



ASHRAE® 52.2-2012 Test Results w/Appendix J Results

Filter Description							
Manufacturer		Filter Model			Filter Part Number		
Camfil		Durafil ES2 M14			855080-009		
Filter Type		Media Type		Media Color		Media Area (ft ²)	
V-Bed		Fiberglass/Wet Laid		White		192	
Nominal Size		Actual Size					
HxWxD		Hgt (in)	Wid (in)	Dep (in)	Pleats/Pockets	UL Rating	LabFile
24x24x12		23 3/8	23 3/8	11 5/8	4	Yes	1453

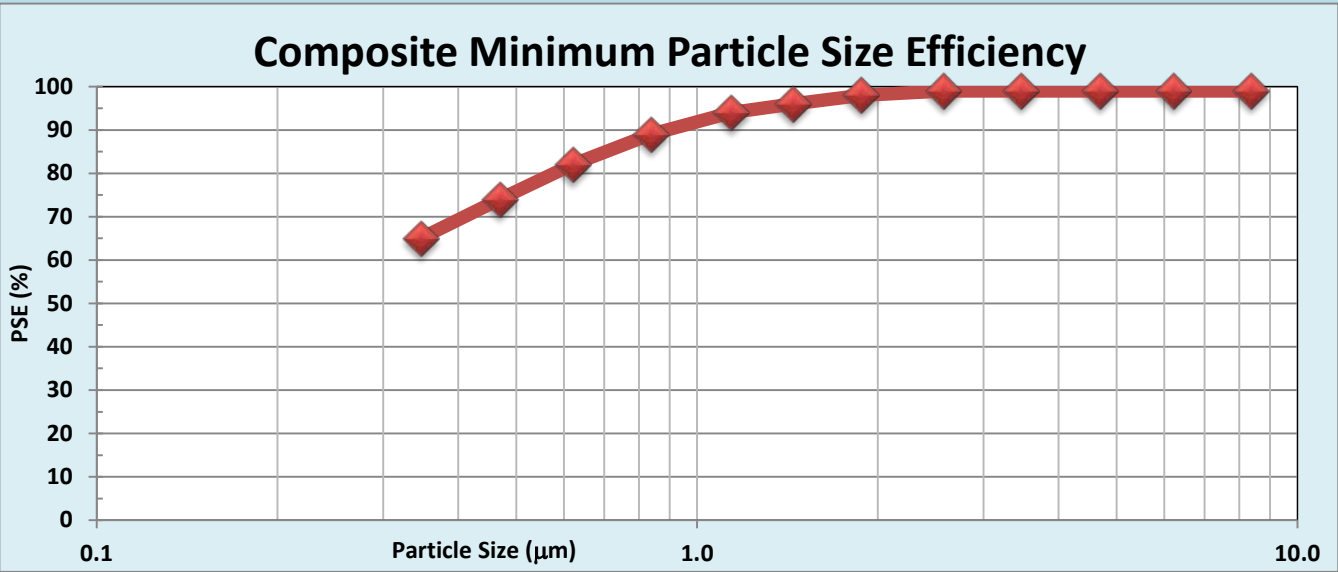
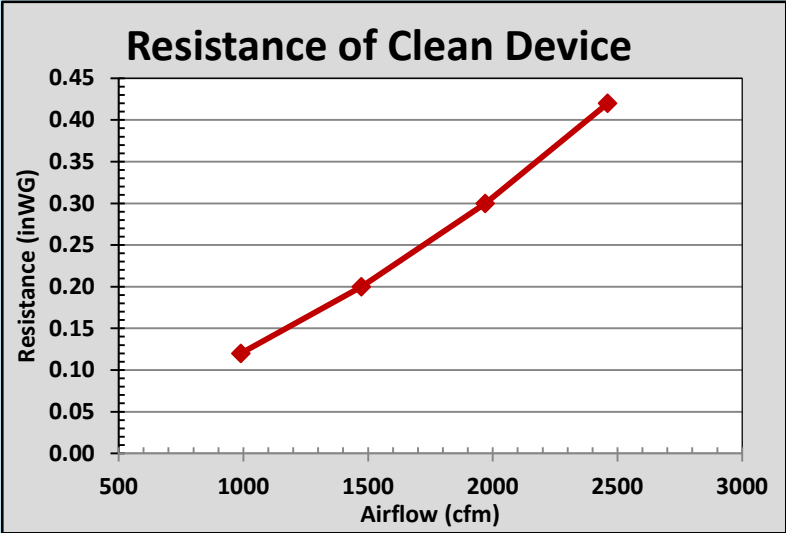
ASHRAE® 52.2-2012				ASHRAE® 52.2-2012 w/App J			
Time:	15:21:01	Date:	Feb 25, 2016	Time:	10:33:06	Date:	Mar 09, 2016
Test Number:	1662-003_00003674.047.aec			Test Number:	1662-005_00003770.047.aec		
Test Data	Test Results	Rated Values		Test Data	Test Results	Rated Values	
AirFlow (cfm)	1968	1970		AirFlow (cfm)	1970	1970	
Nominal Vel (fpm)	495	495		Nominal Vel (fpm)	495	495	
Initial ΔP (inWG)	0.29	0.29		Initial ΔP (inWG)	0.29	0.29	
MERV	14	14	@1968cfm	MERV-A	14A	14A	@1970cfm
E ₁ (0.3-1.0μm), (%)	78	≥ 75		E _{1-A} (0.3-1.0μm), (%)	75	≥ 75	
E ₂ (1.0-3.0μm), (%)	97	≥ 90		E _{2-A} (1.0-3.0μm), (%)	94	≥ 90	
E ₃ (3.0-10μm), (%)	99	≥ 90		E _{3-A} (3.0-10μm), (%)	100	≥ 90	
Final DP, (inWG)	1.5	1.5		Final DP, (inWG)	1.5	1.5	
Arrestance, (%)	98	None		Arrestance-A, (%)	99	None	
DHC, (g)	477			DHC-A, (g)	465		
Temp, (C)	24	Test Aerosol	KCI	Temp, (C)	23	Test Aerosol	KCI
RH, (%)	40	Loading Dust	ASHRAE	RH, (%)	45	Loading Dust	ASHRAE
Comments				Comments			

Certified Test Per ASHRAE 52.2-2012		Operator	Particle Counter	Model
Approval:	<i>Don Thornburg</i> Electronic Signature, Original on file	AA	TSI	OPS 3330
Camfil Permission Required for Distribution				

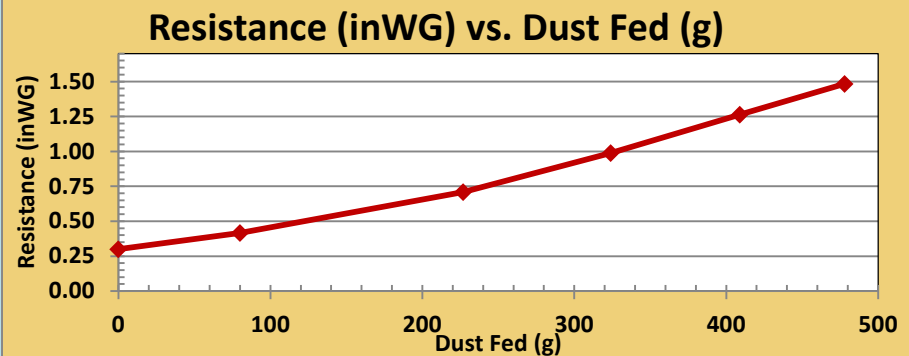
ASHRAE® 52.2-2012 Test Results

Date:	Feb 25, 2016	Test Number:	1662-003_00003674.047.aec
Manufacturer	Filter Model	Filter Part Number	
Camfil	Durafil ES2 M14	855080-009	

Clean Resistance Table			
cfm	m ³ /s	inWG	Pa
990	0.47	0.12	30
1474	0.70	0.20	50
1971	0.93	0.30	75
2461	1.16	0.42	105



