

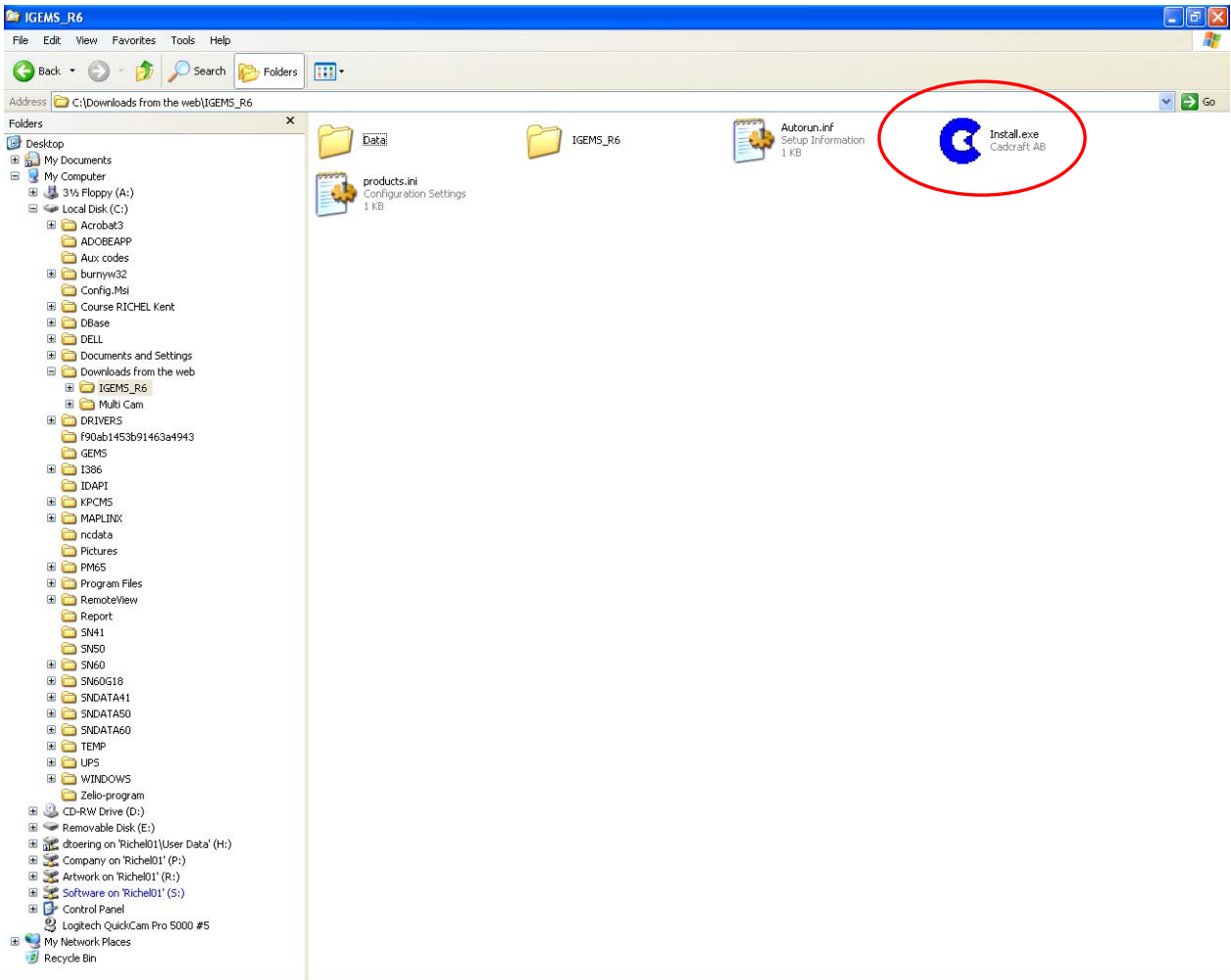
Installation of IGEMS R6

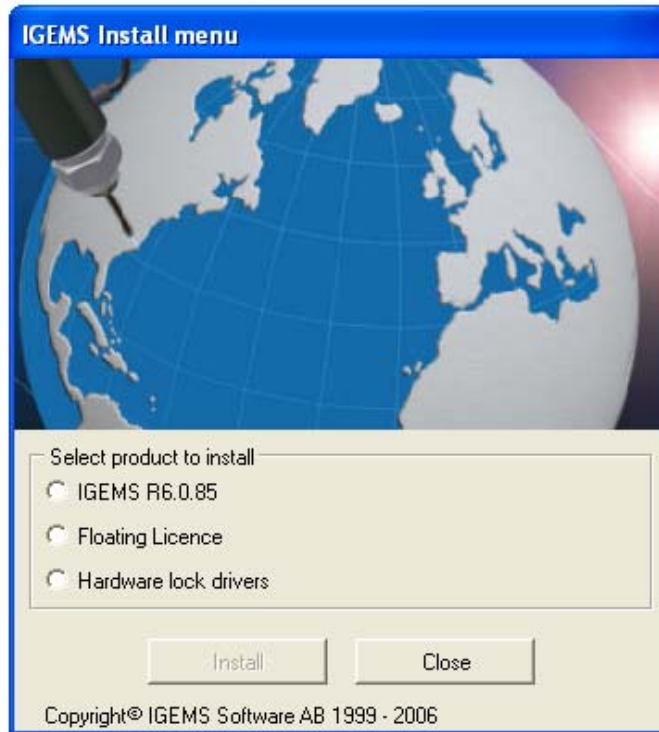
To install IGEMS V6, please read the following instructions.
Basically, the installation process involves two steps.

1. The installation of IGEMS program + the driver for the USB key
2. Selecting the right machine settings for your WARDJet Machine

Installing the IGEMS software

Click on the **install.exe** icon in your IGEMS_R6 folder (you can find this or on your IGEMS CD or in one of your folders on your hard drive if you have downloaded it from www.igems.se)





The following window will pop up (the version number can be different depending on what version you received or downloaded (you can find the latest version on www.igems.se when you login with your customer ID and password you can find on the inside of your CD case.)

Select the first option that will install **IGEMS R6.X.XXX**

Follow the instructions in the windows that will appear. After you installed the IGEMS successfully, it will say that it has finished installing.

Installing the hardware driver for the USB key

(only needed when computer has not seen the USB key before)

Select the third option that says **Hardware lock drivers**

