

THERMO SCIENTIFIC FILM/SHEET EXTRUSION APPLICATION PACKAGE

PRODUCT APP50-01

The Sheet Extrusion Application Package is designed specifically for Sheet extrusion lines and is further tailored for each specific application.

The Sheet Extrusion Application Package defines basic real time measurement, network communications, data processing, and operator interface functions uniquely suited to the Sheet markets.

Optional enhancements, such as special displays, control, SPC, third party I/O servers, etc., are available to expand the basic application package to a complete process management system.

MD Control greatly improves product quality by adjusting the process to hold product 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 Automatic Profile Control (APC) package includes hardware and software to control auto dies to achieve and maintain cross-direction uniformity of extruded sheet. APC utilizes high-resolution product profile measurements from the System scanning sensors to continuously adjust die bolts, resulting in reduced profile variations.

When coupled with Nominal Control, APC ensures product uniformity and superior roll quality, resulting in quality improvement, scrap reduction, and material savings for tangible economic returns.

The Thermo Scientific 21Plus!™ provides a platform for the integration of data and displays of optional software packages widely used in the Sheet Extrusion Industry, such as EM-3 temperature controllers, Roll Quality Management System Reports etc.

FEATURES AND BENEFITS

- Application Package provides core operating software for sheet extrusion lines
- Provides a set of standard user friendly displays configured specifically for sheet extrusion applications
- Extensive support for both mono and coextrusion lines
- Accommodates the full line of sensors for a variety of measurements
- Experience with all major makes of lines and dies
- Continuously monitors and preprocesses product and process data for historical viewing, archiving, reporting, and analysis
- Wide variety of roll report options
- Wide variety of sheet cut data
- Provides for a multitude of Link options to various Sheet Extrusion Line controls, such as PLCs
- Industry best APC control options

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DESCRIPTION

The Sheet Extrusion Application Package provides the core system software. This application package is designed to take advantage of the power of Wonderware InTouch software.

Scanning Sensor Support

The Sheet Extrusion Application Package provides full support for the complete family of scanning sensors. Available online measurements include basis weight, true thickness and discrete layer measurements, etc. Standard sensor processing features include automatic edge-of-web detection as well as neck-in compensation to account for shrinkage. Virtual sensors allow calculated properties to be displayed and manipulated as actual sensor data. Third party sensors can be integrated as well.

Distributed Data Acquisition

The Sheet Extrusion Application Package provides support for distributed process inputs, which interface to the system and communicates to other system modules by means of a high speed Ethernet Network. Optional Wonderware I/O servers enable full integration of distributed devices, providing transparent access to temperature controllers and PLCs from operator displays.

Thermo Fisher Scientific has experience interfacing to most types of sheet extrusion lines. 21Plus!™ can interface to or be the master controller for virtually any brand of sheet extrusion line.



Intuitive Display Structure

The system is designed to allow operators to easily navigate the system and access information quickly. This intuitive menu structure enables access to all process information through a split touchscreen. Values and text are modified with a pop-up keypad or menu, which is called by simply touching the field. The common display header on each screen provides direct access to the most common displays, such as, Scan, Control, Recipe, Alarm and status messages.

Platform for Process Integration

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

STANDARD DISPLAYS

- **Profile**
 - High Resolution
 - Die Bolt
 - Full
 - Split
 - Zoom
 - Freeze
- **Roll Summary**
 - Current
 - Previous
- **Single Point**
- **Sample Check**
- **Trends**
- **Billboard**
- **Data**
- **Optional*
- **Setup**
 - Frames
 - Sensors
 - MD Control *
 - APC Control *
 - Reports
- **Auto Control**
 - Machine Direction (MD)
 - Cross Machine Direction (APC)
- **Recipes**
- **Alarms**
- **Messages**
- **Translations**