Automatic Layflat Calibration

Reduce scrap or out of spec. rolls with new accuracy automation system.

Improve long term accuracy: Automation that accounts for film shrinkage / stretch

Final film width after the primary nip of a blown film line is dynamic; as the film makes its way down the line, various factors effect the actual film width as it is wound on the core. Film shrinkage and stretch occur at changing rates due to the following factors:

- Web tension
- Polymer properties
- Film gauge
- Film temperature
- Ambient temperature
- Factory pressure change

For precision width control, the layflat system must be calibrated to account for shrink / stretch. The Automatic Layflat Calibration (ALC) feature acts as a final QC checkpoint to correct the layflat system, compensating for previously uncontrolled variables.

For production where job orders change often, ALC speeds up job changes, saving time, saving scrap and keeping the roll precisely on the customers specification.

Smart Calibration

ALC is configurable to calibrate film width in the following key scenarios:

- Line start-up
- Size changes
- Hole recovery
- Layflat drift

ALC is only armed when a stable bubble is present so as to avoid false calibrations and the software can detect film curl or wrinkles as they pass over the flat width bar to avoid false calibration events.

Integration Value:

- Improved Web Width Accuracy
- Reduced Operator Training
- Minimize Scrap Production
- Enhanced Operator Safety

How It Works

Utilizing layflat information from an integrated flat width measurement bar, final layflat width at the winder is automatically calibrated to the layflat control system, accounting for film shrinkage / stretch as it makes it way down the tower to the winder. Infrared sensors on the measurement bar ensure an accurate layflat reading near the winder. This eliminates inaccurate tape measurement readings, accidents due to a tape measure getting caught in the web, and also frees up operator time and attention.

The system is available as an add-on to D.R. Joseph IBC Control Systems & LF-Sizer nonIBC width control systems.

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