

Boat Motor Mount

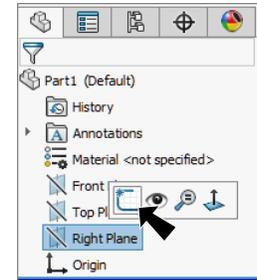
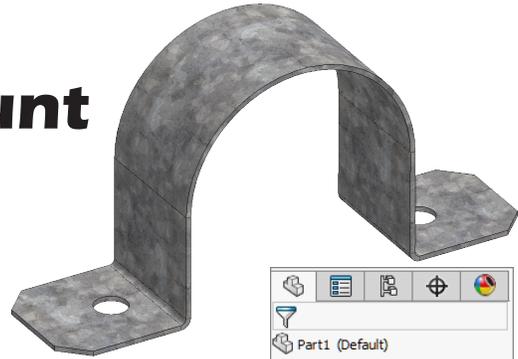


Fig. 1

A. Sheet Metal.

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

Step 2. Click **Right Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 1**.

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

Step 4. Click the Origin  to start the arc and move the cursor to the right. Click to place the first end point, then move cursor counterclockwise 180 degrees. Click to place the second end point, **Fig. 2**.

3. Swing around and click to end arc

2. Click 1st endpoint

1. Start at Origin

Step 5. Click **Line**  (L) on the Sketch toolbar.

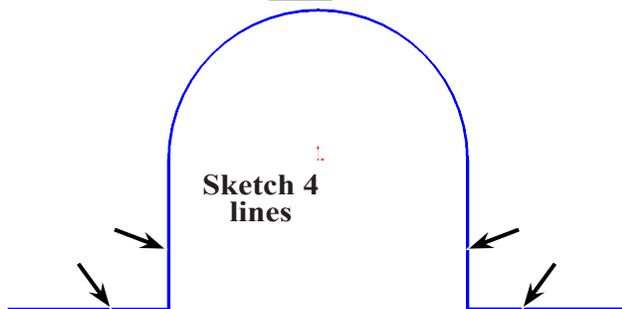


Fig. 3

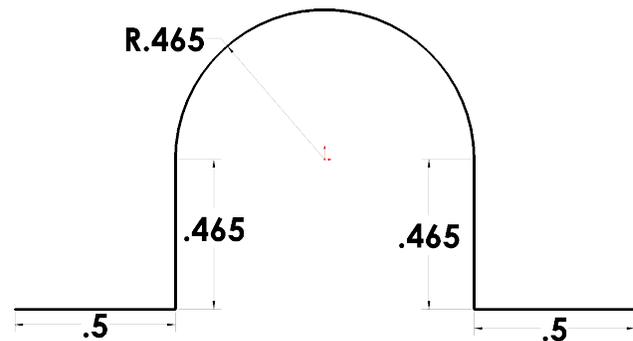


Fig. 4

Step 6. Sketch the lines in **Fig. 3**. Start the lines tangent at the endpoint of the arc.

Step 7. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 8. **Dimension the .465 radius first**, then the others dimensions, **Fig. 4**.

Step 9. Click Insert Menu > Sheet Metal > Base Flange.

Step 10. Click **Right**  on the View toolbar. (Ctrl-4)

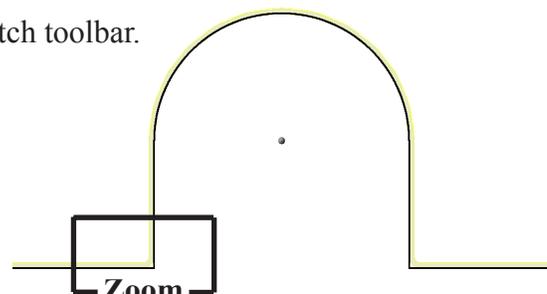


Fig. 5

Step 11. Zoom in around **corner**, **Fig. 5**. To **zoom**, place the cursor over the corner and spin the wheel on mouse back. While spinning the wheel keep cursor on corner.

