

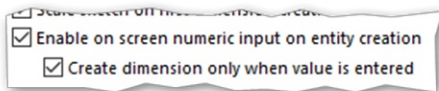
Sketch SolidWorks

Last Modified on 03/12/2024 2:57 pm CET

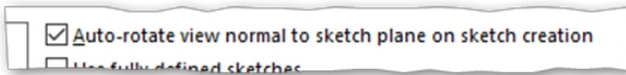
System Options

For a faster way of inputting dimension "on the fly" use following settings in System Options

- **Enable on screen numeric input on entity creation**
- **Create dimension only when value is entered**



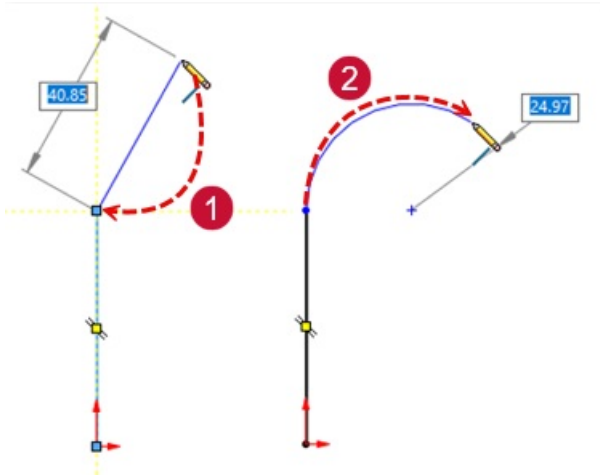
Another helpful System Option setting is to Auto-Rotate view normal at sketch creation



Sketching

It's possible to go from line to a tangent arc without switching to arc command.

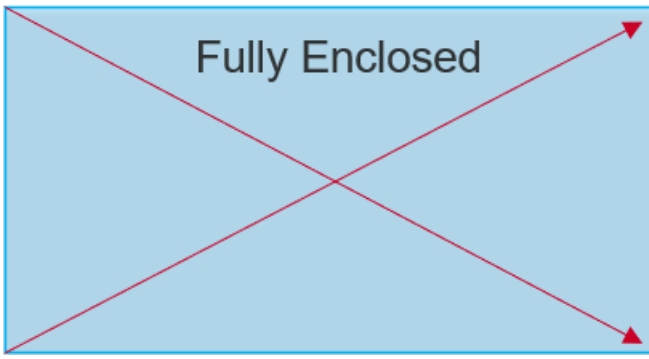
- **Go back to the start point of the line. A yellow box with a concentric relation appear**
- **It's now possible to draw a arc in the desired tangent**



Box or Lasso Selection

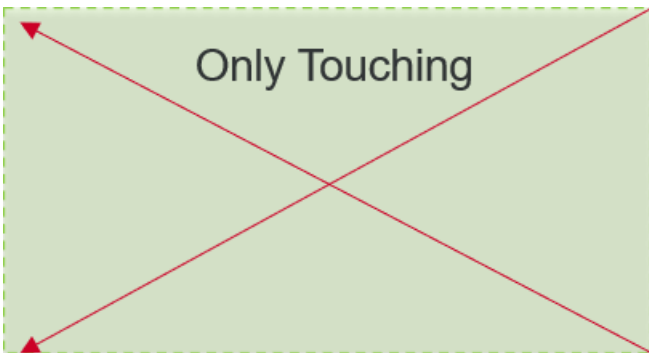
Left-to-Right: Blue window & Blue solid line

Sketch entities must be *fully enclosed* to be selected



Right-to-Left: Green window & Green dashed line

Sketch entities only need to be *touched* to be included in the selection.

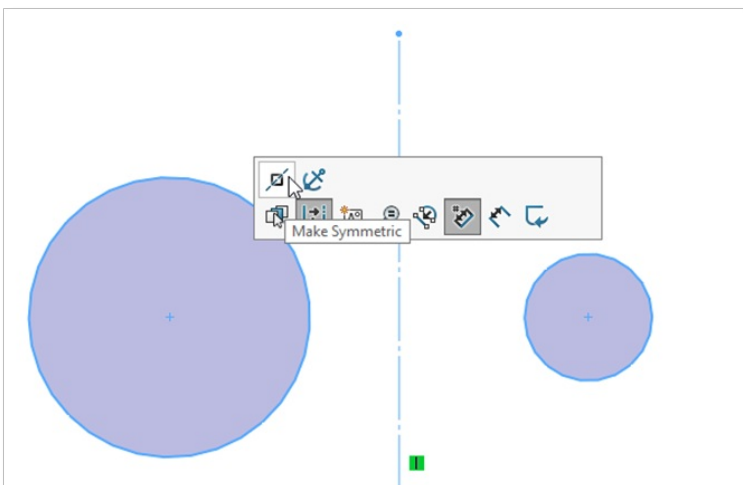


Sketch Relations

There are two efficient ways to add sketch relations:

