

Nuwave, LLC

TEST REPORT

SCOPE OF WORK

Removal Rate Testing - Air Purifier - [47601;476XX]

REPORT NUMBER

230531034GZU-002

ISSUE DATE

14-Nov-2023

PAGES

12

DOCUMENT CONTROL NUMBER

AP-US-TRF_V5.1[31-05-2021]

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DRAFT REPORT

[REVISED DATE]

None



Test Report

Report Number	230531034GZU-002
Test Laboratory Name / Address	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China
Applicant Name / Address	Nuwave, LLC 560 Bunker Ct. Vernon Hills, IL 60061, USA
Manufacturing Name / Address	Same as applicant
Product	Air Purifier
Brand Name	NUWAVE® OXYPURE ZERO® E2000
Description	The product covered by this report is a cord connected indoor used only Air Purifier.
Model(s) (if applicable)	47601;476XX
Model Similarity	XX can be any number; all models are identical except for the specific model name.
Rated voltage (V)	120
Rated frequency (Hz)	60
Rated power (W)	105
Date of receipt of sample(s)	13-Jul-2023
Date of test	28-Jul-2023 to 4-Aug-2023
Sample Condition	Prototype
Test standard(s) or criteria(s)	Refer to ANSI/AHAM AC-1-2020 & Special Requirements of the Applicant.
Conclusion	No conclusion for this test report.
Date of issue	14-Nov-2023
Date of revision	None

Prepared by:

Approved by:

DRAFT REPORT

Ben Deng
Project Engineer

Amit Li
Sr. Supervisor

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The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid. When determining the test result, measurement uncertainty has been considered.

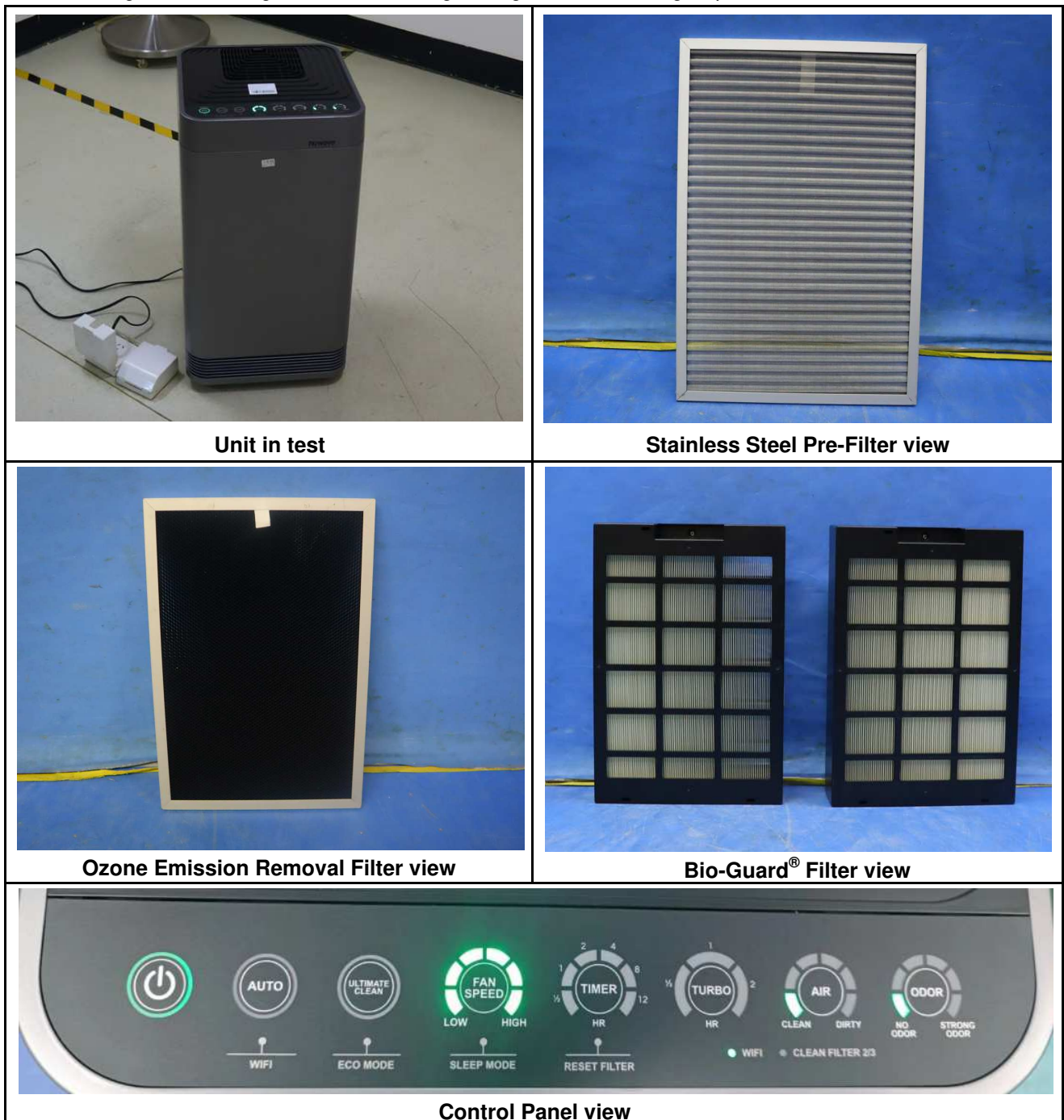
Test Equipment List:

Equipment Name	Type	Number	Calibration Date	Due Date
Laser Aerosol Spectrometer	3340	SA016-23-04	2023/1/6	2024/1/5
Aerodynamic Particle Sizer	3321	SA016-23-05	2022/12/9	2023/12/8
Fluidized Bed Aerosol Generator	3400A	SA016-23-05	2023/6/2	2024/6/1
Air Cleaner testing Chamber		SA016-23	2023/6/2	2024/6/1

Device Under Test Description:

The device(s) tested for this report were/was Model 47601

The following device settings were used during testing: 120V/60Hz, High Speed, Tested on the Floor



Results of pollutants remove rate for Cigarette Smoke:

Monitored particle size ranges for the Cigarette Smoke particulates were: 0.1-1 microns.

Model/Configuration: S230531034-003, 47601, 120V/60Hz, High Speed

Time (min)	Cigarette smoke				
	0.1µm	0.11µm	0.12µm	0.13µm	0.14µm
10	83.97%	88.03%	89.75%	88.22%	86.25%
20	99.62%	99.53%	99.60%	99.67%	99.65%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	Cigarette smoke				
	0.15µm	0.16µm	0.17µm	0.18µm	0.19µm
10	89.57%	90.40%	89.55%	88.58%	89.93%
20	99.85%	99.53%	99.75%	99.70%	99.70%
30	100.00%	100.00%	100.00%	100.00%	99.96%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	Cigarette smoke				
	0.2µm	0.225µm	0.25µm	0.275µm	0.3µm
10	90.56%	91.32%	89.44%	91.52%	91.84%
20	99.72%	99.83%	99.75%	99.71%	99.79%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Results of pollutants remove rate for Cigarette Smoke:

