

**PRIMARY ELEMENT FILTRATION EFFICIENCY\***

WSO - WATER	WSO - SMOKE	WSO - OIL
		
<p>Water-soluble coolant: Typically 2-20 microns</p>	<p>Smoke from coolant in hot machining operations: Typically 0.07-1.2 microns</p>	<p>Oil-based coolant: Typically 0.8-5 microns</p>
<p>Water WSO Primary Element Efficiency on 2 microns: • 97.5% Draining (98.8% Initial)</p>	<p>Smoke WSO Primary Element Efficiency on 1.2 microns: • 97.7% Draining (99.3% Initial)</p>	<p>Oil WSO Primary Element Efficiency on 2 microns: • 99.3% Draining (99.8% Initial)</p>

\* Efficiency test results using aerosolized oil, April 2010.

**What's the difference between an 'initial' efficiency and a 'draining' efficiency?**

When filters are initially installed, there are many small pore openings between the fibers in the media structure. Those small pores are very effective at capturing droplets. However, as the filter loads with liquid and the droplets coalesce, the small pores fill up with liquid, and all the remaining airflow and small mist droplets must pass through the larger pores in the media. The larger pores are not as efficient at capturing the mist.

- 'Initial' efficiency measurements are taken with a fresh new filter, before the small pores fill up with liquid
- 'Draining' efficiency measurements are taken after the small pores are filled, and the coalesced liquid starts to drain from the filter

The 'Draining' efficiency measurement is more representative of actual performance over the life of the filter.

## FINAL FILTER FILTRATION EFFICIENCY

A final filter can provide additional filtration efficiency when desired. There are two optional final filter choices for the WSO:



<b>HEPA FILTER</b>	99.97% efficient* on 0.3 micron mist and smoke
<b>DOP FILTER</b>	95% efficient* on 0.3 micron mist and smoke

\* Tested per Mil Standard 282.

## SYSTEM – LEVEL EFFICIENCY GUARANTEES

Donaldson Torit can provide written efficiency guarantees based on the application and the selection of primary and final filters. Please work with your Donaldson Torit representative to obtain a written guarantee.



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