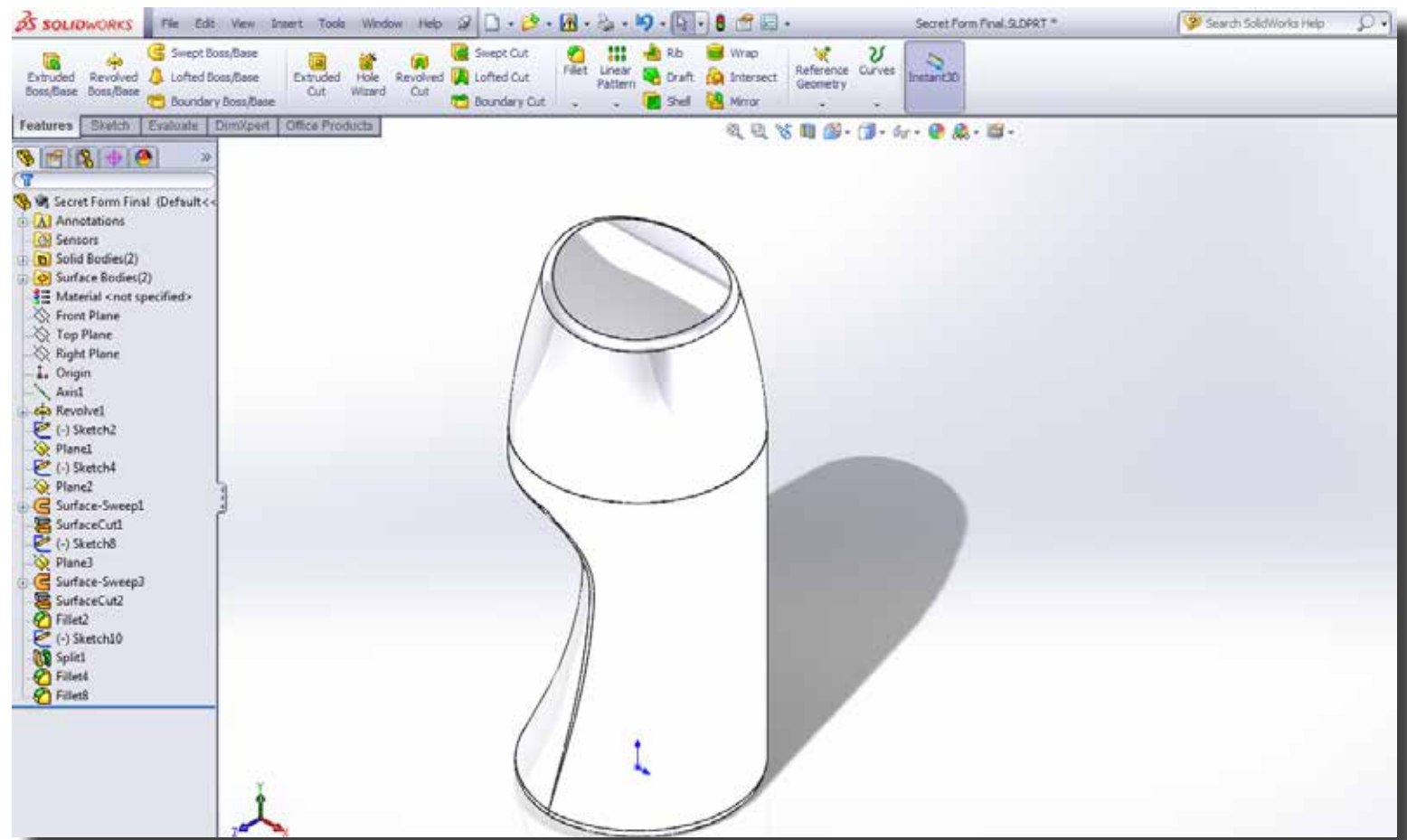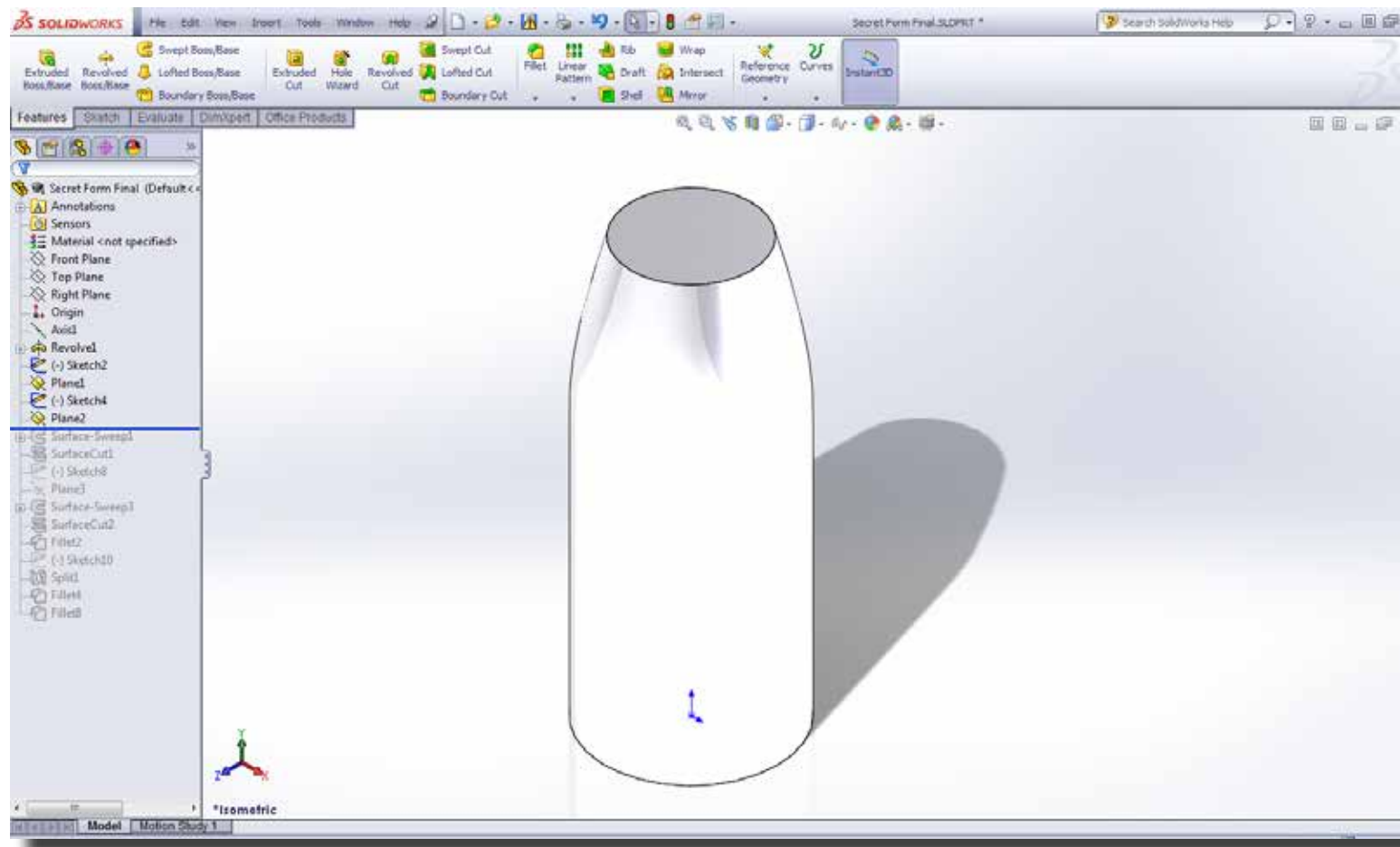# Solidworks - Adding Surface Cuts

