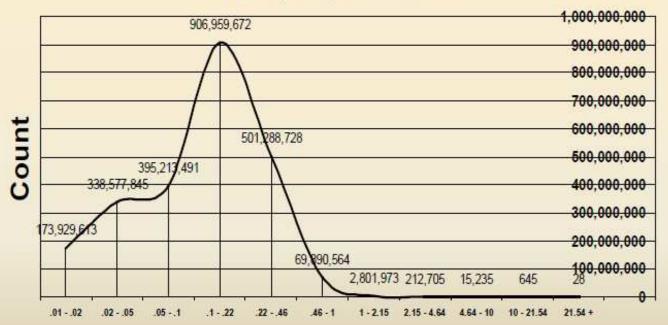
Ever wonder what your filters are actually seeing when in service?

Particles by Count

Typical Atmospheric Air Sample 69 micrograms per Cubic Meter



Particle Size in Micrometers

 $100 \, \mu m = 1/10 \, mm$

50 μm = hair

10 µm = visible

 $1 \mu m = 1/1000 mm$

 $0.3 \, \mu m = smoke$

Number 99 % < 1 μm Weight 30 % < 1 μm

Why capturing efficiency of small particles is important to your operation

"Gas turbine engines are susceptible to fouling of the inlet compressor blades. This fouling is significantly affected by particles in the air stream that are less than 1 micron in size. For that reason, the fractional efficiency of the filter on sub-micron particles is very important to the cleanliness of the turbine compressor. A clean compressor helps the turbine to produce its desired output."

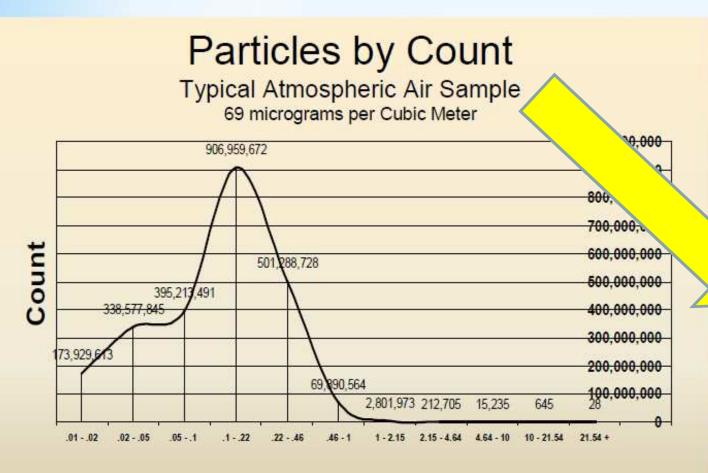
0 mm ble 000 mm

6 < 1 μm 6 < 1 μm

.01 - .02 .02 - .05 .05 - .1 .1 - .22 .22 - .46 .46 - 1 1 - 2.15 2.15 - 4.64 4.64 - 10 10 - 21.54 21.54

Particle Size in Micrometers

It's the size that "counts"



100 μm = 1/10 mm

 $50 \mu m = hair$

10 µm = visible

 $1 \mu m = 1/1000 mm$

 $0.3 \mu m = smoke$

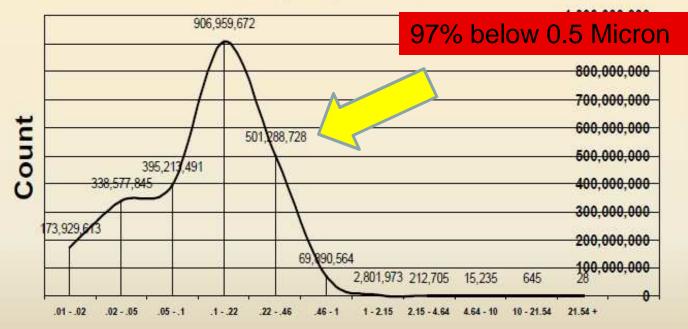
Number 99 % < 1 μm Weight 30 % < 1 μm

Particle Size in Micrometers

Initial Efficiency Really Matters!

