

Dye-Sublimation prints are a continuous tone printing process that produces a vibrant 300ppi color print. The pixels are printed by a thermal print head that sublimates (vaporizes) the dye from a colored ribbon onto the dye-sublimation paper. The hotter the element on the thermal printing head, the darker the spot of color will be.

The printing ribbons resemble rolls of saran wrap that have page sized squares of dye and come in CMY, CMYK (cyan, magenta, yellow, black), and black only. For a CMYK print the dye sublimation-paper makes four passes through the printer. Some dye-sub printers using SWOP (standard web offset press) Process Color CMYK Ribbons come reasonably close to matching output color. However a Dye-Sub print could never be used as a contract proof. Because it is a continuous tone process it is impossible to accurately judge how your highlights will be represented as halftone dots on the printed page.

Dye-Sub Printers come as large as 11x17 in. full bleed. Because they are desktop machines and can be purchased in the \$ 4,000 to \$12,000 range they are often found in Agencies, Design Studios, and Digital Photography Studios.

8-1/2 x 11 in. Dye-sub prints are in the \$25 - \$50 range. Ink-Jet Prints have dramatically improved in quality in the last year. With the introduction of 1400 x 700 dpi resolution, six-color ink cartridges, and well tuned ICC ColorSync device profiles, the humble ink-jet printer now can produce prints of proof like quality. Although not accurate enough for a contract proof, they are darned good, especially considering the printers cost as little as \$300 !

Xerox Prints are color laser prints produced directly from a digital file via a RIP to a color Xerox copier. (Typically a Fiery RIP connected to a Cannon Color Copier) Depending on the calibration of the digital file to the output device, the quality can run from simply awful to what, at first glance, looks like reasonable process printing. At a quantity price of as low as a dollar (after a \$10 setup) this can be an attractive choice for short runs of medium quality

Iris Prints are produced by spraying extremely fine spots (the size of red blood cells) of CMYK inks onto a sheet of paper. An iris print achieves the illusion of continuous tone by a random scattering of tiny dots called stochastic screening. The effect is rather more like film grain than the regular dot pattern of a halftone screen.

Iris prints can be calibrated to reasonably match the color and contrast of a Matchprint. Because it is a stochastic process it is somewhat difficult to accurately judge how your highlights will be represented as halftone dots on the printed page. Iris prints tend to produce some banding artifacts in smooth gradients.

An 8-1/2 x 11 in. Iris print costs in the \$ 40 - \$ 60 range

Iris prints can be made on a wide variety of paper stocks, including artist watercolor

paper. These prints which are generally used for limited edition fine-arts prints are made with a special extended gamut dye set and are called Geclee prints (pronounced ``gee-Clay") see: Blazing Editions

Bubble Jet printers are inkjet printers capable of very large output sizes (up to 48 in. x 144 in.) from an RGB Digital file. The file size should be between 150 and 300 ppi at the final printed size. A 34 in. x 44 in. Bubble Jet Print is around \$ 325.00