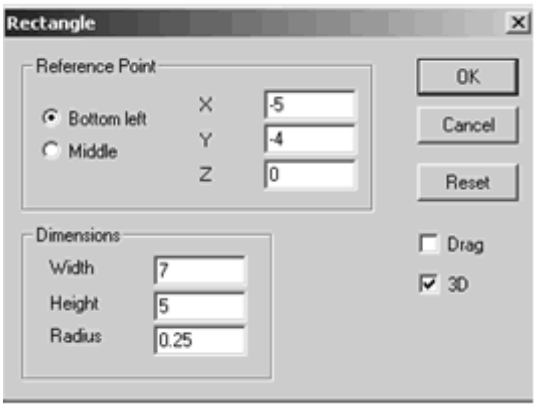
BobWIRE V19 DEMO LESSON:
Basic Closed Shape Program.

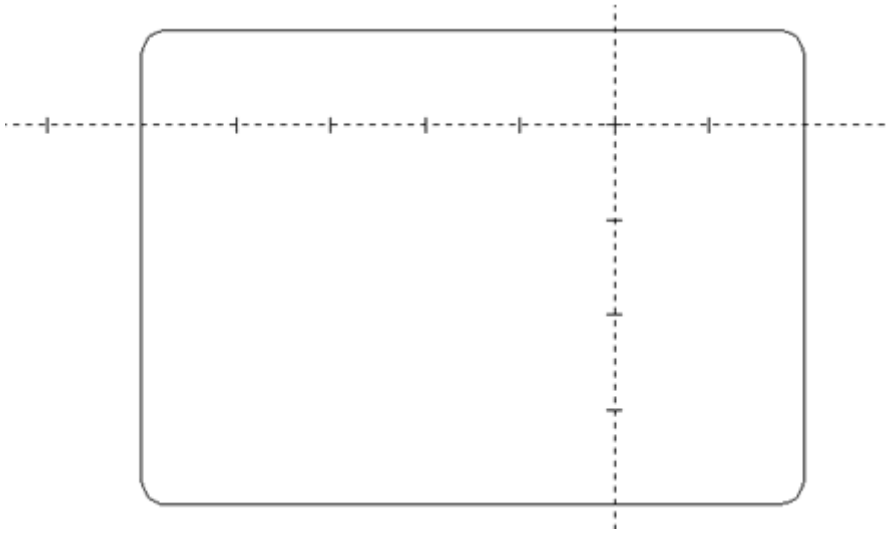
This lesson is going to teach you how to draw and program a simple closed shape for a Wire EDM machine. Start this lesson with a NEW CAD screen.

STEP1
From the main menu select POINT and then COORDINATES. Enter 0 for both X and Y.
From the Main menu select OTHER and then RECTANGLE.

The rectangle dialog box will appear on the screen. Under “Reference Point” select the Bottom Left option and enter -5 for X, -4 for Y and leave the Z value at 0. Under “Dimensions” enter 7 for the width, 5 for the height and .25 for the Radius. Make sure that the DRAG option is NOT selected and click OK to draw the shape.

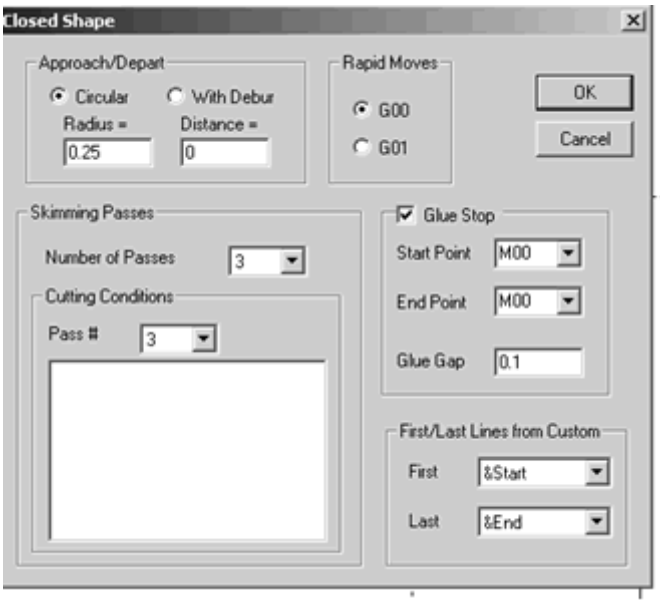


The result:



STEP 2
Now we are going to proceed with the Closed Shape part program with the CAM side. Select NC CAM from the main menu, then INSERT NC and open the Insert NC Data box with your post processors. For this lesson click on ROBOFILL 390 and then OK. This will open the CAM. You may need to select the View ALL button from the main toolbar to reposition the drawing.

STEP 3
The Closed Shape dialog box as seen below asks you all about how you want to program your closed shape profile. If the option button next to Circular Radius is not selected, select it now and enter in .25 for the radius. Next, under RAPID MOVES make sure that you have selected G00 for this lesson. Under NUMBER OF PASSES, select the drop down arrow and chose 3 for the number of passes. We will be making 3 passes around the profile. Under GLUE STOP select M00 for both START and END. Last, select the Glue Gap option and enter a GLUE GAP value of .1 as this will be our glue stop where the machine will pause so that you can secure the slug so that it doesn't fall through and break the wire itself.

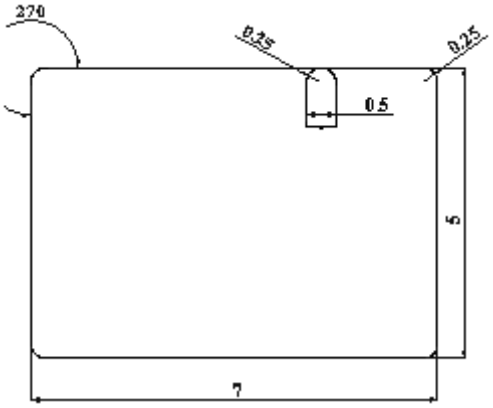


Under FIRST/LAST LINES from custom, select Program Start for FIRST and Program End for Last. Ordinarily we would check the pass conditions to make sure that they were right for our program, but for this example we can leave this area the way it is for the example lesson. Select OK in the closed shape dialog box.

STEP 4
Notice in the lower left corner of the actual program there in the information box, the software is asking for you to pick where the wire start point is. This is the original point that we put at the zero/zero position. Pick that point first. The point will highlight and then you will want to select the first part of the closed shape profile.

This is the line directly ABOVE the point. Once you have selected that line, point your arrow toward the RIGHT and click your LEFT mouse button once, then hit F3 on your keyboard. Now select YES in the selection box that appears and your complete program will automatically be written.

The BobWIRE software will automatically insert the start block for your selected machine controller as well as the correct end block. You can also scroll through the code using the up/down arrows on your keyboard to review your written program. As you do this, a red arrow will follow on the tool path geometry coinciding with the exact line of code that you are scrolling through. This makes it easy for the CAD-CAM operator to check and verify that the program is accurate and exactly what you want.



This concludes the basic closed shape lesson.

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