

## Caipo: Innovative and technologically updated system and solutions

### Caipo Filopiu - Core spun yarn

The Caipo Filopiu device for cotton and wool spinning frames has been designed to meet the present needs of the market, which require an elastane fiber or other types of filament in the traditional spinning cycle. Caipo with more than thirty years of experience in developing the systems for slub yarn, has manufactured **Caipo Filopiu** device, that allows the spinner to cover the elastane fiber directly, when the yarn is being spun on the spinning frame. The Caipo Filopiu device differs from the other existing systems due to following unique features:

**Perfect centering of elastane fiber:** When the yarn comes out of the feed roller, the yarn usually has some casual oscillations compared to the ideal central point of the roller. However, with Caipo system elastane fiber can follow these fluctuations and stay always inside the yarn. Due to patented insertion system, designed by Caipo, the correct angle of insertion compared to the roller is ensured.

**Electronic control** of the unwinding speed of the feed rollers of the elastane fiber is another special feature. The calculation of the draft, according to the percentage of elastane fiber to be inserted in the base yarn and the calculation of the percentage of elastane fiber, according to the required draft is also controlled electronically.

#### **Other main features of Caipo Filopiu system are:**

- ❖ **Preliminary tension** of the elastane fiber, to be set electronically with a reduction of the insertion speed from 1,0 to 5,0 times compared to the base yarn, adjustable at pitches of 0,01, without gears change.
- ❖ **Automatic control** and regulation of the preliminary tension of the elastane fiber.
- ❖ **Optimized run** of the elastane fiber, in order to minimize the friction and to allow an optimal covering of the same.
- ❖ **Simple regulation** of the system done by means of a keyboard on the electronic control unit, which allows the operator to quickly change the article and the production of various sampling, with different yarn tensions.

#### **Options include:**

- ❖ **Control sensor of the breakage elastane fiber** integrated in the elastane guide blocks of filament centering (spindle by spindle).
- ❖ Device stop roving motion synchronized with the sensors of the filament breakage.

### Caipo Fancy Tops

The special draw frame Caipo Fancy Tops offers many possibilities to create fancy yarns of high quality, without introducing additional spinning machines or modifying those already existing.

It is now possible to produce and extremely wide range of fancy yarns, by varying, as one likes, the percentage of colored injections, constantly or by tearing with the injection of slivers or roving having a weight from 0.5 to 8 grams per meter. Therefore, the customer can have the constant controlled mixing of different types of fibers and obtain slivers of constant weight and the injection by tearing of cotton cut slivers or roving on wool cut slivers, in order to obtain small slubs on yarn and short colored injections, having a length not lower than the base fibre.

The slivers produced with the fancy tops can be spun directly on the spinning frame or on hollow spindles, in order to obtain an exclusive product. The yarns obtained have many different end applications, such as hand knitting, hosiery, furnishing, women clothing, carpets, etc.

In this context, the simple programming language also ensures that a large number of programming steps are available for each colour, which allows a virtually unlimited range of possible variations. All programs can be modified quickly to get the desired shade of the blend.

### Caipo Spinntester Creative

The Caipo Spinntester CREATIVE can process multi-count and multi-twist slub yarn, in addition to the core-spun, (elastic and rigid and semi rigid yarns), Siro yarns (bicolour and bi-components) and Combined yarns such as elastic slub yarn and bicolour slub line.



Caipo Spinntester Creative.

### New CSTU - Caipo slub and twist unit

Caipo presents new innovative and technologically updated system, which is the result of decades of experience in the spinning sector for the production of slub yarn (coarse and fine yarn) - Multi-count - Multi-twist with performances at production level and of very high quality. The CSTU can be applied to any type of ring frame and open-end, both to new machinery and to the existing one.

Yarn types that can be obtained:

- ❖ Normal.
- ❖ Slub yarn (coarse and fine).
- ❖ Multicount with twist variation.
- ❖ Multitwist.

Direct control of feed shafts (top and middle), besides the production of slub yarn, the draft can be set too. The delivery shaft (front roller can be controlled, by adding a motor to set the twist and to change it according to the count processed. Motors digital-control (through CAN-BUS), allowing a very high precision on draft and twist control.

Draft and twist electronic control, by eliminating the different pulley ranges. CSTU internal memory containing 10 programs of 500 lines each. CAIPO-MEM solid state cartridge, containing 30 programs of 500 lines each.

### Caipo CSTU-Evaluation

The Caipo CSTU-Evaluation is a software module for the computer analysis of slubs production program.

This package carries out the following general functions: Programming and storage of new slub programs with the same language of CSTU slub device.

- ❖ Function of programs conversion from CSM-90 to CSTU and vice versa.
- ❖ Programs recording on CAIPO-MEM5 cartridge for its immediate execution on CSTU.
- ❖ Program CAM analysis with calculation of the following parameters:
- ❖ Slubs per meter – theoretic CV due to the programmed effects – base count to be preset according to the final count required – necessary total draft.
- ❖ Graphic simulation of slubs distribution on final fabric obtained with slub yarn, used in weft, in order to avoid unpleasant patterns or for the research and creation of special effects.◆