

# THE LATEST TRENDS IN LARGE FORMAT ECO-SOLVENT PRINTING

See how printer automation and modernization are elevating competition and expectations



According to a recent survey by the printing and publishing market intelligence group, *WhatTheyThink*, print service providers were more interested in expanding into sign printing than any other new product area.<sup>1</sup> For outdoor banners and signs, vehicle wraps and ultimate print surface versatility, only large format eco-solvent printing consistently produces high-quality, durable, brand-level results.

Nevertheless, some printers shy away from large format eco-solvent printing because of dated misconceptions, including low productivity, high maintenance commitments and unhealthy ink.

Changes in printer technology and consumables have turned these misconceptions upside down, making this an ideal time to invest in the long-term benefits of large format eco-solvent

printing. This brief zeroes in on industry trends such as accelerated productivity, automated maintenance and evolved ink. Based on these trends, the brief will then summarize eight considerations that print service providers (PSPs) and print-to-use organizations need to keep in mind when investing in a new large format eco-solvent printer.

## **Customers Expect Higher Quality, Faster**

The faster you can print, laminate and ship a project, the sooner you can start on the next one. Faster turnaround times result in higher revenue—as long as there's no compromise in quality. Legacy large format solvent printers are struggling to keep up with competing formats due to:

- Inefficient media feeding and take-up systems that require too much manual oversight (another pain point

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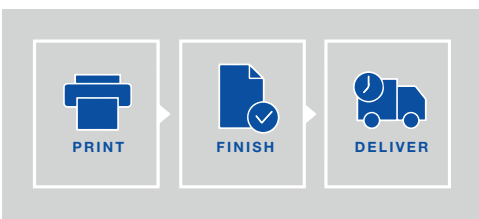
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is customers having to do costly re-prints due to issues with media feeding/take-up systems)

- Maintenance requirements—especially as the equipment ages—that demand costly outsourcing or an in-house expert to keep the equipment operational
- Off-gas durations of at least 24 hours before lamination or other finishing can begin

Modern large format eco-solvent printers include state-of-the-art filtration systems, high performance print heads that are automatically cleaned, and precision media feeding and take-up systems that can yield actual production speeds up to 550 feet<sup>2</sup> per hour<sup>2</sup>. At this elevated level of production speed, PSPs no longer have to worry about a large format printer being the bottleneck in their workflow.

Industry-leading printers that use revolutionary ink technology also eliminate time spent waiting for prints to off-gas. That time has been cut by four times<sup>3</sup>, making it possible for PSPs to print, laminate and ship orders in a single shift.



## Minimizing Maintenance Downtime

Maintenance downtime is a productivity killer for any printer, especially if you don't have an in-house expert. By automating the print head cleaning process, modern printers require less manual maintenance. Upgraded air filters remove internal contaminants



to preserve printer parts. In fact, some internal air filtration systems clean the air and blow it out of the printer along with any dust to keep the roll feed clean as media enters the printer.

Additionally, printer manufacturers have made it so simple to replace cleaning and filtration parts that even employees with little experience can quickly complete the tasks. New smart printers alert operators when parts such as air filters need replacing.

## Evolving Ink for Performance and the Environment

Some solvent printers require strong ventilation with tubes to ventilate the fumes. Even with proper ventilation, there are health concerns about long-term exposure. Eco-solvent printers have evolved greatly and no longer require special ventilation. In fact, some eco-solvent printers have full room GreenGuard Gold certification.

Perhaps the most influential ink innovations in large format eco-solvent printing center around same day lamination. As stated above, while most eco-solvent inks still take 24 hours to off gas, there are now ink options that dry in as few as six hours. Same-day delivery on

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orders opens up business opportunities to clients who need quick turnarounds, such as event planners, construction companies and convention centers.

Eco-solvent printing has always had an advantage over latex printing in color consistency because latex relies on thermal print heads, which tend to degrade quickly. Also, piezo print head technology can be a superior way of achieving color consistency.

Finally, with the advent of advanced red ink technology and the existence of printers that are 98.2% Pantone® certified, companies prefer revolutionary eco-solvent ink technologies to accurately represent their brand (especially if it contains any red).

