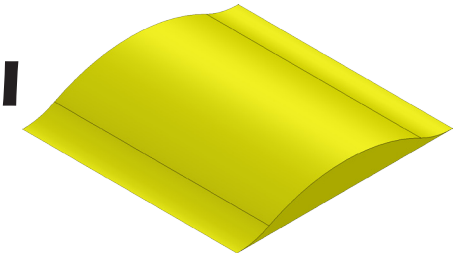
JSS

Forming Tool



A. Extrude 1.

Step 1. Click File Menu > New, click **Part Metric** and OK.

Step 2. Click **Top Plane** in the Feature Manager and click **Sketch** from the Context toolbar, **Fig. 1**.

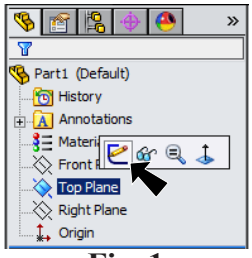


Fig. 1

Step 3. Click **Center Rectangle** **(S)** in the **Rectangle flyout** on the Sketch toolbar.

Step 4. Draw a rectangle starting at the Origin , **Fig. 2**.

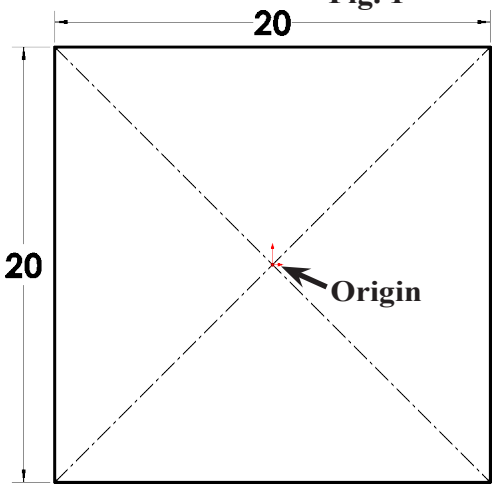


Fig. 2

Step 5. Click **Smart Dimension** **(S)** on the Sketch toolbar.

Step 6. Dimension **20 by 20, Fig. 2**.

Step 7. Click Zoom to Fit **(F)** on the View toolbar.

Step 8. Click **Features** on the Command Manager toolbar.

Step 9. Click **Extruded Boss/Base** on the Features toolbar.

Step 10. In the Property Manager set:
under Direction 1, **Fig. 3**

Depth D1 **2**
click **Reverse direction**
Direction arrow should point down, Fig. 4

click OK .

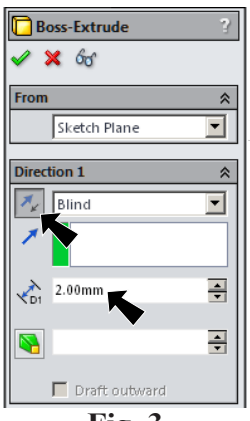


Fig. 3

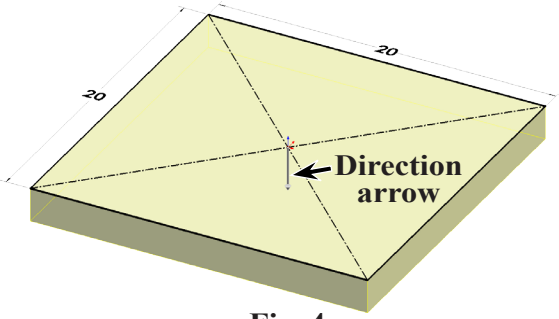


Fig. 4

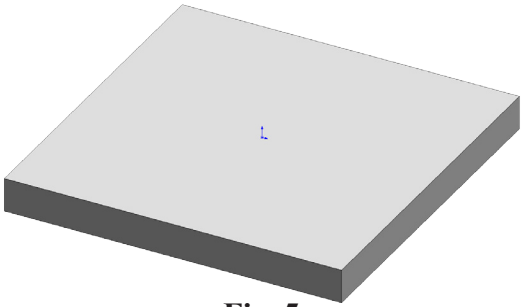


Fig. 5

6/4/14

© Cudacountry.net Tech Ed
http://www.cudacountry.net email:cudacountry@hotmail.com

B. Save as "FORMING TOOL" in My Forming Tools Folder.

Step 1. Click File Menu > Save As.

