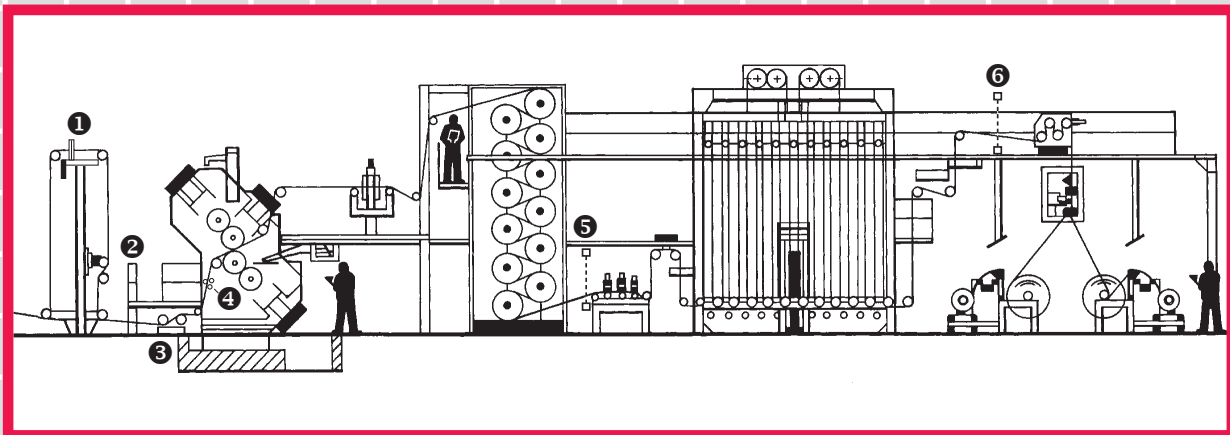


SYSTEM 7001

Width Control and Shrink-down Compensation
for Fabric Calender Lines



SYSTEM COMPONENTS

- | | |
|------------------|-------------------------------|
| ① Center Guide | ④ 3-Finger Spreader |
| ② Pre-Spreader | ⑤ Post Calendar Width Monitor |
| ③ Final Spreader | ⑥ Pre-Windup Width Monitor |

Application Description

Fives North American's Guiding Systems offers a width control and shrink-down compensation system for Fabric Calender Lines. Through the combination of center guide alignment, full width and edge spreaders, width measurement, and a dedicated master controller, targeted wind-up width control is achieved. The system utilizes FivesNA's proven mechanical designs for guide frames and SpreadMaster™, as well as industry leading, proprietary designed detectors. An operator interface and standalone PLC controller integrates the various devices to provide uniform control and optimal results in throughput and yield.

System 7001 is a TOTAL SYSTEMS CONCEPT which compensates and adjusts for variable transport lag (hunting action) inherent in fabric calenders. Based upon extensive application knowledge, expertise, and experience, North American provides a solution that is user friendly and delivers results. Contact your Fives North American sales engineer for an evaluation of your specific needs and our recommendations.

Control System Description

The Control System integrates all mechanical equipment into an interactive control scheme controlled by a dedicated PLC. Utilizing Zero-Reset™ technology to achieve stable and accurate control, the system assures correct wind-up width, minimizes waste at splices and order changes, and provides for highest quality material with minimal operator involvement.

System Components

1. **Center Guide** – Electro-mechanical centerguide system assures fabric enters spreading devices on machine centerline for uniform end count. Precise centerline control and fabric positioning is assured through spreader feedback incorporated into the interactive Control System.
2. **Pre-Spreader** – SpreadMaster™ electro-mechanical double bow roll spreader allows the Final Spreader to perform in the device's optimal performance range to achieve minimal disruption to end count. Utilizing Zero-Reset technology and interactive feedback from Final Spreader, the Control System provides positive and stable control.
3. **Final Spreader** – SpreadMaster electro-mechanical double bow roll spreader achieves the desired compensated fabric width for final entry to the calender or feeds the 3-roll edge spreader a consistent width for edge end count manipulation.
4. **3-Finger Spreader** – SpreadMaster dual electro-mechanical 3-finger spreader spreads the cords on the edges of the fabric to achieve a more uniform end count on difficult fabrics.
5. **Post Calendar Width Monitor** – Digital Sensing System (DSS) provides width measurement feedback to Control System to continuously adjust the final spread width. Fabric shrink-down compensation is achieved providing optimal width accuracy and maximum consistency.
6. **Pre-Windup Width Monitor** – A second Digital Sensing System (DSS) provides pre-windup width measurement to the control scheme. The Control System assures correct width at windup, reducing shrink-down compensation and improving quality and yield.

FEATURES

- Wide field of view digital sensors provide stable spreading control with optimal speed of correction.
- Electro-mechanical actuation for maximum reliability and minimal maintenance.
- Ability to enter product codes to facilitate optimum system performance with minimal operator involvement.
- Out-of-spec material at splices and order changes is minimized with automatic return to memory position.
- Zero-Reset technology provides for stable performance.
- Total integration of all mechanical devices through the dedicated PLC provides the highest performance and precise control.
- Graphic operator interface with alarms provides system feedback to the operator and assures consistent quality product.
- Final calendered product width information available for download to customer's quality control system and/or production data log.

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