



SOLIDWORKS SHEET METAL

Who should attend:

**Application Engineer
R&D Engineer
Product Designer or
Engineer
Industrial Engineer**

Prerequisites:

Attended SOLIDWORKS Essentials Course

Basic understanding of part design and drafting

Mechanical Design Experience

Duration:

2 Days

Methodology:

Practical hands-on with using computers, lecturing, discussions and case studies

Introduction

The SOLIDWORKS Sheet Metal course is designed for users who need to learn how to model sheet metal parts that will be bent in a press brake. You will learn how to build complex sheet metal models (stand-alone or multibody) by using the various flange features or by converting solid bodies directly into sheet metal parts, apply forming tools, create flat patterns, and detail everything in SOLIDWORKS drawings.

Objective

At the end of this program participants are expected to:

- Create sheet metal parts and apply sheet metal features
- Import sheet metal parts from other CAD systems and convert them into SOLIDWORKS sheet metal parts
- Import sheet metal parts from other CAD systems and convert them into SOLIDWORKS sheet metal parts

IME CADCAM TRAINING CENTRE SDN BHD

PJ: 22A, Jln. PJS 1/46, Tmn. Petaling Utama, 46000 PJ, Selangor, Malaysia.
Tel: +603-7783 6866 | Fax: +603-7783 4384

PG: 68, Jln. Perai Jaya 4, Bandar Perai Jaya, 13700 Pulau Pinang, Malaysia.
Tel: +604-399 5571 | Fax: +604-399 5572

JB: No. 25-01, Jalan Bestari 8/2, Taman Nusa Bestari, 79150, Iskandar Puteri, Johor.
Tel: +607-238 7978 | Fax: +607-238 2162

training@cadcam.com.my | www.cadcam.com.my



SHEET METAL

Key Topics

Day 1

Course Outline:

Lesson 1: Basic Flange Method

- What are Sheet Metal Parts?
- Sheet Metal Methods
- Unique Sheet Metal Items
- Flange Method
- Base Flange/Tab
- Sheet Metal Parameters
- Editing Sheet Metal Parameters
- Sheet Metal Bend Features
- Flat-Pattern Feature Why Use Surfaces?
- Continuity Explained
- Workflow with Surfaces
- Additional Flange Features
- Edge Flange
- Editing Flange Profile
- Edge Flanges on Curved Edges
- Miter Flanges
- Hem Features
- Tab Features
- Cuts in Sheet Metal
- Summary of Flange Features

Lesson 2: Working with the Flat Pattern

- Working with the Flat Pattern
- Flat Pattern Settings
- Features for Manufacture
- Corner-Trim Feature
- Corners in the Formed State
- Closed Corner
- Corner Relief
- Break Corner/Corner Trim
- Producing the Flat Pattern
- Sheet Metal Cut List Properties
- Flat Pattern Drawing Views
- Flat Pattern View Properties
- Drawing Document Properties
- Sheet Metal Tables
- Cut List Properties as a Note
- Exporting the Flat Pattern

Lesson 3: Additional Sheet Metal Techniques

- Additional Sheet Metal Methods
- Designing from the Flat
- Sketched Bend Feature
- Jog Feature
- Adding Features in an Unfolded State
- Unfold And Fold
- Swept Flange
- Swept Flange Flat Pattern Options
- Lofted Bends
- Lofted Bends In The Design Library

Lesson 4: Converting to Sheet Metal

- Sheet Metal Conversion
- Insert Bends Method
- Imported Geometry to Sheet Metal
- Adding Rips
- Insert Bends
- Making Changes
- Welded Corner
- Converting Cones And Cylinders
- Convert to Sheet Metal

IME CADCAM TRAINING CENTRE SDN BHD

PJ: 22A, Jln. PJS 1/46, Tmn. Petaling Utama, 46000 PJ, Selangor, Malaysia.
Tel: +603-7783 6866 | Fax: +603-7783 4384

PG: 68, Jln. Perai Jaya 4, Bandar Perai Jaya, 13700 Pulau Pinang, Malaysia.
Tel: +604-399 5571 | Fax: +604-399 5572

JB: No. 25-01, Jalan Bestari 8/2, Taman Nusa Bestari, 79150, Iskandar Puteri, Johor.
Tel: +607-238 7978 | Fax: +607-238 2162

training@cadcam.com.my | www.cadcam.com.my



SHEET METAL

Key Topics

Day 2

Lesson 5: Multibody Sheet Metal Parts

- Multibody Sheet Metal Parts
- Multibodies With Base Flange
- Sheet Metal Parameters for Multibodies
- Cut List Item Properties for Multibodies
- Flat Pattern Drawing Views for Multibodies
- Cut List Balloon Annotations
- Exporting To DXF/DWGs With Multibodies
- Convert with Multibodies
- Hiding And Showing Bodies
- Using Split with Sheet Metal Parts
- Patterning for Multibodies
- Using Edge Flanges to Merge Bodies
- Interfering Bodies
- Combining Sheet Metals with Other Bodies

Lesson 6: Forming Tools and Gussets

- Sheet Metal Forming Tools
- Standards Forming Tools
- Form Tool Features in the Flat
- Part Document Properties
- Custom Form Tools
- Split Line
- Forming Tool
- Form Tools In Drawings
- Sheet Metal Gusset

Lesson 7: Additional Sheet Metal Functions

- Additional Sheet Metal Functions
- Cross-Breaks
- Vent Features
- Mirror Part
- Process Plans
- Sheet Metal Costing

IME CADCAM TRAINING CENTRE SDN BHD

PJ: 22A, Jln. PJS 1/46, Tmn. Petaling Utama, 46000 PJ, Selangor, Malaysia.
Tel: +603-7783 6866 | Fax: +603-7783 4384

PG: 68, Jln. Perai Jaya 4, Bandar Perai Jaya, 13700 Pulau Pinang, Malaysia.
Tel: +604-399 5571 | Fax: +604-399 5572

JB: No. 25-01, Jalan Bestari 8/2, Taman Nusa Bestari, 79150, Iskandar Puteri, Johor.
Tel: +607-238 7978 | Fax: +607-238 2162

training@cadcam.com.my | www.cadcam.com.my

