



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

Date: 22-May-08 TEST NO. 08-383

ASHRAE Standard 52.2-2007 TEST REPORT

Filter Description

Manufacturer	AAF International
Filter Model	Varicel
Part Number	331-946-148
Generic Filter Type	Extended Surface Supported Pleat
Nominal Dimensions (H x W x D)	24"x24"x12"
Pocket / Pleat Quantity	38 Pleats
Media Type	Fiberglass
Est. Gross Media Area	125 Ft ²
Adhesive Type	N A



Test Conditions

Loading Dust Type	ASHRAE	Test Air Temp (degrees F.)	84
Barometric Pressure (In. Hg.)	29.12	Relative Humidity (%)	31

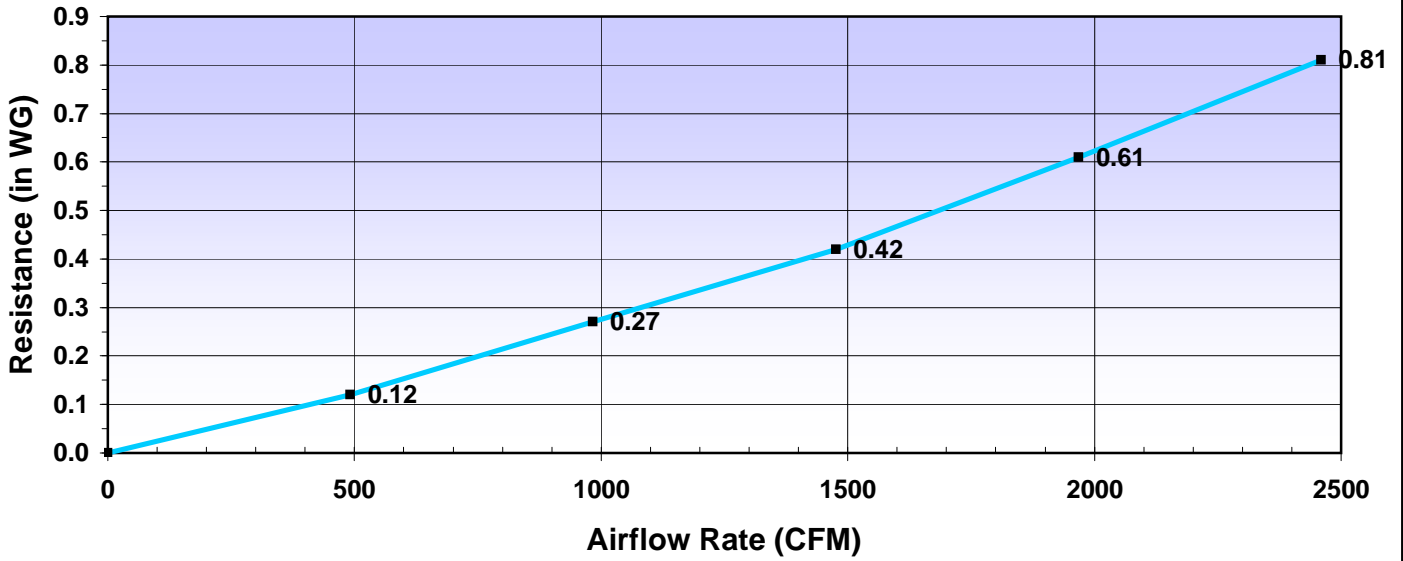
Test Results

Airflow Rate (CFM)	1968
Nominal Face Velocity (fpm)	492
Initial Resistance (in WG)	0.61
Final Resistance (in WG)	1.50
E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um	83
E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um	98
E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um	99
Minimum Efficiency Reporting Value (MERV)	MERV 14 @ 1968 CFM

