Dye-sublimation printing may not be new, but it's becoming a hot opportunity for in-plants eager to add value and generate revenue.

Dye-sublimation printing is not exactly a "new" technology; it's been around in various forms since the early 1970s, and the basic process used today was introduced in the late '90s. Because of the low initial investment, the simple production process and the high margins attainable on the products, this technology could be the new service that in-plants have been waiting for.

Simply put, dye-sublimation printing is the process of printing a transfer of a computer-generated image with a specific type of ink, and then using a heat press to apply the image to a variety of substrates. All of these substrates must be either made of 100 percent polyester or coated with a polymer that will receive and hold the sublimation dye. There are coated products made of ceramic, aluminum, plastic, wood and a variety of garments from T-shirts to athletic performance apparel.

Sublimation ink consists of a solid, heat-sensitive dye, which provides the color, dissolved in liquid. Under heat and pressure, the solid dye particles change into a gas and bond with any polymers on the substrate and then solidify again. The high temperature used in sublimation opens the pores of the polymer and allows the gas to enter. When the substrate is removed from the heat source and immediately begins to cool, the pores close and the gas reverts to a solid and becomes a part of the polymer.

Key to this process is the sublimation ink itself, and the right combination of heat press settings: 410 degrees F, medium pressure (around 50 psi) and a dwell time of 40 to 50 seconds. What you get is a bright, colorfast image that resides in the product, not on the surface. It will not chip, peel or fade.

From Bag Tags to Beer Steins

Thousands of coated products are available: coffee mugs, beer steins, license plates, mobile device cases, holiday ornaments, bag tags, mouse pads—just to name a few. You can also create your own products with plastic, wood or aluminum sheet stock available for custom cutting. New products are being created on a monthly basis.

For over 15 years, sublimation has been a key component for screen printers, trophy shops and companies serving the advertising specialty and promotional products markets. Sublimation is perfect for customers interested in small quantities or in products that require personalization. There is an old saying in the ad specialty industry: "People pay for personalization." That standard is proven and allows for high profit margins given the low costs for sublimated products.

Many gift stores use sublimation systems to produce customized ceramic coffee mugs. A customer will provide a photo and some message instructions, and in 30 minutes will receive a beautiful personalized...
product. Customized mugs usually retail for at least $15, and the product cost, including transfer, is about $2.25. These profit margins are typical on all sublimation products.

Increase Your Value

For in-plants, sublimation can be an excellent addition to your product offering. Your operations are under more scrutiny every day, and declining print volumes and revenue are the main reasons. Use sublimation printing to make name badges for an event or meeting, or award plaques for achievements. Faculty and other departments purchase these types of customized products for various events throughout the year, but pay a fully loaded price, plus shipping. Fulfillment of these products saves money for the institution and increases the value of your in-plant.

But the big win for your bottom line, if your in-plant serves an educational organization, is being able to provide customized sublimated products to the student population. Unlike traditional businesses where sales opportunities can stagnate because of market saturation, student turnover increases the possible customer base by as much as 35 percent every year. These students represent sales opportunities as individuals, or as intramural athletic teams, study groups, campus clubs or fraternities/sororities.

Outfit all 12 intramural basketball teams with performance wear. Or provide branded iPhone cases to the entire Delta Theta Sigma fraternity. These are untapped markets with renewable revenue, easily attained through proper marketing and visibility. Already in-plants like Penn State’s Multimedia & Print Center are taking advantage of dye-sublimation printing, as you may have read in IPG last month, to generate new business and draw attention to the in-plant’s other services.

Low Cost of Entry

The cost of entry is low even for traditional small businesses. Typically, their only hurdle is the ability to create graphics that best take advantage of the technology. Graphics ability is not a problem for in-plant facilities with staff artists who are capable of producing beautiful images to help the products reach their sales potential. And experienced printers will find that working dye-sublimation into their operation is easy. Initially, there should be no need for extra staffing, and higher production needs can be met with interns or student workers.

Industry experts have been beating the drum for years, urging in-plant managers to constantly improve productivity and increase value to ensure survival. While it may be "old" technology, dye-sublimation printing can certainly add new revenue and relevance to in-plant operations.
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