



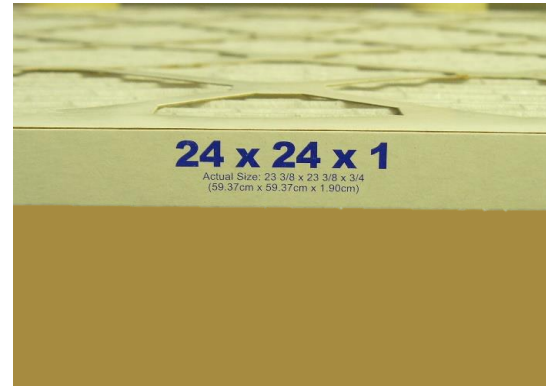
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Date: 23-Dec-19 TEST NO. 19-614-1

Test Report ANSI/ASHRAE Standard 52.2-2017

Filter Description

Manufacturer	National Filter Sales
Filter Model	Health 24x24x1
Part Number	Health - 242401 - 6
Generic Filter Type	Pleated
Nominal Dimensions (H x W x D)	24" x 24" x 1"
Pocket / Pleat Quantity	41 Pleats
Media Type	Synthetic
Est. Gross Media Area	12.03 Ft ²
Adhesive Type	N/A



Test Conditions

Loading Dust Type	ASHRAE	Test Air Temp (degrees F.)	69
Barometric Pressure (In. Hg.)	29.44	Relative Humidity (%)	39

Test Results

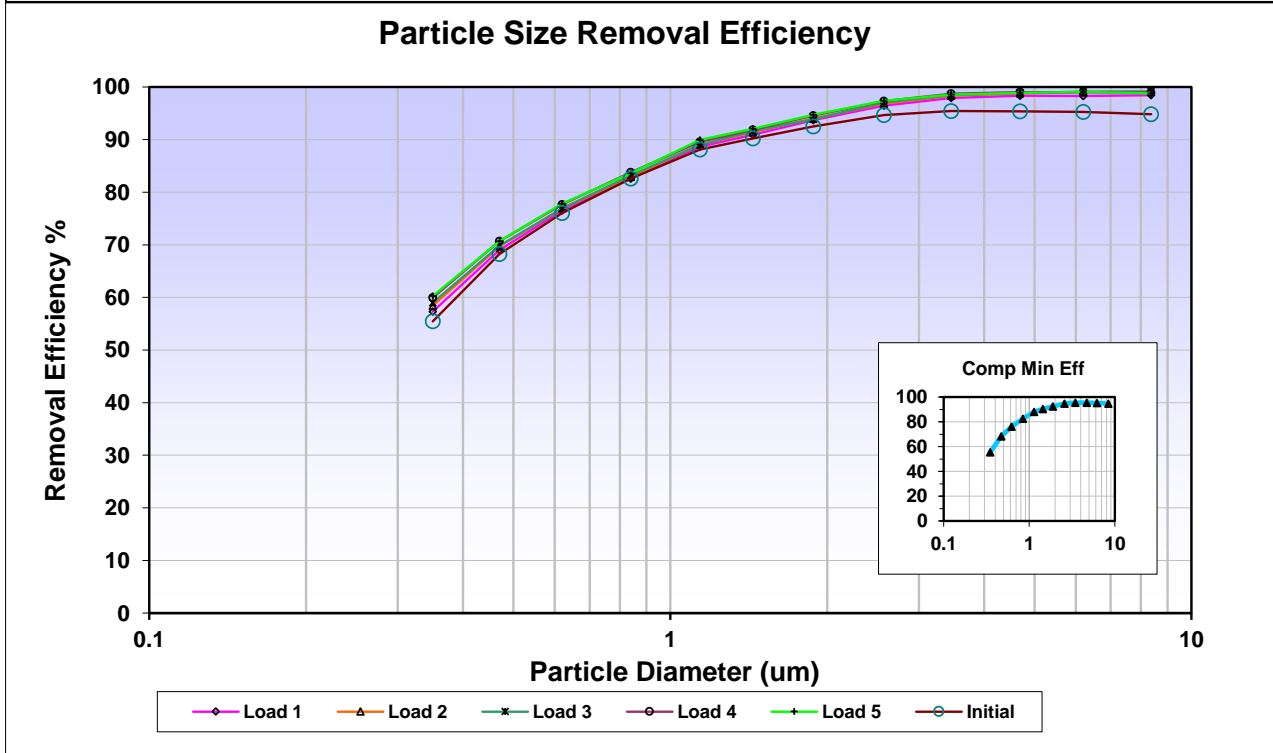
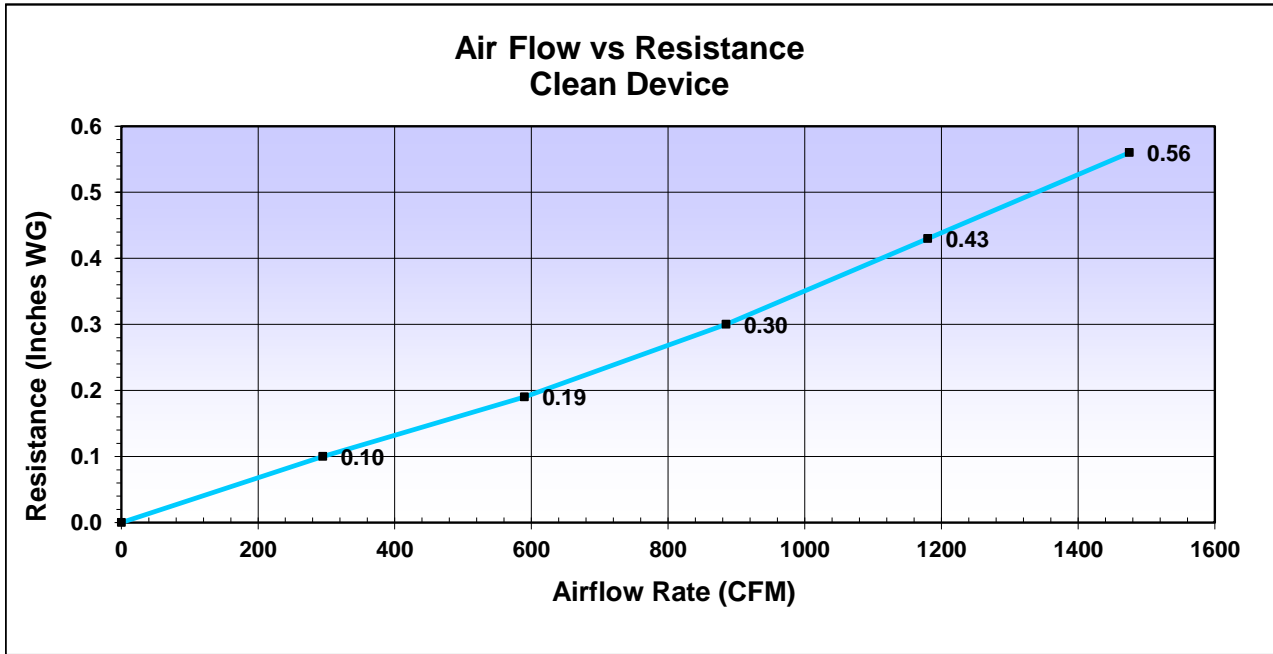
Airflow Rate (CFM)	1180
Nominal Face Velocity (fpm)	295
Initial Resistance (in WG)	0.43
Final Resistance (in WG)	1.00
Dust Fed (gms) to Final Resistance	5
E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um	71
E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um	91
E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um	95
Minimum Efficiency Reporting Value (MERV)	MERV 13 @ 1180 CFM

