



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

Date: 22-May-09 TEST NO. 09-838

ASHRAE Standard 52.2-2007 TEST REPORT

Filter Description

Manufacturer	Engineering Dynamics LTD
Filter Model	1V8242429.5F
Part Number	09FAFCFAF90/110G-OPTEC9.2
Generic Filter Type	Electrostatic Pocket
Nominal Dimensions (H x W x D)	24"x24"x29.5"
Pocket / Pleat Quantity	8 Panels
Media Type	Polyolefin
Est. Gross Media Area	32 Ft ²
Adhesive Type	3M3264 Jetmelt



Test Conditions

Loading Dust Type	ASHRAE/No Carbon	Test Air Temp (degrees F.)	81
Barometric Pressure (In. Hg.)	30.16	Relative Humidity (%)	39

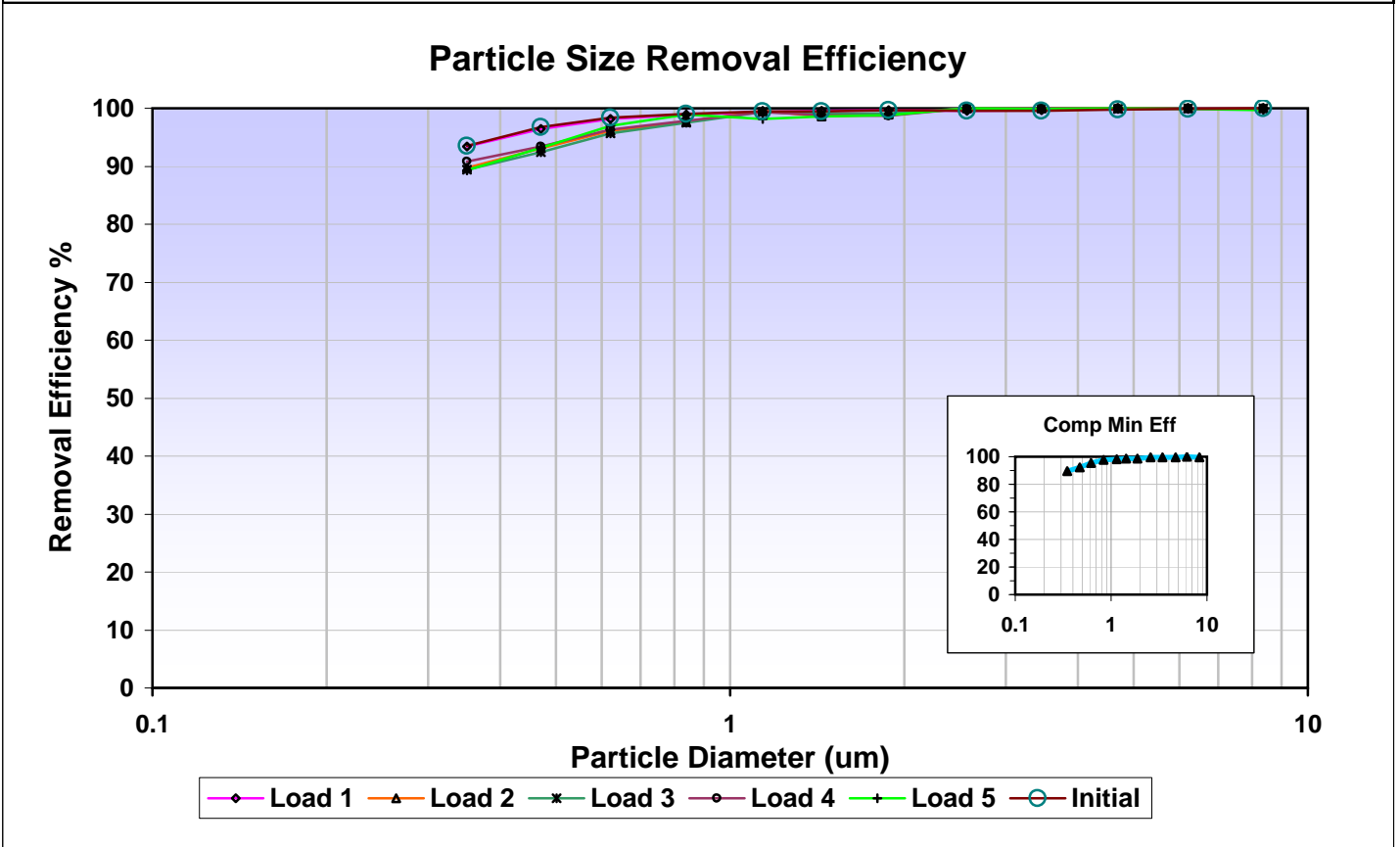
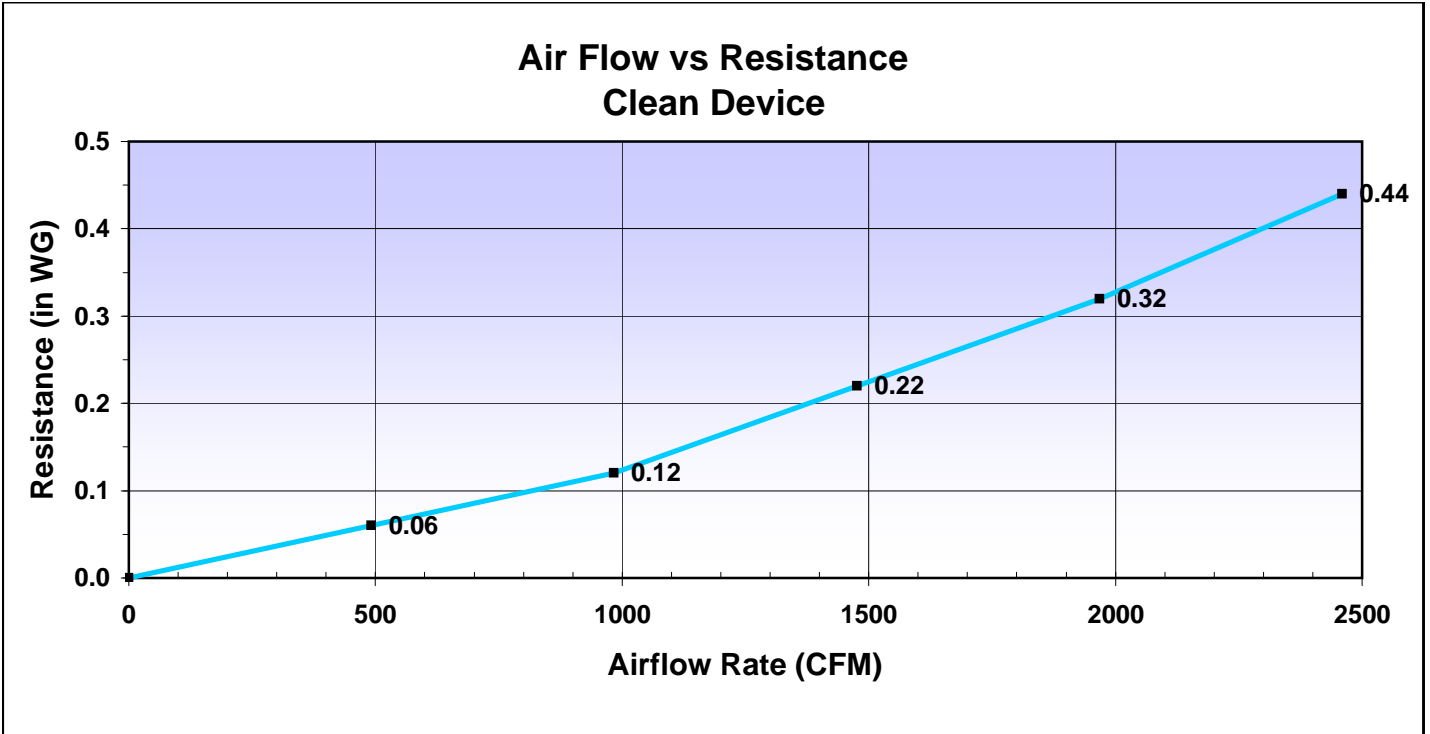
Test Results