Introduction This tutorial takes you through the process of adding surface cuts in Solidworks. You can cut a solid model by removing material with a surface or plane. With multi body parts, you can select which bodies to keep.
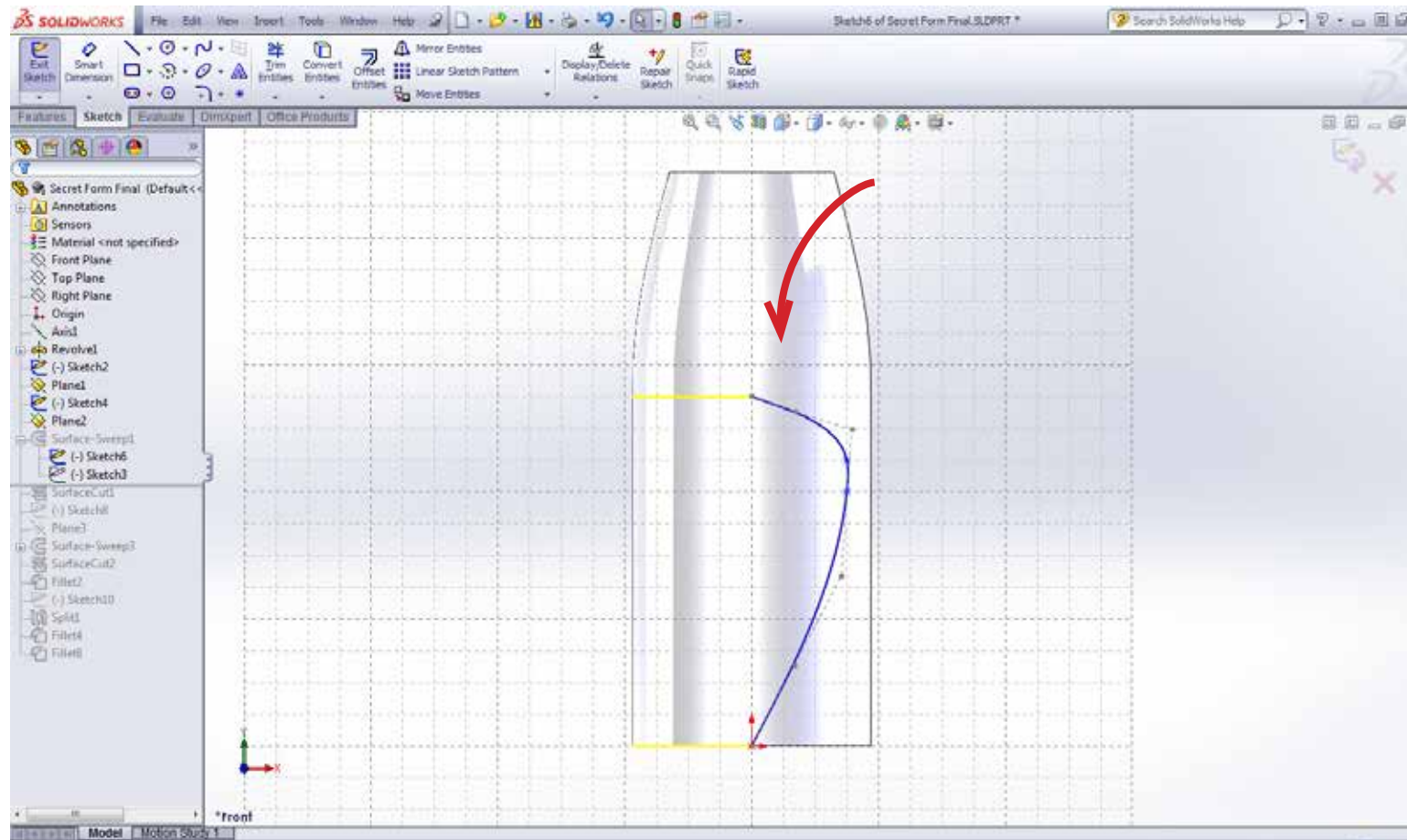

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Solidworks - Adding Surface Cuts

