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

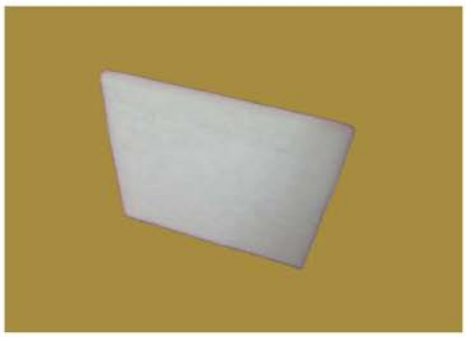
Date: 11-Oct-18 **TEST NO.** 18-519-1 Rev2

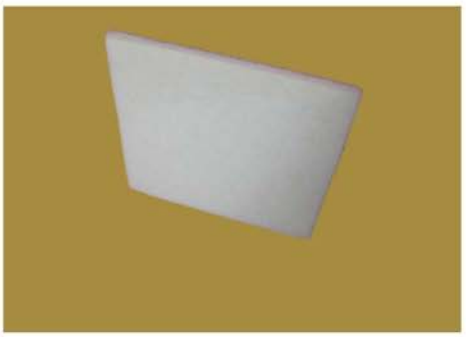
ASHRAE Standard 52.2-2017 TEST REPORT

Initial Efficiency / Resistance

Filter Description

Manufacturer	Filter Systems
Filter Model	SWISS-FLOW
Part Number	
Generic Filter Type	Intake Pad
Nominal Dimensions (H x W x D)	20" x 20" x 1"
Pocket / Pleat Quantity	N/A
Media Type	Synthetic
Est. Gross Media Area	2.78 Ft²
Adhesive Type	N/A





Test Conditions

Loading Dust Type	NA	Test Air Temp (degrees F.)	74
Barometric Pressure (In. Hg.)	29.31	Relative Humidity (%)	39

Test Results

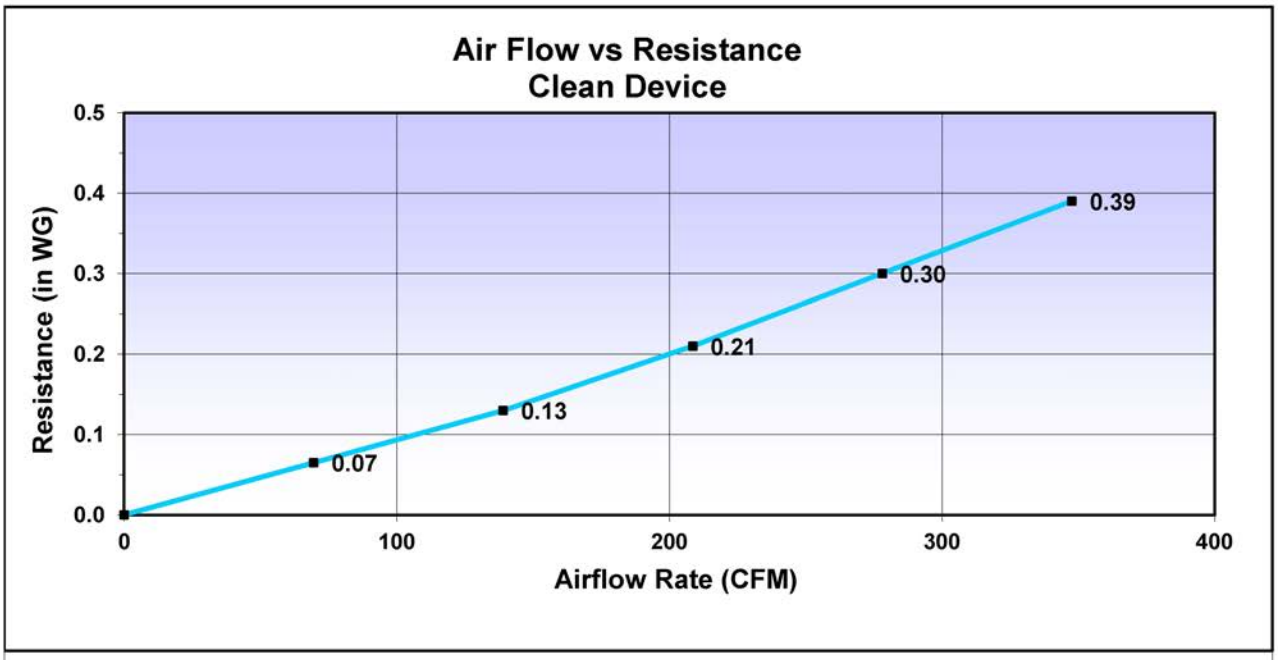
Airflow Rate (CFM)	**278**
Nominal Face Velocity (fpm)	**100**
Initial Resistance (in WG)	**0.30**
E1 (%) Initial Efficiency 0.30 - 1.0 um	**2**
E2 (%) Initial Efficiency 1.0 - 3.0 um	**35**
E3 (%) Initial Efficiency 3.0 - 10.0 um	**97**
Estimated * Minimum Efficiency Reporting Value (MERV)	**MERV 9 @ 278 CFM**

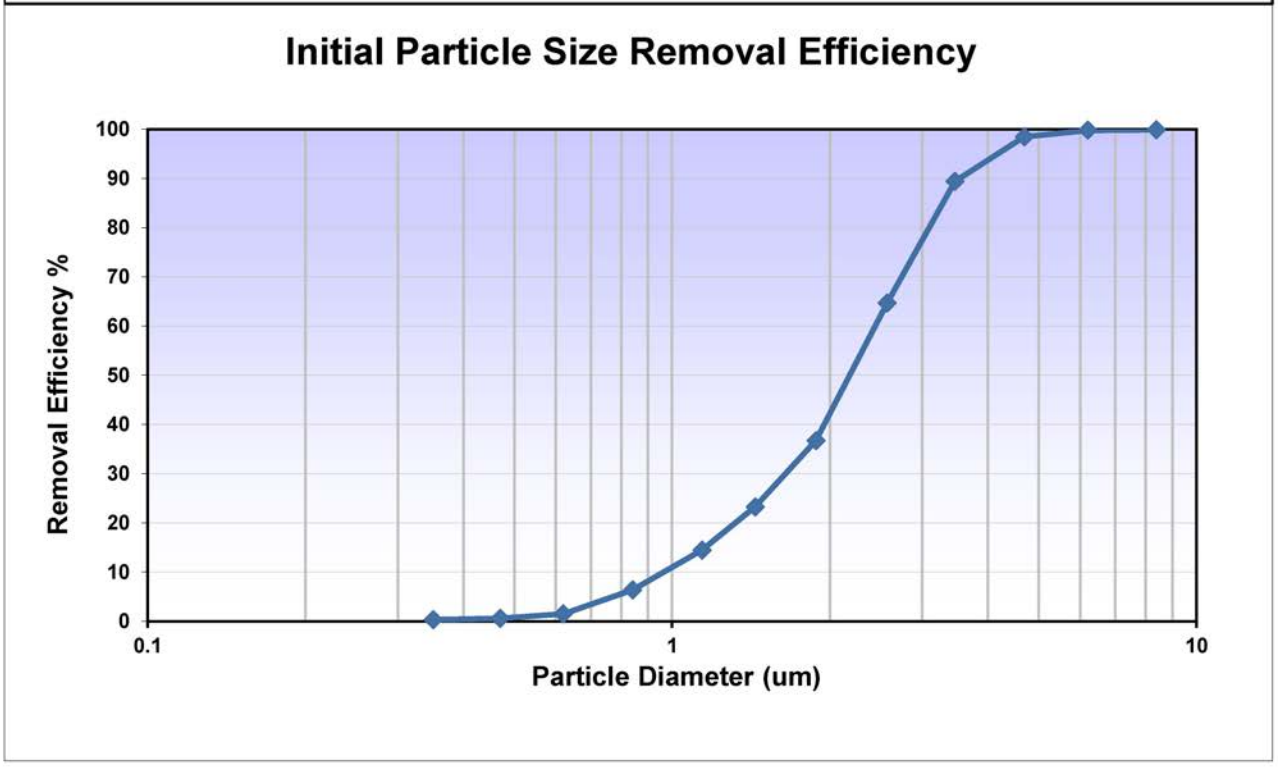
*** If initial data is minimum**

Comments Tested For: Filter Systems

Test Performed by: JPS Approved By:

Important Note: Please be advised that the ASHRAE committee SSPC 52.2. in March 2016, has published "addendum e" relative to the 52.2-2012 test protocol. This addendum restricts the use of the acronym "MERV" as only applicable to a test report that has been completed using the "entire procedure prescribed by the standard". This report is a modified version of the procedure and therefore, subject to that ruling.In the best interest of our customers, Blue Heaven Technologies has elected to delay this action until further assessment can be made at committee level. Where applicable, the qualified use of the term "MERV" will continue to be part of our reported data.


Air Flow vs Resistance
Clean Device
Resistance (in WG)
0.5
0.4
0.3
0.2
0.1
0.0
0
100
200
300
400
Airflow Rate (CFM)
0.07
0.13
0.21
0.30
0.39


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)

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Data - Initial Resistance

Airflow (CFM)	Resistance (in WG)
0	0.00
70	0.07
139	0.13
209	0.21
278	0.30
348	0.39

Data - Particle Removal Efficiency

Particle Size Range (um)	Geometric Mean Diam (um)	Initial Particle Removal Efficiency (%)
0.30 - 0.40	0.35	0.4
0.40 - 0.55	0.47	0.6
0.55 - 0.70	0.62	1.5
0.70 - 1.00	0.84	6.4
1.00 - 1.30	1.14	14.5
1.30 - 1.60	1.44	23.3
1.60 - 2.20	1.88	36.7
2.20 - 3.00	2.57	64.7
3.00 - 4.00	3.46	89.4
4.00 - 5.50	4.69	98.5
5.50 - 7.00	6.20	99.8
7.00 - 10.00	8.37	99.9