SOLID EDGE
VELOCITY SERIES

Tutorial: ***Upper Plate Clamp***

Project: ***Bird Feeder (Synchronous)***

cad / cam / pdm / cae | CAAP®

Solution Partner PLM | SIEMENS

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	DIMENSION UNITS : MM	CLASS (DEPARTMENT) : -	
	DATE : 12-11-2011	CHECKED BY : -	

MATERIAL : Wood, Oak	TITEL :	NUMBER :	REV:	SIZE:
PROJECT: Bird Feeder	Upper Plane Clamp	1007	A	A4

1 +	1. Start **Solid Edge.** 2. Click on **<u>ISO Part.</u>** 	
2	1. Click the **Line** button. 2. Draw the profile, as shown. Wait until the icon appears before clicking the last line.	
3	3. Click the **Parallel** button. 4. Click on the slanted line. 5. Click on the other slanted line.	

4	1. Click the **Horizontal/Vertical** button. 2. Point the cursor at the middle point of the vertical line and wait until the icon appears before clicking. 3. Point at the **Origin** and wait until the icon appears before clicking.	
5	4. Point the cursor at the middle point of the horizontal line and wait until the icon appears before clicking. 5. Point at the **Origin** and wait until the icon appears before clicking.	
6	1. Click the **Distance Between** button. 2. Click on the slanted line, as shown. 3. Click on the other slanted line. 4. Click to place the dimension. 5. Key in the value **20** and confirm with **Enter**.	

7	1. Click the **Smart Dimension** button. 2. Click on the **Origin**. 3. Point te cursor at the left endpoint of the slanted line and wait until the icon appears before clicking. 4. Click to place the dimension. 5. Key in the value **100** and confirm with **Enter**.	
8	1. Click the **Angle Between** button. 2. Click on the slanted line, as shown. 3. Click on the horizontal line. 4. Click to place the dimension. 5. Key in the value **45** and confirm with **Enter**.	
9	1. Click the **Select** button. 2. When you hover over the Region, it will turn red. Click on the Region, as shown.	

10	3. When you hover over the arrow, it will turn red. Click on the arrow, as shown. 4. Click the **Extrude – Symmetric** button.	
11	3. Type **40** and confirm with **Enter**.	
12 +	1. Click the **Hole** button. 2. Click on the **Hole Options**.	

13	Fill in the Hole Options, as shown. 3. Type: **Simple**; 4. Diameter: **30**; 5. Extents: **Finite**; 6. Hole Depth: **10**; 7. Click the **OK** button.	
14	1. Click on the plane to place the Hole, as shown.	
15	2. Click the **Select** button. 3. When you hover over the arrow, it will turn red. Click on the arrow, as shown.	

16	4. Select the KeyPoint option: **MidPoint**. 5. Point the cursor at the middle point of the horizontal line and wait until the icon appears.	
17	1. Click the **Smart Dimension** button. 2. Click on the horizontal line. 3. Click on the Hole. 4. Click to place the dimension. 5. Click on the left green arrow. 6. Key in the value **20** and confirm with **Enter**.	
18	1. Click the **Chamfer Equal Setbacks** button. 2. Click on the edges, as shown. 3. Key in a value for the chamfer (in this case **1**) and confirm with **Enter**.	

19	1. Click the **Plane by 3 Points** button. 2. Make sure the KeyPoint option **Midpoint** is selected. 3. Point at the middle point of the slanted line and wait until the icon appears before clicking.	
20	1. Point at the middle point of the other slanted line and wait until the icon appears before clicking. 4. Point at the middle point of the last slanted line, as shown, and wait until the icon appears before clicking.	
21	1. Select the Hole and Chamfer in the PathFinder. 2. Click the **Mirror** button. 3. Click on the plane, as shown.	

22	Now we set the material property. 1. Click the **Application Button**. 2. Click on **Properties**. 3. Click the **Material Table** button.	
23	1. Choose the material **Wood, Oak**. 2. Click **Apply to Model** to set the material to the part. ***Hint:*** *There are several properties which are connected to a material, like color and density. The density is necessary to determine the weight.*	

24	The part is ready. Now it must be saved. 1. First press **Ctrl + i** to turn the image to isometric view. 2. Click on the floppy icon. 3. Go to the **Summary** tab**.** 4. Fill in *Upper Plate Clamp* at Title. 5. Go to the **Project** tab and fill in the following properties: Document Number*: 1007*. Revision Number*: A*. Project Name: *Bird Feeder*. 6. Click **OK** to close the screen. ***Hint:*** *All properties of the part are saved at the **File Properties**. These properties will used to fill in a part list.*	
25	1. Browse to the folder named *Bird Feeder*. 2. Save the document by name *Bird Feeder-1007-Upper Plate Clamp-A.par*. 3. Click the **Save** button. 4. Close the file. ***Hint:*** *Save all files of one project in the same folder.*	