

FIND THE LEAKING SEAMS

INSPECTING HEAT SEALED PACKAGES

Good seals can only be made on clean surface: any contamination between the seal, and the package is no longer airtight. As a result, air and contaminants such as molds, fungus or bacteria can enter the package and deteriorate the product well before the expiration date.



Inspection result with SPECIM FX17, contaminations in the seal marked with a yellow circle

SPECIM FX17 camera inspects the seal through a printed film

- Detection through transparent and colored/printed plastics, only method that works even through printed plastics
- On-line and real-time 100% inspection coverage
- Only imaging technique to reliably find imperfect seals

CASE: INSPECTING BERGADER PRIVATKÄSEREI HEAT SEALED PACKAGES WITH SPECIM FX17

When the Bergader Edelpilz blue cheese got a new package, the seal inspection process faced a completely new challenge: the old equipment could not see the cheese crumbs breaking the heat sealing through the printed plastic.

To avoid the disadvantages of manual inspection, Minebea Intec, a leading manufacturer of weighing and inspection solutions, started looking for a suitable machine vision technology that could be used for seal inspections. They first tried an X-ray system, but soon found out that would not work: faults could not be detected with 100% reliability.

Challenges:

- Old inspection process did not work with the new packaging
- X-ray was not reliable enough in tests
- Manual inspection has its downfalls and disadvantages

SPECIM FX17: PERFECT SOLUTION

Together with Specim's partner STEMMER IMAGING, Minebea Intec development team examined the possibility to use hyperspectral imaging. The first seal inspection system that relied on the technology was based on Specim FX17 camera, and it was tested on-site.

"The results were very promising from the very beginning and quickly confirmed that this technology is perfectly suited to this application",

Markus Leibold, account manager of Bergader, is proud of the solution: "This system, which is unique to date, represented the perfect solution for our requirements. With it, we have been able to achieve the desired cycle speed of around 145 inspected packages per minute and attain virtually 100% reliability in the detection of heat-sealed joint faults."

Benefits:

- Detects product crumbs and other foreign bodies in heat-sealed joint through printed plastic film
- 100% reliability and coverage
- Fast inspection speed
- Can be integrated into existing and new production lines

Read the full case study here: www.specim.fi/minebea
Contact us: info@specim.fi