




# Rocket Sheet Metal Body Tube

## A. Tube.

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

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

Step 3. Click **Circle**  (S) on the Sketch toolbar.

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

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

Step 6. Dimension **diameter .76**, **Fig. 2**.


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

Step 8. Click **Line**  (L) on the Sketch toolbar.

Step 9. Starting at the Origin  draw horizontal line out to circle, **Fig. 3**.

Step 10. Click **Offset Entities**  on the Sketch toolbar.

Step 11. In the Offset Entities Property Manager set:  
under Parameters, **Fig. 4**

**Distance**  **.01**  
check **Bi-directional**  
If the line is not selected,  
click line.

The yellow offset lines  
should be on both side of the  
initial green line, **Fig. 5**.

Click OK .

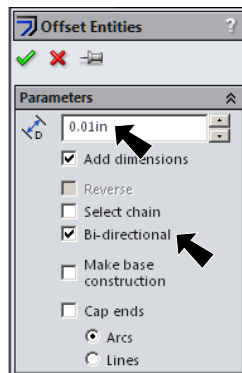


Fig. 4

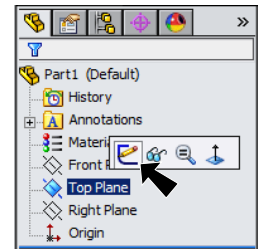


Fig. 1

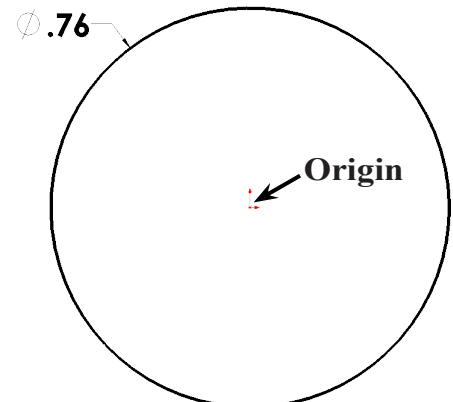


Fig. 2

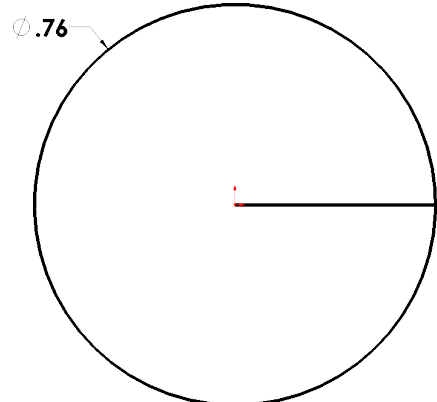


Fig. 3

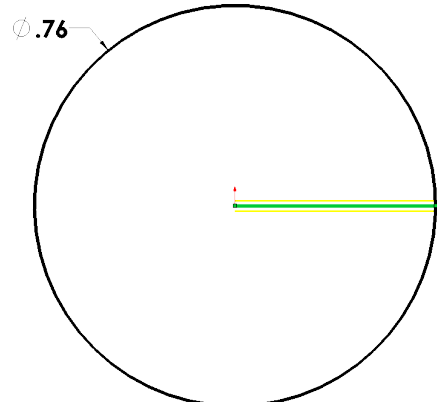


Fig. 5

## B. Save as "BODY TUBE".

Step 1. Click File Menu > Save As.

Step 2. Key-in **BODY TUBE** for the filename and press ENTER.

## C. Trim.

Step 1. Zoom in on **lines at intersection of circle**, Fig. 6. To zoom, place the cursor over the intersection and spin the wheel on mouse back. While spinning the wheel keep cursor on intersection.

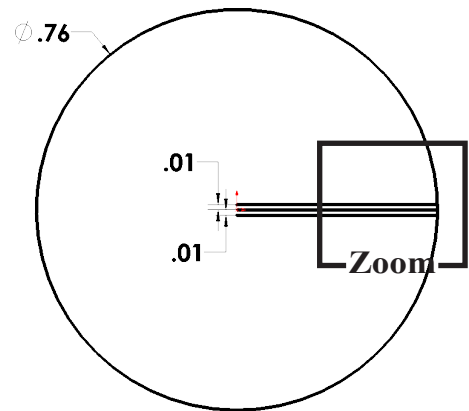



Fig. 6

Step 2. Click **Trim Entities**  (S) on the Sketch toolbar.

Step 3. In the Trim Property Manger:  
select **Trim to closest**



Fig. 7

Trim the two segments of circle between the lines, Fig. 8. Click segments to trim.

Results shown in Fig. 9.

Click OK  when done.

