Chapter 12

Placing Notes on the Bracket Problem

In this chapter, you will learn the following to World Class Standards:

- **Making Standard Mechanical Notes in 2D Model Space**
- **Using the Text Command to Draw Notes**
- **Moving the Notes from 2D Model Space to Sheet Space**
- **Saving Your Drawing**

Making Standard Notes in 2D Model Space

To place the notes in the bracket problem, you will first draw the notes in 2D Model space. Then, using the **2D Model** tool, you will select the notes and transfer them to the sheet containing the drawn bracket and its border.
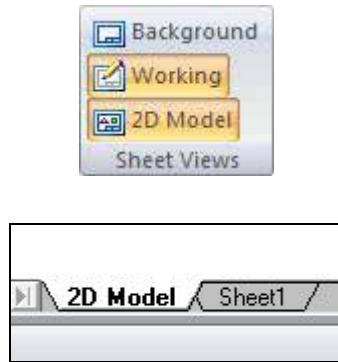
To begin using 2D Model space, you must first select the **2D Model** tool on the **Sheet Views** panel under the **Views** tab. Make sure that both the 2D Model and Working modes are selected as in the upper picture of Figure 12.1. Now, at the bottom left of the graphical screen there are two tabs. To use 2D Model space you need to activate the 2D Model tab by left clicking it with your mouse. When selected, the graphical screen should be completely blank with no border.

Figure 12.1 – 2D Model Space Selected and Active

Using the Text Command to Draw Notes

To add text to the drawing, you are first going to have to draw a text box in the graphical screen. Begin by selecting the **Text** tool from the **Annotation** panel under the **Annotation** tab. Starting in the upper right corner of the graphical display, click with your left mouse button and drag it toward the lower left corner to create a text box. You don't need to make the textbox the size of the whole screen, but do make it a little less than one quarter the size of the graph (Figure 12.2).

To the left of the screen will appear the Text Window. This window will allow you to format the text to the desired font and size. In the **Format** box of the Text Window, you want to set the font to **Arial** (Figure 12.3). In the **Font** box, change the font size to 3.50 (Figure 12.4). Select the text box with your mouse to place the flashing cursor. Now you are ready to type your notes using **Enter** when you need to start a new line. The Text tool is very much like a word processing program.
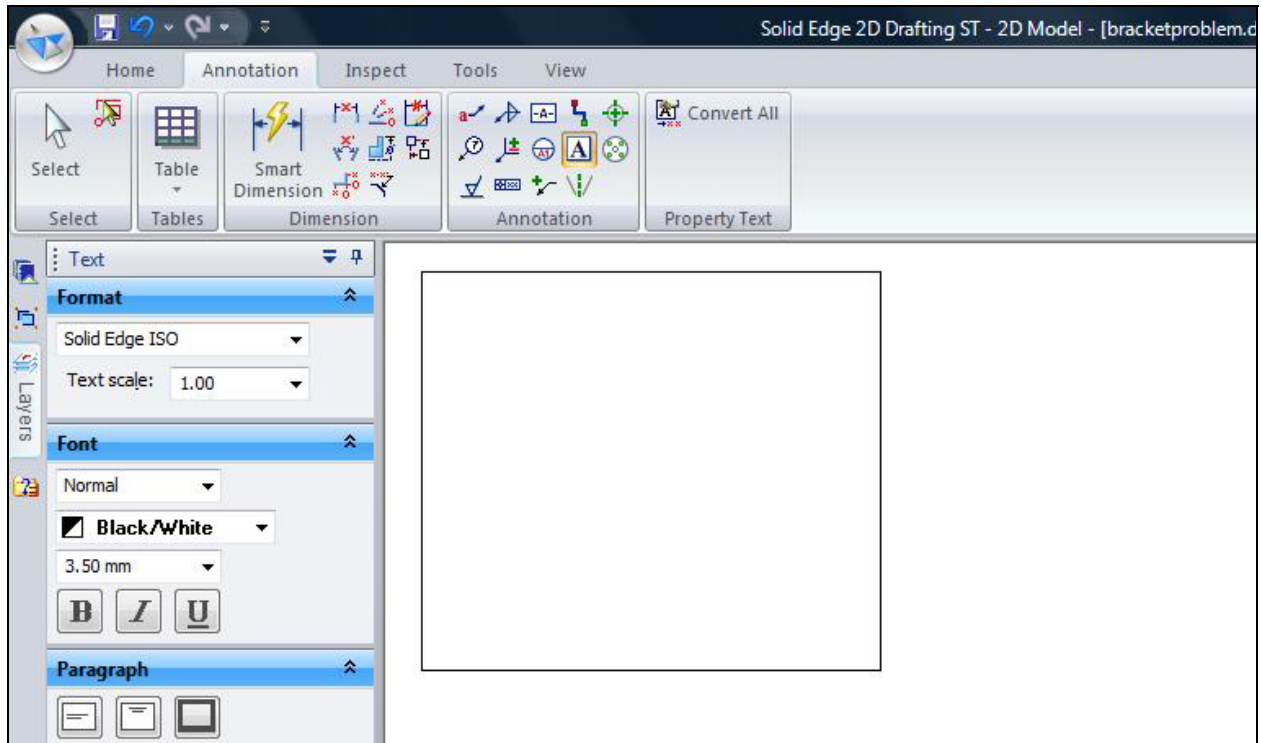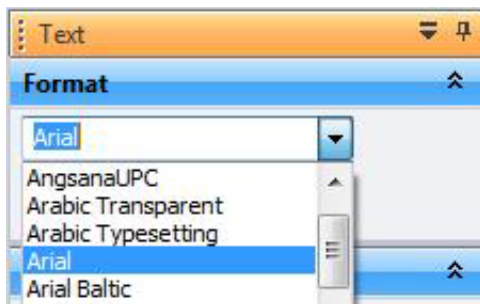
Figure 12.2 – Drawing the Text Box

