LF-Sizer

Non-IBC Layflat Width Control For Blown Film Lines





When You Need Solutions ...Not Just Answers®



Managing Your Resin Costs Efficiently

The majority of non-IBC die applications today currently have no automated layflat width control capability, which means there is no effective way of controlling resin costs, or what we like to call Runaway Resin. Runaway Resin is plastic that leaves your facility without generating a single penny of revenue; worse yet, you must still pay to process that resin. The DRJ LF-Sizer helps control your resin costs by providing a fast, accurate and user-friendly layflat control system for non-IBC applications.

Benefits of Implementation

- Improves saleable production hours by eliminating bubble loss due to pin holes
- Avoids width deviation material returns
- Eliminates or reduces trim on sheeting
- Controls overall width on gusseted tube production
- Automates start-ups and faster changeovers
- Significantly tightens the width control capability, reducing scrap
- Includes management trends to validate machine and operator performance
- Available integration with data collection system
- Simple plug and play installation, functional within hours



- Bubble break detection / recovery
- Layflat alarm with relays



Home screen displays target and actual layflat values



Layflat trends viewable in 10 min, 1 hr and 12 hr periods with zoom feature

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LF-Sizer Statistical Reporting

Statistical Analysis

Operational statistics are provided for layflat control performance. Statistics include minimum, maximum, average, standard deviation and 3 sigma (this measurement tells you that 99.73% of the layflat was within the 3 sigma value – also known as process capability). You also get a real time frequency distribution of the layflat to allow you to see if process variation is centered around the layflat target or skewed low or high. This is a good quality assurance indicator.

Layflat and Sensor Trending

The layflat deviation and sensor position trends are provided in 10 minute, 1 hour and 12 hour time windows with a zoom feature to provide greater resolution. The layflat deviation trends include user configurable process limit indicators to allow fast confirmation that the process has remained within the specified limits.

How the System Works

By measuring the bubble soon after the frost line, the system can achieve the proper bubble size without waiting for the film to pass through the top nip rollers and can perform even when running gusseted film. This greatly improves width control efficiency. The LF-Sizer provides the operator with a simple color touch screen interface that allows entry of the target layflat width.

A special air diffuser is also supplied to ensure rapid inflation does not unlock the bubble from the air ring during start-up. The separate 3 speed inflation control box has adjustable fast fill, slow fill and exhaust modes of operation. Once the bubble is on size, the LF-Sizer maintains that size at all times. For size changes, the operator simply enters a new target and the bubble is sized automatically.

Shop Floor Integration

The LF-Sizer supports both RS232 and Ethernet interfaces. RS232 standard protocols are Modbus RTU and Modbus ASCII. Ethernet standard protocols are Modbus/TCP and Modbus/UDP. With an optional protocol converter, practically any non-proprietary industrial protocol can be supported.

Users can optionally integrate a Kundig Width Measurement Bar such as the FE-8 or FE-7 (shown on diagram to right) to instantly calibrate the Layflat Width.

Bubble Break Detection

The system detects if a bubble break condition has occurred - which can then send a signal to an external device, such as an extruder, to stop extrusion and prevent die drool when a line is down.







Our motto really says why we are in business. To provide our customers with solutions... not just answers. It sounds simple, but it requires a certain diligence to see a customer's problem all the way from onset to solution. Our employees and our service people have that diligence. Our company has been developing solutions for the blown film industry since 1987 and we feel our success is measured in our customer's success.

"...though it costs all you have, get understanding." That is the driving principle that pushes us to find the solutions. We continue to work on a problem until we understand it. Once the problem is understood, corrective action is possible.

Our company maintains standard working hours of 8:30 am to 5:00 pm, yet we cover the entire globe of time zones with remote office sites, remote access software tools, email, and cell phones. We use a network of technicians in the United States, United Kingdom, Belgium, Germany, India, and Indonesia to provide technical support for our customers. We have developed an assortment of training materials and self-diagnosis tools for those more experienced with process control systems. We work to make sure every DR Joseph product will integrate with our existing equipment. Every upgrade has to be an easy retrofit.

Our offices are located centrally in one of the largest metropolitan areas in the United States, Dallas/Fort Worth. With the DFW airport nearby, we have the optional ability to ship systems and spare parts as late as 9:00 pm CST and still have the parts arrive the next day. From the airport, our offices are only 25 minutes away, so customers have a short drive to our area. Hotels, restaurants, professional sports teams, and golf courses make this area a very enjoyable visit.

Our training facility allows us to demonstrate equipment setup, how it is supposed to work, and how to service and repair it. We also provide training on the blown film process to ensure that technicians understand the environment in which they will be working.

For more information on any of the products or services offered by D. R. Joseph, please contact us at:

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