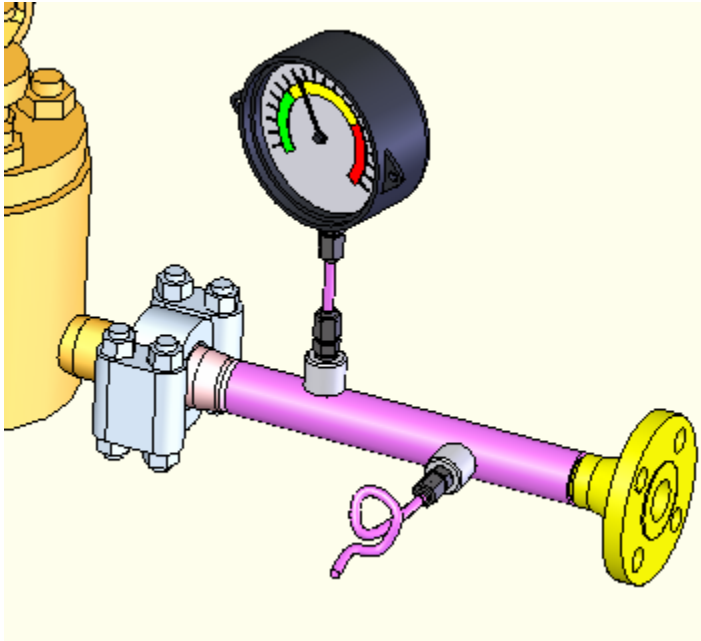


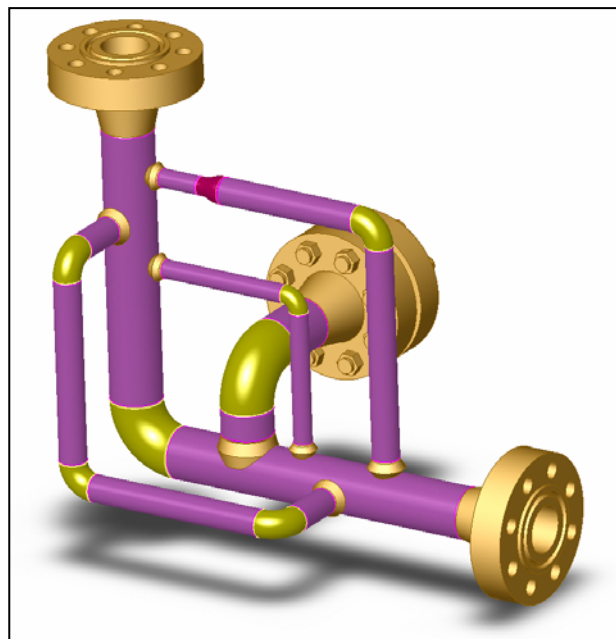
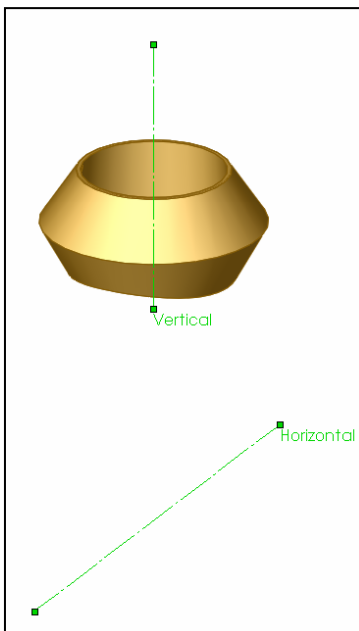
Adding Branch Fittings (Weld-O-Lets & Bosses)

Simply put... a boss fitting is an object that is usually welded onto the side of a piece of pipe. The outlet port of the fitting can consist of threads, a welded connection, electrical connections, etc...