Particles by Count

Typical Atmospheric Air Sample 69 micrograms per Cubic Meter



Particle Size in Micrometers

 $100 \, \mu m = 1/10 \, mm$

50 μm = hair

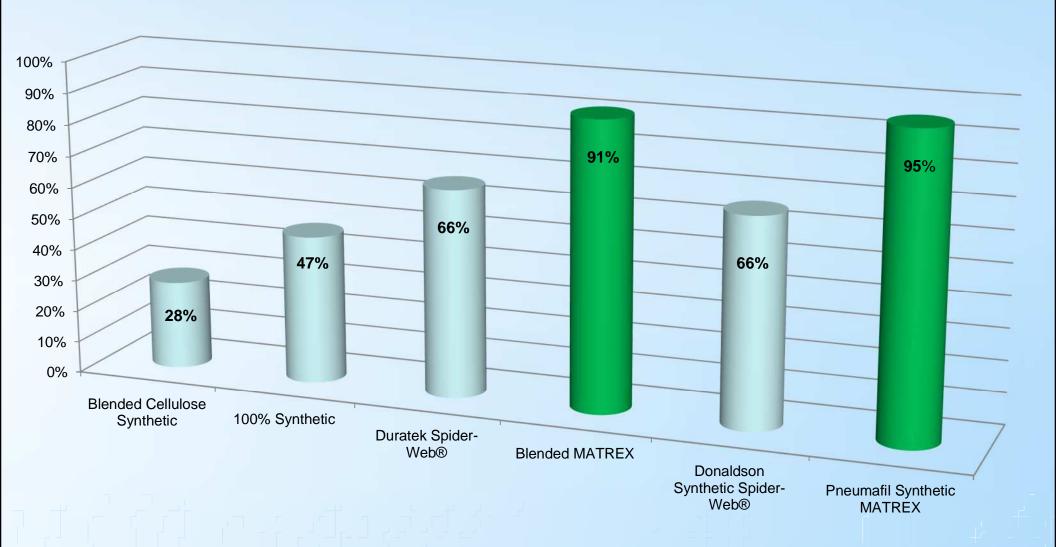
10 µm = visible

 $1 \mu m = 1/1000 mm$

 $0.3 \mu m = smoke$

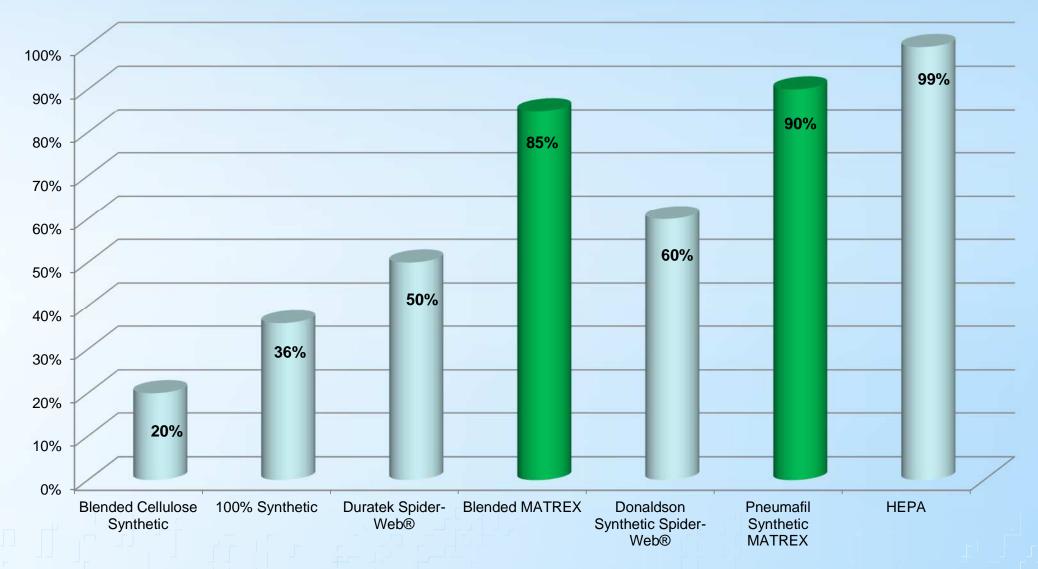
Number 99 % < 1 μm Weight 30 % < 1 μm

E1 (Average Efficiency of $0.3\mu - 1.0\mu$)



^{*} Data from published ASHRAE 52.2 or 52.1 Testing

Fractional Efficiency of 0.3µ - 0.4µ Particles



^{*} Data from published ASHRAE 52.2 or 52.1 Testing

Pneumafil MATREX FiltersTM

- Synthetic fiber membrane applied to blended or synthetic media substrate
- Promotes surface filtration of fine particles
- FR treatment available on Blended substrate
- Surface tension repels water up to 6" w.c.
- Higher initial efficiency of sub micron dust particles offers significantly better protection of turbine compressor.
- Superior performance at significantly lower cost than HEPA filters