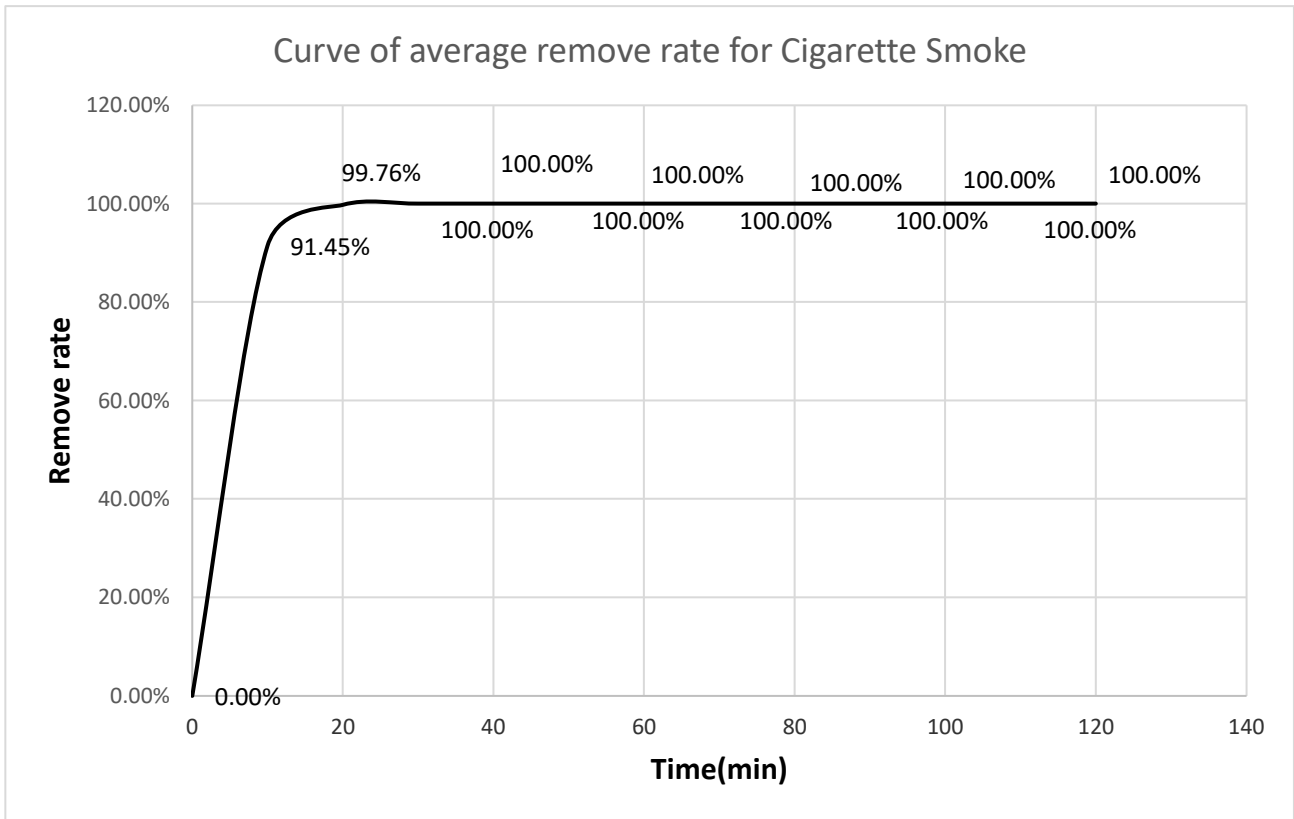
Monitored particle size ranges for the Cigarette Smoke particulates were: 0.1-1 microns.

Model/Configuration: S230531034-003, 47601, 120V/60Hz, High Speed

Time (min)	Cigarette smoke				
	0.325µm	0.35µm	0.4µm	0.45µm	0.5µm
10	91.41%	92.18%	92.58%	93.47%	92.52%
20	99.76%	99.91%	99.56%	99.92%	100.00%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	Cigarette smoke				
	0.6µm	0.7µm	0.8µm	0.9µm	1µm
10	95.13%	90.00%	100.00%	100.00%	100.00%
20	99.43%	100.00%	100.00%	100.00%	100.00%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Curve of average remove rate for Cigarette Smoke



Results of pollutants remove rate for Dust:

Monitored particle size ranges for the Dust particulates were: 0.5-3 microns.

