

ASHRAE 52.2-2017 Test Results w/Appendix J Results

Filter Description

Manufacturer	Filter Model			Filter Part Number		
Camfil USA	3HCP8-95-242412N			402298-021		
Filter Type	Media Type			Media Color		
AlumSep-Box	Fiberglass/Wet Laid			White		
Nominal Size	Actual Size					
HxWxD	Hgt (in)	Wid (in)	Dep (in)	Pleats/Pockets	Media Area (ft ²)	UL Rating
24x24x12	23.38	23.38	11.38	32	105.0	Yes

ASHRAE 52.2-2017

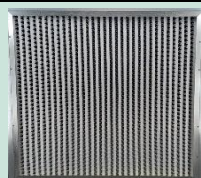
Test Report:	220126_3034		
Time:	10:59:38	Date:	Jan 26, 2022
Test Data	Test Results	Rated Values	
AirFlow (cfm)	2001	2001	
Nominal Vel (fpm)	500	501	
Initial ΔP (inWG)	0.67	0.65	
MERV	14	14	@2001cfm
E ₁ (0.3-1.0μm), (%)	78	≥ 75	
E ₂ (1.0-3.0μm), (%)	96	≥ 90	
E ₃ (3.0-10μm), (%)	100	≥ 95	
Final DP, (inWG)	1.5	1.5	
Arrestance, (%)	100	99	
DHC, (g)	254		

ASHRAE 52.2-2017 w/App J

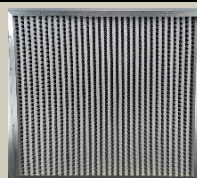
Test Report:	220125_3033		
Time:	11:49:10	Date:	Jan 25, 2022
Test Data	Test Results	Rated Values	
AirFlow (cfm)	2001	2001	
Nominal Vel (fpm)	500	501	
Initial ΔP (inWG)	0.67	0.65	
MERV-A	14A	14A	@2001cfm
E ₁ -A (0.3-1.0μm), (%)	78	≥ 75	
E ₂ -A (1.0-3.0μm), (%)	96	≥ 90	
E ₃ -A (3.0-10μm), (%)	100	≥ 95	
Final DP, (inWG)	1.5	1.5	
Arrestance-A, (%)	100	99	
DHC-A, (g)	247		

Temp, (F)	73	Test Aerosol	KCL
RH, (%)	49	Loading Dust	ASHRAE

Temp, (F)	74	Test Aerosol	KCL
RH, (%)	47	Loading Dust	ASHRAE



52.2 Test Filter and Label Photos



App J Test Filter and Label Photos

Comment	
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Comment	
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Certified Test Per ASHRAE 52.2-2017

Approval:	<i>Michael Krause, Laboratories and Materials R&D Manager</i>
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Operator	Particle Counter	Model
Mirna Montoya	TSI	OPS-3330



Camfil USA
1 North Corporate Drive
Riverdale, NJ 07457
(973) 616-7300

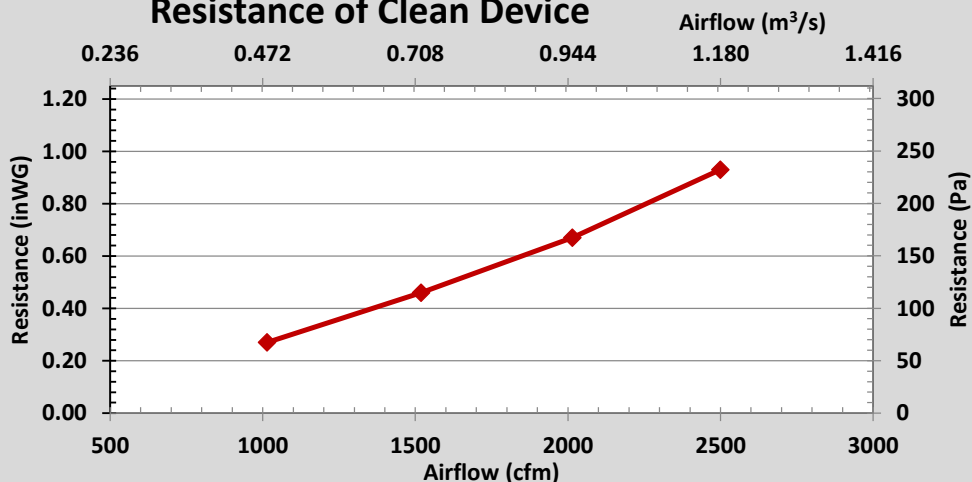
ASHRAE 52.2-2017 Test Results

Date:	Dec 14, 2021	Test Report:	220126_3034
Manufacturer	Filter Model	Filter Part Number	
Camfil USA	3HCP8-95-242412N	402298-021	