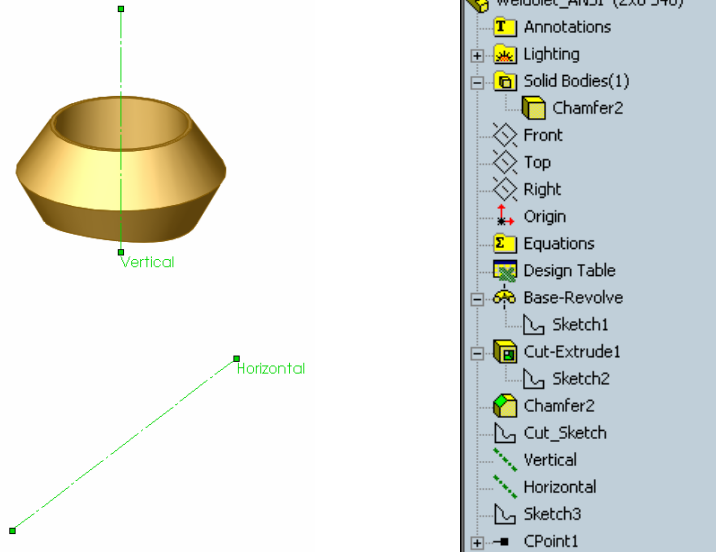
In the picture at left, I have welded an Allan Aircraft Pipe to Tube fitting with a female AN port and inserted a coupling.

You can create Weld-O-Lets, Thread-O-Lets & Socket-O-Lets the same way you would a boss fitting. They are even added the same way too!!

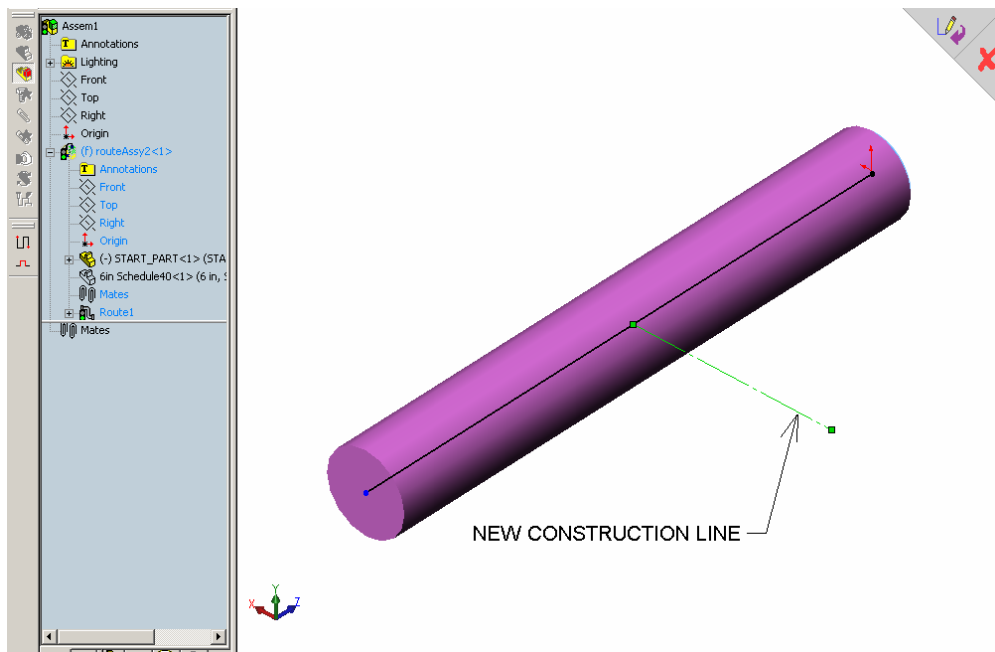


To insert a weld-o-let into an existing pipe run:

