

Mold Remediation Test: HVAC/Maritime

virus bacteria odor molo

Heating and Cooling Systems can blow airborne pollutants without any of us seeing what's in the air we're breathing. It's especially harmful when moisture is added to the air that allows mold, with spores always around us, to grow in places we can't see.

The maritime industry presents an ideal environment for mold growth.

- High humidity levels combined with warm temperatures allow mold, bacteria, and fungus to propagate
- Scenting systems are often used to mask the odor of mold and mildew by adding more chemicals to the air
- HVAC system and ducts are cleaned at least annually adding cost to ship maintenance

Problem

A 50-meter (150 ft) yacht was infected with multiple mold species (see Figure 1), and the crew was kept away for more than a month, staying in hotels to ensure they didn't breathe in the harmful pathogens. At the same time, the captain slept on the sun deck to avoid entering the interior.

Pyure Solution & Before and After Test

After a site assessment, several Pyure IDI[™] air and surface protection devices were installed directly into the ship's air handlers. The IDI[™], like all Pyure devices, rapidly breaks down mold, mildew and fungus common in the maritime industry, homes, and buildings and eliminates most these pathogens and their odors.

Before activating Pyure Technology©, a test was designed to prove Pyure's efficacy. Mold test kits were placed in four locations including the crew kitchen, the wheelhouse, the starboard air handling unit and the port air handler. After **three days**, the kits were removed and photographed, as can



Figure 1, Mold results after three days of exposure to the ship's existing air

three days, the kits were removed and photographed, as can be seen in Figure 1.

Another test was run after the Pyure IDI[™] purifiers were activated with four new mold test kits placed in the same locations. After the purifiers ran continuously for **seven days** (more that double the length of the first test), the kits were removed and photographed as shown in Figure 2*. **See Outcome**



Mold Remediation: HVAC/Maritime - cont.

Outcome

The result is an **overwhelming difference** in mold growth from the first test to the test completed after Pyure Technology© was activated.

Pyure Dynamic Protection© devices killed the mold spores and the ship is now cleaner, while the air and surfaces are safe for the crew and passengers.

*Conditions for both test periods were identical with no human interference.

If your commercial, industrial or maritime business is seeking Dynamic Protection for mold, virus, bacteria, odors or Volatile Organic Compounds (VOCs), connect with us to develop a test package similar to this case study.



Figure 2, Mold results after three days of exposure to the ship's air while treated by Pyure Technology $\ensuremath{\mathbb{C}}$













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