EIT
Preventative Controls
& Detection Systems

Bactiscope

Detection principles

EIT International is an industry leader in the development and supply of environmentally friendly preventative controls and detection systems for the liquid food processing, nutraceutical and regulated industries

The Bactiscope™ is a cutting-edge inspection tool used for the detection of microbial contamination, particularly biofilms, bacteria and mould, across a wide range of hygienically sensitive environments such as food, beverage and dairy production facilities.

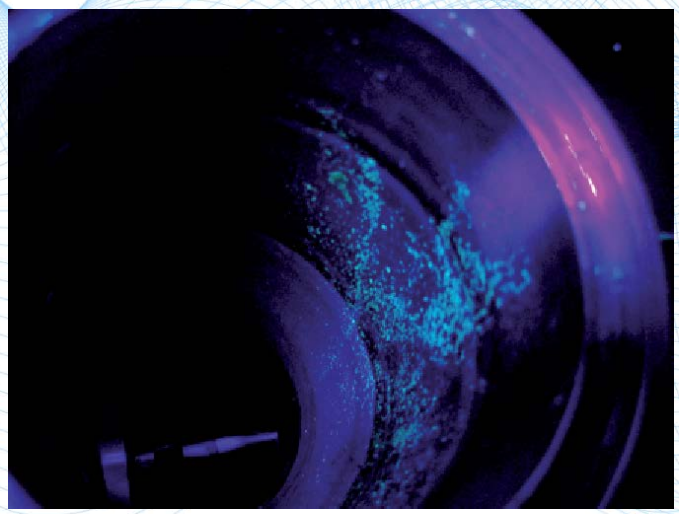
Uniquely, the Bactiscope employs a wave-alternating UV system, enhancing its sensitivity and enabling the detection of pathogens such as Salmonella, E. Coli and Listeria. These microbes, which may otherwise go undetected, emit distinct fluorescence patterns when exposed to the device's optical system. This allows for real-time, visual verification of microbial presence on surfaces, even at considerable distances or in challenging-to-access areas like tank walls, pipes and behind machinery.

Understanding how the Bactiscope works is essential for effective training and confident operation. The following outlines both the technical principles and practical training considerations for its use in contamination detection and hygiene validation.

How the Bactiscope Works – Core Principles
Unlike traditional methods, which often rely on consumables like swabs, chemicals, or dyes, the Bactiscope provides a real-time, visual method of contamination detection. It is especially effective after a CIP (Clean-In-Place) process, allowing users to verify surface cleanliness without direct contact.

Key features include:

- Wave-alternating illumination to trigger fluorescence in a broader range of microbial contaminants, including Listeria, E. coli, and Salmonella.
- Long-range visibility, allowing users to inspect difficult-to-reach areas, such as the tops of tanks or the interior of pipework, from ground level.
- Wide field of illumination, which supports faster coverage of large surfaces.



Contamination detected in pipework using the Bactiscope

Ease of use is a key feature of the Bactiscope, using it is as simple as:

- Removing the Bactiscope from protective case, plugging in the flexible cable to the side of the unit and attaching the camera head to the end of the cable.

- Turn on the camera, activate the Bactiscope light and you are ready to go.

Using the Bactiscope not only enhances contamination detection but also serves as a powerful educational tool:

- Visual learning: The direct visual feedback reinforces understanding of hygiene risks and the limitations of chemical-only CIP methods.
- Improved engagement: Trainees see immediate results from inspections, which helps reinforce procedural diligence.
- Cross-functional training: Quality, operations, and maintenance teams can all benefit from a shared understanding of contamination risks and visual cues.
- Bactiscope allows for clear identification of contamination within pipework and behind or within hard to reach areas.

For enquiries or to request a quote, please contact your authorised EIT International distributor via: