



Fadis is the leader in Elastomeric Yarn Covering Line

57 years to celebrate the oldest company leader in the production of precision winder machines, still owned and run by the same family!

In the last years Fadis has seen an increase in turnover of more than 100%, with a twenty-seven million euro turnover in 2016, and the forecast for 2017 of over € 30 million in 2017. Fadis is the only company in the world to offer a complete line of machines for preparing yarn for all dyeing processes, be it in form of bobbin, hank or FAPP™/Muff. Customers have chosen Fadis cycle (from start to end) because Fadis has become the reference partner who can advise and personalise the machines that best fit the customer's needs.

Fadis was founded in 1960 with the purpose of manufacturing textile machines such as rewinders, soft winders, assembly winders, hank to cone winders, reeling machines, spooling machines and intermingling machines, for all types of yarns such as cotton, wool, silk, artificial fibres, synthetic fibres, mixed fibres, intermingled yarns, fancy yarns.

Fadis is present in more than 70 countries all over the world with a focus on innovation, research and development of new models, new products, new materials and new technologies.

The 100% made in Italy production is synonymous of quality, innovation and safety, guaranteed by the National Register of Italian Manufacturers.

Fadis was the first company in the world to introduce the air covering technology in 1987, together with Heberlein (of which HFP, the name of the first model, derives: **Heberlein Fadis Process**).

The **SINCRO MULTIPLA AIRJET**, electronic yarn guided precision machines represent the fifth generation of this reliable range and have been designed for winding speeds as high as 1.400 m/min.

The air covering process consists in covering an elastomeric yarn with other



continuous textured yarns. This process takes place through an air flow controlled by a special jet which opens the fibre of the covering yarn and closes it around the core (Elastane).

As one can well imagine, this is a very delicate process where both the feed tension and the quantity of yarn entering the jet must be perfectly controlled so as to guarantee a homogeneous result of the intermingling points and of their strength.

To solve this problem, Fadis, once again first in the world, has developed a technology that allows to install and integrate up to 4 electronic "Tens Control™" on-line tension devices on each spindle.

Thanks to this innovative and unique technology it is possible to install, on request, one electronic "Tens Control™" on-line tension device for each feed ply coming from the upper creel (up to 3 Tens Control™ devices per spindle) in order to set and constantly adjust on-line the tension of each ply entering the intermingling process, thus avoiding the continual interventions of the operator to manually adjust the tension of each feed ply. This guarantees a constant and perfect intermingling quality.

No less important is the final winding tension control, because this can strongly influence the yarn elongation and the bobbin hardness, that, if irregular, could create quality problems in the subsequent production phases.

Thanks to the installation of electronic "Tens Control™" on-line tension device

after the intermingling jet and the second feed roller, it is possible to assure a constant control and adjustment of the take-up tension, without any manual intervention of the operator.

The perfect combination of Fadis electronic on-line tension control (feed + take-up) ensures the best quality, reliability and efficiency in the air-covering process.

- ❖ Using the "Brushless motor" and "Step motor" technology (from 6 to 11 for each working position, depending on the chosen model) ensures perfect synchronism of the rollers' speed and perfect control and stabilization of the tension of the various yarns while ensuring significant energy savings.
- ❖ The machine has been designed with special attention to the yarn paths and to their angles, two fundamental aspects for reaching the intermingling jet device with a precise and regular tension that allows perfect intermingling.
- ❖ Last but not least, the technology of electronic yarn guide with precision crossing is very important allows a perfect and controlled yarn laying on the bobbin, which ensures excellent yarn unwinding during the subsequent processing phases.

In 2011 Fadis has revolutionized the world of the spooling machine, presenting the new SINCRO SPRINT with its new concept of a compact and efficient double side spooling machine, equipped with electronic yarn guided, precision crossing and independent winding spindles.

Complete with on-line tension control, it has been designed for winding speeds up to 1.750 m/min.

The innovative design is structured in such a way as to offer the maximum yield; it allows to use different types of flanged bobbins, both in length and diameter allowing to optimize the productivity in the subsequent production phases. ◆