Follow the instructions in the windows that will appear. After you installed the driver successfully, it will say that it has finished installing. Now you can close the installation menu by selecting **Close**

Now put the USB key in one of the USB slots of your computer. Just wait a few seconds and your computer should show you a message on the lower right corner of your screen saying that it found some new hardware. Shortly after that the New Hardware wizard will pop up and asks you if you would like to let the computer search for the right driver. Choose **Yes, this time only** option. Now it will start installing your new hardware with the driver you installed earlier. If everything goes accordingly, you will see that the new hardware is installed and is ready to be used.

Installing the WARDJet Inc. material database

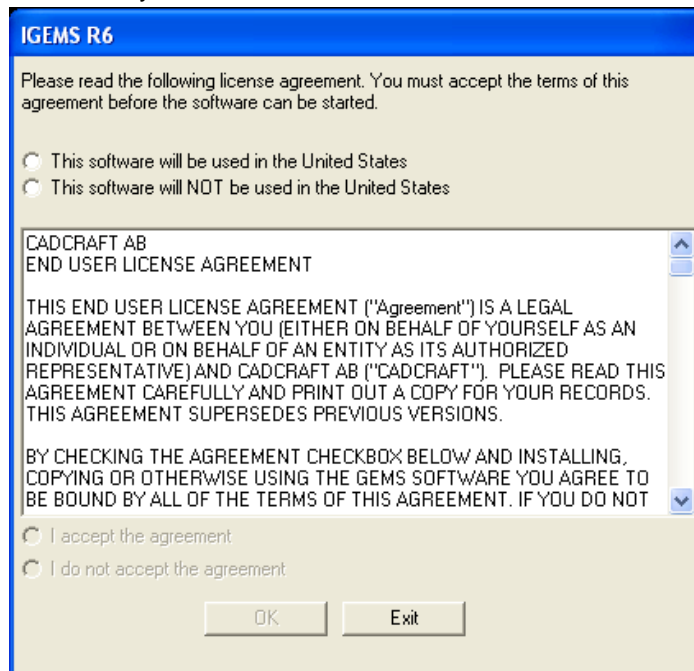
On your IGEMS software CD you will find a file called 'WARDJetMaterialDatabase.exe'

By double-clicking this icon, it will install the latest material database to your IGEMS program, so it will help you getting closer to the right feedrates of different materials. Be aware though that this is a material database that is made by WARDJet Inc. and will not mean that this will be always the right feedrates for your type material. This might need some fine tuning for your cutting purposes.

