



INLINE 100% HEAT SEAL
VERIFICATION SYSTEM
SNiPE



WHY USE SNIPE?

Heat Seals are vital for ensuring the integrity of a wide variety of products, if the heat seals are compromised the product inside can degrade and be contaminated.

Damaged seals can cause product to escape, causing a mess resulting in product to be written off or rejected. Resulting in lost production and redirecting valuable resource to fix the situation.

Reduce and prevent the need for manual checks. Although helpful, they are very inefficient in terms of resource and time.

Ensure problems that arise during the heat seal process are flagged immediately, rather than the end of the shift or later in the manufacturing process, thereby reducing the cost to rectify the damage.

Prevent recalls and poor feedback from clients or end users, which could damage the brand name and prevent regulators' fines!

Ensure a highly efficient and automated quality control process to provide high quality produce in a non-contact and non-destructive way.



FOOD AND BEVERAGE PRODUCTS



PHARMACEUTICAL PRODUCTS



HEAT SEAL VERIFICATION

EXAMPLE: BOTTLES



GOOD HEAT SEAL



The seal region and the centre region exhibit normal temperatures.

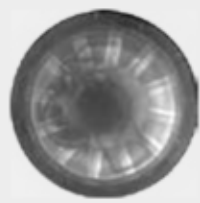
1X1MM CUT ON SEAL



Heat leakage from the cut goes into the seal region and the centre region & increases temperatures above normal. The cut region exhibits low temperatures



DOUBLE WAD



Two wads weaken the actual seal, while also dissipating additional heat towards the center of the cap.



REVERSE WAD

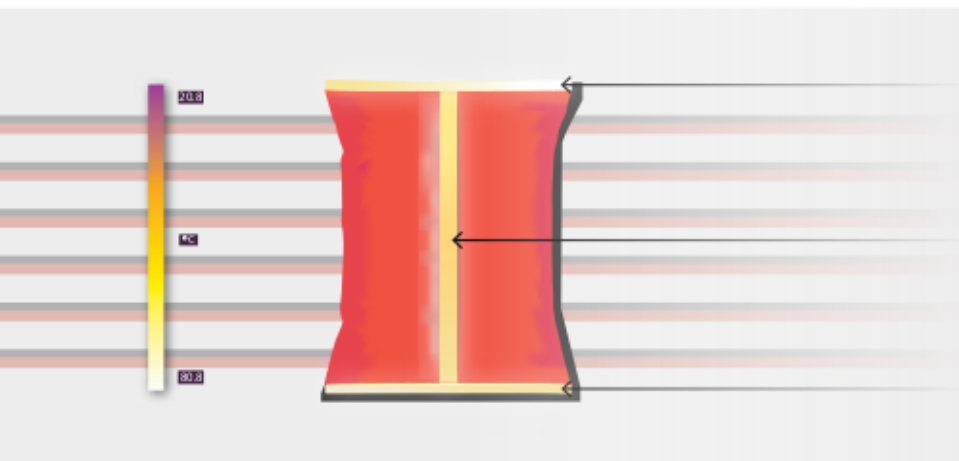


A reverse wad causes the wax to dissipate heat upwards rather than towards the bottle, causing a much higher temperature all over.