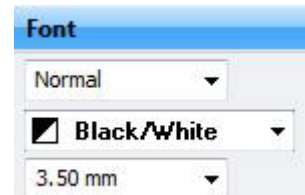**Figure 12.3 – Selecting "Arial" Font**

Figure 12.4 – Setting Font Size to 3.50

The notes you need to type are:
Notes:
1. Material:
2. Remove all sharp edges and burrs.
3. Corrosion Protection:
4. Tolerances unless otherwise specified:
   1 decimal: ±0.06
   2 decimal: ±0.010
    3 decimal: ±0.003
   Angular: ±0.5°

When adding the plus or minus symbol to the 1 decimal note, type the colon and add a space, then select the **Character Map** tool on the **Insert** panel under the **Sketching** tab (Figure 12.5). The Character Map Window will appear on the screen (Figure 12.6). After picking the plus or minus symbol, click on the Select button. Once you have done that, click the Copy button next to the Select button on the Character Map Window. When you want to insert the plus or minus symbol, you need to use the keystroke for the paste command. To do this you must first hold down the control key on your keyboard and then hit the letter "v" while stilling holding down the control key. Some extra text will appear in front of the symbol, but it is very easy to select and delete it by highlighting it with your mouse and hitting the delete key on your keyboard (Figure 12.7). The procedure is the same for the degree sign on the 0.5 tolerance on the Angular measurements. Find the degree sign on the character map, hit select, and then copy. Place the symbol using the keystroke for the paste command (control+"v") and delete the extra text in front of the symbol.

