



Application

Continuous Web Processes

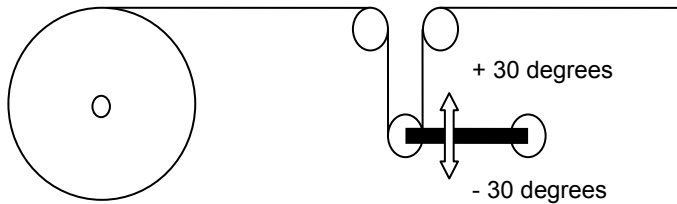
Products Used

955 eBrik™

In any continuous web processes it is necessary to have precise control. Improved control contributes directly to improved production speeds, reduced scrap and downtime. Materials that are common in web processes that we will focus on are paper, non-wovens, textiles, and plastics. We split the applications into two applications dancer controls, and accumulators.

Dancer Control

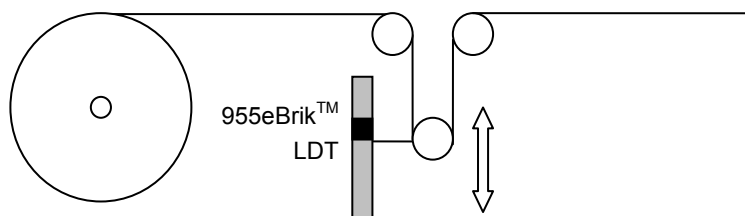
Accurate output of a dancer control is essential for controlling the web. High temperatures and humidity can cause the material to stretch and become warped, this requires the machine to make constant adjustments. A dancer is attached to a roller which is in constant contact with the material. The roller usually has a low tension cylinder or a pivot that allows the roller to move up and down typically + or – 30 degrees to keep a constant tension on the material.



Technologies used for this application are:

1. Rotary or linear potentiometers have dominated this industry for years, they feed the position data back to the control system. The disadvantage to this method is that linear pots are unreliable and if they hold in one position for a long time the unit can “stick” on that position. These machines also inherently dither back and forth all day long in the same position and wear out that portion of the potentiometer.
2. Ultrasonic sensor - This method has many disadvantages like humidity can affect the sensor performance and the unit is typically mounted under the roll looking up, over time lint can collect on the sensor causing incorrect readings.
3. Load cells can be used to detect the pressure applied to the dancer arm. This is costly and in some cases a strain gage output is not available.
4. Analog proximity switches are sometimes used but have a very small sensing distance usually 10mm,(.39”) or less.

955 eBrik™—Dancer Control Solution



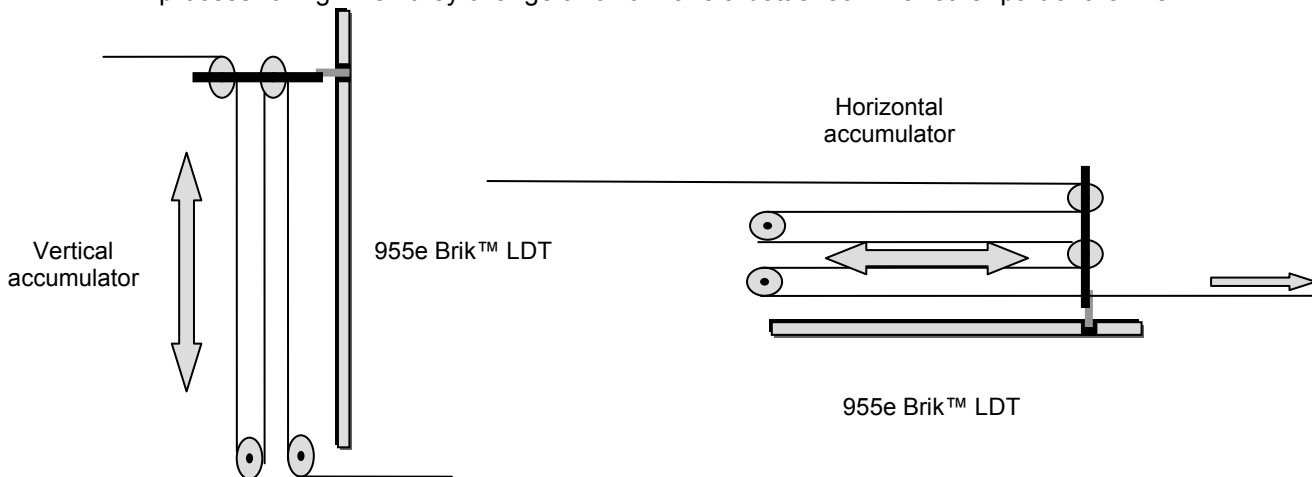
The 955eBrik™ Linear Transducer is the best solution for dancer control of all types. The Slide or Floating Magnet can be connected to the dancer roll and a 0 -10 VDC or 4-20 mA output can accurately control the web process.

Advantages:

1. Non contact, long life – Nothing to wear out
2. Accurate to +/- .03% of the stroke
3. Repeatable to .001%
4. Programmable stroke allows the customer to define the active stroke
5. Rugged – Sealed to IP67
6. Cost effective compared to other technologies
7. The 955 eBrik™ can be ordered in 1" increments up to 72" lengths for any application.

Accumulators

In some web processes the customer needs to accumulate product in the line in order to keep the process rolling when they change a roll or have a bottleneck in another part of the line.



Technologies used for this are:

1. String pots which are cables attached to a rotary potentiometer. These are not reliable and mounting the cable can be a nuisance. The cables are often very thin and can easily be broken.
2. Linear Potentiometers are a resistive style probe that is prone to failure. They cannot tolerate dither and drift with temperature changes.

The 955 eBrik™ LDT is easy to mount and is the best cost solution for accumulator applications.



Target Customers

End users

- Diaper manufacturers
- Paper making operations
- Plastic bag manufacturers
- Textile manufacturing
- Newspaper
- Toilet paper, paper towels
- Film manufacturers

OEMs

- Paper machines
- Drying machines
- Packaging machines



Web Tension



Accumulator

