

Printing Your Own Giclées

Part 4: Finishing Touches

By Randy Hufford

After inkjet prints are made, a number of steps are needed before they are completely finished

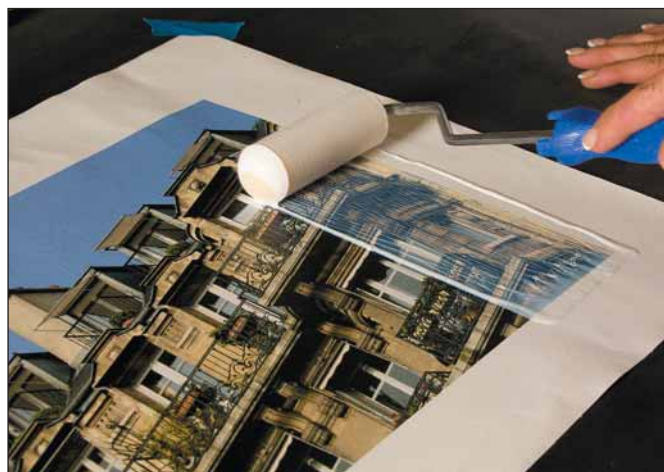
Once giclée prints come rolling out of an inkjet printer, there are some added steps that are necessary before they can be considered completely done. Most of the traditional preservation framing techniques are necessary, but there are some additional considerations when finishing ink jet prints.

Canvas Coating

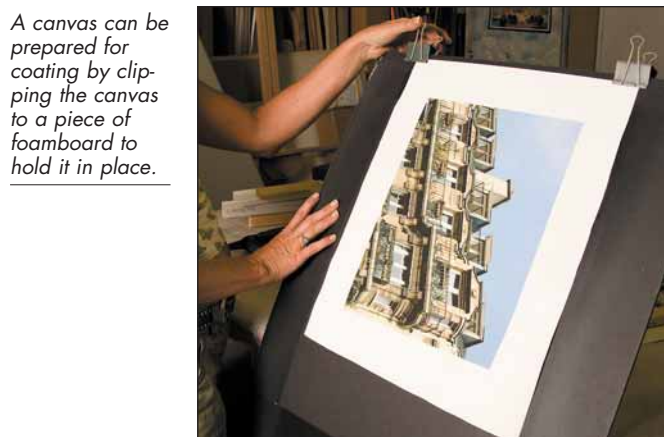
One of the greatest advantages of inkjet output is the ability to output directly to canvas. Canvas is one of the oldest art substrates. The first stretched canvas was used for “The Birth of Venus” by Sandro Botticelli, a 1482 work that depicts the goddess Venus emerged from the sea as a full-grown woman. The size of this masterpiece was 109"x67". Even today, a stretched canvas holds a high perceived value, and that includes inkjet prints. A stretched inkjet canvas can be made into a museum-quality product with a minimum of added work while retaining its cost efficiency in printing, finishing, stretching, and framing.

The first step in producing a high quality finished canvas is a protective canvas coating. This can be applied by rolling or spraying. In some cases, you can add even more value to a canvas by applying it with a brush, allowing the brush strokes to be visible on the finished surface. The technological breakthrough in water-based coatings has provided an engineered coating method that is non-hazardous. Following the manufacturer recommendations also ensures that the product will have more than a 100-year lifespan. Some manufacturers have gone to great lengths to

This article is the fourth on how to successfully add giclée printing to your production framing operation. This series covers Set-up and Calibration, Ink & Media, Digital Art Enhancements, Finishing Techniques, and Selling Giclée Prints. It follows the author's DVD training set, “The Perfect Print.” Visit <http://ivamaui.com/softwarecinema> for more info.



A digital canvas can be coated using a roller to apply a protective coating.



A canvas can be prepared for coating by clipping the canvas to a piece of foamboard to hold it in place.



A coating of PremierArt Eco Print Shield is applied to a canvas with a spray gun.

engineer a complete coating solution so you no longer need to guess as to the best method for making sure that the protective coating will not crack, yellow, or peel.

One manufacturer (Premier Imaging Products) has had independent testing done on the longevity of its coating. Detailed information is at www.ecoprintshield.com. Independent test results by Wilhelm Research are provided at www.wilhelm-research.com.