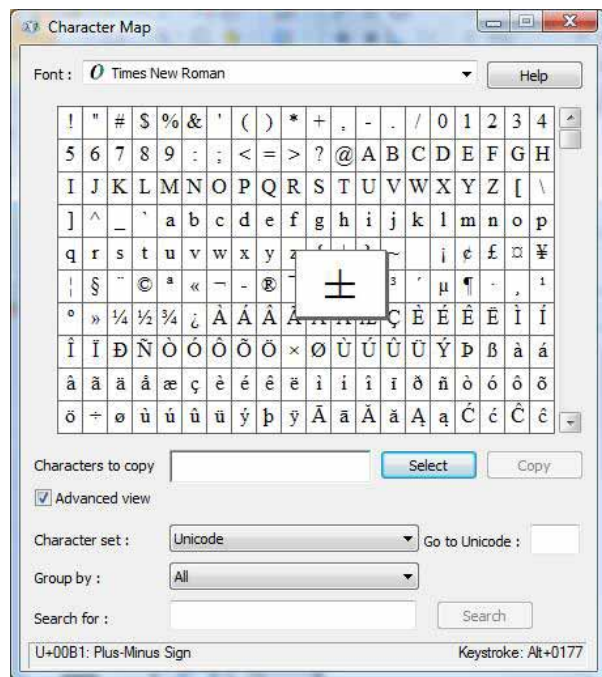**Figure 12.5 – Character Map Tool**
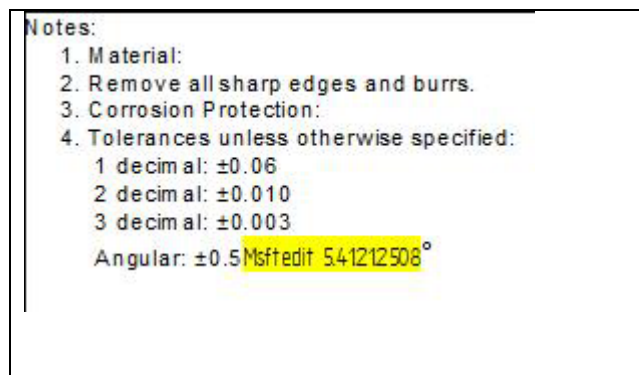
Figure 12.6 – Character Map Window

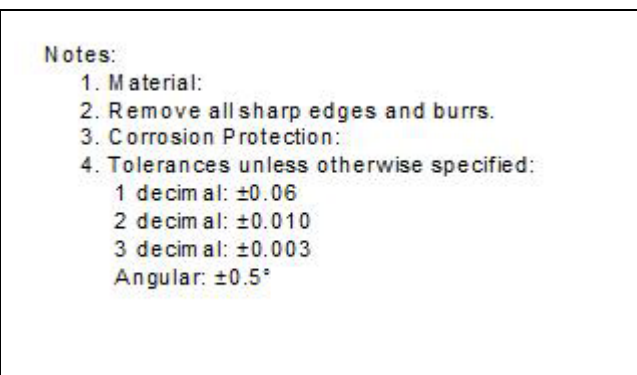**Figure 12.7 – Selecting Extra Text for Deletion**   **Figure 12.8 – Finished Notes**

Moving the Notes from 2D Model Space to Sheet Space

To move the notes you just drew from 2D Model space to Sheet space, you will first have to activate **Sheet1** in the graphical screen by selecting its tab (Figure 12.9). On the **Home** tab, select the **2D Model** tool from the **Drawing Views** panel (Figure 12.10).
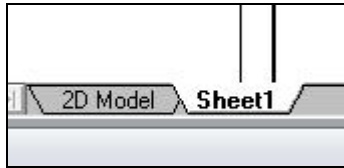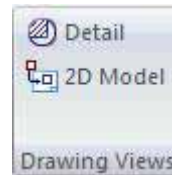

Figure 12.9 – Activating Sheet1

Figure 12.10 – 2D Model Tool

By selecting the 2D Model command, the program will automatically take you to 2D Model space and a zoomed in picture of the notes you drew earlier. The cursor on the graphical screen will have a horizontal and vertical line going through the cross hairs. You need to click a point at the upper right corner of the notes and then draw a box around the notes as in Figure 12.11.
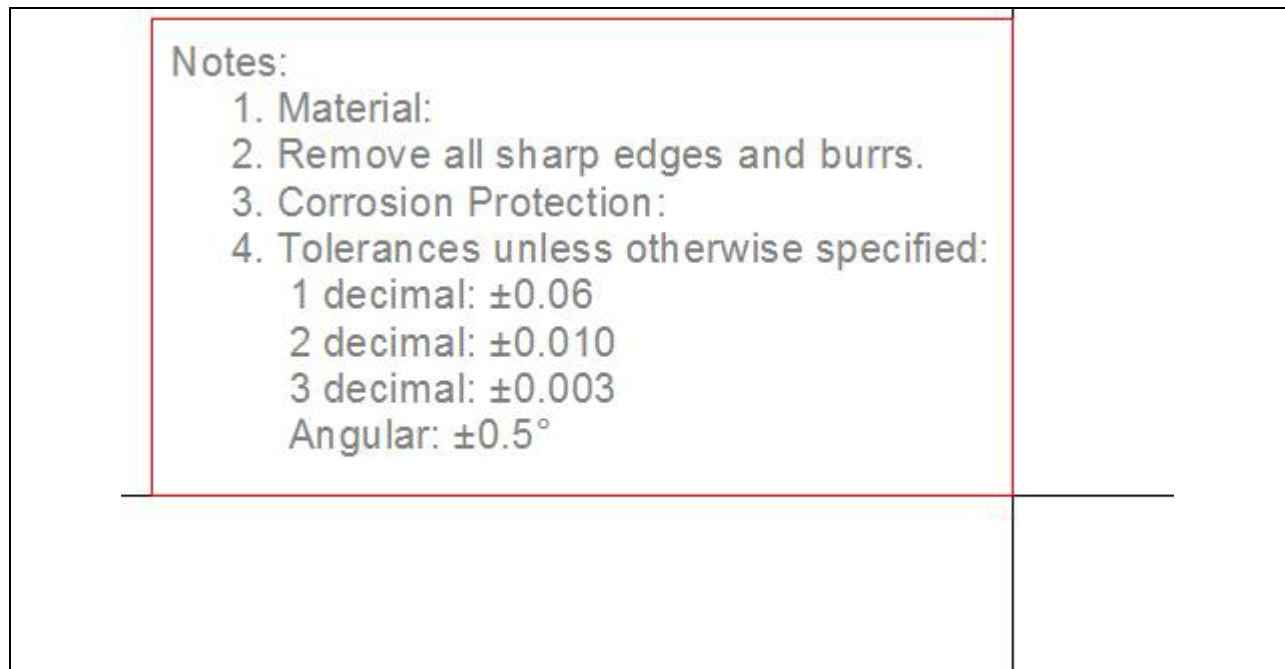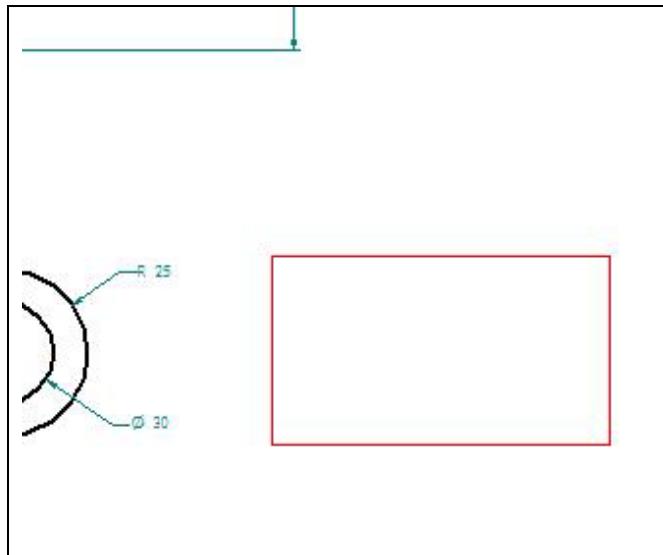

Notes:
1. Material:
2. Remove all sharp edges and burrs.
3. Corrosion Protection:
4. Tolerances unless otherwise specified:
    1 decimal: ±0.06
    2 decimal: ±0.010
    3 decimal: ±0.003
    Angular: ±0.5°

Figure 12.11 – Selecting the Notes in 2D Model Space

After selecting the notes, the program will automatically take you back to **Sheet1** where you will see a red box on the graphical screen. Take the red box and move it to the right of the front orthographic view of the bracket as in Figure 12.12. Place the notes by left clicking with your mouse. Now when you place the cursor over the notes, the red box will reappear around the notes. The box is like a window into 2D Model space. Any changes you make to the notes in 2D Model space will be changed in **Sheet1**.
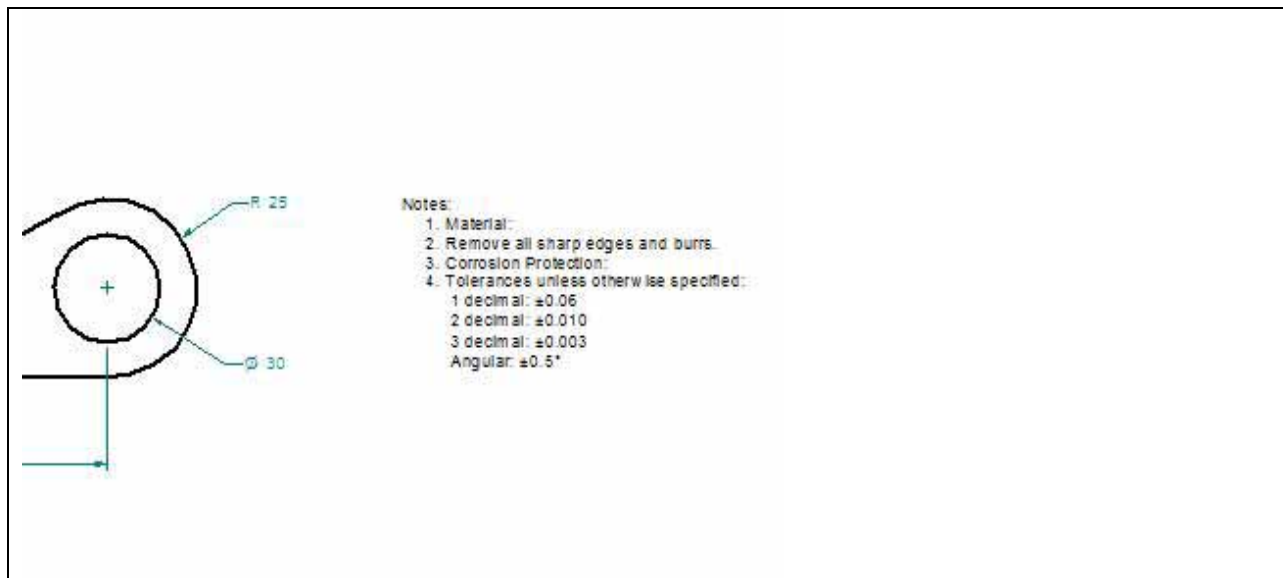
Figure 12.12 – Placing Box with Notes