Configure your IGEMS R6

Start your program by selecting the **IGEMS R6** icon on your desktop. The first time it will ask you if you want to run this program as a US version or Non US version. They both are the same program except that the Non US version contains an integrated feedrate calculator and the US version does not. If you choose the US version you have to put in the feedrate per material with help of another stand alone feedrate calculator (which we can provide you). From there you have to copy that number in your material database.

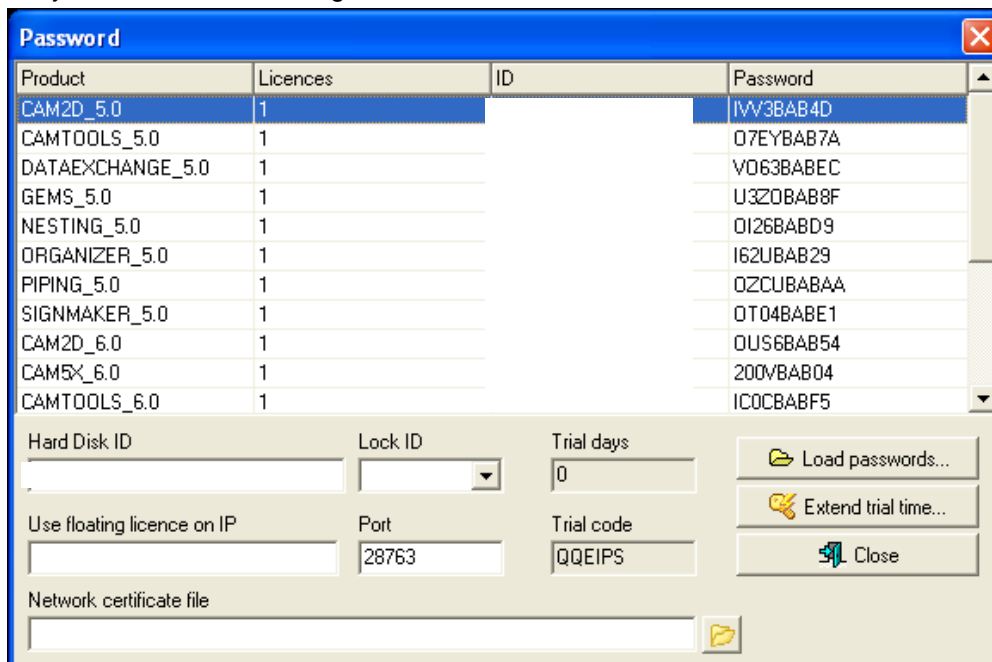
When you choose the Non US version you will see that the software is automatically adjusting the feedrate based on thickness, machinability and some other machine parameters. We leave the choice up to you which one you would like to choose.



