



## **N-Target™**

### **A Unique Glue Application and Detection Technology**

#### **On-Target™ Combats all Gluing Variables**

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| <p><b>VARIABLE 1:</b><br/>Machine speed and valve compensation</p> <p><b>VARIABLE 2:</b><br/>Glue valve height</p> <p><b>VARIABLE 3:</b><br/>Valve stroke adjustment</p> <p><b>VARIABLE 4:</b><br/>Glue temperature and glue flow</p> <p><b>VARIABLE 5:</b><br/>Mechanical wear</p> <p><b>VARIABLE 6:</b><br/>Glue suppliers</p> | <p>Leary's <b>On-Target™</b> Automatic Glue Compensation Software is designed to combat all of the variables that are associated with gluing and detection. Each individual glue line is applied and monitored with closed-loop technology to guarantee the next glue placement pattern is accurate.</p> <p>No matter what variable is presented, <b>On-Target™</b> maintains and automatically controls glue line placement.</p> |
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- The ONLY Interactive Glue Placement System
- Automatic Low-Speed Spot Mode to Relieve Glue Puddling
- Automatic Spot-to-Line Conversion at High Speeds to Maintain Pattern Consistency
- “Learn Mode” Function Automatically Sets Up Glue Extrusion and Pattern Detection
- Universal Glue Pressure System to Extrude 200 to 2,000 Centipose Viscosities
- Can Improve any Glue Valve’s Performance

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**TECHNOLOGY**

# Variables that affect Glue Line Placement & Volume

## **VARIABLE 1:** **Machine Speed and Valve Compensation: Times are not linear**

- Increase in machine speed requires increase in glue pressure
- Increase in glue pressure increases the velocity, which decreases the amount of time the glue travels
- Conversely, a decrease in machine speed decreases glue pressure increasing the amount of time the glue travels.

## **SOLUTION: On-Target™**

On-Target™ continually and automatically reads a closed-loop signal from the detection sensor, altering the valve compensation delay for correct placement of glue on the next carton's flap. Despite pressure and machine speed variances, On-Target™ maintains the glue placement.

## **VARIABLE 2:** **Glue Valve Height**

- Glue valve height affects the distance and time that the glue travels
- The closer the glue valve is to the substrate, the less distance and time the glue has to travel
- Returning the glue valve to the original height after routine maintenance is critical, otherwise glue patterns will be inconsistent

## **SOLUTION: On-Target™**

On-Target™ will compensate for the inconsistent glue valve height. Accurate amounts of glue (volume/pressure and position) are automatically applied and monitored.

## **VARIABLE 3:** **Valve Stroke Adjustment**

- Most glue valves incorporate a stroke adjustment to achieve optimum performance and compensation balance. These manual adjustments are made for the following reasons: manufacturing differences between internal components, glue rheology, glue volume and differences in glue viscosity.
- If the stroke is turned down, the valve will close too quickly. If the stroke is turned up, the valve will close too slowly
- Adjustment to the stroke during production may require an additional valve compensation adjustment

## **SOLUTION: On-Target™**

On-Target™ automatically discerns the stroke adjustment and makes the necessary compensation adjustments to the glue valve.

## **VARIABLE 4:** **Glue Temperature and Velocity/ Glue Flow**

- Every 10°F increase in glue temperature produces a thinning of the glue by 10%. The opposite is true for every 10°F decrease in glue temperature.
- Glue flow has a direct effect on velocity
- Glue temperatures can equate to a 2-3 millisecond change in the glue compensation value

## **SOLUTION: On-Target™**

On-Target™ takes into consideration increases and decreases in glue temperature. The valve compensations are automatically adjusted to keep the glue flow consistent.

## **VARIABLE 5:** **Mechanical Wear**

- Most high speed glue valves operate via electric on and spring return
- Dependency on a spring to close the valve lends itself to mechanical wear
- Spring eventually becomes fatigued and begins to weaken
- The end result is a slower closing valve

## **SOLUTION: On-Target™**

While the spring continues to cycle, it slowly begins to fatigue. On-Target™ continually adjusts the valve's open and close compensation times guaranteeing correct glue placement.

## **VARIABLE 6:** **Glue Suppliers**

- Most glue suppliers manufacture a high grade jetting glue
- The chemical composition of the glue may vary, which will affect the flow rate through the valve
- Any changes in the flow rate from batch to batch of glue will require constant attention

## **SOLUTION: On-Target™**

On-Target™ constantly looks for changes in the glue pattern. If any of these conditions are altered, glue valve compensation will adjust for any glue pattern inconsistencies.

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