

#### Equipment Requirements

(4) HALO HEPA Air Purification Systems

#### **Products Expectations**

Air purification through ceiling mounted Erlab HALO HEPA filtration to Remove: Indoor Air Pollution Flue/Viruses Particulate Matter Mold Bacteria

### **CASE STUDY**

## Off The Vine, Tuscan Grille Rowley, MA



#### **Project Background**

The ongoing COVID epidemic hit restaurants particularly hard in loss of personnel and revenue and Off the Vine was no exception. What was exceptional was their concern and determination to institute all possible safety measures to alleviate customer and co-worker's concerns because of the indoor air quality (IAQ) that they are exposed to. Seasonal temperatures force patrons exclusively indoors every season, so while disinfecting all surfaces, wearing masks, and updating HVAC systems are all important measures, they do not address eliminating viruses and bad air quality in customer's and staff breathing zones.

Off the Vine understood the value of including IAQ measures in their renovation upgrades because they knew that viruses and contaminates spread through airborne particles. In Greg's words: "We are a restaurant so eliminating fumes and contaminates is extremely important for employee and patron safety and health." Keeping the indoor air quality free from extreme concentration loads of viruses and other pollutants was very important for Greg and Marie. Equally important was validating the efficacy of an air purification device, which is exactly what Erlab did.

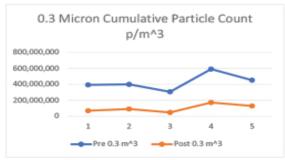


#### The Challenge

The best way to determine the efficacy was to run pre and post installation particle counts to determine the overall reduction in particle loads. Why particles? Well, it is important to understand that a virus is a particle and therefore the greater the reduction of particles, the greater the risk for airborne transmission is reduced. The graph below shows the results from test taken during peak operating hours both before and after installation. The data we collected shows a greater than 80% reduction

Off the Vine Tuscan Grille Rowley, MA - Cumulative Particle Count in Microns Per Cubic Meter						
Date	Time	Location	Spot	0.3 μm p/m^3	0.5 μm p/m^3	1.0 µm p/m^3
5/19/2021	12:20:50 PM	Off the Vine	1 Pre	392,789,696	97,898,832	5,331,737
5/19/2021	12:21:50 PM	Off the Vine	2 Pre	399,868,608	99,914,448	5,294,658
5/19/2021	12:25:23 PM	Off the Vine	3 Pre	306,027,904	63,259,952	3,107,370
5/21/2021	5:58:58 PM	Off the Vine	4 Pre	591,211,136	70,090,904	5,065,409
5/21/2021	6:19:57 PM	Off the Vine	5 Pre	451,924,928	68,507,760	3,862,905
6/3/2021	2:47:42 PM	Off the Vine	1 Post	69,686,744	1,796,365	230,593
6/3/2021	2:50:11 PM	Off the Vine	2 Post	89,989,168	1,904,174	247,204
6/3/2021	2:53:28 PM	Off the Vine	3 Post	47,617,296	1,354,662	181,869
6/4/2021	1:46:29 PM	Off the Vine	4 Post	172,218,896	7,086,075	661,075
6/4/2021	2:21:39 PM	Off the Vine	5 Post	129,086,648	6,736,390	419,590

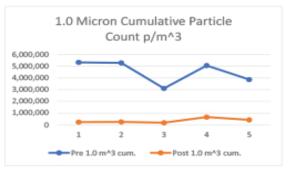
Spot	Pre 0.3 m^3	Post 0.3 m^3	% Reduction
1	392,789,696	69,686,744	82.26%
2	399,868,608	89,989,168	77.50%
3	306,027,904	47,617,296	84.44%
4	591,211,136	172,218,896	70.87%
5	451,924,928	129,086,648	71.44%



Spot	Pre 0.5 m^3	Post 0.5 m^3	% Reduction
1	97,898,832	1,796,365	98.17%
2	99,914,448	1,904,174	98.09%
3	63,259,952	1,354,662	97.86%
4	70,090,904	7,086,075	89.89%
5	68,507,760	6,736,390	90.17%

0.5 Micron Cumulative Particle Count p/m^3					
150,000,000					
100,000,000	•	_			
50,000,000			-	_	-
0	-	-	-	_	
	1	2	3	4	5
Pre 0.5 m^3 Post 0.5 m^3					

Spot	re 1.0 m^3 cun	st 1.0 m^3 cu	% Reduction
1	5,331,737	230,593	95.68%
2	5,294,658	247,204	95.33%
3	3,107,370	181,869	94.15%
4	5,065,409	661,075	86.95%
5	3,862,905	419,590	89.14%



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#### Case Study

#### Off The Vine Tuscan Grille



of smaller harmful particles, significantly improving overall air quality, making for a healthier and safer environment. The results are with a total of four Halo's installed in the main dining area.

#### The Solution

he Halo air purification system has now been tested by three, third party testing facilities, all return-Ing positive results on the system's ability to perform as stated. That being said, we are appreciative it when customers, like Off the Vine, support our claims that HALO is the most effective commercial air purification system on the market for improving indoor air quality by removing viruses, bacteria, and environmental pollution (PM 2.5).

We are also gratified to share Mr. Wick's recommendation, in his own words: "It was a pleasure working with Erlab, and the units they installed have already made an impact as far as making our customers feel safer. They exceeded all expectations."

We applaud Off the Vine for their commitment to 'customer safety first,' a philosophy they share with Erlab, and one that will have a positive impact on their future success.

