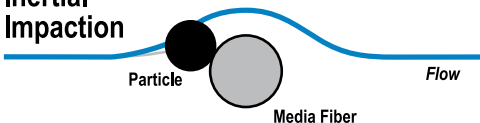


# Filtration Mechanisms

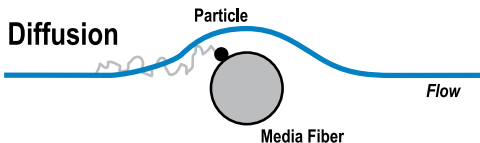
Here are a few ways media captures particles:

## Inertial Impaction



Inertia works on large, heavy particles suspended in the flow stream. These particles are heavier than the fluid surrounding them. As the fluid changes direction to enter the fiber space, the particle continues in a straight line and collides with the media fibers where it is trapped and held.

## Diffusion



Diffusion works on the smallest particles. Small particles are not held in place by the viscous fluid and diffuse within the flow stream. As the particles traverse the flow stream, they collide with the fiber and are collected.

## Shoptalk

### TRUCKING

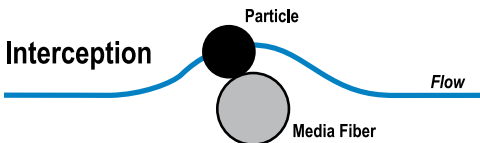


### MINING

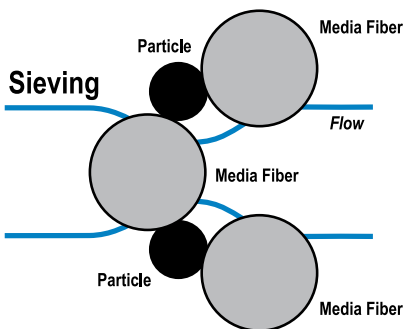


### CONSTRUCTION





Direct interception works on particles in the mid-range size that are not quite large enough to have inertia and not small enough to diffuse within the flow stream. These mid-sized particles follow the flow stream as it bends through the fiber spaces. Particles are intercepted or captured when they touch a fiber.



Sieving, the most common mechanism in filtration, occurs when the particle is too large to fit between the fiber spaces.

More information on Filter Media can be found at  
[www.filtercouncil.org/techdata/tsbs/02-2.pdf](http://www.filtercouncil.org/techdata/tsbs/02-2.pdf)

## Shoptalk



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