

Primera Technology, Inc. White Paper

Producing Your Own Short-Run Color Labels



Introduction

Manufacturers of almost any type of product often find themselves in need of short-run, full-color customized product labels. The reasons are many: for use on prototype products, promotional campaigns, and perhaps most often, because the manufacturer has many different products that are all produced in small quantities.

In all of these cases, the printed quality and appearance of these labels are extremely important. Providing a professional appearance on packages can easily make the difference between a product selling or sitting on the retail shelf.

But finding a cost-effective and convenient way to produce high-quality, full-color labels has not been easy. Until now, your choices have been limited to:

- **Flexographic printing.** This is the most common method of printing “primary” product labels – those that go onto the product itself. However, flexo technology is designed to be affordable only in large production runs – usually 10,000 or more identical labels at a time.

Creativity can be compromised on flexo since you are generally limited to several hundred PMS (Pantone Matching System) spot colors. If photos are required on labels, a visible dot pattern becomes apparent and is generally equivalent to only about 200 to 300 dpi.

Set-up costs for flexographic film, plates and “make-ready” (aligning four separate printing plates, mixing ink, etc.) are substantial, adding significantly to the cost when printing short-run jobs. Delivery usually takes about 3-4 weeks. Often, labels will be wasted when product information changes and the job needs to be reprinted.

- **Traditional offset printing.** Like flexo printing, full-color offset printing is generally appropriate only for longer runs. Offset printing is also limited to sheet-fed presses. Most end-users prefer rolls of labels because they can be used with applicators and are also more compact to put on a warehouse shelf.
- **Digital offset printing.** Offers many of the advantages of variable information and shorter runs. Presses are very expensive (\$100K +). Unless you can justify such a large equipment investment, you must order these types of labels from an outside supplier, commonly called, a “label house.” Delivery times are usually several days to a week. Print quality is

OK, but some people don't like the matte-finish and opaque inks that must be utilized. Think "color laser" printer quality.

- **Color thermal transfer printing.** Offers the advantages of printing variable information and short runs. The major disadvantage is that print resolution is very low – only 300 to 600 dpi. Machinery is also expensive (\$20,000+). Not a professional, offset-quality result, so thermal transfer is used mostly for industrial shipping and box labels.

A Better Option: Inkjet Color Label Printing

Recently, a new label printing technology became available: on-demand, color *inkjet* label printing. Inkjet technology has been in widespread use for many years in home, office and even professional photo and poster-printing applications. But because it had not been used extensively in the label industry, many people thought that it was not robust or waterproof enough to produce primary product labels.

But in early 2005, Primera Technology, a leading manufacturer of specialty color printers, introduced its LX800 Color Label Printer. The LX800 uses the latest in thermal inkjet technology from Lexmark, Inc. (NYSE: LXX). It prints full-color product labels at up to 4800 dpi – about 240 times higher resolution than flexo – in up to 16.7 million colors. In 2006, the LX800 was replaced with a new model called the LX810 Color Label Printer.

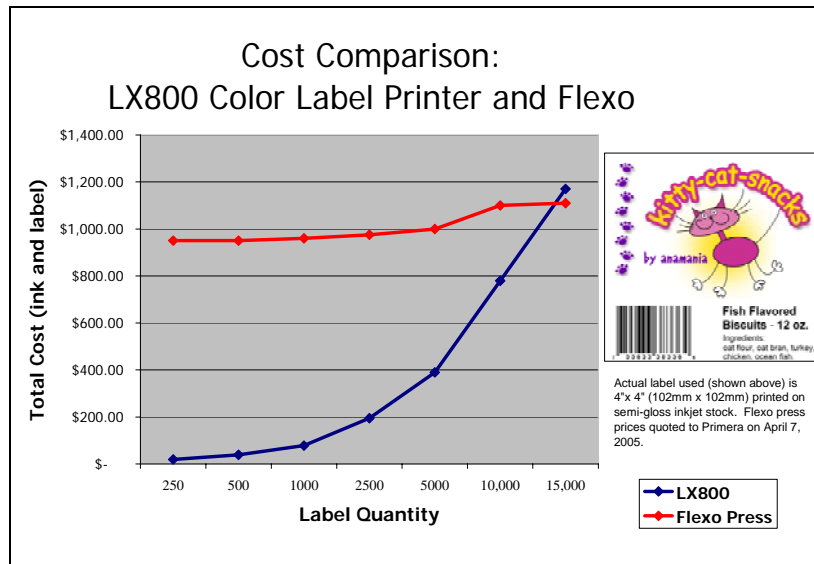
A More Cost-Effective Solution

Inkjet label printing with the LX810 is the most affordable of all available short-run label production solutions for three main reasons:

1. **Lower Cost per Label = Higher Profits.** Printing only the number of labels you need is always a better choice and will cost less. Why order tens of thousands of labels from an outside vendor when you only need 1000? You'll also save money by eliminating obsolete label inventory.

