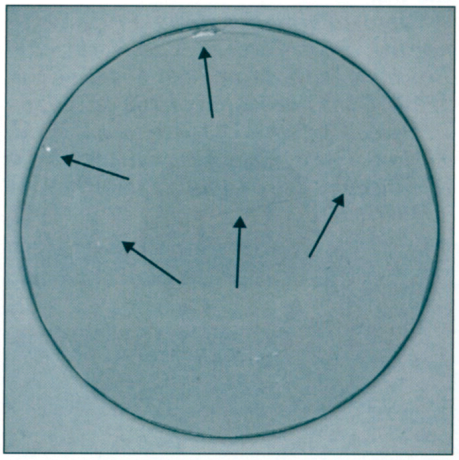
Beat lighting problems of beaded end inspection

When inspecting food cans, the beading on can ends creates areas of light and dark which often proves problematic to inspection systems searching for defects such as scratches, coating voids, dents and foreign contaminants.

The standard approach to overcoming this problem is to use multiple inspection tools to analyse the beaded areas, with each tool examining one concentric ring, which can be complex and difficult to maintain.



An image processing tool from US-based vision equipment specialist Applied Vision addresses the problem by neutralising the shading, creating an image similar to a shell, says the company. This enables the whole end to be analysed with one inspection tool, making the inspection process more simple and easy to maintain.

The system, called Feature Suppression Technology, is said to improve machine inspection capability and to also help operators better understand the nature of any defects.

The technology also improves inspection of food can bodies. When the inside of a can body with an attached end is imaged, reflections from the beading on the end may create differing intensities of light over the sidewall areas. As with end inspection, the Feature Suppression Technology addresses this potential problem for inspection systems by altering the image accordingly.

The inspection of other beaded areas including weld seams, flanges, powder stripes, coating and the lower sidewall areas may also benefit from the technology, says Applied Vision.

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