

ACT-MULTI

Yarn Tension Control for Heat-Set Machines

INFO LEAFLET



■ General description

The ACT-MULTI system is the perfect complement to heat-set machines.

Thanks to the individual yarn tension monitoring and yarn tension control system, yarn tension consistency throughout the entire process inside the heat-set machine tunnel can be ensured.

The system is designed to automatically control the tension of each yarn according to a predefined reference tension.

The system operates independently for each tunnel and the system also includes a machine stop function in the event of yarn breakage or if yarn tension operates outside the preset stop limits.

■ Features and data

- Sensors are available with 1, 8, 10, and 12 channels
- Each channel includes a LED to indicate the yarn fault position; the LED can also display learned positions and out-of-range conditions
- The system monitors all yarns throughout the entire working process and indicates the individual tension of each yarn
- The working ranges are 300 or 600cN

■ Advantages

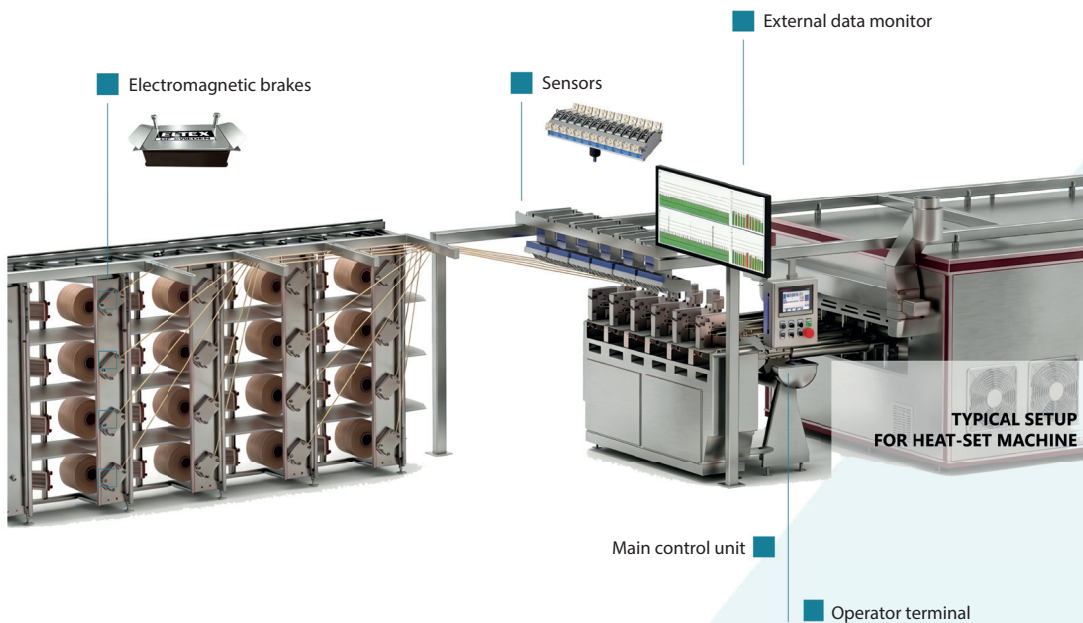
- Ensures correct yarn tension before entering the tunnel to guarantee yarn quality throughout the process
- Fast system response allowing highly precise yarn tension control
- Integrated yarn break detection
- The system includes an external display for the operator to quickly, clearly, and easily monitor the entire system
- Fast learning of active yarn positions when new orders are introduced
- Tension and stop values can be adjusted independently for each tunnel
- Sensor parameters can be configured for different yarn groups (e.g. different settings for yarns in each tunnel)
- Easy installation, simple maintenance, and self-diagnostics
- Automatic addressing of all system components
- Easy system configuration and modification
- Simple connections via modular connectors
- Robust sensors with metal housings
- Smartly designed brakes that require minimum maintenance



■ ACT-MULTI Typical Heat-Set Application

Multi-channel sensors are used to detect yarn tension, and a brake located in front of each bobbin adjusts the tension individually according to a reference tension.

This entire process can be monitored through an external screen, which operates continuously.



■ Operator terminal

The touch screen operator terminal features a very user friendly interface. Information about the number of yarns in operation and the positions of yarn faults is clearly displayed. Once the settings have been configured, the operator only needs to enter learn mode when a new order is started. Through the operator terminal, it is possible to set the desired tension for each heat-set tunnel, as well as other settings related to the yarn brake function.



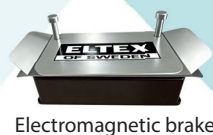
■ Main control unit

The main control unit communicates with the sensors and the operator terminal. It processes all data and sends stop signals and visual indications in the event of a yarn fault. It is also responsible for transmitting information via the Ethernet port to the ACT control system. All sensors are interconnected through a proven intelligent bus system. The MCU is designed to operate independently for each tunnel, with all inputs and outputs functioning simultaneously.

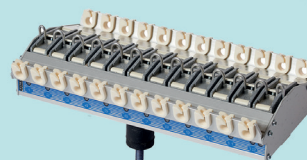


■ ACT System

The system collects all individual tension values measured by the sensors, compares them with the set reference value, and increases or decreases the brake force to achieve very stable yarn tension throughout the entire working process.



Electromagnetic brake



Sensor 12 channels



External monitor for the operator with all tension values shown



Södra Portgatan 19, SE-283 50 OSBY, Sweden | Tel: +46 479 536300 | Email: info@eltex.se | www.eltex.se

Eltex U.S., Inc.
13031 E. Wade Hampton Blvd.,
GREER, South Carolina, 29651, USA
Tel: +1 864-879-2131
Email: sales@eltexus.com

Eltex Manufacturing Ltd.
Railway Road,
TEMPLEMORE, Co. Tipperary, Ireland
E41HX65
Tel: +353 504-314 33
Email: info@eltex.ie

POLSA-ELTEX, S.L.
Zamora, 103 – entlo 3o,
ES-08018 BARCELONA, Spain
Tel: +34 93 309 00 17
Email: polsa@infonegocio.com

Eltex China (Beijing) Trading Ltd.
Rm. 1808, Huanyuanzhixing,
Chaoyang Dist,
100020, Beijing, P R China
Tel: +86 10 6506 6468
Email: chuan.jiang@eltex.cn
www.eltex.cn