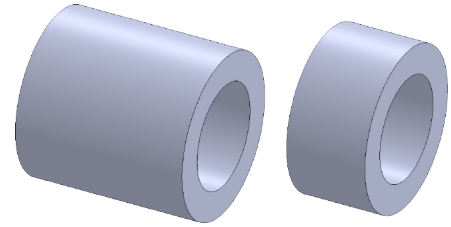




CO2 Shell Car Spacers



A. Spacer.

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

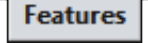
Step 2. Click **Right Plane**  in the Feature Manager and click **Sketch**  from the Context toolbar, **Fig. 1**.

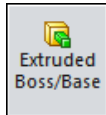
Step 3. Click **Circle**  (S) on the Sketch toolbar.



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


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

Step 6. Dimension circle **diameters 3.2 and 5**, **Fig. 2**.

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:
under Direction 1, **Fig. 3**
End Condition **Mid Plane**
Depth  **5.3**
click OK .

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

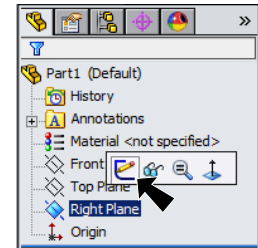


Fig. 1

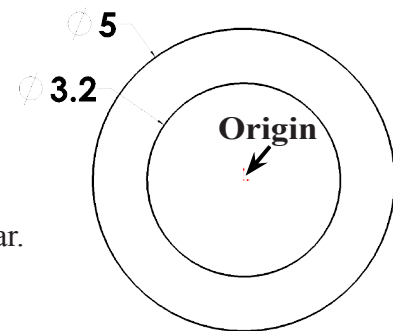


Fig. 2

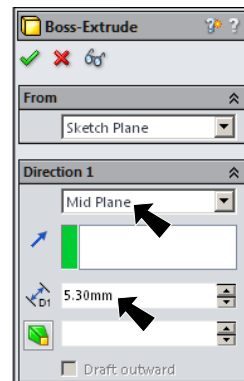


Fig. 3

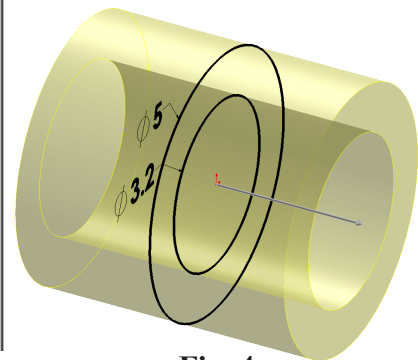



Fig. 4

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. 5**.

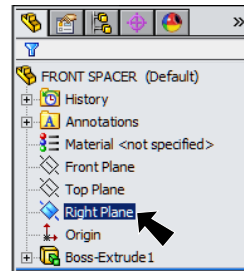


Fig. 5

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

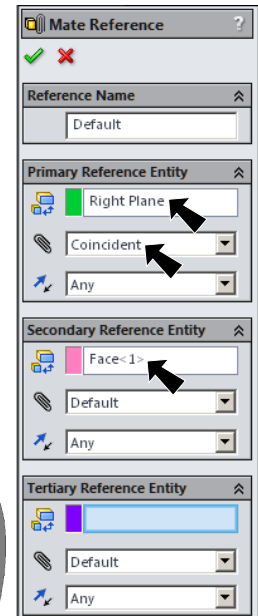


Fig. 6

Step 3. In the Mate Reference Manager:
under **Primary Reference Entity**, **Fig. 6**

Mate Reference Type  **Coincident**

under **Secondary Reference Entity**

click in Entity box 

and click a **cylindrical face**, **Fig. 7**

click OK .

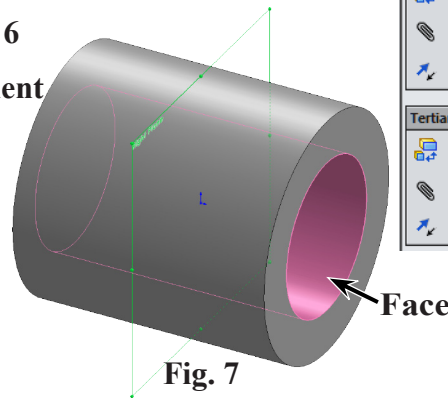



Fig. 7

D. Material Nylon.

Step 1. **Right click** **Material**  in the Feature Manager and click **Edit Material**, **Fig. 8**.