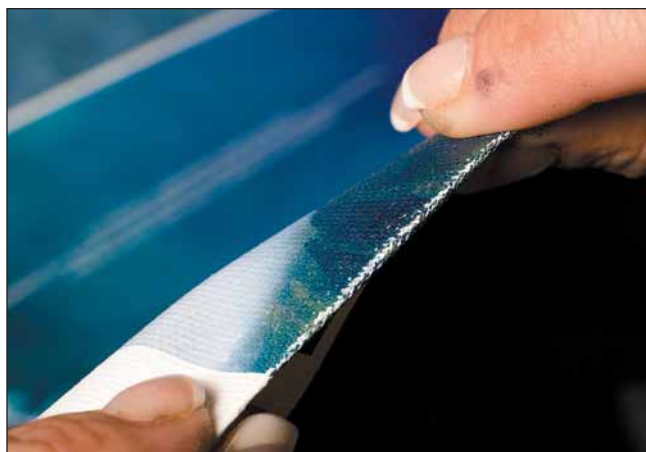
The most efficient and productive method of applying a coating is to spray using an HVLP (high volume low pressure) spray gun. It does require some initial expense, including a spray booth with shelves, an HVLP spray gun, and a turbine. The spray booth is a dust-free area with great exhaust ventilation. A good solution is at www.paint-booths.com; the company makes a paint-mixing booth that is the perfect size for production spraying of canvas.

Another option is rolling, which gives just as good a finished product as spraying but with minimal start-up expenses. All you need is a foam roller and tray, which are readily available at hardware stores. Preparation for all prints include clipping or taping a canvas to a smooth matboard or foamboard. This provides a firm backing for rolling or spraying on the coating. Any board with a textured surface, such as corrugated cardboard, will not work as the board's texture transfers to the canvas.

Three coats applied properly are recommended for proper protection. A fold test can be used to confirm the coating thickness. All water-resistant canvases are made with a micro-ceramic inkjet receptor layer that holds the ink, providing great ink saturation and detail when printing. If you fold a corner of a printed canvas you will notice that the ink will crack. One of the benefits of Eco Print Shield is that it cross links with the inkjet receptor coating. When the correct thickness is applied it makes the canvas flexible and stops all cracking—even when doing a fold on a gallery wrap. The fold test is useful to assess whether you have coated the canvas with the proper thickness. Once the last coat has dried, simply fold the edge of the print (preferably in a dark area) to see if the image cracks. If it does, apply another coat of Eco, then dry and test again.

Eco Print Shield comes in three surface textures: gloss, satin, and matte. All three are made from a base of gloss; the manufacturer adds a diffusion agent that breaks up the surface to create the different surface qualities. As with paint, the diffusion agent that gives the surface quality has a very slightly white characteristic. Therefore, when applying three coats of satin or matte, you get a slightly diffused black. For the best looking prints, start with gloss for the first two coats, then for the final coat apply gloss, satin, or matte depending on the surface quality you prefer. (Detailed application techniques are available at www.ecoprintshield.com.)

Coatings can also be used for surface embellishment.



The fold test can be used to confirm proper coating thickness for a gallery-wrapped canvas. In this case, the canvas displays cracking, indicated that the coating was not the right thickness.



After coating, the canvas should be stretched. For production work, a canvas stretching machine such as the Tensador II makes the process much faster than stretching by hand.

This is done by brushing various finishes onto different areas of a canvas to add an artistic flair and to make each print one of a kind. For example, a print may have a satin finish but an artist might add gloss brush strokes on top of an area of water in an image. These brushstrokes can be seen only when light reflects off the canvas at an angle. This effect can even be taken to a more pronounced level by using Eco Elegance, which is designed to give more texture—as much as 1/2" thick—that resembles impasto. This product has a consistency of soft butter and comes in both clear and white. It can also be mixed with acrylic paint for toning.

Stretching

The next step is to stretch a digital canvas. Stretching inkjet canvases is done using the same procedure as for any canvas art stretching. We use an automated stretching machine called a Tensador, which saves between 15 to 20 minutes per 24"x30" canvas. There are other good auto-



The surface of a coated canvas can also be embellished with a product like Eco Elegance, using a brush to create shape and texture that reflects the artwork below. This product goes on white but dries clear.

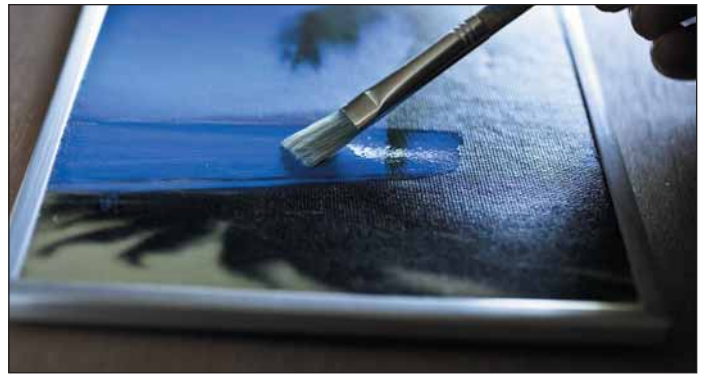
mated machines on the market along with some good manual stretching machines, both saving a lot of time compared to stretching canvas manually. A minor point is to use stainless steel staples to prevent rusting. They aren't necessary, but they do make a nicer product.