Figure 12.13 – Placed Notes in Bracket Problem

Saving Your Drawing

To save the drawing, select the **Save** tool from the **Quick Access** toolbar on the upper left of the screen. The Save As window will appear in the display. You can make your own directory or you can place the drawing in the My Documents folder. Ask your Network Administrator or Supervisor to show you where you should store your finished drawing. You should type the name of the drawing "bracketproblem" in the File Name text box. The ".dft" suffix is added automatically to the name when you save the drawing.
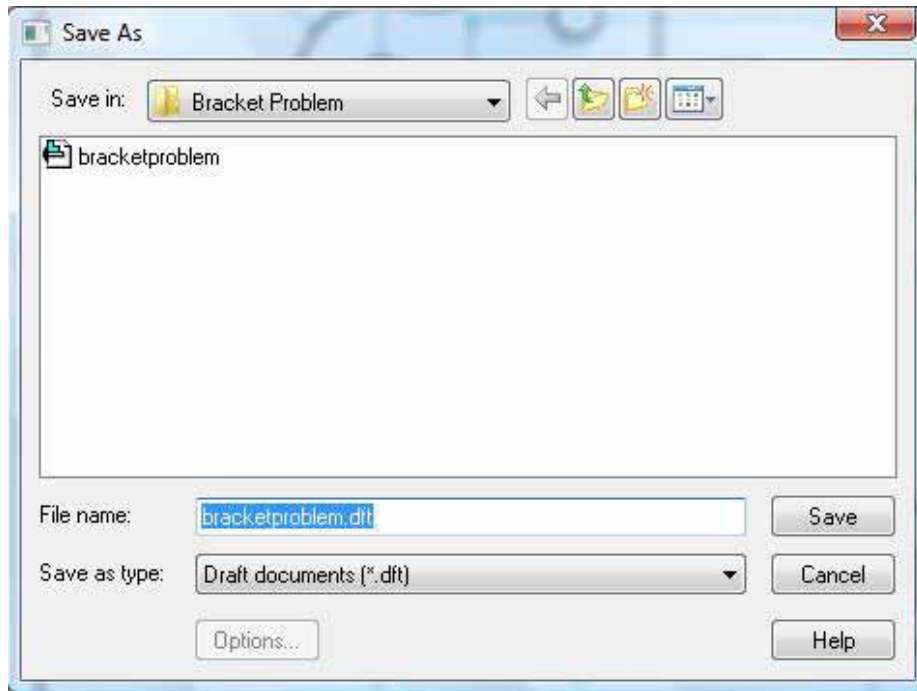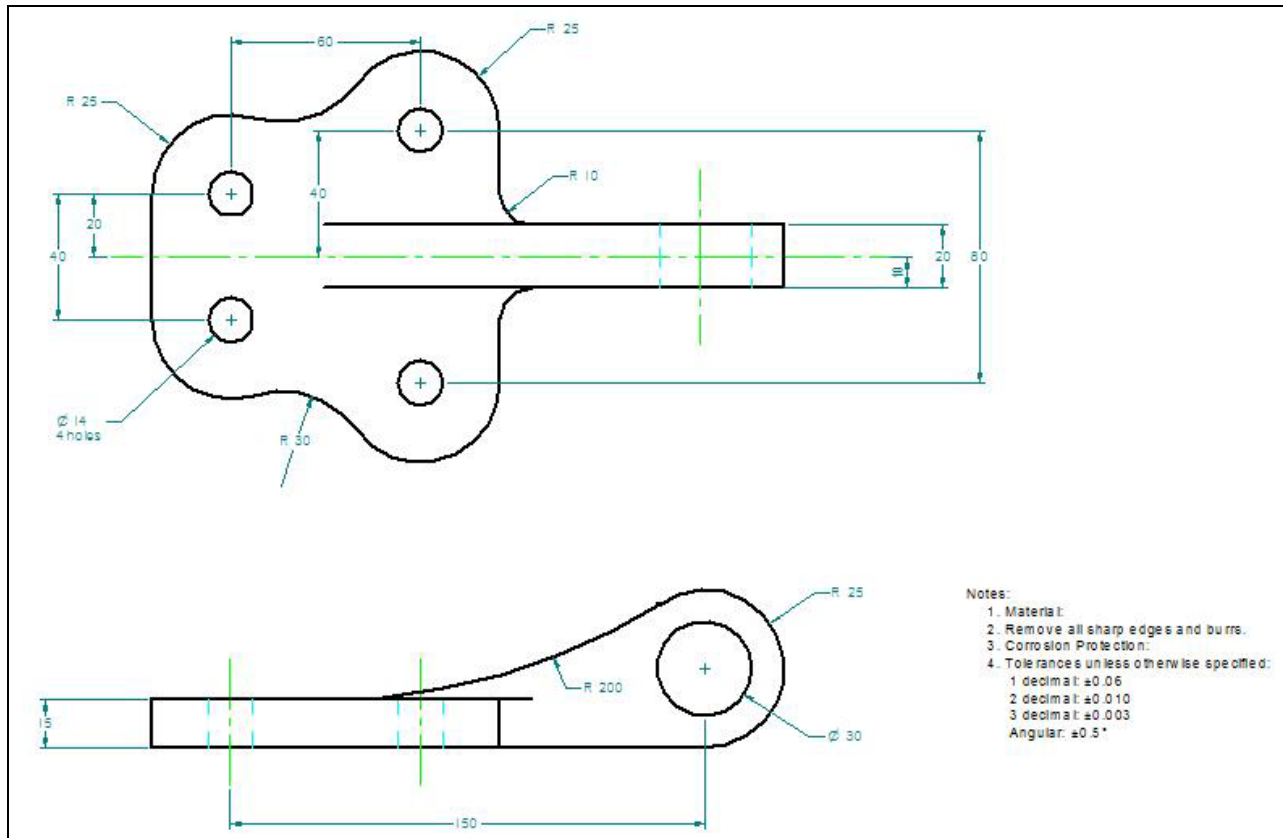
Figure 12.14 – Saving the Bracket Problem

Figure 12.15 – Finished Bracket Problem

* World Class CAD Challenge 22-23 * - Close this drawing file. Create a New file and draw the bracket problem, dimensions and place the notes on the problem from 2D Model space in less than 15 minutes. Continue this drill four times, each time completing the drawing in less than 15 minutes to maintain your World Class ranking.