

# Air Handlers: Prime Amplification Site of Harmful Microbial Growth in Buildings

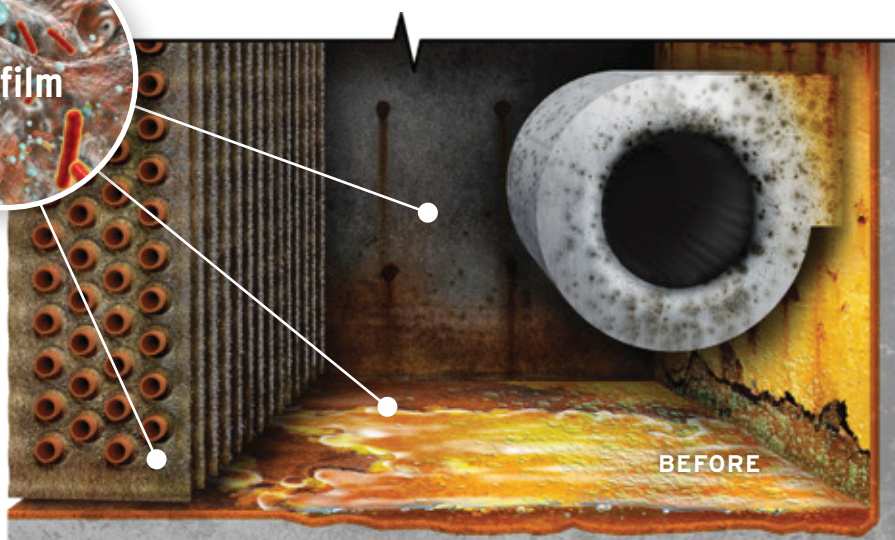
## Did You Know?

- The dark, damp conditions inside an air handler create the perfect environment for biofilm
- The massive surface area of cooling coils serves as an ideal site for the support of biofilm
- Improperly sloped drain pans lead to standing water and the formation of biofilm
- Iron-rich water in rusted drain pans can accelerate the growth of bacteria by 100x
- Improperly configured p-traps inhibit proper drainage and support biofilm growth
- Aging fiberglass insulation retains moisture and is a breeding ground for microbial growth



## PROBLEM

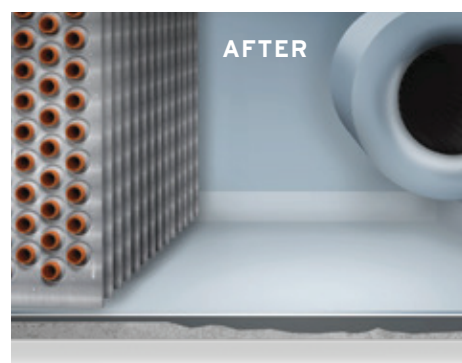
The interior of an air handling unit (AHU) is a major source of microbial growth such as fungi, bacteria, and viruses. Cooling coils, condensate drain pans and fiberglass insulation are the primary amplification sites for microbial growth\*. These microbes are small enough to bypass filtration where they thrive and proliferate in the AHU in the form of biofilms. Biofilms are vast communities of microbes protected by a strong, tacky biopolymer, called the EPS. As a result, biofilms are highly resistant to conventional cleaning methods. Over time, biofilms release microbes into the airstream resulting in a negative impact on indoor air quality.



## SOLUTION

**AQUIS AHU Refurbishment** seals and protects air handler substrates, creating smooth antimicrobial surfaces for effective drainage and easy cleaning.

**AQUIS Coil Restoration** combines a high-performance sanitization process with an innovative probiotic technology to eliminate biofilms from deep within coils.



\* Source: Biological Contamination in the HVAC System; Yang, C.

**AQUIS**

Leaders in Air Handler Renewal