## 8 Considerations Prior to Purchasing

### 1 What costs other than printer price are significant?

Investigate the estimated ink and media consumables costs during your printer's lifetime. Some print technologies use a lot more ink to create the same image quality you can get with much less ink on a large format eco-solvent printer. Also, some less reliable printers do not provide consistent color and quality, which results in multiple reprints and unrecoverable media waste costs.

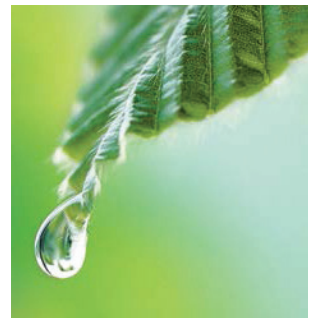
### 2 Save on upfront costs for a low-end printer or spend more now for a high-end printer?

Printer cost is only a fraction of the total cost of ownership. Per #1, consider the long-term costs of ink and consumables. Low-end printers will use more and eventually cost more. Perhaps most importantly, consider the impact on your reputation if you have to re-print projects for clients when they're not satisfied with the output of a low-end machine. Three quick tips to note:

- A. High-end, four-color machines may outperform low-end, six-color machines, resulting in long-term ink and media savings.
- B. If clients are concerned about brand or you print a lot of reds and oranges, only higher end printers will produce results that will meet customer expectations.
- C. Look closely at different pass modes to determine your optimum "everyday" print speed that delivers an acceptable combination of speed and image quality.

### 3 Cutter included or separate?

If increasing productivity is a priority, then an integrated cutter is not an option.



Eco-solvent printers have evolved greatly and no longer require special ventilation or air purification.



#### 4 On what types of media will you be printing?

Large format eco-solvent printers provide superior quality when printing on banners, vehicle wraps, canvas and magnets, or for point-of-purchase (POP) signage.

#### 5 How quickly do you want to finish and ship?

To provide same-day turnarounds, rely on eco-solvent printer technologies with inks that off-gas in six hours instead of 24 or 48 hours. They increase productivity, open up new markets, reduce space needed for drying prints, laminate quicker and are ready to ship sooner.

#### 6 How quickly will print heads degrade?

Analyze durability, precision and scalability. For example, replaceable print heads are susceptible to inconsistent color production. In some cases, thermal print head users notice a color difference or shift between print jobs, which may be attributable to nozzle loss and wear over time.<sup>4</sup> Note that print heads degrade at different rates; the color you are printing today may not be as brilliant next week.

#### 7 Maintenance costs and time commitment?

Review the level of automation, manual requirements and, of course, service contracts. Even under heavy use, modern large format eco-solvent printers should require operator maintenance only once per month for about 10 minutes. Ask about uptime thresholds and downtime contingencies.

#### 8 Does a points program exist to reward loyalty?

Make sure you're earning while you're burning ink. Consider manufacturers with ink rewards programs that allow you to redeem points for extended warranties or discounts on future purchases.



### Why Large Format Eco-Solvent Printing Makes Sense Now More than Ever

While sign printing is a desirable market it is also increasingly competitive. To take advantage of the opportunity—or to simply print more successful passes to eliminate ink and media waste—PSPs and print-to-use organizations can rely on versatile large format eco-solvent printers. But not all manufacturers of these printers are equal, and no one printer can do it all. Consider your priorities before making a purchase: Do you want to increase productivity, focus on pristine image quality or add a workhorse to your line-up that can handle your new or growing sign printing business?

Technology advancements in print heads, inks, automated maintenance and more have made it possible for more players to enter the sign printing market. The printer you choose will greatly influence where you rank with competitors and clients.

<sup>1</sup> "Printing Industry Forecast 2018," *WhatTheyThink*, <http://whattheythink.com/articles/88597-highlights-what-theythink-printing-forecast-2018/>

<sup>2</sup> Based on internal Epson testing.

<sup>3</sup> Results based on Epson and Avery internal lamination testing at 6 hours after printing. Your results may vary based on environmental conditions, media type used, ink density and other factors.

<sup>4</sup> Color difference based on internal Epson testing where color differences for the same print job resulted in delta E>2.

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To discuss the positive impact an Epson SureColor® S-Series Sign Printer can have on your business, call us at **1-800-293-5027** or **visit us online**.

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