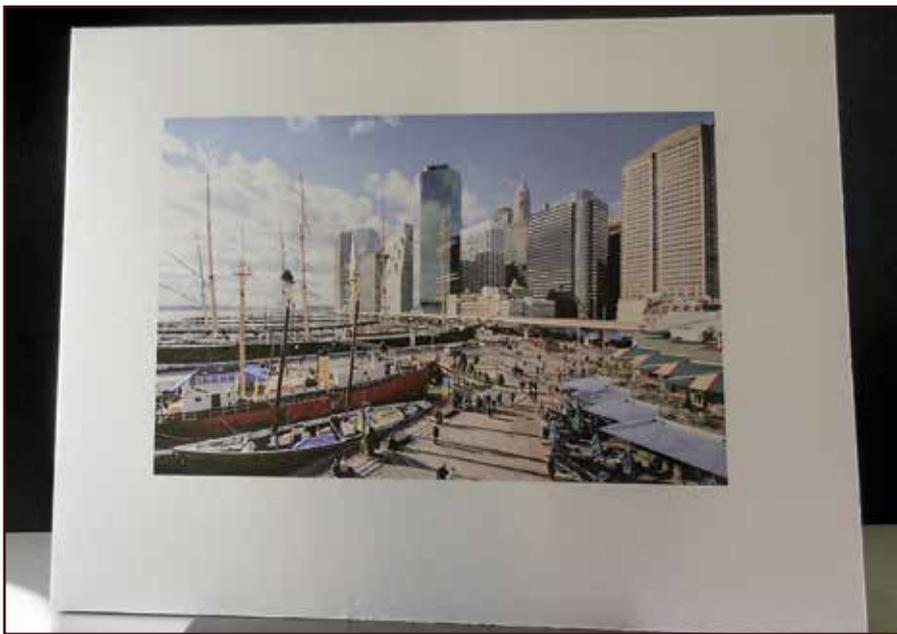




Satin gold  
perfect for  
antique map  
reproduction.

## *Award Winning Prints On Metal*



Satin Silver seaport test print.

*Here's how to use AlumaJet™ with standard, water-based inkjet printers.*

*By Bill Leek*

Just a year ago, Horizon ISG's AlumaJet™ won the SGIA 2012 Product of the Year Award for Rigid Media. This coveted award honors the top suppliers and equipment developers whose innovations have dramatically enhanced and advanced our specialty imaging industry.

AlumaJet is a premium digital media that was initially developed over a decade ago. It is an aluminum substrate that can be professionally decorated with vibrant pigment and dye-based inks utilizing desktop and medium-format water-based inkjet printers. Aluminum prints are currently very popular and have a high perceived value. Over the last ten years, both printer capabilities and ink quality/durability have greatly improved, while equipment prices have gone down.

The samples illustrated in this article were created with a medium-format (17-inch wide) Epson Stylus Pro 3880 printer and an older 13-inch wide Epson Photo R2400 printer. The printers use Epson's UltraChrome K3 pigment inks. Both produce very accurate color and excellent photo-quality resolution. These pigmented inks provide long-lasting UV-

Display of vibrant AlumaJet awards.



resistant images that will last for several generations when displayed indoors. Epson has engineered their K3 inks to meet the critical demands of professional photographers, designers and artists.

**THE DIFFERENCE IS IN THE DETAIL!**

AlumaJet is an ideal media for reproducing accurate color and fine detail of both vector and bitmap images as well as very small text. This has been a key strength that differentiates AlumaJet from other printing and transfer methods. Through the years, AlumaJet has been utilized in numerous color-reproduction applications, particularly where fine detail is required. Products include signs, award plaques, magazine and newspaper article reprint display, photographs, fine-art reproduction, diplomas/certificates, magnets, control panels, product/equipment tags, warning labels, name badges, name plates, wiring diagrams/schematics, memorials, and much more.