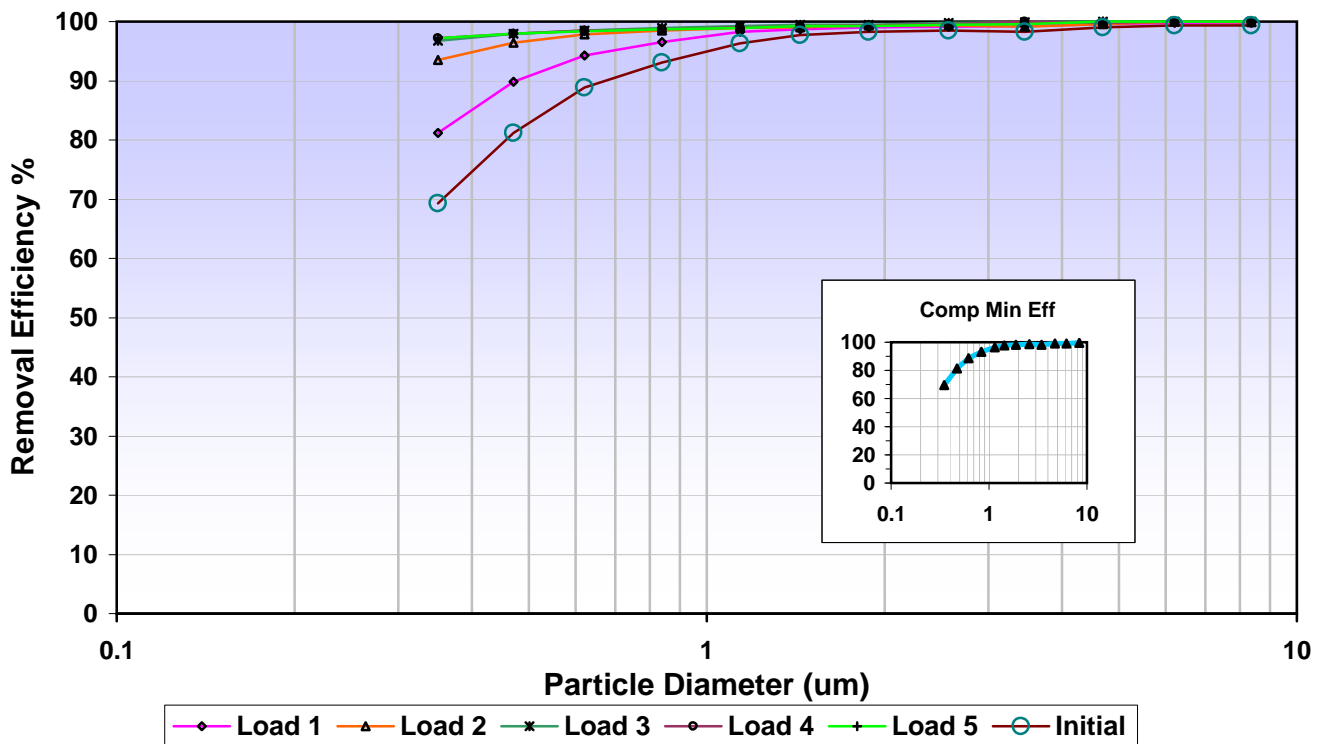
Comments Tested For: AAF International
 Dust Fed (gms) to Final Resistance: 160
 Filter Acquired From The Open Market

Approval:

Air Flow vs Resistance Clean Device



Particle Size Removal Efficiency



Blue Heaven Technologies

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Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
492	0.12
984	0.27
1476	0.42
1968	0.61
2460	0.81

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	69.3	69.3	81.2	93.5	96.7	97.1	97.2	
0.40 - 0.55	0.47	81.2	81.2	89.8	96.5	98.0	98.0	98.0	
0.55 - 0.70	0.62	88.8	88.8	94.2	97.9	98.5	98.4	98.4	
0.70 - 1.00	0.84	93.1	93.1	96.6	98.5	98.9	98.8	98.7	
1.00 - 1.30	1.14	96.4	96.4	98.2	98.9	99.2	99.1	98.9	
1.30 - 1.60	1.44	97.8	97.8	98.7	99.0	99.4	99.2	99.2	
1.60 - 2.20	1.88	98.2	98.2	99.0	99.3	99.5	99.3	99.2	
2.20 - 3.00	2.57	98.5	98.5	99.2	99.3	99.8	99.6	99.4	
3.00 - 4.00	3.46	98.3	98.3	99.3	99.2	99.9	100.0	99.6	
4.00 - 5.50	4.69	99.0	99.0	99.5	99.5	100.0	99.7	100.0	
5.50 - 7.00	6.20	99.3	99.3	99.8	100.0	100.0	100.0	100.0	
7.00 - 10.00	8.37	99.4	99.4	99.8	99.9	100.0	100.0	100.0	
		CME	Initial	Load 1	Load 2	Load 3	Load 4	Load 5	
		Resistance after Dust Load (in WG) ----->		0.67	0.83	1.06	1.28	1.50	
		Dust Load (gms) ----->		16	72	117	142	160	