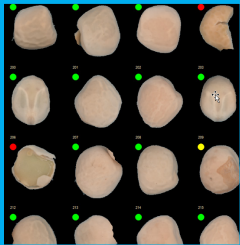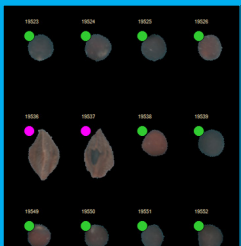Maize (corn) application. Detection of healthy and defect maize kernels.

Peas application. Detection of broken peas and peas with cracks.

Pet food application. Classification of kibble shapes and detection of broken kibbles.

Spinach seed purity application. Species to be identified in spinach purity analysis.

Oat de-husk application. Detection of husked and de-husked kernels.

Videometer SeedLab

Enhance the capacity of your seed and grain analysis with the Videometer SeedLab - a complete system capable of analyzing, classifying and physically sorting your products with the aid of a powerful pick and place robot.

The Videometer SeedLab uses a vibrator to distribute granules from a funnel evenly onto a belt. The belt transports the granules under the VideometerLab scanner and subsequently sorts them with the aid of the pick and place robot based on their analysis.

Images of the sample are acquired, segmented and analyzed, and a summary report is automatically created at the end of the measurement.

The picking system is designed for physical sorting of high value granules, e.g. removal of defect granules (broken, non-germinating, infected).

VideometerSeedLab option
KEY FEATURES AND ADVANTAGES

- The vibration unit distributes granules evenly onto the belt, in single layer formation.
- Segmentation routine extracts granules, separates touching granules and creates blob images for all granules in the sample.
- Prediction models classifies granules based on color, shape and texture features.
- Feature sets defines first order features to be calculated and summarized for each fraction/class defined by the prediction model.
- Images of granules and analysis results are displayed during the measurement.
- Summary report is created automatically at end of measurement.
- Pick and place robot automatically sorts granules based on classification results.

Videometer A/S · Hørkær 12 B, 3 · DK-2730 Herlev · Denmark
Tel +45 4576 1077 · mail@videometer.com · www.videometer.com
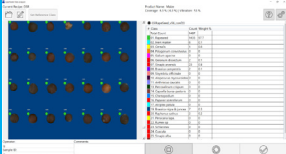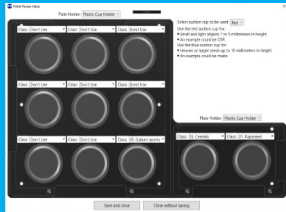
Videometer SeedLab
TECHNICAL SPECIFICATIONS

Sample size	Standard up to 1.5 liter. Larger sample sizes possible by customization.
Processing speed	160 cm belt = app. 1200 cm2 belt area per minute.
Sample throughput	Examples: Corn (maize) kernels: 100 grams in 14 minutes. (1% pick) Oilseed rape: 75 grams with 37.000 seeds in 22 minutes. (1% pick)
Sample distribution	Vibrator unit with adjustable vibration profiles for different sizes and types of granular products.
Size and weight	192 cm (H) x 90 (D) x 130 (W) - 430 kg
Power	400VAC 3P+N+PE, 13A, 50-60 Hz
Ambient temperature	Operation: 5-40 °C, Storage: -50-50 °C
Ambient Humidity	Operation: 20 to 90% RH non-condensing, Storage: 40 to 75% RH non-condensing
Free Area	Rear: 5cm, Sides: 60cm, Front: 55cm
Software	The Videometer SeedLab option is controlled with the VideometerLab BlobAnalyzer tool.
Safety	The Videometer SeedLab comforms to the safety requirements of the European CE directives. For safety reasons the robot is enclosed in a safety cabinet with windows allowing you to monitor your analysis, while running.

Details

Different holders for cups, petri dishes or 96 well microtiter plates.

Videometer offers a wide range of multi spectral imaging instruments measuring what you see with your eyes – and beyond. They are fast, non-destructive, versatile, and reproduceable with world-leading accuracy. The accompanying Videometer software provides a unique variety of machine learning and AI spectral imaging analysis tools. Laboratory, at-line, on-line, and in-line systems are designed for quality assurance, process control, PAT, and product development.

The Videometer SeedLab Interface allows for easy-to-use and accurate analysis.

VideometerLab

Pick and Place robot arm

Suction cup