One problem area to be aware of is canvas sagging, especially with pure cotton canvas. This is a natural occurrence based on temperature and humidity fluctuations. When an environment is dry or cold, canvas tightens. When it is wet or hot, it loosens up. Proper stretching and attention to environmental factors are important. For example, a large gallery and canvas production facility in Hawaii we worked with produced and stretched all their canvas and shipped them all over the world without any problems. Hawaii has a relative humidity of 50 to 65 percent. To cut shipping costs, however, they moved their production facility to Las Vegas, where the humidity is only 5 to 10 percent. They started having more than 40 percent of their product returned due to sagging. This was extremely costly because of the time it took to re-stretch. The problem was solved by using a humidifier to increase the humidity to between 40 and 60 percent. This is not as much of a problem with canvas that is a cotton and polyester blend.

The cost for stretching bars can be cut considerably by ordering in large volume and cutting them to the desired length and assembling them yourself. We do this and haven't had any problems. There is special equipment for making adjustable bars in any length, but this requires a significant investment. Bars can also be bought in pre-cut lengths for both adjustable or strainer bars. Pre-cut bars do limit you to standard sizes, however, and are impractical if you have a variety of individual-sized canvases.

The three requirements to make your stretched canvases museum-quality are:

- Coat a digital canvas with the right protective coating.
- Never let raw wood touch canvas. This includes the



A canvas can also be embellished by applying a gloss coat atop a satin coating.

stretcher bars and the frames into which the canvas is fit. We use gesso-coated bars, but stretcher bars can also be coated with acrylic paint or wrap the bar with Lineco aluminum tape before stretching. Lineco also makes tape for fitting stretched canvas into a frame, preventing the front of canvas from touching the raw wood inside the frame rabbet.

- Seal the back of a stretched canvas with a vapor barrier. We have our stretcher bars custom made with a dado on the back of the bar that allows the insertion of a black foamboard on the back. This not only prevents bugs from entering but also keeps a separate environment from forming on the back of the canvas that will trap heat and humidity. Ninety percent of all damage to stretched canvas happens on the back, and this backing board prevents this from happening. A backing board can be foamboard, Coroplast, matboard, or any other similar material.

Coating Paper Prints

If fine art, matte, and photographic inkjet prints are glazed with a space between the glazing and the print, coating the print is not necessary for good longevity ratings. However, it still improves print durability during handling, eliminating most scuffing and damage from moisture. We coat all these media with an engineered protective coating called PremierArt Eco Print Shield by Premier Imaging. This product can only be sprayed on with an aerosol or HVLP spray gun. This solvent-based product does need good ventilation during application. This is one of the few products that have been rigorously tested by an independent firm, Wilhelm Imaging Research. PremierArt Eco Print Shield is a low-solid coating that has been engineered for fine art, matte, and watercolor paper as well as photo media. This product does not change the surface quality or texture of the media.

Coated prints also have no issues with outgassing. Inkjet printer inks use glycol to sustain the ink particles during the delivery of the pigmented particles to media. Even though inkjet prints feel dry coming out of a printer, the glycol still has to evaporate. To correctly speed up this evaporation, manufacturers recommend outgassing prints by interleaving them with absorbent paper like economical 32-pound inkjet bond or other absorbent paper. This paper helps to absorb the gly-

col. If proper outgassing is not done before framing, you can end up with a ghosted image on the inside of the glazing as the ink outgases inside the frame. While this can be easily removed from the glazing, the frame still has to be taken apart for cleaning. After coating, these media can be handled and framed just like a watercolor or fine art media with no other special considerations.

Deckling

Adding hand-torn edges to inkjet media is really easy using a dual edge ripper (www.dualedgeripper.com). This tool comes with two sharp edges that are placed on a print for making hand-torn edges. It comes in both a classic and an extreme model, depending on how extreme you want a hand tear to look. This is often called a deckled edge, although a deckled edge really developed as a term for making mould paper. When paper was first made, the deckle was either cut off or hidden under a window matte. But traditions change, and so does the popularity of a hand-torn edge.

Properly printed inkjet prints that are finished with the right coating and stretched or glazed correctly will last for many years in homes, offices, hotels, and other settings. Being able to print your own high-quality digital prints can give you the ability to respond to the needs of your clients quickly and easily, and these finishing touches can impress any customer with the quality of your work. ■



You can create deckled edges on digital paper prints easily using the Dual Edge Ripper to create a hand-torn edge look.



Randy Hufford is a photographic artist, educator, lecturer, and fine art reproduction consultant based in Maui, HI. He has owned and operated a custom photo lab specializing in print permanence and finishing techniques for over 25 years. Randy also has a blog with digital printing tips at www.randyhufford.ivamaui.com.

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