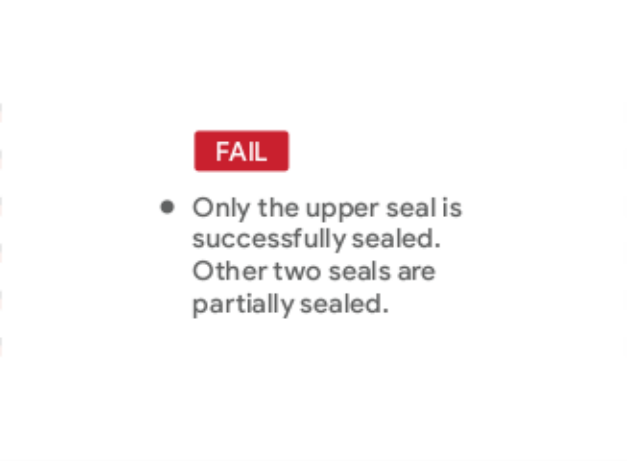
HEAT SEAL VERIFICATION

EXAMPLE: BAGS AND SACHETS



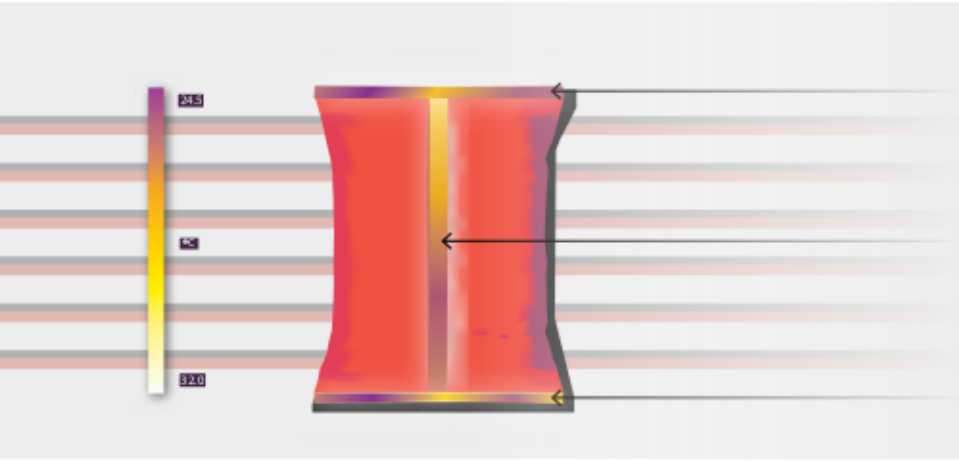
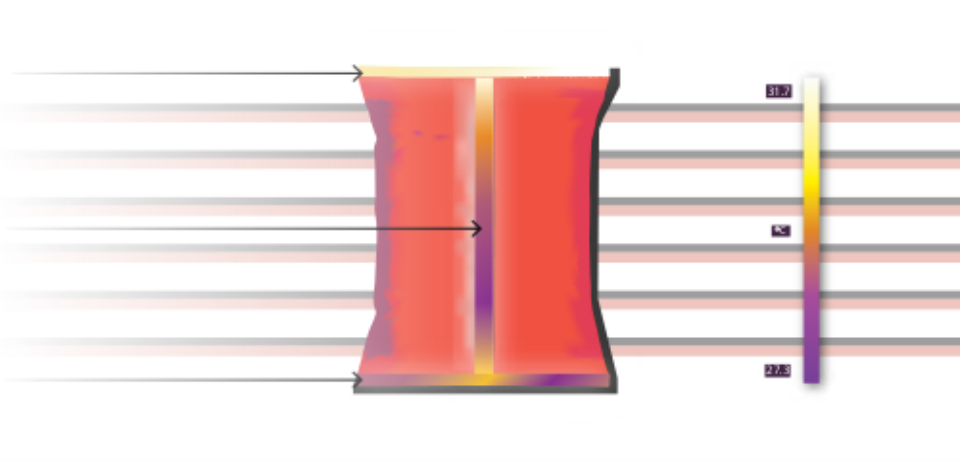
PASS

- All three successfully sealed, within expected temperature range.



FAIL

- Only the upper seal is successfully sealed. Other two seals are partially sealed.



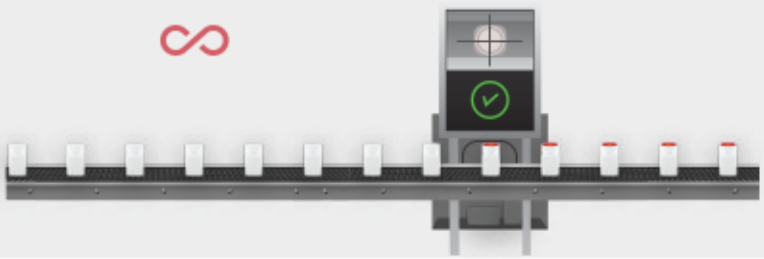
FAIL

- All seals partially sealed.

