



Federico Curti, President of Stamperia Di Cassina Rizzardi (SCR), right, and his son, Lino, Vice President of Operations, have fully embraced digital textile printing, and took that commitment to the next level with the recent purchase of a first-of-its-kind MS LaRio Single-Pass Ink-Jet Printer from MS Printing Solutions.

Living The Digital Dream

Stamperia Di Cassina Rizzardi uses next-generation textile-printing technology from MS Printing Solutions to grow its business and optimize operating costs.

We all remember the days when film cameras were at the cutting edge of photographic technology. They ascended to those heights because the film was easy to load, use and develop, especially when compared to the old days when cumbersome photographic plates and darkrooms were required to produce a photographic image. Photographic technology took another gigantic leap forward when the digital camera was invented, which eliminated the need for film, the trip to the store to get the film developed and even the uncertainty of how the pictures would turn out.

But as with anything new, users who have grown accustomed to the old ways can be leery of the new. Some textile printers in the fashion industry fell into this camp when new digital textile printing came onto the market some 15 years ago. Though they could see the benefits of digital printing, they were still married to the old screen or rotogravure (rotary) printing technologies. This means that they may be consciously forsaking the advantages in terms of optimized printing times, costs and, most significantly, quality that converting to next generation digital ink-jet printing machines can provide.

"It's a very conservative industry and they are not really open to the change; some people still don't consider digital as an industrial solution," said Paolo Milini, Vice President, Sales & Business Development for MS Printing Solutions S.r.l., Caronno Petrusella, Italy, a developer of digital ink-jet printing systems. "Implementing new technology takes time, but eventually digital printing will become accepted like seat belts in a car," says Paolo Milini, MS Printing Solutions.

To illustrate that reluctance, though digital textile printing has been a viable technology for nearly 10 years the latest usage figures indicate that it accounted for just 3% of the textile-printing market in 2015. Despite that, some industry insiders are confident that rate will grow to 20% of the market by the end of 2020.

"We think it's crazy to do traditional printing today." Federico Curti, President, Stamperia di Cassina Rizzardi (SCR).

To elaborate on his point, Curti noted that in 2007 not a single meter of textile printing done by SCR was digital, but by 2011, 50% of the company's printing was of the digital variety, and he esti-

mates that as much as 80% of the printing will be done digitally in 2016.

In addition to higher print quality, there are several other significant benefits to digital printing – most notably, savings in time and space, faster print speeds and the ability to print with both reactive inks, which are used with fabrics like wool, cotton and silk, and disperse inks, which must be used with polyester. The most notable benefit of the LaRio's ability to dispense both types of inks from the same machine is that the changeover time between inks is only 10 minutes, compared to 120 minutes associated with traditional printing.

Additional benefits of digital printing:

- ❖ The time and resources needed to prepare and clean the components (screens, cylinders, etc.) on traditional machines are eliminated. "There is a big difference with water usage. When you print with digital, you need nothing, just put the fabric on the machine," said Curti. "With traditional printing, you have to put an order into the color kitchen, you have

to mix the ink, have to prepare the cylinders, have to clean the screens. Then the color kitchen may be closed, or a cylinder may break, which will delay the print run at least 24 hours."

- ❖ Changeover time between production runs is greatly reduced. "You only need time to change fabrics, around 10 minutes, and if you don't need to change fabrics, it takes one minute to change the digital files versus 120 minutes for traditional printing," marveled Lino Curti, Federico's son and SCR's Vice President of Operations.
- ❖ Digital printing allows for faster printing speeds, but with no loss in printing quality. "The quality is the same no matter what speed you print at and the speed is capped only by the rate that the ink can be injected," said Lino Curti.
- ❖ SCR used to need 3,000 square meters (10,000 square feet) of space to store its printing screens and cylinders, but without the need for those traditional printing components, that space can now be used to store more fabrics.

"The cost of the ink can still be prohibitive," acknowledged Luigi Milini, Founder and President of MS Printing Solutions, "but that cost can be offset by the fact that you don't need to buy screens or cylinders, and you have lower cleaning, fabric preparation, maintenance and downtime costs, you just change the digital file. With traditional printing, changeovers would take 40 to 60 minutes because you would have to clean the screens and cylinders. You would also



Since the printing heads on the MS LaRio are fixed, there can be no loss of alignment as the ink is dispensed, which helps eliminate printing errors.



The MS LaRio not only revolutionizes the textile-printing process, but it can be controlled from anywhere in the world via iPad, iPhone or any other handheld device.

have to use 500 liters (130 gallons) of water to clean the screens, which is a large amount, and then you'd have to dispose of the wastewater. Plus, digital offers a bigger range of designs than rotary, and you can offer designs that are so beautiful!"