AlumaJet sheets come in Matte Silver, Satin Silver, Brushed Silver, Satin Gold and Satin White, with or without a 3M



**Epson 17-inch printer with straight through media path can print 0.025 AlumaJet sheets.**



**Lamination protects printed AlumaJet from moisture, abrasion and UV.**



Black and white test prints demonstrate AlumaJet detail and dynamic range.

adhesive backing. I found the satin-silver finish to be the most versatile, and the gold satin ideal for plaques and signs in traditional environments where gold and brass elements are already present. Available sheet thicknesses include 0.005, 0.012 and 0.025 inches. Thickness selection depends on each printer's paper-feed method. Straight manual rear-feed printers like the Epson R3880 will work with all thicknesses. J Curve top-feed printers like the R2400 will only accept the thin and flexible 0.005 thick sheets. The thicker 0.025 sheets are ideal for larger wall mounting where a more rigid material is required. The only types of printers that will not work with the 0.005 AlumaJet are those that utilize a "U" paper feed. These printers feed sheets from the front and route the printed sheets back to a front-output tray.

Standard AlumaJet sheet sizes include 8.5" x 11", A4, A3 and 20" x 24". Custom sheets sizes are available up to 23" wide by 48" long for printers with a 24-inch wide carriage.

AlumaJet is direct printed and does not require a heat press. Quality heat presses are expensive, especially those that can handle sheets larger than 14" x 18" inches.

In addition, using AlumaJet negates any concerns over uneven or insufficient pressure or inconsistent heat press platen temperatures. In addition, there is no heat press warm-up time. Heating and cool down can slow down production. With AlumaJet, you simply manually feed the aluminum sheet into the printer just as you would feed and print a heavyweight photo or fine-art paper.

## TEST PRINT EVALUATION

Horizon ISG provided samples in silver and gold printed using an Epson 3880 17-inch wide printer. Standard Epson color management was used with the *high quality* print setting. The paper setting utilized was *Premium Photo Paper Glossy*. I printed the R2400 prints using the Adobe 1998 color space and a custom ICC color profile. Prior to printing, all images were optimized to enhance multilevel contrast, detail and selective sharpening using Topaz Labs Clarity and Detail 3 plug-ins. The paper setting for the R2400 was *Ultra Premium Photo Paper Luster*, and print quality was set to *Best Photo*. High-speed printing was turned off.

A variety of images printed flawlessly. The aluminum sheets fed through the

printer smoothly. Image fine detail was exceptional, and color was vibrant and accurate. The pure, bright aluminum media provided maximum contrast as a background for the dense, black and color Epson UltraChrome inks. This resulted in a very wide range between the highlights and shadows in each image. Dot gain on the aluminum substrate was minimal, allowing the AlumaJet/Epson combination to accurately reproduce very small 4-point text. This makes the printable aluminum ideal for creating complex schematics, way-finding signs, newspaper/magazine reprints and line art illustrations and engravings.

No images had to be reprinted.

AlumaJet blank sheets should be stored in their black protective envelope until you're ready to print. When loading the sheet into the manual feed tray of the printer, hold the sheet by the edges and avoid touching the printable surface. I recommend using cotton gloves to eliminate the possibility of fingerprints on the imaged surface. Once the sheets are printed, they should be allowed to fully dry before stacking, handling, overcoating, or laminating. Drying can be accelerated using a hair dryer or a heat gun set to a lower setting.

After the aluminum sheets are printed, a cold, pressure-sensitive roll laminate or spray acrylic/varnish overcoat is required to protect the AlumaJet printed sheet from moisture and excess humidity. Certain laminates and spray coats will also add texture, deeper color, scratch resistance and graffiti resistance to the final aluminum print.

AlumaJet is primarily designed for indoor display. AlumaJet laminated sheets printed with premium pigmented inks should last for several generations indoors. Special roll laminates are available with UV blockers and inhibitors that may extend AlumaJet outdoor life in most environments to 3-5 years or more. Laminates and sprays should not be applied in high-humidity environments. Keep a humidity gauge in your work area to insure humidity is less than 55-60 percent.

## FINAL COMMENTS

AlumaJet is very easy to use. Production is fast and consistent. Graphic results are exceptional.

Capital expenditure is low. If you already own a compatible printer that uses premium photo inks, all you need to get started is a pack of AlumaJet sheets and a spray can of acrylic overcoat. A production configuration could include an Epson 17-inch 3880 printer that lists for \$1,295.99 and a quality roll laminator with prices starting at \$650. Other quality photo printers from Epson, Canon, etc. may work equally well. The key is print/color quality and a compatible media path for the aluminum sheets.