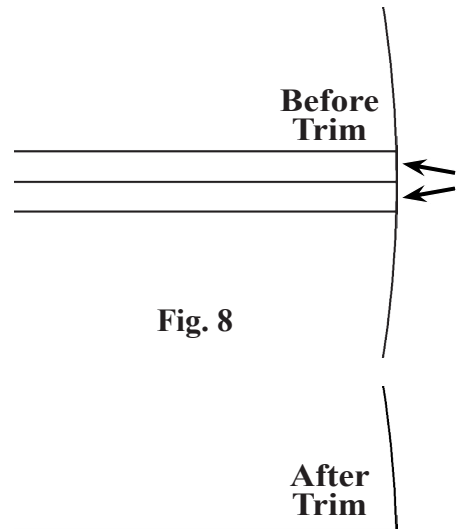


Fig. 8

Step 4. **Drag a "trend to left - more liberal"** selection across lines to select

all three lines and click **Construction Geometry**  on the Context toolbar, Fig. 10.

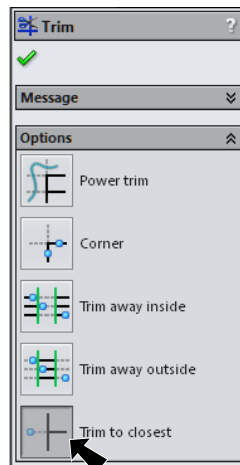


Fig. 7

Fig. 9

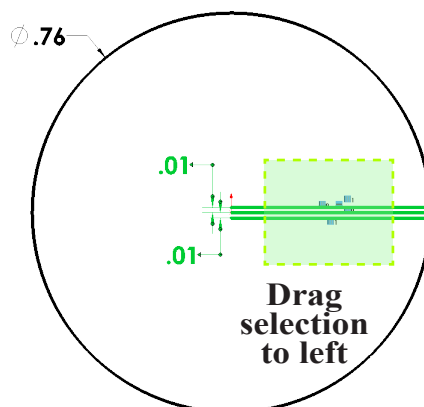


Fig. 10

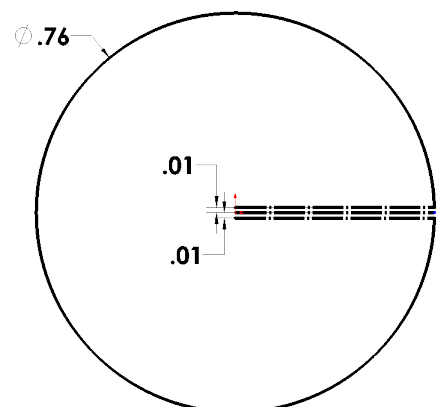

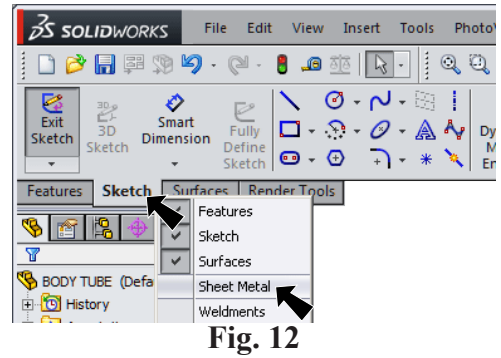
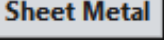


Fig. 11

## D. Base Flange.

Step 1. If necessary turn on **Sheet Metal** Command Manager. To turn on, **right click Sketch**  on the Command Manager toolbar and select **Sheet Metal**, **Fig. 12**.



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

Step 3. Click **Base Flange/Tab**  on the Sheet Metal toolbar.

Step 4. In the Property Manager set:  
under Direction 1, **Fig. 13**.

**Depth**  **6**

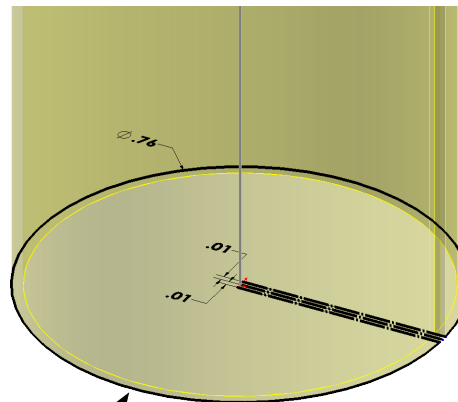
under **Sheet Metal Gauges**:  
check **Use gauge table**  
select

**Sample Table-Aluminum**  
under **Sheet Metal Parameters**: select **Gauge 26**  
check **Reverse direction**

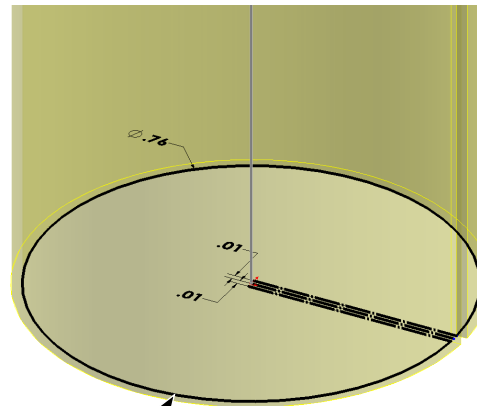
The sheet metal should be on **inside of sketch**, **Fig. 14**. If in opposite direction uncheck **Reverse direction**.

click **OK** 

Step 5. Click **Zoom to Fit**  **(F)** on the View toolbar.

