



RheaVita

RheaLyo™

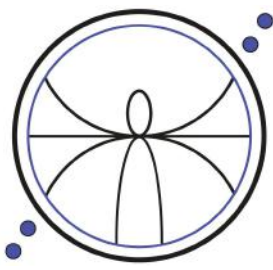
Use Case: Automated Visual Inspection

Learn how you can obtain efficient visual inspection quality control surpassing human vision of your Lyo cakes.

NEXT GENERATION FREEZE-DRYING

- Fast & Continuous
Freeze-drying in a few hours
- Critical defects 100% correctly classified
Outperforming the human inspector
- PAT controlled
Guaranteed quality at individual vial level
- In-line cake QC
Automation potential confirmed

Your formulation
deserves the best



RheaLyo Use Case Automated Visual Inspection

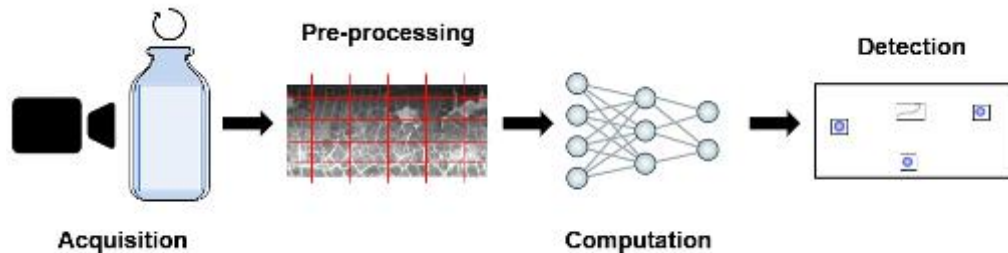
Key results

- >80% of the particles in consideration detected with limited training library
- Almost 100% accuracy reached for the classification of the class encountered
- The Particle Detection model clearly outperformed the human inspector
- Potential for complete automated visual inspection confirmed

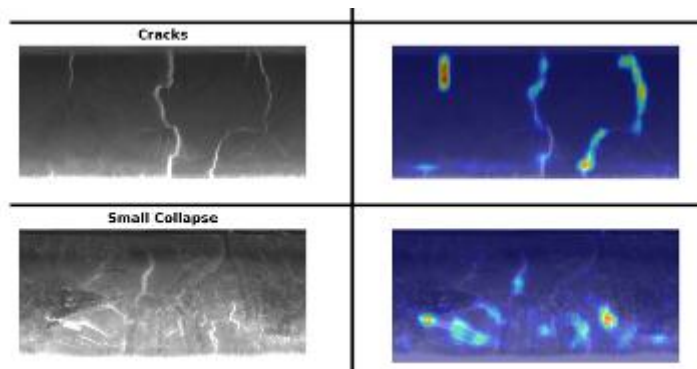
A combination of AI, RheaLyo freeze-drying technology, and computer vision techniques provides for:

- Detection of defects and particles
- Speed, accuracy, and scalability
- Consistent, accurate assessment

Reference: CESPE poster (2023)



Detection of foreign matter from 50 μm with Region-based Convolutional Neural network.
10R glass vials filled with 3 ml formulation. Manually introduced 100 μm polystyrene blue beads and 50 μm iron particles. Images captured with 16K line scan camera.



CONTACT

RheaVita bv
Poortakkerstraat 9C
9051 Ghent, Belgium
sales@rheavita.com