



270 Haven Hill Road Shelbyville, KY 40065
 Phone: 502 494 5797 E-Mail: monroebritt@bellsouth.net

ASHRAE Air Filter

Test Report

Report No.
GLT 1492

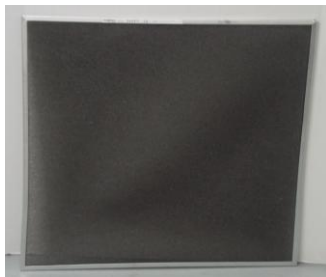
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4-Jul-12

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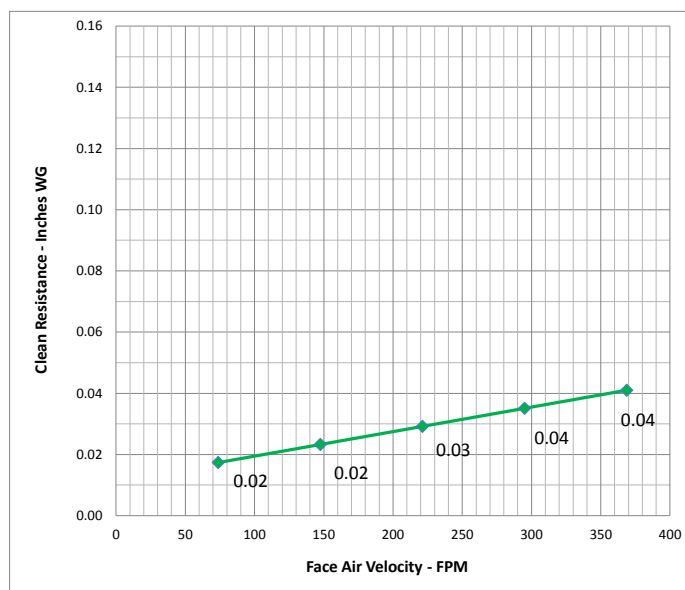
Full 52.2-2007 ASHRAE Test -- MERV 1 - 4 Procedures

Filter Description		Test Conditions	
Manufacturer:	PERMATRON	Air Flow (CFM)	1180
Product Name:		Face Velocity (FPM)	295
Model/Style Code:	Galv Panel / 45PPI Foam 1/4"	Air Temperature (°F)	75 - 84
Nominal Dimensions: (inches)	24w x 24h x 1/4	Relative Humidity (%)	42 - 45
Product Description:		Barometric Pressure (In. HG)	29.15 - 29.18
galvanized steel frame; foam media		Type of Test Aerosol:	n/a
Number of Filter Panels:	1	Particle Counter:	n/a
Pleat Quantity (visible):	not applicable	Filter Loading Dust:	ASHRAE
Pocket Quantity:	not applicable	Test Results	
Media Type:	polymer	Air Flow vs Filter Resistance	
Media Color:	black	CFM	FPM
Effective Media Area:	4 sq. ft.	295	74
Type of Dust Adhesive:	none	590	148
Amount of Dust Adhesive:	not applicable	885	221
Filter Procurement Method:	Provided by Manufacturer	1180	295
		1475	369
		Dust Holding Capacity	127 Grams
Additional Information:		Filter Final Resistance	0.30 In. W.G.
		Average Arrestance	61 %
		MERV	1 @ 295 FPM

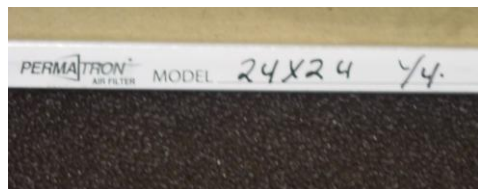
Photograph of Air Entering Side of Filter



Filter Resistance vs Air Flow



Photograph of Label/Markings



Comments:

Approval: Monroe A. Britt
 4-Jul-12



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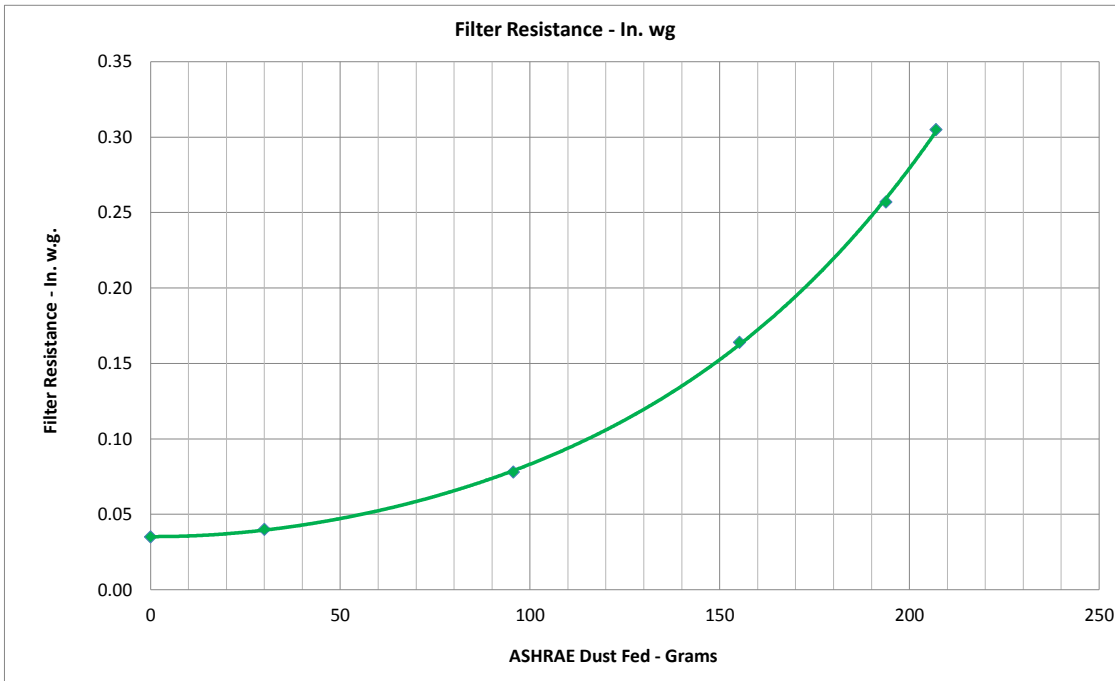
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Full 52.2-2007 ASHRAE Test -- MERV 1 - 4 Procedures

Filter Description		Test Conditions	
Manufacturer:	PERMATRON	Air Flow Capacity (CFM)	1180
Product Name:		Face Velocity (FPM)	295
Model/Style Code:	Galv Panel / 45PPI Foam 1/4"	Air Temperature (°F)	75 - 84
Nominal Dimensions: (inches)	24w x 24h x 1/4	Relative Humidity (%)	42 - 45
Media Type:	polymer	Barometric Pressure (In. HG)	29.15 - 29.18
Media Color:	black	Type of Test Aerosol:	n/a
Effective Media Area:	4 sq. ft.	Particle Counter:	n/a
Filter Procurement Method:	Provided by Manufacturer	Filter Loading Dust:	ASHRAE

Dust Holding Capacity and Arrestance Data

Cum. Dust Fed - Grams	0	30	95.6	155.2	193.8	207
Filter Resistance - In. wg	0.04	0.04	0.08	0.16	0.26	0.305
Incremental Arrestances - %		44.3%	55.6%	66.6%	71.5%	72.7%
Average Arrestance - %		61.2%				
Dust Holding Capacity - Grams	126.7 Grams					



