

SAVIO SOLUTIONS SUPER FINE YARNS

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#SUPERFINE COTTON AND WOOL YARNS

After linen and wool, cotton is the oldest textile fiber. Cotton is the most popular fabric in the world, economic, very versatile, it perfectly absorbs dyes. There are cottons of different qualities according to the origin. The most prized is the Sea Island, with a long silky fiber, which is used for the most refined garments.

The cottons are classified according to the count, while the length of the fiber determines the quality: the longer it is, the shinier, resistant and precious the cotton is. The length of the fiber can measure from less than 20 to more than 40 millimeters. The variety called Superfine St. Vincent reaches 50 and 60 millimeters. Egyptian cotton also called Jumel or Moho is characterized by shades of color ranging from yellow to brown. Peruvian cottons (Pima), as prized as Egyptian, have the appearance of wool so they are often used in a mixture with this fiber.

Egyptian cotton has been renowned for centuries for its preciousness. Giza 45 is "The Queen" of all types of Egyptian cotton. The fibres of the Giza 45 cotton production have an extraordinary staple length that easily surpasses 36mm, and a unique uniformity index of 88.5%.

Furthermore, what makes this cotton exceptional amongst all extra-long staple cottons is the fineness of its fibres on average 2.95 microns. To obtain the finest yarn counts like 2/200s, 2/240s, and 2/300, mills have to be very selective and select those with fineness to 2.80 microns.

Despite its fineness, the strength of the Giza 45 fibre remains high, about 44.3gms/tex which is similar to that of less fine cottons like Giza 88.

Fine wool is used for high-quality, soft-handling fabrics and lighter-weight knitting yarns. Superfine, ultrafine and extrafine wools are highly valued by the world's leading fashion houses. Superfine wools are wools with an average fiber diameter below 17 micron, fine wools are from 17 to 19, and above 19 are ordinary wools.

A traditional but still very common method of indicating wool mean fiber diameter is the "**Super S**": higher numbers indicate lower mean fiber diameter.

Superfine wool fibers are softer and smoother to the touch than coarser wool, but that is not all.

At equal yarn count there are more superfine wool fiber in the cross section compared to normal wool, this makes the yarn stronger, softer and more even. With finer fibers it is possible to spin finer yarns, and with finer yarns it is possible to weave lighter fabrics, good for all seasons.

SAVIO SOLUTIONS FOR SUPER FINE YARN PROCESSING

MANY YEARS OF EXPERIENCE AND A CLOSE COLLABORATION WITH CUSTOMERS HAVE ALLOWED SAVIO TO OFFER SOLUTIONS FOR THIS NICHE PRODUCTION OF FINE AND VERY FINE YARNS. "MULTICONE" TECHNOLOGY AND SIRIUS TWISTING MACHINES ARE ESPECIALLY ADDRESSED TO OUR CUSTOMERS PRODUCING PACKAGES FOR DYEING AND VERY FINE COUNTS, FROM NM 200 AND ABOVE.



MULTICONE THE DIGITAL YARN LAYERING TECHNOLOGY

Available on

Eco PulsarS Plus
Polar Evolution



The different downstream processes need a wide flexibility in the wound package construction, to optimize its specific efficiencies. Cones for dyeing, warp, weft, knitting and twisting require completely different formation characteristics in terms of geometry, shape of the edges and density. Savio Multicone electronic thread guide system is now the solution to achieve flexibility in package formation. This solution guarantees precise and controlled filing of the yarn, especially in the areas of the package edges, where the dynamics are more critical because of stroke inversion effect. In case of very fine single cotton yarn or finest wool, from Nm 200 and above, for dyeing purposes, whenever the package arm counter-weight values need to be severely controlled, the machine can be equipped with the optional C.A.D. (Computer Aided Density).

MOISTAIR® SPLICER FINE COTTON SPLICING

Available on

Eco PulsarS Plus
Polar Evolution



A common problem faced by the stretch fabric manufacturers is the breakage of the yarns during production. Savio offers a new splicing technology, combining air and water, which has given perfect results in this area.

