Laser Etching and Cutting Leather

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While leather is not as prevalent in the decorated apparel industry as cotton and polyester, it does have specialty applications such as creating emblems for jackets, sweatshirts, caps, and bags. As an emblem material, it adds depth and dimension and is a great way to make a shirt decoration stand out.

Within the promotional products industry, there are many popular etched leather products with logos including a wide range of luggage and bags, portfolios, leather jackets, belts, briefcases, wallets, coasters, binders, business card carriers, gloves, photo frames, and more.

Natural hides can scorch due to their natural tendency to burn. However, high-quality lasers with a finer laser beam spot and higher power output can reduce scorching, and in some cases eliminate it.

There are also consistency issues with leather. This is particularly true with natural leather, where it's difficult to achieve repeatable results on different skins. Even synthetic leathers
may not always react the same way, although there will be consistency within a given lot. The key is to test in advance so there are no surprises during production.

If you use either a laser-integrated single-head embroidery machine (combo) or an add-on integrated laser that can be attached to any make or model of embroidery machine, these machines are made with a plotter-type laser. A plotter uses a thin beam that is not ideal for etching on leather or fabrics; however, it can be done with high enough wattage and the right settings.

To etch fabric or leather with a single-head embroidery laser (either type mentioned above), you will need a machine with at least 25 watts. Cutting leather is more difficult due to its density. A plotter-type single-head laser can handle thin to medium thick leather if it is at least 50 watts. You will need to slow down the machine to give it more time. Heavy or thick leather requires a specialty laser.

For faster cutting of leather, you will need either a stand-alone galvanometric laser or a laser bridge multi-head embroidery machine (which has galvanometric heads). Any standard stand-alone or laser bridge can etch on leather. For cutting you will want a machine with at least 200 watts or a pulsating laser of 100 watts.

For any shop that does a lot of laser etching and cutting, you may want to consider a stand-alone laser that is specifically designed for cutting leather. This type will have a special head that combines a fine beam with a high-quality laser (not a plotter or galvanometric) with 100 or 200 watts of power.

This type of specialty leather laser also can be outfitted with a 3D scan head making it capable of producing an extremely fine laser spot for doing intricate, sophisticated perforation. It can be adapted to a wide variety of applications.

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