



Laser Engraving Tips and Tricks for Glassware

By Mike Dean, vice-president of sales and marketing, Epilog Laser

Engraving on glass and crystal can produce stunning results. From engraving the names of the bride and groom on wedding champagne flutes to etching a company logo on a set of beer mugs and beyond, glass etching and engraving creates a sense of sophistication and beauty that is very popular among consumers.

CO2 laser engraving equipment generally offers a quicker and more convenient alternative to traditional glass engraving techniques, such as sandblasting, which necessitates the creation of a template prior to starting the project. While engraved and etched glassware is in huge demand, depending on the type and lead content, glass is typically a very delicate material to work with.

But don't let the delicacy of the material dissuade you from glass engraving and etching – just keep the following tips and tricks in mind when working with glass and crystal and you'll produce the results that keep customers coming back for more.

Glassware Options

First, you might find it easier to work with “everyday” glassware as opposed to crystal. Crystal contains a greater amount of lead, which retains heat very well (too well for a laser!). When you use a CO2 laser to engrave glass, the surface is heated as the laser beam blasts away delicate glass particles. If the glass is unable to cool down adequately, as is sometimes the case with crystal, the markings expand in size, which can produce a distorted look.

Avoid a Second Pass

Prior to running any glass engraving job, it's very important to test your speed and power settings on the type of glass you'll be using. Determining the perfect settings will ensure the machine produces exactly the look you want and will help you avoid having to run the project through a second time. . Keep in mind the more times you run the same design on glass the more blurry it will become, so its crucial to determine the correct settings before you start.

Maintaining Optimal Temperatures

An over abundance of heat is the number one cause of broken and fractured glasses. To avoid this, we recommend wetting the surface prior to starting the project. Draping a damp sheet of newspaper or paper towels over the glass before starting a job will significantly reduce the instance of cracks and craters, and also produces the popular frosted effect found on much of the glassware you see today. Coating the glass with a thin layer of ordinary dishwashing detergent also ensures a damp surface to engrave upon. Keep in mind these moistening agents will dry out eventually – remember to reapply regularly. Ordinary masking tape would work as a heat deferring material as well, and will also produce the frosted effect that is such a hit with consumers.

Working with Mirrors

Using the laser engraver with mirrors produces a unique and dramatic effect. If you choose to work with mirrors, remember to perform all the engraving on the reverse side of the glass. Basically, you'll need to "mirror" or reverse the file you're working with so that it appears the correct way when looking into the mirror. Also remember to gauge the thickness of the coating of the mirror – when in doubt, it's best to start with a lower output and increase as necessary.

Rounded Glass

Rounded glass – like that of wine glasses, candle holders, beer mugs, etc., will necessitate the use of a rotary attachment if you are engraving with a CO2 laser system. Your rotary attachment should accommodate a large variety of shapes and sizes and adjust easily for different lengths.

Due to its delicate nature, some users are reluctant to engrave glass. Like most things, to increase your proficiency in this craft, you'll need time, patience and a little practice. But once you've established the settings that work well for you, future glass projects can be some of your easiest, most profitable products. Keep these glass engraving tips in mind for your next project to ensure the most elegant and stunning results on this very popular material.