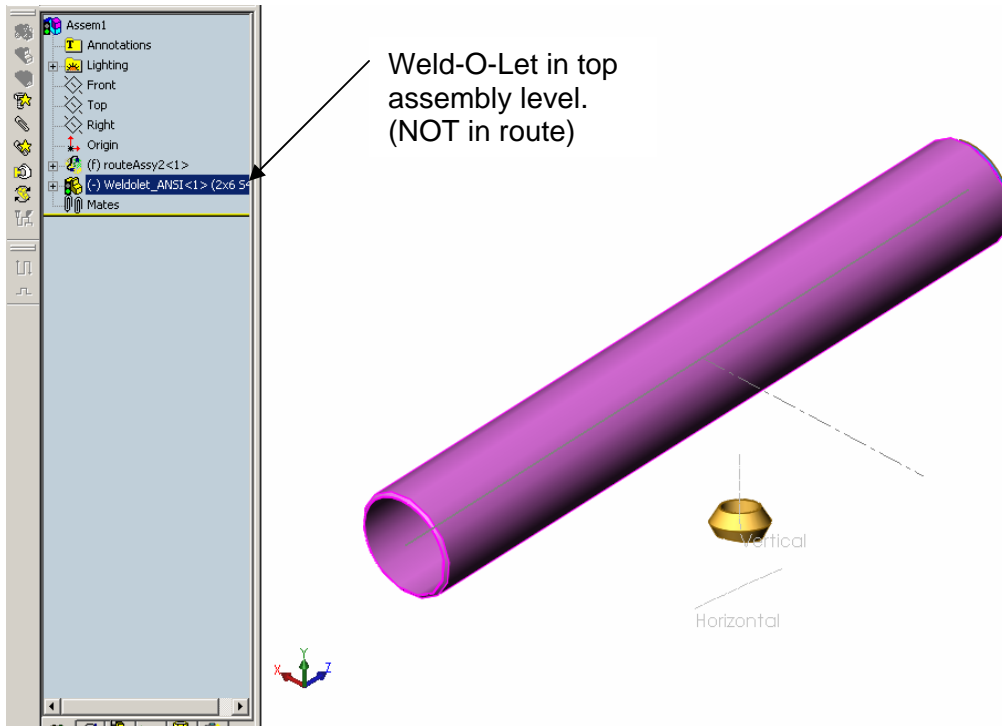
1. First off, closely observe the picture of the weld-o-let below. You'll notice a "Vertical" & "Horizontal" axes. These will define its location later. Also, notice how the weld-o-let was made. (Open the file CH07-Weldolet01.sldprt) How this weld-o-let is created is very important. For this example, we're going to add a 2"x 6" Weld-o-let onto an existing 6" pipe run.



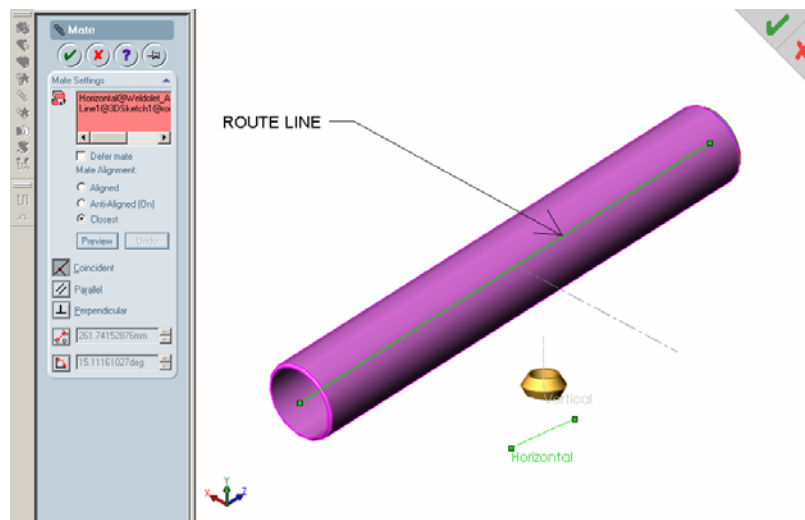
2. While **"Editing" your route in sketch mode**, insert a "construction line" where you want your weld-o-let to be. You should dimension the line so it doesn't move, & you should also constrain it on an x,y,z axes. The idea here is to make your construction line perpendicular to your pipe route.



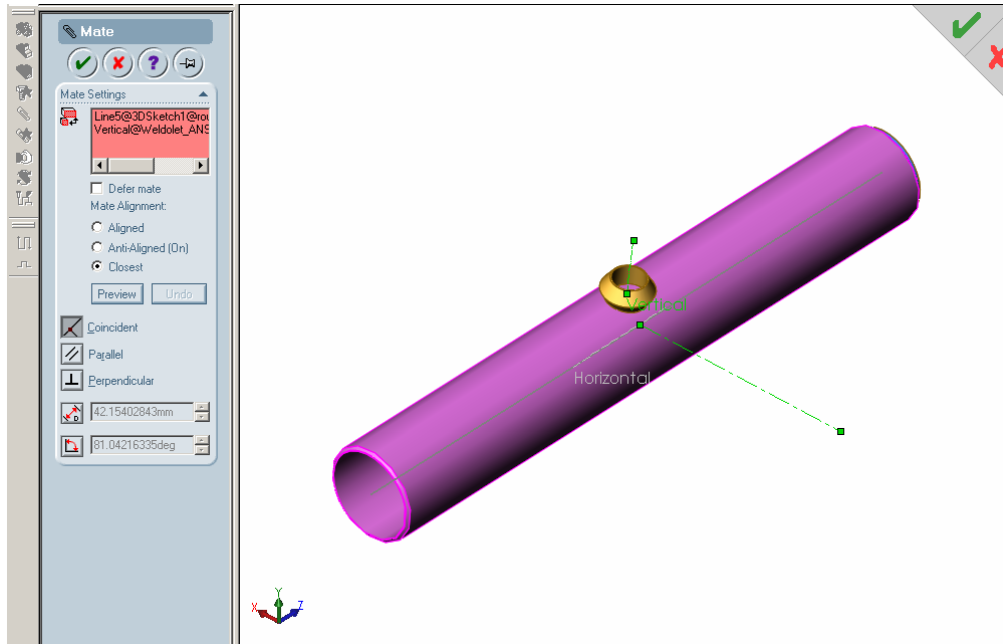
- Exit your route, and edit the assembly. Now, insert the weld-o-let anywhere on your screen. It is important that you insert the weld-o-let at the “TOP ASSEMBLY” level and not in the Route Assembly. Select the correct size (configuration) of weld-o-let to insert. In this case, it is a 2”x 6”. When the “Fabricated Piping” box pops up, Pick “Cancel” and insert the component into the assembly. (See the “feature tree” below to see what I mean.



