

A. Sketch.

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

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

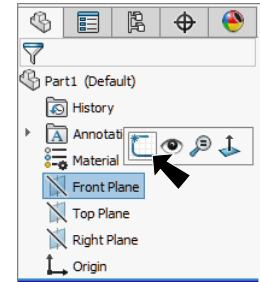


Fig. 1

Step 3. Click **Line**  (L) on the Sketch toolbar.

Step 4. Sketch the 5 lines out to left of the Origin , **Fig. 2**.

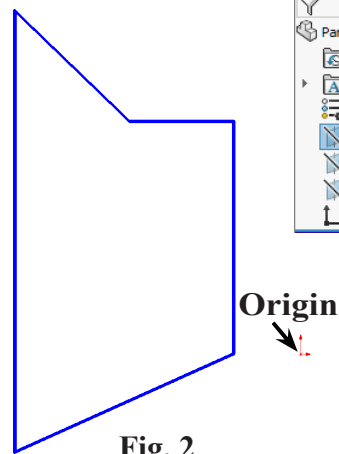





Fig. 2

Step 5. Sketch a vertical line up from the Origin , **right click** and click **Construction**

Geometry  on the context toolbar, **Fig. 3**.

Step 6. **Ctrl click bottom vertex of right vertical line** and

Origin  to select both. Release Ctrl key and click

Make Horizontal  on the context toolbar, **Fig. 4**.

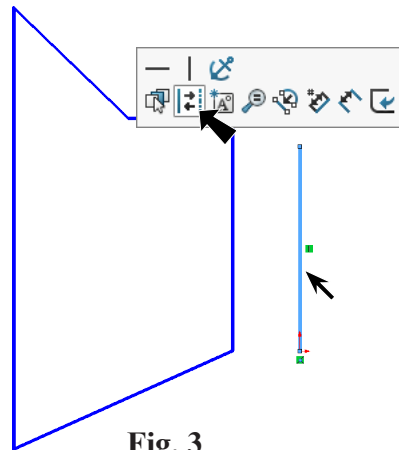


Fig. 3

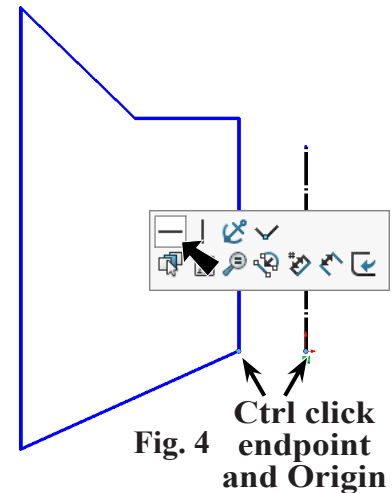



Fig. 4 **Ctrl click endpoint and Origin**

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

Step 8. Add dimensions, **Fig. 5**. Dimension **double distance all 3 diameters**. To double distance dimension inside diameter, click centerline and then left vertical line, move the cursor Origin and click. Key-in .118 in the Modify box and press ENTER. Double distance outside diameter. Add the other double distances.

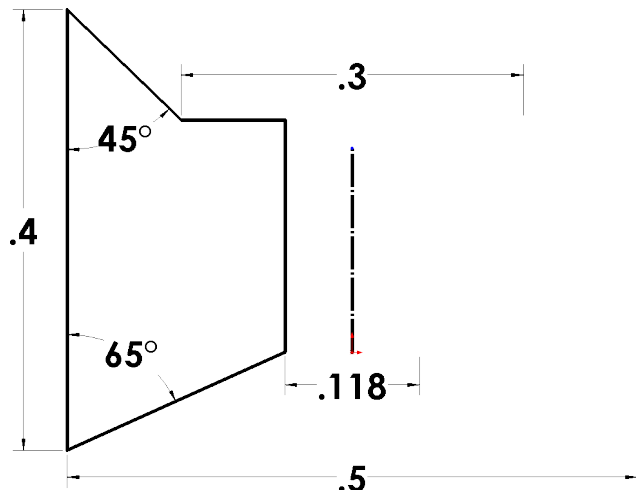




Fig. 5

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

Step 10. Click **Revolved Boss/Base**  on the Features toolbar.

Step 11. In the Revolve Property Manger set:

under Axis of Revolution  centerline is selected, **Fig. 6**
click OK .

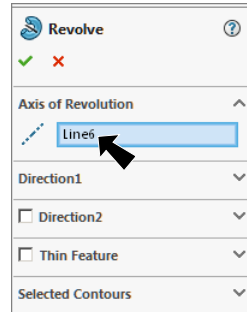


Fig. 6

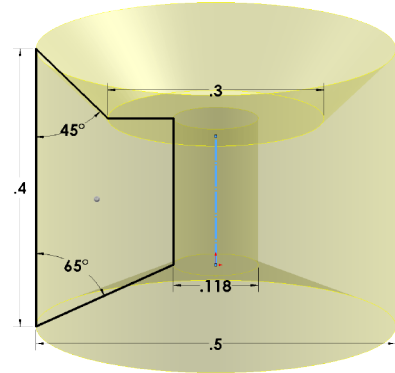


Fig. 7

B. Save as "ENGINE NOZZLE".

Step 1. Click File Menu > Save As.

Step 2. Key-in **ENGINE NOZZLE** for the filename and press ENTER.

C. Appearance.

Step 1. Click the part to select, click **Appearance Callout**  on the content toolbar and click **ENGINE N**  **Fig. 8**.

Step 2. In the Appearances Task pane, expand **Stone**, click **Stoneware** and in the lower pane select **ceramic**, **Fig. 9**.

Step 3. Click OK  in the Property Manager.

Step 4. Save. Use **Ctrl-S**.

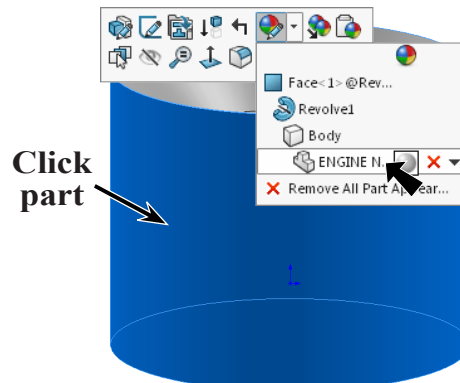


Fig. 8

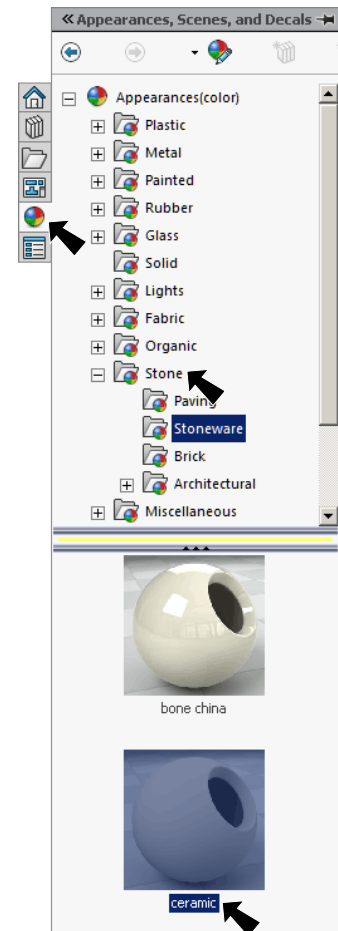


Fig. 9

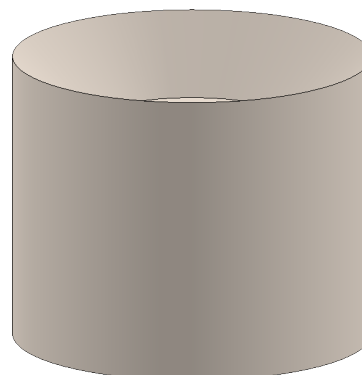


Fig. 10