



Test Date
1/14/2019

Report Number
19F037

ASHRAE Standard 52.2-2012 w/ 2015 Supplement

2650 NE Andresen Rd STE 102,
Vancouver, WA 98661

DEVICE DESCRIPTION

| | |
|--------------------------------|---------------------------|
| Supplier: | Rohner Finishing Systems |
| Product Name: | G-Pleat MERV 14 Box Style |
| Supplier Part #: | COFL-FFPFSNS-24-24-04-I |
| Generic Name: | Mini Pleat |
| Dimensions (HxWxD): | 24 x 24 x 4 |
| Number of Pleats | 3 PPI |
| Media Type: | Synthetic |
| Media Area (ft ²): | Standard |
| Media Color: | White |
| Sample Obtained From: | Joliet |
| Other Attributes: | |
| Standard Product Update | |

TEST RESULTS

| | | |
|----------------|------------------------------------|--------------|
| MERV 14 | Initial Resistance (in WC): | 0.37 |
| @ 1970 cfm | | |
| E1: 82 | Dust Loading | |
| E2: 95 | DHC (g): | 52 |
| E3: 98 | Avg. Arr. (%): | 99.9% |

TEST PARAMETERS

| | | | |
|---|-------|--------------------------------|--------|
| Airflow Rate (cfm): | 1970 | Final ΔP (inH ₂ O): | 1.5 |
| Temperature (°F): | 75 | Type of Aerosol: | KCl |
| RH (%): | 42 | Loading Dust Type: | ASHRAE |
| Pressure ("Hg): | 29.93 | | |
| Particle Counters: TSI Incorporated Shoreview, MN 3330 Optical Particle Sizer, 12 Channels | | | |

