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Date: 26-May-23 TEST NO. 23-229-2

## Test Report ANSI/ASHRAE Standard 52.2-2017

### Filter Description

Manufacturer	BNX
Filter Model	TRU Filter MERV11
Part Number	N/A
Generic Filter Type	Pleated
Nominal Dimensions (H x W x D)	20" x 20" x 1"
Pocket / Pleat Quantity	21 Pleats
Media Type	Synthetic
Est. Gross Media Area	5.13Ft <sup>2</sup>
Adhesive Type	N/A



### Test Conditions

Loading Dust Type	ASHRAE	Test Air Temp (degrees F.)	82
Barometric Pressure (In. Hg.)	29.45	Relative Humidity (%)	37

### Test Results


<b>Airflow Rate (CFM)</b>	<b>819</b>
<b>Nominal Face Velocity (fpm)</b>	<b>295</b>
<b>Initial Resistance (in WG)</b>	<b>0.30</b>
<b>Final Resistance (in WG)</b>	<b>1.00</b>
<b>Dust Fed (gms) to Final Resistance</b>	<b>6.6</b>
<b>E1 (%) Composite Minimum Avg. Efficiency 0.30 - 1.0 um</b>	<b>45</b>
<b>E2 (%) Composite Minimum Avg. Efficiency 1.0 - 3.0 um</b>	<b>83</b>
<b>E3 (%) Composite Minimum Avg. Efficiency 3.0 - 10.0 um</b>	<b>94</b>
<b>Minimum Efficiency Reporting Value (MERV)</b>	<b>MERV 12 @ 819 CFM</b>

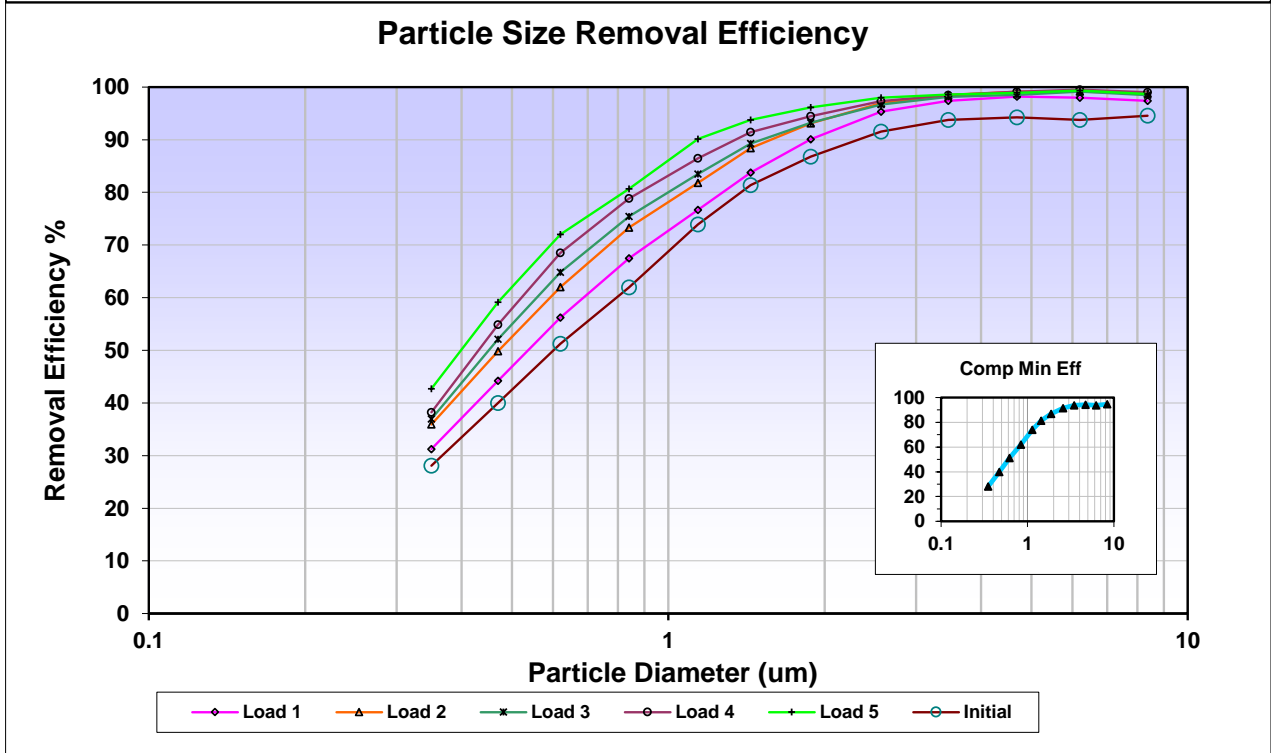
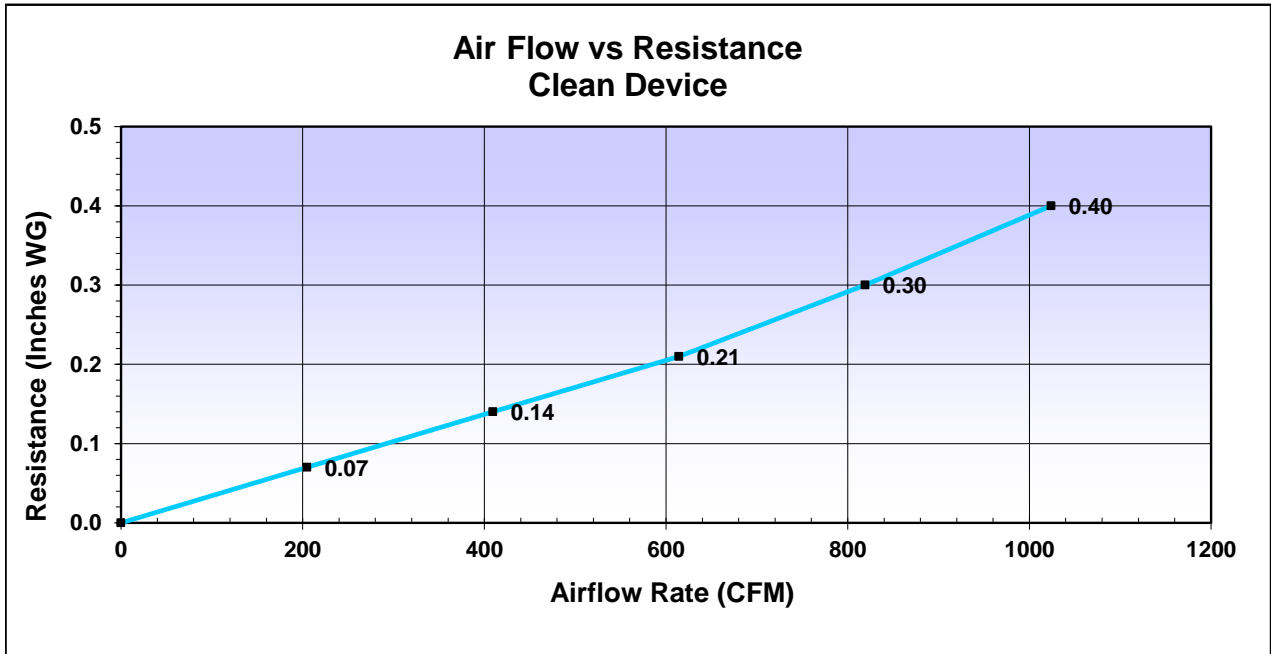
### Remarks