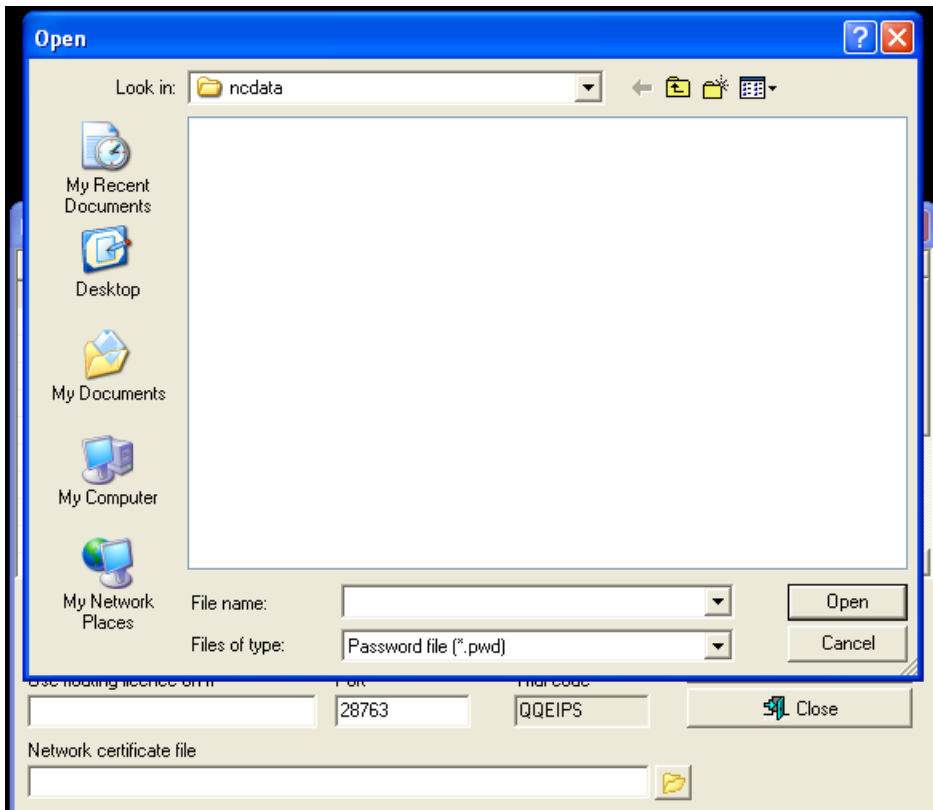
After your choice it will tell you that the program is running in trial mode.

To activate your license you have to go the **Help** menu. Then select **Password**

Now you will see the following window



Now select **Load passwords...**



Look for the location where you have saved (if received by e-mail) or look at the IGEMS R6 CD-rom for your pwd file. This file is together with your USB key your license of IGEMS. When you have selected the pwd file (check if the USB key dongle number is mentioned in the pwd filename).

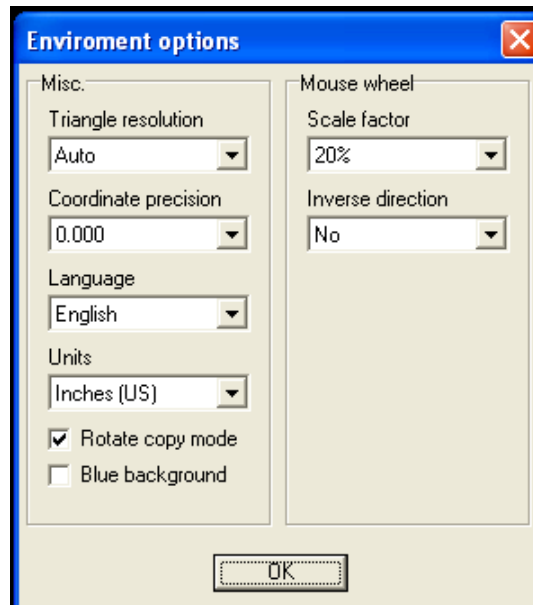
At this point it should activate your licenses that you purchased and you are able to run your IGEMS without any limitations.

The best thing is now to close your IGEMS R6 session and restart your program again.

Configure your machine settings

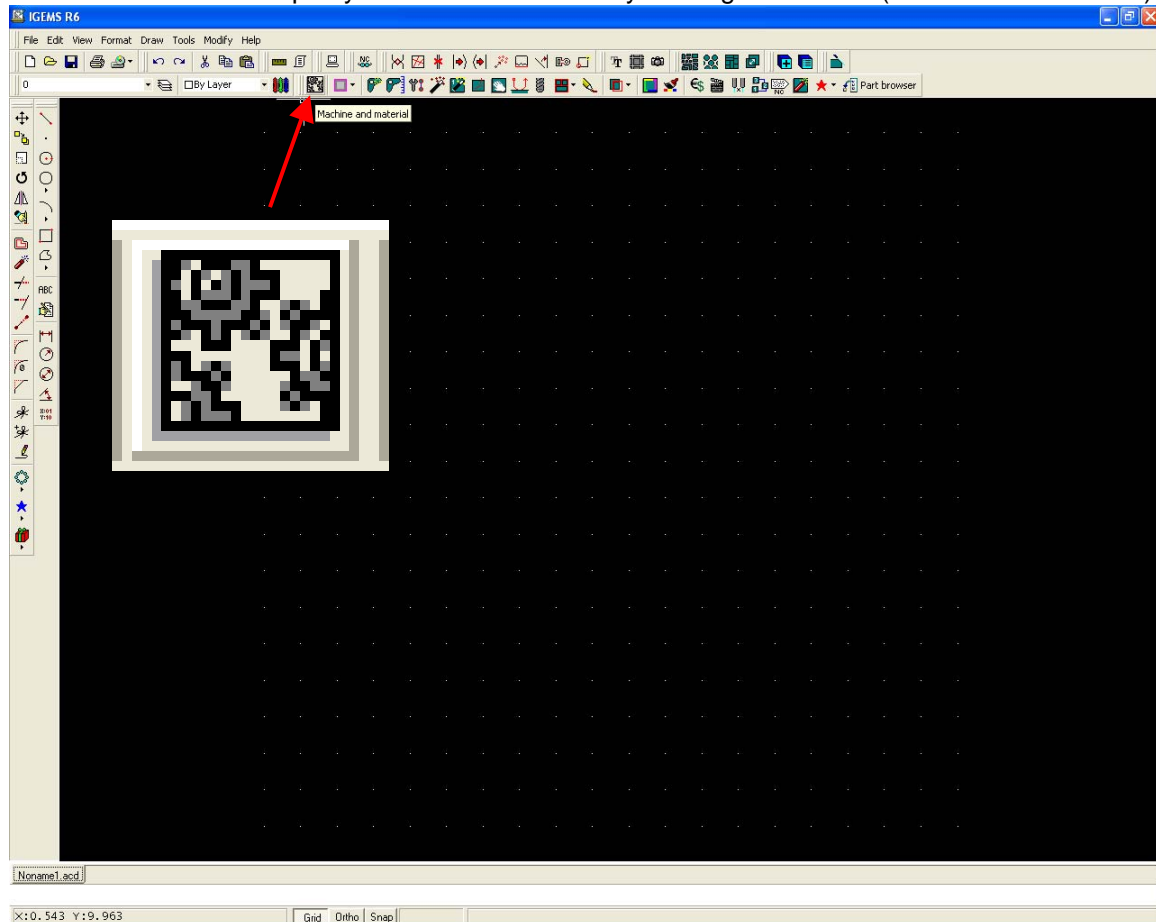
Now your program is activated you should setup the right parameters to let your program generate the right CNC programs for your Burny Controller.

First go to the **Format** menu on top of your screen, then select **Environment options...** Make sure that under the parameter **Units** you have Inches (US) selected.

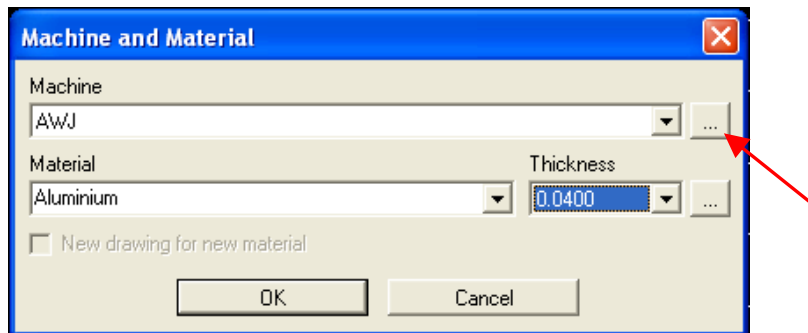


Select OK. Then close IGEMS and reopen IGEMS for changes to take effect.

