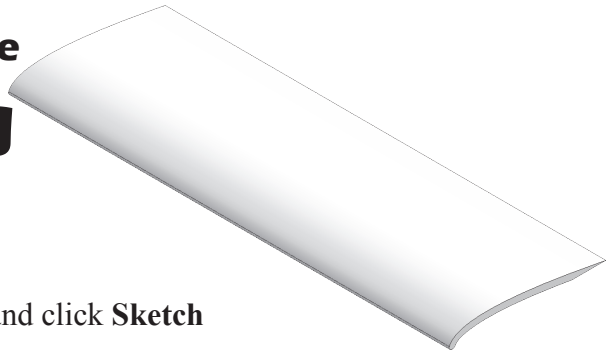




Airplane Wing




A. Start Sketch.

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

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

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

Step 4. Sketch a horizontal line from Origin  to the right **Fig. 2**.

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

Step 6. Dimension line **2.5**, **Fig. 2**.

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

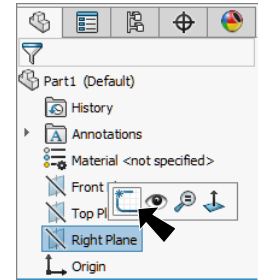
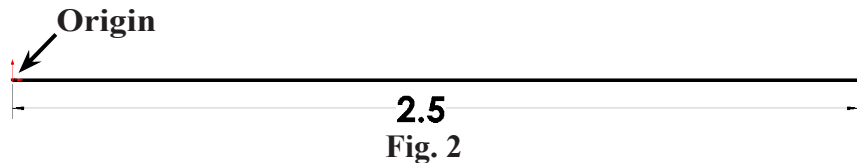


Fig. 1

B. Save as "WING".

Step 1. Click File Menu > Save As.

Step 2. Key-in **WING** for filename and press ENTER.

C. Style Spline for Air Foil.

Step 1. Click **Style Spline**  in the **Spline flyout**  on the Sketch toolbar.

Step 2. Sketch a **3 control vertex point Spline** between left endpoint of line and right endpoint of line, **Fig. 3**. To sketch, start at left endpoint of line for 1st control vertex point. Sketch 2nd control vertex point directly above. Click right endpoint of line for 3rd control vertex point. Press Escape to end spline.

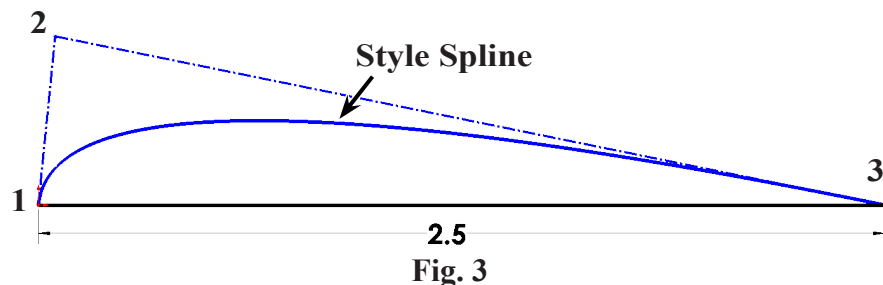
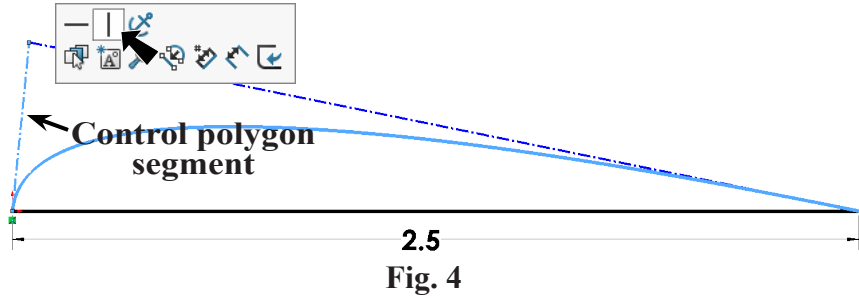
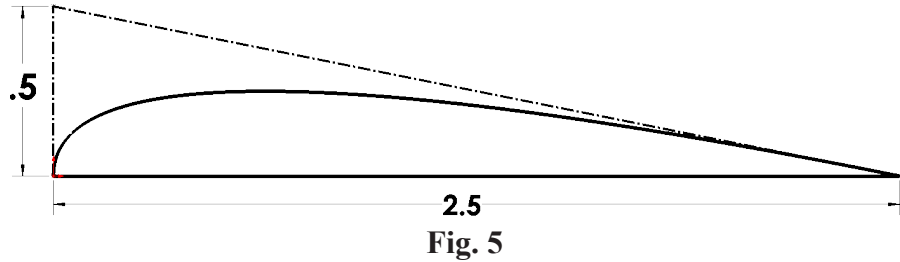


