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Date: 16-Nov-17 TEST NO.17-621-5C

## Test Report ANSI/ASHRAE Standard 52.2-2017

### Filter Description

Manufacturer	Viskon-Aire Corp.
Filter Model	4 V-Cell MERV 16
Part Number	4VBH10242412
Generic Filter Type	12" V Cell
Nominal Dimensions (H x W x D)	24" x 24" x 12"
Pocket / Pleat Quantity	8 Packs
Media Type	Microglass Media
Est. Gross Media Area	200 Ft <sup>2</sup>
Adhesive Type	Polyurethane




### Test Conditions

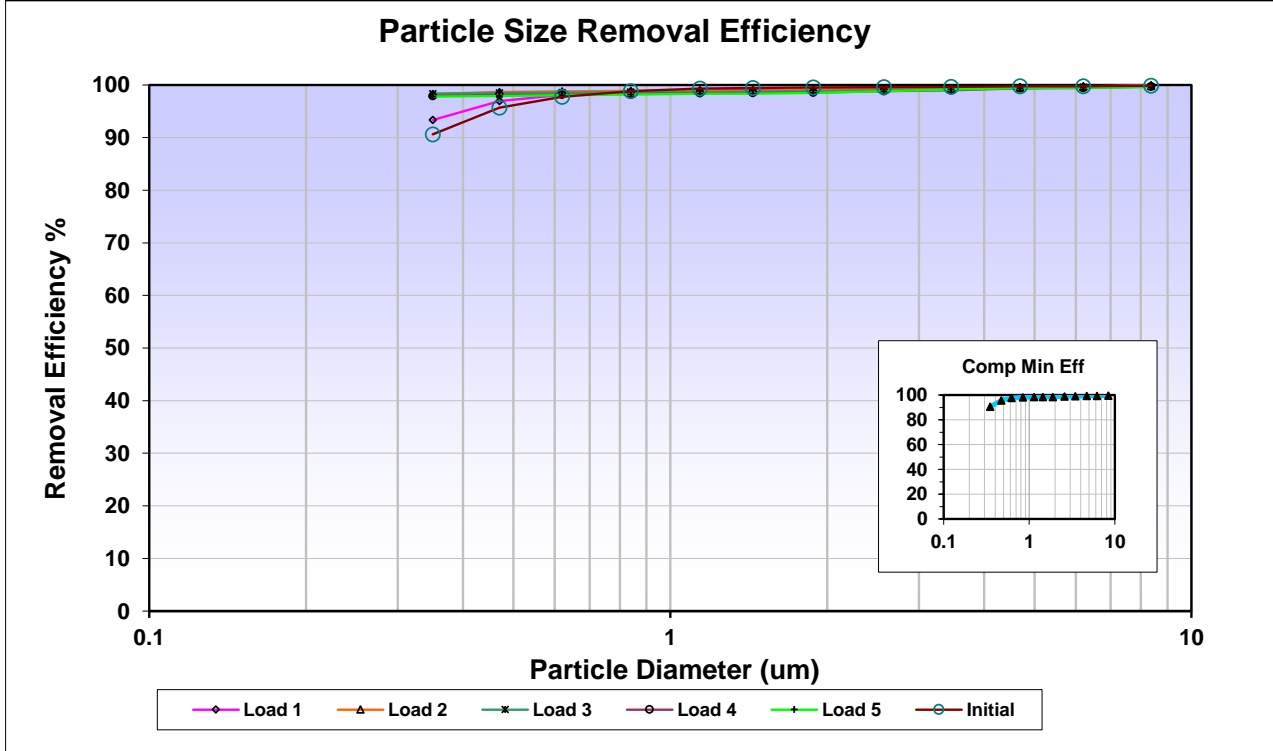
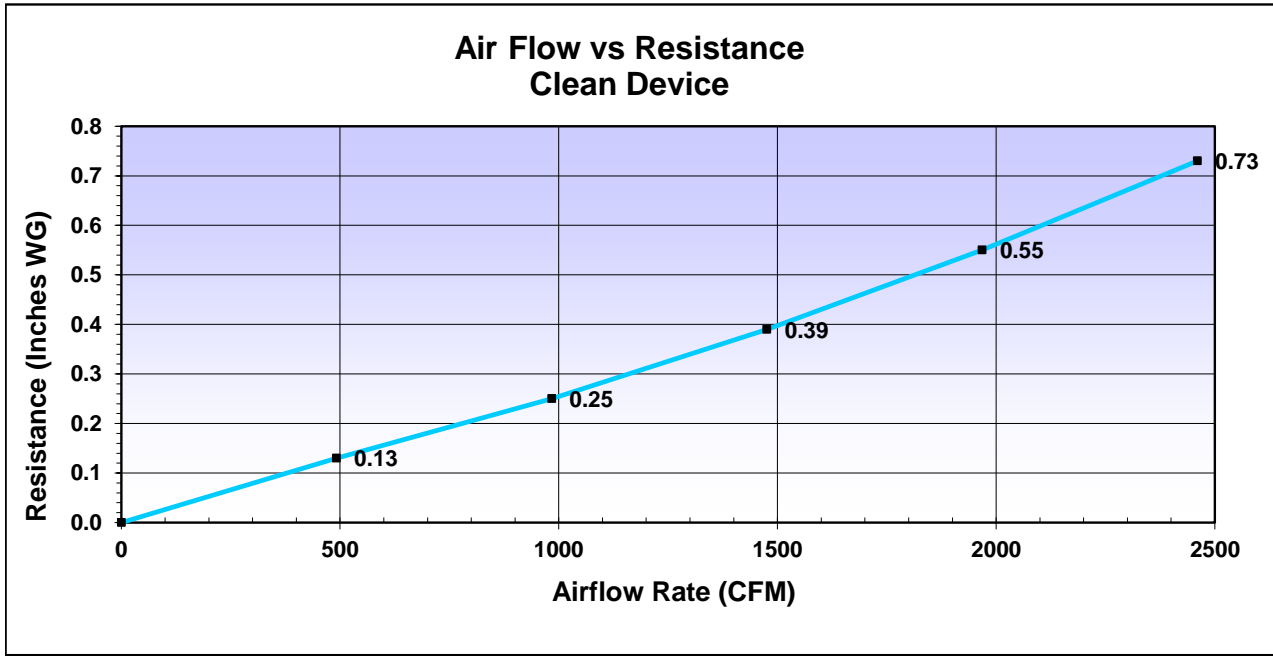
Loading Dust Type	ASHRAE	Test Air Temp (degrees F.)	71
Barometric Pressure (In. Hg.)	29.42	Relative Humidity (%)	40