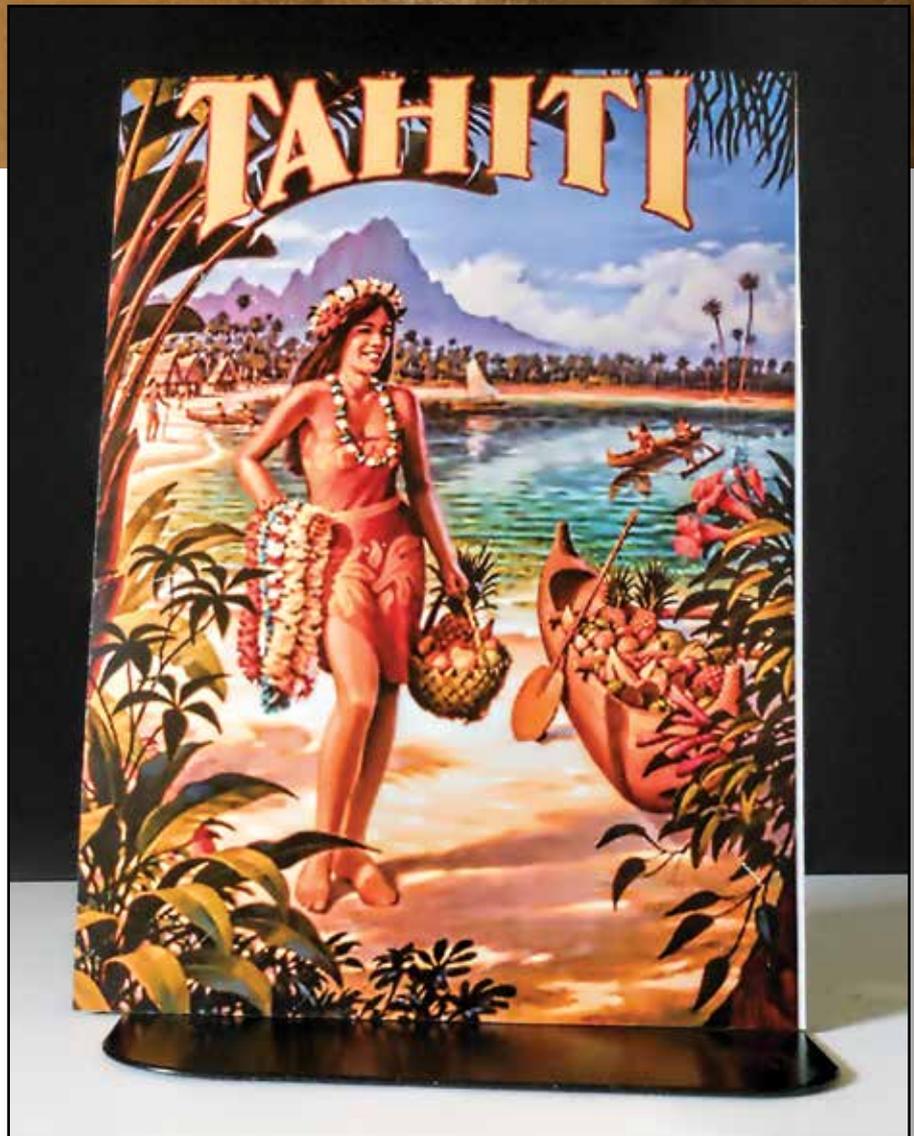
Horizons ISG specifically recommends the following printers:

- Epson Stylus Pro 3800 and 3880
- Epson R800/R1800
- Epson Stylus Pro 4880
- Epson Stylus Pro 7880
- Canon IPF 5000 & 6000 Series
- Canon Pixma 9000 & 9500
- HP B9180

Remember, when you use AlumaJet your printer remains immediately available to print photo paper, canvas and other special media.

I was excited when I printed my first sheet of AlumaJet a decade ago. Major improvements in photo printers, inks and graphics software since then have just added to my enthusiasm.

For more AlumaJet information and samples, contact Horizons ISG at [www.horizonsisg.com](http://www.horizonsisg.com).



Gold AlumaJet is perfect for vintage prints.

*Bill Leek of Houston, Texas has over 33 years' experience in digital decorating system development and graphics design. He has developed several lines of color imprintable products utilizing inkjet, sublimation, and color laser transfer technologies. In addition, he has extensive working knowledge of color management and product durability testing and has consulted for many of our industry's leading companies. He may be reached at [wfleek@jblgraphics.com](mailto:wfleek@jblgraphics.com). *



Excellent detail and color on Satin Silver.