

CASE STUDY

How the pur3 system's velocity and intense air movement significantly reduced poor indoor air quality and inside a school building.



OVERVIEW

pur3 was contacted to do a test at a high school that was quarantined due to failed air samples taken in 2017. This was several years after a remodel was done. The test was to determine the performance of the system in a school environment.

The quarantined portion was not the whole school but part of one section. Band area, mezzanine, several offices, and several classrooms. The pur3 system was to be set up in one room only, the mezzanine, to sample results.

Our responsibility was to bring the system, set up, turn on, and leave. Toledo Testing Labs (TTL) was to do the sampling.

Some removal of materials had taken place in this room prior to the test run. Ceiling tile carpet, partial padding was removed. No other remediation had taken place at all. The system was not connected to any other rooms adjacent to the test room.

The beta test was a 3-day run. We had no access to the system during this time.



Our innovation delivers peace of mind through our patented technology that improves indoor air quality while improving your quality of life and the air you breathe.



APPROACH

- **Testing Was Essential:** TTL's evaluation with Spore Trap Reports with Non-Viable Methodology positioned for an independent test.
- **Maximum Utilization of the UV Germicidal Irradiation Process:** Focused on the variables that directly compromise UVC performance, in turn demonstrating the effect of UVGI treatment on drier airborne particles.
- **Multipurpose Dehumidification:** Focused on the variables that directly compromise UVC performance during testing.
- **Triple Staged/Triple Filtered:** An efficient air-handling unit with ductwork specifically designed for maximum airflow that drew continuous air exchanges

RESULTS



98%

Reduction in all viable and nonviable counts in 24 hours.



98%

Reduction of viable counts in relation to total particle count in 24 hours.



26,900

total fungal spore count reduction after 24 hour continuous run of pur3 system; a 96% reduction.

CONCLUSION

The evaluation proved that the velocity and intense air movement was responsible for topographical surface fungi drying out and releasing particles from moving air friction along with other airborne particles in all environments.

The extreme drying effect of moving air caused a dormant cycle of surface fungi and mold.

The area and extent to which the pur3 system draws air continuously controlled by directional convection extend the reach of the pur3 system's performance capabilities.