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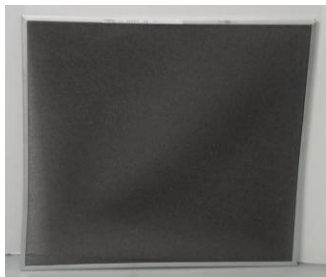
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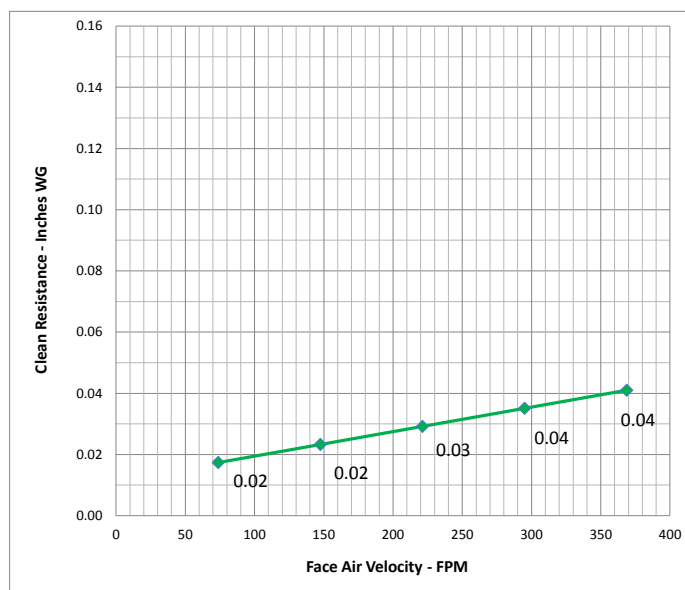
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Nominal Dimensions: (inches)	24w x 24h x 1/4	Relative Humidity (%)	42 - 45
Product Description:		Barometric Pressure (In. HG)	29.15 - 29.18
galvanized steel frame; foam media		Type of Test Aerosol:	n/a
Number of Filter Panels:	1	Particle Counter:	n/a
Pleat Quantity (visible):	not applicable	Filter Loading Dust:	ASHRAE
Pocket Quantity:	not applicable	Test Results	
Media Type:	polymer	Air Flow vs Filter Resistance	
Media Color:	black	CFM	FPM
Effective Media Area:	4 sq. ft.	295	74
Type of Dust Adhesive:	none	590	148
Amount of Dust Adhesive:	not applicable	885	221
Filter Procurement Method:	Provided by Manufacturer	1180	295
		1475	369
		Dust Holding Capacity	127 Grams
Additional Information:		Filter Final Resistance	0.50 In. W.G.
		Average Arrestance	63 %
		MERV	1 @ 295 FPM

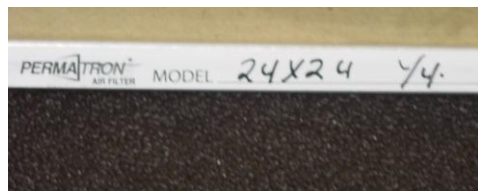
Photograph of Air Entering Side of Filter



Filter Resistance vs Air Flow



Photograph of Label/Markings



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Manufacturer:	PERMATRON	Air Flow Capacity (CFM)	1180
Product Name:		Face Velocity (FPM)	295
Model/Style Code:	Galv Panel / 45PPI Foam 1/4"	Air Temperature (°F)	75 - 84
Nominal Dimensions: (inches)	24w x 24h x 1/4	Relative Humidity (%)	42 - 45
Media Type:	polymer	Barometric Pressure (In. HG)	29.15 - 29.18
Media Color:	black	Type of Test Aerosol:	n/a
Effective Media Area:	4 sq. ft.	Particle Counter:	n/a
Filter Procurement Method:	Provided by Manufacturer	Filter Loading Dust:	ASHRAE

Dust Holding Capacity and Arrestance Data

Cum. Dust Fed - Grams	0	30	124.7	178.0	223.5	241.1
Filter Resistance - In. wg	0.04	0.04	0.11	0.21	0.43	0.50
Incremental Arrestances - %		44.3%	58.5%	70.2%	71.9%	72.1%
Average Arrestance - %		62.8%				
Dust Holding Capacity - Grams	151.7 Grams					



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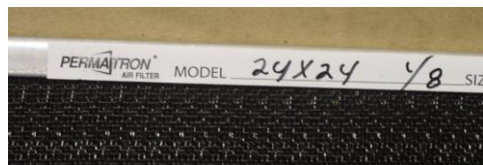
Full 52.2-2007 ASHRAE Test -- MERV 1 - 4 Procedures

Filter Description		Test Conditions	
Manufacturer:	PERMATRON	Air Flow (CFM)	1180
Product Name:		Face Velocity (FPM)	295
Model/Style Code:	Galv Panel / 45PPI Foam 1/8" / BHB	Air Temperature (°F)	74 - 81
Nominal Dimensions: (inches)	24w x 24h x 1/8	Relative Humidity (%)	41 - 44
Product Description:		Barometric Pressure (In. HG)	29.09 - 29.18
galvanized steel frame; front and rear polymer grids; foam media		Type of Test Aerosol:	n/a
Number of Filter Panels:	1	Particle Counter:	n/a
Pleat Quantity (visible):	not applicable	Filter Loading Dust:	ASHRAE
Pocket Quantity:	not applicable	Test Results	
Media Type:	polymer	Air Flow vs Filter Resistance	
Media Color:	black	CFM	FPM
Effective Media Area:	4 sq. ft.	295	74
Type of Dust Adhesive:	none	590	148
Amount of Dust Adhesive:	not applicable	885	221
Filter Procurement Method:	Provided by Manufacturer	1180	295
		1475	369
		Dust Holding Capacity	86
			Grams
Additional Information:		Filter Final Resistance	0.50
			In. W.G.
		Average Arrestance	68
			%
		MERV	2
			@ 295 FPM

