



Hidden Line...Hidden lines are used to indicate or show the hidden features of a part. The hidden line is made up of a series of dashes (3.175 mm or 1/8") with spaces (1.588 mm or 1/16") between the dashes. See below:

Extension Line...Extension lines are the same weight of dimension lines. These lines indicate points from which the dimensions are given. The extension line begins 1.588 mm or 1/16" away from the view or object and extends 3.175 mm or 1/8" past the last dimension line.



Dimension Line...Dimension lines end or terminate with the arrowheads at the end. They are usually placed between two extension lines. A break is made, usually in the center, to place the dimension. The dimension line is placed 6.350 mm or 1/4" to 12.7 mm or 1/2" away from the drawing. It is a fine line and is drawn using a pencil sharpened to a long conical point.



Center Line...Centerlines are made of alternate long 19.050 mm or 3/4" to 38.1 mm or 1 1/2" and short 3.175 mm or 1/8" dashes with 1.588 mm or 1/16" spaces between. These are drawn about the same weight as extension and dimension lines, and are used to locate centers of symmetrical objects.

Cutting-Plane Line...Cutting plane line indicates where an object has been cut to show inferior features. Two types are used: 6.350 mm or 1/4" dashes with 1.588 mm or 1/16" spacing; a long dash 19.05 mm or 3/4" to 38.1 mm or 1 1/2"; then two short dashes 3.175 mm or 1/8" with 1.588 mm or 1/16" spacing. Draw the cutting-plane line slightly heavier than the object line, using a pencil with a rounded point or a 5 mm pencil.

Section Line...Section lines are used when drawing inside features of an object to indicate the surfaces exposed by the cutting-plane line. Section lines are also used to indicate general classifications of material. These lines, light in weight, are drawn with a pencil sharpened to a long conical point.



Phantom Line...Phantom lines are used to show alternating positions of a moving part, repeated details, or the path of motion of an object. The line weight is the same as centerlines. A phantom line consists of dashes 19.050 mm or 3/4" to 1 1/2" long, separated by a set of two 3.175 mm or 1/8" dashes.

Line Definitions for Drafting and Design

Border Line...Border lines is the heaviest line used in sketching. First, draw light construction lines as a guide. Then, go over them using a pencil with a heavy rounded point to provide the border lines.

Object Line...Object lines are a heavy line, but slightly less in thickness than a border line. The object line indicates visible edges. In sketching object lines, use a pencil with a medium lead and a rounded point.