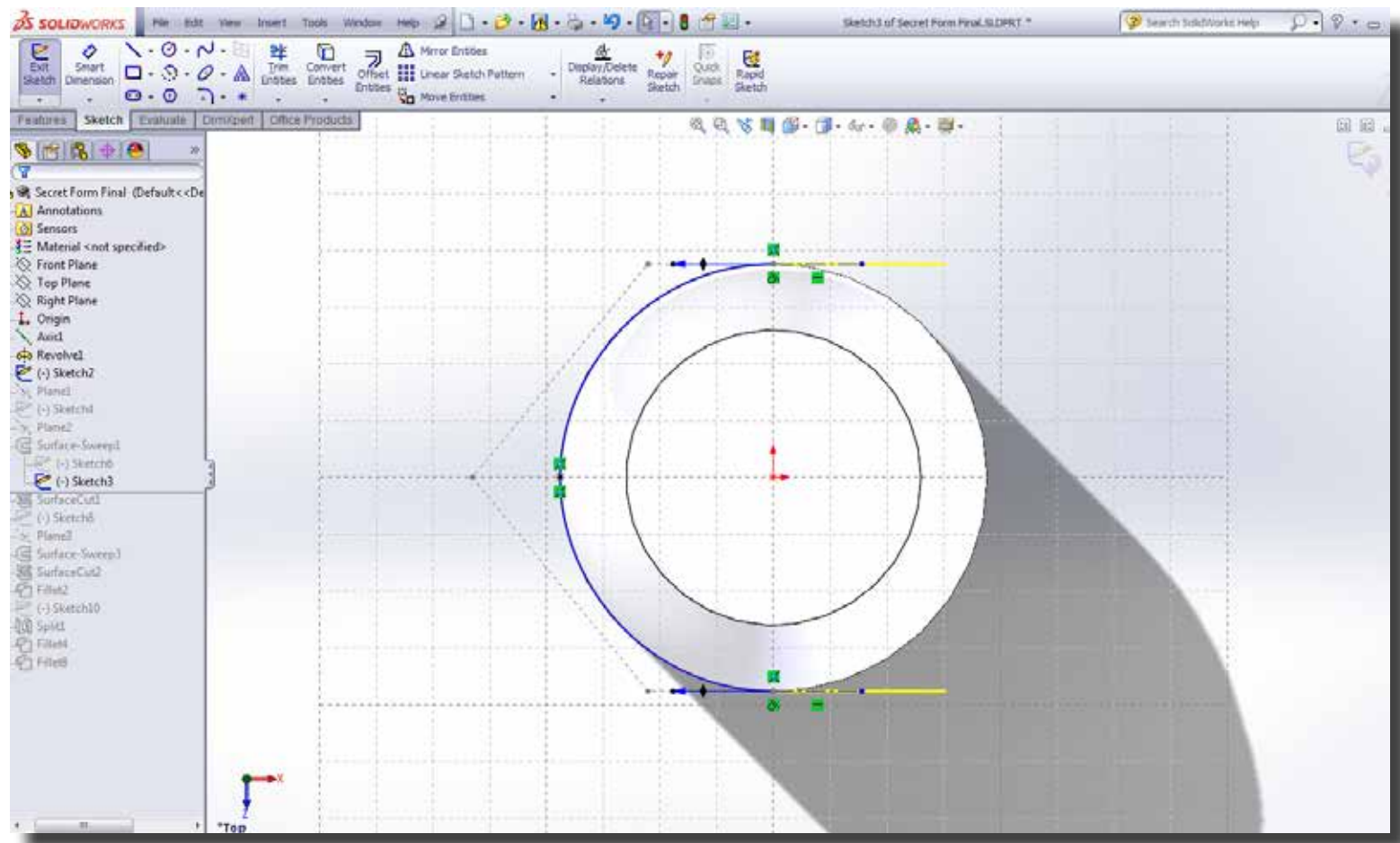**Step 1**   Open the part you want to create surface cuts on to.

