

Autodesk Fusion Sheet Metal Training Course

Course Overview

Course Length: 8-Hours

- 8-Hours - 4 x 2-hour training sessions
- Remote training over MS Teams
- Sessions are recorded and download links for each session are provide for future use
- Training for up to 1-3 People
- Sessions can start within 7 days upon ordering
- Flexible sessions (i.e. consecutive or Monday, Wednesday, Friday, etc.)
- Courses are private and topics can be customised to suit
- Includes Certificate of Completion

This Autodesk Fusion Sheet Metal course introduces the tools and workflows used to create, edit, and document sheet metal components in Fusion. The course focuses on practical modelling methods such as applying sheet metal rules, creating flanges and bends, working with unfolded and flat pattern states, and preparing manufacturing-ready outputs including DXF exports and drawings.

Topics Covered

This course covers the core tools, workflows, and best practices needed to design sheet metal components in Autodesk Fusion, generate accurate flat patterns, and communicate designs clearly for manufacture.

- Autodesk Fusion Sheet Metal workspace, browser structure, and design workflow
- Creating base flanges, edge flanges, contour flanges, hems, and lofted flanges
- Working with sheet metal rules, thickness, bend radius, K-factor, and relief settings
- Creating bends, rips, holes, and cut features in sheet metal designs
- Using unfold and refold to add features across bends
- Generating and updating flat patterns for manufacture
- Exporting flat patterns to DXF and preparing models for fabrication workflows
- Creating sheet metal drawings with bend information and production documentation

Prerequisites

Participants should have a basic understanding of Autodesk Fusion or equivalent experience in 3D modelling and sketching. Familiarity with the Fusion interface, components, sketches, and standard modelling tools is recommended.

Knowledge of sheet metal manufacturing processes is helpful, but not essential. This course is ideal for existing Fusion users who want to create manufacturable sheet metal designs, generate flat patterns, and prepare documentation for cutting and bending operations.

Training Guide Contents

Chapter 1: Introduction to Fusion Sheet Metal

- Sheet Metal Concepts and Terminology
- Fusion Sheet Metal Workspace
- Browser Structure and Timeline
- Fusion Sheet Metal Workflow

Chapter 2: Sheet Metal Rules

- Creating and Editing Sheet Metal Rules
- Thickness, Bend Radius, and K-Factor
- Relief Shapes and Corner Conditions
- Managing Rule Libraries and Standards

Chapter 3: Creating Base and Edge Features

- Creating Base Flanges from Sketch Profiles
- Creating Edge Flanges
- Flange Height and Position Options
- Applying and Changing Rules While Modelling

Chapter 4: Flanges and Advanced Sheet Metal Shapes

- Contour Flanges
- Hems
- Lofted Flanges
- Practical Use Cases for Complex Forms

Chapter 5: Bends, Rips, and Corner Conditions

- Creating Bends
- Creating Rips
- Bend Position and Stationary Face Selection
- Corner Relief and Gap Management

Chapter 6: Sheet Metal Cuts and Features

- Cut Features in Sheet Metal Bodies
- Holes and Sketch-Based Features
- Working with Features Before and After Bends
- Editing Existing Sheet Metal Features

Chapter 7: Unfold and Refold Workflows

- Using Unfold for Intermediate Editing
- Adding Features Across Bend Regions
- Refolding the Model
- Understanding Unfold versus Flat Pattern

Chapter 8: Flat Patterns

- Creating Flat Patterns
- Updating Linked Flat Patterns
- Editing in Flat Pattern Mode
- Preparing Flat Patterns for Manufacturing

Chapter 9: Exporting for Fabrication

- Exporting Flat Patterns to DXF
- Preparing Files for Laser, Punch, or CNC Workflows
- Checking Bend Information and Geometry
- Common Manufacturing Considerations

Chapter 10: Sheet Metal Drawings and Documentation

- Creating Drawings from Folded and Flat Pattern Views
- Bend Notes and Annotations
- Dimensioning for Manufacture
- Communicating Production Intent Clearly