Clean Resistance Table

cfm	inWG
1014	0.27
1518	0.46
2014	0.67
2499	0.93
m ³ /s	Pa
0.479	67
0.716	115
0.951	167
1.179	232

Resistance of Clean Device

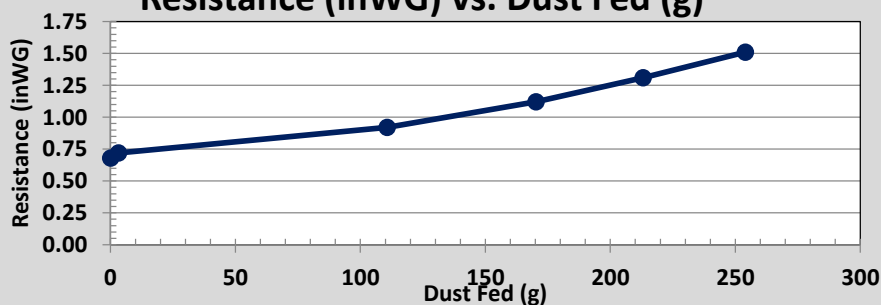


Composite Minimum Particle Size Efficiency



ΔP (inWG)	Dust Fed (g)
0.68	0
0.72	3
0.92	111
1.12	170
1.31	213
1.51	254

Resistance (inWG) vs. Dust Fed (g)



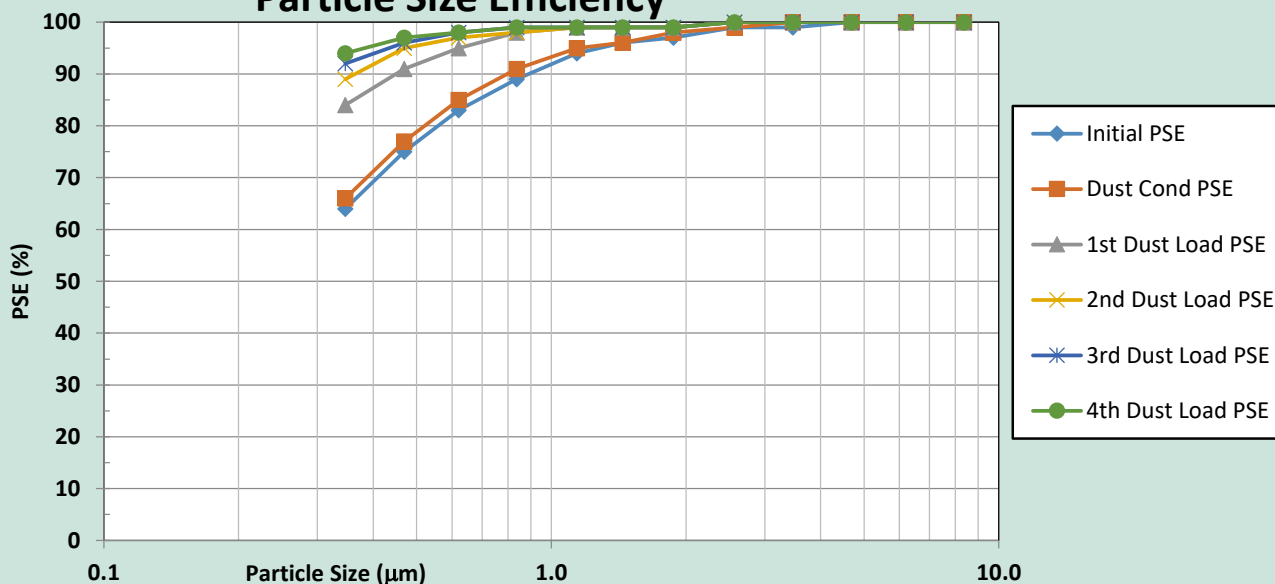


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ASHRAE 52.2-2017 Test Results