Step 2. In the Save As dialog box:
key-in **FORMING TOOL 1** for file name, **Fig. 6**

navigate to **My Documents/Tech Ed 14-15** folder

click **New Folder**, **Fig. 6**

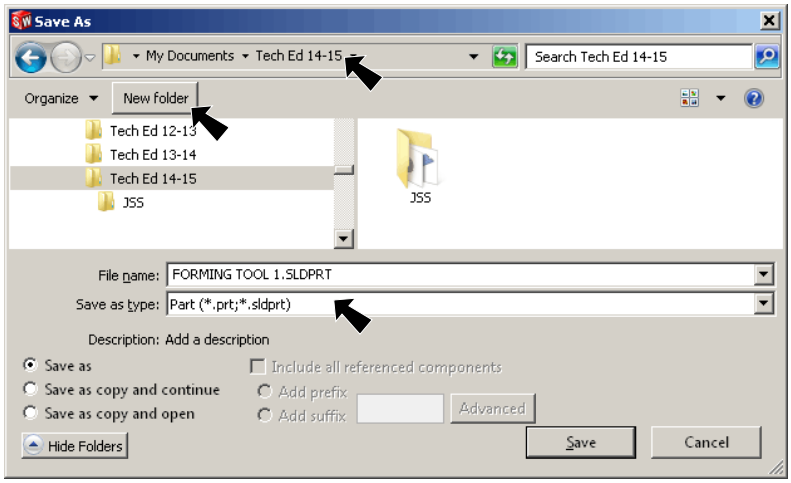


Fig. 6

Step 3. Key-in:
My Forming Tools
for folder name, **Fig. 7**

double click
My Forming Tools folder, **Fig. 7**

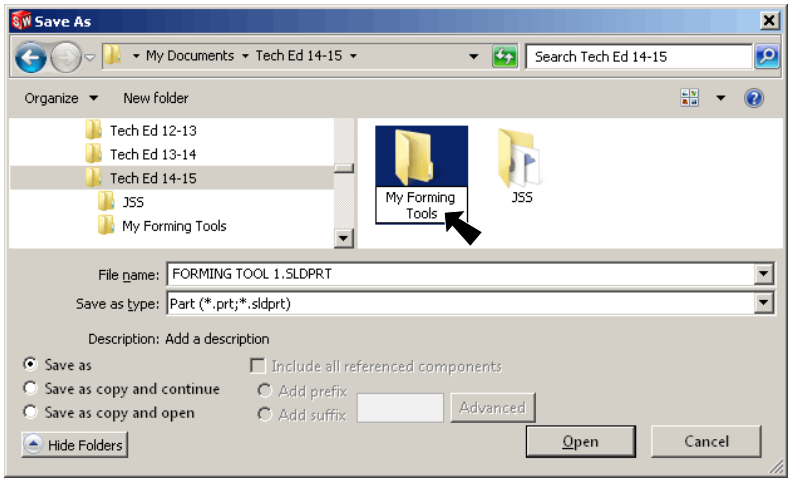


Fig. 7

Step 4. Click **Save**, **Fig. 8**.

Step 5. Later, we will add the new My Forming Tools folder to the Design Library. For now, we'll just save our Forming Tool into the My Forming Tool folder.

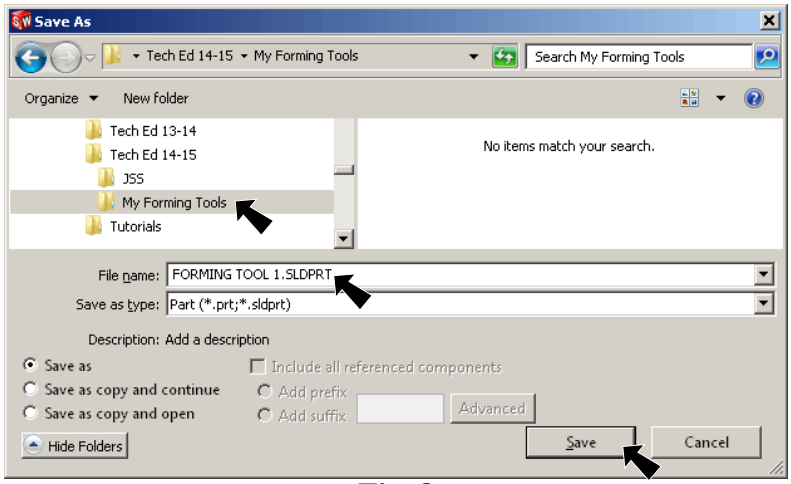


Fig. 8

C. Extrude 2.

Step 1. Click **Right Plane** in the Feature Manager and click **Sketch** from the Context toolbar, **Fig. 9**.