- **Select entities and at the same time hold down the Ctrl button**
- **Box/Lasso selection**

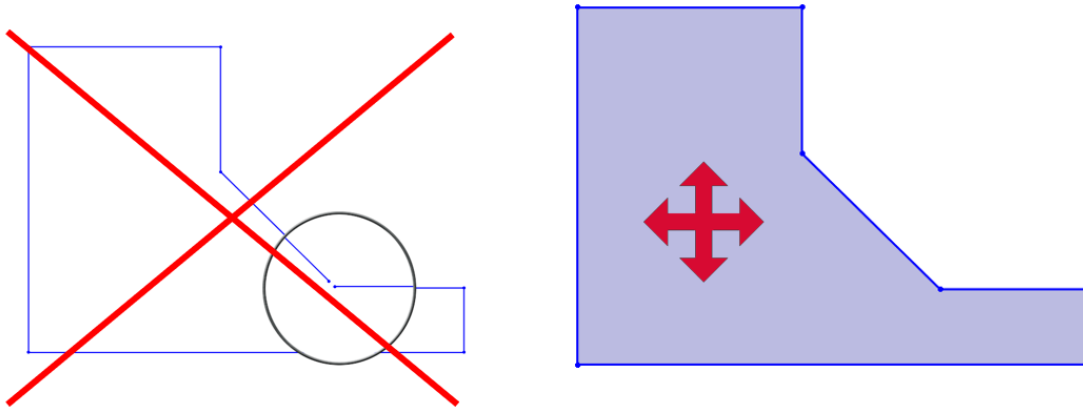
Once all lines are selected, avoid moving your mouse too quickly. Release the Ctrl button, and a quick menu will appear, allowing you to add relations.



Sketching

With sketch tool "*Shaded Sketch Contours*" enabled:

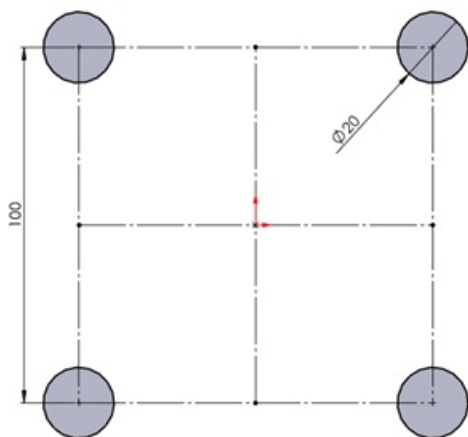
- **This will make it easier to identify open edges. The shaded area will only appear if the sketch is completely enclosed.**
- **Move under defined sketch entities. Just click anywhere in the shaded area and move.**



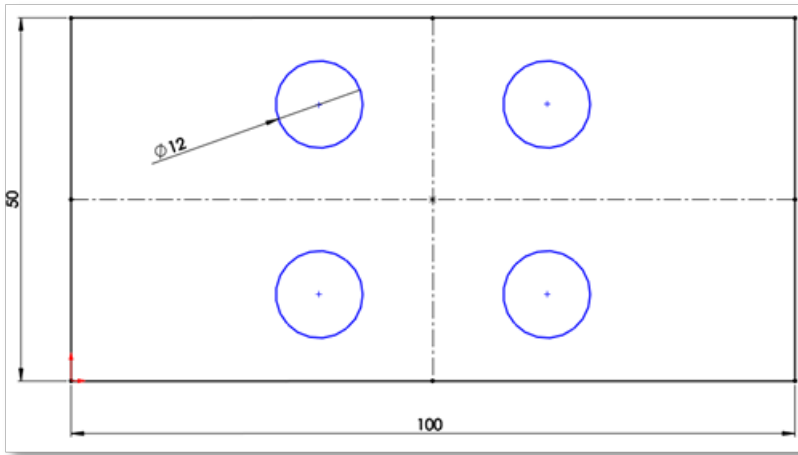
Sketch Relations

Using the "*Rectangle*" tool is an effective way to create symmetry in a sketch.

Create a hole pattern by converting the rectangle into construction geometry.