The following chart shows the crossover point where flexo or offset printing makes more economic sense due to the volumes being produced. You'll see that for quantities of less than about 12,000 at a time, the LX810 is more cost-effective. Please keep in mind that this figure is for the printed label shown. Other label formats will have a lower or a higher crossover point depending upon ink coverage and label size.

Also note that at any quantity, the LX810 will have better print quality than virtually all other full-color printing technologies.



2. **Lower Cost of Equipment.** The LX810 sells for just \$2495 (MSRP) versus \$20,000+ for a thermal transfer color label printer or \$100,000+ for a digital offset press.
3. **Time Savings.** Since you print the labels when and where you need them, and only in the quantities you need, you'll save time and be able to get your product to market faster.
4. **Extra Profits.** Since labels can now be personalized, it is even feasible to charge more for your products. This is especially true when products such as wine, water bottles or corporate gifts are personalized.

More Durable Output

Labels printed on the LX810 are not only glossy and highly professional looking, they're also scratch and smudge-resistant and virtually waterproof. Because the label material allows inks to sublimate and become sealed below the actual print surface, your printed photos, graphics, text and barcodes are protected against a wide range of environmental factors.

For applications requiring longer-term exposure to water, chemicals and other elements, specialized materials such as polypropylenes are also available. Just a

few of these applications could include patient wristbands, water bottles, garden centers, signage, ID cards and more.

Who Needs Short-Run Color Labels and Why?

Short-run color labels are needed in many applications across a broad range of industries. Here are just a few:

- Specialty / Gourmet Foods and Beverages
- Wineries, Vineyards, Specialty Wine and Spirit Retailers
- Coffee Roasting and Specialty Teas
- Cosmetics and Personal Care Products
- Nutraceuticals and Vitamins
- Plants and Nursery Products
- Water Bottles
- Contract Manufacturing / Private Labeling
- Print Shops
- Medical Supplies and Devices
- Automotive Cleaning Solutions
- Industrial and Home Cleaning Solutions
- Pet Foods
- Dairy Products
- Candles, Scents and Gifts
- Corporate Gifts
- and much more!

Putting the most professional color labels possible on your products will set them apart from others. This is especially important for smaller manufacturers who can actually increase their sales by making their products stand out through innovative packaging and labeling. It also allows manufacturers of all sizes to offer private label goods in small quantities.

To illustrate many of the advantages, here are a couple of recent quotes from actual users of the LX810 Color Label Printer.

Manufacturer of Specialty Roasted Coffee:

"We use a Primera LX800 label printer. It has been a wonderful investment for us. We were burning through laser printers every six months because to print on label stock the printer has to heat up the ink so much to get through the glossy part that the adhesive would leak through onto

the printer heads and thus ruin the printer. We also spent a lot of money contracting out to specialty printers but they could not come up with quality prints.

Then we found this printer; an advertisement was sent to us for it. The quality of the labels is amazing! While it is a major investment of cash we, being a small roaster, are very, very pleased with the product. So Google it - it's worth checking out."

Specialty Coffee Association of America (SCAA) Member.

Manufacturer of Aromatherapy Oils and Botanicals:

"It (LX800) has been a perfect solution to our labeling needs. I do not know any better or more economical way that we could have accomplished our requirements for short runs of quality labels."

Barbara B. Gray, Oils of Aloha.

Other Uses for Short-Run Labels

Even though many users of the LX810 are smaller companies like the coffee roaster mentioned above, larger brand-name manufacturers also have the need to produce short runs of labels. They use them for market research, pilot runs, prototypes and focus groups.

Marketing and advertising departments can produce labels for their collateral materials that indicate special offers, holiday greetings and other sales-driven and/or personalized messages.

Summary

The need for short-run, full-color label printing is abundant in organizations of all types and sizes. While there are several available options on the market today, most are too expensive or designed for far higher production than is needed in many cases. Further, the print quality of even high-volume, full-color labels on flexo or digital offset can be limited, thereby limiting the sales potential of the labeled products.

Only one technology is clearly superior for producing the highest-quality, lowest cost output in short runs: inkjet color label printing using a printer such as the LX810 Color Label Printer from Primera Technology.