

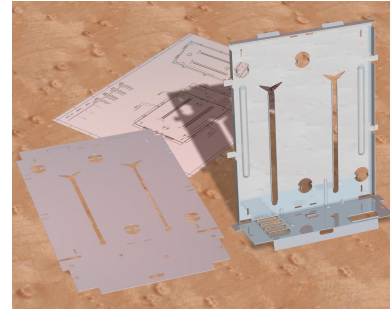
Sheetmetal Design using Pro/ENGINEER Wildfire 5.0

Overview

Course Code TRN-2240-T

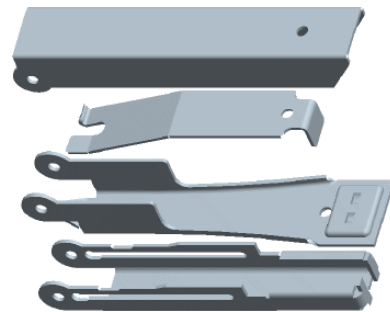
Course Length 2 days

Sheetmetal Design using Pro/ENGINEER Wildfire 5.0 is a comprehensive training course that teaches you how to create sheetmetal parts in Pro/ENGINEER. The course builds upon the basic lessons you learned in Introduction to Pro/ENGINEER Wildfire 5.0 and serves as the second stage of learning. In this course, you will learn how to design sheetmetal parts and assemblies, including sheetmetal production drawings. All the functions needed to create sheetmetal parts, drawings, and assemblies are covered. Upon completion of this course, you will be able to create sheetmetal design models, create the flat state of the model, and document both in production drawings. At the end of each day, you use the Pro/FICIENCY skills assessments to reinforce your understanding of the course topics.



Course Objectives

- The Sheetmetal Design Process
- Sheetmetal Model Creation, Conversion, and Display
- Methods of Developed Length Calculation
- Primary Wall Features
- Secondary Wall Features
- Partial Walls
- Bend Relief
- Unbend and Bend Back Features
- Sheetmetal Bend Features
- Flat Patterns
- Sheetmetal Cuts
- Forms
- Notch and Punch Features
- Sheetmetal Environment Setup
- Sheetmetal Design Information Tools
- Sheetmetal Design Rules
- Detailing Sheetmetal Designs
- Sheetmetal Design Project



Prerequisites

- Introduction to Pro/ENGINEER Wildfire 5.0

Audience

- This course is intended for design engineers, mechanical designers, and industrial designers. People in related roles can also benefit from taking this course.

Agenda

Day 1

Module	1	Introduction to the Pro/ENGINEER Wildfire Sheetmetal Design Process
Module	2	Sheetmetal Model Fundamentals
Module	3	Creating Primary Sheetmetal Wall Features
Module	4	Creating Sheetmetal Secondary Wall Features

Day 2

Module	5	Modifying Sheetmetal Models
Module	6	Sheetmetal Bends and Setting Up the Sheetmetal Environment
Module	7	Special Sheetmetal Tools
Module	8	Detailing Sheetmetal Designs
Module	9	Design Project

Course Content

Module 1. Introduction to the Pro/ENGINEER Wildfire Sheetmetal Design Process

- i. Pro/ENGINEER Wildfire Sheetmetal Design Process

Knowledge Check Questions

Module 2. Sheetmetal Model Fundamentals

- i. Sheetmetal Model Fundamentals
- ii. Understanding Developed Length
- iii. Creating a New Sheetmetal Part in Assembly Mode
- iv. Creating a New Sheetmetal Model in Part Mode
- v. Converting a Solid Model to a Sheetmetal Model

Knowledge Check Questions

Module 3. Creating Primary Sheetmetal Wall Features

- i. Understanding Sheetmetal Wall Features
- ii. Creating Flat Walls
- iii. Extruded Sheetmetal Wall Features
- iv. Revolved Sheetmetal Wall Features
- v. Blend Sheetmetal Wall Features
- vi. Offset Sheetmetal Wall Features
- vii. Sheetmetal Wall Sketching Tools
- viii. Advanced Primary Walls

Knowledge Check Questions

Module 4. Creating Sheetmetal Secondary Wall Features

- i. Understanding Secondary Walls
- ii. Creating Secondary Flat Walls
- iii. Using Flange Walls
- iv. Using Extruded Walls
- v. Wall Dashboard Options
- vi. Using Partial and Overextended Walls
- vii. Understanding Relief
- viii. Creating Twist Wall Features
- ix. Creating Extend Wall Features
- x. Using the Merge Feature

Knowledge Check Questions

Module 5. Modifying Sheetmetal Models

- i. Bends
 - ii. Bend Options
 - iii. Unbend Features
 - iv. Bend Back Features
 - v. Flat Pattern
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- vi. Deform Area
- vii. Sheetmetal Cuts
- viii. Die Form Features
- ix. Punch Form Features
 - x. Utilizing Punch Model Annotations
- xi. Flatten Form
- xii. Rip
- xiii. Notches And Punches
- xiv. Edge Bends
- xv. Corner Relief
- xvi. Patterning Walls
- xvii. Mirroring Walls

Knowledge Check Questions

Module 6. Sheetmetal Bends and Setting Up the Sheetmetal Environment

- i. Order of Bend Features
- ii. Bend Line Adjustments
- iii. Using Bend Tables for Bend Allowances
- iv. Fixed Geometry
- v. Flat States

Knowledge Check Questions

Module 7. Special Sheetmetal Tools

- i. Info Tools and Reports
- ii. Design Rules
- iii. Defaults and Parameters
- iv. Converting Solid Models

Knowledge Check Questions

Module 8. Detailing Sheetmetal Designs

- i. Adding the Flat and Formed States
- ii. Auto Ordinate Dimensions
- iii. Bend Line Notes
- iv. Bend Order Tables

Knowledge Check Questions

Module 9. Design Project

- i. Designing a Stapler
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