

How to determine AlumaMark[®] settings

AlumaMark does take some to hone in on the ideal settings for a laser. No two lasers are the same, so some experimentation is required to determine the ideal settings.

INTRODUCTION

Even though AlumaMark comes in 12 different finishes, the settings used can be divided into two distinct groups:

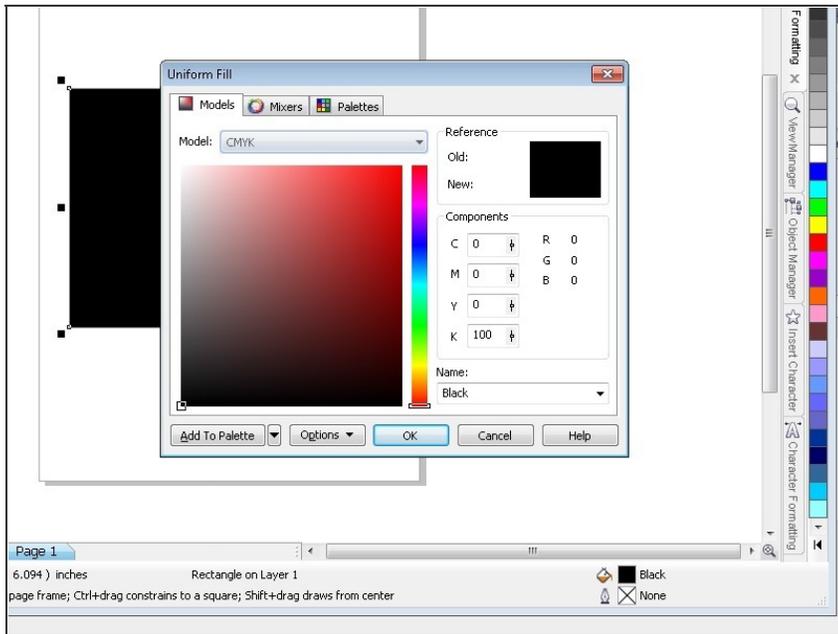
Higher power/more forgiving group

Satin Gold, Brass, Bronze and Mirrored Gold

Less power/more narrow sweet spot

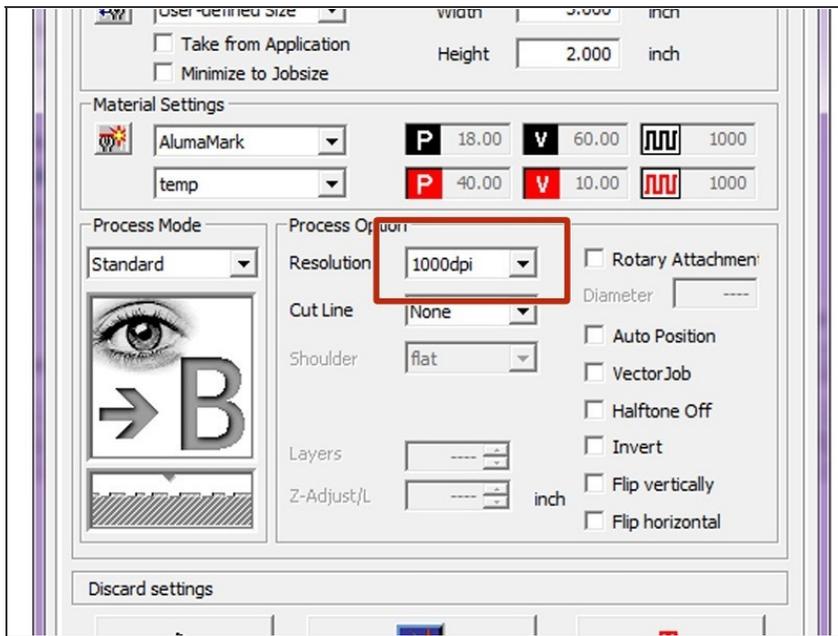
Satin Silver, Red, Yellow, Orange, Green, Blue, Matte Silver and Mirrored Silver

Step 1 — true black and PPI



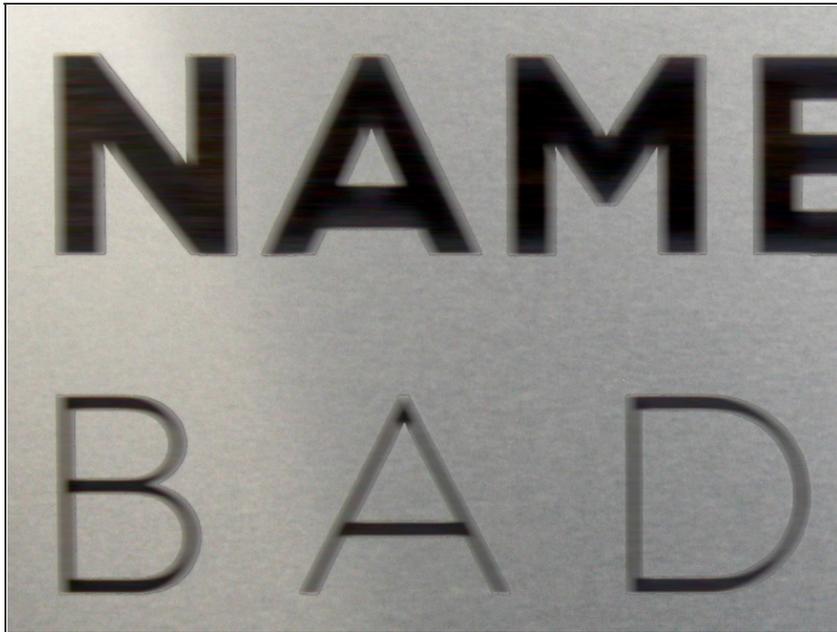
- Assuming the area to be lased is in fact a true black and not less than 100%k, the first setting to adjust is PPI.
- On some lasers PPI (pulses per inch) can be adjusted - 1000 is the ideal setting if it can be changed.