Fig. 3

Step 3. Click **left control polygon segment** and click **Make Horizontal** on the context toolbar, **Fig. 4**.



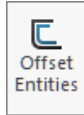
Step 4. Click **Smart Dimension (S)** on the Sketch toolbar.



Step 5. Dimension control polygon segment length .5, **Fig. 5**.

D. Offset Entities.

Step 1. Click **Offset Entities** on the Sketch toolbar.



Step 2. In the Offset Entities Property Manager set: under Parameters, **Fig. 6**

Distance 1
 uncheck **Select chain**
 uncheck **Bi-directional**.

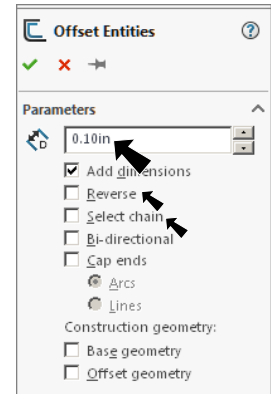


Fig. 6

If the spline is not selected, **click spline**.

The yellow offset spline should be below initial spline, **Fig. 7**. If it is not, click Reverse. Click OK ✓.

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

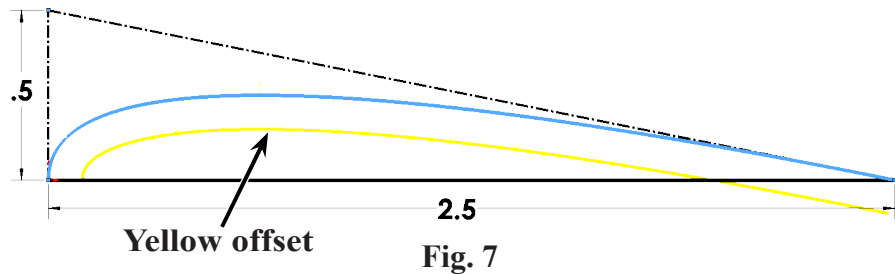
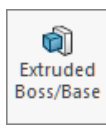


Fig. 7

E. Extrude.

Step 1. Click **Features**  on the Command Manager toolbar.


Step 2. Click **Extruded Boss/Base**  on the Features toolbar.

Step 3. In the Boss-Extrude Property Manager set:
under Direction 1, **Fig. 8**

Depth  7

under Selected Contours
click **contour inside sketch**, **Fig. 9**

click OK .

Step 4. Click **Zoom to Fit**  (F) on the View toolbar.

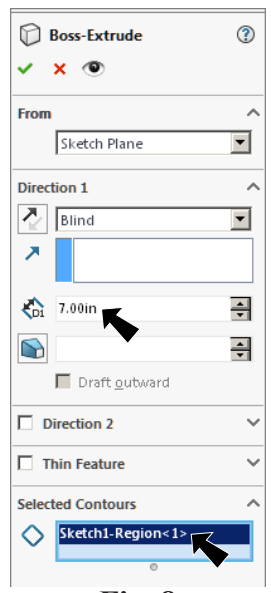
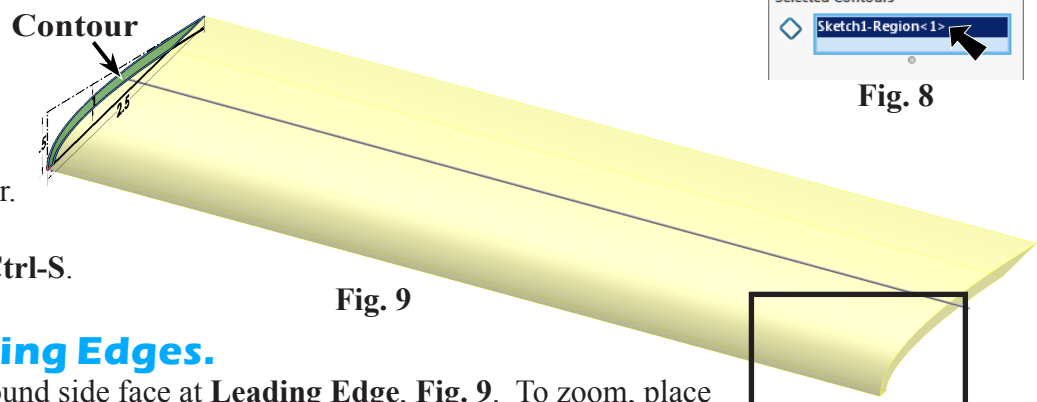