Date:	Dec 14, 2021			Test Report:			220126_3034					
Manufacturer				Filter Model					Filter Part Number			
Camfil USA				3HCP8-95-242412N					402298-021			
Efficiency Data Table												
	1	2	3	4	5	6	7	8	9	10	11	12
Minimum Dia (µm)	0.3	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0
Maximum Dia (µm)	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0	10.0
Geometric Mean (µm)	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37
Initial PSE	64	75	83	89	94	96	97	99	99	100	100	100
Dust Cond PSE	66	77	85	91	95	96	98	99	100	100	100	100
1st Dust Load PSE	84	91	95	98	99	99	99	100	100	100	100	100
2nd Dust Load PSE	89	95	97	98	99	99	99	100	100	100	100	100
3rd Dust Load PSE	92	96	98	99	99	99	99	100	100	100	100	100
4th Dust Load PSE	94	97	98	99	99	99	99	100	100	100	100	100
Composite Min PSE	64	75	83	89	94	96	97	99	99	100	100	100

Particle Size Efficiency



All testing is performed in compliance with the latest revision of ASHRAE Standard 52.2 in a state-of-the-art laboratory facility located at the Camfil USA headquarters in Riverdale, NJ. For more information, contact your local Camfil representative or distributor.

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For Camfil use only:	3034	8635	8636	8984	3033	8633	8634	8976	8913			
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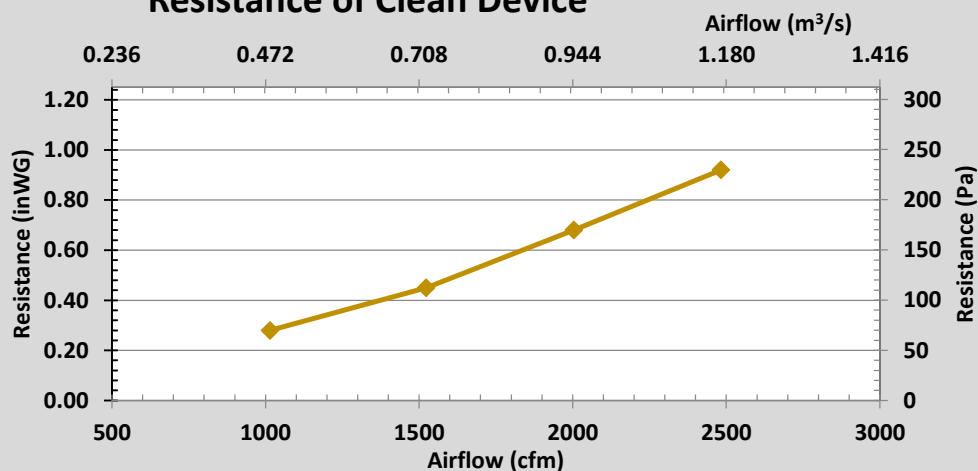
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Date:	12/14/2021	Test Number:	220125_3033
Manufacturer	Filter Model	Filter Part Number	
Camfil USA	3HCP8-95-242412N	402298-021	

Clean Resistance Table

cfm	inWG
1015	0.28
1523	0.45
2004	0.68
2483	0.92
m ³ /s	Pa
0.479	70
0.719	112
0.946	169
1.172	229