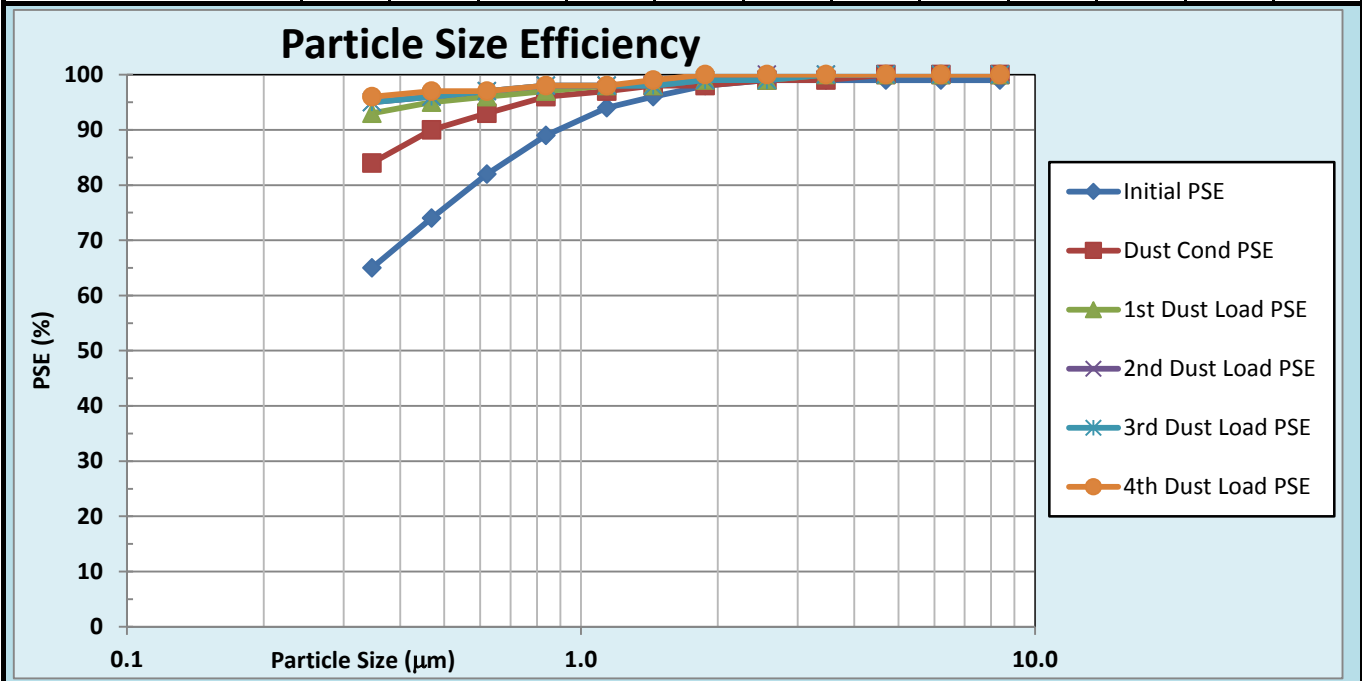
ΔP (inWG)	Dust Fed (g)
0.30	0
0.42	80
0.71	227
0.99	324
1.26	409
1.48	478





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Manufacturer				Filter Model				Filter Part Number				
Camfil				Durafil ES2 M14				855080-009				
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	65	74	82	89	94	96	98	99	99	99	99	99
Dust Cond PSE	84	90	93	96	97	98	98	99	99	100	100	100
1st Dust Load PSE	93	95	96	97	98	98	99	99	100	100	100	100
2nd Dust Load PSE	95	96	97	98	98	98	99	100	100	100	100	100
3rd Dust Load PSE	95	96	97	98	98	98	99	99	100	100	100	100
4th Dust Load PSE	96	97	97	98	98	99	100	100	100	100	100	100
Composite Min PSE	65	74	82	89	94	96	98	99	99	99	99	99



