

Standardized Line Weights/Colors

ASME - The American Society of Mechanical Engineers (ASME) recommends two line weights with bold lines twice as thick as thin lines. This line standard relates to both manual and computer aided drafting. Standard ASME line weights are 0.6 mm for thick lines and 0.3 mm for thin lines. The actual width of the lines may be more or less than the recommended thickness depending on the size of the drawing or size of the final reproduction.

MIL - Military (MIL) documentation standards drawings require three weights of lines: thick, medium, and thin. Line weights may be as follows: Thick lines, 0.6 mm width; Medium lines, 0.35 mm width; Thin lines, 0.25 mm width. MIL spec drawings will work well for our projects and needs with only minor modifications.

A fourth line weight, heavy, though not used in the drawing of the actual part or assembly, may be an even heavier line than the thick line. This heavy line may be 0.7 mm in width and may be used to illustrate the border or title block perimeter, cut-plane and viewing-plane lines, and chain lines.

For our purposes here at RRCC, in the mechanical area, our standards for basic line weights and colors may be as follows below:

NOTE::: Do not set line weights in the drawing or layer properties. Line weights will be set later in the CTB table. The line color should be set in the layer as the layer is created.

Heavy Lines - 0.70mm, Color - Cyan (4), Borders, cutting-plane lines, viewing-plane lines, and chain lines.

Thick Lines – 0.60mm, Color - Dark Gray (8), Object lines and short break lines.


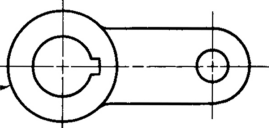

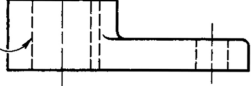



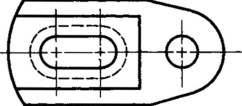

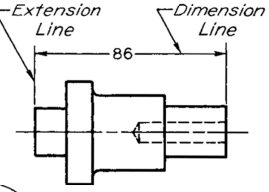

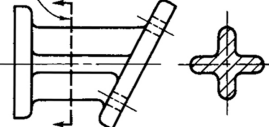


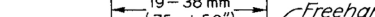
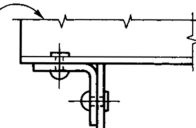

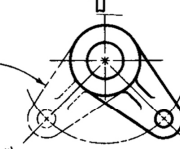
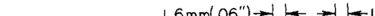
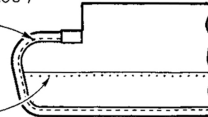


Medium Lines - 0.35mm, Color - Green (3), Hidden lines, most drawing text and dimension line text, and intermediate surface lines.

Thin Lines - 0.25mm, Color - Red (1), Dimension lines, leaders, centerlines, phantom lines, and long break lines. For hatches/section lines – Color - Magenta (6)

Architectural work may by necessity have many more layers and layer colors than the mechanical projects and for 3D work finer line weights.

During plotting, the CTB Table (Color Table) will assign the above line weights to the plotted lines according to the line colors previously set in each layer.

The accompanying figure shows the widths and types of lines taken from the ASME standard, *Line Conventions and Lettering*, ASME Y14.2M. Some lines have been modified for our use. The heavy and medium lines for our uses have been added.

Visible line	Thick		
Hidden line	Medium		
Section line	Thin		
Center line	Thin		
Dimension line, Extension line, Leaders	Thin		
Cutting-plane or Viewing-plane lines	Heavy		
Short-break line	Thick		
Long-break line	Thin		
Phantom line	Thin		
Stitch lines	Medium		
Chain line	Thin		
Text	Medium	All general drawing text, notes, and dimension text	
Title Blocks	Heavy	The drawing border/perimeter	
Revision Text/ Signature Text	Thin	Revision block and signature area of drawings	