How to Print Exceptional Photo Quality Images on Aluminum

AlumaJet® from Horizons ISG Provides the Answer

AlumaJet inkjet-printable aluminum sheets were introduced about 12 years ago. AlumaJet allows the printing of detailed full-color, photographic quality images directly onto real metal using standard inkjet printers. AlumaJet requires no specialty inks, transfer paper, or heat presses, and is compatible with most standard, water-based dye and pigment inkjet printers that have a straight or "J Curve" manual paper feed. Just manually feed the aluminum as you would feed and print a heavyweight photo or fine art paper. Using pigmented ink will provide long lasting UV-resistant results that will last for several generations indoors.

Over the past 12 years refinements in water-based pigment inks and ever improving printer quality have created the opportunity to create exceptional full-color aluminum prints at affordable cost. In fact, last fall the SGIA voted AlumaJet the 2012 Product of the Year Award for Rigid Media. This competition recognized the latest equipment and supplies currently on the market that are advancing the specialty imaging industry. Through the years AlumaJet has been utilized in numerous applications. These include: signs, award plaques, magazine and newspaper article reprint display, fine art reproduction, diplomas/certificates, magnets, control panels, ►

Creative collage using small aluminum prints.
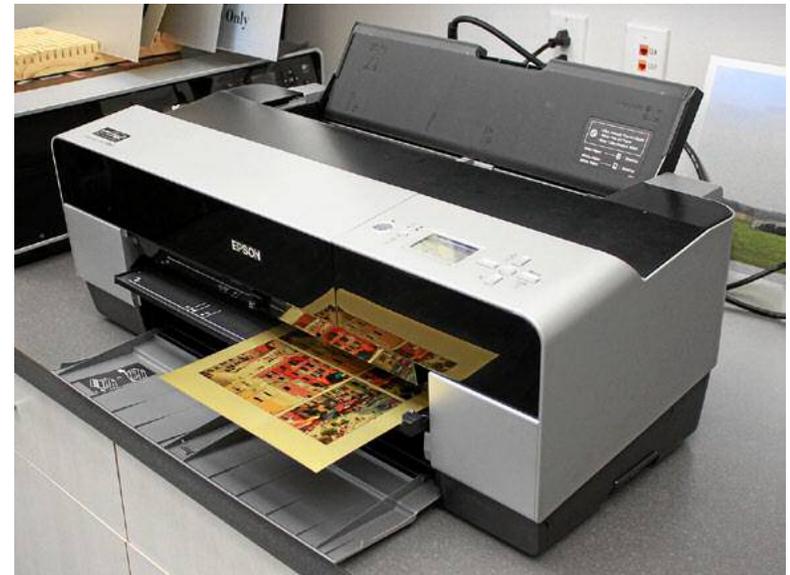
Epson 17-inch printer with straight thru manual paper feed.

product/equipment tags, warning labels, name badges, name plates, wiring diagrams/schematics, memorials, etc.

AlumaJet sheets come in Matte Silver, Satin Silver, Brushed Silver, Satin Gold and Satin White, with or without a 3M-adhesive backing. Available sheet thicknesses range from 0.005 to 0.020 depending on paper feed method. Straight manual feed printers will work with all thicknesses. Most J Curve manual feed printers will accept the 0.005 thick sheets.

Given the variety of product applications for Alumajet, the recent SGIA award, and relatively low capital investment, I decided to further investigate AlumaJet's capabilities.

Horizon sent printed samples in silver and gold, printed using an Epson 3880 17-inch wide printer. Standard Epson color management was used with the *high quality* printer setting. The paper setting utilized was *Premium Photo Paper Glossy.* After the aluminum sheets were printed, a low-luster laminate was applied to protect the sheet from moisture as the inks are water based. Although AlumaJet is primarily designed for indoor display, other roll laminates are available with UV blockers and inhibitors that can extend outdoor life in most environments to 3-5 years. Print protection can

Lotus AlumaJet poster demonstrates high level detail reproduction.

alternately be provided by spraying the printed aluminum with a clear acrylic or varnish.