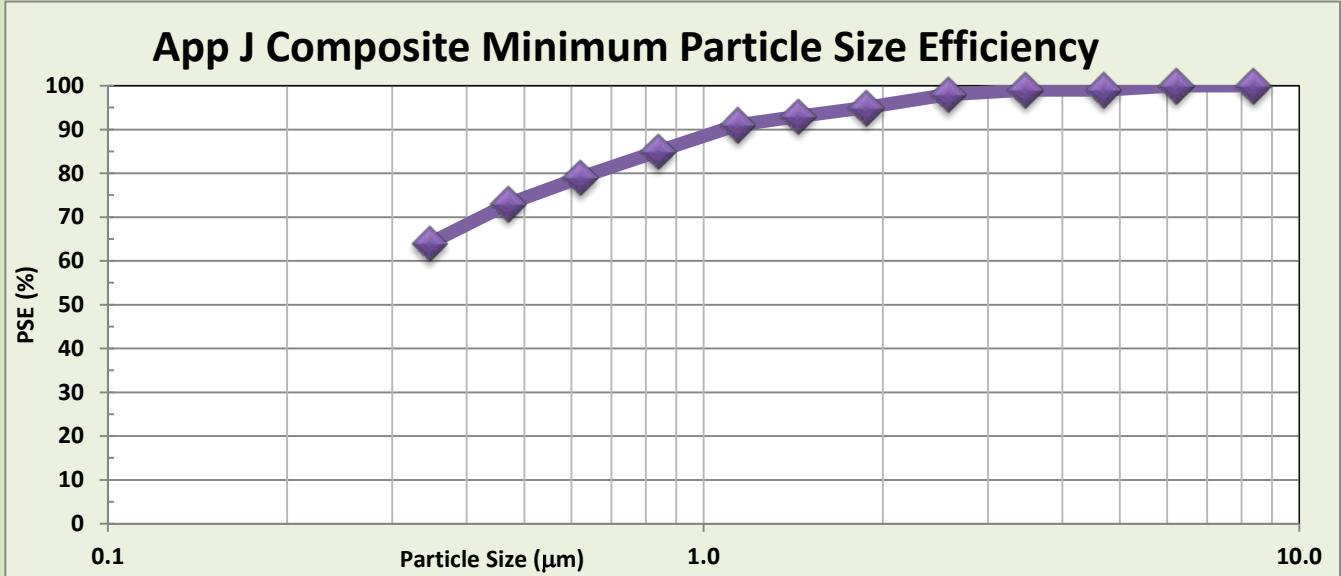
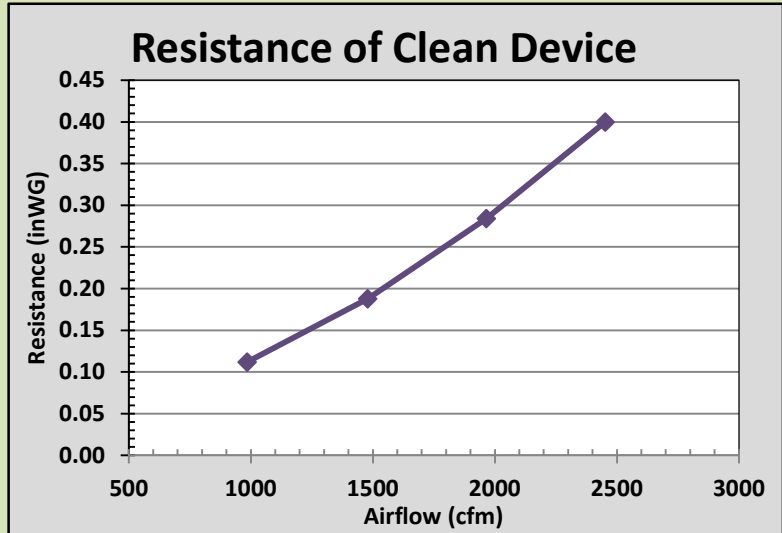
All testing is performed in compliance with the latest revision of ASHRAE Standard 52.2 in a state-of-the-art laboratory facility located at the Camfil USA headquarters in Riverdale, NJ. Test Reports without DHC values show efficiency only and the associated MERV value is a estimated value based on the single efficiency data shown. For more information, contact your local Camfil representative or distributor.

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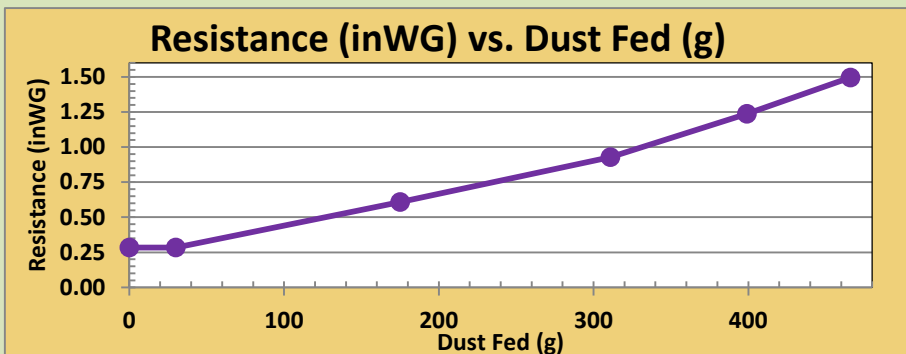
ASHRAE® 52.2-2012 Test Results w/ Appendix J Results

Date:	03/09/2016	Test Number:	1662-005_00003770.047.aec
Manufacturer	Filter Model	Filter Part Number	
Camfil	Durafil ES2 M14	855080-009	

Clean Resistance Table			
<i>cfm</i>	<i>m³/s</i>	<i>inWG</i>	<i>Pa</i>
985	0.47	0.11	28
1479	0.70	0.19	47
1965	0.93	0.28	71
2452	1.16	0.40	100



