

LMS TECHNOLOGIES, INC.**6423 Cecilia Circle****Bloomington, MN 55439****(952) 918-9060, Fax: (952) 918-9061****Test Report-ASHRAE Test Standard 52.2**Report #: **1604**Test Date: **07/22/08**Test Requested By: **Manufacturer**Model Number: **MERV 13**Dimensions: **24" x 24" x 4"**Number of Pleats: **22-Pleats**Filter Description: **White, Synthetic Pleat Filter**

 Test Results

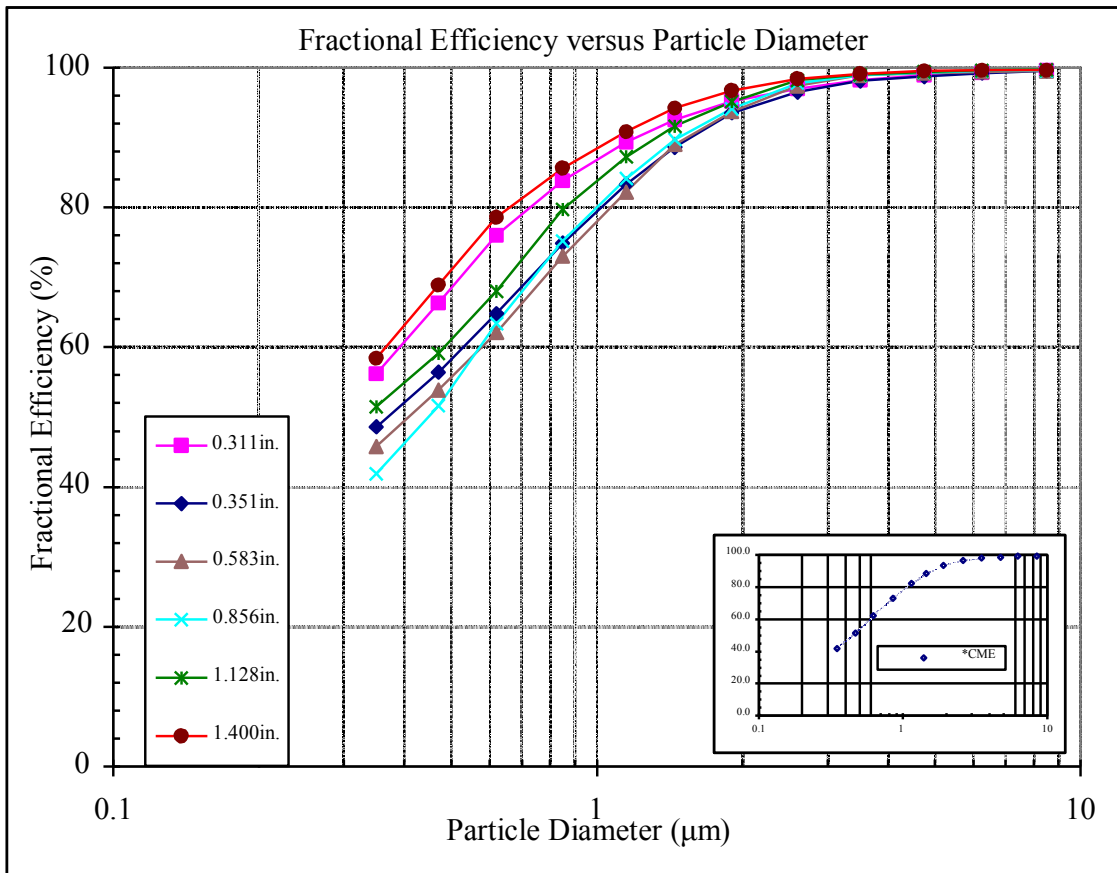
Test Air Flow Rate(CFM)/Velocity(FPM)	<u>1968 cfm / 492 fpm</u>
Initial Resistance (in. WG)	<u>0.311"</u>
Final Resistance (in. WG)	<u>1.400"</u>
Minimum Efficiency Rating Value (MERV)	<u>MERV 13 @ 1968 cfm</u>
Minimum Average Efficiency 0.3 to 1.0 Microns (E1)	<u>57.2</u>
Minimum Average Efficiency 1.0 to 3.0 Microns (E2)	<u>90.2</u>
Minimum Average Efficiency 3.0 to 10 Microns (E3)	<u>98.9</u>
Dust Fed to Final Resistance (grams)	<u>85.1 grams</u>
Dust Holding Capacity (grams)	<u>83.8 grams</u>

Test DescriptionTemp & Humidity: **71 @ 44%**Particle Analysis: **Hiac/Royco FE-80**Test Dust: **ASHRAE 52.1 Dust**Test Aerosol: **KCl, Neutralized**Test Engineer : **Mick Flom/Emile Tadros/Kian Imani/Todd Krueger/Pat Best**Approved By: **K. C. Kwok, Ph.D.**

LMS Technologies, Inc.
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Date :	July 22, 2008	
Filter ID :	MERV 13 24X24X4	
Test Type :	52.2	
Test Aerosol :	KCl, Neutralized	

