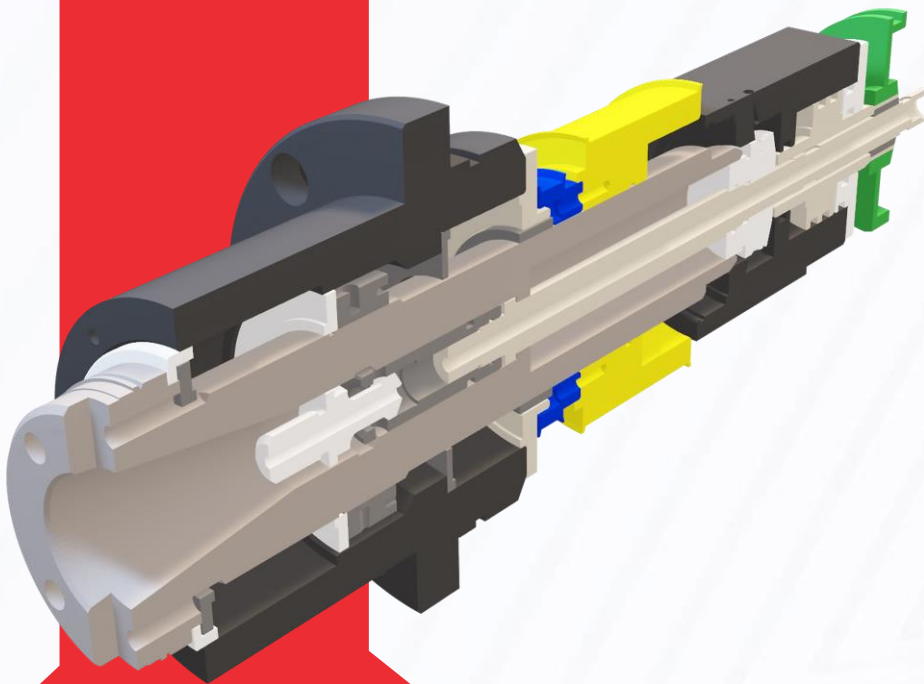
Contact us:

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COURSE DESCRIPTION : Tolerance Stack-up Analysis

COURSE DURATION : 10 hrs.

SYLLABUS

Module 1: Introduction
- Definition of Tolerance
- Accuracy Precision
- Types of dimensioning
- Types of tolerancing
- Variation - Definition and sources
- Conversion of dimensions to Equal Bilateral form.
- Introduction to the tolerance stack-up analysis process
- Why Tolerance Stack-up analysis
- Types of Tolerance Stack-up analysis
- Steps in Tolerance Stack-up analysis.
- Identifying the build objective.
- Vector Loop Derivation - Guidelines

Module 2: Methods of Tolerance Analysis

- Methods of Tolerance Analysis
- Worst Case method (WC)
- RSS - Root Square Sum method
- MRSS - Modified Root Square Sum method
- PCRSS - Process Centered Root Square Sum method
- Monte Carlo Simulation
- Sensitivity Identification.

Module 3: Process Capability
- Process Capability (Cp & Cpk)
- Tolerance Calculation using Process Capability
- GD&T Overview
- Material Modifiers and their effect on stack-up
- Assembly Shift Calculation
- Datum Shift Calculation.
- Examples and Exercises

Certificate:

On successful completion of the course and evaluation, the Certificate will be issued by aCADemix.

OTHER COURSES

SolidWorks 3D CAD

- SolidWorks-Basics
- SolidWorks-Advanced
- SolidWorks- Mold Design

- SolidWorks- Routing
- SolidWorks-Composer
- SolidWorks-MBD

SolidWorks Simulation

- SW Simulation Advanced
- SW Simulation-Fatigue FEA
- SW Simulation-Drop Test FEA

- SW Simulation-Dynamic FEA
- SolidWorks Motion
- SolidWorks Plastics

Design For Quality (DFQ)

- GD&T-Introduction
- GD&T-Advanced

- DFMEA

SolidWorks Automation

- SolidWorks API - Basics

- SolidWorks API - Advanced

SolidWorks PDM

- SolidWorks PDM- User

- SolidWorks PDM - Admin

SolidWorks PDM Automation

- SolidWorks PDM- Automation

Abaqus CAE

- Abaqus CAE – Linear Static Analysis