Hydraulic Filter Types
January 2014

It is extremely important to protect costly internal hydraulic system components from premature wear. Better protection means longer component life, which means less system downtime for you. In a typical hydraulic system, the hydraulic fluid and filter(s) work together to best protect these components.

Here is an illustration showing a typical hydraulic system and the various types of hydraulic filters that could be used to protect it. Please note that not all of these filters would typically be used on one system.

Suction Side Filters:
Located before the hydraulic pump, these filters are designed to protect the pump from harmful contaminants that are within the hydraulic fluid. The filtering media within this type of filter is typically one with a higher micron rating, such as a wire screen.

Pressure Side Filters:
Located downstream from the hydraulic pump, these filters are designed to clean the fluid as it exits the pump to protect more sensitive system components such as control valves and actuators from contaminants generated from the pump. The typical filtering media used in these filters is capable of removing a high percentage of the smaller particles of contaminant.

Return Side Filters:
Located between the control valve and the fluid reservoir, these filters are designed to capture wear debris from the hydraulic systems working components before returning the fluid back to the reservoir. The media used in these filters is designed to remove common size wear particles that may be generated by these system components.

Off Line Filters:
These filters are used, independent from the hydraulic system, to clean hydraulic fluid before it enters the hydraulic system itself. Fluid is pulled from the reservoir through the filter and is returned to the reservoir.

In-Tank Breather Filters (not shown in this illustration):
Located on the reservoir, this filter may be used to prevent moisture and contaminants from entering the reservoir.

Hastings Premium Filters has a complete line of hydraulic filters and filter bases to fill your application needs.

The preceding information is available online at www.hastingsfilter.com/techtips.html.