

Digital Label Printing

THE DIGITAL LABEL OPPORTUNITY

Labels are an essential and ubiquitous print application. Though they may be small in size, labels play a big role in promoting products and providing information. Digital printing is well established in the label segment and provides significant opportunity for printers seeking to enter this growing market.

MARKET SIZE

According to Smithers' *The Future of Printed Labels to 2029*, the 2024 global value of the printed label segment is approximately \$44.8 billion. Digital printing accounts for a small percentage of overall printed label output, and Smithers states in *The Future of Labels and Release Liners to 2028*, that flexography accounted for approximately 40% of printed label volume in 2023. However, trends are pushing increased adoption of digital printing technology in the label segment.

TYPES OF LABELS

There are three basic types of labels.

1. Pressure-sensitive labels are the most common type of label and are applied using only pressure — no other process is required. The label is composed of face stock, adhesive and a liner and can be applied by hand or automatically.
2. Glue-applied labels, also commonly referred to as cut-and-stack labels, do not have an adhesive layer. Cold or hot glue is used to apply the label to its container.
3. In sleeve or shrink-sleeve labeling, a printed piece of plastic, unsupported by a liner or an adhesive, is placed around a container, seamed, and heated to a temperature that will cause the film to shrink to the exact geometry of the container. Shrink sleeves can be classified as a label, flexible packaging, or as their own packaging category.

KEY USER MARKETS

Labels can be found across nearly all market segments. Here are just a few that stand out:

- B2B – Commercial Manufactured Goods, Industrial, Supply Chain Distribution
 - Shipping, Logistics, Distribution & Business Supply Chain Labels
- B2C – Supply Chain, Distribution & Consumer Finishing- Applied Labels
 - Add-On Retail, Postal & E-Commerce Applications
 - Sale Label/Tags, Promotional Stickers, Postpress Added-Labeling
- B2C – Consumer Packaged Goods (CPG)
 - Food and Beverage
 - Pharmaceutical/Nutraceutical
 - Boutique Lifestyle Brands
 - Health, Beauty, Cosmetic

ENTRY INTO THE SEGMENT

Label converters select printing technologies based on many criteria, including production volume, quality, productivity, costs, profitability, and client demands. Most labels are printed on roll-fed devices.

TYPES OF LABEL SYSTEMS

Digital label printers typically print onto rolls of papers, films, foils, and other materials that can be converted into different label types and sizes. There are multiple technologies and widths of digital label printers to serve this diverse and innovative market.

Digital label printing systems include:

- Dry electrophotographic (toner) presses
- Liquid electrophotographic (HP Indigo)
- Inkjet printing presses
- Hybrid devices that combine digital printing and flexography
- Inkjet wide format printers and printer/cutters

EQUIPMENT POINTS OF ENTRY

Tabletop Label Printer

- These small format devices are good for low volume production of high-quality labels. Tabletop devices should be considered as entry-level label solutions.

Electrophotography Web Presses

- Web width less than 14"
- Web width 14" to 20"
- Web width more than 20"

UV Inkjet Web Presses

- Web width less than 10"
- Web width from 11" to 15"
- Web width more than 15"

Aqueous Inkjet Presses

- Web width less than 10"
- Web width of 11" to 15"
- Web width more than 15"

Digital Hybrid Devices

- Digital hybrid inkjet/flexography
- Digital hybrid electrophotographic/flexography
- Digital inkjet units that mount onto flexographic equipment

Electrophotography Sheetfed Presses

- Various size devices

Digital Wide-Format Inkjet Printer

- These devices are greater than 17.5" and can be flatbed or roll-fed.

SUBSTRATES

Serving the market requires familiarity with the types of substrates and adhesives that can be combined to produce different types of labels. Label substrates can include paper, synthetic paper, polyester film, vinyl, foil and more. The surface finish of the substrate can be glossy, matte, textured, metallic, printable, or writable.

FINISHING

Label finishing processes can include cutting, lamination, varnish, foiling, embossing, unwinding, and rewinding. Common label cuts include die, perforated die, butt, and single. Diecutting can be done in-line or off-line with a solid or flexible die. In addition, laser-based cutting systems make it easy to create any cut shape imaginable — without incurring any additional makeready, preparation, or tooling costs associated with creating a die.

BEST PRACTICE TIPS

- Start with existing clients. Review client lists and determine if they use labels or could benefit from using labels.
- Ask current clients that use labels about their requirements.
- Digital printing has lowered entry barriers, but an informed adoption strategy is important to success.
- Do not overlook finishing investment.
- Use the resources of associations serving label printers.
- Read packaging industry publications, including *Packaging Impressions* (www.packagingimpressions.com).
- Visit label technology and material suppliers at the PRINTING United Expo.

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