**Comments** Tested For: BNX

Final Pressure Drop ("w.c.)	1.00" w.c.
Dust Holding Capacity (gms)	6.6
Average Arrestance (%)	100.0

### Lab Technician

**Performing Test:** C Rees CAFS Approved By:  Test Completed: 26-May-23



**Data - Initial Resistance**

Airflow (CFM)	Resistance (in WG)
0	0.00
205	0.07
410	0.14
614	0.21
819	0.30
1024	0.40

**Data - Particle Removal Efficiency**

Particle Size Range (um)	Geometric Mean Diam (um)	Particle Removal Efficiency (%)							
		CME	Initial	Load 1	Load 2	Load 3	Load 4	Load 5	
0.30 - 0.40	0.35	28.1	28.1	31.2	35.9	37.0	38.2	42.7	
0.40 - 0.55	0.47	40.0	40.0	44.2	49.8	52.1	54.9	59.1	
0.55 - 0.70	0.62	51.3	51.3	56.2	62.0	64.8	68.5	72.0	
0.70 - 1.00	0.84	62.0	62.0	67.5	73.3	75.4	78.8	80.7	
1.00 - 1.30	1.14	73.9	73.9	76.6	81.8	83.5	86.4	90.1	
1.30 - 1.60	1.44	81.4	81.4	83.7	88.4	89.3	91.4	93.7	
1.60 - 2.20	1.88	86.8	86.8	90.1	93.1	93.2	94.5	96.2	
2.20 - 3.00	2.57	91.5	91.5	95.3	97.0	96.7	97.4	98.0	
3.00 - 4.00	3.46	93.8	93.8	97.4	98.5	98.2	98.5	98.6	
4.00 - 5.50	4.69	94.3	94.3	98.2	99.1	98.5	99.1	98.9	
5.50 - 7.00	6.20	93.8	93.8	98.0	99.2	99.1	99.5	99.3	
7.00 - 10.00	8.37	94.6	94.6	97.4	98.8	98.5	99.0	98.7	
Resistance after Dust Load (in w.c.) ----->		CME	Initial	Load 1	Load 2	Load 3	Load 4	Load 5	
Dust Load (gms) ----->		0.34	0.48	0.65	0.83	0.83	1.00	1.00	
		0.8	2.6	4.2	5.6	6.6			

Test Data for Release Rate (%)						
Size Range	Geometric Mean of Particle Size Range, μm	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading	Release Rate After Loading
No.		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
1	0.35	0.012	0.024	0.027	0.021	0.087
2	0.47	0.009	0.013	0.021	0.014	0.061
3	0.62	0.008	0.009	0.012	0.011	0.037
4	0.84	0.004	0.009	0.007	0.006	0.032
5	1.14	0.004	0.007	0.011	0.008	0.038
6	1.44	0.006	0.008	0.014	0.012	0.040
7	1.88	0.004	0.004	0.004	0.008	0.038
8	2.57	0.003	0.012	0.000	0.022	0.034
9	3.46	0.000	0.010	0.008	0.038	0.036
10	4.69	0.040	0.027	0.075	0.062	0.125
11	6.2	0.144	0.078	0.297	0.276	0.330
12	8.37	0.240	0.143	0.220	0.471	0.168