- Step 12. In the Property Manager set:
 under Direction 1
 select **Mid Plane**, Fig. 7
Depth  **.5**
 under Sheet Metal Gauges
 check **Use gauge table**
 select **Sample Table - Aluminum**
 under **Sheet Metal Parameters**
 select **Gauge 26**

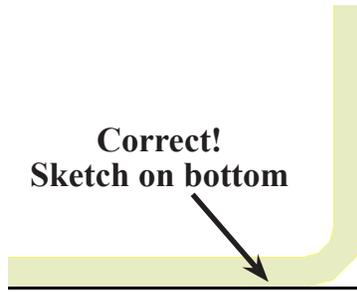


Fig. 6

IF sheet metal, Fig. 6 is on the **top** of sketch - click OK .

IF sheet metal is on **bottom**, Fig. 8, check **Reverse direction** in the Property Manager, Fig. 7

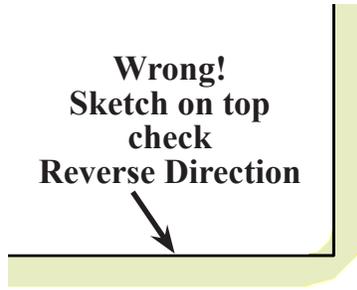


Fig. 8

Sketch (black line) has to be on bottom of sheet metal (green part)

click OK .

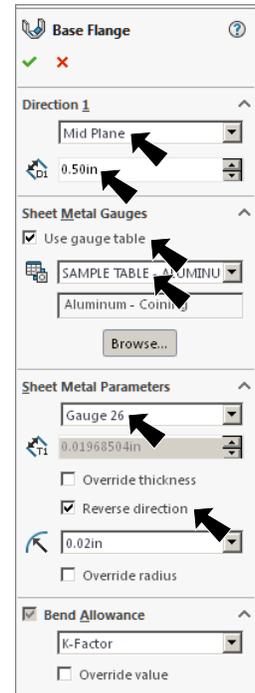


Fig. 7

B. Save as "MOTOR MOUNT".

Step 1. Click File Menu > Save As.

Step 2. Key-in **MOTOR MOUNT** for the filename and press ENTER.

C. Holes.

Step 1. Click **Isometric**  on the View toolbar. (Ctrl-7)

Step 2. Click the **top face** and click **Sketch**  on the context toolbar, Fig. 9.

Step 3. Click **Normal To**  on the Views toolbar (Ctrl-8).

Step 4. Click **Circle**  on the Sketch toolbar.

Step 5. Sketch **two circles** for the holes, Fig. 10.

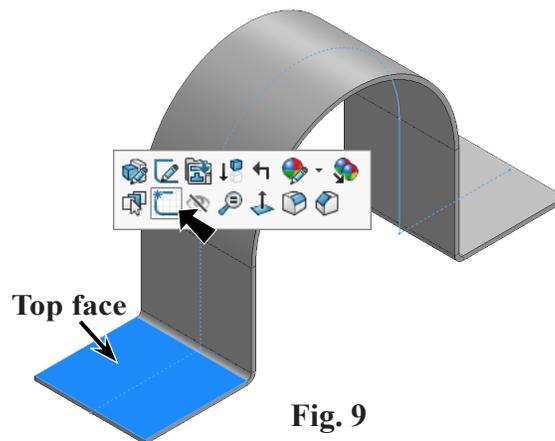


Fig. 9

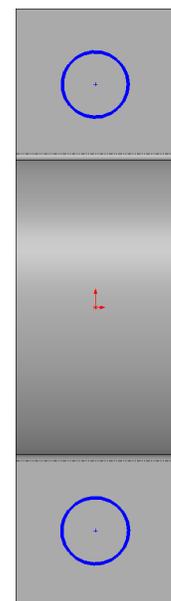


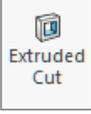
Fig. 10

Step 6. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 7. Add dimensions, **Fig. 11**.

Step 8. Click **Isometric**  on the View toolbar. (Ctrl-7)

Step 9. Click **Features**  on the Command Manager toolbar.

Step 10. Click **Extruded Cut**  on the Features toolbar.

Step 11. In the Property Manager set:
under Direction 1, **Fig. 12**
End Condition **Through All**
click OK .