Remarks

Comments

Tested For: National Filter Sales	
Final Pressure Drop ("w.c.)	1.00" w.c.
Dust Holding Capacity (gms)	5
Average Arrestance (%)	98.0

Test Performed by: CR **Approved By:**  **Test Completed:** 23-Dec-19



Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
295	0.10
590	0.19
885	0.30
1180	0.43
1475	0.56

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	55.4	55.4	57.3	58.4	59.0	59.9	60.3	
0.40 - 0.55	0.47	68.2	68.2	69.0	69.7	69.8	70.7	70.7	
0.55 - 0.70	0.62	76.0	76.0	76.6	76.9	76.9	77.7	77.8	
0.70 - 1.00	0.84	82.6	82.6	82.6	82.9	83.2	83.8	83.6	
1.00 - 1.30	1.14	88.1	88.1	88.7	89.0	89.0	89.6	90.0	
1.30 - 1.60	1.44	90.2	90.2	90.9	91.4	91.7	91.8	92.1	
1.60 - 2.20	1.88	92.5	92.5	93.7	94.0	93.9	94.5	94.7	
2.20 - 3.00	2.57	94.7	94.7	96.5	96.8	97.0	97.3	97.4	
3.00 - 4.00	3.46	95.4	95.4	97.9	98.3	98.4	98.8	98.6	
4.00 - 5.50	4.69	95.4	95.4	98.3	98.8	98.9	99.0	98.9	
5.50 - 7.00	6.20	95.3	95.3	98.3	99.1	99.1	99.0	99.1	
7.00 - 10.00	8.37	94.8	94.8	98.4	99.1	99.1	98.9	98.8	
Resistance after Dust Load (in w.c.) ----->				0.47	0.57	0.72	0.86	1.00	
Dust Load (gms) ----->				1	2	3	4	5	

Test Data for Release Rate (%)						
Size Range	Geometric Mean of Particle Size Range, μm	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading
No.		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
1	0.35	0.021	0.023	0.104	0.852	0.796
2	0.47	0.017	0.018	0.091	0.099	1.018
3	0.62	0.013	0.012	0.057	0.252	0.704
4	0.84	0.008	0.010	0.061	0.112	0.872
5	1.14	0.012	0.005	0.084	0.239	0.986
6	1.44	0.008	0.010	0.099	0.442	1.049
7	1.88	0.006	0.008	0.082	0.741	1.149
8	2.57	0.006	0.005	0.073	0.523	1.205
9	3.46	0.004	0.000	0.084	0.825	1.082
10	4.69	0.000	0.017	0.068	0.402	0.806
11	6.2	0.000	0.019	0.039	0.335	0.428
12	8.37	0.000	0.012	0.057	0.195	0.259