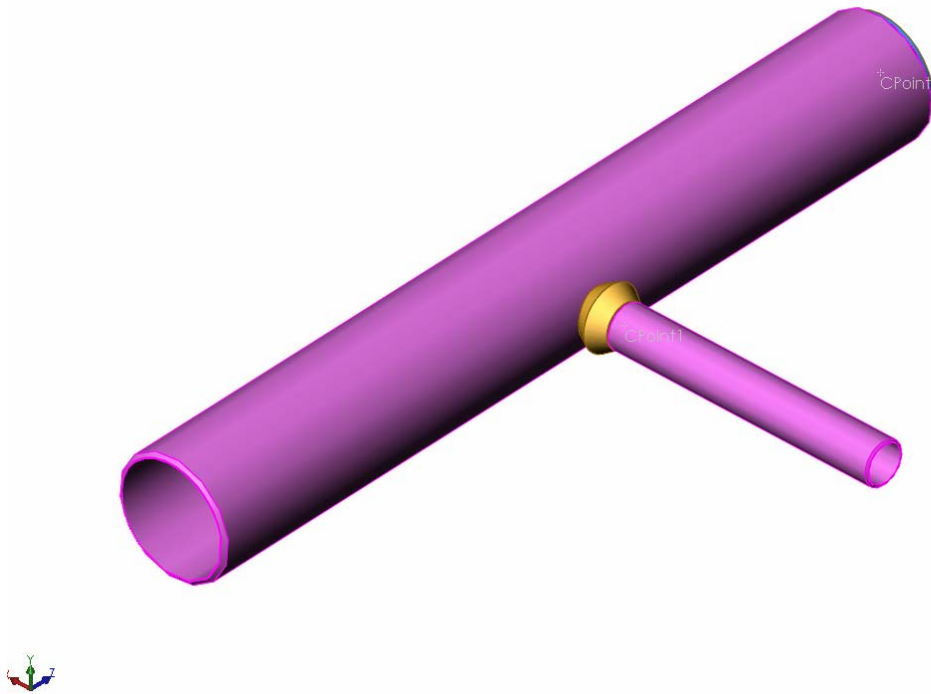
- Be sure the “Axes” & “Sketches” are displayed in your drawing.
- Make the weld-o-let “Horizontal” axes coincident with the pipe route segment by adding a “Coincident Mate” to constrain the “Horizontal Axes” to the pipe route.



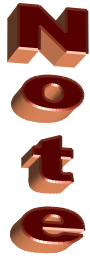
- To orient the weld-o-let in the desired direction, you need to make the weld-o-let "Vertical" axes coincident with the construction line added in step 2.



- Your weld-o-let is now in place. It is relatively simple to do when you build parts that do the work for you.



8. You now have two options.... If you want the branch to CONTINUE on your previous route, simply edit that route, right click on the “C-Point” on the weld-o-let, and “Add to Route”. Alternately, you can right click on the “C-Point” at the assembly level, and start a NEW route by selecting “Start Route” at the assembly level.



Adding the weld-o-let does not automatically cut the hole in the pipe. You can add a bored hole thru the run-line by selecting the pipe, editing the part in context, and using the “Cut_Sketch” that is located within the weld-o-let file to cut-extrude a circle. This is only recommended for detailed drawings requiring a section cut of the pipe.

Once you’ve inserted your Boss fitting or O-let, you can edit the pipe and cut a hole in it for detail views. (Just like the real thing!)

