

SOLIDWORKS Routing – Piping and Tubing

Length: 2 Days

Prerequisite: SOLIDWORKS Essentials

Description: SOLIDWORKS Routing - Piping and Tubing teaches you how to create, edit and manage Piping and Tubing routes, from the critical routing component and their design requirements to the subassemblies that contain the routes.

Course Syllabus

Introduction

- About This Course
- Windows
- Use of Color
- More SOLIDWORKS Training Resources

Lesson 1 - Fundamentals of Routing

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

Lesson 2 - Piping Routes

- Piping Routes
- Pipes and Piping Components
- Routing Assembly Templates
- Creating a piping Route
- Auto Route
- Route Specification Templates
- Editing a Route
- Routing Along Existing Geometry

Lesson 3 - Piping Fittings

- Piping Fittings
- Drag and Drop a Fitting
- Creating Custom Fittings

Lesson 4 - Tubing Routes

- Tubing Routes
- Rubees and Tubing Components
- Flexible Tubing with Auto Route
- Orthogonal Tubing Routes with Auto Route
- Bend and Spline Errors

- Tubing Drawings

Lesson 5 - 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

Lesson 6 - Creating Routing Components

- Routing Library Parts
- Libraries
- Creating Routing Library Parts
- Pipe and Tube Components
- Routing Library Manager
- Fitting Components
- Routing Functionality Points
- Routing Geometry
- Part Validity Check
- Design Table Check
- Component Attributes
- Elbow Components
- Valve Components

Lesson 7 - Using P&ID Files

- Piping and Instrumentation
- Adding a Pipe
- Pipe with Multiple Lines
- Pipes with In-Line Fittings





- Process Drawings

Lesson 8 - Electrical Ducting, Cable Tray, and HVAC Routes

- Electrical Ducting, Cable Tray, and HVAC Routes
- Electrical Ducting Routes
- Cable Tray Routes
- HVAC Routes

Lesson 9 - Piping Skids

- Piping Skids
- Grid System Feature
- Weldments
- Walk-through Animations
- Avatar Parts

Lesson 10 - Using SOLIDWORKS Content

- Using SOLIDWORKS Content

Appendix A – Review Section

- Review of Configurations
- A Note About File References
- Design Tables
- Review of Top Down Design
- Editing Options
- Review of Design Library Task Pane
- Review of 3D Sketching



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