

SOLIDWORKS Sheet Metal

Course Outline

 DURATION/TIME 3 Days 9:00 am - 5:00 pm	 METHODOLOGY Practical hands-on with using computers, lecturing, discussions and case studies.
 PREREQUISITES Experience with the Windows™ Operating System. Attended SOLIDWORKS Essentials training course	 TARGET Application Engineer, R&D Engineer, Product Designer or Engineer, and Industrial Engineer

INTRODUCTION

Sheet Metal teaches you how to build sheet metal parts using SOLIDWORKS mechanical design automation software. Building standalone sheet metal parts, and converting conventional parts to sheet metal, including in assembly context, are covered.

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.

CONTACT

IME CADCAM RESOURCE CENTRE SDN BHD 200301003284 (605704-H)
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Course Outline:**Lesson 1: Basic Flange Features**

- What are Sheet Metal Parts?
- Sheet Metal Methods
- Unique Sheet Metal Items
- Flange Method
- Base Flange/Tab
- Sheet Metal Parameters
- Sheet Metal Thickness and Bend Radius
- Bend Allowance
- Auto Relief
- Editing Sheet Metal Parameters
- Sheet Metal Bend Features
- Flat-Pattern Feature
- Additional Flange Features
- Edge Flanges
- Editing the Flange Profile
- Edge Flanges on Curved Edges
- Miter Flanges
- Hem Feature
- Tab Features
- Cuts in Sheet Metal
- Sharing a Model
- Summary of Flange Features

Lesson 2: Working with the Flat Pattern

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

Lesson 3: Standardizing Sheet Metal Designs

- Standardizing Gauge Numbers and Bend Radii
- Standardizing Bend Allowance
- Topics for Standardizing Parameters
- Using Tables
- Custom Sheet Metal Materials
- Sheet Metal Templates
- Sheet Metal Tables in Drawings
- Mapping DXF Output

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Course Outline:**Lesson 4: 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 5: Converting to Sheet Metal

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

Lesson 6: 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/DWG with Multibodies
- Convert with Multibodies
- Hiding and Showing Bodies
- Using Spilt with Sheet Metal Parts
- Patterning for Multibodies
- Using Edge Flanges to Merge Bodies
- Interfering Bodies
- Combining Sheet Metal with Other Bodies

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Course Outline:**Lesson 7: Forming Tools and Gussets**

- Sheet Metal Forming Tools
- Forming Tools in the Design Library
- Form Tool Features in the Flat
- Part Document Properties
- Custom Forming Tools
- Split Line
- Forming Tool Feature
- Legacy Behavior for Forming Tools
- Form Tools in Drawings
- Sheet Metal Stamp
- Sheet Metal Gusset

Lesson 8: Additional Sheet Metal Functions

- Additional Sheet Metal Functions
- Cross-Breaks
- Vent Features
- Fill Pattern
- Mirror Part
- Tab and Slot
- Process Plans

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