Blue Heaven Technologies

2820 S. English Station Road - Louisville, KY 40299
Tel: (502) 357-0132 Fax (502) 267-8379

Date: 31-May-23 **TEST NO.** 23-248-1

Test Report
ANSI/ASHRAE
Modified Standard 52.2-2017
And Appendix J Discharge

Filter Description

Manufacturer	Viskon-Aire Corp
Filter Model	Revolution
Part Number	RV1624242208F
Generic Filter Type	Pocket Filter
Nominal Dimensions (H x W x D)	24" x 24" x 22"
Pocket / Pleat Quantity	8 Pockets
Media Type	Synthetic Nano Wave
Est. Gross Media Area	58.7Ft²
Adhesive Type	N/A

Test Conditions

Conditioning Aerosol Type	KCL		
Loading Dust Type	ISO A2 Fine	Test Air Temp (degrees F.)	77
Barometric Pressure (In. Hg.)	29.34	Relative Humidity (%)	45

Test Results

Airflow Rate (CFM)	**1968**
Nominal Face Velocity (fpm)	**492**
Initial Resistance (in WG)	**0.34**
Final Resistance (in WG)	**1.50**
Dust Fed (gms) to Final Resistance	**791**
E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um	**99**
E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um	**100**
E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um	**100**
Minimum Efficiency Reporting Value (MERV)	**MERV 16-A @ 1968 CFM**

Comments Tested For: Viskon-Aire Corp

Remarks

Final Pressure Drop ("w.c.)	**1.50"w.c.**
Dust Holding Capacity (gms)	**791**
Average Arrestance (%)	**100.00**

Test Performed by: C Rees CAFS Approved By: Manager Test Completed: 31-May-23

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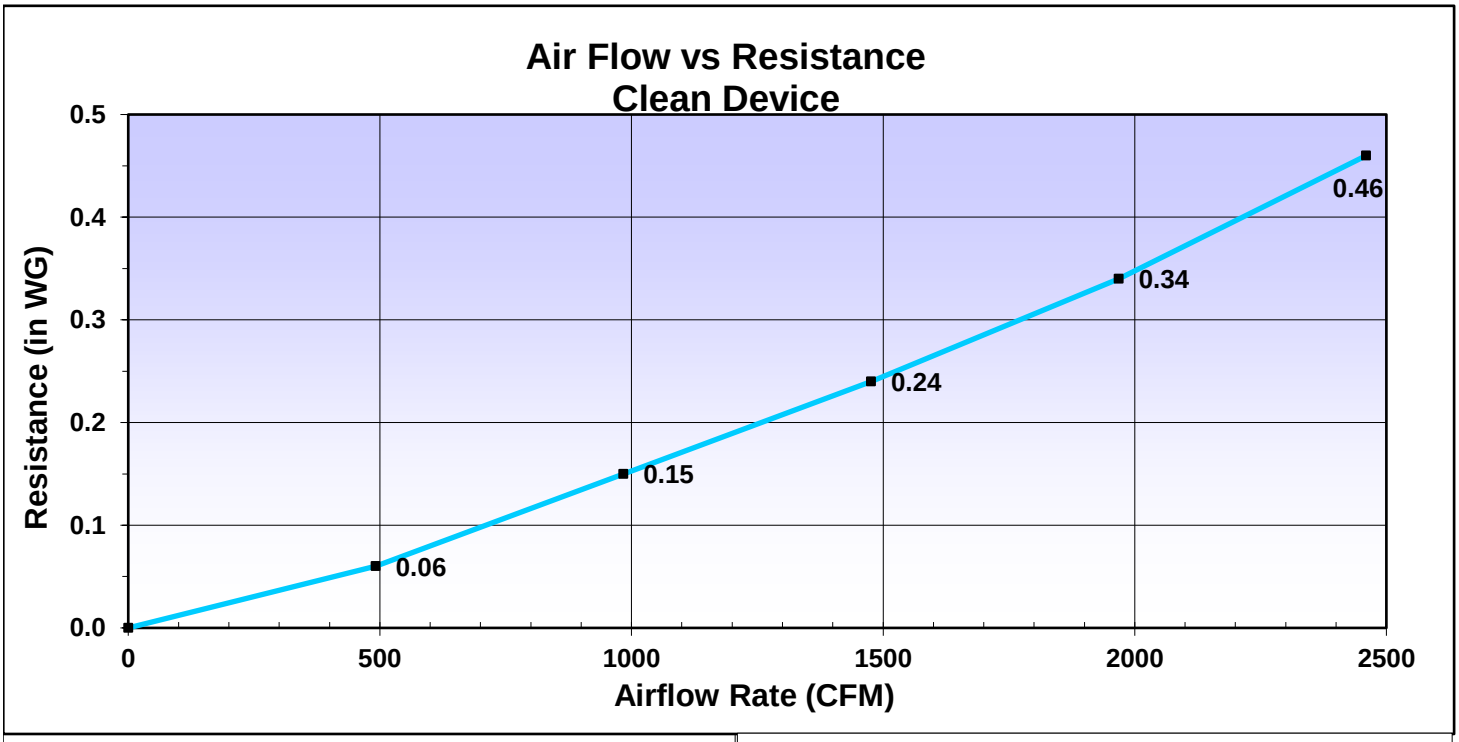