Airflow Rate (CFM)	1968
Nominal Face Velocity (fpm)	492
Initial Resistance (in WG)	0.32
Final Resistance (in WG)	1.40
E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um	94
E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um	99
E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um	100
Minimum Efficiency Reporting Value (MERV)	MERV 15 @ 1968 CFM

Comments Tested For: Engineering Dynamics
 Dust Fed (gms) to Final Resistance: 2781
 Avg. Arrestance = 99.9%
 Dust Holding Capacity = 2777.1 gms

Approval:

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Blue Heaven Technologies

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Test Report

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Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
492	0.06
984	0.12
1476	0.22
1968	0.32
2460	0.44

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	89.3	93.5	93.4	89.7	89.4	90.8	89.3	
0.40 - 0.55	0.47	92.5	96.8	96.4	93.1	92.5	93.4	93.2	
0.55 - 0.70	0.62	95.7	98.4	98.2	96.1	95.7	96.3	97.0	
0.70 - 1.00	0.84	97.5	99.0	98.9	97.6	97.5	97.9	98.9	
1.00 - 1.30	1.14	98.2	99.4	99.4	99.6	99.4	99.4	98.2	
1.30 - 1.60	1.44	98.6	99.5	99.6	98.6	99.0	98.8	98.6	
1.60 - 2.20	1.88	98.8	99.6	99.6	98.9	99.1	98.8	98.8	
2.20 - 3.00	2.57	99.6	99.6	99.6	100.0	100.0	100.0	100.0	
3.00 - 4.00	3.46	99.6	99.6	99.6	100.0	100.0	100.0	99.9	
4.00 - 5.50	4.69	99.7	99.7	100.0	100.0	99.9	100.0	100.0	
5.50 - 7.00	6.20	99.9	99.9	100.0	100.0	100.0	100.0	99.9	
7.00 - 10.00	8.37	99.7	100.0	100.0	100.0	100.0	100.0	99.7	
		CME	Initial	Load 1	Load 2	Load 3	Load 4	Load 5	
Resistance after Dust Load (in WG) ----->				0.34	0.59	0.86	1.13	1.40	
Dust Load (gms) ----->				30	1530	2130	2559	2781	