

**SAVIO AT SHANGHAITEX 2011**  
**SHANGHAI, CHINA 14-17 JUNE 2011**  
**HALL E1 - STAND E01**

### **Savio implements automation**

Innovation is a key factor to operate successfully in any market. Today, textile industry companies aim to strengthen the existing product lines presenting new value-added products to cover a wider market by diversifying their offer. Particularly, yarn manufacturing industries aim to use completely automatic machinery from the opening lines to the finished product. In addition, the today's scenario, besides production cost increase, shows a crescent lack of operators for textile mills. This difficulty to find personnel is due to the industrial development in other sectors, where working conditions are generally better and more attractive. The solution to increase productivity and reduce production costs is to implement the automation in the production process. The raw material, power and labour costs are not under the user control. Hence to reach that target, textile mills have the possibility only to intervene on manpower, reducing the number of operators, on utility cost by power saving, on quality improvement and high production by using state of art machinery.

In the last couple of decades, textile companies have accomplished a certain level of process automation by upgrading older machinery and equipment with newer electronically based machines. These automatic machines are having a positive impact on quality, productivity, overall machine efficiency and costs. Upgraded textile mills could then create new opportunities to penetrate into new markets and improve their high value-added products. The ultimate goal seems to be the fully automated textile mill where quality is maintained consistent, manpower and energy consumption are reduced and the manual error is avoided.

Savio has responded to the increasing requirements of automation by implementing and presenting fully automatic machines both in the winding and in the twisting sector. In the winding sector, besides the model with manual bobbin feeding and manual package doffing, Savio offers a wide range of winders with automation devices such as:

- ORION SUPER L automatic winder with manual bobbing feeding and automatic package doffing, manufactured in Chinese plant "Savio (Shandong) Textile Machinery", which is particularly designed for the local market in order to meet the high yarn quality demand together with high production output, reduced energy consumption, maintenance and investment.
- POLAR E automatic winder with automatic bobbin feeding and automatic package doffing.
- POLAR I DLS automatic winder linked directly to the spinning frames where bobbins are uninterruptedly moved from the ring-frame to the winder. The POLAR/I DLS has a direct feeding of the ring frame bobbins thus practically becoming an extension of the ring frame itself, ensuring total free flow of the materials.

Even in the two-for-one twister machines, Savio has achieved the maximum automation possible with the new generation of twisters, SIRIUS. This machine is available in two versions: the mechanical one and the electrical one (**ElectronicDriveSystem**). Sirius EDS model has independent motors and inverters that allow you to adjust all operating parameters through the interface of a PC. This innovation comes from electronic knowledge which Savio already used in other sophisticated products. The main impact of this innovation is to decrease strongly the machine set-up time, thus reducing the number of operators for each machine, while introducing a simple and direct way to change any setting.

### **Savio machines on display at Shanghaitex 2011:**

#### **POLAR E**

Automatic winder with automatic bobbin feeding and automatic package doffing. Ring spinning frame bobbins collected in a free standing box are loaded on the lifting forks of the hopper. Automatically and according to the machine requirements, bobbins are then loaded into the hopper tank. The consistent delivery is ensured by a self-adjusting vibration frequency device. Bobbins are then placed on the Flexitray (peg) to be transferred to the

preparation station. The peculiar Flexitray design allows a precise centring of the bobbin on the peg and a perfect positioning with the yarn path.

Each bobbin placed on Flexitray is automatically moved to the “yarn finder station”, which has the target to insert the yarn thread into the upper tube hole. This station prepares in this way the bobbins for the following winding process. After the winding, each Flexitray with empty tube returns back to the hopper, where tube is removed by the Flexitray and unloaded in a separate box. All the above mentioned operations are automatically made and “operator free”.

Yarn package once it reaches the set dimension/meterage, is automatically removed by the travelling doffing trolley. Particular attention has been given to the suction system which represents the highest portion of the energy in the winding process. The motor fan, controlled by the machine PC through an inverter, adjusts its speed automatically in accordance with the actual working conditions and parameters. The yarn waste is collected in a separate filter box located in the machine headstock. The same fan provides also the vacuum to unload the travelling blower waste, once the blower reaches the proper discharge pipe also located in the headstock.

---

### **ORION SUPER L**

Automatic winder, manufactured in our Chinese plant “Savio (Shandong) Textile Machinery”, is particularly designed for the local market in order to meet the high yarn quality demand together with high production output, reduced energy consumption, maintenance and investment. The Orion Super L with manual bobbins feeding and automatic packages doffing, completely controls all the parameters of the winding process by the main PC. Machine is provided with fully automatic suction system which is located inside a new designed headstock. The motor fan, controlled by the machine PC through an inverter, adjusts its speed automatically in accordance with the actual working conditions and parameters. The yarn waste is collected in a separate filter box located in the machine headstock. The same fan provides also the vacuum to unload the travelling blower waste, once the blower reaches the proper discharge pipe also located in the headstock.

---

### **SIRIUS ELECTRONIC DRIVE SYSTEM**

The version on display is Sirius EDS model 201A. The pot size allows a feeding package of 155x141 mm and covers counts from English Ne20-2 to finest counts. In case of blends with polyester or very fine cotton yarn counts, the ballon control pot can be easily removed in order to transform the process into a “free ballon” configuration. Sirius can be equipped with different types of pots AR-A-BR-B-C depending on yarn counts and spindle gauge, which is either 200 or 250 mm. Spindle speed up to 13.000 rpm depending on pot size with any take up conicity. Spindle drive and geometry are designed to achieve the maximum energy saving and spindle is also equipped upon request of the pneumatic threading device. The EDS uses three independent motors to drive, respectively spindles speed, take-up (overfeed and drums) and thread guide movement. An electronically control links the speed ratio among the various motors, guaranteeing in any moment the twist evenness, both during normal running conditions and start/stop phases. The main motor exclusively drives the spindles, and is the benchmark for the other two motors.

**Contact:**

**Mr. Paolo Puntoni, Marketing Manager**

e-mail: [p.puntoni@saviospa.it](mailto:p.puntoni@saviospa.it)