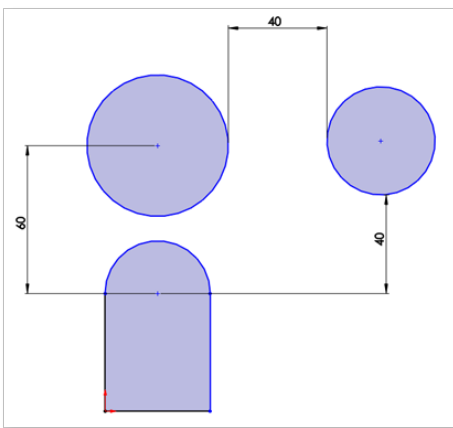
Using the centerlines of the rectangle as mirror entities



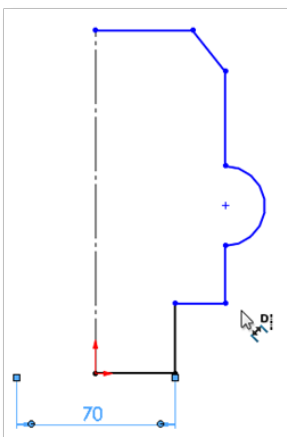
Tip: You can also convert other sketch tools, such as circles, ellipses, or slots, into construction geometry and use them in a similar way as described above.

Smart Dimension

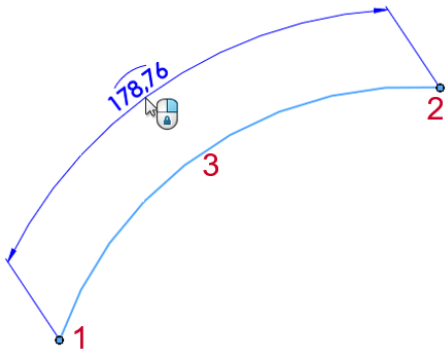
Circle and Radius - Shift-button for tangency



Use Center line/Construction line to get diameter dimension. Move mouse "*past*" construction line. Perfect for revolved features.

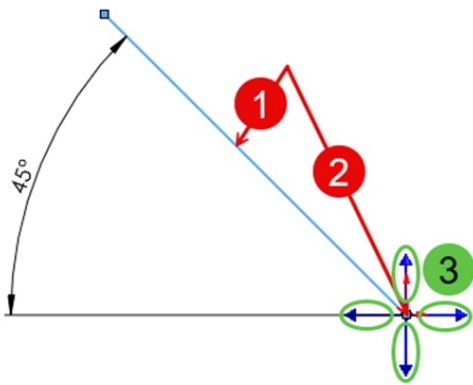


Get arc length by using method Ctrl + Point-Point-Arc



Set angle dimension with a single line

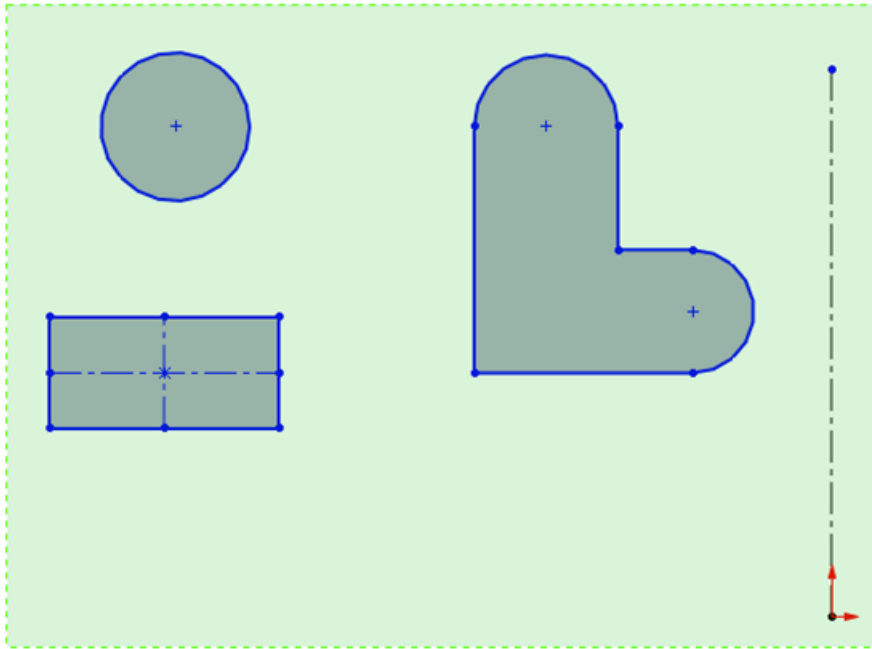
- **1 & 2: Line/point or point/line**
- **3: Select direction**
- **Drag and place dim**



Mirror

There are even quicker ways to mirror entities:

- **Bor or Lasso select**
- **Ctrl + A (all selected in active sketch is selected)**



Pay attention to internal construction lines.

As described above construction lines (center line) are the most common method when mirror sketch entities.

But there's also possible to use both planes and surfaces and get the same result.