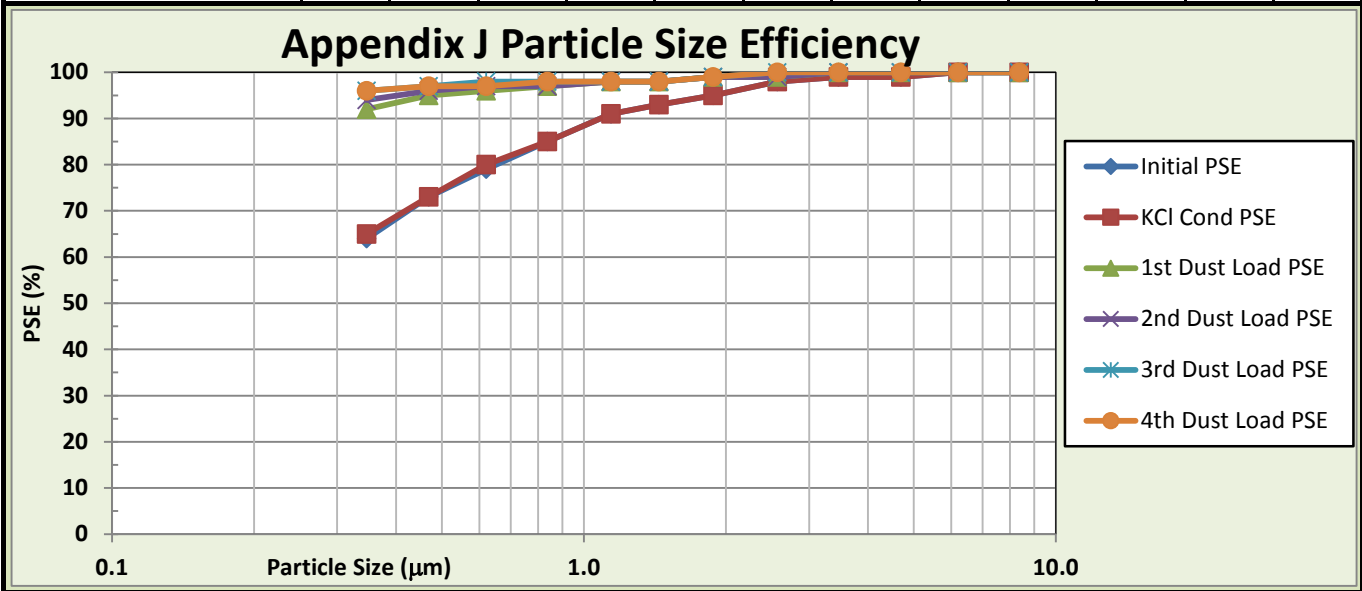
ΔP (inWG)	Dust Fed (g)
0.28	0
0.28	30
0.61	175
0.93	311
1.24	399
1.50	466





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Manufacturer		Filter Model						Filter Part Number				
Camfil		Durafil ES2 M14						855080-009				
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	73	79	85	91	93	95	98	99	99	100	100
KCl Cond PSE	65	73	80	85	91	93	95	98	99	99	100	100
1st Dust Load PSE	92	95	96	97	98	98	99	99	100	100	100	100
2nd Dust Load PSE	94	96	97	97	98	98	99	99	100	100	100	100
3rd Dust Load PSE	96	97	98	98	98	98	99	100	100	100	100	100
4th Dust Load PSE	96	97	97	98	98	98	99	100	100	100	100	100
Composite Min PSE	64	73	79	85	91	93	95	98	99	99	100	100



Bkg Concentration (particles/cm ³)	Avg Cond Aerosol Conc (particles/cm ³)	Cumulative Cond Duration (minutes)	Cumulative Cond CT (particles-min/cm ³)	
15.0	5.76E+05	248	1.43E+08	
Large Particle Concentration (Particles ft ³)	Ratio Small to Large (>20,000)	Conditioning ΔP (inWG)	Same duct?	
24,833	656,602	Initial ΔP		
		0.29	0.29	No



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Manufacturer				Filter Model				Filter Part Number					
Camfil				Durafil ES2 M14				855080-009					
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	73	79	85	91	93	95	98	99	99	100	99
	1st KCI Cond PSE	65	73	80	85	91	93	95	98	99	99	100	100
	2nd KCI Cond PSE												
	3rd KCI Cond PSE												
	4th KCI Cond PSE												
	5th KCI Cond PSE												
	Final KCI Cond PSE	65	73	80	85	91	93	95	98	99	99	100	100