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Step 2   Select a plane to sketch a contour shape which you will use later to add a surface cut.
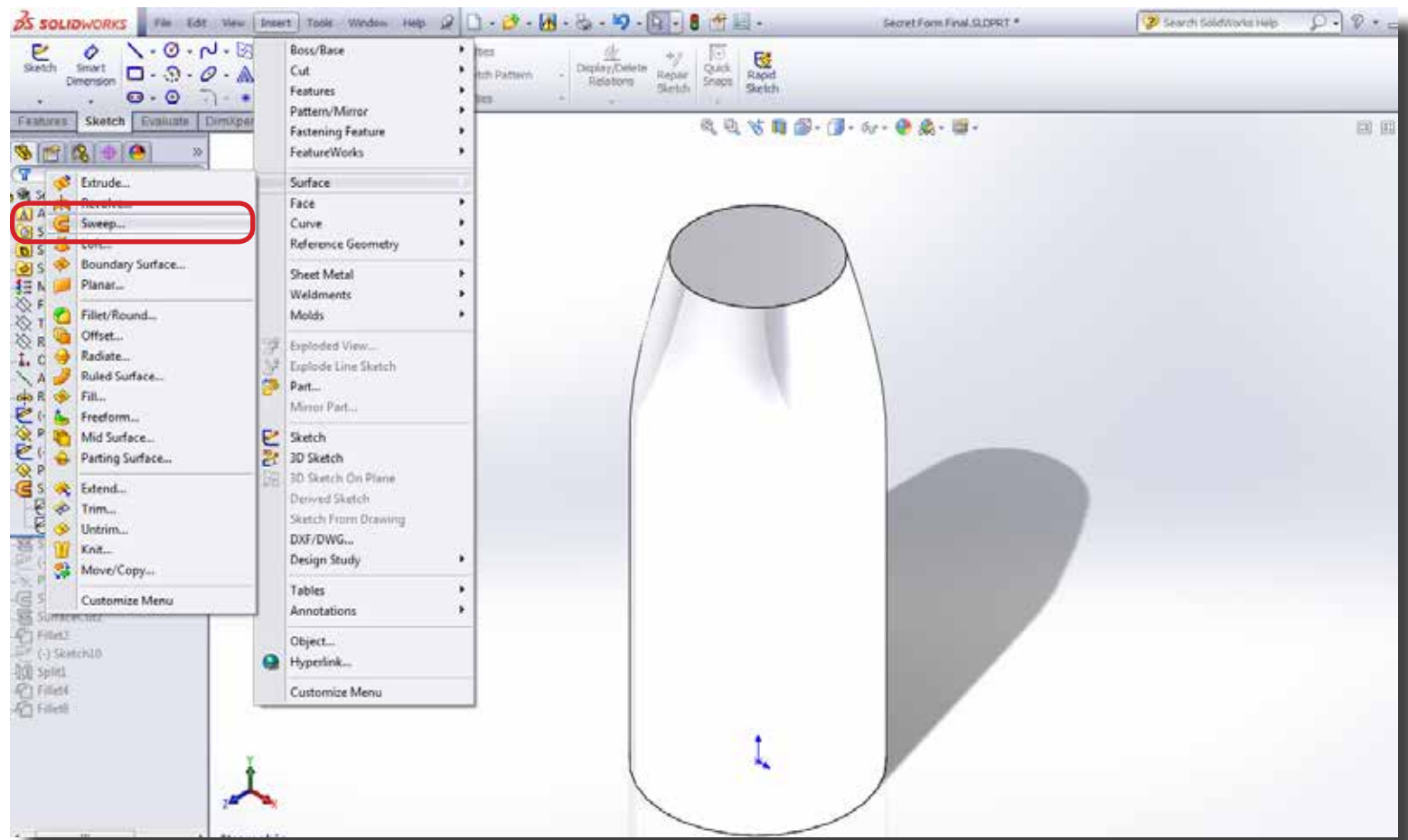
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Step 3   Create another sketch on a perpendicular plane. This sketch will act as guide curve for the previous sketch.
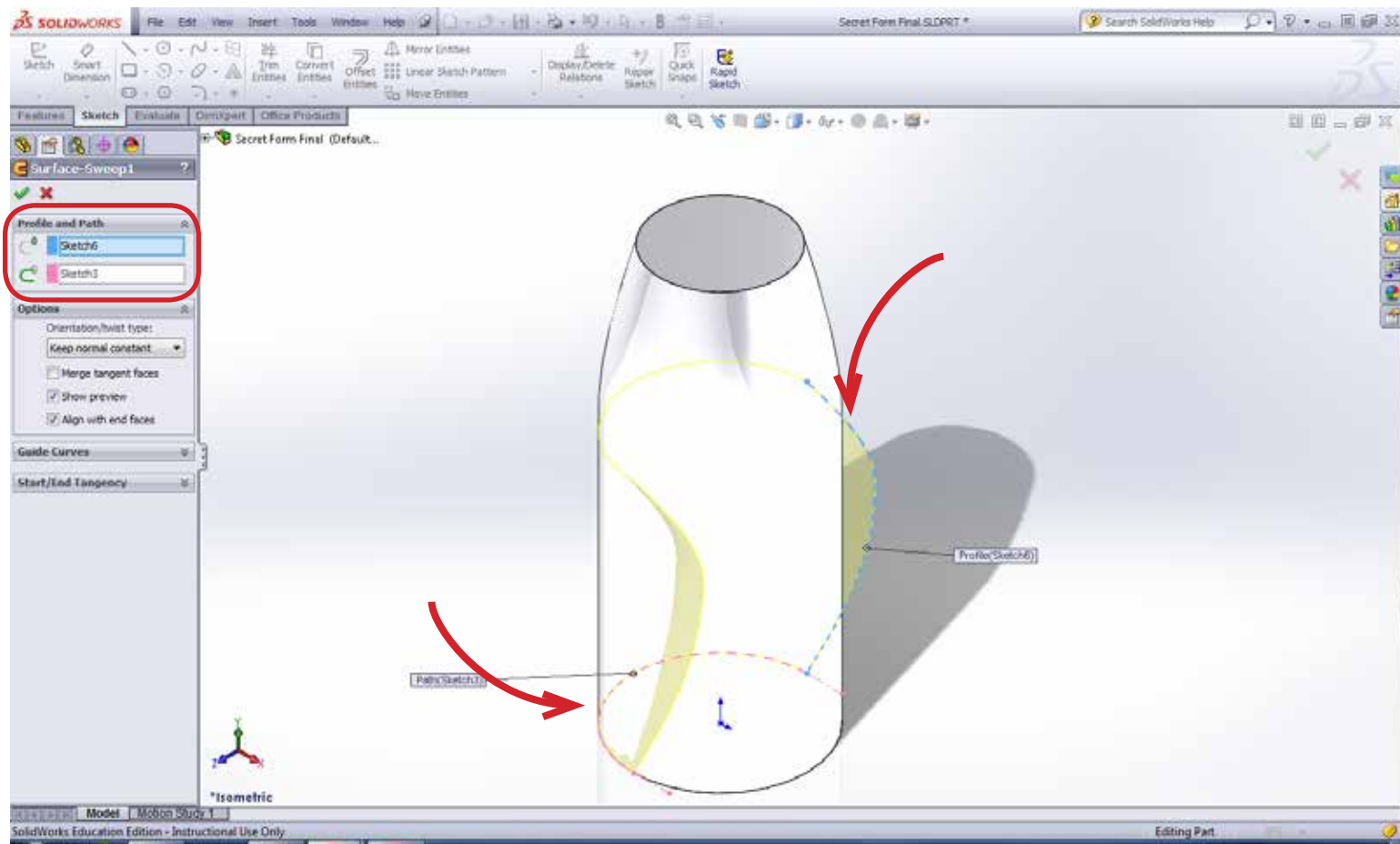
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**Step 4**　　Next, select Insert > Surface > Sweep

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Step 5 Select the contour sketch first and the select the guide sketch. Click confirm. The sweep tool then provides you the surface you would use to cut a part.
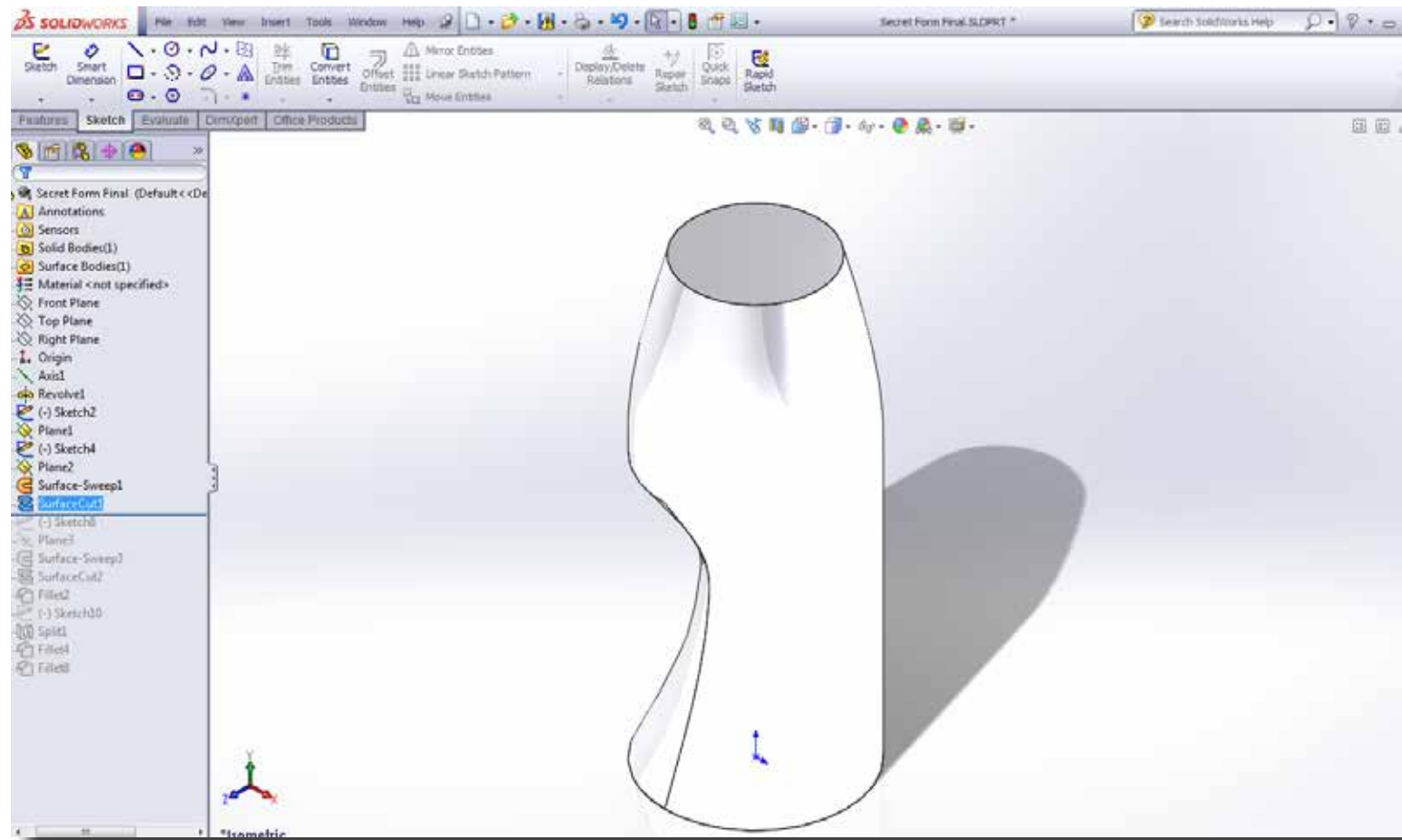
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Step 6   Click on Insert > Cut > With Surface. Then choose the surface you created previously and hit confirm.

