

**Rowmark**

Attention To The Finest

# DETAIL

Laser Engraving Recommendations

RECORDERING  
STUDIO

# LASER RECOMMENDATIONS

**Safety First** Rowmark strongly encourages the use of standard industrial safety practices during the fabrication process of all our materials. Acrylic materials may be flammable... NEVER leave your laser unattended during the fabrication process.

**Getting Started** Laser marking systems vary from model to model and manufacturer to manufacturer. These guidelines may be used as a starting point for laser fabrication.

**Common Settings** Most laserable acrylics can be fabricated at high speed with the power adjusted according to the wattage of your laser. **Raster engraving plastic sheet:** Power = 40% Speed = 100% DPI = 500. These settings can be adjusted in 5% increments to achieve optimal results. Some materials may require multiple passes. Once you have achieved desired results, document your settings for future reference.

Vector cutting acrylic is best achieved using relatively slower speed and higher power.

**Vector cutting a 1/16" gauge acrylic sheet:** Power = 40% Speed = 5% DPI = 400. This combination of settings allows the laser beam to melt the edges of the acrylic and produce a polished finish.

**Bottom-Up Engraving** Rowmark recommends setting the orientation of your laser to begin engraving from the bottom to the top of the material. This simple process will minimize the amount of residue being exhausted over previously engraved material, which can re-deposit on to the warm core... making clean-up more difficult. You can change the orientation of your laser to "bottom up" engraving from the advanced tab in your print driver.

**PPI** Lowering the number of pulse firings per inch, particularly when engraving larger text or objects, will help keep the material cooler and minimize warp. Setting your PPI at 400 for photo engraving helps to minimize the "banding effect" often experienced with this fabrication process.

**Vector Cutting** When applications permit, Rowmark recommends leaving the protective masking in place when performing vector cuts. This will minimize burn residue and clean-up. Ensure the laser is properly focused to produce clean, smooth cuts. (*Note: PPI settings in excess of 400, when used in vector cutting can result in slightly tacky edges.*)

**Soft Focus** When lasering reverse engravable materials, a second pass with a soft focus can create a smoother, "glass like" finish. Focus your laser to the material and run the first raster pass. Then drop your laser out of focus .020" to run the second pass.

**Red & Blue Cap Over White Core** Laserable materials with heavy concentrations of color pigment can pose some challenges in achieving a sharp white raster result. Rowmark recommends using the 'bottom-up' engraving method to minimize the re-distribution of color residue onto the white surface. Increasing power in 5% increments can be helpful, and frequently, multiple passes may be required to achieve optimal results.

**Cleaning** While experienced fabricators may have success using alternative cleaners, Rowmark strongly recommends cleaning with mild dish soap and warm water only.

**Air Assist** Commonly used in vector cutting applications to remove heat and combustible gases from the cutting surface by directing a constant stream of air across it. Air assist is NOT RECOMMENDED during the raster engraving portion of fabrication.

**Manufacturer's Note** While it is Rowmark's intent to provide you with a host of recommendations to help get you started, nothing can replace the knowledge you will gain by simply taking some time to get familiar with your equipment and the materials you intend to fabricate. Rowmark is pleased to support you on your road to success!