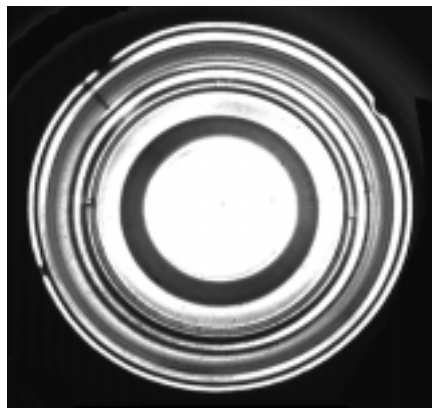


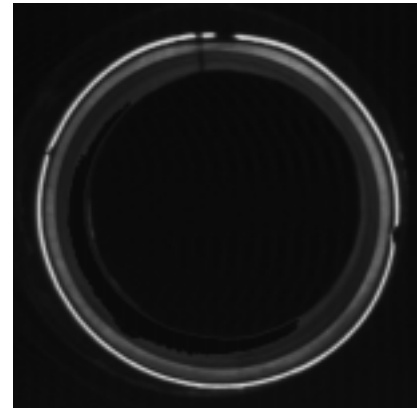
APPLICATION NOTE: 208

Application: Inspection of Tin Can Sealing Rim

Problems: 1) Isolation of thin Sealing Rim
2) Glare from Sides and Bottom of Can



Standard Ringlight



Apertured Ringlight

Solution:

In order to provide a proper vacuum seal on a canned good, the sealing surface must be properly flared, have no mechanical defects, and have no contamination of the sealing surface. To ensure that these defects are not present, the sealing surface of cans are inspected just prior to filling. One of the problems is that the cans are clean and highly reflective, causing glare. In addition, the sealing surface is very small and hard to isolate from the rest of the can.

To solve this problem, a custom apertured fiberoptic ringlight is employed. The ringlight controls the angles of light projected towards the can, and also controls the rays entering the camera. The net result can be seen in the second image. Only light from the sealing rim is sent back to the camera. The connectivity algorithm used to verify a perfect sealing surface is now simplified, which guarantees higher levels of system performance and reliability.