The largest custom sheet of AlumaJet that can be printed on the Epson 3880 is 17" x 24" The largest standard size (stock) AlumaJet sheet the Epson 3880 can run is A3. In addition most 24" wide printers can run all AlumaJet sizes from 8.5" x 11" to 20" x 24". Even larger sizes are available when needed for custom applications.

ALUMAJET PRINT QUALITY EVALUATION
The test evaluation AlumaJet prints I received from Horizon were printed on satin silver and gold stock.

The overall quality of both the color and black and white prints was excellent. Color accuracy was very good using the standard Epson settings and can be further enhanced using a custom ICC color profile. Dot gain on the aluminum substrate was minimal, allowing AlumaJet to reproduce very fine details and very small text.

This makes the material ideal for creating complex schematics, way-finding signs, newspaper/magazine reprints, and line-art illustrations. Photographs taken at 50X magnification with an inspection microscope verified the sharpness ►
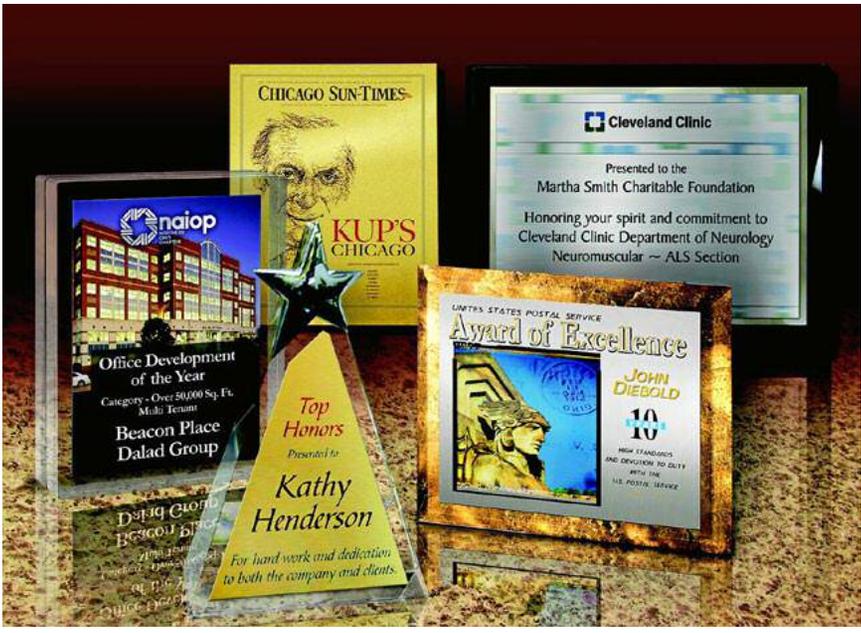
Assortment of high quality AlumaJet awards.

of even the smallest fonts found in the test images. Image contrast and detail were excellent. Silver AlumaJet proved to be ideal for reproducing High Dynamic Range (HDR) color and black and white photographs. The pure, bright aluminum media provides maximum contrast as a background for the dense, black and color Epson UltraChrome inks. This allows the widest range between highlights and shadows in each image. In the near future, I will be experimenting with some Photoshop plug-ins that should create even greater detail and dramatic effects.

PRODUCTION

AlumaJet is very easy to use. As no heat transfer is required, there is no heat press warm-up time, heat pressing time or post-pressing metal cooling delay, plus no hot material to handle. In addition, no transfer paper alignment and heat tape steps are necessary. This makes production faster and easier.

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. The printer should be set to a resolution of 1440 or higher for optimum results. After the sheets are printed they should be allowed to fully dry before stacking, handling, or lamination. Drying can be accelerated using a hair dryer or a heat gun using a lower setting.

FINAL COMMENTS

Digitally decorated aluminum creates very high perceived value for a wide range of products from business cards and name badges to signs and photo/fine art reproductions. AlumaJet prints exhibit excellent detail, contrast, and color. Initial capital investment is low and production is simple and efficient.

For more information, Contact Horizons ISG at: *www.horizonsisg.com*

Certificates duplicated on AlumaJet metal.

Lamination provides moisture and UV fade protection.

Beautiful landscape in office environment.