

Standard Orthographic Projects

Mechanical Drawing Best Practices

- Use standard Third Angle Projection for drawings in the U.S. and First Angle Projection for countries outside the U.S.
- Choose a front view that best represents the shape of the part.
- Position views in proper place for correct orthographic projection (normally front, top and side)
- Dimensioning Best Practices:
 - Present your drawing so that the machinist has to do as little math as possible!
 - Extension lines don't touch object lines, leave a gap.
 - Extension lines can cross other extension lines.
 - Position dimensions outside body of part, preferably between views.
 - Shorter dimensions are placed closer to object.
 - When placing dimension lines, do so between extension lines, not object lines.
 - Dimension lines should not cross other dimension or extension lines.
 - When possible, place all dimensions for one feature in same view.
 - Do not duplicate dimensions.
 - When multiples of a feature exist, use format "number of features X dimension".
Example: "2 X .375"
 - Line up dimension lines when possible.
 - Locate cylindrical features in circular view.
 - When calling out circular features (holes, cylinders), use diameter dimensions, not radius.
 - Consider using ordinate dimensioning in a view that shows numerous features.