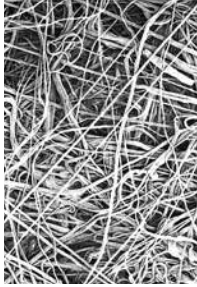


TECH TALK

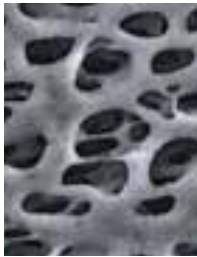
Top Frequently Asked Questions: PART II

Q. WHAT IS THE DIFFERENCE BETWEEN A DEPTH AND MEMBRANE ELEMENT?

A. "Depth" and "Membrane" are terms that refer to the nature of the media itself.



Depth media are typically made up of many layers of fibers. Usually, the fibers are coated with a binder material that holds the individual strands in place. While the passages through a depth media vary in size, the binder limits the openings to some maximum size. One of the biggest advantages of a depth element is that it provides a higher particle loading capacity than does a membrane element.



Membrane media are processed so that uniformly-sized holes are created through the membrane material. The uniformed media allows the capture of particles based on a specific size. In other words, any particle larger than the pore size of the media will get captured. Some particles will penetrate deeper into the membrane, but most are captured at the surface.

Q. WHAT IS THE DIFFERENCE BETWEEN A NOMINAL AND ABSOLUTE RATED ELEMENT?

A. Nominal and absolute can have different meanings depending on whom you are talking to.

Nominal: Donaldson defines nominal as an efficiency less than 99.98% at a given particle size.

Absolute: Some manufacturers state that an absolute rating means that 100% retention of particles at a given size. However, such data assumes ideal laboratory conditions, uniform particle size, constant flow rate and constant particle challenge. In practice, 100% particle retention is difficult to achieve. Donaldson defines absolute as *an efficiency equal or greater than 99.98% at a given particle size.*

Q. WHERE DOES DONALDSON PRODUCT SHIP FROM - WHAT IS THE FOB?

A. Donaldson's Compressed Air & Process product ships out of our distribution center in Greeneville, TN.

Q. WHAT CAN I USE TO CONDUCT INTEGRITY TESTS ON MEMBRANE & DEPTH ELEMENTS?

A. Depth and membrane elements are tested two different ways:



Depth: Depth elements are tested by conducting a DOP (Di-Octyl Phthalate) Test. During this test, the filter is challenged with aerosols that are between 0.2 and 0.3 μ (the most penetrating particle size). The filter passes or fails the test based on the amount of aerosol contaminant that penetrated the filter. Donaldson sells a DOP test device called the "Donaldson Filter Test Center."



Membrane: There are a number of integrity test methods used on membrane elements: Bubble Point, Forward Flow, Water Intrusion, and Pressure Hold Test. The type of test used is based on the data desired as well as the type of element (e.g. hydrophilic or hydrophobic) being tested. Donaldson offers a flexible test device called the Membra-check that can conduct the integrity tests listed.

Q. IS THE UFM-D SERIES CONDENSATE DRAIN A DIRECT REPLACEMENT FOR THE PHASED OUT UFM-T SERIES?

A. Not entirely. While the connection ports match up size for size, the older UFM-T drain was considered omni-voltage. That is, it would accept AC voltage from 90V to 240V, or 12V-30V DC without needing adapters or transformers of any kind. The new UFM-D drain is a single voltage: 115V AC standard in the US. For 230V AC or 24V DC, we can make available a drain with BSP connections.

Q. WHERE IS DONALDSON HEADQUARTERED?

A. Our headquarters is located in Minneapolis, MN.



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