

WATERJET TRAINING MANUAL

Prepared by: Samuel Canete, Daniel Corrales, Madeline Chavero

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Hey there! You've opened the Wazer waterjet training manual. This guide will teach you how to operate the Wazer waterjet safely and effectively, helping you become more productive in your projects. Follow the step-by-step instructions to help you achieve great results.

1. Geometry

- 1.1. 3D modeling will not be covered in this manual.
- 1.2. The file for the certification will be provided.

2. Registration/Software

- 2.1. Register
- 2.2. CutFiles
- 2.3. Set-Up

3. Cutting

- 3.1. MAKE AN APPOINTMENT WITH MAKERSPACE STAFF
- 3.2. Beginning the cut

4. Finishing

Warning!!!!

The water jet uses High pressure water as well as tiny abrasives!

Please ask a staff member to accompany you when using the water jet even after you get certified.

Wear safety glasses at all times when operating the water jet. Abrasive will fly out from the side openings and may potentially fly into your eyes.

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1. Geometry

1.1. First, let's talk about geometry. While you won't learn about 3D modeling here, you'll receive a file that will help you with your certification.

1.2. You will be creating a file in whichever CAD software you would like. However, choose one that can save the file as a DXF file as the file used in this example are for DXF files. DXF file is a that converts files into a 2D model which the water jet can read. For this certification manual a predetermined file is provided. To save a file to DXF file from fusion or Adobe, please use the following link:

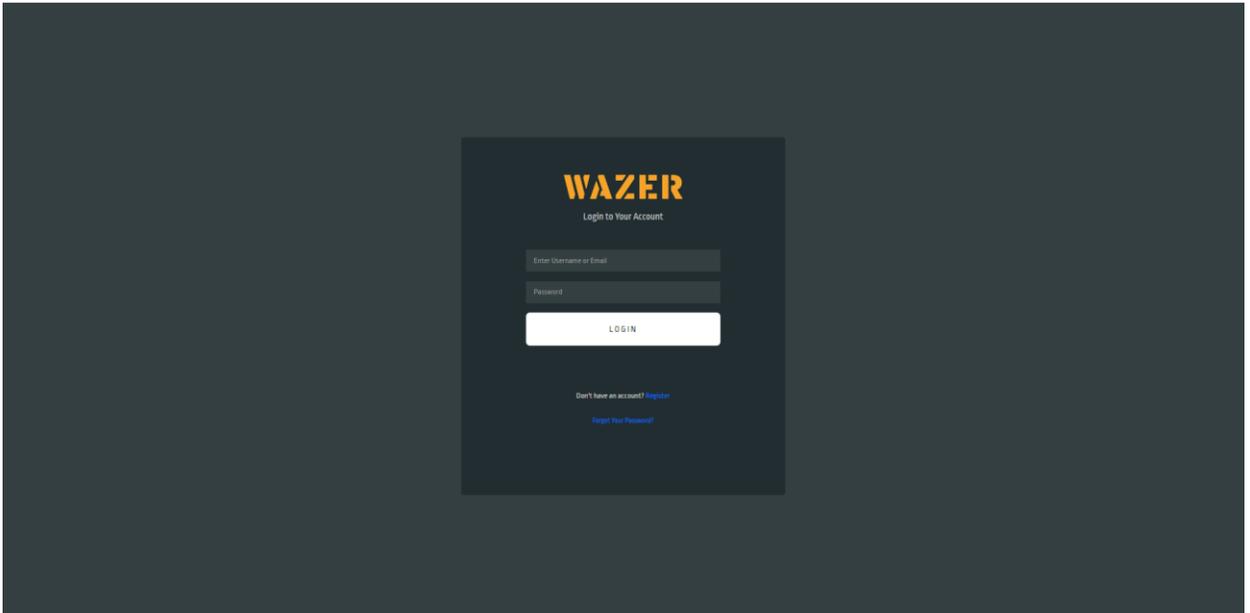
<https://support.wazer.com/resources/maintenance/procedures/exporting-dxf-files>

2.) Registration/software

You will be creating a new account in water to which you will be able to use the software that they provide, which is free. The software does not need to be downloaded and only used through the browser. Which tells you how to format, cut, cut quality and lastly choose a material that you wish to cut.

