

Monna Lisa 160B inkjet textile printer

May 2003



Printing method: Inkjet (Micro Piezo print head)
Print width: 1,600 mm
Resolution: 720 × 720 dpi (high quality mode)
Ink: 8 colors (black, yellow, magenta, cyan, blue, orange, red, gray)
Ink type: Acidic, reactive, dispersive
Print speed: 30 m²
(high quality mode 720 dpi × 720 dpi, 8-pass printing)
Weight: Main unit approximately 3,000 kg

Product features

The Monna Lisa is an industrial inkjet digital textile printer jointly developed by Epson and the leading Italian textile manufacturing equipment manufacturer Robustelli s.r.l. Robustelli develops, manufactures and sells textile printers in the Como region of Italy, a major center for the textile printing industry and the home of many luxury brands. Epson provided Robustelli with inkjet technology such as Micro Piezo print heads and ink supply mechanism components, enabling the two companies to commercialize a digital textile printer that can handle volume printing.

The printer is fitted with Epson's proprietary high-density Micro Piezo print heads that can eject ink droplets in three variable sizes. Epson also worked with For.Tex s.r.l.t, an Italian company with strengths in pre- and post- printing processes, to develop a special ink suited to textile printing. Combined, the printer and ink enable the beautiful gradations and color reproduction typical of inkjet printing, with the flexibility to print on a range of fabrics including silk, cotton, nylon and polyester. In addition, in the high quality mode (720 dpi × 720 dpi 8-pass printing), it achieves high-speed printing of about 30 m² per hour, and with the robustness to operate around the clock, it offers high productivity for volume printing.

Story Behind the Creation

At the time the Monna Lisa was developed, the textile printing industry had started using digital textile printers for the preparation of samples. However, manufacturers were hoping for advances in digital processing technologies and inkjet technology for volume printing. The Chamber of Commerce and Industry and the Textile Association of Como was promoting digital textile printing to revitalize the industry. With this encouragement, Robustelli with a 50-year history in textile printing and Epson with its inkjet technology for the consumer printer market, formed a business alliance aiming to develop a digital textile printer. The Monna Lisa was the result of these efforts.

Reception and Market Impact

The Monna Lisa offers short turnaround even with mixed, small-lot production, and, because there is little waste liquid, it has a low environmental impact. The photograph-like detail and the range of designs that can be expressed on the fabrics has won plaudits from designers and the textile industry as a whole. Textiles printed using the Monna Lisa are now being used by numerous high-class apparel makers. The Monna Lisa has long maintained the leading market share for digital textile printers used in Italy, and it is no exaggeration to say that since its debut, it has had a significant impact on the printing industry causing an unmistakable shift from the analog to digital printing.

In 2012, Epson took a 50% share in For.Tex s.r.l., the company with whom it had a business alliance for textile ink, in order to strengthen its digital textile printing business. With this equity stake, Epson gained access to For.Tex's strengths in marketing and consulting to the textile printing industry and expertise in pre- and post-processes, providing total solutions for inkjet textile printers, and seeking to achieve further expansion of digital printing.

(Written in May 2013)