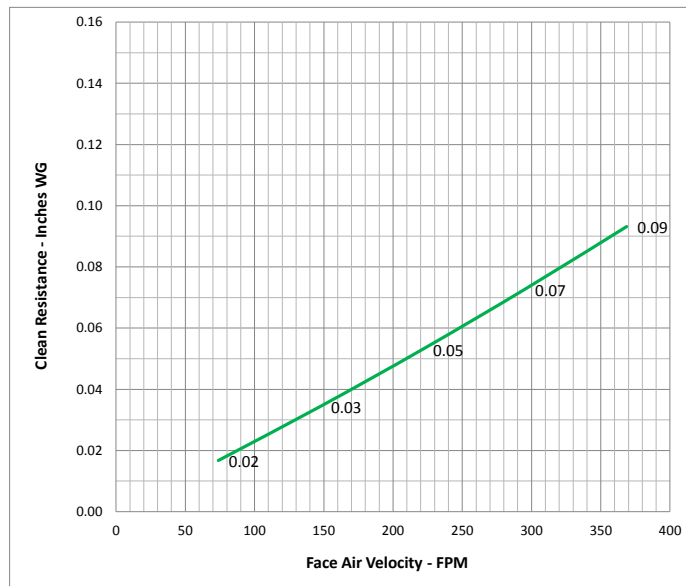
Photograph of Air Entering Side of Filter



Photograph of Label/Markings



Filter Resistance vs Air Flow



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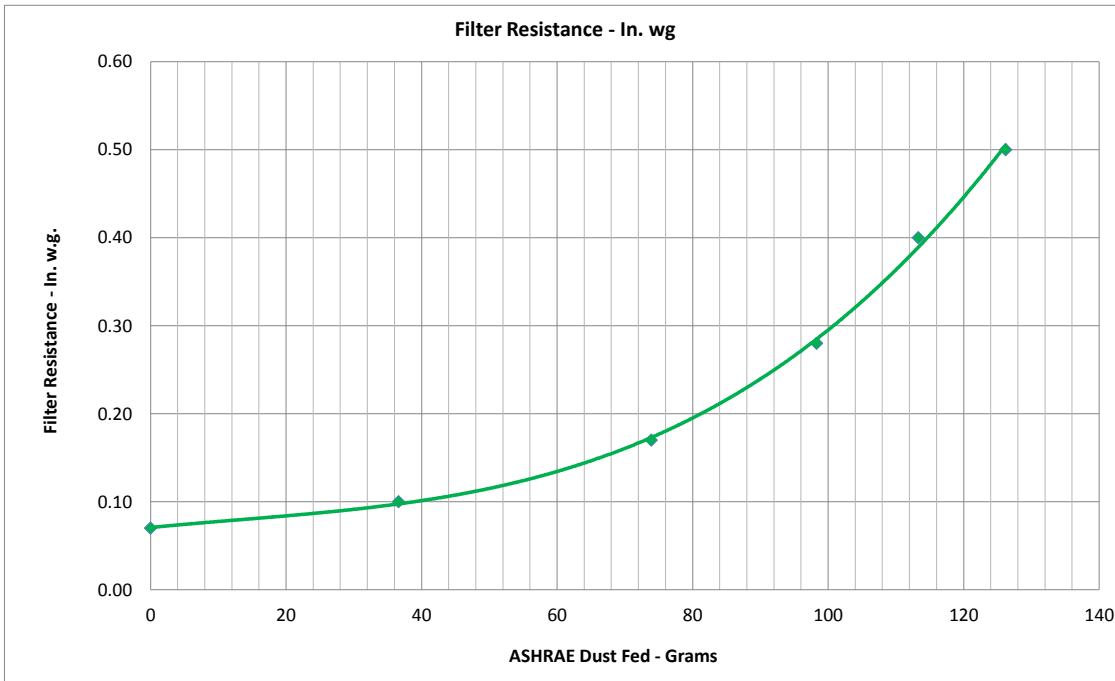
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Full 52.2-2007 ASHRAE Test -- MERV 1 - 4 Procedures