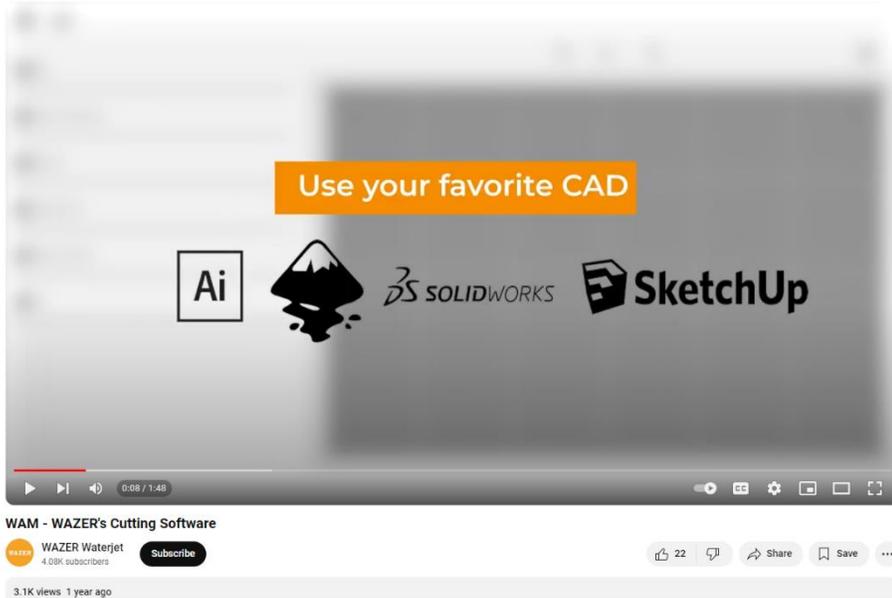
2.1.) Register

1. Go to wam.wazer.com and register a new account (no need to download file)



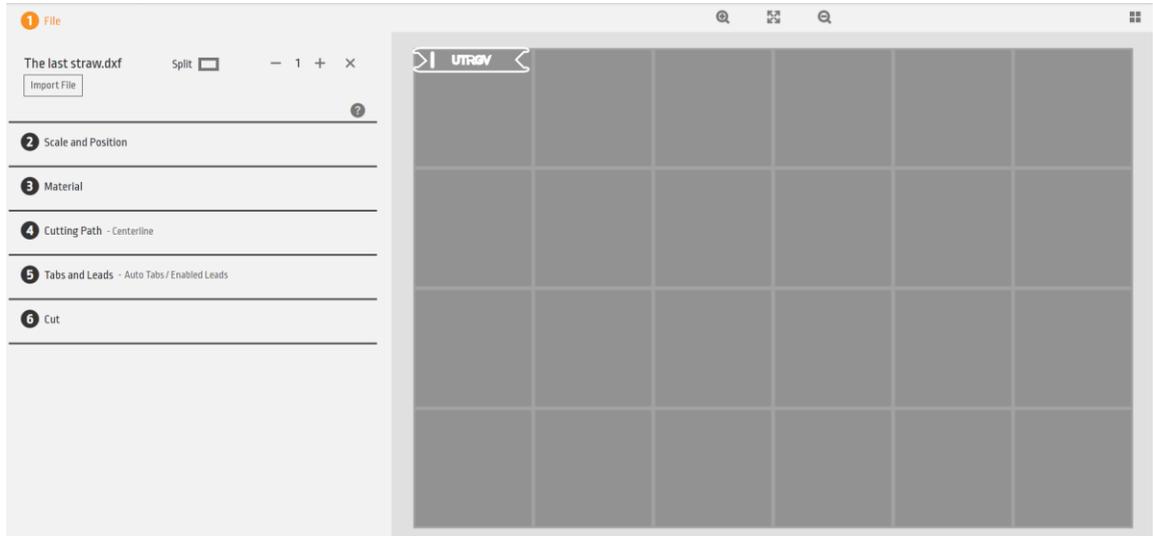
2. Watch and follow Video on accessing Wam Wazer Software
https://youtu.be/ZlxivtJ1uiA?si=jVQ7Jz_xD_Vmn2Fh

