



ETL SEMKO

3933 US Route 11
Cortland, NY 13045
Ph: (607) 753-6711
Fax: (607) 753-7560
Web: www.intertek.com

May 18, 2006

Intertek Order No. 3097239/001

Mr. Ben Kaepfner
Engineering Dynamics Ltd.
137 Pick Road RR1
Carleton Place
Ontario, CAN K7C3P1

Dear Mr. Kaepfner:

Please find enclosed Intertek Report No. 3097239-001 covering ASHRAE Standard 52.2-1999 tests performed on the V8-2 Pocket air filter.

The testing was authorized by receipt of deposit.

Thank you for turning to Intertek for your testing requirements. If you have any questions or further needs, please do not hesitate to contact me.

Sincerely,

Teresa M. Peck, CAFS
Technical Team Leader
Air Quality

TP

Enclosure



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REPORT NO. 3097239-001

**TEST OF ONE
V8-2 POCKET
AIR FILTER**

RENDERED TO

**ENGINEERING DYNAMICS LTD.
137 PICK ROAD RR1
CARLETON PLACE
ONTARIO, CAN K7C3P1**

General

This report covers a test of one air filter, performed according to ASHRAE Standard 52.2-1999 entitled "Method of Testing General Ventilation Air Cleaning Devices for Removal Efficiency by Particle Size".

Testing was authorized by receipt of deposit.

Identification of Test Specimen

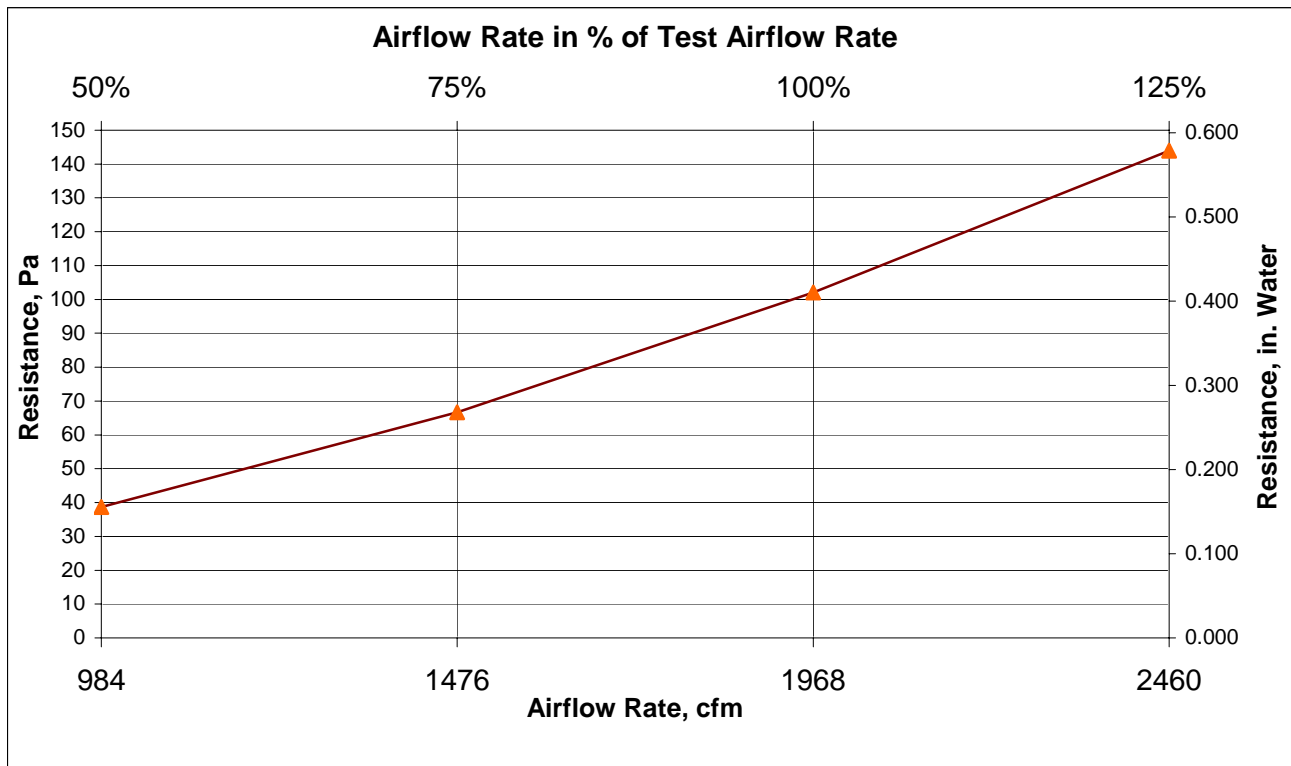
The filter tested was designated as one V8-2 air filter. A description is included in the data section on page four of this report.

