General Drawing Rules – Dimensions

- For flat pieces, give the thickness dimensions in the edge view, and all other dimensions in the outline view.
General Drawing Rules – Dimensions

- Dimension features in the view where they can be seen true size and shape.
- Use diameter dimensions for circles.
- Use radial dimensions for arcs.
General Drawing Rules – Dimensions

☐ Omit unnecessary dimensions.

This

Not This
Dimension Guidelines – Appearance

- Place dimensions away from the profile lines.
- Allow space between individual dimensions.
- A gap must exist between the profile lines and the extension lines.
- The size and style of leader line, text, and arrows should be consistent throughout the drawing.
- Display only the number of decimal places required for manufacturing precision.
Drawing Appearance – Not Good
Drawing Appearance – Much Better
Manipulating Dimensions

- Moving dimensions:
  - Click the dimension text.
  - Drag the dimension to the desired location.
  - To move a dimension into a different view, press and hold the Shift key while you drag it.

- Deleting dimensions:
  - Click the dimension text, and then press the Delete key.

- Flipping the arrows:
  - Click the dimension text.
  - A green dot appears on the dimension arrows.
  - Click the dot to flip the arrows in or out.
Dimensions and Geometric Relationships

- Specify dimensions and geometric relationships between features and sketches.
- Dimensions change the size and shape of the part.
- Mathematical relationships between dimensions can be controlled by equations.
- Geometric relationships are the rules that control the behavior of sketch geometry.
- Geometric relationships help capture design intent.
Dimensions

- Base-Extrude depth = 50 mm
- Boss-Extrude depth = 25 mm

Mathematical relationship:

- Boss-Extrude depth = Base-Extrude depth ÷ 2