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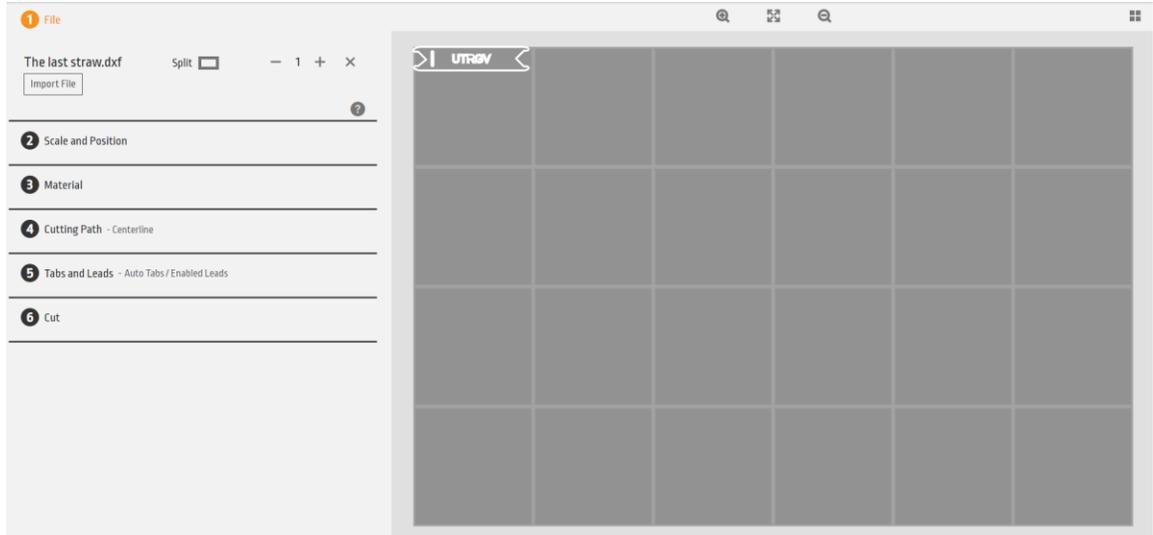
2.2.)Cut files

