

CASE STUDY

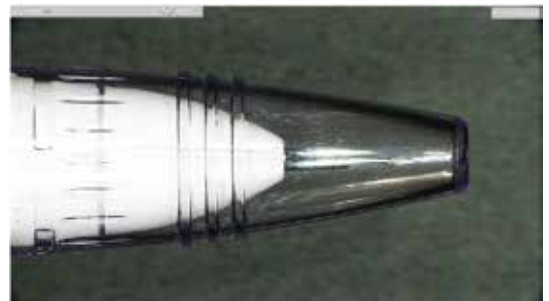
100% MEDICAL DEVICE TIP INSPECTION WITH EVO CAM II DIGITAL INSPECTION MICROSCOPE

A medical device manufacturer needed to inspect covered device tips for bending or deformation before release. The protective cover had to remain in place, so EVO Cam II was configured with polarisation and IR filter adjustment to improve visibility without adding extra handling.

The challenge: clear inspection through a protective cover

Each device tip needed to be inspected before release, but the protective cover made the tip harder to see clearly.

- This created several inspection challenges:
- The cover could not be removed
- Fine tip deformation needed to be identified reliably
- Viewing conditions had to be consistent across inspection points
- The method had to be practical and reliable for 100% inspection in production
- The number of handling steps had to be minimised



The solution: clearer inspection with polarisation

Vision Engineering configured EVO Cam II for the application.

A polarising filter was used to reduce reflection and improve contrast through the protective cover. IR filter adjustment was also used to improve visibility of the device tip.

This allowed inspection teams to check the covered tip for bending or deformation without changing the handling process.

EVO Cam II gave the team a clear digital inspection view, supporting repeatable checks across production workstations. It also allowed images to be captured during inspection, giving quality teams visual records that could support documentation, review and internal communication.



The outcome: proven in production

After the initial EVO Cam II installation, the customer placed subsequent orders and expanded the setup across multiple inspection points.

This wider adoption demonstrates the success of this method in this application for production use. It supported repeatable inspection of covered device tips without adding to many additional handling steps.

Key benefits for medical device quality control

- 100% inspection of covered medical device tips
- Inspection without removing the protective cover
- Clearer viewing through polarisation
- Improved visibility using IR filter adjustment
- Reduced handling during inspection
- Repeatable setup across multiple inspection points
- Image capture to support inspection documentation and review

Conclusion: supporting 100% medical device inspection

Medical device manufacturers need inspection methods that protect quality without adding unnecessary handling. EVO Cam II helped this manufacturer inspect covered device tips clearly and consistently, then scale the approach across multiple inspection points.

FAQs

How can medical device tips be inspected without removing a protective cover?

Medical device tips can be inspected through a protective cover using suitable magnification, controlled lighting and filtering. In this application, EVO Cam II was configured with polarisation and IR filter adjustment to improve visibility through the cover and support inspection for bending or deformation.

Why is polarisation useful for covered medical device inspection?

Polarisation can help reduce reflections and glare from the protective cover. This improves contrast, making fine features easier to assess during visual inspection.

What should manufacturers look for in a medical device inspection system?

A medical device inspection system should give quality teams a clear, repeatable view of the feature being checked. For fine tips, covered components or small surface details, useful features include stable magnification, controlled lighting and filtering options.

How can 100% inspection be made repeatable in medical device manufacturing?

Repeatability depends on a stable inspection setup, clear pass or fail criteria and consistent viewing conditions. Digital inspection systems can help by keeping magnification, lighting and image settings consistent across inspection points.