

Comments on Dimensions

1. There must be enough dimensions to build the part using only the drawings!!!
2. Dimensions must show the “design intent” (locate some items relative to others, show sizes of some features).
3. SolidWorks can insert any dimension requested. The dimension will always have the correct value, BUT may not convey the “design intent”, as required.
4. Dimensions go in a view that best shows them in true shape (almost always).
5. Dimension values should be at the center of the dimension line, unless they will not fit.
6. Dimension numbers should be one font height away from the part and away from each other.
7. Radii or diameters should not be given horizontal or vertical leaders.
8. Leader lines should not cross each other or a number or text.
9. Scale the font size to look “good” relative to the part size.
10. Scale the arrowheads to the font size (**Options**→ **Document Properties**→ **Dimensions**).
11. Avoid placing dimensions on the body of the part.
12. Give any dimension only once!
13. Do not dimension to hidden lines or fillet edges. Show hidden lines in three standard views.
14. Arrowheads go inside the leaders except if they overlap.
15. Chaining dimensions should line up at their arrowheads.
16. Dimension relatively small features in a detail view or a section view.
17. Fillets and threads are usually best described with drawing notes.
18. Create auxiliary views for inclined planes with true shape circles, ellipses or arcs.
19. Create section views for true shape features that are hidden in the front, top or right views.
20. See dimensioning links on the class Help Files page and in the class schedule. (www.clear.rice.edu/mech403)