

Reason for Performing a Flush	Potential Consequences of Not Flushing
<p>1. Oil Degradation. Oils degrade for a number of reasons. Most often it is associated with thermal degradation, oxidation, nitration, hydrolysis or additive precipitation. Sludge, varnish, acids and reactive chemicals are often the products of the degradation.</p>	<p>Corrosion, oil flow restriction, mechanical interference of machine movement, infection of next oil change (sequential oil failures).</p>
<p>2. Filter Collapse/Failure. When a filter fails, releasing debris into an active system, collateral damage can occur unless a successful flush is performed.</p>	<p>Accelerated wear to gears, bearings, pumps, valves, etc.</p>
<p>3. New or Repaired Machine. New or repaired machines are often internally contaminated with manufacturing and service debris (casting sand, weld slag, drill turnings, burrs, blasting sand, filings, etc.). Also, when a component fails, it will often release a large amount of debris downstream to other sensitive components. This downstream debris remains after the failed component is replaced unless a flush is performed.</p>	<p>Premature filter plugging, wear and mechanical interference of machine movement. This can lead to infant mortality of new and rebuilt machines.</p>
<p>4. After Machine Lay-Up. After a machine has been laid-up for a long period of time, water, dirt, sludge and other contaminants often have accumulated in components, lines and the sump.</p>	<p>Recommissioning of laid-up equipment can disturb and mobilize low-lying contaminants leading to accelerated wear of gears, bearings, pumps, valves, etc.</p>
<p>5. After Cooler Failure. When mixed with oil and additives, antifreeze (glycol) produces acids, sludge, deposits and precipitants.</p>	<p>Oil flow restriction, plugged filters, corrosion, mechanical interference of machine movement, and impaired fluid properties.</p>
<p>6. After Mixed or Wrong Lubricants. Mixed lubricants can potentially result in insoluble by-products from the reaction of incompatible additives and base oils. For instance, polyglycols, when mixed with mineral oils, produce a thick pasty sludge.</p>	<p>Oil flow restriction, plugged filters, mechanical interference of machine movement, and impaired fluid properties.</p>
<p>7. Microbial Contamination. When a fluid has been invaded by water and biological contaminants, sludge, varnish, acids and deposits often result.</p>	<p>Corrosion, oil flow restriction, premature filter plugging, wear, mechanical interference of machine movement, and impaired fluid properties.</p>