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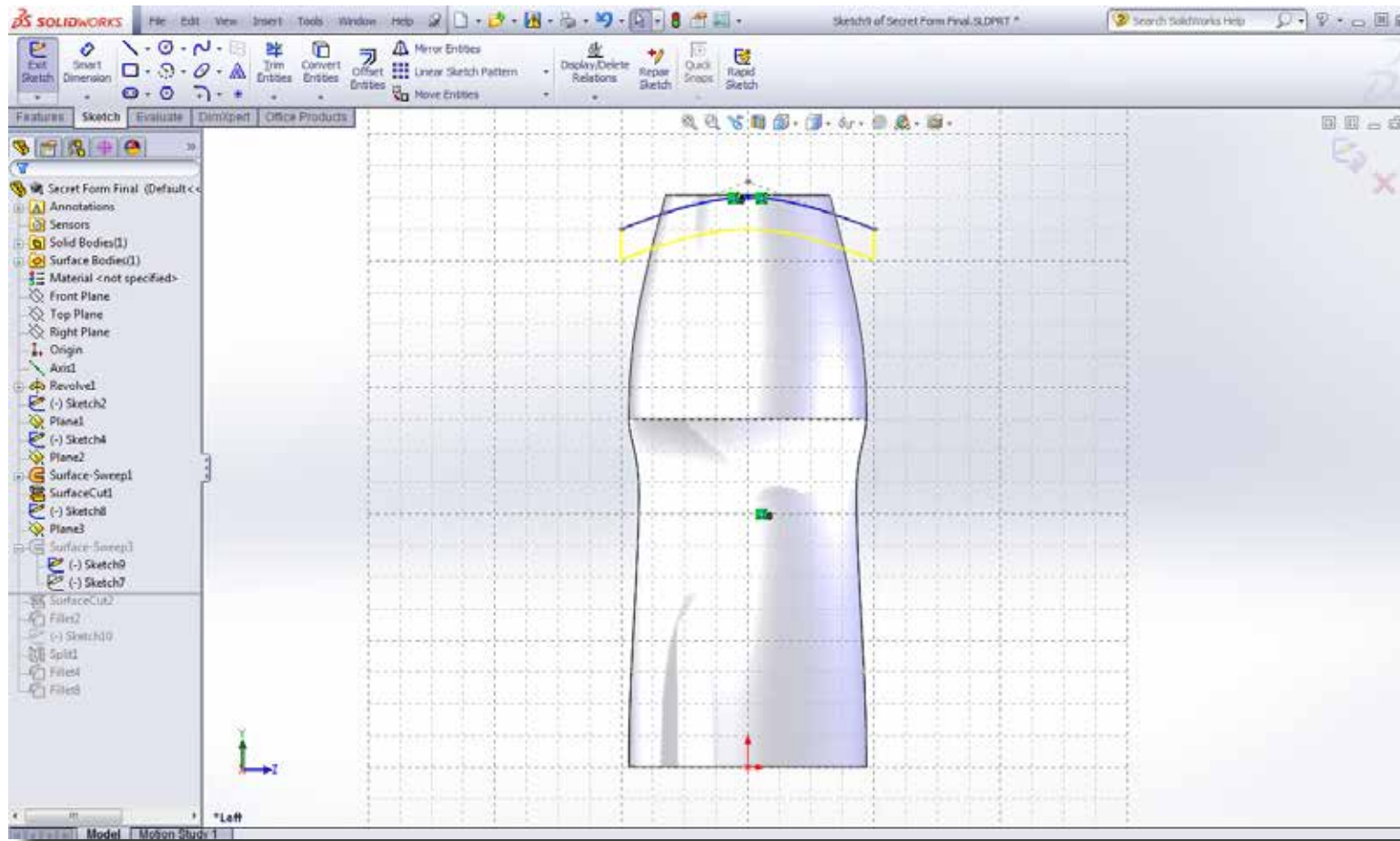# Solidworks - Adding Surface Cuts

