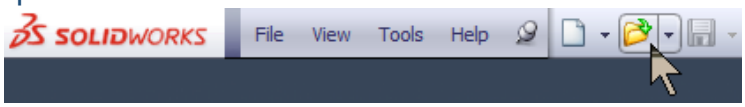
Introduction to SolidWorks Plastics

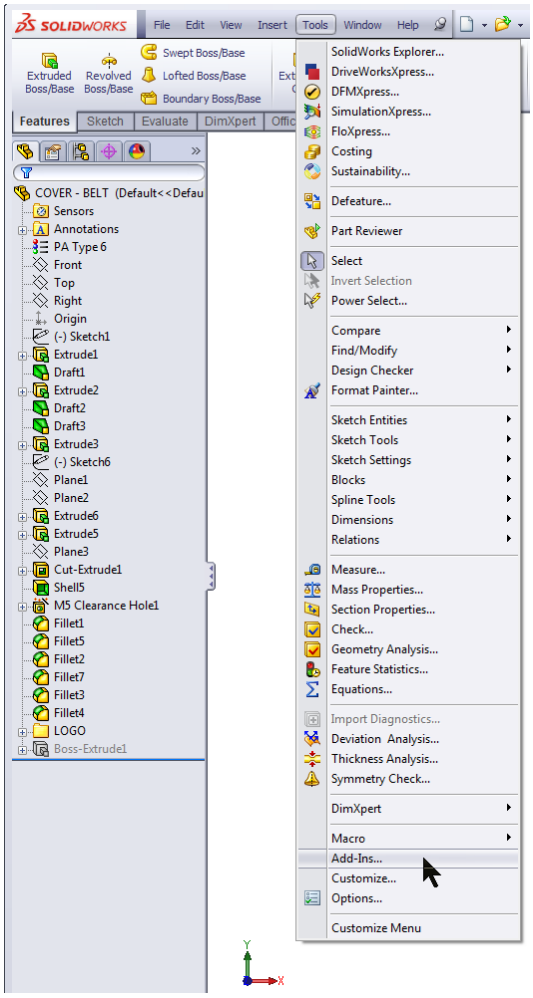
This set of instructions includes:

- How to add SolidWorks Plastics Add-in
- How to add and adjust parameters
- How to run the analysis

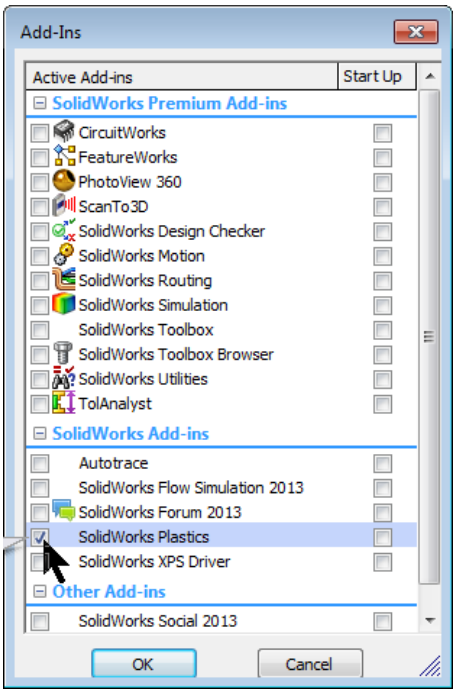
Step 1: Download, unzip, and open the CAD part available from bottom of this address. Alternatively, you can open your own part



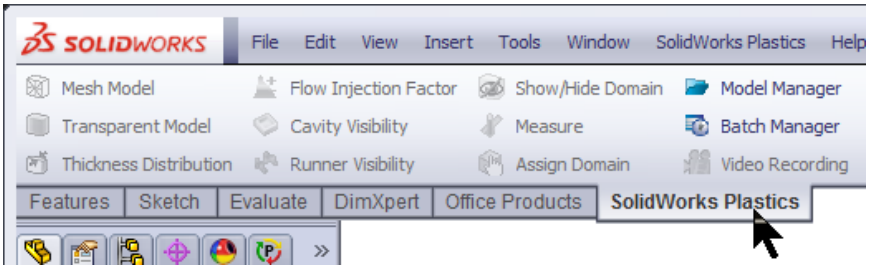
Step 2: Go to Tools → Add-Ins.