Model/Configuration: S230531034-003, 47601, 120V/60Hz, High Speed

Time (min)	Dust				
	<0.523µm	0.542µm	0.583µm	0.626µm	0.673µm
10	88.89%	89.19%	88.40%	88.73%	88.50%
20	99.47%	99.47%	99.34%	99.38%	99.38%
30	99.96%	99.96%	99.91%	99.98%	99.94%
40	99.99%	99.98%	100.00%	100.00%	99.97%
50	99.97%	99.98%	100.00%	100.00%	99.97%
60	99.98%	100.00%	100.00%	100.00%	99.99%
70	99.99%	100.00%	100.00%	100.00%	99.99%
80	99.99%	100.00%	100.00%	100.00%	100.00%
90	99.99%	100.00%	100.00%	100.00%	100.00%
100	99.99%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	Dust				
	0.723µm	0.777µm	0.835µm	0.898µm	0.965µm
10	88.55%	88.21%	88.08%	88.21%	88.03%
20	99.29%	99.20%	99.26%	99.37%	99.15%
30	99.99%	99.98%	99.94%	99.93%	99.94%
40	99.99%	99.96%	99.95%	99.97%	99.94%
50	99.99%	99.96%	99.98%	100.00%	99.95%
60	99.99%	99.95%	99.98%	100.00%	99.95%
70	100.00%	99.99%	99.99%	100.00%	99.98%
80	100.00%	99.99%	99.99%	100.00%	99.97%
90	100.00%	100.00%	99.99%	100.00%	99.98%
100	100.00%	100.00%	99.99%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	Dust				
	1.037µm	1.114µm	1.197µm	1.286µm	1.382µm
10	88.87%	89.48%	87.90%	90.01%	89.97%
20	99.26%	99.23%	99.30%	99.25%	99.28%
30	99.94%	99.83%	99.88%	99.92%	99.90%
40	99.96%	99.95%	99.94%	99.96%	99.95%
50	99.98%	99.98%	99.97%	100.00%	100.00%
60	99.98%	99.98%	99.97%	100.00%	100.00%
70	99.99%	99.98%	99.97%	100.00%	100.00%
80	99.99%	99.99%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Results of pollutants remove rate for Dust:

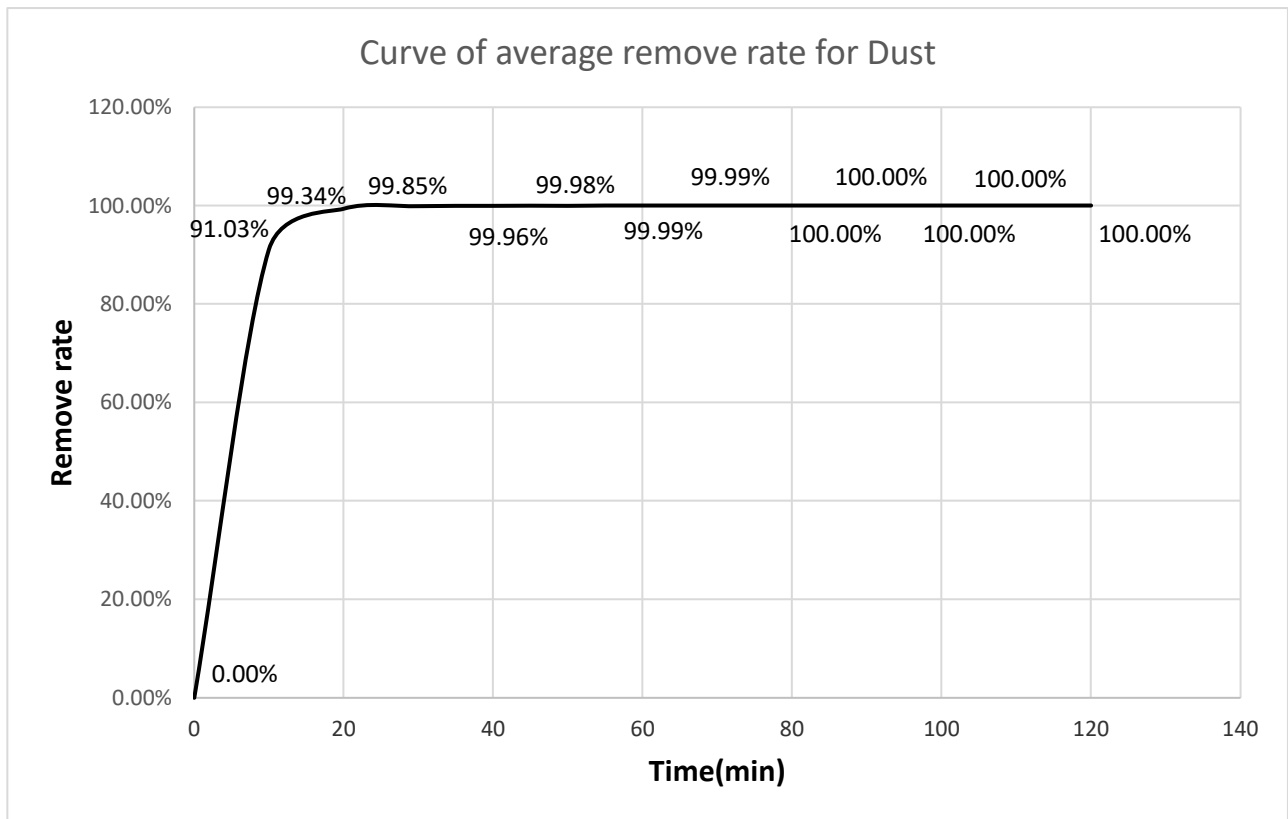
Monitored particle size ranges for the Dust particulates were: 0.5-3 microns.

