## ULTRAFEEDER & UNICO

## **Universal Tension Feeding Control**

Universal System for the precise measuring/feeding and yarn tension control



















#### Led Keys

Ergonomic keys for easy operations and sinchronized alarm signaling (green leds OK, red leds ALARM).

Separator
Adjustable yarn coils separator
which allows the utilization of
every kind of yarn.
Self-threading ceramic eyelets

for an easy yarn insertion.

Display

Large graphic display which allows a quick real time reading of all necessary information. Function keys for an easy access of the system menu.

#### UNICO Device

Universal Yarn "Storage and Release" Device, combinable with ULTRAFEEDER for specific knitting, seamless and hosiery applications.

SMART MATRIX Terminal
SMART MATRIX controller
allows to memorize, load,
visualize and control even in
graphic way as yarn tension,
speed and yarn consumption
(LFA).

# THE UNIVERSAL SOLUTION FOR YARN FEEDING CONTROL

**ULTRAFEEDER** represents the new generation BTSR solution able to satisfy the most demanding needs in socks/hosiery and large diameter circular knitting machines, seamless, flat knitting and several looms (cotton, Raschel, labelling and narrow fabrics manufacturing, ...) applications, sewing machines.

The new 'Full Digital' technology is able to realize a double control on both yarn tension feeding and yarn feeding speed, thus ensuring top performances in terms of system acceleration / deceleration dynamics, very high yarn feeding resolution measurement (0,1 mm) and drastic reduction of energy consumption.

The high motor torque at 'zero' speed, guarantees an extremely control precision even when yarns are fed at very high tensions (up to 100 gr.) at simultaneous very low speed (0,1 mt/min.), without any pre-feeding device is needed; in the same way it can guarantee very low yarn feeding tensions (0,2 gr) at simultaneous very high speed (1500 mt/min).

TOP Flexibility, thanks to ULTRAFEEDER capability to work with all types of yarns: elastomers (thin bare, covered, interlaced (11,17 Dtex), rigid yarns (nylon, cotton, wool, polyestere, ...) and technical yarns (polyester, polypropylene, ...).

### The Universal System 'UNICO & ULTRAFEEDER'

UNICO ('UNIversal tension COntrol') represents the BTSR new-concept device, combinable with ULTRAFEEDER, able to overcome the state-of-art technology and all limits of storage feeding and positive feeding devices, thus representing a revolutionary universal solution for hosiery and knitting sectors operators.

Thanks to its fully integrated electronic system, UNICO allows to dinamically compensate sudden and high yarn absorption variations, by instantaneously featuring both 'Positive Yarn Constant Tension' Control and 'Yarn Storage & Release' capabilities (BTSR® Patent).

'UNICO & ULTRAFEEDER' is a unique solution performing total yarn feeding control of all working knitting applications even in very extreme operational conditions: socks machines (patterns, terry / half terry, toe and heel, ...), pantyhose / seamless (patterns, very complex selections, ...), large diameter circular machines (jacquard, striper jacquard, ...), flat knitting machines and cotton looms.

#### **Technical Features:**

- Programmable tension 0,2 gr. ÷ 100 gr.
- Feeding speed till 1500 mt/min (@ 24V/36 V).
- New 'APPLICATIONS' function: directly visualize and select the application of interest (socks, hosiery, seamless, medical, knitting, Raschel, ...), avoiding any manual parameter setting operation by the user.
- INC/DEC function: possibility to INCrease or DECrease gradually the yarn tension with a resolution of 0,1 gr.
- LFA function: exact yarn consumption measuring (Length Yarn Absorption) with resolution of 0,1 mt.
- LFA Self-Learning function (in combination with SMART MATRIX Terminal): yarn consumption self-learning, control and automatic compensation; automatic machine stop in case of LFA error bigger than the programmed tolerance (BTSR® Patent).
- TARGET function: possibility to set a production target in meters with the relative automatic machine stop.
- New AUTO OFF-SET Function: automatic loading cell self-calibration (BTSR® Patent).