1. Import file (must be a SVG Adobe illustrate or DXF Fusion 360 file)

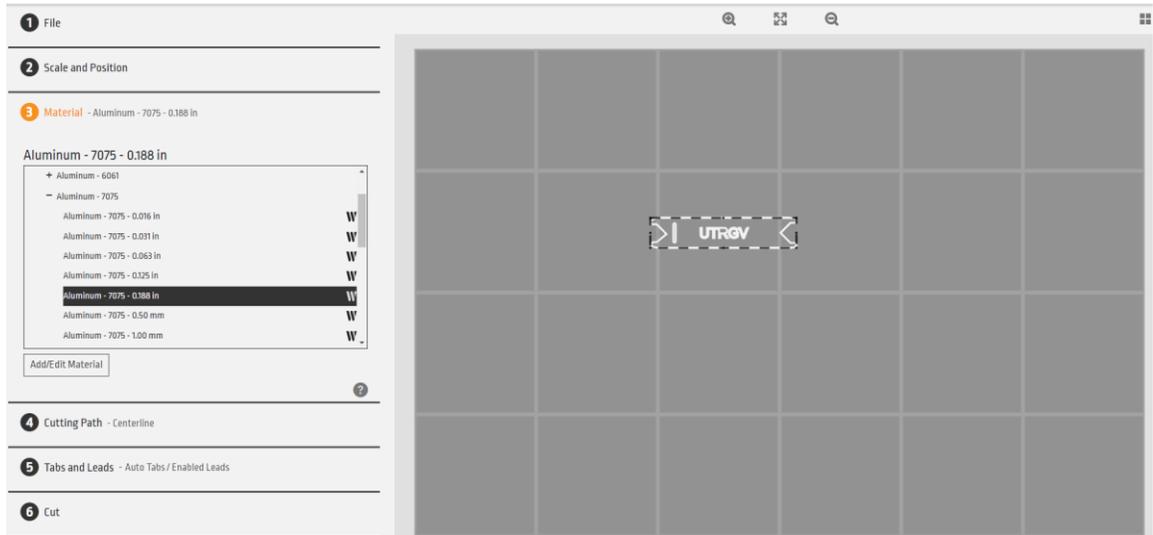


2. Scale and position your cut to your desired scale and positioning

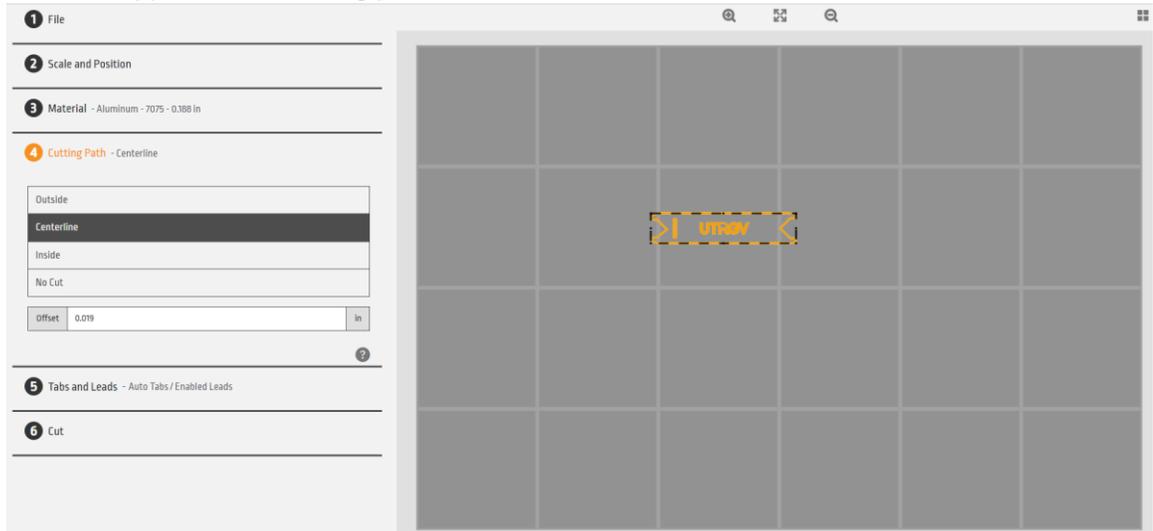
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3. Select a material from the materials library

