



Fiber Bed Mist Eliminators

Designing a filtration system that will last reliably for at least 10 years without maintenance is a complicated and technical process. The PMR series Mist Eliminator have been especially designed to deliver market leading performance over the long term, guaranteed.

By using homogenous-sized fibers, hand packed to a specific density, these filters takes advantage of the properties of gas diffusion and traps contaminants in the interstitial space. Unlike some designs using filter paper, PMR series Mist Eliminators are able to offer a more reliable performance over the long term, and a guaranteed lifetime of at least 10 years.

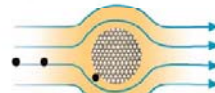


COLLECTION MECHANISMS FOR MIST ELIMINATORS

Particles larger than three microns are collected when their momentum prevents them from following gas streamlines around fibers. They leave the streamline, strike a fiber and are collected by the filter. Particles between 1.0 and 3.0 microns tend to follow the gas streamlines as they flow relatively close to fibers. A 1.0 micron particle, for example, passing within 0.5 micron of a fiber will be collected by the fiber. Extremely fine particles have random side-to-side movement caused by collisions with gas molecules. A 0.1 micron particle will have about ten times the Brownian movement or random motion of a 1.0 micron particle, greatly increasing the probability of collision with a fiber.

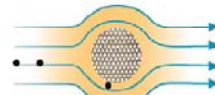
INERTIAL IMPACT

Particles collide with fiber
(particles >3 microns)



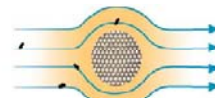
DIRECT INTERCEPTION

Particles touch fiber
(particles 1-3 microns)



BROWNIAN DIFFUSION

Particles hit fiber as a result of random movement
(particles <1 micron)



Specifications

Sizes range from 85 CFM to 18,267 CFM with vessel heights from 32" up to 209"