

8. FILLET

The fillet command automatically rounds a sharp corner (intersection of two *Lines*, *Arcs*, *Circles*, or *Pline* vertices) with a radius. You only specify the radius and select the objects to be filleted. The objects to fillet do not have to completely intersect but can overlap. The fillet command is used first to input the desired radius and a second time to select the object to fillet. can access the command from:

- *Menu bar: Modify* → *Fillet*
- *Command line: Fillet*
- *Modify bar* 

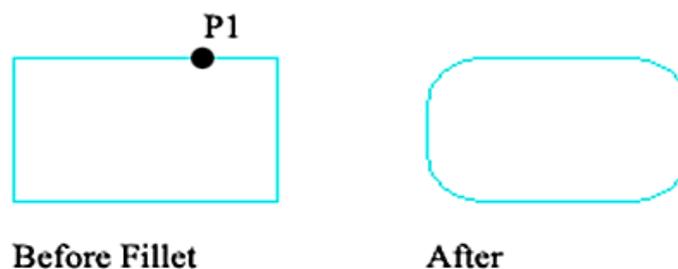
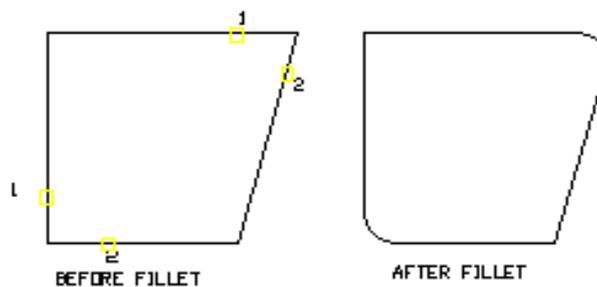
Options:

Select first object: this option require select first object.

Poly line: this option used when the base object is pl and wants circular all angels by this option.

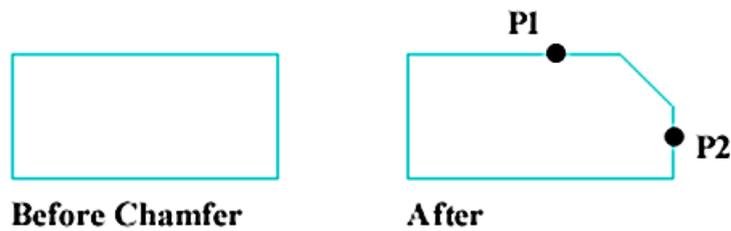
Radius: this option used to determine radius of fillet.

Trim: to distinguish between trim original lines or no trim.

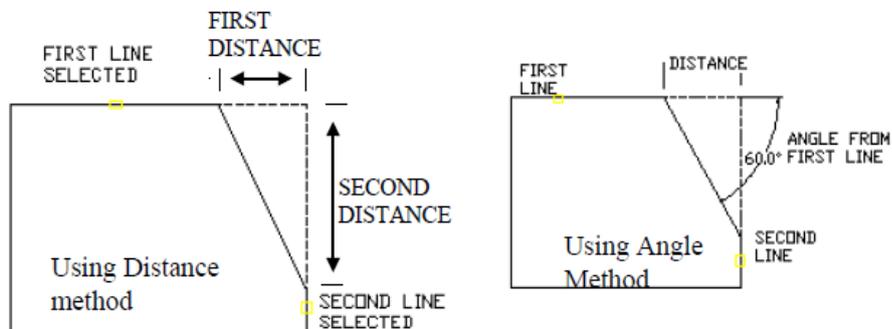


CHAMFER

Chamfer is a manufacturing process used to replace a sharp corner with an angled surface. In AutoCAD, *Chamfer* is commonly used to change the intersection of two *Lines* or *Plines* by adding an angled line. The *Chamfer* command is similar to fillet, but rather than rounding with a radius or “fillet”, an angled line is automatically drawn at the distances (from the existing corner) that you specify.



Chamfer can be created by two methods: *Distance* (specify two distances) or *Angle* (Specify a distance and an angle).



Distance option → is used to specify the two values applied to create the chamfer. The value indicate the distances from the corner (intersection of the two line) to each chamfer endpoint as shown below.

9. OFFSET

Offset creates a parallel copy of selected object. Selected object can be *Lines, Arcs, Circles, Plines* or other objects. Two options are available with offset; *offset a specified distance* and *offset through a specified point*.

This command use to draw object parallel to selected object by determine distance. Access the command by:

- *Menu bar: Modify* □ *offset*
- *Command line: O*
- *Draw bar:* 

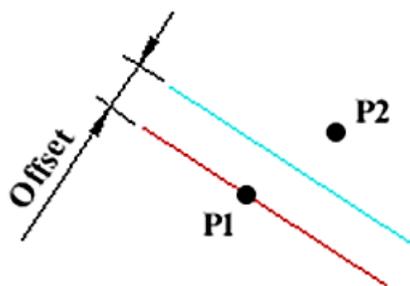
When use offset command the program require parallel distance.

