

# Videometer

## Secure your product quality through vision technology

### Automated visual quality control

Videometer A/S specializes in automated visual measurements and visual quality control where samples are inhomogeneous or where human vision is the current reference method. We focus on developing high performance vision systems for a broad range of industries with special focus on:

- Fast, non-contact, and objective assessment
- Reproducible and robust measurements
- Focus on cost efficiency

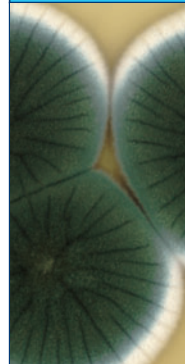
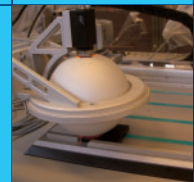
### Unique solutions secure your quality

Videometer solutions are based on a unique patented technology for accurate analysis of colours, physical texture and chemical composition. The technology provides sublime accuracy, high robustness and highly reproducible measurements. These features are normally difficult to achieve using traditional analysis methods such as subjective manual assessment, colour analyzers or spectral analysis on homogenized samples.

Two different imaging technologies are offered in Videometer solutions using state-of-the-art light emitting diodes (LEDs) and laser illumination technology. **Multispectral** imaging combines multiple images at different wavelengths using the same diffuse illumination geometry. This technology obtains a spectrum for each pixel and is especially suited for mapping the surface chemistry and colour of the sample. **Multiray** imaging combines multiple images with different illumination geometry. The multiray technology deals effectively with many physical surface measurements such as gloss or topography.

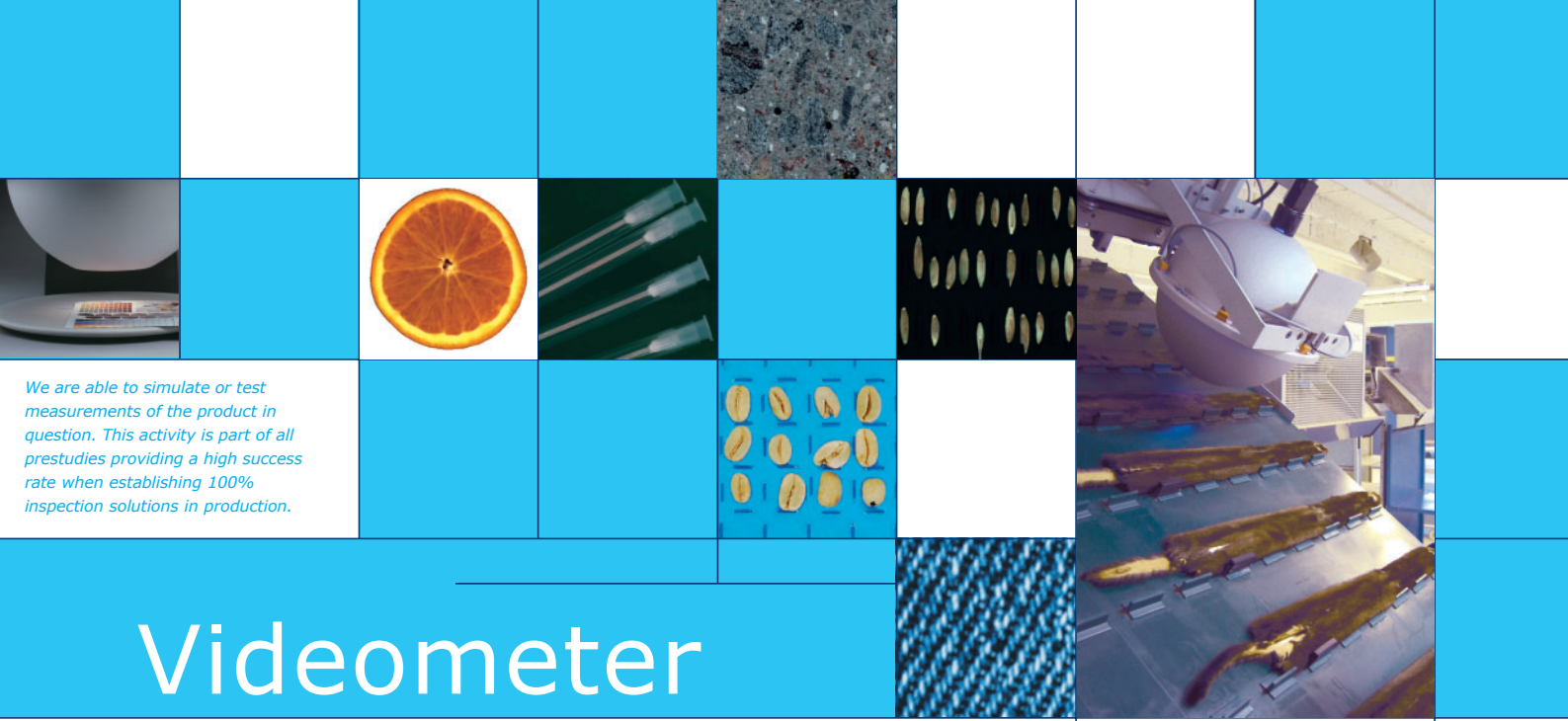
### Improved quality and better efficiency

