



Sheet Metal Design in SolidWorks (3+ Days)

*** Ve-I Bonus! * Weldments**

Sheet Metal Design

Introduction to Sheet Metal	Introduction to Sheet Metal
Base Flange - 1	Explains how to begin creating Sheet Metal parts using the Base Flange Command
Base Flange - 2	Explains how to begin creating Sheet Metal parts using the Base Flange Command
Bend Allowance	Explains various types of Bend Allowance
Bend Tables	Explains how to use a bend table to control bend allowance
Flat Pattern Options	Explains the options for sheet metal parts in the flattened state
Corner Trim	Explains the corner trim feature and relief options for sheet metal parts in the flattened state
Edge Flange - 1	Explains how to add edge flanges to sheet metal parts
Edge Flange - 2	Explains how to add edge flanges to sheet metal parts
Edge Flange - 3	Explains how to add edge flanges to curved edges on sheet metal parts
Miter Flange	Explains how to create miter flanges which propagate around the edge of a sheet metal part
Swept Flange	Explains how to create a flange from a profile and path sketch
Tab	Explains how to add tabs on a sheet metal part.
Sketched Bend	Explains how to add an edges flange to a flat sheet metal part by using a sketch.
Jog	Explains how to add a jog on a sheet metal part.
Hem	Explains how to add hems to the edges of a sheet metal part
Closed Corner	Explains how to close two edges to form a corner.
Break Corner	Explains how to fillet or chamfer the edges on a sheet metal part
Fold and Unfold	Explains how to fold or unfold a sheet metal part to work with the part in a bent or unbent state
Sheet Metal Cuts	Explains the options available when using the Extruded Cut command on a sheet metal part.
Cuts Across Bends	Explains how to add cuts that are located on bends on sheet metal parts

Cross Breaks	Shows how to add cross break representations on a sheet metal part
Cones and Cylinders	Explains how to create a sheet metal cone or cylinder
Formed Lofted Bends	Explains how to create a sheet metal part by using a formed lofted bend
Bent Lofted Bends	Explains how to create a sheet metal part by using a bent lofted bend
Multibody Sheet Metal Parts	Shows an example of using multibody design techniques in the sheet metal environment
Sheet Metal Gussets	Shows how to add gussets to sheet metal parts
Corner Relief and Bend Transitions	Demonstrates how to use the Corner Relief feature

Library Features

Design Library - Cuts	Explains how to add cuts to a sheet metal part from the Design Library
Forming Tools	Explains how to bend stretch or deform a sheet metal part by using a forming tool.
Forming Tools vs Derived Parts	Explains the difference between forming tools and derived parts
Modifying Forming Tools	Explains how to modify existing forming tools
Creating New Forming Tools	Explains how to create new forming tools

Convert to Sheet Metal

Convert to Sheet Metal	Shows how to convert a regular solid into a sheet metal part
The Rip Feature	Explains how to use the rip feature to manually convert a regular solid into a sheet metal part
Insert Bends	Explains how to add bends to a part that was converted to a sheet metal part

Sheet Metal Drawings

Sheet Metal Drawings	Explains how to add a flat pattern view to a drawing
Punch Tables	Explains how to add a punch table to a drawing
Export to DXF or DWG	Shows how to export a DXF or DWG directly from the 3D model

Section Test

+ * **Ve-I Bonus!** *

Weldments in SolidWorks

Weldments

Introduction	Introduces Weldments and the Weldment Design Environment in SOLIDWORKS
Structural Members	Shows how to create a structural member to begin a weldment part
Layout Sketches	Explains the requirements needed to use layout sketches
Trim/Extend - Part A	Explains how to trim structural members
Trim/Extend - Part B	Further explains how to trim structural members
Plates & Fillet Beads	Explains how to add plates and weld beads to a structural member
Gussets and End Caps	Explains how to add gussets and end caps to structural members
Weld Beads	Explains how to add a weld bead feature to a part or assembly
Weldment Bounding Boxes	Shows how to create a bounding box sketch
Cut Lists - Part A	Explains how to use cut lists when creating weldments
Cut Lists - Part B	Explains many other features of cut lists
Weld Tables	Shows how to add a weld table to list weld bead features in a drawing
Creating Sub-Weldments	Explains how to organize weldments into sub-weldments
Creating Custom Profiles	Explains how to create custom structural member profiles

Hands-On Exercise: Greenhouse Frame

Greenhouse Frame	Instructions to complete the Greenhouse exercise
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Hands-On Walkthrough: Greenhouse Frame

Greenhouse Layout Sketch	Shows how to use a grid system to create the layout sketch for the Greenhouse Frame and complete the first half of the exercise
Greenhouse Structural Member and Cut List	Shows how to add the structural member feature and create a cut list to complete the exercise

Section Test
