SOLIDWORKS ROUTING - PIPING AND TUBING

Pre-Requisites: SOLIDWORKS Essentials, SOLIDWORKS Advanced Part Modeling, and SOLIDWORKS Assembly Modeling.

Daily Schedule: 8:30 a.m. - 4:30 p.m.

Length: 2 Days

This class teaches users how to use the routing module in SOLIDWORKS to create routed systems for tubing and piping applications. Topics include piping routes, tubing routes, piping and tubing changes, pipe and tube routing components, using P&ID, and piping skids.

Introduction

» About This Course
» Use of Color

Lesson 1: Fundamentals of Routing

» What is Routing?
» Routing Setup
» General Routing Settings

Lesson 2: Piping Routes

» Piping Routes
» Pipes and Piping Components
» Routing Templates
» Creating a Piping Route
» Auto Route
» Using Routing Components with Auto Route
» Editing a Route
» Drag and Drop a Component
» Creating Custom Components
» Interferences and Clearances

Lesson 3: Tubing Routes

» Tubing Routes
» Tubes and Tubing Components
» Flexible Tubing with Auto Route
» Orthogonal Tubing Routes with Auto Route
» Bend and Spline Errors
» Starting a Tube Route on the Fly
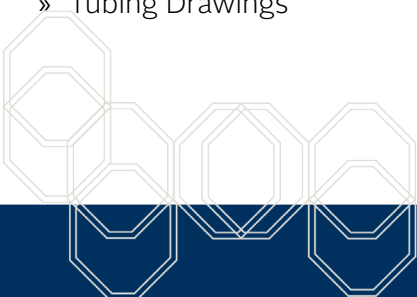» Tubing Drawings

Lesson 4: Piping & Tubing Changes

» Piping and Tubing Changes
» Pipe Penetrations
» Flange to Flange Connections
» Copying Routes
» Editing Piping Routes
» Editing for Obstructions
» Piping Drawings

Lesson 5: Pipe & Tube Routing Components

» Routing Library Parts
» Libraries
» Creating Routing Library Parts
» Routing Library Manager
» Pipe and Tube Parts
» Pipe Parts
» Routing Functionality
» Elbow Parts
» Tube Parts
» Multi-Body Components
» Equipment
» Assembly Fittings

Lesson 6: Using P&ID Files

» Piping and Instrumentation
» Adding a Pipe
» Pipe with Multiple Lines
» Pipes with In-line Fittings
» Process Drawings

Lesson 7: Piping Skids

- » Piping Skids
- » Grid System Feature
- » Weldments
- » Walk-through Animations
- » Avatar Paths

Lesson 8: Using SOLIDWORKS Content

- » Using SOLIDWORKS Content
- » Creating a Routing Settings File

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