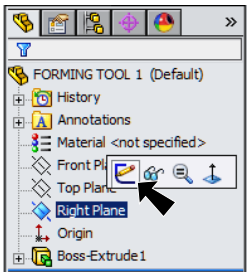


Fig. 9

Step 2. Click **Normal To** on the Standard Views toolbar. **(Ctrl-8)**

Step 3. Click **3 Point Arc** **(S)** in the **Arc flyout** on the Sketch toolbar.

Step 4. Draw an **arc across top edge**. To draw arc, click Point 1 for start point and Point 2 for ending point, then Point 3 for third point, **Fig. 10**.

Step 5. **Right click graphics area and click Select** from menu to unselect Arc tool.

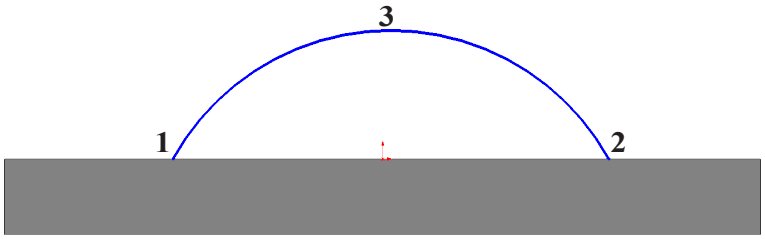


Fig. 10

Step 6. **Ctrl click Origin** and **arc centerpoint** and click **Make Vertical** on the Context toolbar, **Fig. 11**.

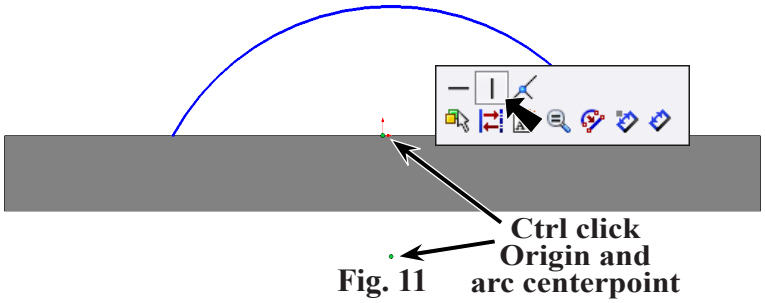


Fig. 11

Step 7. Click **Line** **(L)** on the Sketch toolbar.

Step 8. Draw **line between arc endpoints**, **Fig. 12**.

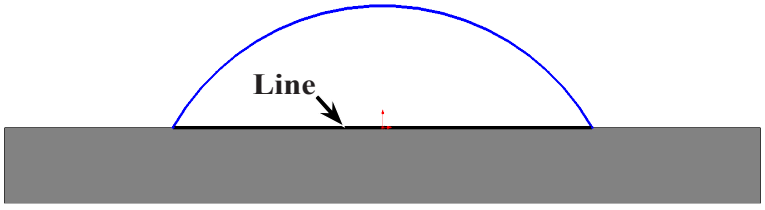


Fig. 12

Step 9. Click **Smart Dimension** (**S**) on the Sketch toolbar.

Step 10. Dimension **line 12.7** and **arc radius 11.8**, **Fig. 13**.

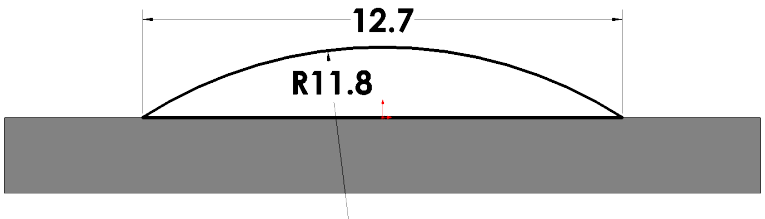


Fig. 13

Step 11. Click **Features**

on the Command Manager toolbar.

Step 12. Click **Extruded Boss/Base**

on the Features toolbar.

Step 13. Click **Trimetric** on the Standard Views toolbar.

Step 14. In the Property Manager set:
under Direction 1, **Fig. 14**
End Condition
Mid Plane
Depth

15.25
click OK .