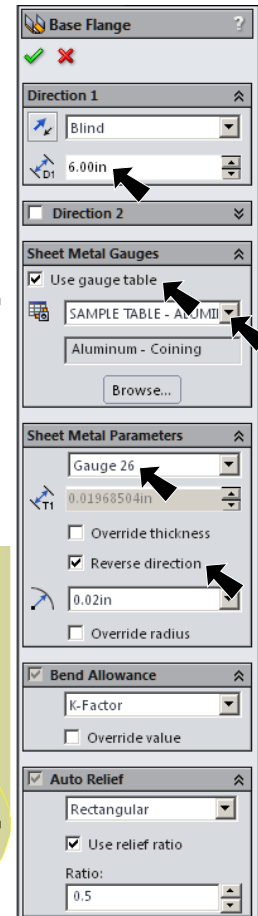


**Correct!**  
**Sketch on outside**



**Wrong!**  
**Sketch on inside**

**check Reverse Direction**



## E. Flatten Sheet Metal.

Step 1. Click **Flatten**  on the Sheet Metal toolbar, **Fig. 17**. Click **Flatten**  again to unflatten.

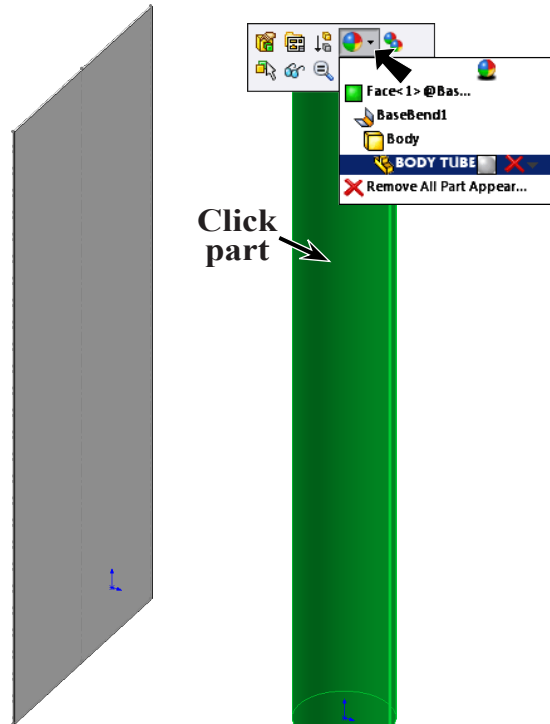




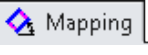
Fig. 17

Fig. 18


## F. Appearance.

Step 1. Click the Body Tube, click **Appearance Call-out**  on the Context toolbar and click **BODY TUBE** , **Fig. 18**.

Step 2. In the Color Property Manager, click **Advanced** button, **Fig. 19** under Appearance click **Browse** button and open **camouflage-green.p2m** file

click **Mapping** tab , **Fig. 23** under Mapping Mapping Type **Surface**

under Size/Orientation

Width  2  
click OK .

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



Fig. 20



Fig. 22

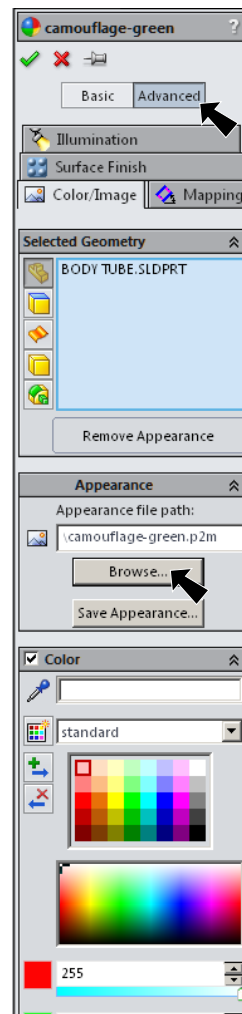


Fig. 19

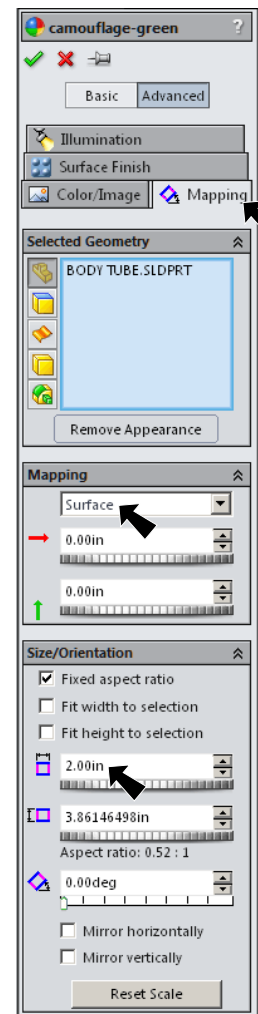


Fig. 21