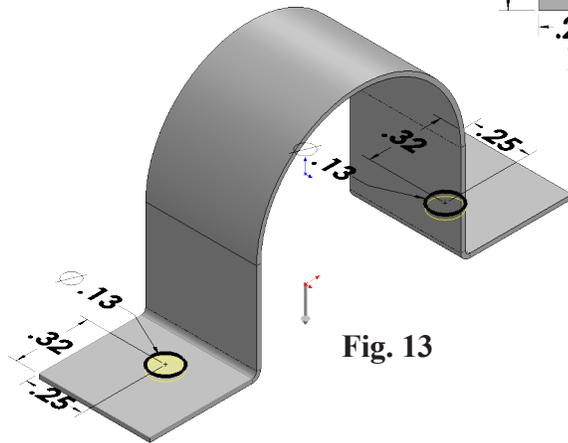
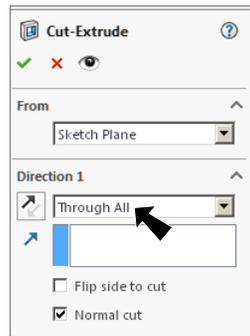
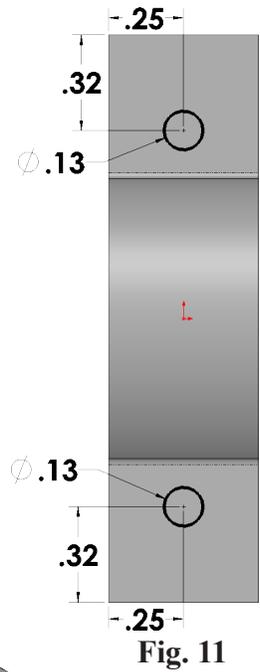


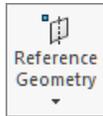
Fig. 12

Fig. 13

D. Mate Reference.

Step 1. Click the **bottom circular edge of hole** to select edge, **Fig. 14**.

Step 2. Click **Reference Geometry**



on the Features toolbar and **Mate Reference** from the menu.

Step 3. In the Mate Reference Property Manager click OK , **Fig. 15**.

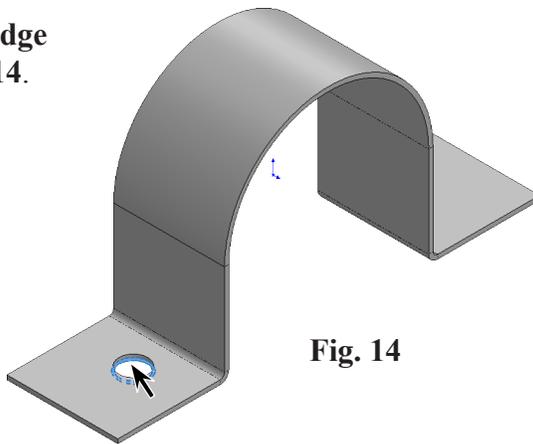


Fig. 14

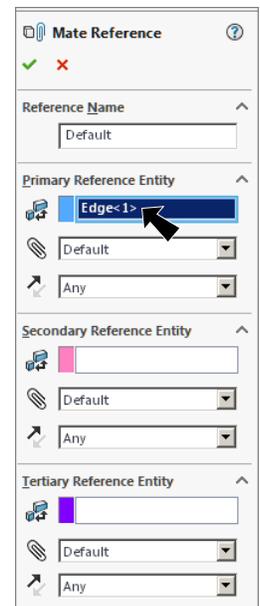


Fig. 15

E. Chamfers.

Step 1. Click **Chamfer**  on the Features toolbar.

Step 2. In the Chamfer Property Manager set:
under Chamfer Parameters, **Fig. 16**

Depth  .1

Angle  45°

Drag a selection around each corner to select the corner vertical edge, **Fig. 17**. Click OK .