Resistance of Clean Device

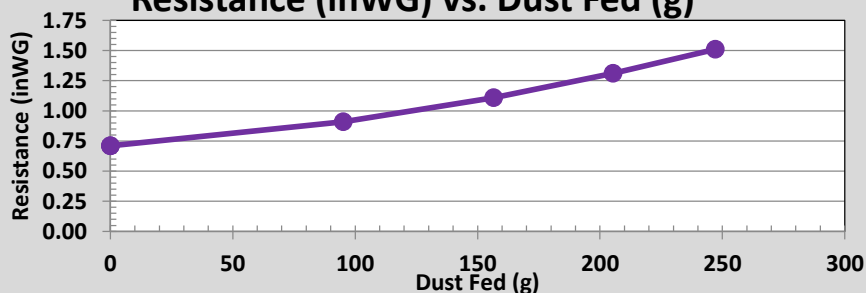


App J Composite Minimum Particle Size Efficiency



ΔP (inWG)	Dust Fed (g)
0.71	0
0.71	0
0.91	95
1.11	157
1.31	205
1.51	247

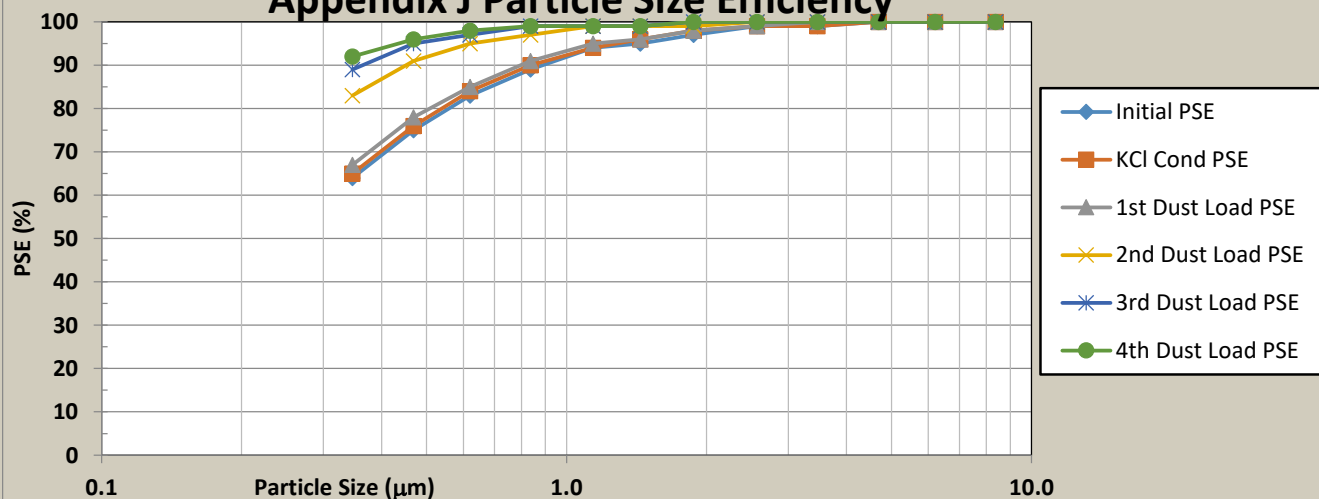
Resistance (inWG) vs. Dust Fed (g)



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Date:	12/14/2021			Test Number:			220125_3033						
Manufacturer				Filter Model						Filter Part Number			
Camfil USA				3HCP8-95-242412N						402298-021			
App J Efficiency Data Table													
	1	2	3	4	5	6	7	8	9	10	11	12	
	Minimum Dia (µm)	0.3	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0
	Maximum Dia (µm)	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0	10.0
	Geometric Mean (µm)	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37
	Initial PSE	64	75	83	89	94	95	97	99	99	100	100	100
	KCl Cond PSE	65	76	84	90	94	96	98	99	99	100	100	100
	1st Dust Load PSE	67	78	85	91	95	96	98	99	100	100	100	100
	2nd Dust Load PSE	83	91	95	97	99	99	99	100	100	100	100	100
	3rd Dust Load PSE	89	95	97	99	99	99	100	100	100	100	100	100
4th Dust Load PSE	92	96	98	99	99	99	100	100	100	100	100	100	
Composite Min PSE	64	75	83	89	94	95	97	99	99	100	100	100	

Appendix J Particle Size Efficiency



Bkg Concentration (particles/cm ³)	Avg Cond Aerosol Conc (particles/cm ³)	Cumulative Cond Duration (minutes)	Cumulative Cond CT (particles-min/cm ³)	
285.0	3.66E+05	186	6.82E+07	
Large Particle Concentration (Particles/cm ³)	Ratio Small to Large (>20,000)	Conditioning ΔP (inWG)		Same duct?
9	39,631	Initial ΔP	Final ΔP	KCl Rig
		0.65	0.66	



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Manufacturer				Filter Model						Filter Part Number			
Camfil USA				3HCP8-95-242412N						402298-021			
KCI Conditioning Data Table													
	1	2	3	4	5	6	7	8	9	10	11	12	
	Minimum Dia (µm)	0.3	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0
	Maximum Dia (µm)	0.4	0.55	0.7	1.0	1.3	1.6	2.2	3.0	4.0	5.5	7.0	10.0
	Geometric Mean (µm)	0.35	0.47	0.62	0.84	1.14	1.44	1.88	2.57	3.46	4.69	6.20	8.37
	Initial PSE	64	75	83	89	94	95	97	99	99	100	100	100
	1st KCI Cond PSE	65	76	84	90	94	96	98	99	99	100	100	100
	2nd KCI Cond PSE												
	3rd KCI Cond PSE												
	4th KCI Cond PSE												
5th KCI Cond PSE													
Final KCI Cond PSE	65	76	84	90	94	96	98	99	99	100	100	100	

KCI Conditioning Particle Size Efficiency