OTHER TEST INFORMATION

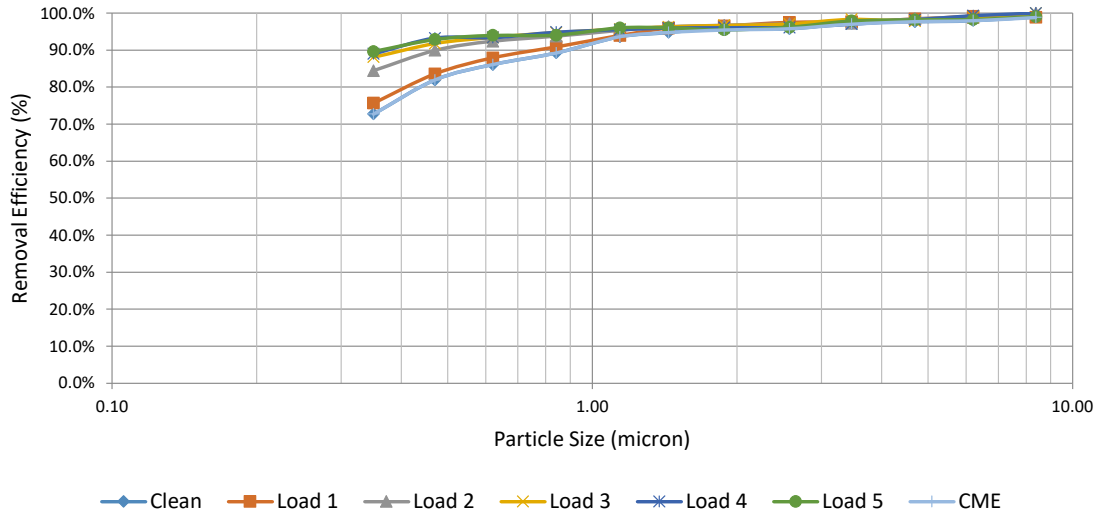
Test Requested By:
Phil Winters

Test Performed By:
Mike Slater

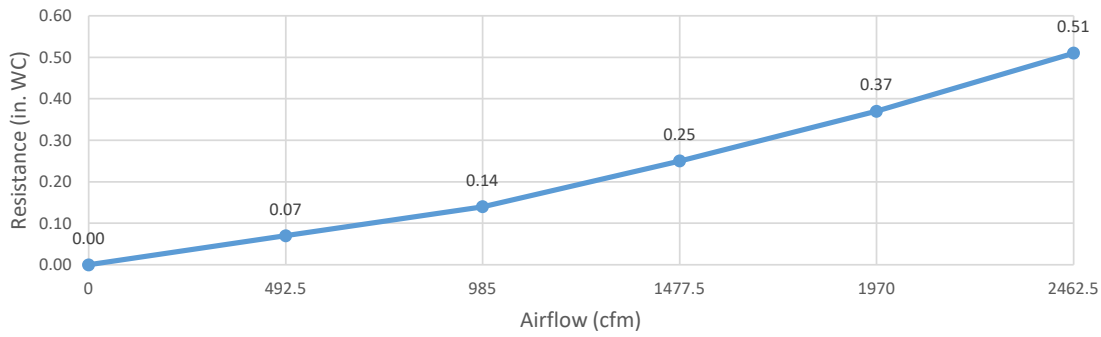
Approved By:
Phil Winters



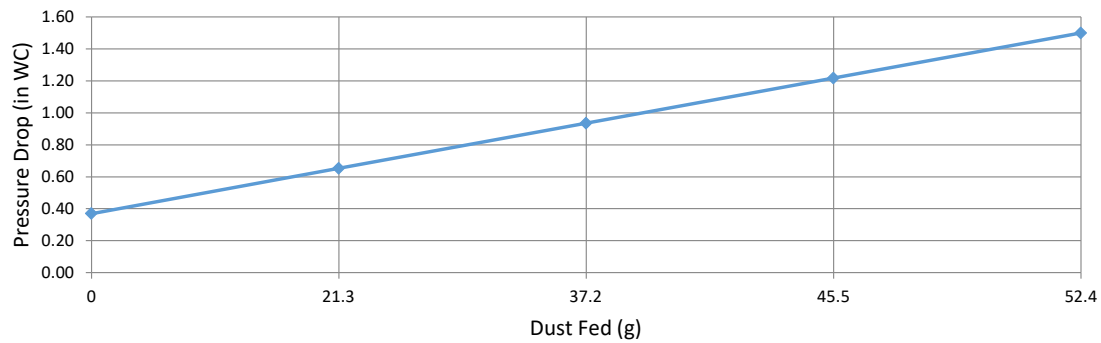
Particle Size Removal Efficiency



Resistance vs Airflow (Clean)



Pressure Drop vs Dust Fed



| Size Range (μm) | Mean Diam (μm) | Particle Removal Efficiency % | | | | | | | | |
|-------------------------------------|--------------------------------|----------------------------------|-------|--------|--------|--------|--------|--------|-----|------|
| | | CME | Clean | Load 1 | Load 2 | Load 3 | Load 4 | Load 5 | | |
| 0.30-0.40 | 0.35 | 73% | 72.7% | 76% | 84% | 88% | 89% | 90% | | |
| 0.40-.055 | 0.47 | 82% | 81.9% | 84% | 90% | 92% | 93% | 93% | | |
| 0.55-0.70 | 0.62 | 86% | 86.1% | 88% | 92% | 93% | 93% | 94% | | |
| 0.70-1.00 | 0.84 | 89% | 89.2% | 91% | 94% | 95% | 95% | 94% | | |
| 1.00-1.30 | 1.14 | 94% | 93.6% | 94% | 95% | 96% | 95% | 96% | | |
| 1.30-1.60 | 1.44 | 95% | 94.8% | 96% | 96% | 96% | 96% | 96% | | |
| 1.60-2.20 | 1.88 | 95% | 96.1% | 97% | 97% | 97% | 96% | 95% | | |
| 2.20-3.00 | 2.57 | 96% | 95.8% | 97% | 97% | 97% | 96% | 96% | | |
| 3.00-4.00 | 3.46 | 97% | 97.3% | 98% | 97% | 98% | 97% | 98% | | |
| 4.00-5.50 | 4.69 | 98% | 97.7% | 98% | 99% | 98% | 98% | 98% | | |
| 5.50-7.00 | 6.20 | 98% | 98.0% | 99% | 99% | 99% | 99% | 98% | | |
| 7.00-10.0 | 8.37 | 99% | 99.0% | 99% | 100% | 100% | 100% | 99% | | |
| Resistance after Dust Load (in. WC) | | 0.37 | | 0.6525 | | 0.935 | | 1.2175 | 1.5 | |
| Dust Load (g) | | 0 | | 5.3 | | 10.6 | | 8.3 | | 6.9 |
| Arrestance (%) | | | | 100% | | 100% | | 100% | | 100% |

Resistance vs Airflow (Clean)

| Airflow (cfm) | Resistance (in. WC) |
|---------------|---------------------|
| 0 | 0.00 |
| 492.5 | 0.07 |
| 985 | 0.14 |
| 1477.5 | 0.25 |
| 1970 | 0.37 |
| 2462.5 | 0.51 |

Dust Loading Release Rate

| Size Range (μm) | Mean Diam (μm) | Release Rate Load 1 | Release Rate Load 2 | Release Rate Load 3 | Release Rate Load 4 | Release Rate Load 5 |
|---------------------------------|--------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 0.30-0.40 | 0.35 | 0.3% | 0.9% | 2.4% | 3.5% | 3.6% |
| 0.40-.055 | 0.47 | 0.1% | 0.3% | 0.7% | 1.0% | 1.1% |
| 0.55-0.70 | 0.62 | 0.1% | 0.2% | 0.4% | 0.6% | 0.6% |
| 0.70-1.00 | 0.84 | 0.1% | 0.2% | 0.5% | 0.6% | 0.7% |
| 1.00-1.30 | 1.14 | 0.1% | 0.5% | 0.5% | 1.4% | 1.2% |
| 1.30-1.60 | 1.44 | 0.1% | 0.6% | 0.9% | 1.1% | 1.5% |
| 1.60-2.20 | 1.88 | 0.1% | 0.4% | 0.8% | 1.5% | 1.1% |
| 2.20-3.00 | 2.57 | 0.2% | 0.4% | 1.5% | 0.9% | 1.2% |
| 3.00-4.00 | 3.46 | 0.2% | 0.4% | 1.6% | 2.4% | 2.0% |
| 4.00-5.50 | 4.69 | 0.3% | 0.6% | 1.9% | 2.6% | 1.6% |
| 5.50-7.00 | 6.20 | 0.0% | 0.9% | 1.3% | 2.2% | 0.8% |
| 7.00-10.0 | 8.37 | 0.0% | 0.8% | 3.5% | 2.1% | 0.5% |