

Technical News Bulletin

April 2022



Sidewall Smart Filter automates the sidewall setup while optimizing inspection performance



- by using static and production learning functions
- by establishing optimal greyscale thresholds to inspect the entire container at the highest possible levels of sensitivity
- with minimal user adjustments



Introduction

The "Smart Filter" is an inspection option for the FleXinspect C Gen III sidewall inspection machine. This option is designed to minimize the setup time while maximizing inspection performance using the latest SCOUT Ai.

Challenges of inspecting the sidewall on a glass container

Due to features and characteristics found on the sidewall of many glass containers, setting the proper inspection coverage and sensitivities are often difficult and time consuming. Ensuring that the inspection coverage achieves a minimum of 360 degrees can be difficult. Many times, the sensitivity of an inspection zone needs to be compromised to compensate for features found in that specific zone. Adjustments are often needed to maintain acceptable reject rates as the production process varies.

Solution

The sidewall "Smart Filter" learns the expected variations from a trained set of container images to establish the optimal sensitivity for all features that are common to a specific container. As a result, inspections are performed with the highest levels of sensitivity in areas with shadows, embossed features and uneven glass distribution. The sidewall "Smart Filter" is trained with an initial, static sample set and then continues to learn and update throughout your production run.

The machine displays a color coded, 360 degree visualization of the container to show the operator what the expected inspection sensitives are. The displayed colors correspond to the size of the detectable defects in each area of the container. Therefore, no zones with individual inspection sensitivities need to be established.





Availability / Application

The sidewall "Smart Filter" option can be added to any FleXinspect C Gen III inspection machine, as well as any Chili G1, Chili G2 or eco (Symplex) machine configuration.

Installation Requirements

For field upgrades on older equipment, the system must be updated to the latest 64-bit processing platform.

Features

Complete sidewall coverage with zone-less inspection

Learned adaptive thresholding

Continuous production learning

Visualization of sensitivity

Benefits

Saves setup time, eliminates blind spots and ensures consistent setups Allows the optimal inspection sensitivities in all areas of the container Automatically updates the "learned adaptive threshold" to compensate for changes within your production process

Graphically displays the expected level of sensitivity in all areas of the container

