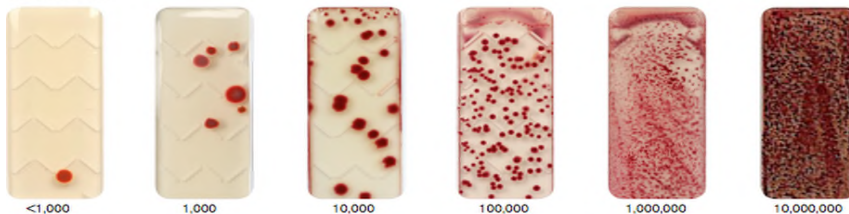


Dip-slides & Interpretation

Dip-slides are a convenient way to measure the overall biological “health” of a water system. The slide containing nutrient agar is dipped in the test fluid and are typically incubated at room temperature. Interpretation can occur in as little as 24-hours and most colonies bacteria colonies will appear as “red-dots” as within 48-hours. (See the manufacturer’s packaging insert for specific test and interpretation protocols.)

Dip-slides aren’t exact but are provide results in an order of magnitude by permitting the user to visually compare the results against a set of standards.

Bacteria



Fungi, Yeast



Fungi, Mold



Interpretation hints

- Bacteria levels less than 10,000 colony forming units per milliliter (CFU/ mL) are the most common results and most well treated systems produce results of 1,000 CFU/ mL or less.
- Count all “red-dots” as a single colony, regardless of the size. A colony that appears smeared across the agar is counted as a single colony.
- Only count colonies on the outside surface; colonies under the surface of the colony are not counted (see the right/ left edges of the 10,000 slide, the top of the 100,000 & 1,000,000 slides above for reference).
- Finding Fungi, Yeast, and/ or Mold is rare and is not normally indicative of a problem in most cooling systems.
 - These organisms are opportunistic. If they are present, there are abnormal nutrients present that should be eliminated; inspect the tower for debris, birds/ bird-excrement, and similar matter.
 - Be sure that the system is circulated frequently, not subject to prolonged stagnation and idling.

BACTERIA?

Bacteria are ubiquitous to the natural environment and cooling systems offer a warm environment for growth and replication. Azure customers, utilizing physical treatment, have the advantage of avoiding the chemical additions that supply nutrients and create sludge in the cooling tower.

Need a result with specificity?

Consider having Azure bringing a cooling water sample to a local laboratory for a SM-9215B or -9215E Total Bacteria Count on an annual or more frequent basis.

ASHRAE 188 & Legionella

Azure offers two types Biofilm Monitoring in addition to being capable of completing water management plans & test programs.