Select the icon on the top of your screen that shows you the gearbox icon (Machine and material)

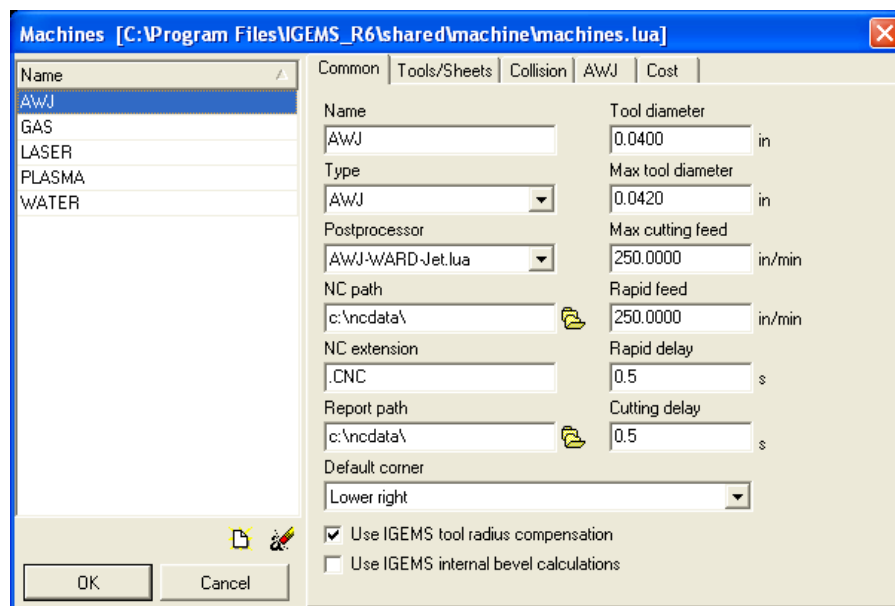


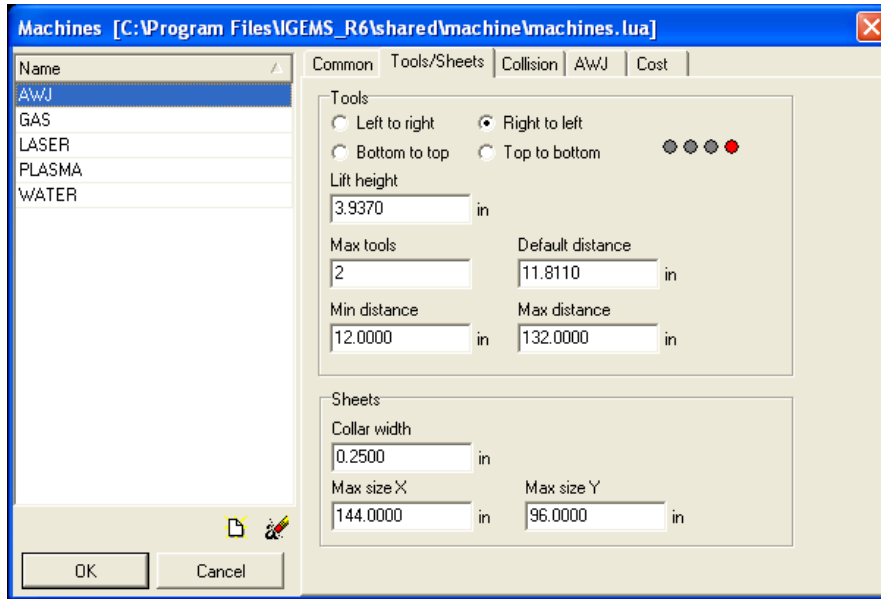
The following window will appear in the center of your screen. Now select the button with the three little dots behind the machine window (Edit machine)



Select the AWJ machine in the list of machines and check all the settings like stated above. If you are using a nozzle of 0.040" put under **tool diameter** the value 0.040 and under **Max tool diameter** a value that is greater than your tool diameter. This number represents the value that you allow to let a nozzle grow due to wear.