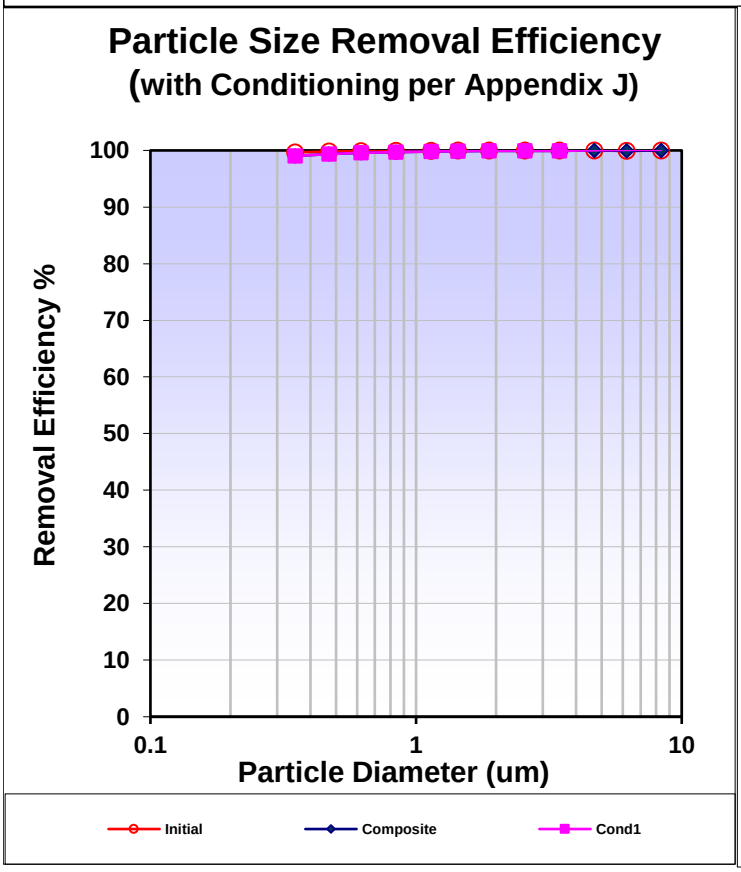

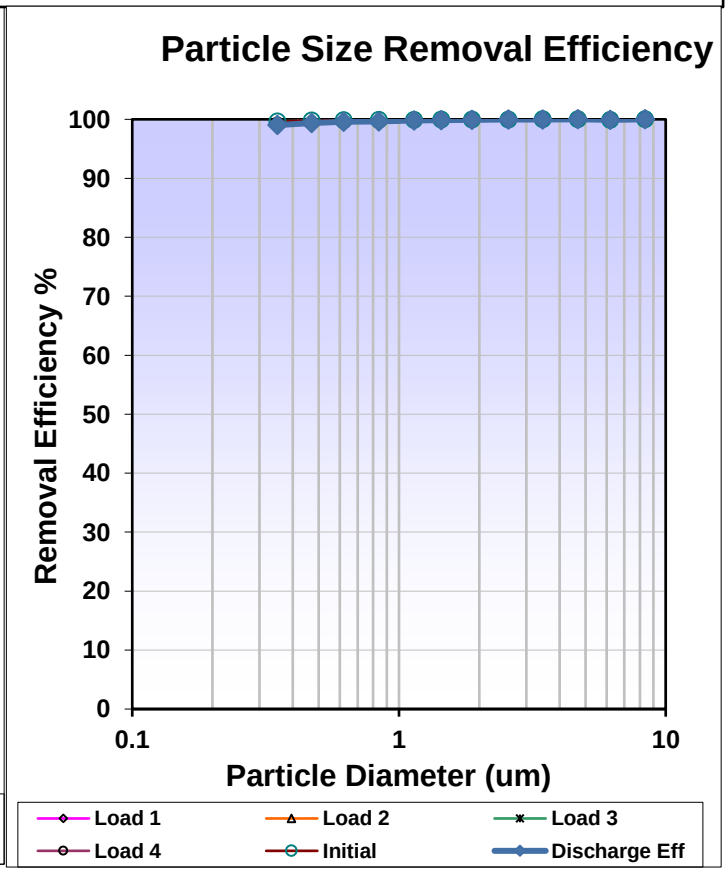

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ASHRAE Standard 52.2-2017
Test Report

