



AIR FILTER TESTING LABORATORIES, INC.

4632 Old LaGrange Road • Buckner, Kentucky 40010

Phone (502) 222-5720 • Fax (502) 222-9881

ASHRAE STANDARD 52.2-2007

REMOVAL EFFICIENCY BY PARTICLE SIZE (0.3 to 10.0 µm; KCI)

DEVICE TESTED

Test Requested By AIR QUALITY TECHNOLOGY (SHANGHAI) CO., LTD.
 Manufacturer AIR QUALITY TECHNOLOGY (SHANGHAI) CO., LTD.
 Test Sample Procurement FURNISHED BY MANUFACTURER
 Product Name MICRO ELECTROSTATIC PRECIPITATOR
 Model No. FAH
 Dimensions 546 mm H X 311 mm W X 178 mm D (NOMINAL)

REPORT NO.
14149

TEST NO.
1

SHEET NO.
1

DEVICE DESCRIPTION

Generic Device Classification / Type	ELECTRONIC AIR CLEANER	
Number Of Pleats / Pockets	N/A	no.
Number Of Banks	N/A	no.
Face Dimension (Nom. Height)	546	mm H
Face Dimension (Nom. Width)	311	mm W
Depth Dimension (Nom. Depth)	178	mm D
Media Area (Net Effective)	0.17	m ²
Type Of Media	ELECTRONIC	
Type And Amount Of Adhesive	NONE	
Product Description		

TEST CONDITIONS

Test Airflow Rate	1700	m ³ /hr
Test Aerosol Type	KCI	
Test Dust Type	ASHRAE	
Test Dust Feed Rate	71.0	mg/m ³
Device Test Section Duct Size	610 x 610	mm
Final Device Resistance	250	Pa
Air Temperature	23.0	°C
Relative Humidity	50	%
Optical / Aerodynamic Particle Counter(s); OPC / APC	CLIMET INST. / CI-500 (laser)	
Remarks/ Note		

DATE
05-01-2015

TEST SUPERVISOR
M.A.M.

ADMINISTRATIVE
APPROVAL
Michael A. Murphy

TEST RESULTS - see attached performance curves

Initial Device Resistance	38	Pa		
Final Device Resistance	250	Pa		
Composite Average Minimum Efficiencies	E1 (0.3 - 1.0 µm) 72	E2 (1.0 - 3.0 µm) 90	E3 (3.0 - 10.0 µm) 96	%
Minimum Efficiency Reporting Value (MERV)	MERV 13 @ 1700 m ³ /hr			
Average ASHRAE Dust Weight Arrestance	86	%		
ASHRAE Dust Holding Capacity	128	g		





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**ASHRAE STANDARD 52.2-2007 - PERFORMANCE CURVES
REMOVAL EFFICIENCY BY PARTICLE SIZE (0.3 to 10.0 µm; KCI)**

PERFORMANCE CURVES

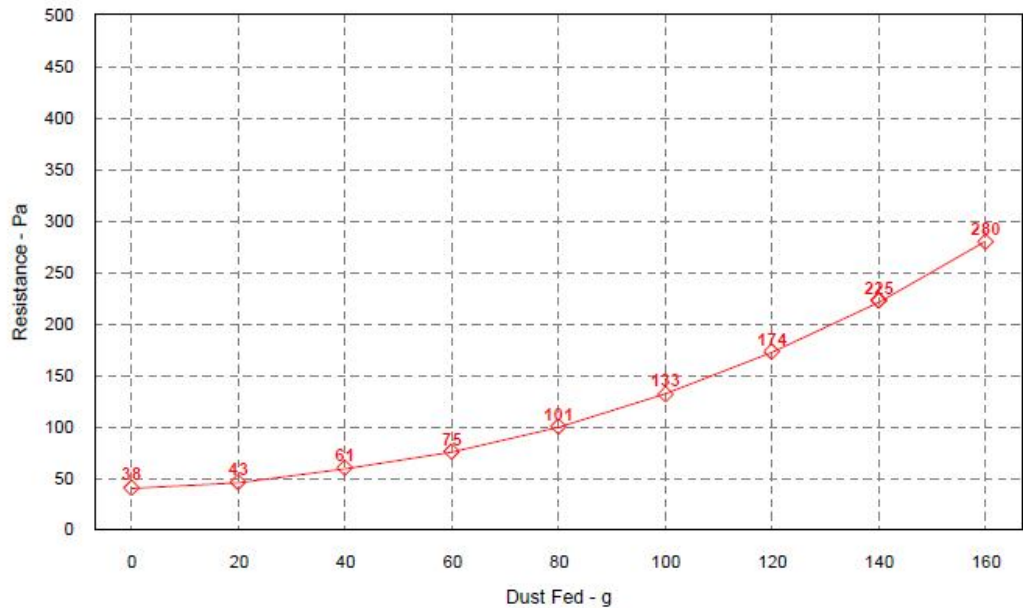
REPORT NO.
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TEST NO.
1