Model/Configuration: S230531034-003, 47601, 120V/60Hz, High Speed

Time (min)	1.486µm	1.596µm	Dust 1.715µm	1.843µm	1.981µm
10	91.57%	90.92%	91.79%	95.74%	94.62%
20	99.10%	99.41%	99.57%	99.61%	99.15%
30	99.86%	99.71%	99.71%	100.00%	100.00%
40	99.93%	99.80%	99.86%	100.00%	100.00%
50	100.00%	99.80%	99.86%	100.00%	100.00%
60	100.00%	99.90%	99.98%	100.00%	100.00%
70	100.00%	99.90%	99.98%	100.00%	100.00%
80	100.00%	99.98%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	2.129µm	2.288µm	Dust 2.458µm	2.642µm	2.839µm
10	93.24%	97.12%	98.10%	95.92%	95.65%
20	99.10%	100.00%	100.00%	97.96%	100.00%
30	100.00%	100.00%	100.00%	97.96%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Curve of average remove rate for Dust



Results of pollutants remove rate for Pollen:

Monitored particle size ranges for the Pollen particulates were: 5-11 microns.

Model/Configuration: S230531034-003, 47601, 120V/60Hz, High Speed

Time (min)	5.048µm	5.425µm	Pollen 5.829µm	6.264µm	6.732µm
10	98.00%	98.44%	98.53%	99.06%	98.59%
20	100.00%	100.00%	100.00%	100.00%	100.00%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	7.234µm	7.774µm	Pollen 8.354µm	8.977µm	9.647µm
10	99.12%	99.62%	99.74%	99.88%	100.00%
20	100.00%	100.00%	100.00%	99.88%	100.00%
30	100.00%	100.00%	100.00%	100.00%	100.00%
40	100.00%	100.00%	100.00%	100.00%	100.00%
50	100.00%	100.00%	100.00%	100.00%	100.00%
60	100.00%	100.00%	100.00%	100.00%	100.00%
70	100.00%	100.00%	100.00%	100.00%	100.00%
80	100.00%	100.00%	100.00%	100.00%	100.00%
90	100.00%	100.00%	100.00%	100.00%	100.00%
100	100.00%	100.00%	100.00%	100.00%	100.00%
110	100.00%	100.00%	100.00%	100.00%	100.00%
120	100.00%	100.00%	100.00%	100.00%	100.00%

Time (min)	10.37µm	11.14µm	Pollen
10	100.00%	100.00%	
20	100.00%	100.00%	
30	100.00%	100.00%	
40	100.00%	100.00%	
50	100.00%	100.00%	
60	100.00%	100.00%	
70	100.00%	100.00%	
80	100.00%	100.00%	
90	100.00%	100.00%	
100	100.00%	100.00%	
110	100.00%	100.00%	
120	100.00%	100.00%	

Curve of average remove rate for Pollen

