

Top Quality to Win the Global Challenge

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Fi. Ind. Holding owns diverse companies in the mechanical sector. Three in the mechanics textile sector: MTS S.p.A., Jaegli-Meccanotessile s.r.l. and Reggiani Macchine S.p.A.

Reggiani Macchine S.p.A. is a world leader building machines exclusively in the textile sector for the last 50 years. This extensive experience in the textile sector makes Reggiani Macchine S.p.A. a trustworthy partner to the most important textile manufacturers at a world class level.

Reggiani Macchine S.p.A. values strength in innovation and a high quality product, industry standards are benchmarked by our initiatives and our after sales support is unequalled. We have successfully installed 1000 rotary printers and 400 flat screen printers.



Figure 1. Reggiani Macchine S.p.A. rotary screen printing machine

A New Age in Textile Printing

The last few years have brought substantial changes to textile markets globally, some major changes include demand for flexibility, customised production at lower costs, higher quality and quicker turn around times.

Responding to customer demands Reggiani Macchine S.p.A. has invested in innovation and is delivering a digital solution to compliment our traditional machines, this effort is a natural response to changing market demands. An integrated and global answer, merging technology and tradition to complete the textile production process.

Digital Printing Solution

Our Digital printer which we call **DreAM** allows quick sample production which can be easily repeated on a traditional press reducing sampling costs and effort. Short run production can be carried out on the DreAM

and large production on the traditional machine meeting in perfect harmony and simplicity.

To reach this objective Reggiani Macchine S.p.A. searched for world class partners to collaborate in this project, deciding on Scitex Vision as a partner to supply the Aprion digital print heads and Ciba SC to supply inks and research. This partnership has been operational since December 2000 and has after 2 two years delivered a highly innovative textile printing machine.



Figure 2. Reggiani Macchine S.p.A. DReAM printing machine (Prototype 1)

Dream Design Overview

The DreAM printer has a width of 1600 mm, a maximum speed of 300mq/h and a medium speed with optimum quality of 150mq/h; the print resolution is 600x600 dpi with 6 colors. The available inks are acid, reactive, pigment and disperse.

DreAM is a reality, in December 2002 we presented the printer to the international printing community with great success.

Below are a list machine characteristics:

The Entry

The fabric enters the printer on roles which guide its speed and predefined tension. The tension is regulated by a cylinder while alternatively feeding the machine with fabric which is then glued to the transport blanket with permanent glue. The fabric is kept firmly in place.

The Printing Phaze

The printing head group moves across the textile at variable speeds. The head height is adjustable from 0 to 40 millimetres which permits the printing of textiles, leather and other products. The heads are fed ink from both sides to guarantee the greatest ink distribution. The ink circuits of all six colors are continually circulating

through a system which filters through a microfilter and degausses to guarantee the efficiency of the ink systems and the nozzles.



Figure 3. Reggiani Macchine S.p.A. Fabric feed

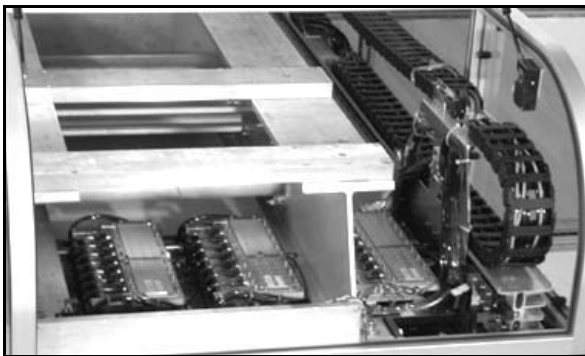


Figure 4. Reggiani Macchine S.p.A. Aprion print heads

The Blanket

The continues blanket is constantly tense and monitored. The advancement of the blanket is managed by specially designed motors and an encoder to guarantee the precision to 1 micron. At the end of a print cycle the blanket is washed with a brush and water and further dried magnetically. The maximum water consumption is 300 litres/hr.

The Dryer

A transporting belt moves the fabric through a group of regulated electrical hot air dryers. This process allows for the printed fabric to be dried and finally rolled for steaming and washing.



Figure 5. Reggiani Macchine S.p.A. Dryer

The digital printing process developed by Reggiani Macchine S.p.A. offers an enormous ecological advantage when compared to traditional printing. In fact the colors used are notably purer and there is a high level of fixation when compared to traditional printing, which means much less ink is used (15gr/msq); 10 times less than traditional printing. There is also a notable reduction in energy and water usage.