



The Aleph LaForte printer and dryer at the 2017 SGIA Expo. (Image courtesy of Aleph.)

## Choosing the Right Inkjet Textile Printing Solution, Part 2

In Part 1 of this series (January/February 2018), we enumerated the reasons for choosing inkjet for printing particular textile applications. We compared inkjet textile printing with screen textile printing, listing the advantages and disadvantages of both. We discussed inkjet textile inks and the inkjet printheads matched with many of the currently available inkjet printers for textiles.

While digital textile printing includes decorating roll fabrics, cut pieces and sewn garments as well as sublimation transfer paper printing, we will focus on production roll-to-roll inkjet textile printers for Part 2. Specifically, what industry observers — Johnny Shell, SGIA;<sup>1</sup> Dr. Lisa Parrillo Chapman, North Carolina University;<sup>2</sup> and Mark Sawchak, Expand Systems<sup>3</sup> — have designated as Class 4 for single-pass and Class 3 for scanning head printers with throughput speeds of 101–400 linear meters plus per hour.<sup>4</sup> The roll-to-roll printers in these categories have print widths generally ranging from 1.6–3.4

meters with a few 5-meter print width printers for soft signage. Some of the direct-to-fabric printers can also print sublimation dyes on paper for indirect fabric decoration, while other inkjet printer solutions for textiles are dedicated to either direct textile printing or indirect transfer printing.

In preparation for this series, we traveled to Italy to meet with several leading textile printer manufacturers, including MS srl, EFI Reggiani and Aleph. We covered developments presented at the 2017 SGIA Expo in New Orleans and have interviewed key manufacturers and suppliers about their products and advances.

*The processing speeds of single-pass inkjet systems now approach, equal or surpass those of rotary screen printers.*

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printhead configurations. It also offers two lower production "Studio" inkjet printers and four "Studio" paper printers for sublimation. All the Aleph printers use Kyocera printheads with 600 dpi native resolution and variable drop volume capability from 4–60 picoliters. The industrial LaForte® 16-printhead fabric printer offers a production speed of 540 square meters/hour. The 12-printhead version prints at 390 square meters/hour. Both the 16 and 12 head printers produce a maximum resolution of 1200 dpi, offer four-, six- or eight-color configurations and are available in print widths of 1.85 and 2.2 meters. They can print reactive, acid, pigment, sublimation and direct disperse dye inks.

#### *Aleph*

When we visited with Aleph in Como, we saw its construction of robust inkjet printers, drying and steaming systems, and software product development. Aleph recently acquired venture capital to advance its development and marketing expansion plans. Under its LaForte® brand, the company produces two industrial Class 3 inkjet fabric printer models and two industrial inkjet paper printer models, with each model featuring two