

THERMO SCIENTIFIC TEXTILE CALENDERING APPLICATION PACKAGE

PRODUCT APP50-18

The Textile Calendering Application Package is an integral part of the core operating software for the gauging system. This application package is designed specifically for textile calendering lines.

The Textile Calendering Application Package defines basic real time measurement, network communications, data processing and operator interface functions. Optional enhancements, such as display, control and database packages, are available to expand the basic application package to a comprehensive process management system.

Embedded in the Application Package is communications support for the network. The scalable nature of the architecture, coupled with the flexibility and expandability associated with the Application Package, allows the system to be adapted to evolving process and business requirements.

Dual Gap (Two or Three) Zone Control greatly improves product quality by adjusting the process to hold product profile flat and to its average target. Nominal Control adjusts product average to a fixed target. Target Management Control adjusts product to a System calculated flexible target, while providing both low point and low average protection.

The Control ensures product uniformity and superior roll quality, resulting in quality improvement, scrap reduction, and material savings for tangible economic returns.

FEATURES AND BENEFITS

- Accommodates full line of sensors for a variety of measurements.
- SYNCRO-SCAN eliminates sensitivity to roll run out
- Supports network communications between distributed interface modules, controllers, and workstations
- Continuously monitors and pre-processes all product and process data for historical, viewing, archiving, reporting, and analysis
- Provides set of standard user friendly displays configured specifically for textile calenders.
- Defines intuitive touchscreen menu structure for accessing all system displays
- Provides platform for optional displays, control, reporting, and interface packages.
- Dual Gap (Two or Three) Zone Control options.
- Feed forward Gap Control option.
- Absolute or adaptive Preset Control option etc.



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DESCRIPTION

The Textile Calendering Application Package provides the core system software designed specifically for textile calendering uses

Network Initialization

Upon power-up of the system network, the Application Package downloads device configurations to a distributed processor. The processor is then configured for scanner data acquisition, large scale process I/O, profile control, or communications.

Scanning Sensor Support

The Textile Calendering Application Package provides full support for the complete family of scanning sensors, as well as stationary sensors. Available measurements include basis weight as well as true thickness.

Standard sensor processing features include automatic edge-of-sheet detection. Virtual sensors allow calculated properties, such as product density, to be displayed and manipulated as actual sensor data. Third party sensors can be integrated as well.

SYNCRO-SCAN couples the scanner operation to calender roll rotation in order to eliminate sensitivity to roll run out. SYNCRO-SCAN ensures that short-term machine direction variations do not appear as profile variations due to coincidental synchronization of the scanner-traversing rate and roll rotations.

Distributed Data Acquisition

The Textile Calendering Application Package provides support for distributed process inputs, which interface to the system. Communication to other modules is by means of a high-speed network. Optional links enable full integration of distributed devices, providing transparent access to controllers, PLC's and other intelligent devices from operator displays.

Intuitive Display Structure

The system is designed to allow operators to access pertinent process data with a minimum number of steps. An intuitive menu structure enables access to all process information through the touchscreen. Values and text fields are modified with a pop-up keypad or menu, which is called by simply touching the field.

The Common display header provides direct access to alarm and status messages from any display. A standard button structure exists on the bottom of each display to facilitate display access.

Platform for Process Integration

Optional software packages allow the Textile Calendering Application Package to be expanded to address full process integration. These enhancements include advanced control, display, communications, analysis, and database functions. The scalable architecture enables these advanced functions to be added incrementally, as process and business requirements dictate.

STANDARD DISPLAYS

- **Profile**
 - High Resolution
 - Zone
 - Full
 - Split
 - Zoom
 - Freeze
 - **Roll Summary**
 - Current
 - Previous
 - **Single Point**
 - **Sample Check**
 - **Trends**
 - **Billboard**
 - **Data**
- **Setup**
 - Frames
 - Sensors
 - Zone Control *
 - **Reports**
 - **Auto Control**
 - Two or Three Zone Control
 - **Recipes**
 - **Alarms**
 - **Messages**
 - **Translations**

*Optional