



**TREVISTA® CAM**

# **The Smart Camera for Shape from Shading**

trevista® CAM: The all-in-one system for advanced industrial surface inspection.  
Preconfigured and ready for use.

**SAC**



**trevista® CAM**  
Advanced surface  
inspection: easy, quick  
and low-cost

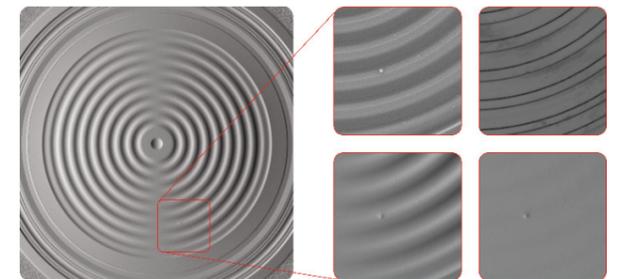
## Shape from Shading: Seeing What's Really There!

Parts with curved surfaces or free-form geometries often present particularly insoluble challenges for conventional inspection methods. Is that shape deviation a material defect, or simply part of the geometry? Is that part actually faulty, or simply showing process-related reflectance fluctuation?

Based on SAC's 'Shape from Shading' technology, trevista® CAM supplies clear and correct answers every time. The unique process uses surface shading of an object to collect information on its three-dimensional form.

### No more tricky and time-consuming searching to get the right lighting!

The object is lit by a domed structured illumination unit with multiple light sources. By taking multiple images, the algorithm calculates high-quality result images ultra-rapidly, so that even large numbers of parts can be inspected quickly and meticulously.



Defective section  
trevista® result images for a membrane

### Four Sharp Shots: Creating the Perfect Image

Our coin example demonstrates how trevista® CAM works: The slope images in x and y direction detect shape deviations in a specific orientation. The curvature image is invariant in orientation, and provides additional topographic information that can be used to distinguish between elevations and depressions.

The texture image evaluates the brightness characteristics of the surface, allowing defects such as discoloration and rust to be clearly identified. These partial images are combined to give the final result image.

## Ideal for All Surface Types

trevista® CAM delivers inspection results in a quality that puts many other high-end solutions in the shade. Just unpack, start up, and inspect!

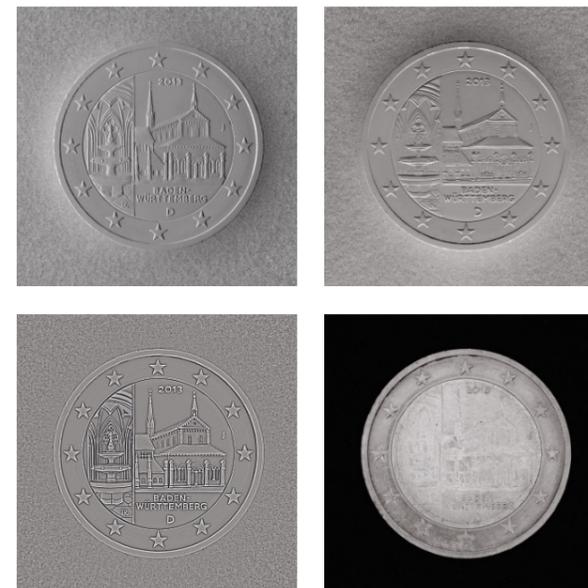
trevista® CAM combines the patented trevista® illumination system with a powerful smart camera plus versatile Coake® 7 software, to form an all-in-one system that meets all your needs.

### trevista® CAM – Your Benefits

- unique trevista® imaging included as standard: see what's really there!
- bad parts are reliably detected using topographic information down to  $\mu\text{m}$  detail
- false defects are minimized
- can suppress reflectance fluctuation and shine effects where required

- ready to use immediately with minimum engineering
- hardware is perfectly coordinated for optimum performance and imaging quality
- intuitive Coake® 7 evaluation software with integrated command set for custom inspection programs
- standardized interfaces for communication with higher-level control system

From reading codes on complex surfaces to inspecting curved surfaces and trim parts in detail – with trevista® CAM, you're always ideally prepared for any inspection scenario.



Want to know  
more about  
trevista® CAM?

Contact us!  
We will be happy to  
arrange a detailed  
product demo.



**SAC**

Your partner in Machine Vision Technology, innovative products and custom solutions for industrial applications – since 1996.

## Machine Vision for Industry

Our expertise, enthusiasm and experience generates genuine competitive edge for our customers.

Our extensive consultancy, training and support services ensure smooth, professional implementation of your project – from initial inquiry to comprehensive after-sales service.

Always close to the customer – always flexible.

**SAC**

### Machine Vision for Industry

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