Method of Test

Tests were conducted as specified in ASHRAE Standard 52.2-1999. The test program consisted of measurement of initial resistance versus airflow rate (Section 9), and the test program for determination of particle size efficiency (Section 10). The test apparatus used was that specified in the above referenced standard. ASHRAE Synthetic Test Dust, as specified in Section 6.2, was used for dust loading.

An independent organization testing for safety, performance, and certification.

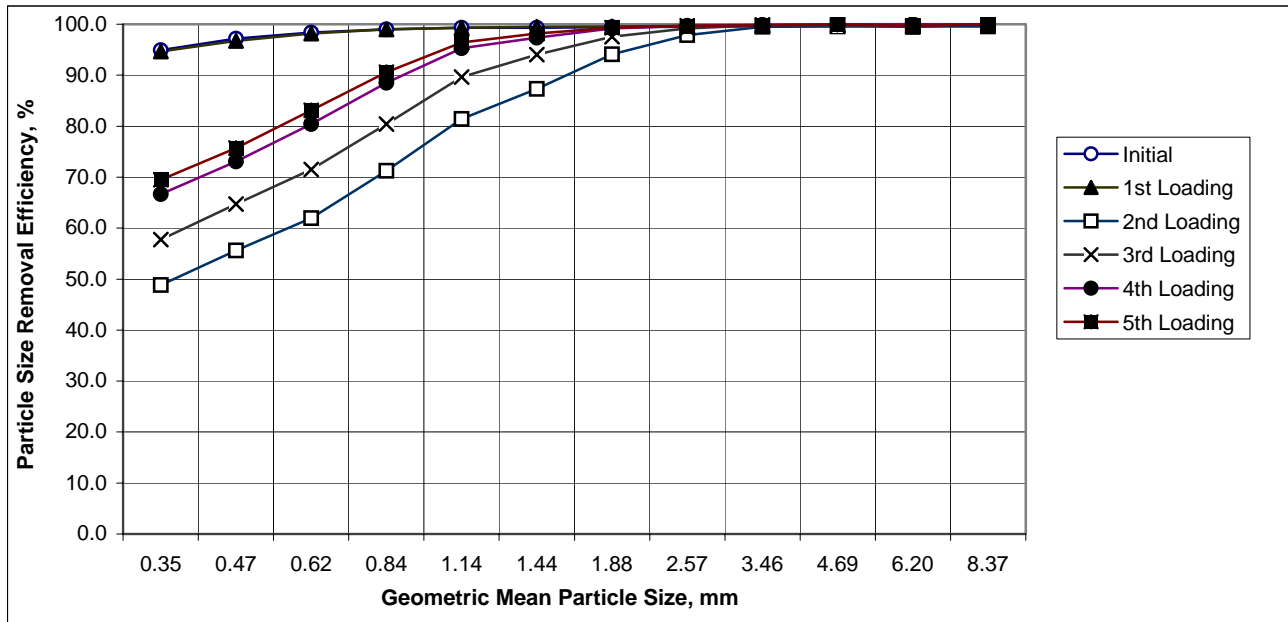
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Graph 1: Resistance of Clean Device vs. Airflow

Airflow Rate in % of Test Airflow Rate	Air Velocity		Airflow Rate		Resistance	
	m/s	fpm	m ³ /s	cfm	Pa	in H ₂ O
50%	1.25	246.0	0.46	984	39	0.155
75%	1.87	369.0	0.70	1476	67	0.268
100%	2.50	492.0	0.93	1968	102	0.410
125%	3.12	615.0	1.16	2460	144	0.579