A perfect partnership

SCR's conversion to digital printing was aided by having a partner that was committed to the cause in MS Printing Solutions. After being in business for nearly two decades as a designer, developer and distributor of screen and rotary technologies for use in high-end, roll-to-roll textile printing, Luigi Milini made the critical, forward-thinking decision in 2002 to replace the old technologies and go all in on the digital-printing revolution. MS Printing Solutions, which was acquired by Dover Corporation, Downers Grove, IL, USA, in 2014, produced its last conven-

tional machine in 2007 after building around 2,000 of the machines between 1983 and 2007.

SCR firmly entered the digital-printing universe in 2007 with the purchase of 10 MS JP5 Ink Jet Digital Printers from MS Printing Solutions, which at the time could print at a maximum speed of 20 linear meters an hour. Today, the same machines can print at 100 linear meters per hour max. The company later added a pair of larger MS JP7 models with a maximum printing speed of 335 linear meters an hour.

Those purchases, though, were just the appetizer before the main course. Luigi Milini began developing what he would eventually call the MS LaRio in 1996 (LaRio is the name of the northernmost of the three branches of nearby Lake Como; in fact, the stylistic "A" in the graphic representation of the LaRio name is an outline of the famous lake). Nearly a decade-and-a-half later, in 2010,

Though SCR still does a great deal of its textile printing with traditional rotary machines (foreground), the addition of the MS LaRio will help put the company at the forefront of the digital-printing revolution.

the LaRio was launched as the world's first "single pass" digital printer.

Other digital printers operate in a similar fashion to inkjet paper printers with a scanner gliding back and forth laterally to dispense the ink onto the fabric as it moves through the machine.

Alternatively, the fabric is sent straight through the LaRio, which is roughly the size of a subway car, with the digitally controlled printing heads – which can be programmed and operated through the use of an iPad from anywhere in the world with no measurable degradation in print quality – dispensing the ink as the fabric passes beneath them.

"Customers have said to us that I came to you because you have a LaRio." Federico Curti, President Stammeria di Cassina Rizzardi (SCR)

One look at the capabilities that the LaRio, which is the only single-pass digital printer in the world that works with both reactive and disperse inks, would bring to his printing operation and Federico Curti was sold.

"In 2015, we started thinking about the single pass because the market was changing and we needed to break out of the market," he said. "It was emotional to go with the LaRio, we thought it was crazy, but here we are. We saw that single pass could be a new way for us to improve digital printing. The LaRio is incredible. We can do 40 to 50 meters (131 to 164 feet) per minute, double the speed of rotary, with none of the problems of rotary printing."

"The LaRio is like two machines in one," added Lino Curti. "The quality is the same no matter what speed you print at, and we're currently printing at 35



Luigi Milini, Founder and President of MS Printing Solutions, left, committed his company fully to digital textile printing in 2007, and Federico and Lino Curti have also embraced his digital vision at SCR.

meters (114 feet) per minute, while the LaRio has a maximum of 75 meters (246 feet). And with the LaRio the heads are stable, the alignment is fixed; with other types of printing it can be hard to print in the same spot."

Coupled with an equally large MS Maxi-D Fabric Dryer from MS Printing Solutions, the LaRio setup takes up an entire wall in SCR's printing shop, but with the space saved through the elimination of the need for screen storage, it looks like a natural fit in the facility.

Conclusion

Confronting change can always be a scary proposition, but when it can be accomplished with a trusted partner at

your side, the task is made easier.

Federico and Lino Curti knew digital textile printing was the future and they also knew that MS Printing Solutions was a trendsetter in the transition to the new technology, with the LaRio setting a new standard within that realm. This year alone, SCR anticipates it will print two million meters (6.6 million feet) of fabric on the LaRio machine out of the more than seven million meters (23 million feet) it will produce this year.

"We feel the market is very interested in SCR now because we have a LaRio," said Federico Curti. "Customers have said to us that I came to you because you have a LaRio. The market is happy we have a LaRio; it has helped us change our approach to the market." ♦

Sargodah Cloth Processing Mills acquires first MS LaRio in Pakistan

Sargodah Cloth Processing Mills Ltd based in Faisalabad has placed the order for the first LaRio to be installed in Pakistan. This state of the art single pass machine is with 210 heads for an initial production of 40,000 to 60,000 metres per day. The machine has already been shipped and is in the process of erection and commissioning with the production expected to start end of November 2017.

According to Mr. Khalid Aleem, Director Business Systems International (BSI), this is indeed a milestone for Pakistan's textile printing industry. The teams of BSI and MS Italy shall be present at DPS World Exhibition at Lahore Expo Centre from 20th to 22nd Oct 2017 to meet and greet their customers. ♦