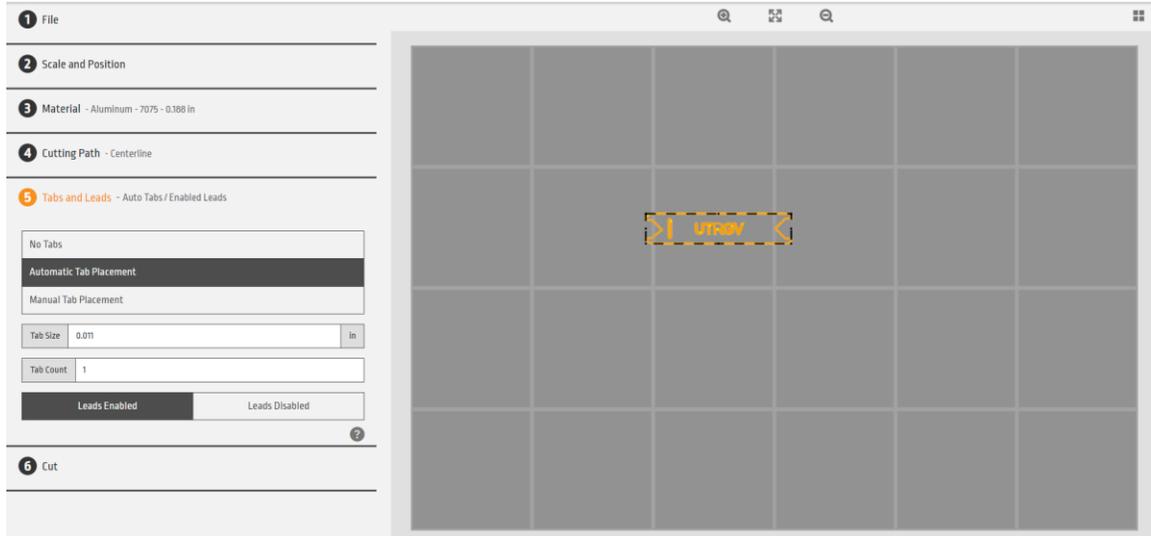


4. Select a type cut of cutting path

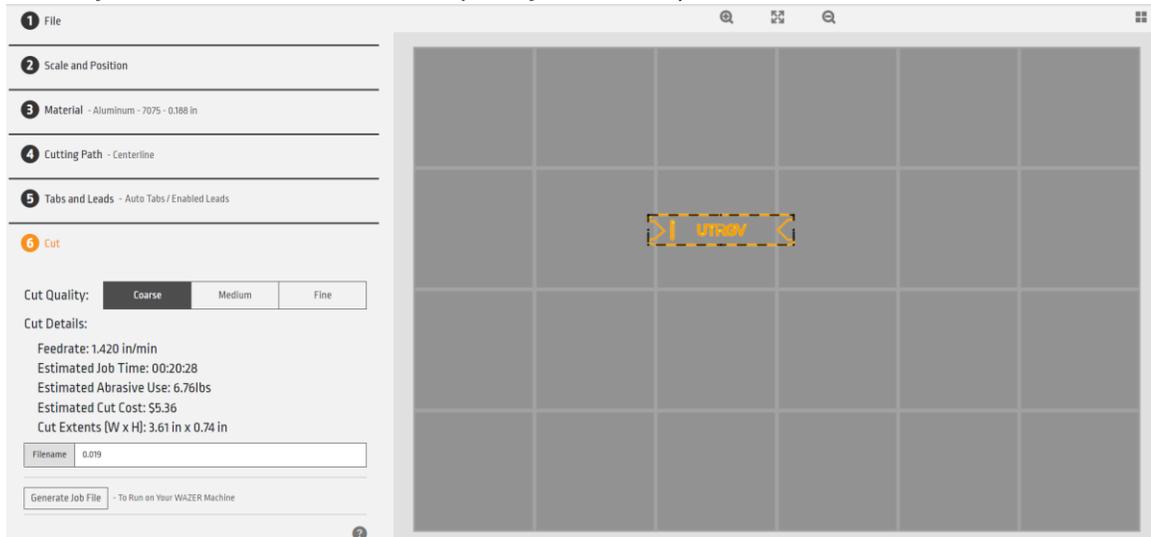


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5. Select a type of tabs and Leads



6. Select the type of cut you want (the cut type will vary on time depending on which you choose as well as the quality of the cut)



7. Then transfer the file into the SD card which will be a .gcode

8.

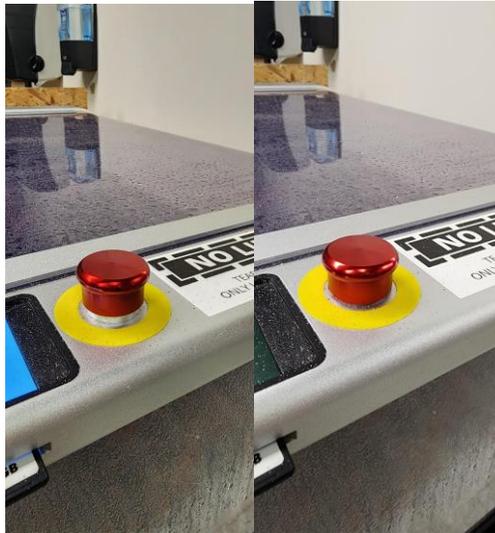
2.3.) Set up

1. Plug in both pump and water jet plugs and press the reset button on both plugs
2. Turn on the switch on the bottom of the water jet located on picture

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3. Twist the red button until the button switches on



3.) Cutting

**BEFORE PROCEEDING WITH THE FOLLOWING INSTRUCTIONS
MAKE AN APPOINTMENT WITH MAKERSPACE STAFF FOR
ASSISTANCE IN COMPLETING THIS CERTIFICATION.**

Before you start cutting, make sure to plug in the waterjet and pump, and press the reset buttons. Then, switch on the waterjet using the button at the bottom. Remember, it's important to always ask a staff member for help when you're ready to cut. Secure your cutting material with screws and insert the SD card with your design into the correct slot. Position the nozzle where you want to cut and set the height correctly. Check that the cutting area is right, then start the cut by pressing the start button . The material in use for the certification in aluminum sheet 0.90"x6"x12"

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3.1.) Beginning the cut

1. Insert the SD card into the Proper slot



2. Anchor down the cutting material with screws
3. Select file that you are going to use to cut

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4. Select Yes to prepare the machine to cut file
5. Move water jet nozzle to desired cut area using the arrows



6. Set the nozzle with the guild line cap to get the perfect height for the cut
 - a. Untighten the nozzle to set the height

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- b. Place the cap underneath the nozzle and put the nozzle touching the cap
- c. Tighten the nozzle and remove the cap



7. Select check cut extents to see if the area that will be cut is the preferred area to be cut. If not continue to step a.
 - a. Select move origin and move the nozzle to the preferred area.



8. Select Cut Material and follow and press okay for following questions

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9. Press start/stop to proceed the cut.
 - a. If you wish to stop the cut press Start/Stop

4.) Finishing

Once the cutting is done, carefully unscrew and take out your cut piece. Close the door and press the red button to turn off the machine, then unplug all the wires. Safety is very important, so always wear safety glasses, as the waterjet uses high-pressure water and tiny bits that can fly out. Make sure to ask for help from staff when using it, even after you're certified

CONTACT

If you have any questions, feel free to email the Makerspace staff at makerspace@utrgv.edu. And that's it—you're ready to start creating with the Wazer waterjet!