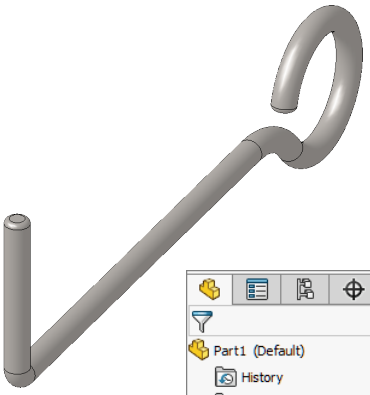
Chapter 7

Delta Dart
Prop Wire



A. Sweep Profile.

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

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

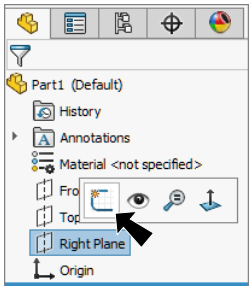


Fig. 1

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

Step 4. Sketch a slightly open arc starting from the Origin, **Fig. 2**. To sketch the arc, click the Origin to place the center of the arc. Start the first endpoint directly left of the Origin, then swing the arc down around counterclockwise. Click to place the second endpoint leaving a small gap in the arc, **Fig. 2**. Use the inferencing line, the dotted line that appears when you sketch the arc.

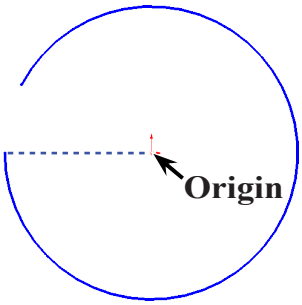


Fig. 2

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

Step 6. Dimension radius of the arc **2.65 Fig. 3**.

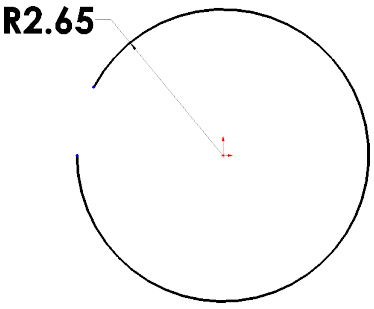


Fig. 3

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

Step 8. Sketch **2 lines**, **Fig. 4**. Sketch tline from the arc endpoint that is directly to left of Origin.

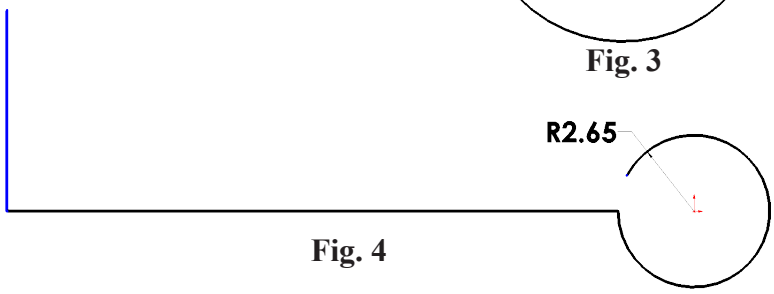


Fig. 4

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

Step 10. Dimension arc gap **.4**, the lines **24** and **7**, **Fig. 5**.

Step 11. Click Zoom to Fit **(F)** on the View toolbar.

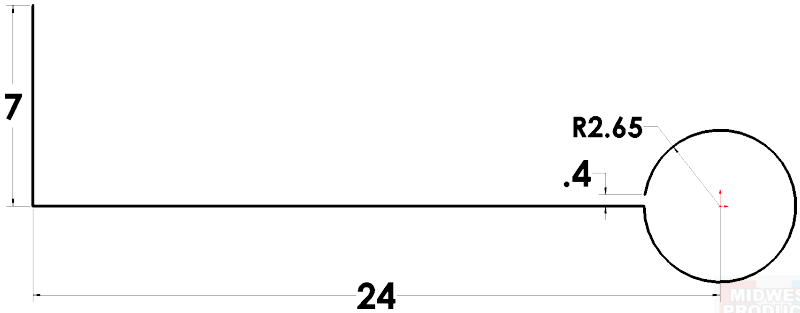


Fig. 5

Step 12. Click **Sketch Fillet** on the Sketch toolbar.

Step 13. In the Sketch Fillet Property Manager set:
under Fillet Parameters, **Fig. 6**

Radius **4**
click **right endpoint of horizontal line at arc**, **Fig. 7**

click OK .

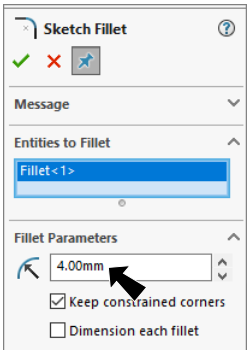


Fig. 6

Fig. 7

Radius **.5, Fig. 8**
click **left endpoint of horizontal at vertical line**, **Fig. 9**

click OK **twice**.

