'TRIO CONTROL LOOP' Solution (BTSR Patent)
Get the most accurate Fiber Feeding Tension Control

From the creel system (through BTSR DIAPER FEEDER device 1) up to the machine fiber insertion point through (BTSR TMS 2).

HOW IT WORKS

1 DIAPER FEEDER Fiber Feeding Device
- Controls and adjusts the output fiber feeding tension value according to the T1 Set-Point value, thus automatically compensating Constant Tension from full to empty package (First Loop).

2 TMS TENSION AND METERING SENSOR Device
- Measures the T2 fiber feeding tension value and downstream fiber consumption C and sends information to SM-DIN MULTILOOP Unit.

3 SM-DIN MULTILOOP Management Unit
- Manages and controls all units.
- Receives TMS Tension and Metering Sensor information.
- Adjusts DIAPER FEEDER Set-Point tension value, by automatically compensating both the friction arising upstream the TMS sensor during the fiber path (Second Loop) and the TMS Sensor downstream extra-frictions (Third Loop) by guaranteeing constant fiber consumption C.
- Ensure the precise desired fiber feeding tension value in the last fiber machine insertion point.

New TMS Tension and Metering Sensor
Fiber Feeding ‘Tension and Metering’ measurement capability in one single device

- New design with minimization of static contacts bringing significant reduction of spandex stress and breakages
- Settable Quality Control Setting levels (WARNING - ALARM - TRIO-LOOP Mode setting)
- TRIO-LOOP Mode Setting - Precise ‘Metering’ Capability, thus contributing to keep the desired feeding tension value in proximity to the insertion point of the fiber in the machine
- A new diagnostic and Advanced Control Tool
- Retrofit possibility both in terms of easy replacement of previous generation TSSS Tension Sensors and upgrade from DUO-LOOP to TRIO-LOOP BTSR Patented Fiber Feeding Control System