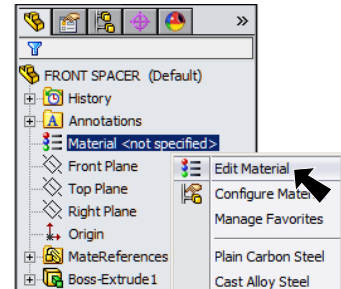


Fig. 8

Step 2. **Expand Plastics** in the material tree and select **Nylon 101**, **Fig. 9**. 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**.

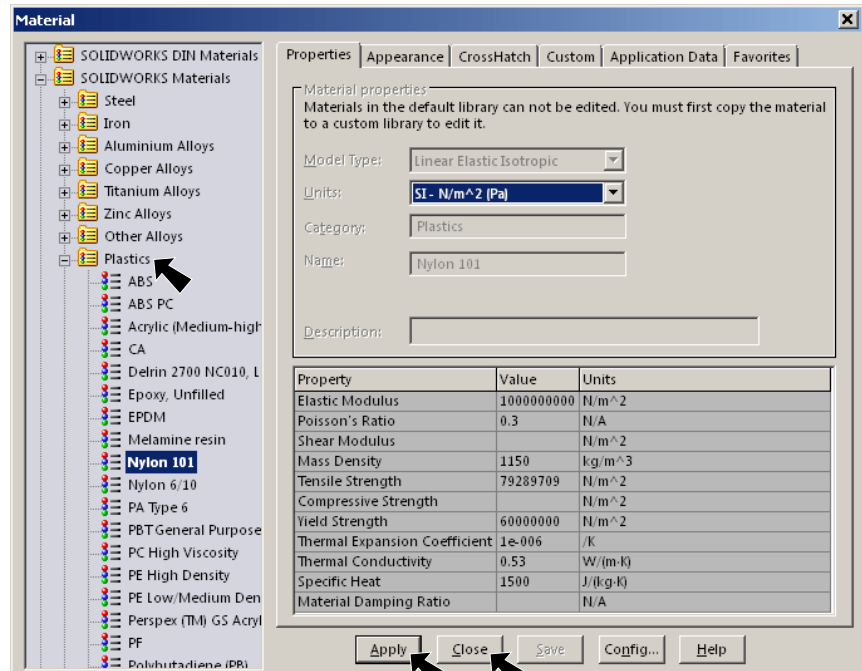



Fig. 9

F. Change Extrude Depth.

Step 1. Click **Boss-Extrude1** in the Feature Manager and click **Edit Feature**  in the Context toolbar, **Fig. 10**.

Step 2. In the Property Manager set:
under Direction 1, **Fig. 11**

change **Depth**  to **2.5**
click OK .

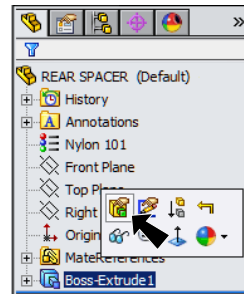


Fig. 10

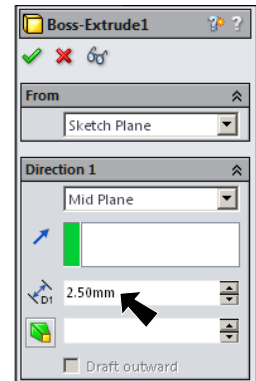


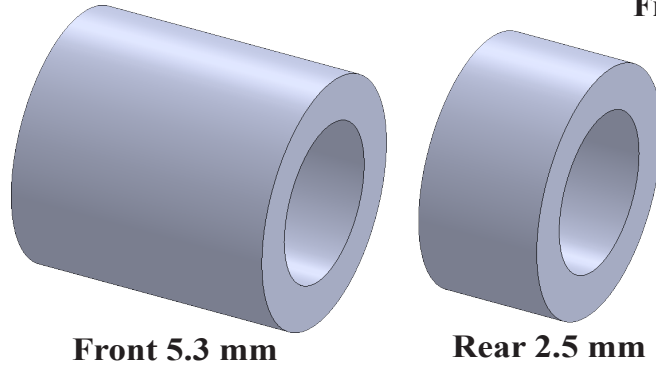
Fig. 11

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

You should have 2 spacers:

FRONT 5.3

REAR 2.5



Front 5.3 mm

Rear 2.5 mm

Fig. 12