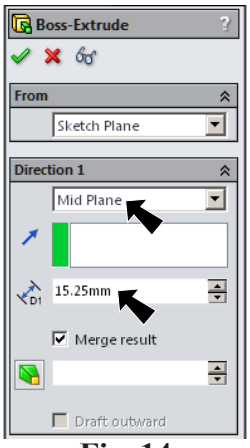


Fig. 14

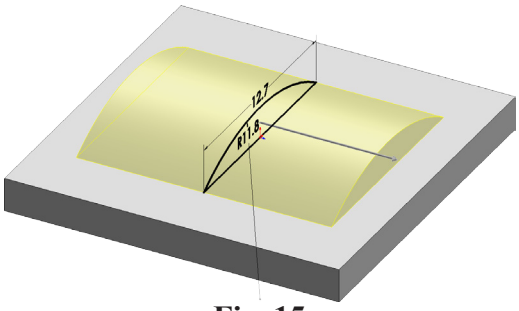


Fig. 15

D. Fillet.

Step 1. Click **Fillet**

on the Features toolbar.

Step 2. In the Fillet Property Manager:
select **FilletXpert**, **Fig. 16**
Radius **5**
select **Full preview**

click **both edges at arc**, **Fig. 17**
click OK .

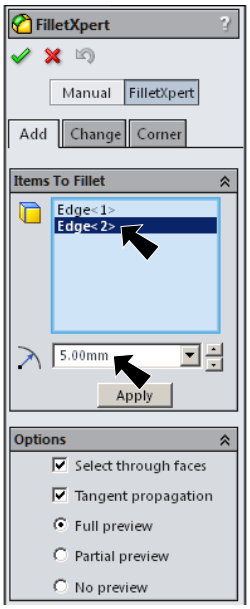


Fig. 16

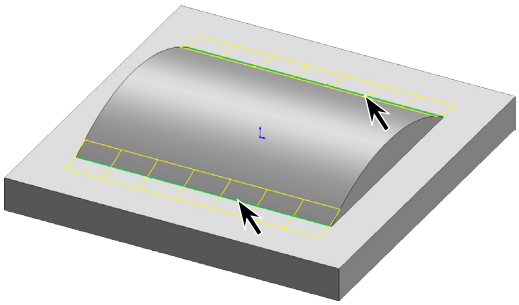


Fig. 17

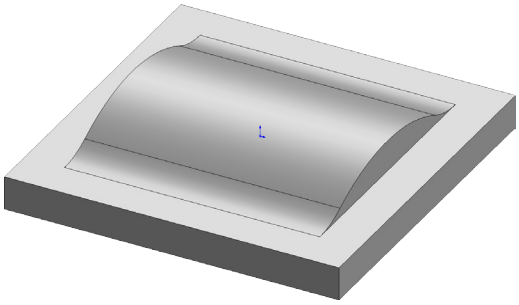


Fig. 18

Step 3. Save. Use **Ctrl-S**.

E. Extruded Cut.

Step 1. Click the **side face of first extrude** and click **Sketch** on the Context toolbar, **Fig. 19**.

Step 2. With the face still selected, click **Convert Entities**

on the Sketch toolbar.

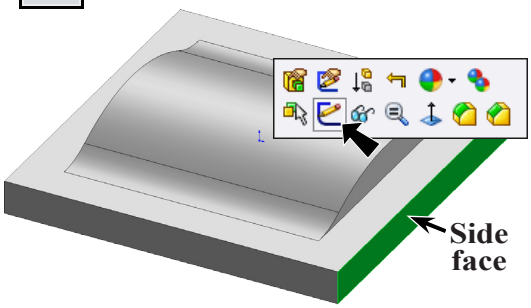


Fig. 19

Step 3. In the Convert Entities Property Manager:
under Entities to Convert, **Fig. 20**
click OK .

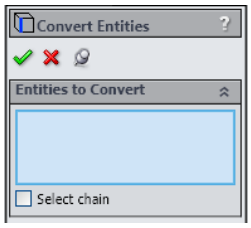


Fig. 20

Step 4. Click **Features**

on the Command Manager toolbar.

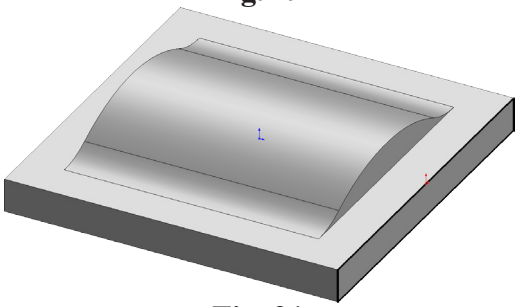


Fig. 21

Step 5. Click **Extruded Cut**

on the Features toolbar.

