

Dwg #8 — CHAMFER/FILLET

T.E. Lab 347/547 - Computer Assisted Design and Drafting

INTRODUCTION:

This drawing involves the use of the chamfer and fillet commands. The chamfer command will be used to create fillets on both exterior and interior corners. The fillet command will be used to create rounds on exterior corners and fillets on interior corners.

OBJECTIVES:

Following the completion of this activity, the learner will be able to:

1. Locate the lower left corner using the absolute coordinate system.
2. Construct the object lines using the relative coordinate system.
3. Position the one circle using the relative coordinate system.
4. Draw the 3 remaining circles using the rectangular array function.
5. Create circles of a specific radius using the Circle tool.
6. Create fillets of a specified radius using the Fillet tool.
7. Create rounds of a specified radius using the Fillet tool.

DIRECTIONS:

Read the specific information regarding this drawing. Attached to this sheet is the drawing that you are to reproduce. Open a new drawing and save it to your class disk using your 3 initials followed by Dwg08 (i.e.; fmlDwg08). Set up the CADD program to the correct setting as indicated below.

After the Dwg08 drawing is complete, save it to your class disk, answer the questions about the drawing in the question section of this activity and complete the Drawing #8 section of the Drawings #6-#10 Evaluation sheet.

When due, submit drawings #6-#10 with a title page, hard copy of each required drawing, and the Drawings #6-#10 Evaluation sheet stapled together with a disk containing the finished drawing files.

AutoCAD SETUP:

1. Choose Format►Drawing Limits, in the command line specify lower left corner = 0.0000,0.0000, and specify upper right corner = 12.0000,9.0000.
2. Choose Tools►Drafting Settings..., click the Snap and Grid tab (Figure 1):
 - A. Check Snap On (F9).
 - B. Set Snap Spacing = 0.250.
 - C. Check Grid On (F7).
 - D. Set Grid Spacing = 0.250.

Note: DS is a shortcut to the Drafting Settings dialog box.

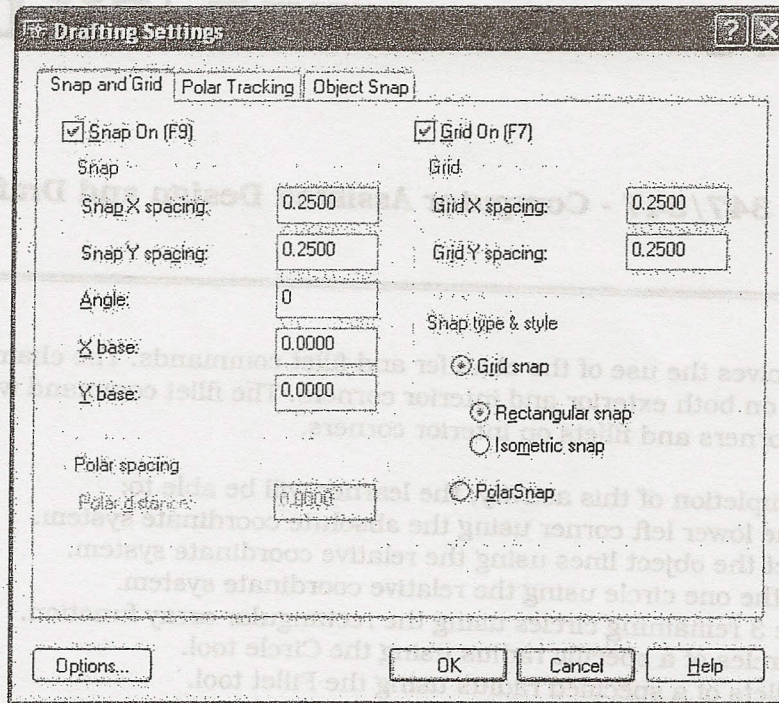


Figure 1 The Snap and Grid section of the Drafting Settings dialog box

3. Fillets = 0.125.
4. Rounds = 0.125.
5. Chamfers = 0.250x0.250 or 0.750x0.750 unless otherwise noted.
6. Holes are located on 1.000 vertical centers.
7. Refer to Drawing #9 for dimensional data.
8. Locate the lower left corner (before chamfering) at X = 3.000 and Y = 1.000.
9. **DO NOT** include reference data or dimensions.

QUESTIONS:

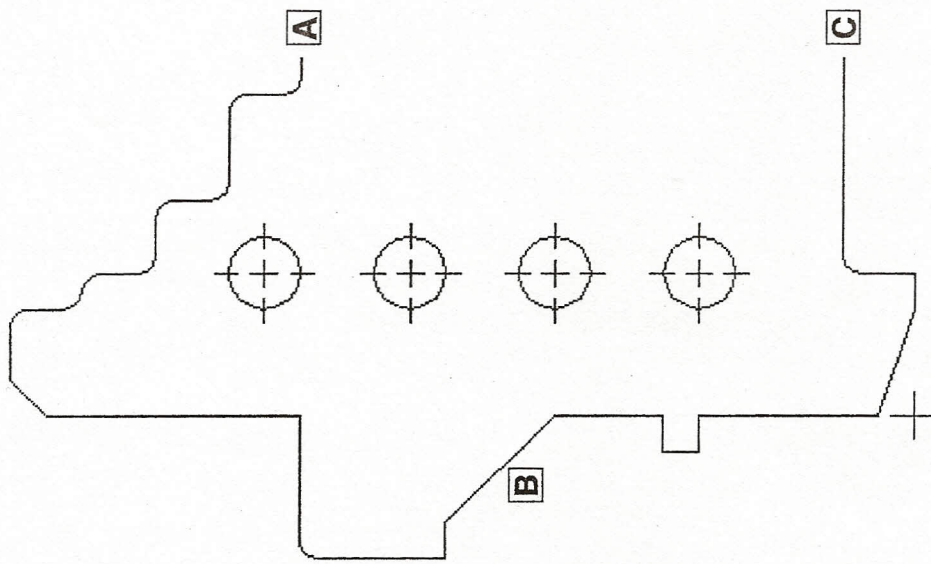
Measure the perimeter of 1 hole and the combined area of the 4 holes by selecting the Area icon and typing o for Objects, then click on the desired circle(s). The perimeter and area will be displayed in the command line. Set the drawing units precision to 0.0000 before answering the following questions.

Question 1: Measure the perimeter of 1 of the 4 holes (Precision, 4 decimal places) 1.5708

Question 2: Measure the combined area of the 4 holes (Precision, 4 decimal places)7854

Question 3: Measure the length of line B (Precision, 4 decimal places) 1.0607

Question 4: Measure the vertical length of the phantom right side AC
(Precision, 4 decimal places) 3.7500



Refer to Drawing #9 for object dimensions