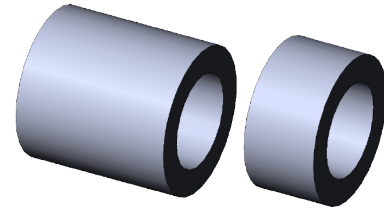






CO2 Shell Car Spacers



A. Spacer.

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

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

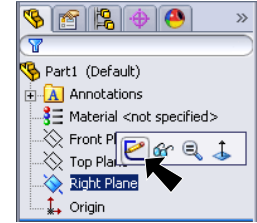


Fig. 1

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

Step 4. Draw two circles starting at the Origin , **Fig. 2**.

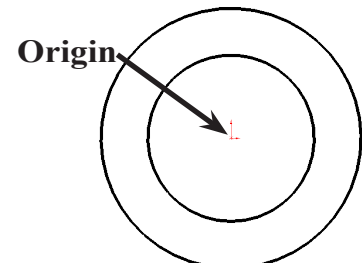


Fig. 2

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

Step 6. Dimension circle **diameters 3.2** and **5**, **Fig. 3**.

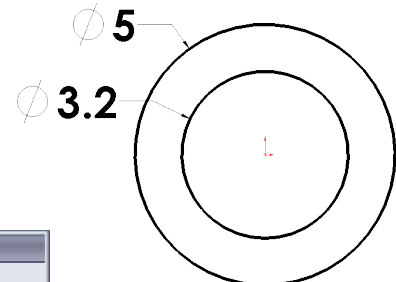
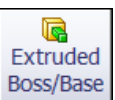




Fig. 3

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

Step 9. In the Property Manager set:

End Condition to **Mid Plane**
Depth  to **5.3**
click OK , **Fig. 4** and **Fig. 5**.

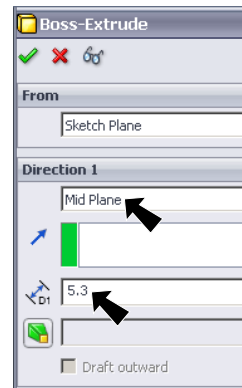



Fig. 4

Step 10. Click **Zoom to Fit**  (F) on the View toolbar.

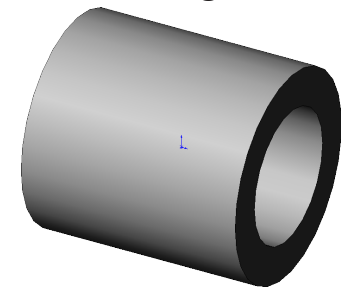



Fig. 5

B. Save as "FRONT SPACER".

Step 1. Click File Menu > Save As.

Step 2. Key-in **FRONT SPACER** for the filename and press ENTER.

C. Mate References.

Step 1. Click **Right Plane**  in the Feature Manager to select Plane, **Fig. 6**.

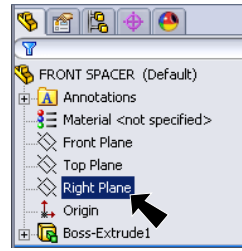


Fig. 6

Step 2. Click **Reference Geometry**  on the Features toolbar and **Mate Reference** from the menu.

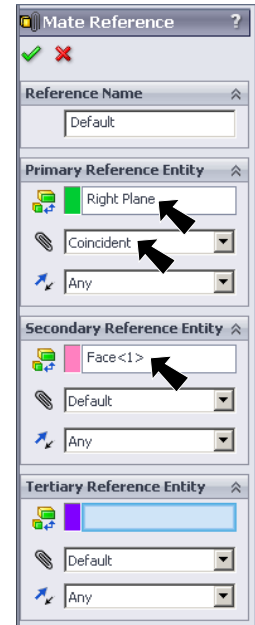


Fig. 7

Step 3. In the Mate Reference Manager: under **Primary Reference Entity**, **Fig. 7**

set **Mate Reference Type**  to **Coincident**

under **Secondary Reference Entity**

click in Entity box 

and click **inside cylindrical face**, **Fig. 8**

click OK .

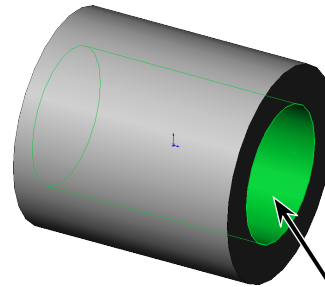



Fig. 8

Face

D. Material Nylon.

Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**, **Fig. 9**.