Command: Offset

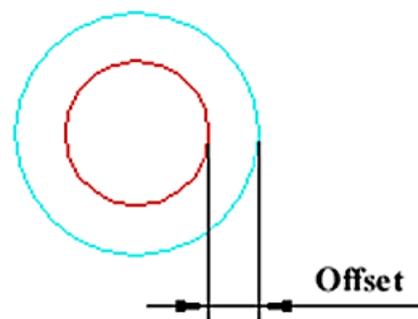
Specify offset distance or [through]:

Select object to offset or <exit>:

Specify point on side to offset:



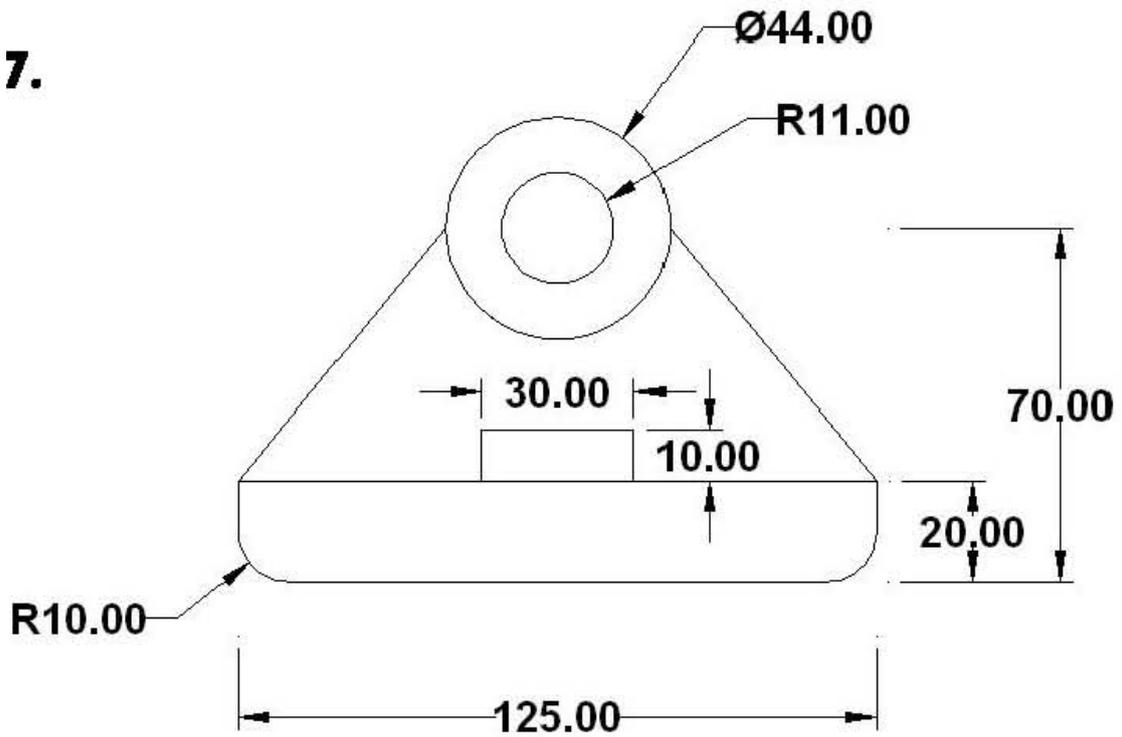
Offsetting a Line



Offsetting a Circle

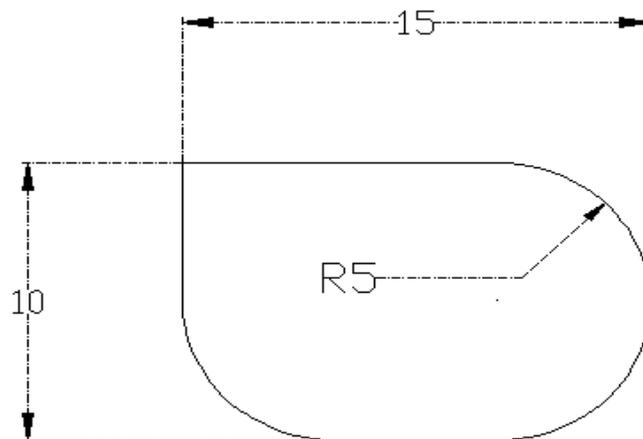
Example 7-1: Draw the following figure using fillet and offset commands

7.

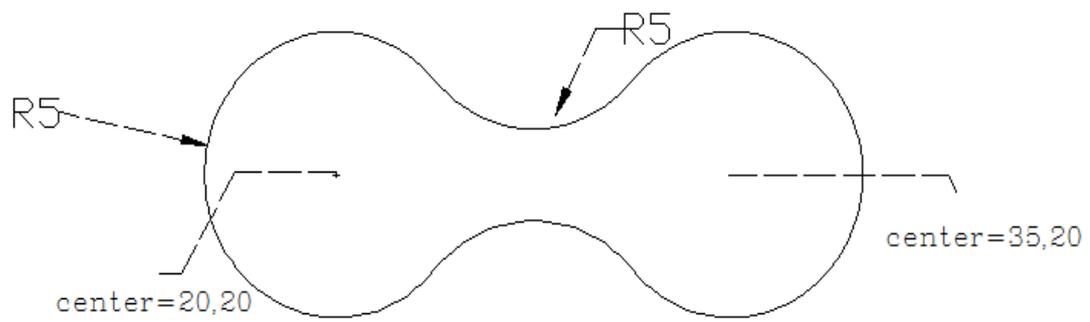


Example 7-2: use fillet command to create following drawing:

1.



2.



Example 7-3: Draw the following figure.