SHEET NO.
2

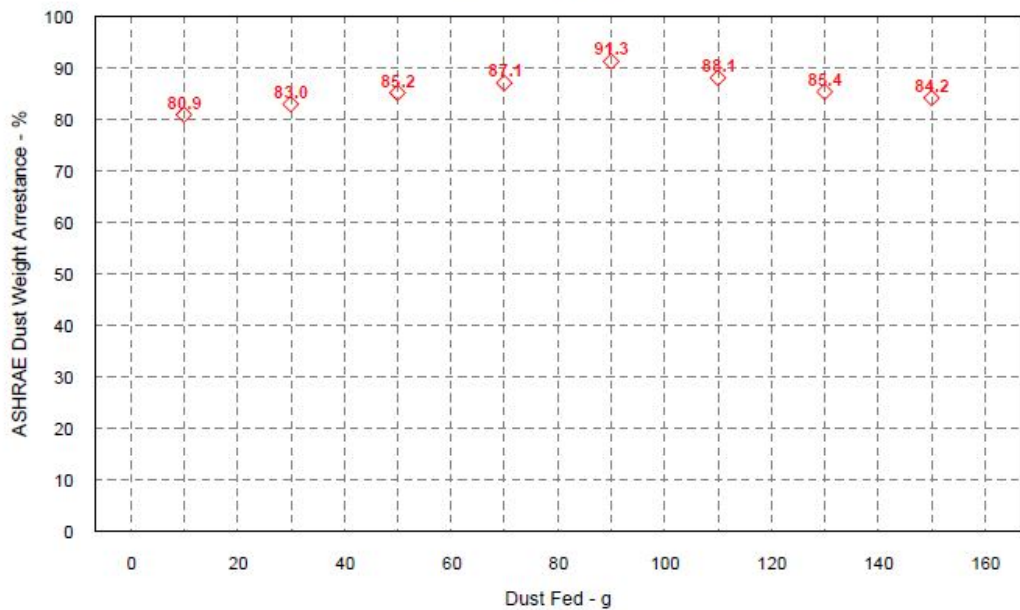
DUST FED -vs- RESISTANCE

Dust Increment - 20 g ASHRAE



DUST FED -vs- ARRESTANCE

Dust Increment - 20 g ASHRAE



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PERFORMANCE CURVES

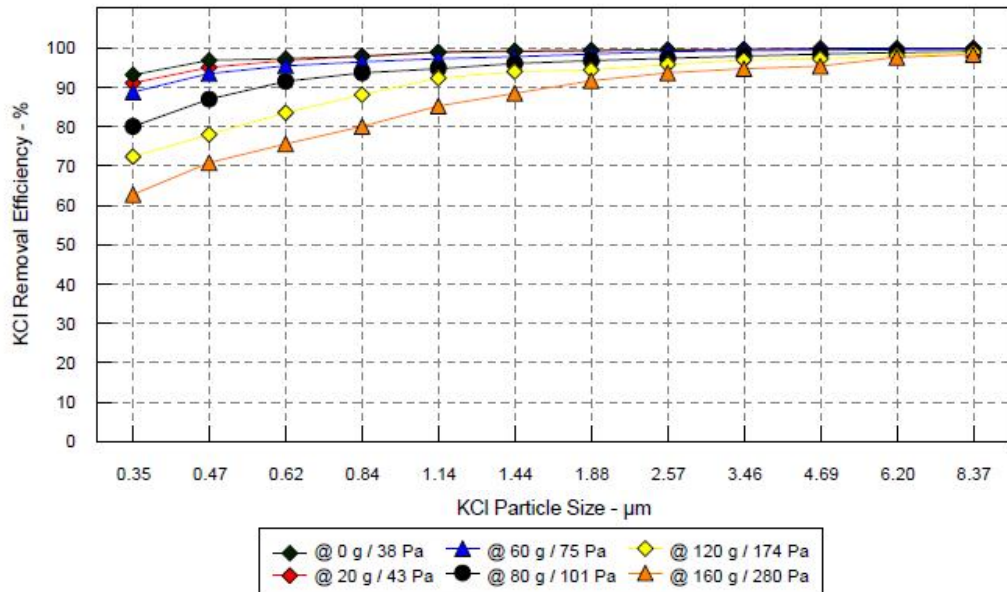
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PARTICLE SIZE -vs- REMOVAL EFFICIENCY

Incremental KCI Particle Size Removal Efficiency



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PARTICLE SIZE -vs- REMOVAL EFFICIENCY

Composite Minimum KCI Particle Size Removal Efficiency

