



Learning Autodesk Inventor 2010 Sheet Metal Design

In this guide, users learn the fundamental principles of sheet metal design using Autodesk® Inventor® 2010. Users learn how to create and manage sheet metal designs. The guide focuses on basic sheet metal concepts and techniques, and builds on them to include complex modeling practices for forming sheet metal parts, assemblies, and drawings. Hands-on exercises representing real-world, industry-specific design scenarios are included.

Objectives

After completing this class, users will be able to:

- Describe terms and sheet metal processes that are used in the industry.
- Review various construction techniques.
- Create and automate sheet metal design tools.
- Document sheet metal designs.

Duration

2 days

Who should attend?

This class is designed for the current Autodesk Inventor user who wants to learn the essential tools and best practices for sheet metal design using Autodesk Inventor 2010.

Pages

Volume 1 – 308; Volume 2 - 214

Typical Schedule

Unless otherwise noted on your class registration e-mail, this class starts each day at 9:00 am and ends at 4:00 pm.

Prerequisites

Users should have completed a *Learning Autodesk Inventor* class and have a working knowledge of the following:

- The Autodesk Inventor user interface and working environments.
- Parametric solid modeling concepts and mechanical engineering or design principles.
- Microsoft® Windows® XP or Microsoft® Windows® 2000.

Outline

Sheet Metal Overview

- Introduction to Sheet Metal
- Sheet Metal Design Methods
- Sheet Metal Rules

The Sheet Metal Environment

- Faces
- Flanges
- Contour Flanges
- Hems

Sheet Metal Operations

- Cutting
- Sheet Metal Punching
- Corner Seams
- Folding
- Bending
- Creating Holes
- Creating Corner Rounds and Corner Chamfers
- Work Features
- Pattern Features

- Mirror Features
- Lofted Flanges, Rips, and Contour Roll Features

Sheet Metal Design Techniques

- Sheet Metal Design Approaches
- Using Skeletal Models
- Using Legacy DXF™/DWG™ Flat Layout Geometry
- Using Legacy 3D Geometry
- Complex Sheet Metal Creation Techniques
- Punch Library Setup

Using Flat Patterns

- Flat Pattern Creation and Cleanup
- DXF/DWG Export

Documenting Sheet Metal Designs

- Creating Sheet Metal Drawings
- Sheet Metal Documentation
- Notating Bends and Punches
- Cosmetic Centerlines and Bend Order

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