

TEST STANDARDS FOR HYDRAULIC AND INDUSTRIAL LUBE OIL FILTERS

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Hydraulic and Lube oil filters are at work continuously protecting critical components in applications serving many industries. These include construction, agriculture, refuse, steel, power generation, and automotive manufacturing. Filter elements used in these applications are required to maintain performance up to their limit of contaminant loading capacity. While in service these filters are often exposed to severe changes in temperature, oil viscosity, and fluid chemistry. In addition, filters in certain applications are subjected to cyclic (zero to full pressure) conditions and differential pressures exceeding 3000 pounds per square inch.

There has been an increasing awareness for the need to eliminate contaminants and thereby increase uptime for the users of hydraulic and lube oil systems. The experiences of users estimate that over 75% of all system failures are a direct result of contamination. This awareness has accelerated the need for standards that provide uniform methods for determining whether a particular filter element will perform as expected.

This paper provides an overview of the ISO (the International Organization for Standardization) test standards and procedures currently in use for evaluating and rating hydraulic and industrial lube oil filter elements.