How Filters Trap More Dirt

As illustrated below, the finer the fiber in a filter weave, the greater the ability to trap dirt and other particles, thus decreasing blow-by. The photomicrographs show that the filter has a more effective weave than that of a conventional filter bag. This increases the ability to trap dirt and virtually eliminates blow-by.

Photomicrograph of the fiber weave of a conventional filter bag (500x)

Photomicrograph of the fiber weave of a SCS filter (500x)

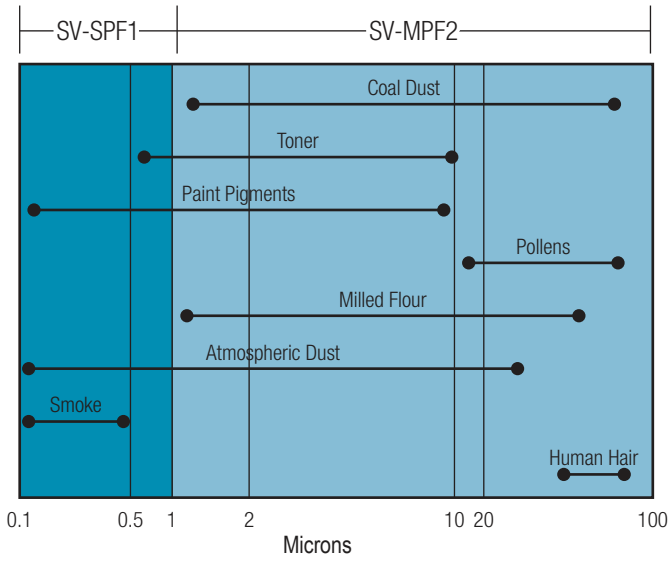
Filter, SV-SPF1 Fine Particle Filters

A thinner, more concentrated weave (HEPA media) for trapping extremely fine particles. Typical applications: color laser printers, color copiers and highly sensitive equipment.

Filter, SV-MPF2 High Performance Filters

Specially designed for trapping unwanted toner from copiers and laser printers. Also ideal for cleaning keyboards, fans and other household dust collections.

Typical Particle Sizes

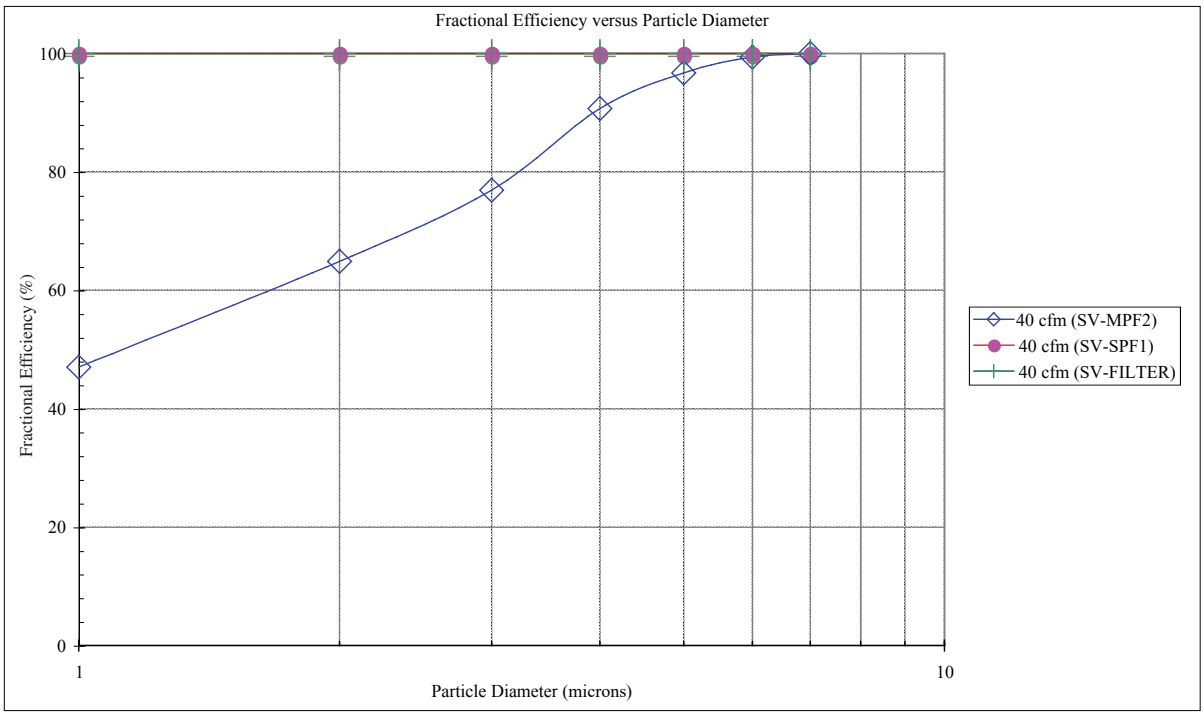


Efficiency

Date :	August 20, 2008
Filter ID :	**SV-MPF2**
Test Type :	Fractional Efficiency
Test Aerosol :	KCl, Neutralized
Flow rate(cfm)	40 cfm (SV-MPF2)
Dp (" H2O)	3.079
Size Range (microns)	Fractional Efficiency (%)
0.3-0.5	47.0
0.5-0.7	64.9
0.7-1.0	76.9
1.0-2.0	90.7
2.0-3.0	96.7
3.0-5.0	99.4
>5.0	100.0