### Test Results

<b>Airflow Rate (CFM)</b>	<b>1968</b>
<b>Nominal Face Velocity (fpm)</b>	<b>492</b>
<b>Initial Resistance (in WG)</b>	<b>0.55</b>
<b>Final Resistance (in WG)</b>	<b>1.50</b>
<b>Dust Fed (gms) to Final Resistance</b>	<b>403</b>
<b>E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um</b>	<b>96</b>
<b>E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um</b>	<b>98</b>
<b>E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um</b>	<b>99</b>
<b>Minimum Efficiency Reporting Value (MERV)</b>	<b>MERV 16 @ 1968 CFM</b>

**Comments** Tested For: Visikon-Aire Corp.  
 Final Pressure Drop ("w.c.) 1.50"w.c.  
 Dust Holding Capacity (gms) 403  
 Average Arrestance (%) 100.0

**Test Performed by:** RAS      **Approved By:**       **Test Completed:** 16-Nov-17



**Data - Initial Resistance**

Airflow (CFM)	Resistance (in WG)
0	0.00
492	0.13
984	0.25
1476	0.39
1968	0.55
2460	0.73

**Data - Particle Removal Efficiency**

Particle Size Range (um)	Geometric Mean Diam (um)	Particle Removal Efficiency (%)							
		CME	Initial	Load 1	Load 2	Load 3	Load 4	Load 5	
0.30 - 0.40	0.35	90.6	90.6	93.3	98.3	98.3	97.9	97.8	
0.40 - 0.55	0.47	95.7	95.7	96.9	98.7	98.5	98.1	97.9	
0.55 - 0.70	0.62	97.8	97.8	98.2	98.8	98.5	98.2	98.1	
0.70 - 1.00	0.84	98.2	98.8	98.8	98.9	98.7	98.3	98.2	
1.00 - 1.30	1.14	98.3	99.3	99.0	98.9	98.6	98.4	98.3	
1.30 - 1.60	1.44	98.4	99.4	99.0	98.9	98.7	98.5	98.4	
1.60 - 2.20	1.88	98.5	99.5	99.1	99.1	98.8	98.6	98.5	
2.20 - 3.00	2.57	98.8	99.6	99.2	99.2	99.0	98.8	98.8	
3.00 - 4.00	3.46	99.0	99.7	99.4	99.3	99.3	99.0	99.2	
4.00 - 5.50	4.69	99.4	99.8	99.6	99.5	99.4	99.4	99.4	
5.50 - 7.00	6.20	99.4	99.8	99.7	99.8	99.6	99.4	99.5	
7.00 - 10.00	8.37	99.6	99.9	99.9	99.9	99.7	99.7	99.6	
Resistance after Dust Load (in w.c.) ----->				0.59	0.79	1.03	1.26	1.50	
Dust Load (gms) ----->				27	148	228	308	403	

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	Release Rate After Loading Stage 5
1	0.35	0.026	0.015	0.010	0.023	0.046
2	0.47	0.006	0.009	0.005	0.011	0.030
3	0.62	0.001	0.004	0.002	0.005	0.026
4	0.84	0.002	0.003	0.003	0.006	0.028
5	1.14	0.009	0.008	0.007	0.015	0.082
6	1.44	0.007	0.004	0.005	0.015	0.058
7	1.88	0.008	0.012	0.006	0.018	0.090
8	2.57	0.008	0.019	0.011	0.036	0.144
9	3.46	0.015	0.028	0.007	0.058	0.260
10	4.69	0.035	0.052	0.033	0.110	0.315
11	6.2	0.038	0.049	0.076	0.131	0.267
12	8.37	0.065	0.077	0.046	0.210	0.178