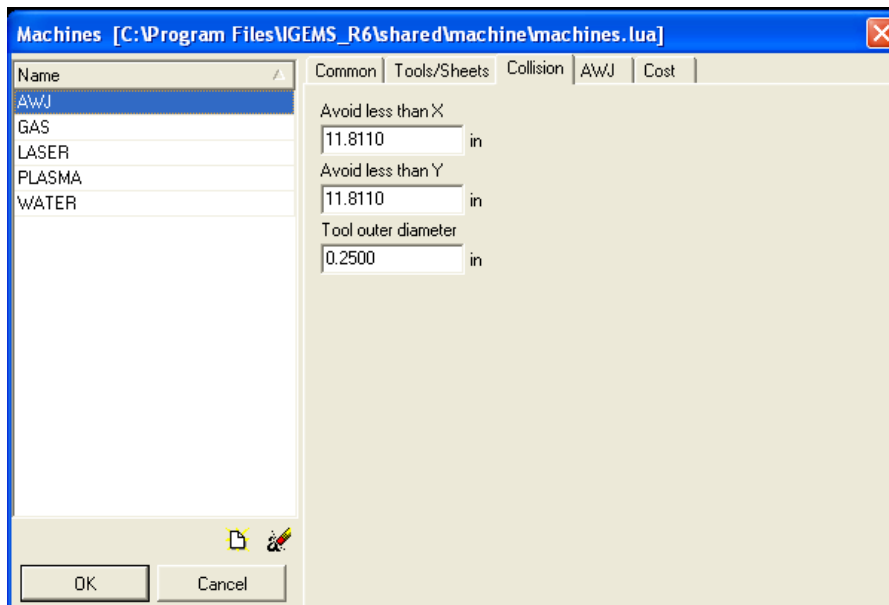
Now go to the **Tools/Sheets** tab and check the settings likewise. Under Sheets you see the parameter **Collar Width**. This is the area around the edge of the plate that will not be used for cutting. This will come handy when you will clamp the plate down and you put all the clamps on an area of 0.25" around the edge of the plate. The **Max size X** and **Max size Y** depends on the size of your machine. Here are some values:

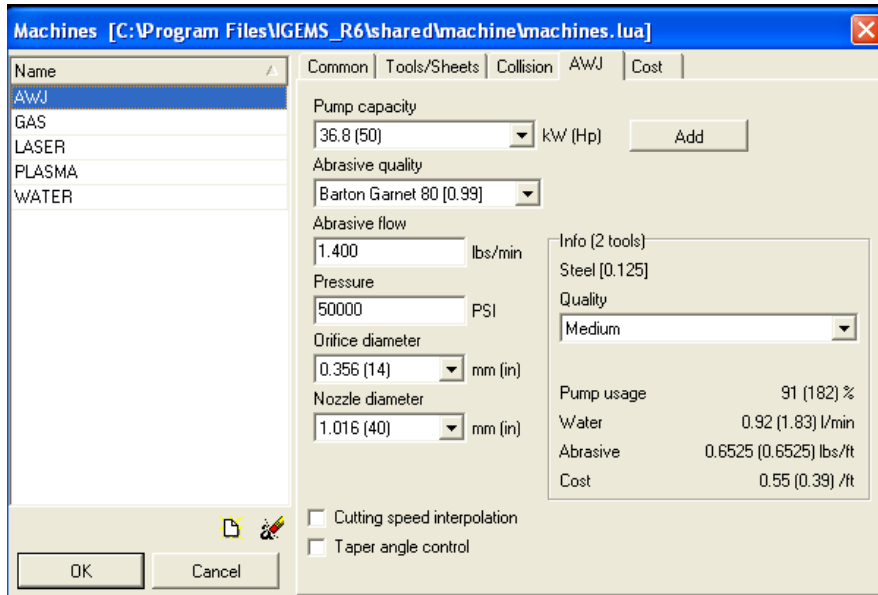




<i>Machine</i>	<i>Max size X</i>	<i>Max size Y</i>
Z-45	48	60
Z-613	144	72
Z-813	144	96
R-1213	144	144
R-2013	144	240
R-3013	144	360
R-4013	144	480

The following tab is then **Collision**, where you check the settings like below. These are the settings that default in your Find Collision detection (detect risky rapid movements that go over parts that have been cut.)





Then go to the **AWJ** tab. Here we find all the parameters related to our cutting capacity. These settings will be taken in account when you have chosen to use the integrated feedrate calculator.

Pump Capacity

here you select the pump that you have. Be aware that the first number is in kilo Watts and the number behind it is in Horsepower. If you can not find your pump in the list of options, you have to add it by selecting the **Add** button and put in the right numbers for your pump.

Abrasive quality

In this row you select the kind of abrasive you are using.