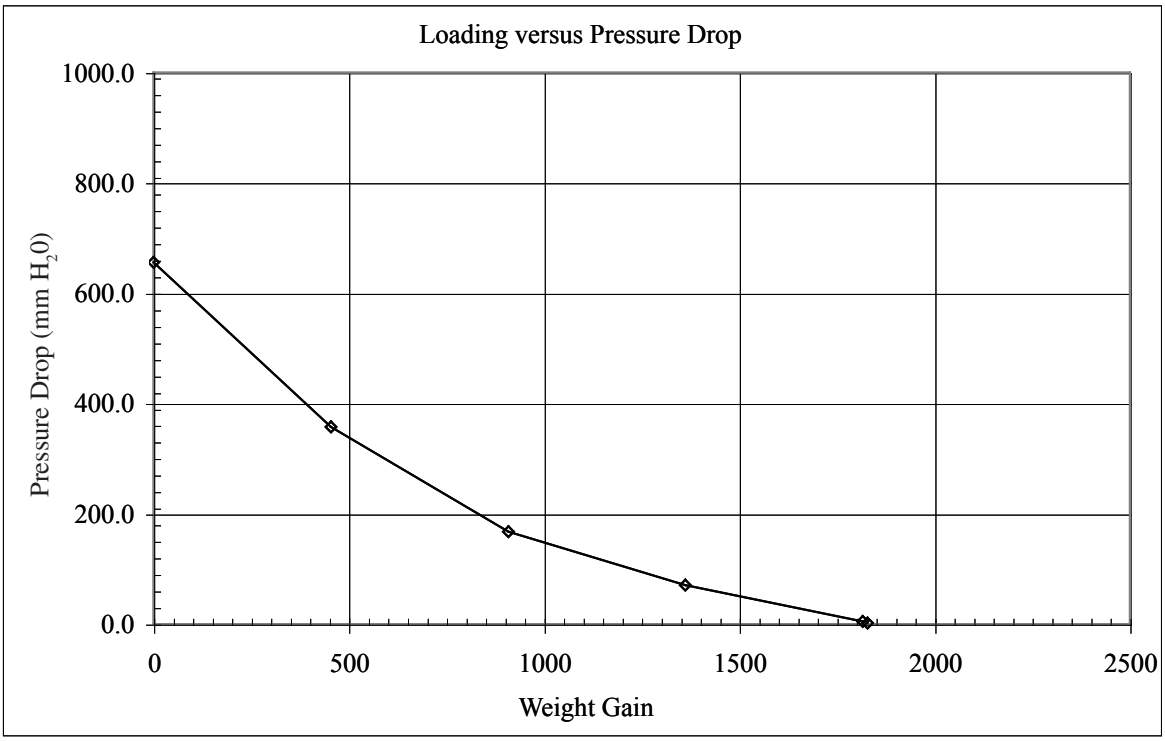
Date :	August 20, 2008
Filter ID :	**SV-SPF1**
Test Type :	Fractional Efficiency
Test Aerosol :	KCl, Neutralized
Flow rate(cfm)	40 cfm (SV-SPF1)
Dp (" H2O)	3.157
Size Range (microns)	Fractional Efficiency (%)
0.3-0.5	99.980
0.5-0.7	99.991
0.7-1.0	99.999
1.0-2.0	100.000
2.0-3.0	100.000
3.0-5.0	100.000
>5.0	100.000

Date :	August 20, 2008
Filter ID :	**SV-FILTER (HEPA)**
Test Type :	Fractional Efficiency
Test Aerosol :	KCl, Neutralized
Flow rate(cfm)	40 cfm (SV-FILTER)
Dp (" H2O)	3.157
Size Range (microns)	Fractional Efficiency (%)
0.3-0.5	99.988
0.5-0.7	99.995
0.7-1.0	100.000
1.0-2.0	100.000
2.0-3.0	100.000
3.0-5.0	100.000
>5.0	100.000



Typical Loading

"Weight Gain (gram) Alumina Fines"	"Pressure Drop (mm H2O)"
0.0	655.7
454.0	358.0
908.0	168.0
1362.0	70.6
1816.0	5.1
1828.3	2.2


Loading versus Pressure Drop
1000.0
800.0
600.0
400.0
200.0
0.0
Pressure Drop (mm H_20)
0
500
1000
1500
2000
2500
Weight Gain