Step 6. In the Cut-Extrude Property Manager set:
under Direction 1, **Fig. 22**
End Condition Through All
click OK .

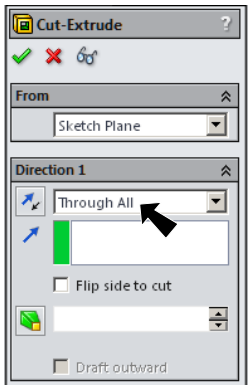


Fig. 22

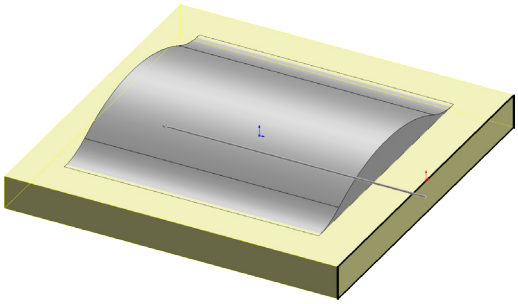


Fig. 23

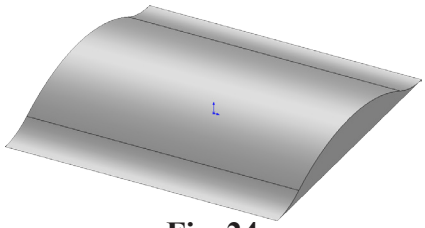


Fig. 24

F. Forming Tool.

Step 1. **Right click Sketch** Sketch on the Command Manager toolbar and select **Sheet Metal**, **Fig. 25**.

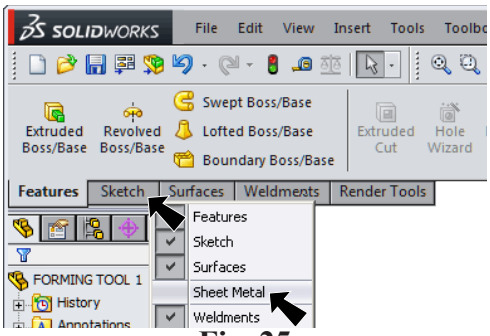


Fig. 25

Step 2. Click **Sheet Metal** Sheet Metal on the Command Manager toolbar.

Step 3. Rotate view to view **bottom face**, hold down middle mouse button (wheel) and drag to rotate view, **Fig. 27**.

Step 4. Click **Forming Tool** Forming Tool on the Sheet Metal toolbar.

Step 5. In the Forming Property Manager set:
under Stopping Face, **Fig. 26**
click **bottom face**, **Fig. 27**
click OK .

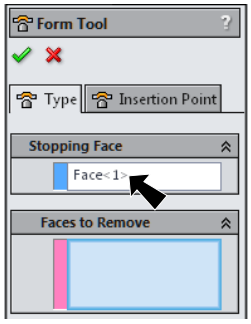


Fig. 26

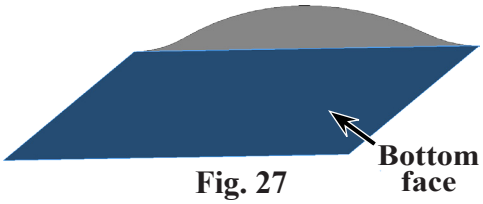


Fig. 27

Step 6. Save. Use **Ctrl-S**.

Fig. 28

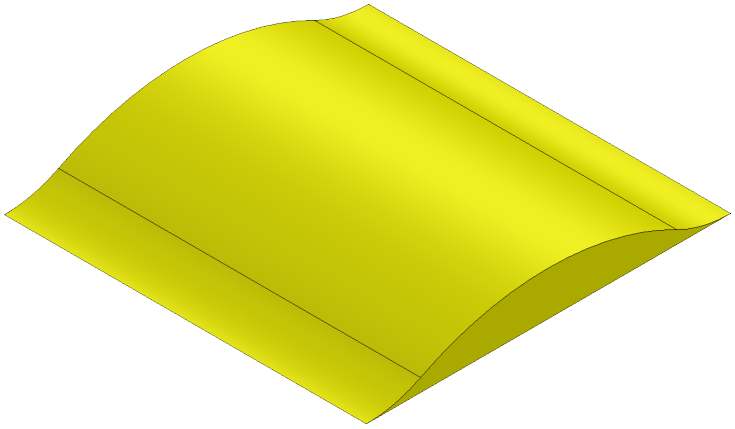


Fig. 29