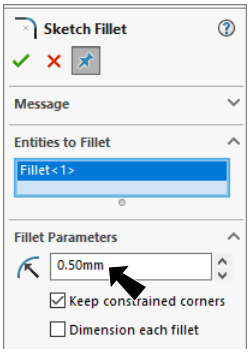


Fig. 8

Fig. 9

B. Save as "PROP WIRE".

Step 1. Click File Menu > Save As.

Step 2. Key-in **PROP WIRE** for the filename and press ENTER.

Fig. 10

C. Sweep.

Step 1. Click **Trimetric** on the Standard Views toolbar.

Step 2. Click **Features** Features on the Command Manager toolbar.

Step 3. Click **Swept Boss/Base** Swept Boss/Base on the Features toolbar.

Step 4. In the Swept Boss/Base Property Manager:
under Profile and Path, **Fig. 11**
select **Circular Profile**
Path click any geometry, **Fig. 12**
Diameter **1**
click OK .

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

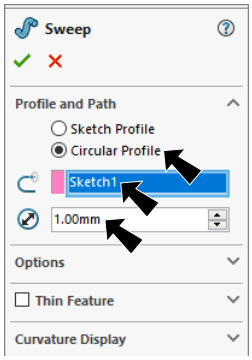


Fig. 11

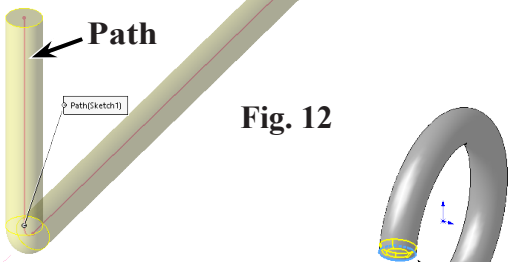


Fig. 12

D. Fillet Edges.

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

Step 2. In the Fillet Property Manager set:
select **FilletXpert**, **Fig. 13**
Radius **.2**
click **both edges**, **Fig. 14**
click OK .

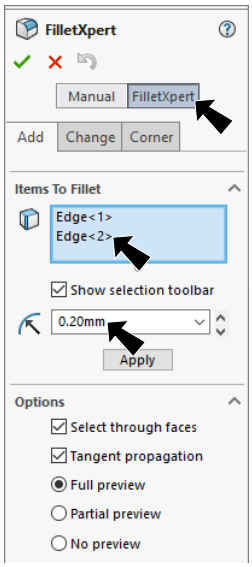


Fig. 13

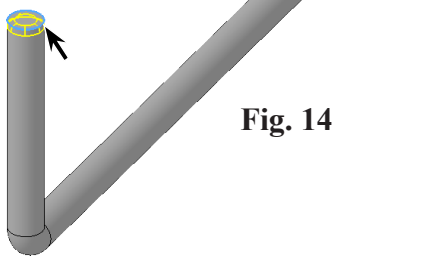


Fig. 14

E. Material Steel 304.

Step 1. **Right click Material** in the Feature Manager and click **Edit Material**, **Fig. 15**.

Step 2. Expand **Steel** in the material tree and select **Steel AISI 304**. Click **Apply** and **Close**.

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

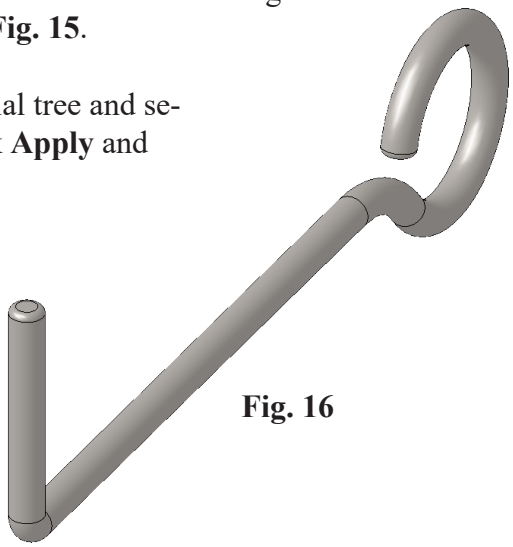


Fig. 16

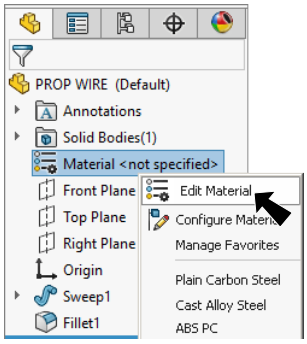


Fig. 15