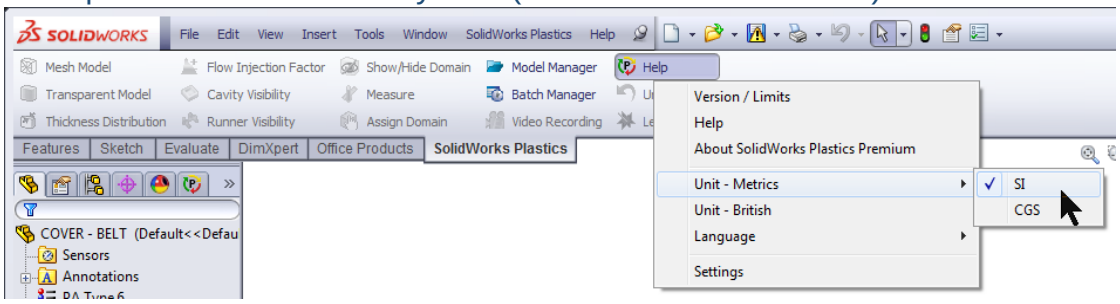
Step 3: Tick the box for SolidWorks Plastics and then click OK.



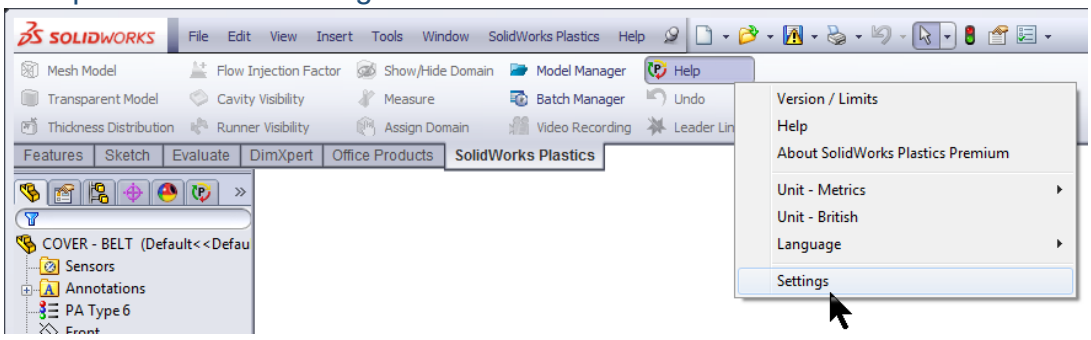
Step 4: Open the SolidWorks Plastics tab.



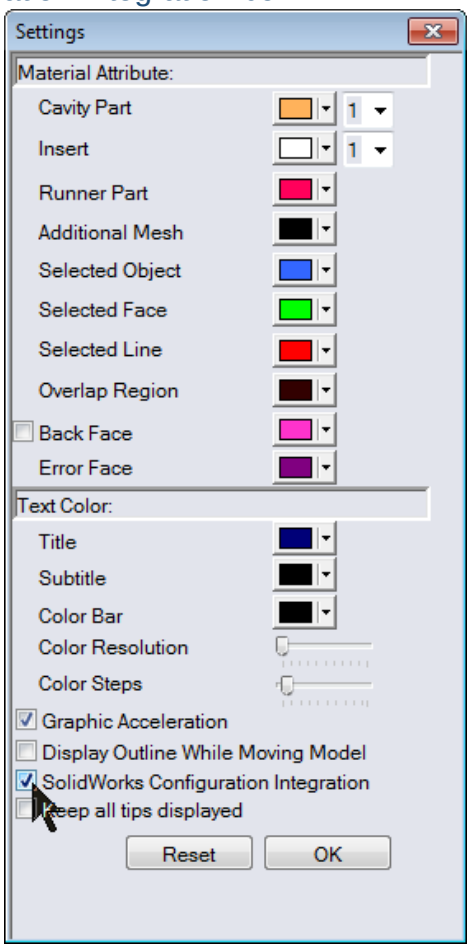
Step 5: Click on Help and choose the unit system (SI is used for this tutorial).



