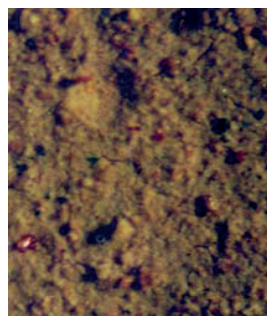
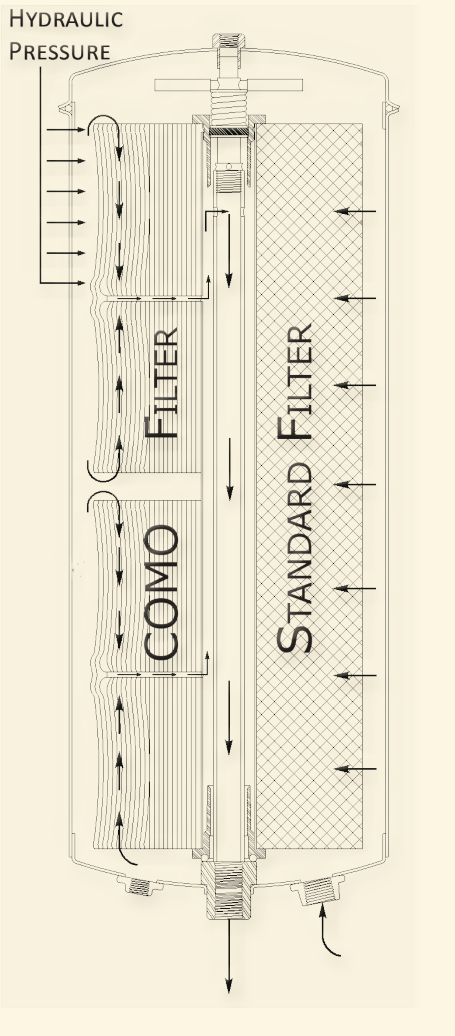


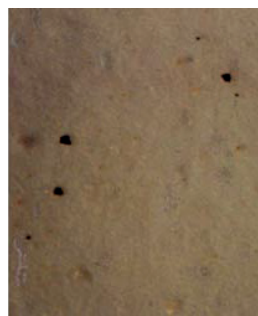
E-2TFO-M Filter Element

The unique axial flow of COMO's patented depth-media filters allows for an enormous filter surface area, which gives the E-2TFO-M excellent dirt-holding capacity and precision filtration down to one μm or below. Utilizing multi-pass filtration, our filters provide continuous contamination control, minimizing machine down-time and reducing fluid disposal & replacement costs.

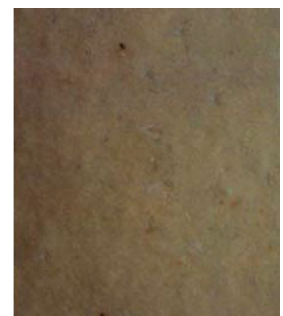
See the Difference: Fluid Under Microscope at 100x



Before Filtration:
ISO 22/21/20



5 Pass:
ISO 18/17/13



10 Pass:
ISO 15/13/10

E-2TFO-M Filter Element Specifications:

- Designed for hydraulic oil filtration
- Removes both water and particulate
- Absolute rating of $3\mu\text{m}$
- Can easily achieve 15/13/10 servo cleanliness
- Dirt holding capacity of 10 - 20 lbs*
- Moisture removal to as low as 20 ppm*
- Water absorption of 0.75 - 1 gallon*
- 7.5'' diameter x 20'' height
- Total media surface area of 3000 ft²

E-2TFO-M Application

The E-2TFO-M is our most popular filter element. This filter has four segments, and we designed it to fit in our C-1000 series filter housing - as well as equivalent competitive housings. The E-2TFO-M is made of cellulose, and excels at oil-based fluid filtration. This particular filter has an absolute filtration rating of 10 micron. Typical applications would involve oils with a viscosity ranging from 30 to 100 cSt (100 to 500 SUS) and temperatures up to 225°F

Dirt Holding Capacity:

In some applications, filter elements have demonstrated dirt holding capacities in excess of forty pounds. However, in typical applications, you can expect a solid-contaminant loading of ten to twenty pounds. Since the solid holding capacity of an element is determined by factors such as the element configuration, fluid flow-rate, particle size distribution, water content, and operating pressure, it is difficult to estimate the ultimate filter element holding-capacity for a specific application

Water Absorbency:

The E-2TFO-M filter element has excellent water absorption qualities, and can keep water contamination to as low as 20 ppm*. You can expect the E-2TFO-M filter element to remove and retain up to one gallon of water over its lifetime*. This property makes filter elements ideal for hydraulic systems, especially for dirt and moisture intolerant servo and proportional valves.

Beta Ratio:

Filtration beta ratios are calculated by dividing the upstream (unfiltered) particle count for a given micron rating by the downstream (filtered) particle count for that micron rating. This, in effect, shows the filtration efficiency for particles of all different sizes. Beta ratios are standardized, allowing you to compare filtration performance from one manufacturer to another.

However, when using beta ratios to compare filter performance, you must take into consideration the differences between surface filters and depth filters. Surface filters often have high beta ratios; however, they quickly load with contaminant, causing a spike in differential pressure that leads to short element life. On the other hand, depth filters have both high beta ratios and larger dirt holding capacities, which allows for continued performance over a longer period.

Flow Rate:

The recommended flow rate for the E-2TFO-M filter element is 2 - 3 GPM (per filter) in ISO 32 to ISO 68 hydraulic oils. In heavier oils, reduce flow per element down to 0.5-1.5 GPM. In very light oils, such as fuel oils, the filter may be used at flow rates as high as 5 GPM.

As a general guideline, the flow rate at normal operating temperature should be such that the differential filter pressure on a new element is in the range of 15-30 psi. Selecting a combination of filters and flow rates to yield startup-pressures in this range will result in maximum filter life.