

We think in microns . . .



The right filtration increases pump life and fuel cleanliness levels exponentially!

so you can think in megalitres.

Our range of highly effective Donaldson filters with leading-edge filtration media more than meets the demanding requirements of bulk fuel and oil storage facilities. Because Donaldson maintains a team of some 550 engineers creating pace-setting solutions to filtration problems worldwide.

Speak to a Donaldson filtration specialist about an on-site survey to best determine your needs. He can show you how multi-pass filtration and our tank breather technology can minimise your storage tank moisture and dust problems and make a huge difference to your oil and fuel purity levels.

Did you know?

- ▶ Donaldson 3 to 4 micron filters provide high efficiency throughout the life of the filter element. They are useful for fuel and servo valves and target ISO cleanliness levels of 15/14/11 or better.
- ▶ Our 6 to 8 micron filters provide high dirt holding capacity. They are useful for general hydraulic and transmission applications and target ISO cleanliness levels of 17/16/13 or better.
- ▶ Finally, 10 to 14 micron filters provide high dirt holding capacity at a low pressure drop. These are for use with high viscosity oils such as engine lube and gear oils, and they target ISO cleanliness levels of ISO 18/17/14 or better.

Olsen & Sons Adv DF017a



Donaldson
Filtration Solutions

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The heart of a filter

Media is, of course, the main factor influencing pressure drop in filters: indeed – it causes pressure drop. That is why having a low friction, high-flowing media is so important.

The differences in media are clearly visible in the close-up images (Figures 1 and 2) from *Donaldson's* scanning electron microscope in which the media mat is magnified hundreds of times.

Figure 1 shows Donaldson developed Synteq synthetic filter media with its smooth, rounded fibres consistently shaped so that the fibre size and distribution pattern throughout the media mat can be controlled while allowing the smoothest, least inhibited fluid flow. Consistency of fibre shape allows the maximum amount of contaminant-catching surface area and specific pore size control. The result is media with predictable filtration efficiencies at removing specified contaminants (e.g. 10 μm) and maximum dirt holding capacity. The low resistance of Synteq to fluid flow makes it ideal for synthetic fluids, water glycols, water/oil emulsions, HWCF, and petroleum-based fluids.

Figure 2 shows Donaldson natural fibre

cellulose media. Note that the natural cellulose fibres are larger than synthetic fibres and jagged in shape, so controlling pore size is difficult and there is less open volume. Lower efficiency ratings mean there are smaller pores in the media; smaller media pores cause more flow resistance, in turn causing a higher pressure drop. While cellulose provides effective filtration for a wide variety of petroleum-base fluids, in certain applications it results in poor filtration performance as compared to synthetic filters.

Wire mesh media (not pictured) is made of stainless steel for durability and long life. The company's wire mesh media is designed for environments where large, rough particulate needs to be filtered. Donaldson also offers water removal media, which is formulated with desiccants and resins to remove moisture and condensation from petroleum based fluids.

For more information contact Rob Simpson, Donaldson Filtration Systems, +27 (0)11 997 6000, marketing@emea.donaldson.com, www.donaldson.co.za

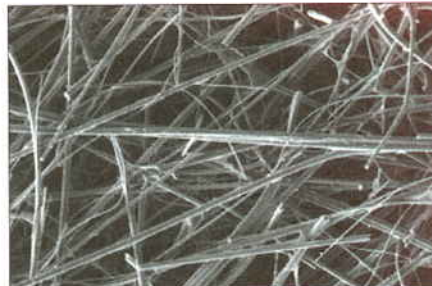


Figure 1. Donaldson-developed SYNTEQ synthetic media magnified.

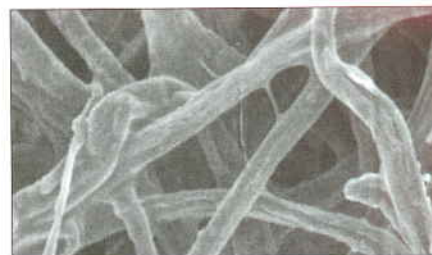


Figure 2. Natural fibre (cellulose) media magnified.