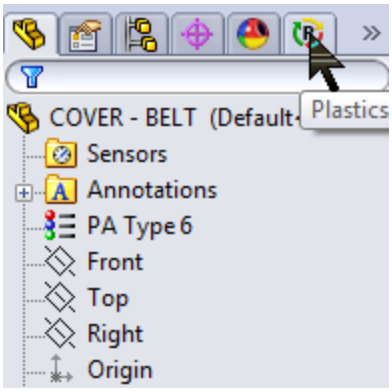
Step 6: Click on Help and choose Settings.



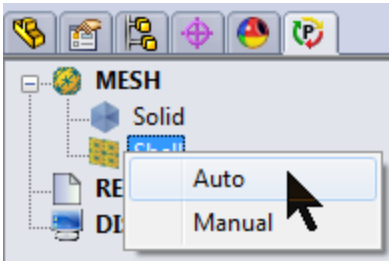
Step 7: Tick the SolidWorks Configuration Integration box.



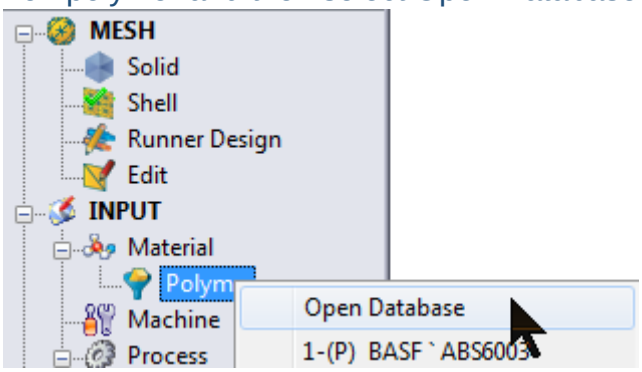
Step 8: Open the PlasticsManager tab.



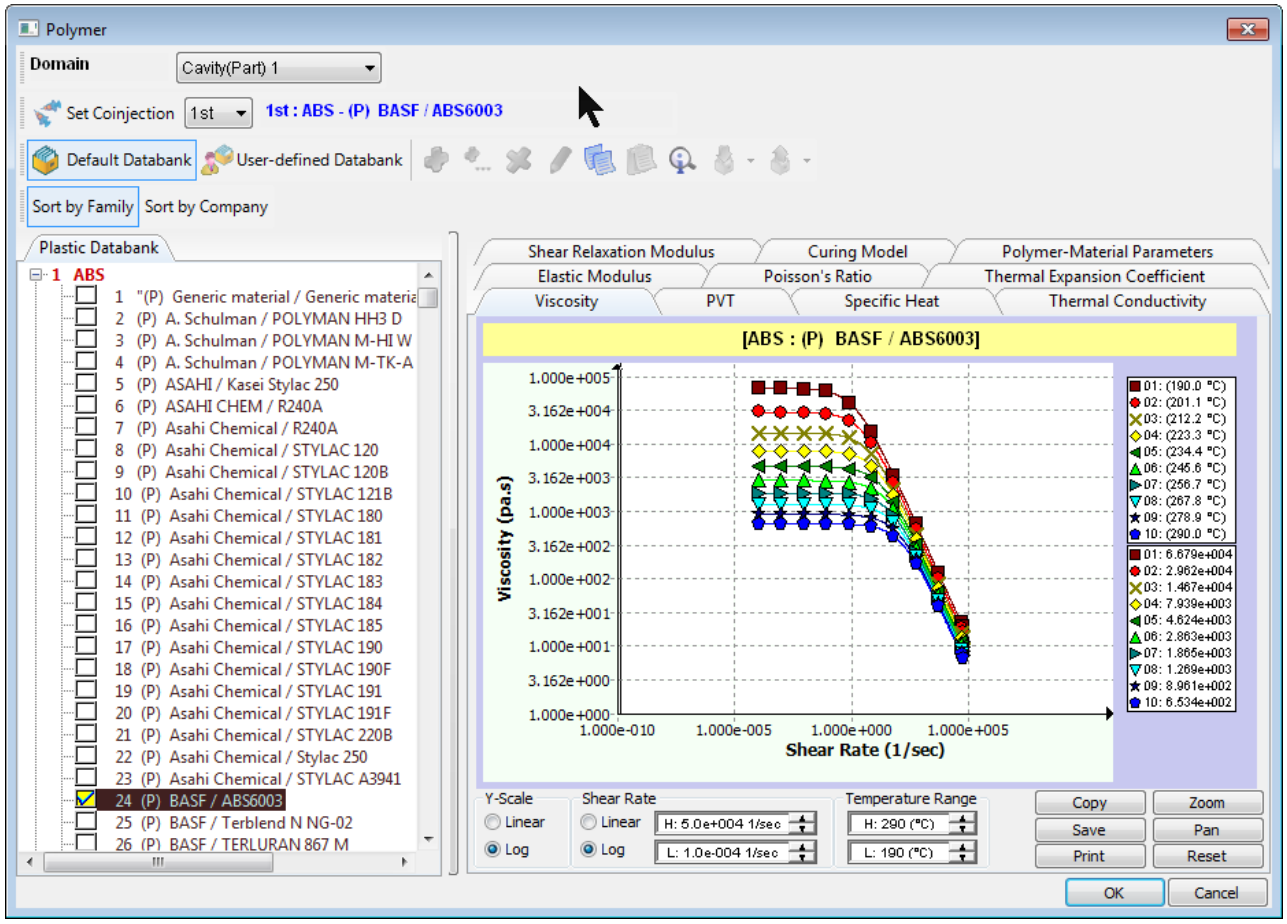
Step 9: Under Mesh, right click on shell and then select auto.



