BANNER
more sensors, more solutions

Solution Profile » Packaging

Customer Requirement:

Reliably detect temperature of HDPE plastic to seal spouts on detergent bottles

Banner Solution:

T-GAGE™ M18T with pre-configured settings for high and low limit temps

Why Banner?

Rapid customization—Banner's flexibility allowed the customer to replace costly technology with an efficient and easy-to-use solution, customized specifically for their application

Customer Benefit:

Improved quality control—the T-GAGE solution ensures plastic bottles are at the right temperature for spout sealing, eliminating waste and improving the company's quality control process

Banner SPECIAL

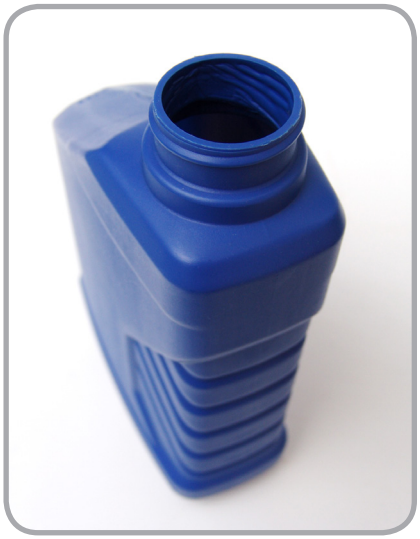
T-GAGE M18T Special Features:

- Model Number: M18TUP14Q-11903
- Pre-programmed high and low temperature limits for highly accurate sensing

More on bannerengineering.com:

- Standard T-GAGE M18T Overview
- Product Literature

T-GAGE temperature sensor improves spout sealing for plastic bottle manufacturer



A leading packaging company develops heavy-duty plastic bottles for brand-name detergents. Using the T-GAGE sensor on their production line, they automatically check that the HDPE plastic is the right temperature for sealing spouts on bottles.

Background

A Michigan-based packaging company develops brand name liquid detergent bottles with high density polyethylene (HDPE) plastic—the most common form of plastic. The company uses hot fill technology for high-speed blow molding, allowing them to manipulate bottle design and flexibility.

Challenge

After detergent bottles are formed, the spouts are sealed on the bottlenecks. A clamp containing the spout meets each bottle as it passes on a conveyor, and the HDPE plastic bonds together. The key to proper sealing is the temperature of the plastic—in order for the spout to bond with the bottle, the temperature has to fall within a precise range. If it is either above or below this range, the plastic won't fuse, causing a number of quality control issues. Although the customer had technology in place to detect the plastic's temperature at this stage of the process, it had become too costly to maintain.

Solution

Banner customized the T-GAGE sensor to meet the customer's application and cost requirements. By pre-programming the sensor with designated high and low limits, the customer can automatically detect whether the plastic is at the proper temperature before spout sealing. T-GAGEs are placed along the conveyor line where the spouts are sealed on the bottles, rapidly sensing the temperature of the plastic. If the temp falls above the high or below the minimum preset limits, an output occurs, preventing the spouts from being sealed. The T-GAGE is simple to install and maintain. And with customized, pre-programmed limits, the customer can enhance quality control and limit waste, all while reducing costs.

p/n 163871

Banner Engineering Corp. 9714 Tenth Ave. No., Minneapolis, MN USA 55441 • Phone: 763.544.3164 • www.bannerengineering.com • Email: sensors@bannerengineering.com