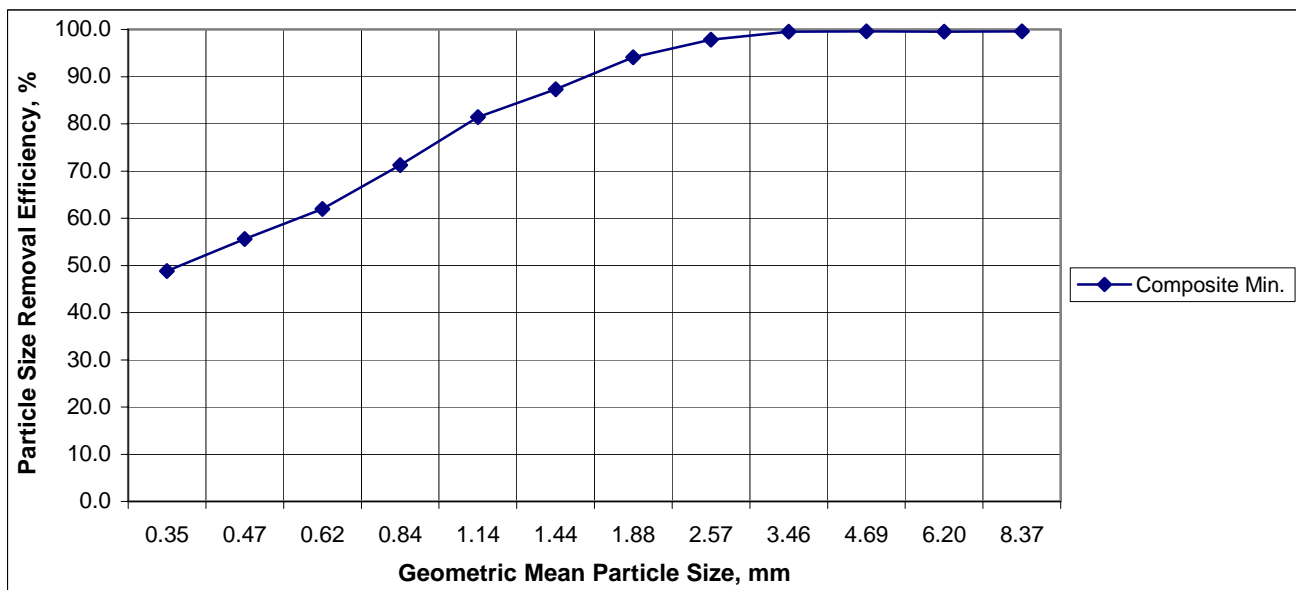
Table 1: Resistance of Clean Device vs. Airflow



Graph 2: PSE After Incremental Dust Loading

Range Number	1	2	3	4	5	6	7	8	9	10	11	12
Size Range, μm	0.30-0.40	0.40-0.55	0.55-0.70	0.70-1.00	1.00-1.30	1.30-1.60	1.60-2.20	2.20-3.00	3.00-4.00	4.00-5.50	5.50-7.00	7.00-10.00
Geometric Mean Particle Size, 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	94.9	97.2	98.4	99.0	99.3	99.3	99.5	99.5	99.6	99.7	99.8	100.0
1st Loading	94.6	96.7	98.2	99.0	99.3	99.5	99.6	99.7	99.7	99.8	99.5	100.0
2nd Loading	48.8	55.6	62.0	71.3	81.4	87.3	94.1	97.9	99.5	99.6	99.5	99.6
3rd Loading	57.8	64.7	71.5	80.4	89.7	94.0	97.5	99.2	99.8	99.7	99.7	100.0
4th Loading	66.6	73.1	80.4	88.5	95.3	97.4	99.2	99.7	99.9	100.0	100.0	100.0
5th Loading	69.5	75.7	83.1	90.6	96.5	98.2	99.3	99.7	99.8	99.9	99.7	100.0
Composite Minimum	48.8	55.6	62.0	71.3	81.4	87.3	94.1	97.9	99.5	99.6	99.5	99.6

Table 2: Particle Size Efficiency



Graph 3: Composite Minimum Efficiency Curve

Sample	Dust Loading Schedule						Dust loaded	
	Beginning		Target		Actual			
	PA	WG	PA	WG	PA	WG	gms	oz
D1	102	0.41	112	0.45	112	0.45	20	0.705
D2	112	0.45	171.3	0.69	165	0.663	380	13.4
D3	171.3	0.688	230.5	0.93	225	0.904	220	7.76
D4	230.5	0.926	289.8	1.16	290	1.165	180	6.349
D5	289.8	1.164	349	1.4	349	1.402	50	1.764