© 2014, Prof. Purdy
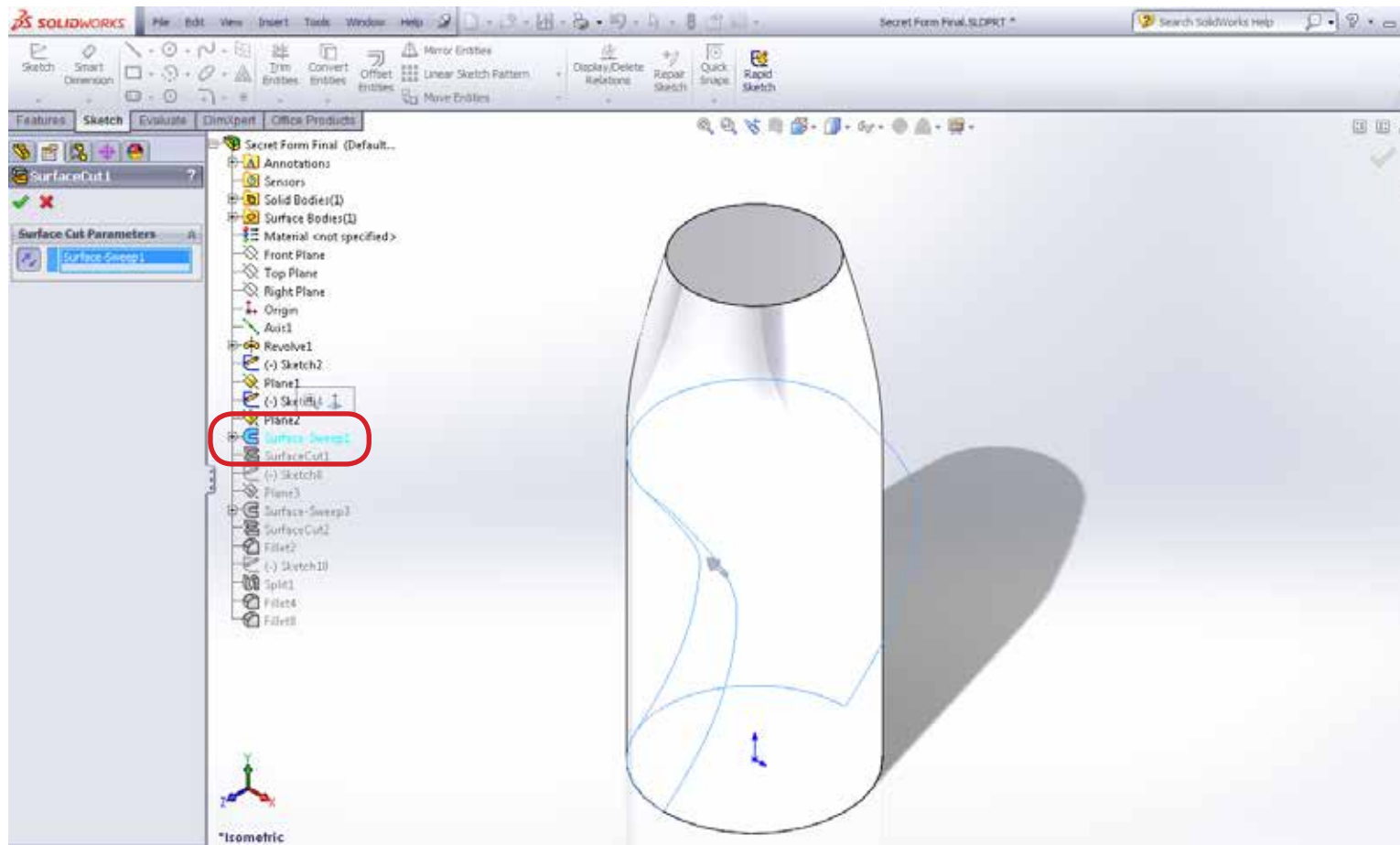
Step 7   The process mentioned above with give you the following result. The surface is not effected by the Surface Cut operation. Simple hide or suppress it so it is not visible in the file.


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Step 8   The remaining of the tutorial demonstrates how to model another type of surface and use it to shape the top of the cap. Select a plane to sketch a contour shape which you will use later to add a surface cut.
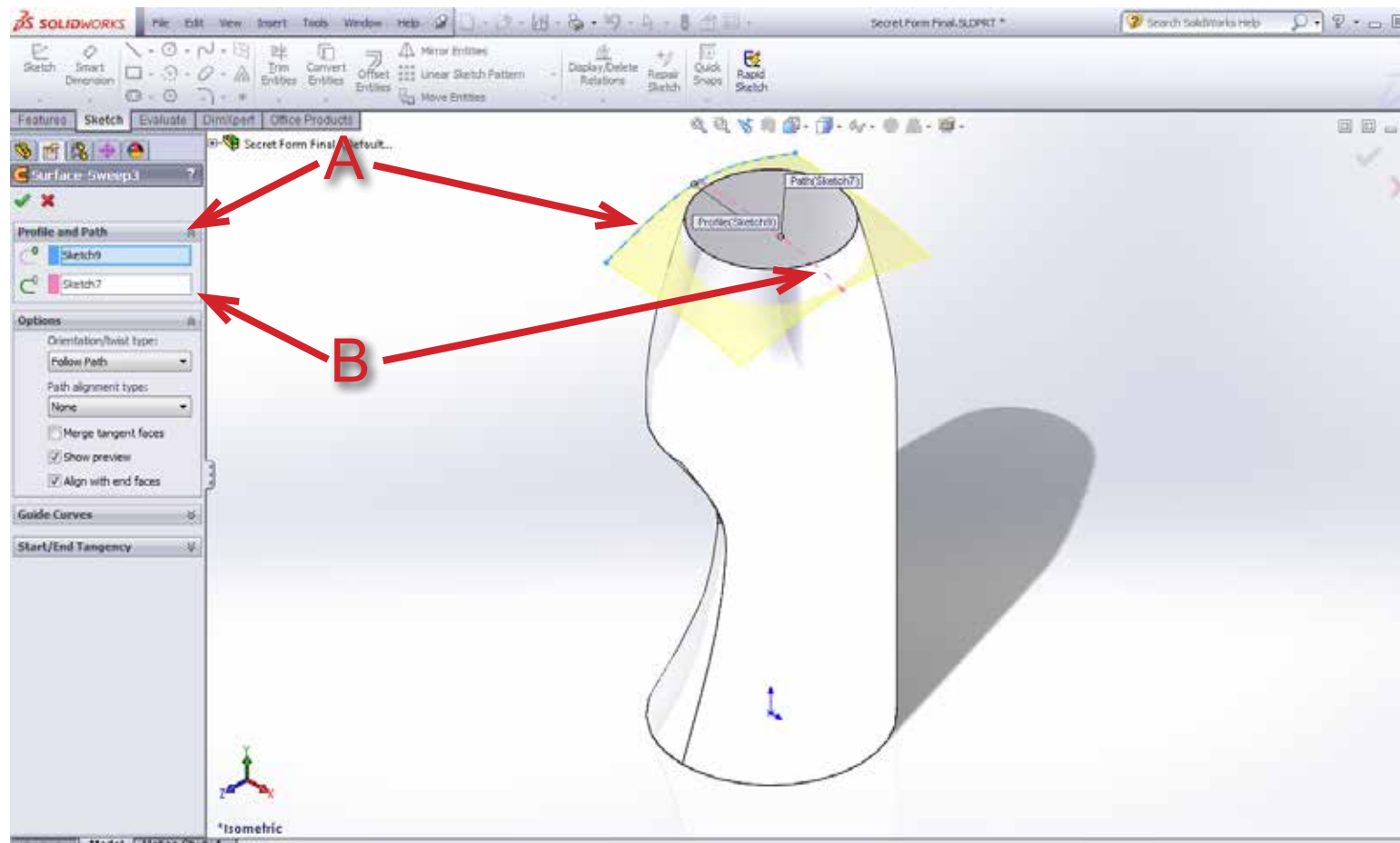
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Step 9 Create another sketch on a perpendicular plane. This sketch will act as guide curve for the previous sketch. The Swept tool requires that the profile curve must be at the end of the path so that a full swept surface is created. If not, then only a partial surface will be created.