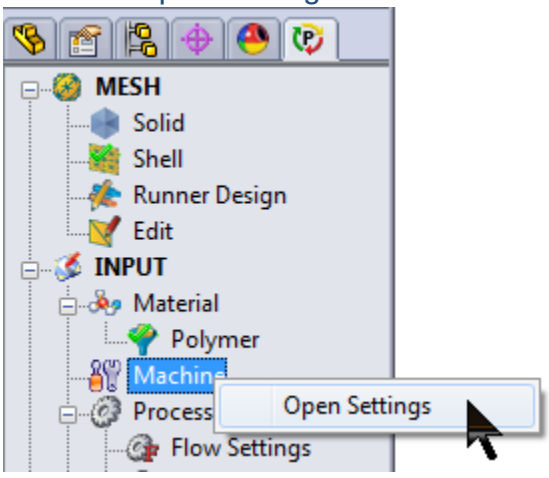
Step 10: Under Input, right click on polymer and then select Open Database.



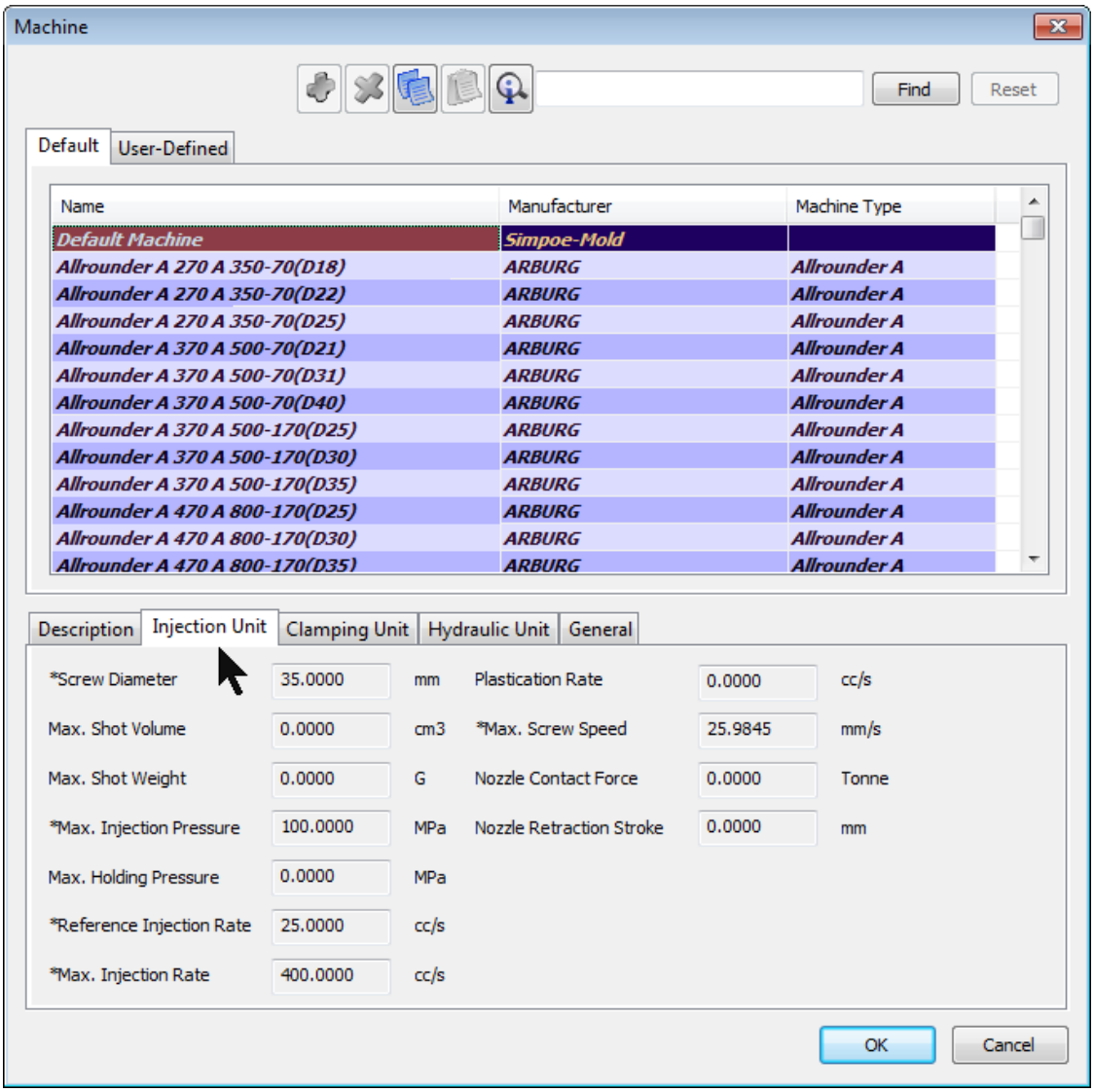
Step 11: Pick a material from the database. BASF / ABS6003 (or box #24) was used for this tutorial. Then click OK.



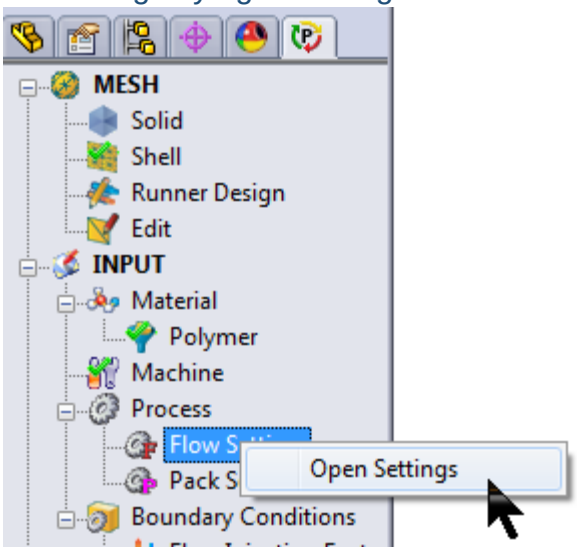
Step 12: Right click on machine and select Open Settings.



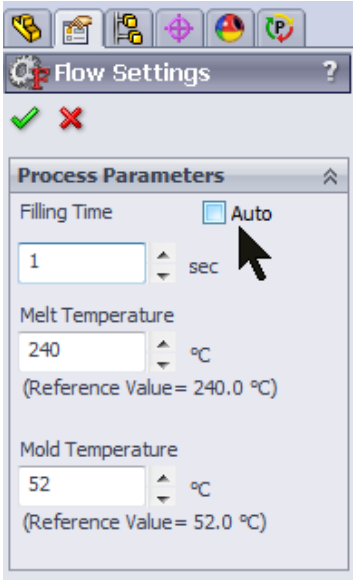
Step 13: Pick a machine that will inject the plastic into the mold and create the shape of the part. The default was used for this tutorial. Properties of these machines can be changed by altering the numbers in the tabs below the list of machines.



