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

Date: 11-Dec-13 **TEST NO.** 13-2034A

ASHRAE Standard 52.2-2012 TEST REPORT

Initial Efficiency / Resistance

Filter Description

Manufacturer	Oneida Air Systems
Filter Model	18x20 HEPA
Part Number	FCS182000H
Generic Filter Type	HEPA Cartridge Filter
Nominal Dimensions (H x W x D)	18" OD x 19.5" L
Pocket / Pleat Quantity	Standard
Media Type	GE HEPA
Est. Gross Media Area	75.0 Ft^2
Adhesive Type	N/A

Test Conditions

Loading Dust Type	N/A	Test Air Temp (degrees F.)	73
Barometric Pressure (In. Hg.)	29.97	Relative Humidity (%)	28

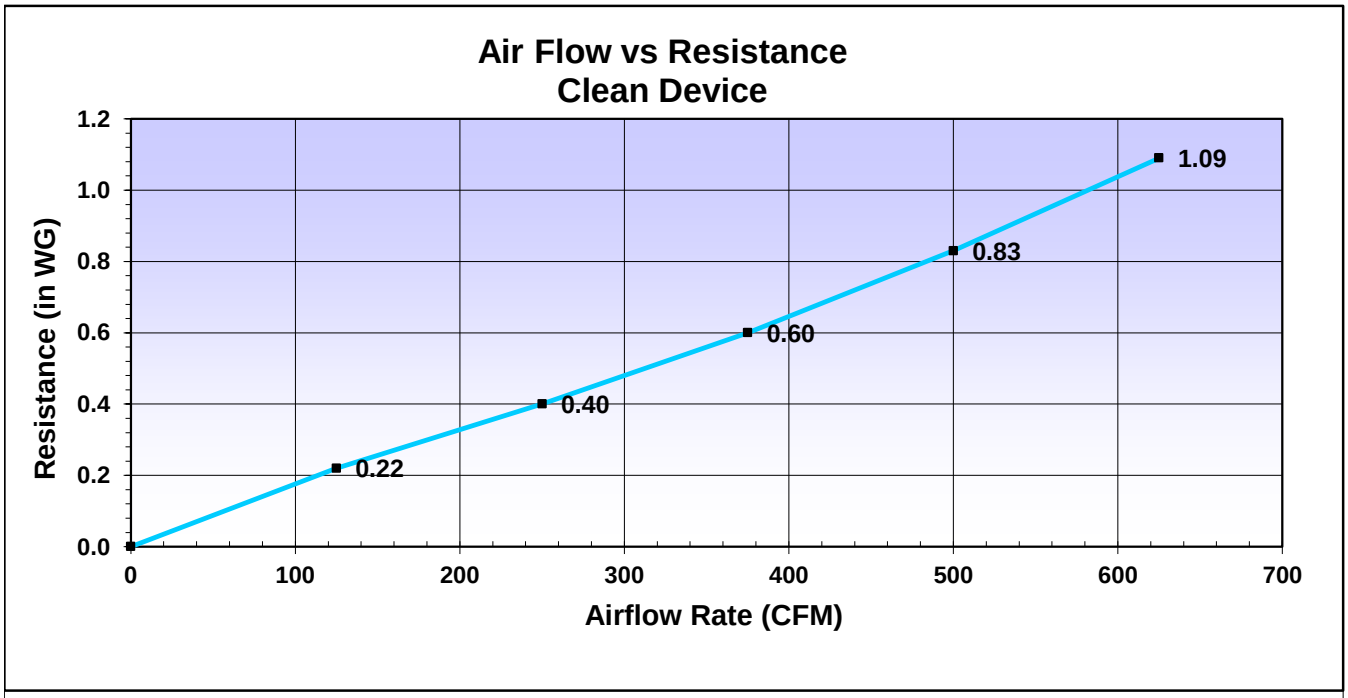
Test Results

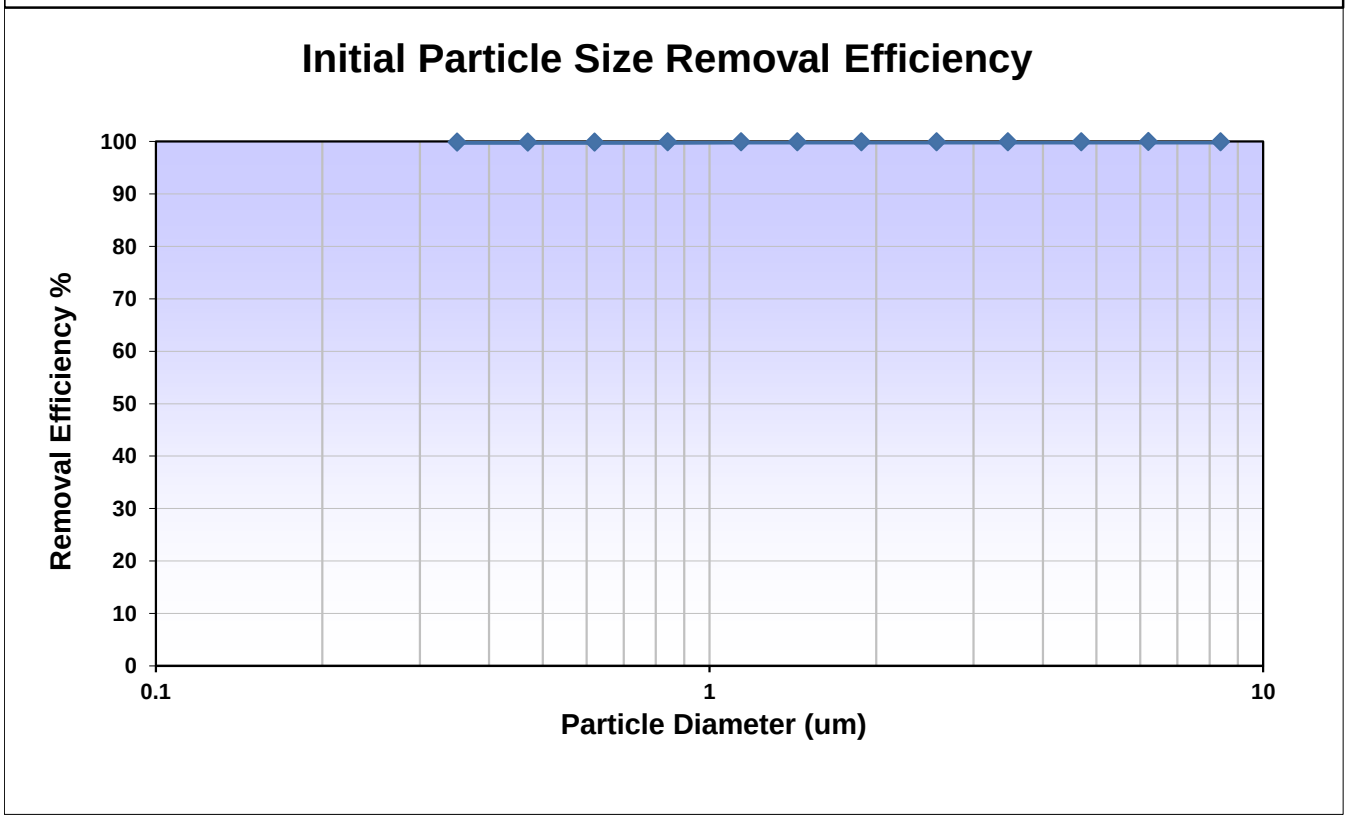
Airflow Rate (CFM)	**500**
Nominal Face Velocity (fpm)	**65**
Initial Resistance (in WG)	**0.83**
E1 (%) Initial Efficiency 0.30 - 1.0 um	**100**
E2 (%) Initial Efficiency 1.0 - 3.0 um	**100**
E3 (%) Initial Efficiency 3.0 - 10.0 um	**100**