Test No. 23-744-1
Date: 31-May-23

Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
492	0.06
984	0.15
1476	0.24
1968	0.34
2460	0.46

Data - Particle Removal Efficiency per Appendix J

Particle Size Range (um)	Geometric Mean Diam (um)	Particle Removal Efficiency (%)										
0.30 - 0.40	0.35	99.02	99.66	99.02								
0.40 - 0.55	0.47	99.38	99.80	99.38								
0.55 - 0.70	0.62	99.57	99.86	99.57								
0.70 - 1.00	0.84	99.67	99.90	99.67								
1.00 - 1.30	1.14	99.81	99.93	99.81								
1.30 - 1.60	1.44	99.86	99.97	99.86								
1.60 - 2.20	1.88	99.90	99.95	99.90								
2.20 - 3.00	2.57	99.94	99.97	99.94								
3.00 - 4.00	3.46	99.94	100.00	99.94								
4.00 - 5.50	4.69	100.00	100.00	100.01								
5.50 - 7.00	6.20	99.94	99.94	100.07								
7.00 - 10.00	8.37	100.00	100.00	100.12								
		Composite Min Eff (CME)	Initial	Conditioning Increment 1	Conditioning Increment 2	Conditioning Increment 3	Conditioning Increment 4	Conditioning Increment 5	Conditioning Increment 6	Conditioning Increment 7	Conditioning Increment 8	Conditioning Increment 9

Conditioning Procedure Details
(included for reference as required by Appendix J11.1)

	Initial	Cond 1	Cond 2	Cond 3	Cond 4	Cond 5	Cond 6	Cond 7	Cond 8	Cond 9
Background concentration (particles cm-3) ----->	0.92									
Correlation ratio small to large particles ----->	26,452									
Avg conditioning aerosol concentration (particles cm-3) ----->		78,152								
Incremental conditioning duration (minutes) ----->		959.2								
Cumulative conditioning duration (minutes) ----->		959.2								
Incremental CT (particle cm-3 min) ----->		74,960,500								
Cumulative conditioning CT (particles cm-3 min) ----->		74,960,500								
Dust Holding Capacity DHC-A (grams) ----->		NA								

Data - Particle Removal Efficiency

Particle Size Range (um)	Geometric Mean Diam (um)	Particle Removal Efficiency (%)						
0.30 - 0.40	0.35	99.0	99.66	99.02	99.6	99.3	99.7	99.6
0.40 - 0.55	0.47	99.4	99.80	99.38	99.7	99.5	99.8	99.8
0.55 - 0.70	0.62	99.6	99.86	99.57	99.8	99.6	99.9	99.8
0.70 - 1.00	0.84	99.7	99.90	99.67	99.9	99.7	99.9	99.9
1.00 - 1.30	1.14	99.7	99.93	99.81	99.9	99.7	99.9	99.9
1.30 - 1.60	1.44	99.7	99.97	99.86	99.9	99.7	100.0	99.9
1.60 - 2.20	1.88	99.8	99.95	99.90	99.9	99.8	100.0	99.9
2.20 - 3.00	2.57	99.8	99.97	99.94	99.9	99.8	100.0	99.9
3.00 - 4.00	3.46	99.8	100.00	99.94	100.0	99.8	100.0	99.9
4.00 - 5.50	4.69	99.8	100.00	100.00	100.0	99.8	100.0	100.0
5.50 - 7.00	6.20	99.9	99.94	99.94	100.0	99.9	100.0	100.0
7.00 - 10.00	8.37	100.0	100.00	100.00	100.0	100.0	100.0	100.0
		CME	Initial	Discharged	Load 1	Load 2	Load 3	Load 4
Resistance after Dust Load (in w.c.) ----->				Efficiency	0.63	0.92	1.21	1.50
Dust Load (gms) ---------->					300	540	703	791

Test Data for Release Rate (%)					
Size Range No.	Geometric Mean of Particle Size Range, µm	Release Rate After Loading Stage 1	Release Rate After Loading Stage 2	Release Rate After Loading Stage 3	Release Rate After Loading Stage 4
1	0.35	0.001	0.000	0.001	0.001
2	0.47	0.001	0.001	0.001	0.001
3	0.62	0.002	0.001	0.000	0.002
4	0.84	0.002	0.001	0.001	0.001
5	1.14	0.006	0.005	0.003	0.004
6	1.44	0.000	0.005	0.006	0.006
7	1.88	0.009	0.005	0.008	0.003
8	2.57	0.019	0.015	0.028	0.013
9	3.46	0.058	0.089	0.074	0.023
10	4.69	0.059	0.277	0.149	0.094
11	6.2	0.264	0.446	0.120	0.136
12	8.37	0.497	0.922	0.202	0.381