

ATP Testing vs Visual Inspection

How to Know a Surface is Clean



Overview

At the heart of food safety is prevention. Therefore, food production facilities must implement a robust program for identifying and correcting potential safety issues. As part of this preventative approach, food manufacturers must use additional monitoring methods to determine the general hygiene of food processing areas. They must avoid potential delays, recalls and lost revenue by maintaining strict cleaning and sanitation processes. If production commences on a surface that hasn't been adequately cleaned and/or sanitized, the risk of contamination increases dramatically, potentially decreasing the business's ROI and bottom line.

Healthcare organizations have similar challenges. They must clean and disinfect to maximize patient safety and to reduce the risk of transmission of antibiotic-resistant pathogens. The heightened awareness of infectious disease control has underscored the importance of thoroughly monitoring cleaning and disinfection procedures. This need for vigilant monitoring has now extended beyond hospitals and medical facilities to include high-touch surfaces in public spaces such as airports, hotels, schools and large businesses. These public places also need verified and validated methods to ensure areas are clean and sanitized to remove the risk of infection transfer to their employees, staff, customers and students.

Importance of Cleaning

It is vital that cleaning and sanitation be performed properly. The most misunderstood concept is centered around disinfectants; they are not designed to remove organic material, whether bacterial, mold, or leftover food and other debris. Rather, disinfectants are made to ensure that clean surfaces stay microbe-free. Disinfectant application must follow a thorough cleaning of the surfaces, using enough force to remove the majority of unwanted material/residue cleaning of the surfaces with enough force to thoroughly remove the majority of unwanted material. Even after cleaning, surfaces can have gaps that might harbor potential pathogens. Therefore, it is critical to not only clean areas; this must be followed with disinfection and subsequent testing to confirm sites are contaminant free.





Food manufacturers and healthcare facilities have traditionally performed either visual inspections (relying on the naked eye) or microbial tests (swabbing surfaces and then testing for growth in a lab) to help evaluate whether environments are safe and free of any potential pathogens. While inexpensive and fast, visual inspections are imprecise, subjective and may be unacceptable in many facilities, especially healthcare. On the other hand, microbial tests are a time-consuming process, taking days to get results. Facilities have increasingly turned to new technologies that can provide objective and reliable measures of cleanliness. To bridge this gap, many have turned to a rapid, reliable, easy-to-use solution, adenosine triphosphate monitoring (ATP testing).

ATP Inspection



Visual Inspection

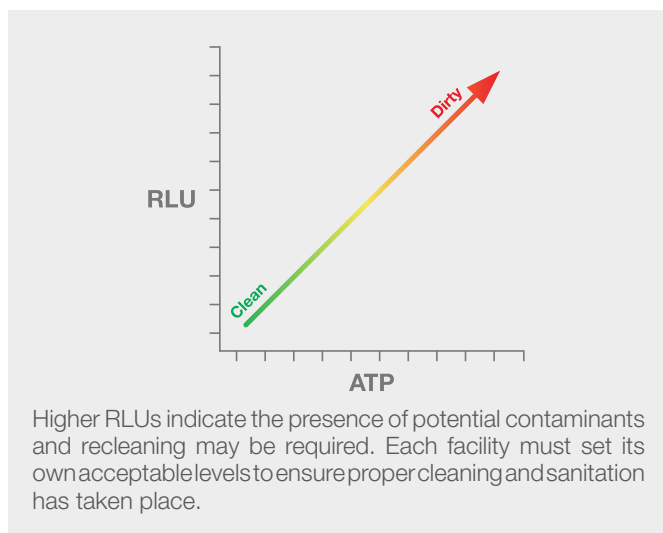
- Catches breeding ground environment for bacteria and viruses 
- Results protected from manipulation 
- Rapid solution for monitoring cleanliness (Best Practice) 
- Quantitative results measured in software 

-  Only detects debris visible to naked eye
-  May result in biased results
-  Can't verify if area is truly clean
-  Results not measurable

What is ATP Testing?

Unlike other methods, ATP testing provides results in seconds and is sensitive, quantitative, effective and straightforward. Microbes and product residue contain ATP, an indicator of biological residues that can be easily detected to measure cleanliness because effective cleaning and sanitation remove all ATP from the contact surfaces (or production lines in the case of food processors). A failed ATP test indicates that the surface does not meet cleaning standards and should be recleaned.

Food production facilities have used ATP monitoring for decades. They've incorporated it as part of their environmental monitoring program (EMP) for meeting microbiological FDA and HACCP guidelines. The EMP clearly defines the processes for cleaning and sanitation monitoring, validation and verification. Since ATP is an indicator molecule for the presence of biological residues, ATP levels can be used to monitor cleaning effectiveness. To measure ATP, a sample is collected from a surface or water via a swab and placed in a reading device, a luminometer. ATP monitors deliver data using bioluminescence, read as a Relative Light Unit, or RLU. The higher the RLU, the greater the risk of potential contamination. ATP monitoring doesn't directly identify bacteria, yeast or molds (there is currently no specific environmental surface test to determine the presence of COVID-19). Instead, it detects the general presence of organic matter, which bacteria and other microorganisms can use to grow and/or spread. ATP systems, therefore, can effectively verify the cleaning processes.



Beyond Food Testing

The food and beverage industry is not the only industry that stands a risk. This process has been adopted by other

industries such as hospitality, schools, healthcare and others. Since hospitals and healthcare facilities need to maximize the safety of their patients and employees through proper cleaning and monitoring of its effectiveness, ATP testing is ideal. In recent years, the ongoing focus on public health and safety has prompted facilities to continually reassess their cleaning protocols and environmental testing measures. Other businesses have adopted this methodology as well, bringing in specialists to audit facilities for cleanliness.

No matter what business you're in, in post-COVID times like these, it is imperative that rapid, accurate and simple methods are used to ensure surfaces have been adequately cleaned. It is essential to implement measures that can provide numerical data to support your cleanliness claims to reassure the public and positively impact health and safety. This means incorporating testing above and beyond visual inspection.

An Excellent Solution

Hygiena's cleaning verification solutions can tell you in as little as 10 seconds if a surface has been cleaned properly. ATP testing detects the presence of biological contamination which promotes the growth of microbes, such as bacteria and yeast and gives objective indication as to whether cleaning standards have been met.

Our most advanced ATP monitoring system, EnSURE® Touch, measures ATP levels and provides rapid and accurate sanitation verification data. Our ATP testing devices, including UltraSnap® and AquaSnap®, are designed specifically for the system. The test devices are user-friendly, designed to maximize sample collection and recovery. After swabbing a surface or collecting a food or water sample, the system rapidly measures ATP levels from the device, providing a numerical value, indicating the level of cleanliness. UltraSnap devices are the easy-to-use, superior option for accurate, repeatable testing, meaning you can be confident in the data gathered and the cleanliness of each location.

Similar to a smartphone and using wireless technology, EnSURE Touch syncs and stores all data in our cloud-based software, SureTrend®, allowing you to monitor, track and trend testing results across multiple locations/instruments, and schedule reports, making risk management easier than ever. Move beyond visual inspection and traditional microbial testing with quantifiable test results from ATP monitoring using Hygiena solutions. Learn more at www.hygiena.com.