Fig. 8

Step 5. Save. Use **Ctrl-S**.

Fig. 9

F. Fillet Leading Edges.

Step 1. Zoom in around side face at **Leading Edge**, **Fig. 9**. To zoom, place the cursor over the Leading Edge and spin the wheel on mouse back. While spinning the wheel keep cursor on the area Leading Edge.

Step 2. Click **Fillet**  on the Features toolbar.

Step 3. In the Fillet Property Manager set:
select **FilletXpert**, **Fig. 10**

Radius  .045

click the **two edges** of the bottom of the leading edge,
Fig. 11

click OK .

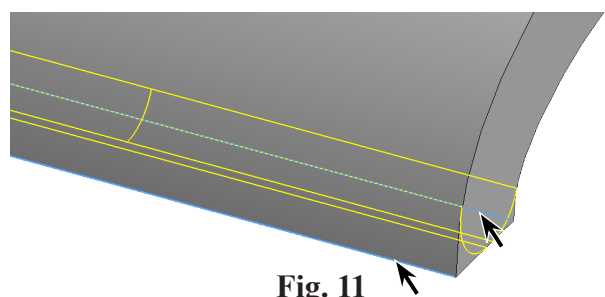


Fig. 11

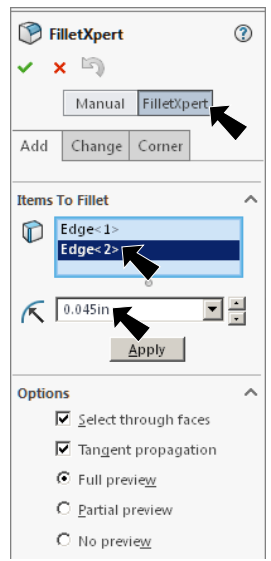


Fig. 10

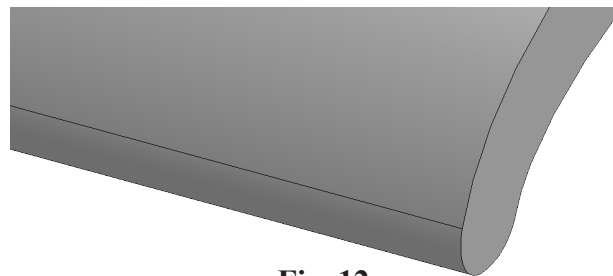



Fig. 12

G. Material PS HI (Polystyrene).

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

Step 2. **Right click Material**  in the Feature Manager and click **Edit Material**, Fig. 13.

Step 3. Expand **Plastics** in the material tree and select **PS HI**, Fig. 14. Click **Apply** and **Close**.

Step 4. Save. Use Ctrl-S.

