# WE catch THEMALL with Sherjock



SHERLOCK HYBRID – a synthesis of proven air separation technology and food safety optimized flap separation that sorts acceptable products, foreign material and defective products perfectly into 3 grades in just one pass.



# SHERLOCK HYBRID

The precision sophisticated Chemical Imaging Technology (CIT®) offered by all SHERLOCKS has been further enhanced in the SHERLOCK HYBRID by high resolution color camera technology. **CIT**<sup>®</sup> enables assessment of the whole near infrared spectrum and analysis of objects' chemical composition, regardless of color, shape, surface or density. High-resolution color cameras synthesize additional information on color, shape and surface for each individual object (MULTI SENSOR FUSION). It is this high density information that enables clear determinations to be made about whether to remove objects by means of air (optimal yield for product defects) or flaps (most reliable removal method for foreign bodies), and that separates your product reliably into 3 quality grades (MULTI REJECT FUSION).

The SHERLOCK HYBRID meets the highest standards of hygienic design and can be used for all foodstuffs in either wet or dry processes.

## APPLICATION EXAMPLES

- · Detection of foreign bodies
- Detection of color defects
- Detection of shape defects
- Detection of chemical defects (e.g. rancid nuts PATENT PENDING)
- Sorting by size (length and width)
- 3-way sorting

- · Hybrid 3-way separation technology consisting of:
  - High Speed Air Valve System
  - Safeguard Dropgate System
- Size statistics
- Defect statistics
- · Reject statistics

- Chemical composition monitoring (e.g. dry matter)
- Industry 4.0 data preparation in database
- Multi Sensor Fusion
- Remote Access



The flap ensures that foreign bodies classified as heavy by CIT<sup>®</sup>, such as stones, metal or glass, are removed reliably.



Product defects identified by RGB cameras are discarded using air jets so as to maximize yield.



Light foreign bodies reliably detected by **CIT®**, such as plastic foil, paper cardboard or packaging cord are safely removed by flaps.



CIT<sup>®</sup> reliably classifies nut shell fragments,

enabling them to be removed by the air

jets so as to maximize yield.



The combination of **CIT®** and RGB cameras means that information on chemical composition, color and shape can be synthesized for every object and very difficult defects, such as berry stalks, can be recognized and discarded by means of the air jets so as to maximize yield.



High-resolution RGB cameras reliably identify differences in size as well as color defects and discard them so as to maximize yield (defect removal or short cut removal in french fries).

#### Unmatched FOOD SAFETY performance in Foreign Material removal combined with defect sorting.



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