cadmicro SOLIDWORKS TRAINING

ENABLING INNOVATION
CHALLENGE THE STATUS QUO

SOLIDWORKS ROUTING: PIPING & TUBING

PREREQUISITES	LENGTH	DESCRIPTION
■ SolidWorks Essentials or equivalent experience.	2 Days	■ SolidWorks Routing - Piping and Tubing explains how to create, edit and manage Piping and Tubing routes, from the critical routing components and their design requirements to the subassemblies that contain the routes.

► FUNDAMENTALS OF ROUTING

- What is Routing?
- Routing Setup
- Routing Library Manager
- General Routing Settings

► PIPING ROUTES

- Piping Routes
- Pipes and Piping Components
- Routing Assembly Templates
- Creating a Custom Routing Asembly Template
- Selecting a Routing Assembly Template
- Creating a Piping Route
- Auto Route
- Route Specification Templates
- Creating a Route Specification Templates
- Using Route Specification Templates
- Adding Alternate Elbows
- Editing a Route
- Routing Along Existing Geometry
- Exercise l - Creating Templates
- Exercise 2 - Multiple Piping Routes

► PIPING FITTINGS

- Piping Fittings
- Drag and Drop a Fitting
- Creating Custom Fittings
- Exercise 3 - Piping Fittings
- Exercise 4 - Piping on a Frame

► TUBING ROUTES

- Tubing Routes
- Tubes and Tubing Components
- Flexible Tubing with Auto Routes
- Orthogonal Tubing Routes with Auto Routes
- Bend and Spline Errors
- Export Pipe/Tube Data
- Using Envelopes to Represent Volumes
- Start Route and Add to Route
- Routings Tubes Through Clips
- Repairing Bend Errors
- Flip Direction
- Repair Route
- Re-route Spline
- Route Segment Properties
- Tubing Drawings
- Exercise 5: Orthogonal Tubing Routes
- Exercise 6: Flexible Tubing Routes
- Exercise 7: Orthogonal and Flexible Tubing Routes

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SOLIDWORKS ROUTING: PIPING & TUBING

▶ PIPING AND TUBING CHANGES

- Piping and Tubing Changes
- Pipe Penetrations
- Flange to Flange Connections
- Pipe Spools
- Copying Routes
- Adding Slope
- Editing Piping Routes
- Editing for Obstructions
- Piping Drawings
- Exercise 8: Create and Edit Threaded Pipe Routes
- Exercise 9: Using Pipe Spools

▶ CREATING ROUTING COMPONENTS

- Routing Library Parts
- Libraries
- Creating Routing Library Parts
- Pipe and Tube Components
- Copying Routing Components
- Routing Library Manager
- Fiting Components
- Routing Functionality Points
- Routing Geometry
- Part Validity Check
- Design Table Check
- Component Attributes
- Elbow Components
- Valve Components
- Exercise 10: Creating and Using Equipment

▶ USING P&ID FILES

- Piping and Instrumentation
- Adding a Pipe
- Pipe with Multiple Lines
- Pipe with In-Line Fittings
- Process Drawings
- Exercise 11: Using P&ID Files

▶ ELECTRICAL DUCTING, CABLE TRAY & HVAC ROUTES

- Electrical Ducting, Cable Tray, and HVAC Routes
- Electrical Ducting Routes
- Cable Tray Routes
- HVAC Routes
- Exercise 12: Electrical Ducting Routes

▶ PIPING SKIDS

- Piping Skids
- Grid System Feature
- Weldments
- Walk-through Animations
- Avatar Paths
- Exercise 11: Using P&ID Files
- Exercise 13: Using Piping Skids
- Exercise 14: Creating Walk-through Animations

▶ USING SOLIDWORKS CONTENT

- Using SolidWorks Content
- Adding Content
- Content Files
- Custom Library Naming
- Virtual Clips
- Components Used in the Routes
- Exercise 15: Using SolidWorks Content

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