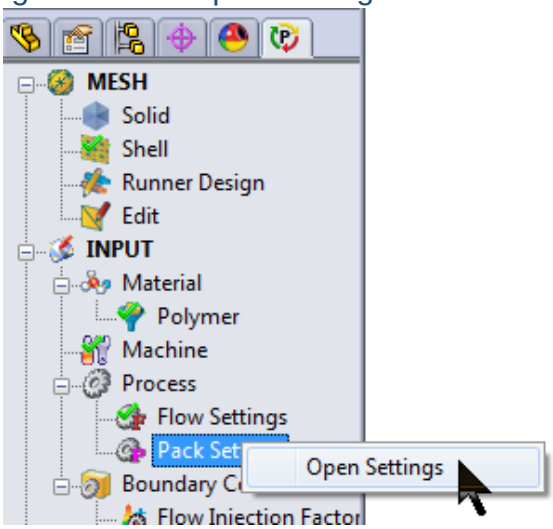
Step 14: Open the Settings for Flow Settings by right clicking on it and then selecting Open Settings.



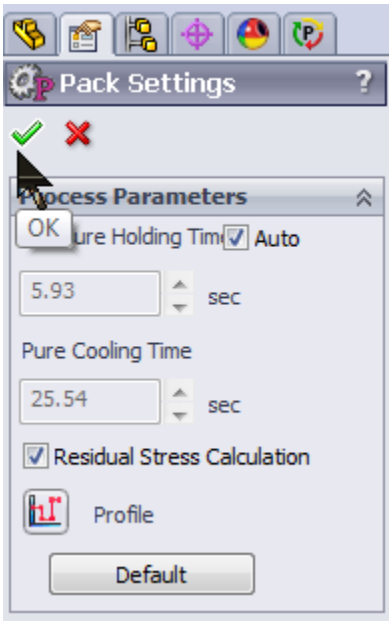
Step 15: You can simply accept the automatic values or uncheck the Auto box and enter the values you want. In this tutorial 1 sec was used as the Filling Time.



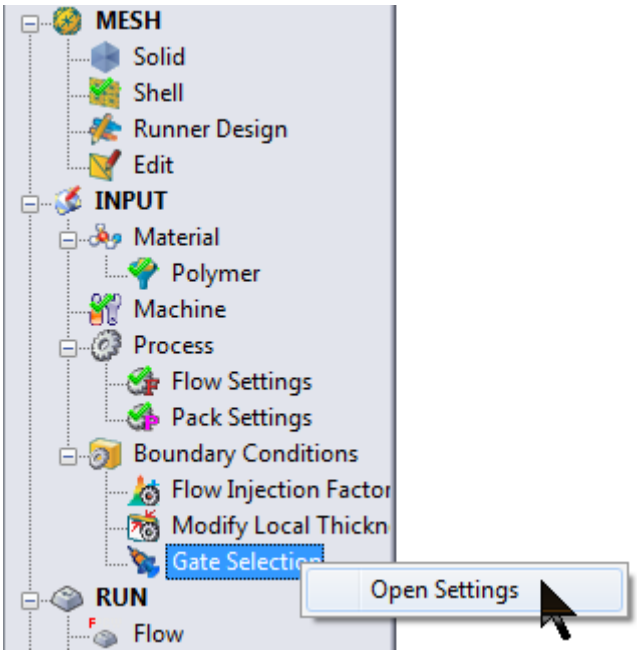
Step 16: Right click on Pack Settings and then Open Settings.