The unchangeable demand for better efficiency and improved quality in all production processes requires focus on possible rationalization and even more automation. Subjective manual assessment or test panels are often expensive solutions that constantly lose ground compared to automated technologies and high production speed.



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We are able to simulate or test measurements of the product in question. This activity is part of all prestudies providing a high success rate when establishing 100% inspection solutions in production.

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## Analysis for a broad range of industries

We offer our patented vision technology to companies looking for accurate, objective, and reproducible quality assessments of raw material, intermediates or finished products. The system is either implemented as laboratory analysis or in-line measurements in a running production. We have among others been successful in the following fields:

- **Material surfaces**  
Quality control in the production is boosted using objective colour and surface quality assessments of e.g. fabrics, paper, fur, wood, ceramics, liquids, metal, plastic.
- **Biotechnology**  
Counting and identification of micro-organisms. Visual assessment of enzymatic treatment.
- **Food industry**  
Food quality is often assessed visually. By using wavelengths in the ultraviolet, visual and near-infrared (NIR) range you obtain information regarding chemical composition.
- **Pharmaceutical industry**  
Colour, texture and surface features of pharmaceutical products are monitored, and visual quality is controlled in liquids, powders, granulates and solid products.
- **Vision controlled robot technology**  
Vision controlled robots are used for flexible handling of parts in a production line, high precision monitoring or to control e.g. filling processes.

### How to get started?

In close cooperation with our customers we set up a specification and analyse the possible economic consequences of efficient processes as well as the benefits of improved product quality.

In a development project we are focusing on features of the entire measurement system resulting in full optimization of the following system parts: Light source, selection of wavelengths, illumination geometry, optics, camera orientation, camera technology, computer technology, electronic parts and data analysis.

Large parts of the process will be simulated and optimized where possible failures will be identified. This allows an optimal opportunity to fit the system to the given task and minimizes unexpected problems later on in the project and during evaluation.

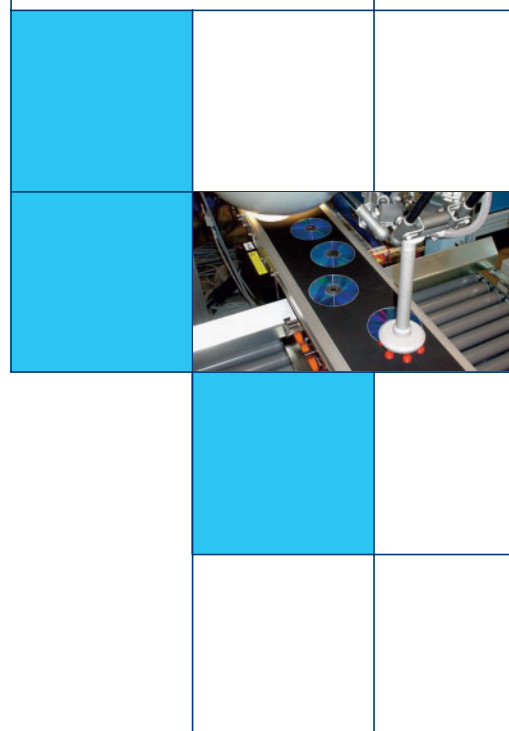
### Turn-key projects through cooperation

Videometer may in cooperation with selected machine builders offer turn-key solutions. We are pleased to take the total responsibility of automated sample presentation for the vision system as well as the following sorting, rejection of failure parts, packaging, storing etc.

### Why choose Videometer development projects?

- Expert-level competences
- Solutions based on full optimization
- Fast and accurate analysis
- Simple and intuitive user interface
- Customized and robust systems
- Delivery of turn-key projects

*Example: The VideometerLine is sorting fur after colour grading. The complex play of colours in fur combined with high precision requirements has made this a highly demanding application.*



Videometer A/S  
Lyngsø Allé 3  
DK-2970 Hørsholm  
Tlf. +45 45761077  
Fax +45 45761041  
mail@videometer.com  
www.videometer.com