Estimated * Minimum Efficiency Reporting Value (MERV)	**MERV 16 @ 500 CFM**

*** If initial data is minimum**

Comments Tested For: Oneida Air Systems Inc

Approval:


Air Flow vs Resistance
Clean Device
Resistance (in WG)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
100
200
300
400
500
600
700
Airflow Rate (CFM)
0.22
0.40
0.60
0.83
1.09


Initial Particle Size Removal Efficiency
Removal Efficiency %
100
90
80
70
60
50
40
30
20
10
0
0.1
1
10
Particle Diameter (um)

Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
125	0.22
250	0.40
375	0.60
500	0.83
625	1.09

Data - Particle Removal Efficiency

Particle Size Range (um)	Geometric Mean Diam (um)	Initial Particle Removal Efficiency (%)
0.30 - 0.40	0.35	99.89
0.40 - 0.55	0.47	99.91
0.55 - 0.70	0.62	99.92
0.70 - 1.00	0.84	99.94
1.00 - 1.30	1.14	99.94
1.30 - 1.60	1.44	99.96
1.60 - 2.20	1.88	99.97
2.20 - 3.00	2.57	99.98
3.00 - 4.00	3.46	99.98
4.00 - 5.50	4.69	99.98
5.50 - 7.00	6.20	99.99
7.00 - 10.00	8.37	99.98