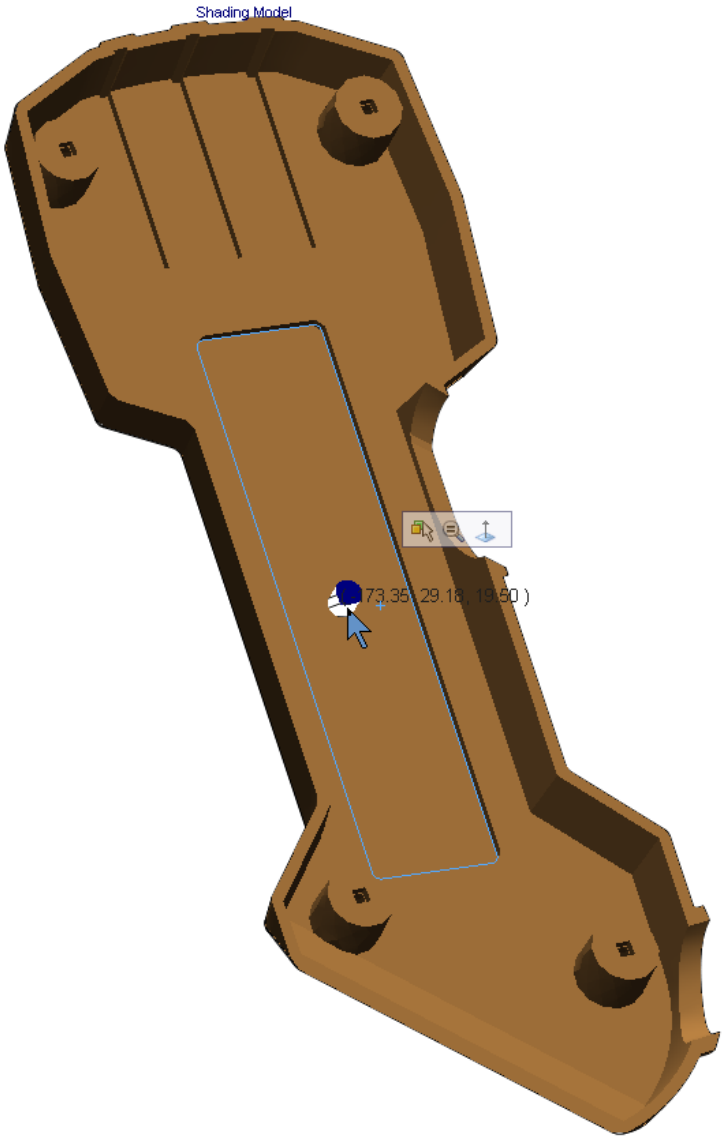
Step 17: Accept the automatic values or enter your own. In this tutorial the automatic values were accepted.



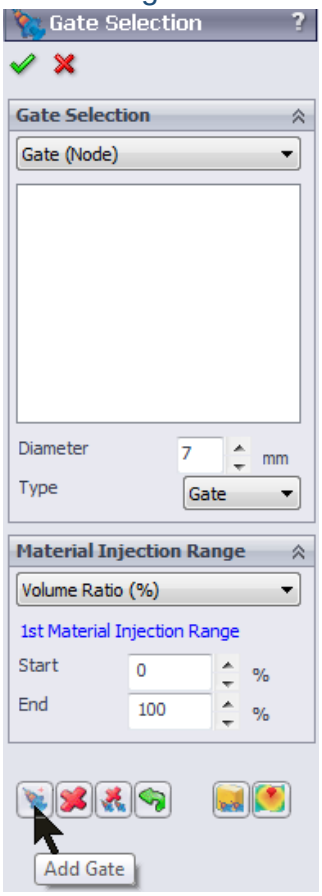
Step 18: Right click on Gate Selection.



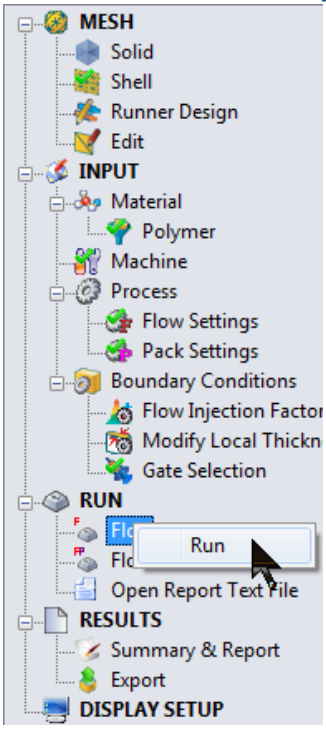
Step 19: Choose the position of the Gate. A position about the middle of the part was used in this tutorial.



Step 20: Click the Add Gate button. If you do not do this, you will not be able to run the analysis. After clicking this button you can also add more gates.



Step 21: Right click on Flow and select run. This will run the analysis.



Results will then pop up after they have been calculated.

A YouTube video of this procedure is available at this link.