Step 2 — DPI



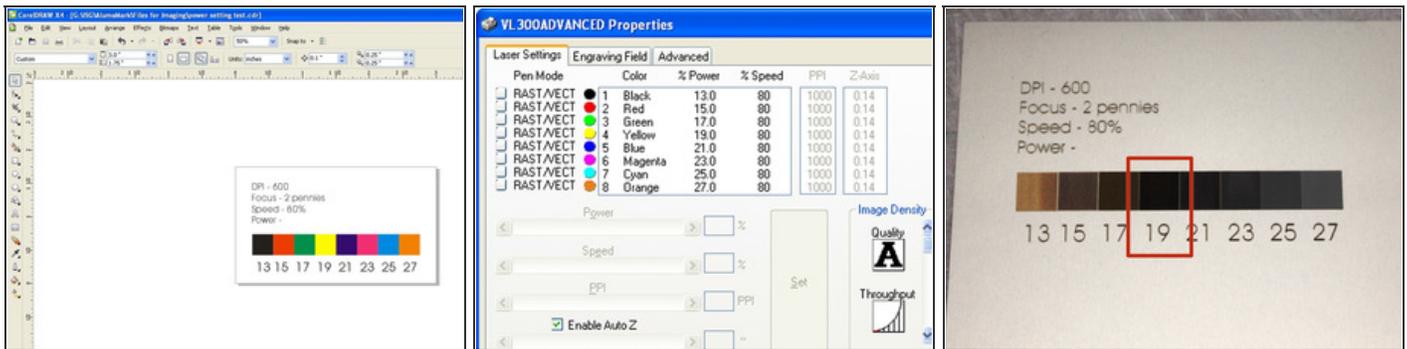
- Next variable is DPI (dots per inch) - this needs to be at least 600. 1000 will give a slightly wider range of ideal settings but will take more time to lase pieces.

Step 3 — Speed



- Now we are down to three main variables to adjust. First one to determine is the speed of the laser.
- Faster is better in terms of production, and newer lasers can run faster than lasers of 5+ years ago. The point at which the laser is running to fast is when the verticals of a letter mark lighter than the horizontals of a letter.
- The laser needs to be running slow enough yield a consistent mark (typically 60-80% speed)

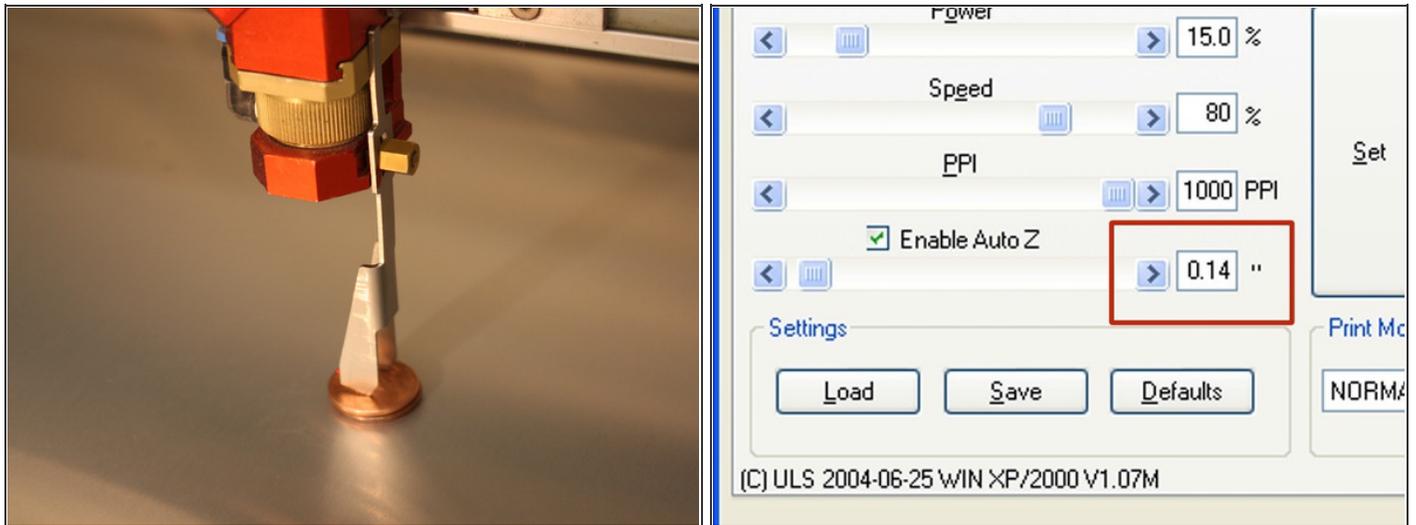
Step 4 — Power



- Next variable to adjust is power. If available to perform on your laser, a simple grid with varying powers is the most efficient way of determining power.
- 13-27% is a good range as a starting point.
- Evaluate the results. Tan and brown marks means not enough power, grey means too much. Ideally there should be a block or two that are a nice shiny black.
- To see the true mark on AlumaMark, always wipe off the sheet with a damp cloth to remove the ash and reveal the true mark.



Step 5 — Focus



- If the marked area jumps from brown to grey without the nice black mark, the last variable to adjust is the focus. Sometimes taking the laser out of focus slightly can help to disburse the power and open up the power range.
- For lasers with a manual focus, lay the sheet of AlumaMark in the laser, then stack 2 pennies on top, then focus to that height.
- For lasers with an automatic focus, enter the thickness of the material to be 0.14" (.020" of AlumaMark plus .125").