Filter Description		Test Conditions	
Manufacturer:	PERMATRON	Air Flow Capacity (CFM)	1180
Product Name:		Face Velocity (FPM)	295
Model/Style Code:	Galv Panel / 45PPI Foam 1/8" / BHB	Air Temperature (°F)	74 - 81
Nominal Dimensions: (inches)	24w x 24h x 1/8	Relative Humidity (%)	41 - 44
Media Type:	polymer	Barometric Pressure (In. HG)	29.09 - 29.18
Media Color:	black	Type of Test Aerosol:	n/a
Effective Media Area:	4 sq. ft.	Particle Counter:	n/a
Filter Procurement Method:	Provided by Manufacturer	Filter Loading Dust:	ASHRAE

Dust Holding Capacity and Arrestance Data

Cum. Dust Fed - Grams	0	36.6	73.9	98.3	113.3	126.2
Filter Resistance - In. wg	0.07	0.10	0.17	0.28	0.40	0.5
Incremental Arrestances - %		62.2%	67.0%	68.0%	75.9%	76.0%
Average Arrestance - %		67.8%				
Dust Holding Capacity - Grams		85.6 Grams				



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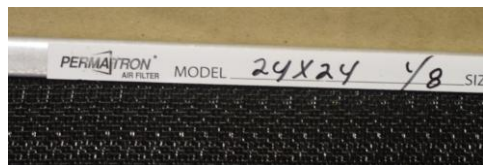
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Pleat Quantity (visible):	not applicable	Filter Loading Dust:	ASHRAE
Pocket Quantity:	not applicable	Test Results	
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Media Color:	black	CFM	FPM
Effective Media Area:	4 sq. ft.	295	74
Type of Dust Adhesive:	none	590	148
Amount of Dust Adhesive:	not applicable	885	221
Filter Procurement Method:	Provided by Manufacturer	1180	295
		1475	369
		Dust Holding Capacity	
		111	Grams
Additional Information:		Filter Final Resistance	
		1.00	In. W.G.
		Average Arrestance	
		70	%
		MERV	
		3	@ 295 FPM

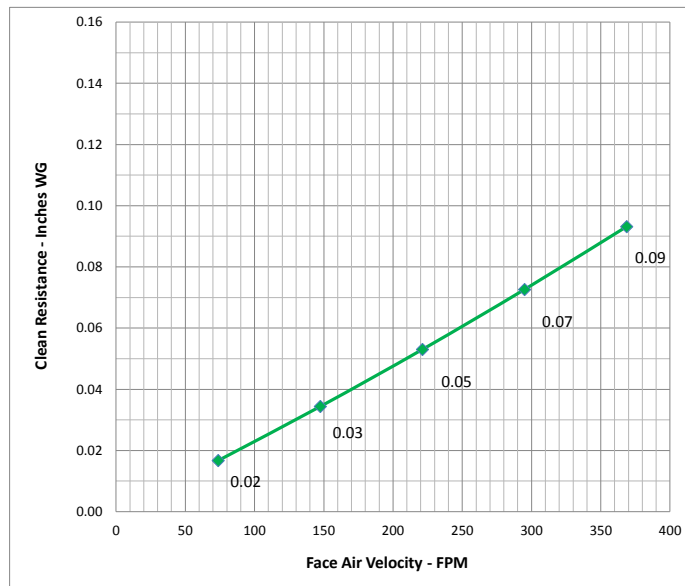
Photograph of Air Entering Side of Filter



Photograph of Label/Markings



Filter Resistance vs Air Flow



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Nominal Dimensions: (inches)	24w x 24h x 1/8	Relative Humidity (%)	41 - 44
Media Type:	polymer	Barometric Pressure (In. HG)	29.09 - 29.18
Media Color:	black	Type of Test Aerosol:	n/a
Effective Media Area:	4 sq. ft.	Particle Counter:	n/a
Filter Procurement Method:	Provided by Manufacturer	Filter Loading Dust:	ASHRAE

Dust Holding Capacity and Arrestance Data

Cum. Dust Fed - Grams	0	36.6	98.3	126.2	144.3	158.6
Filter Resistance - In. wg	0.07	0.10	0.28	0.50	0.82	1.00
Incremental Arrestances - %		62.2%	67.0%	68.0%	79.0%	79.0%
Average Arrestance - %		70.1%				
Dust Holding Capacity - Grams		111.2 Grams				



Comments:

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