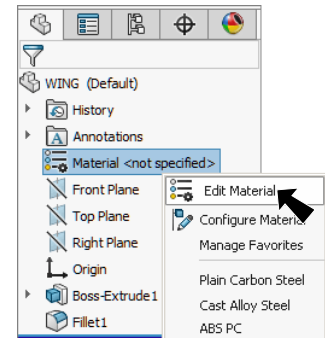


Fig. 13

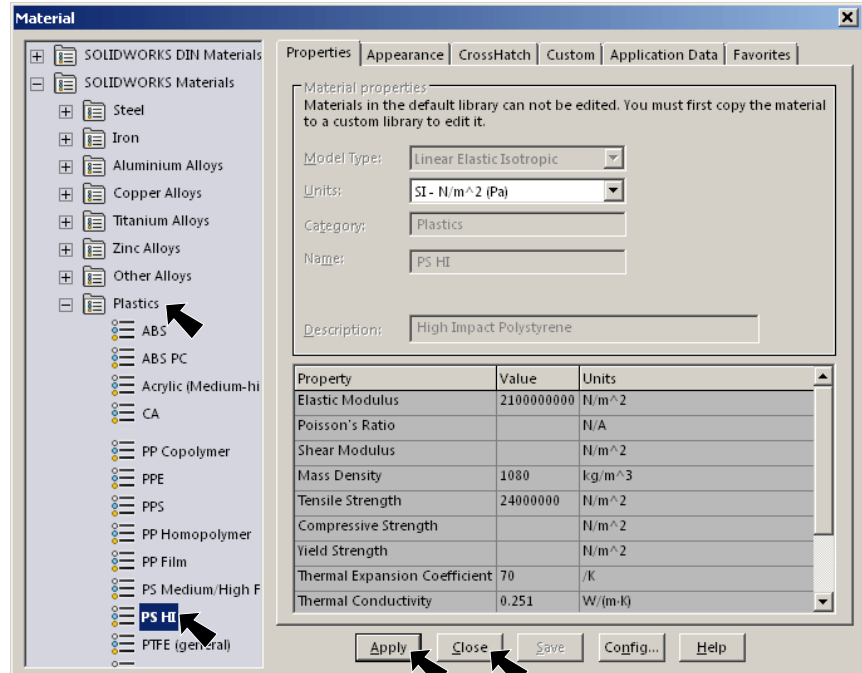


Fig. 14

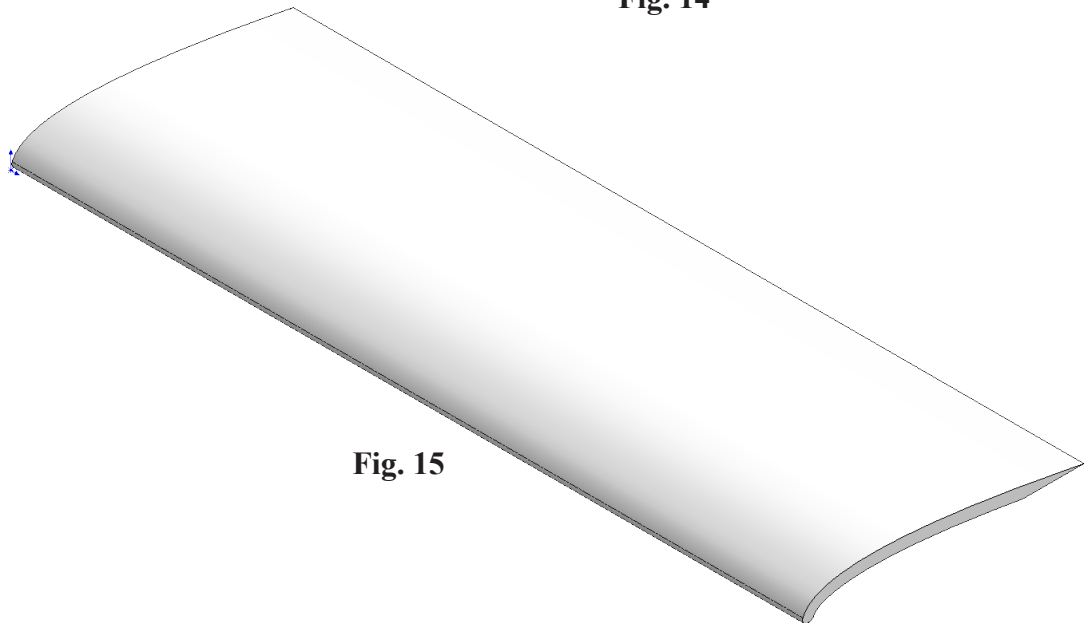


Fig. 15