KEY FEATURES

Continuous operation

Snipe is designed to reduce any unnecessary stoppages in production.



Fast product addition

New products can be effortlessly added by any operator



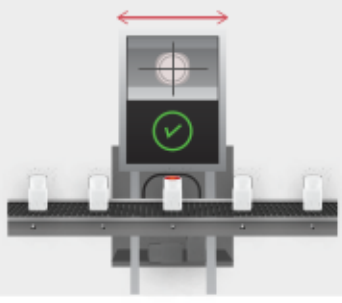
High speed imaging

Using military grade thermal imaging to achieve accurate high throughput



Small footprint

Minimal space requirements on the production line



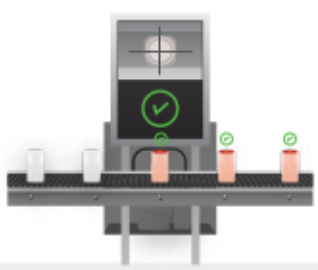
Intuitive interface

No technical knowledge required to operate the system



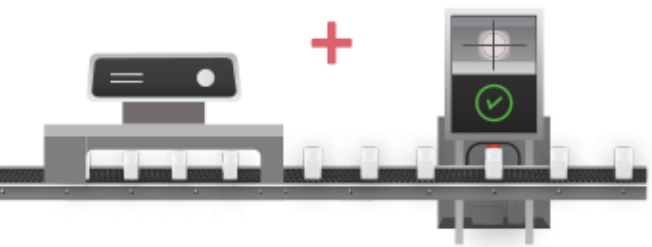
100% inspection

Inline checks of all products



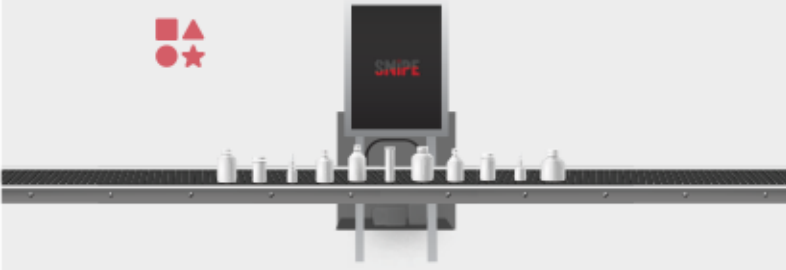
Easy to retrofit

Designed to be added seamlessly to existing lines



Highly versatile

Can verify significant range of product sizes and configurations



ABOUT SPOOKFISH

- Founded in 2014,**
 Grown to 40+ people.
 Exceptional year on year growth
- Core expertise in**
 Machine Vision, Machine Learning and Artificial Intelligence.
 Typically been helping companies where there have been concerns about product integrity potentially leading to product recalls and damaging PR.
- Key vertical working in**
 Pharmaceutical, Money, Food & Beverage and FMCG.
- Leadership team**
 Wealth of experience from the world of industrial imaging, everyone accustomed to working with truly high speed applications with zero margin for error.
- Spookfish Clients**



Defects that can be detected
Example: Bottles



Auto Size
Adjustment

High Speed
Verification

Auto
Calibration

Inline
Rejection

Easy to
Retrofit

21 CFR Part 11
Compliant

Real Time
Monitoring

Cost
Effective



Defects that can be detected
Example: Bags and Sachets



PASS

All three successfully
sealed, within expected
temperature range.



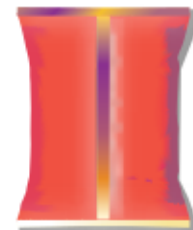
FAIL

Only the upper seal is
successfully sealed.
Other two seals are
partially sealed.



FAIL

All seals partially sealed.



FAIL

Only the lower seal is
successfully sealed.
Other two seals are
partially sealed.

CONTACT US



SPOOKFISH
I N N O V A T I O N S



Dr Jouni Ronkainen

+44 117 963 9663

Europe, Middle East & Africa



Dr Anupriya Balikai

+91 910 899 3345

Asia Pacific & N. America

✉ Innovate@spookfish.vision

🌐 www.spookfish.vision

🌐 www.linkedin.com/company/spookfishinnovations