MOISTAIR® splicer gives the best performance with elastic core yarns. MOISTAIR® is an innovative air splicer using a very small quantity of water (spray). It is endowed with a water valve with a dosage setting to moisture the splice. Suitable for almost all kind of short and long spun yarns, with the exclusion of plied cotton, high twisted wool yarns and linen. The MOISTAIR® has delivered superior performances on TENCEL® and fine counts fabrics

Main application range:

- Short and long spun yarns
- TENCEL®
- Elastic core yarns
- Very fine cotton yarns
- Coarse and slub yarns
- Dual core yarns

HEAT-SPLICER FINE WOOL SPLICING

Available on

Eco PulsarS Plus
Polar Evolution



The consolidated experience on the splicer air technology in combination with the use of the heat, guarantees a final splice with excellent appearance, high and consistent strength even with difficult yarn structures, different blended materials and high twisted yarns.

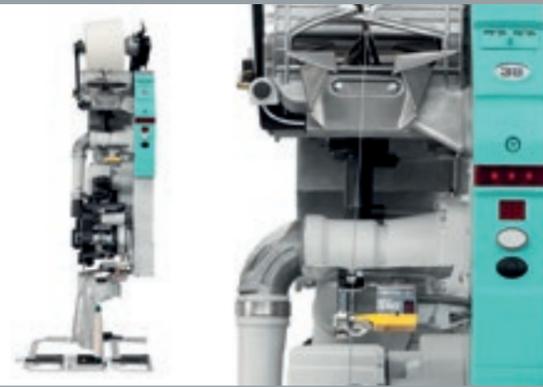
Main application range:

- Carded wool coarse counts
- Mule spun yarn
- High twist yarns
- Wool 100% and blends

C.A.T. COMPUTER AIDED TENSION

Available on

Eco PulsarS Plus
Polar Evolution



The winding tension is detected continuously by the Tensor, which interacts with the yarn tensioner device, through the machine PC, in order to adjust the load on the yarn as required. The Tensor, being positioned just before the drum, detects online the real winding tension. The sensor does not have any movable part and performs as “anti-wrap system”.

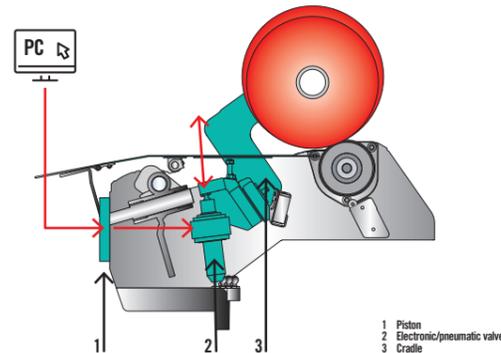
Tensorflex

In presence of elastomeric yarn blended with wool/cotton, the tension values must be diversified during the package formation to ensure a perfect shape.

C.A.D. DENSITY CONTROL (OPTIONAL)

Available on

Eco PulsarS Plus
Polar Evolution



Beyond the winding tension control, the package density and formation depends on the contact pressure of the package on the drum. The load of the package on the drum is controlled by an “electronic/ pneumatic” system, which adjusts the pressure of the counterweight piston, in accordance with the density value required for the package. Special yarns (elastomeric and very fine yarns), especially for dyeing packages, may require a very severe control of package density.

TWO-FOR-ONE TWISTING

Available on

Sirius



Savio's DUO POT system can be considered the real direct twisting of overlapped packages, it can be considered an “all-in-one” assembling and twisting.

This allows to obtain a shorten production cycle by using standard conical packages.

Consequently, the constant tension of unraveling the two independent cones and the absence of tangles are ensured, reducing to a minimum the defects and irregularities of the twisted yarn.

The yarn obtained on the Two-for-One Twister is generally more voluminous, more swollen and of better appearance.

These features improve the downstream production process, that is a better wearability in knitwear and dye uniformity.

INNOVATIVE AND DIVERSIFIED PRODUCT PORTFOLIO FEATURING BEST-IN-CLASS TECHNOLOGICAL KNOW-HOW

Since 1911, Savio has always looked to stay ahead of competition and predict important development across the global textile industry. As a leading supplier of winding machines for manufacturing yarns from short-staple fibers, Savio offers products and services that are tailored to satisfy every customer needs. Savio offer consistent mix of quality and efficiency, providing state-of-the art technological solutions for yarn quality control and allowing best value-for-money proposition.



COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =
= ISO 14001 =



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We reserve the right to modify the characteristics of the machines described herein without prior notice. The data given in this brochure are not intended as a guarantee. Savio machines are equipped with safety devices in compliance with existing regulations.