

ZEISS CALYPSO Basic Training for Tactile Probes Training Schedule



Prerequisites

- Understanding of geometric structures
 - Ability to read drawings with tolerances
 - Basic knowledge of metrology
 - Basic computer skills - Windows
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Introduction

- Training concept, content of seminar
- Coordinate Measuring Machines (CMMs)
- Probe heads
- Styli
- Starting CMM and Calypso
- Features and Characteristics

Sensors

- Qualifying Styli
 - Reference Sphere
 - Master probe
 - Stylus System and Styli
 - Sensor, Standard and manual qualification
 - Manual / automatic stylus change
 - Qualify the stylus systems afterwards
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Feature and Characteristic

- Learn about features
- Capturing features

Alignment and first plan

- Base Alignment and Clearance Planes
- Base Alignment and Clearance Planes on the training cube
- Measuring strategies in CALYPSO
- Scanning features
- Local feature coordinate system
- Travel Paths

- Measuring strategy: circle with gap
 - Start angle and rotation sense
 - Base Alignment and Clearance Planes on the connecting rod
 - Base Alignment and Clearance Planes on the shaft
 - Base Alignment and Clearance Planes on the housing
 - Base Alignment manually
 - Rotate and displace Base Alignment
 - Rotate Base Alignment to a bore center
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Features and Characteristics

- Measuring strategy: constructions
- Travel paths into a slot
- Task related measurement and evaluation
- Defining evaluation methods

Working with the cookbook and CALYPSO

- Diameter of a bore
- Flatness of a plane
- Planes and angles
- Evaluation with Filtering and Outlier elimination
- Projected angles of a bore
- Printout
- Distances in CALYPSO
- Base Alignment as datum

- Records
 - PiWeb Reporting
 - Select Report
 - Functions
 - Classic records
- Distances in CALYPSO
- Recalls
- Point

Mixed Tasks

- Diameter of a circ. bore pattern
 - Coaxially
 - True position
 - Evaluations on a cone
 - Special Strategies
 - Special travel paths
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CAD Programming

- Load a CAD model
- Offline or CAD programming
- CAD Functions
- Working on the CAD

Exercises

Measurement and Evaluation

- Angles

Printout

- Select printout, recheck printout
 - Select compact printout
 - Record: settings
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General information about Metrology

- Avoid measurement inaccuracies
- Behavior in case of collisions
- Clamping work pieces

Review

Contacting ZEISS

- Contacting the hotline, forms
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