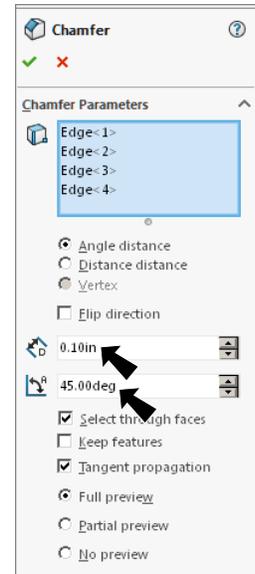


Fig. 16

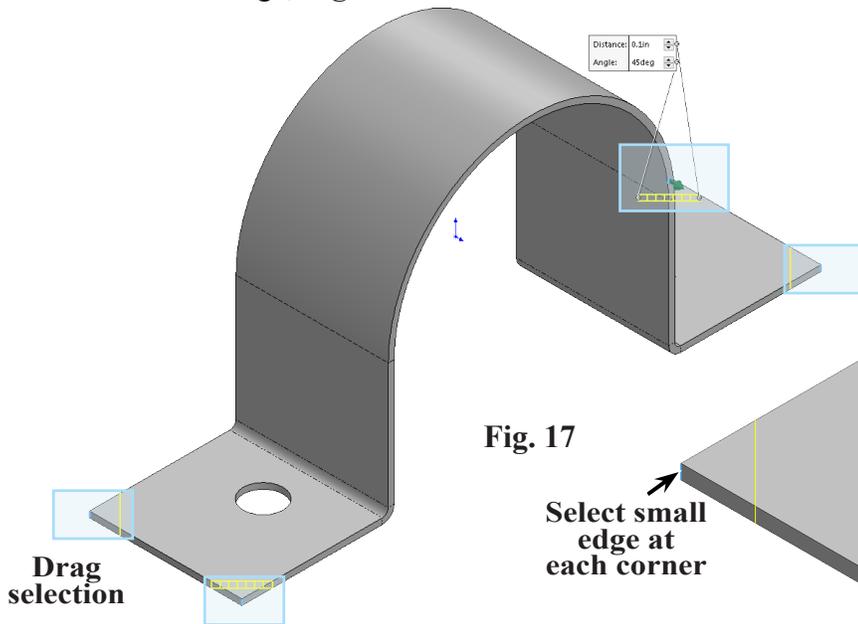
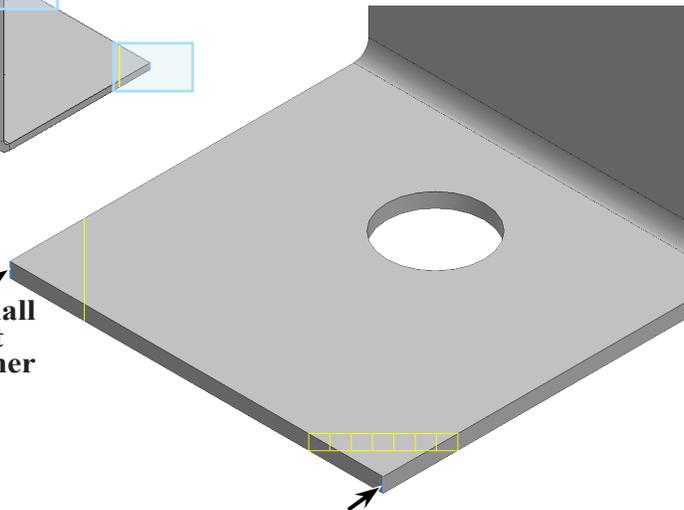


Fig. 17

Select small edge at each corner



F. Material Galvanized Steel.

Step 1. Right click **Material**  in the Feature Manager and click **Edit Material**.

Step 2. Expand **Steel** in the material tree and click **Galvanized Steel**. Click **Apply** and **Close**.

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

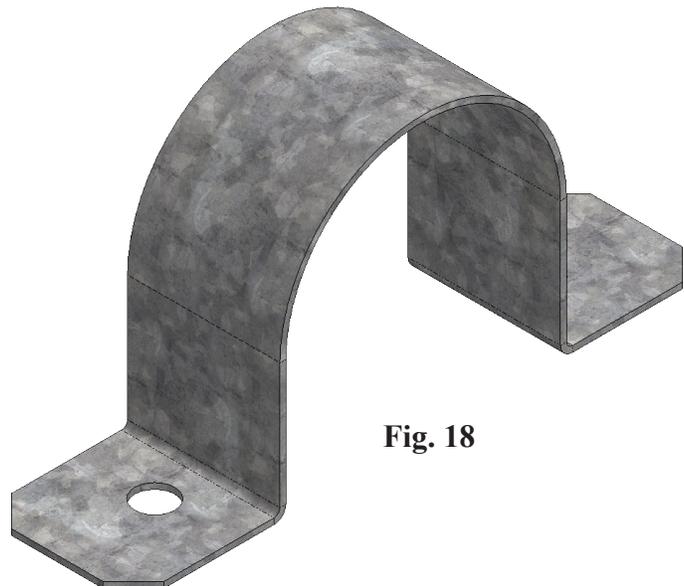


Fig. 18