Abrasive flow

When you are using a 0.014" orifice in combination with a 0.040" nozzle you should select 1.4 lbs/min. This is the amount we recommend and calibrate on installations for new machines. If you are using a 0.010" orifice in combination with a 0.030" nozzle you have to select 0.7 lbs/min

Pressure

This is the working pressure that you will cut with. This doesn't need to be the maximum capacity of your pump.

Orifice diameter

This parameter has to be set according to what orifice you are using in your cutting head. This depends on what kind of pump you are using and how many heads you will feed with this pump. Some typical examples:

50 HP pump / 1 cutting head	orifice = 0.014" (0.040" nozzle)
50 HP pump / 2 cutting heads	orifice = 0.010" (0.030" nozzle)
100 HP pump / 2 cutting heads	orifice = 0.014" (0.040" nozzle)

Be aware again that the first number is in mm and the second number is thousands of an inch.

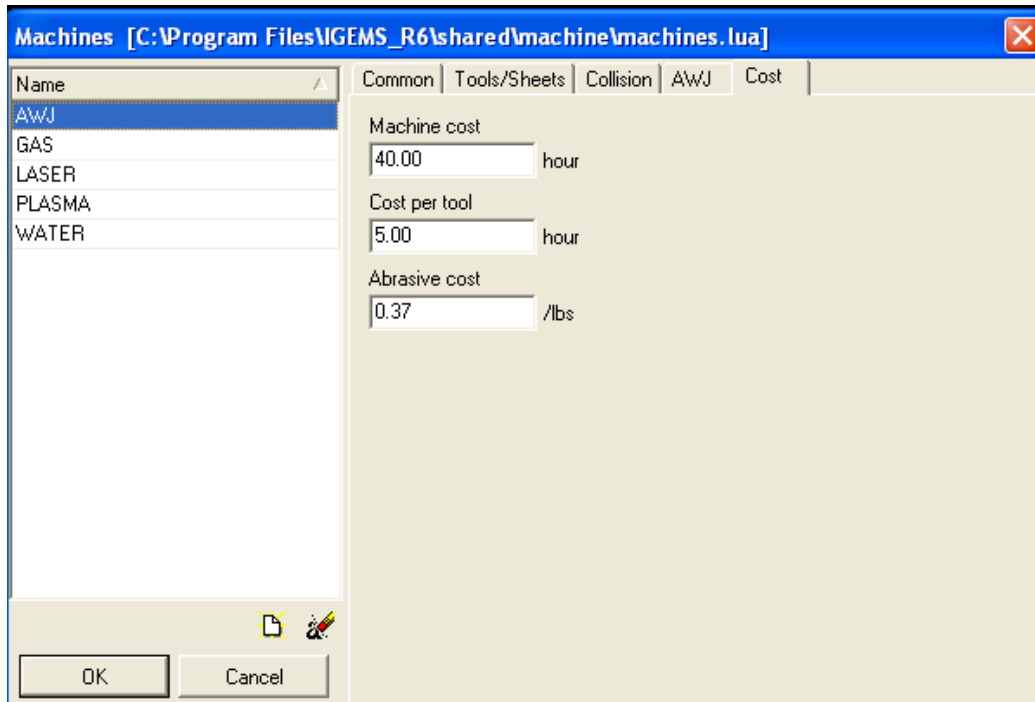
Nozzle diameter

This goes with the size of the orifice (see above for examples).

Quality

This will be the cutting quality and shows you together with the material and thickness some numbers of flow of your pump (intensifier), abrasive usage per ft and cost. Be aware that the cost needs first the correct input to make this a close estimate. For this, go to the last tab called **Cost**

On the bottom make sure you have the two boxes **Cutting speed interpolation** and **Taper angle control** unchecked.



And last but not least the **Cost** tab. Here you will see three parameters that determine the cost of a job when you want to calculate this.

Machine cost This is basically the fixed costs that you have on your machine, like water, power, air and depreciation of your machine.

Cost per tool This is the variable cost that you will have depending how long you can use the consumables like orifices, nozzles, mixing chambers, etc.

Abrasive cost This is the amount that you will pay for your abrasive per pound.

Now you should be ready to use version 6. If you have any troubles or questions, please contact Dennis at (330) 677-9100.