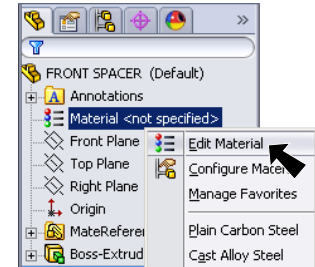


Fig. 9

Step 2. **Expand Plastics** in the material tree and select **Nylon 101**, **Fig. 10**. Click **Apply** and **Close**.

E. Save as "REAR SPACER".

Step 1. Save.
Use **Ctrl-S** to save **FRONT SPACER**.

Step 2. Click File Menu > Save As.

Step 3. Key-in **REAR SPACER** for the filename.
You now have two spacers files, **FRONT** and **REAR**. Next, we change length of **REAR SPACER**.

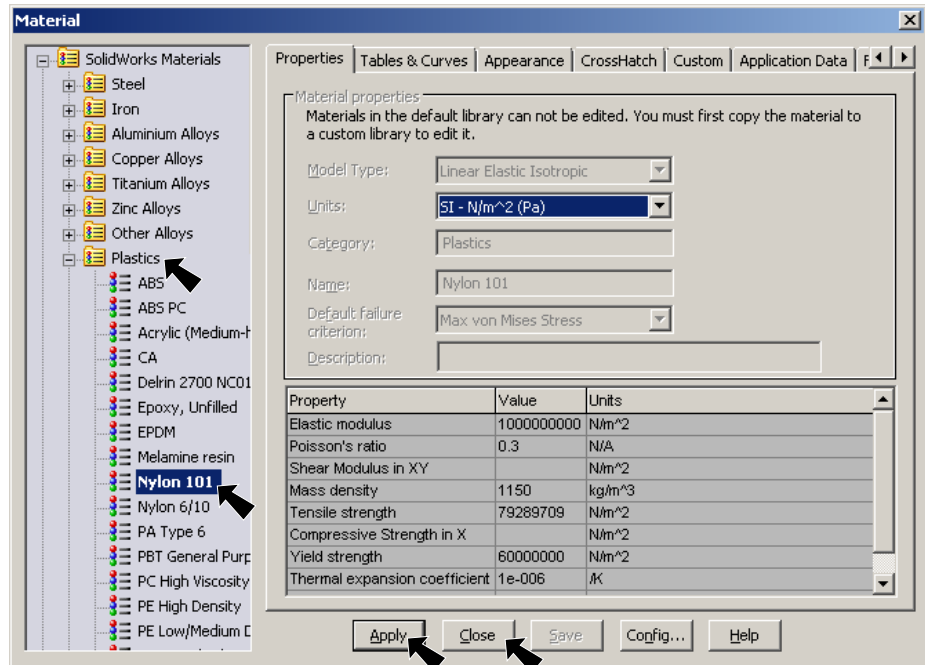




Fig. 10

F. Change Extrude Depth.

Step 1. Click **Boss-Extrude1** in the Feature Manager and click **Edit Feature**  in the menu, **Fig. 11**.

Step 2. Change **Depth**  **D1** to **2.5** click **OK** , **Fig. 12**.

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

You should have 2 spacers:
FRONT 5.3
REAR 2.5

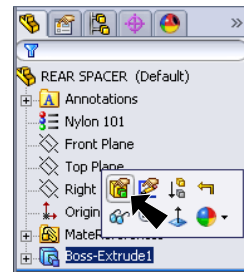
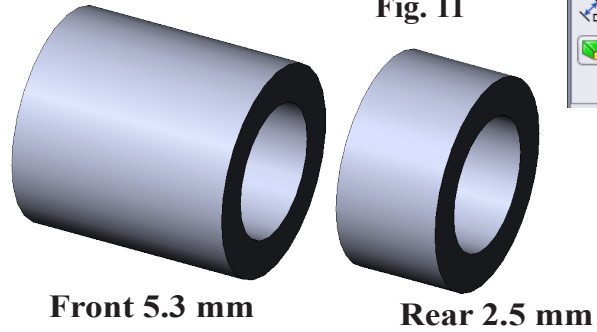


Fig. 11

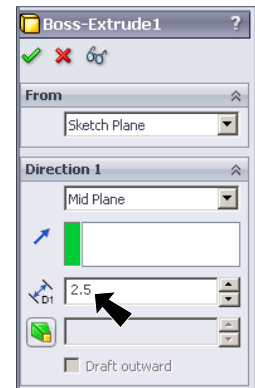


Fig. 12