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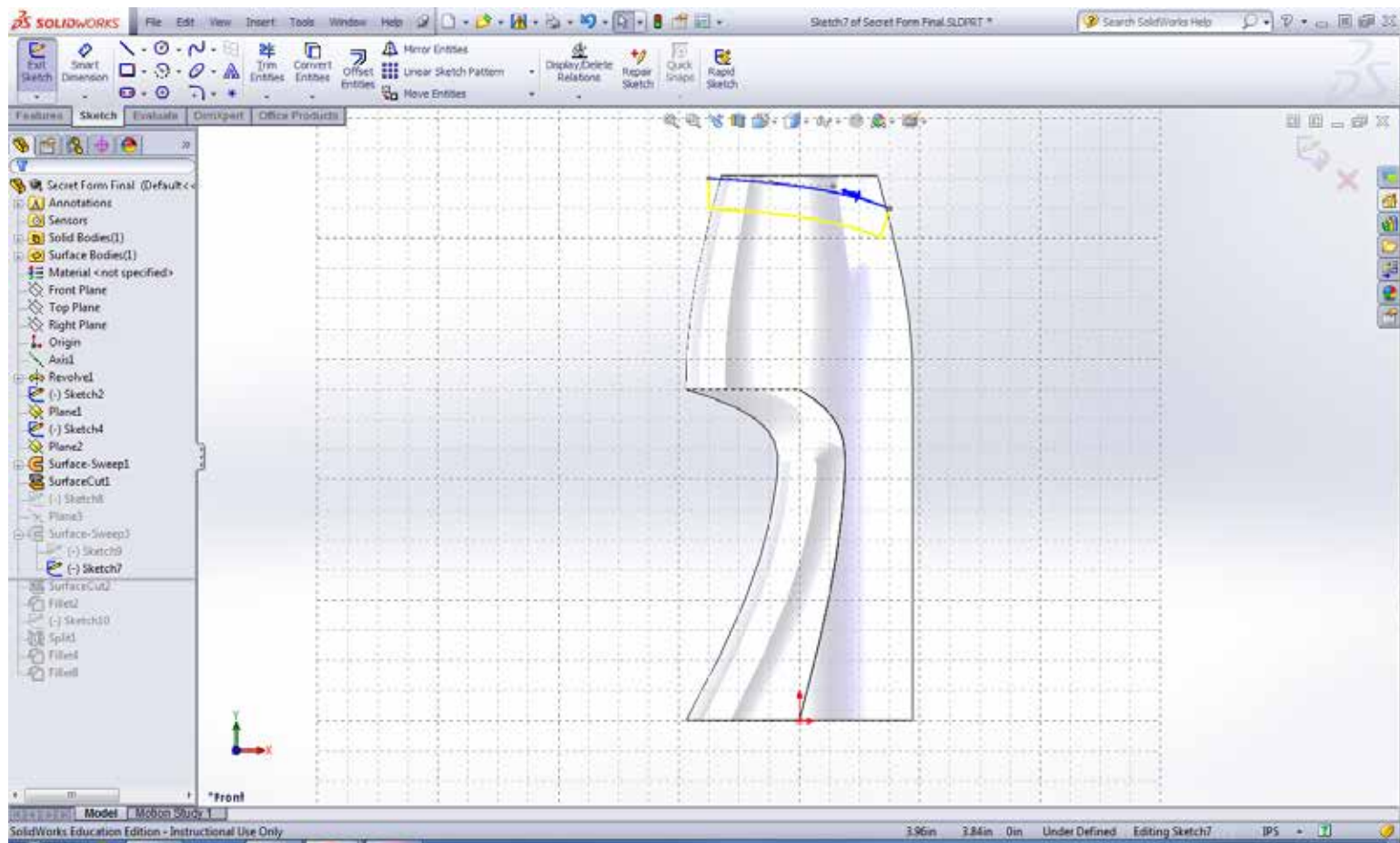
Solidworks - Adding Surface Cuts

Step 10   Next, select Insert > Surface > Sweep.