ΔP (" H ₂ O)	0.311in.	0.351in.	0.583in.	0.856in.	1.128in.	1.400in.	*CME
Size Range (μm)	Fractional Efficiency (%)						
0.3-0.4	56.2	48.6	45.8	41.9	51.5	58.4	41.9
0.4-0.55	66.3	56.4	53.9	51.6	59.1	68.9	51.6
0.55-0.7	76.0	64.8	62.1	63.4	68.0	78.6	62.1
0.7-1.0	83.8	74.9	73.0	75.2	79.7	85.6	73.0
1.0-1.3	89.3	83.3	82.2	84.1	87.2	90.8	82.2
1.3-1.6	92.5	88.6	89.0	89.7	91.6	94.2	88.6
1.6-2.2	95.2	93.5	93.7	94.1	95.1	96.7	93.5
2.2-3.0	97.0	96.5	97.4	97.8	98.2	98.4	96.5
3.0-4.0	98.2	98.1	98.9	98.9	99.0	99.1	98.1
4.0-5.5	98.9	98.7	99.2	99.3	99.4	99.5	98.7
5.5-7.0	99.3	99.2	99.4	99.5	99.6	99.6	99.2
7.0-10.0	99.6	99.5	99.5	99.5	99.7	99.6	99.5



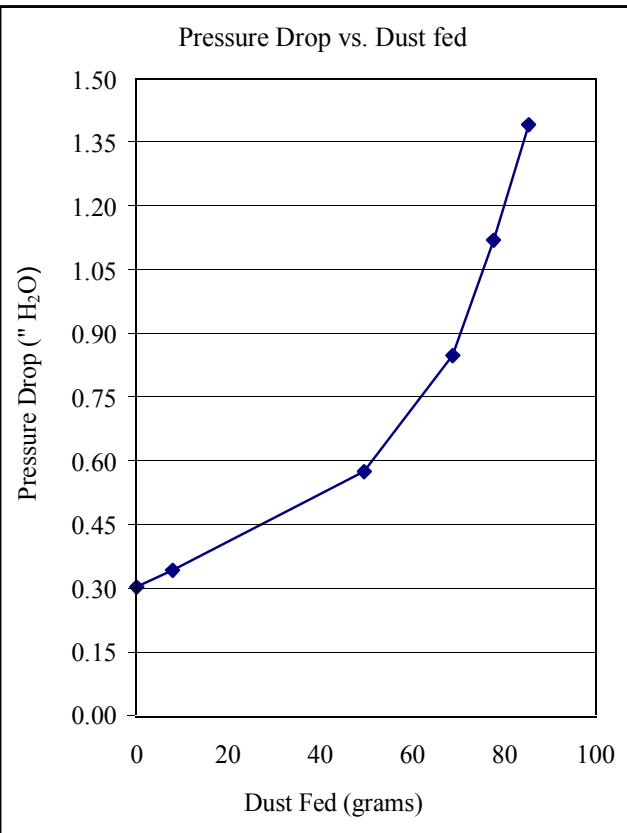
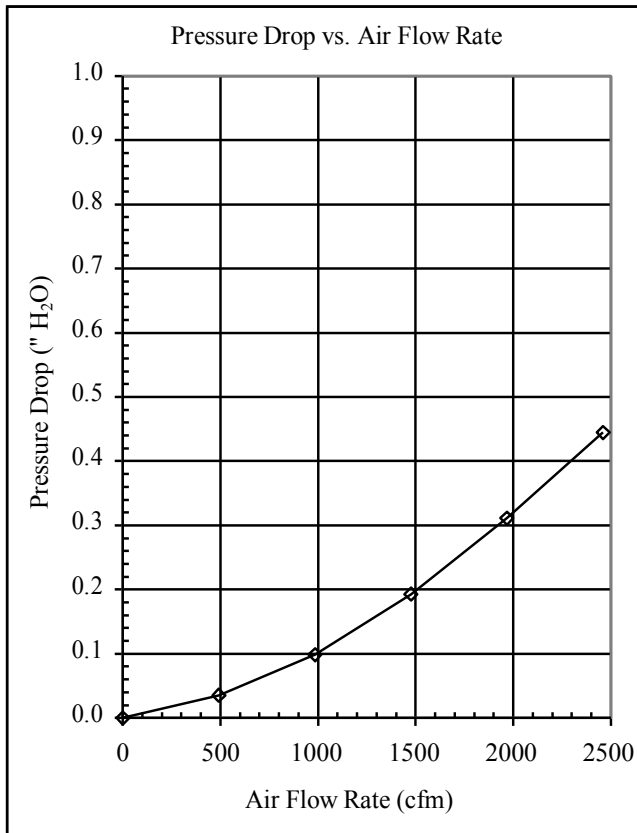
TEST SUPERVISOR
MICK FLOM_____

ENGINEERING APPROVAL
K.C. KWOK, PH.D._____

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Date:	July 22, 2008	
Filter ID :	MERV 13 24X24X4	
Test Type :	Pressure Drop of Clean Filter for ASHRAE 52.2	

Flow Rate (CFM)	Velocity FPM	dP (mm H ₂ O)	Pressure drop ("H ₂ O)	% of Rated Airflow	Dust fed	Pressure drop
0	0	0.00	0.000	0%	0.00	0.311
492	123	0.90	0.035	25%	7.80	0.351
984	246	2.50	0.098	50%	49.40	0.583
1476	369	4.90	0.193	75%	68.60	0.856
1968	492	7.90	0.311	100%	77.50	1.128
2460	615	11.30	0.445	125%	85.10	1.400



TEST SUPERVISOR
MICK FLOM _____

ENGINEERING APPROVAL
K.C.KWOK PH.D. _____

DPI