Select the contour sketch first and the select the guide sketch. Click confirm. The sweep tool then provides you the surface you would use to cut a part.
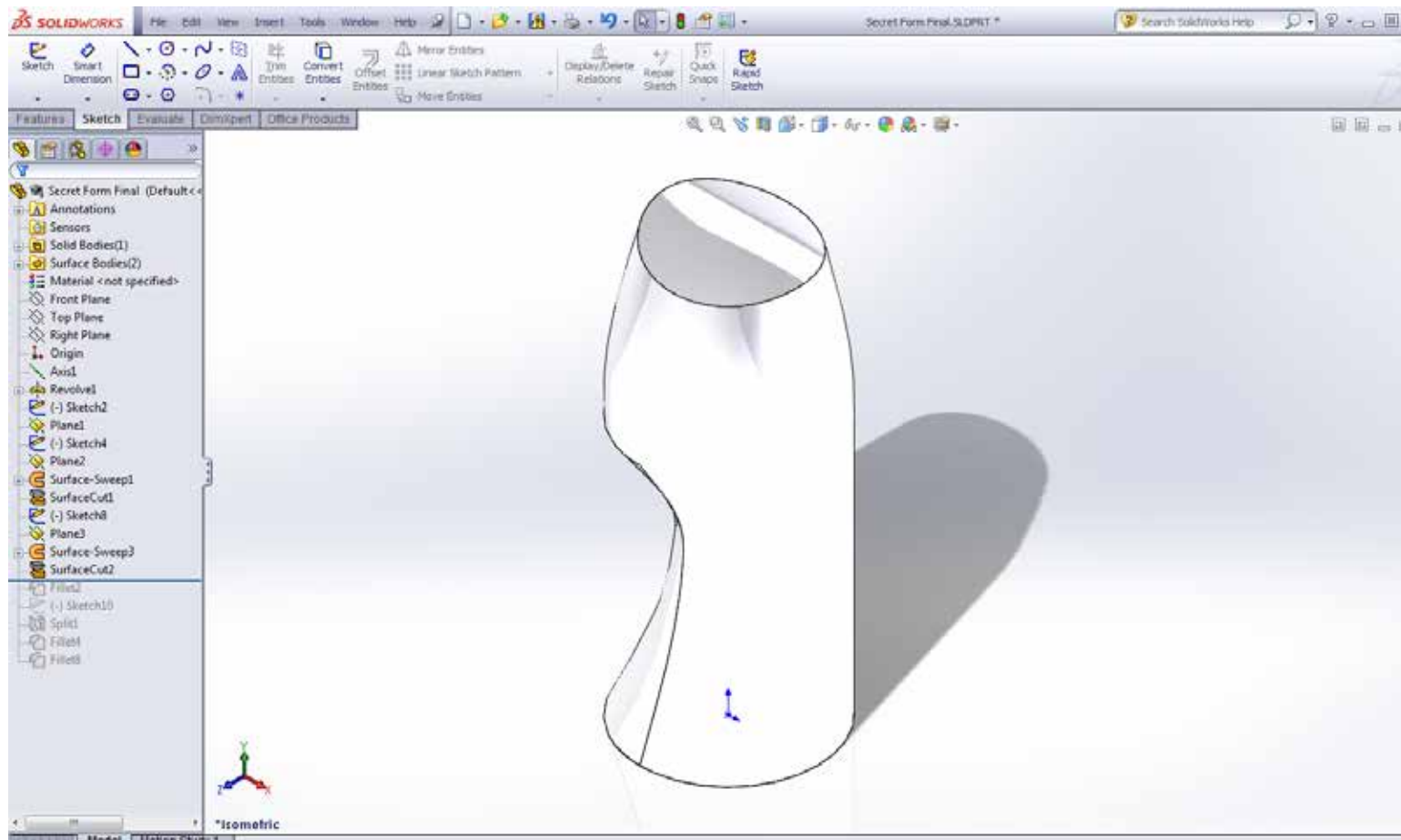

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Step 11   Click on Insert > Cut > With Surface. Then choose the surface you created previously and hit confirm.

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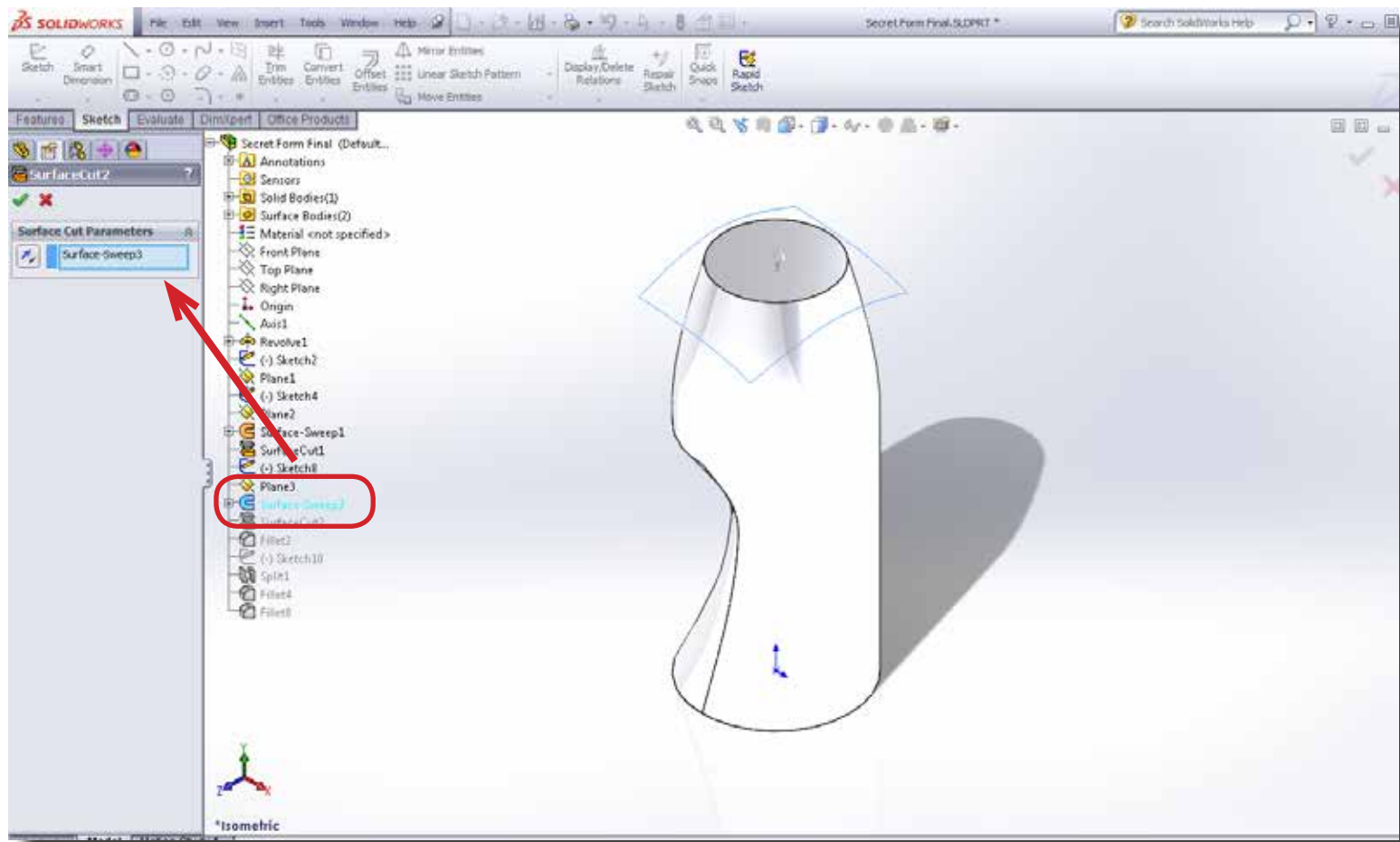
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Step 12 You will get the following result. Once again, the surface was hidden in the feature tree.

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Step 13   After using the Surface Cut tool and hiding the surfaces, other features tools such as Split and Fillet are still available to use since the form stays a Solid Body.

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