

The Dangers of Poor Filtration Inside Systems



Hydraulic and lubrication systems play a critical role in the smooth functioning of industrial equipment and systems. They use hydraulic and lubrication fluids to transfer energy, reduce friction, and maintain the temperature of equipment and systems. However, the effectiveness of the equipment and systems is greatly influenced by the quality of fluids used in them. One of the most significant factors that can affect fluid quality is the filtration system. Poor filtration inside of hydraulic and lubrication equipment and systems can lead to several problems that can negatively impact performance, safety, and cost.

One of the most immediate dangers of poor filtration is contamination. Contaminants can come in various forms, including dirt, metal shavings, and other foreign particles that enter the system during use. When these particles enter the fluid, they can damage the equipment by eroding critical components, such as pumps, valves, and cylinders. Over time, this can lead to equipment failure, unexpected downtime, and costly repairs.

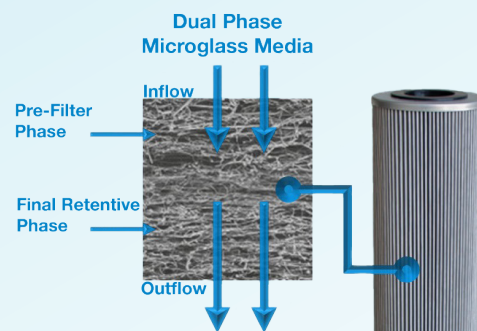
Contaminants in hydraulic and lubrication equipment and systems can also negatively impact fluid properties. For example, moisture can cause fluid to oxidize, leading to acid formation that can corrode metal surfaces. This can cause leaks, impairing the overall performance of equipment and systems. Additionally, contaminants can clog filters, leading to increased pressure drop, and reduced fluid flow. These issues can cause overheating and increased wear and tear on components.

Another significant danger of poor filtration is reduced equipment lifespan. The lifespan of hydraulic and lubrication systems is directly related to the quality of the fluids used in them. Contaminants can accelerate wear and tear on critical components, leading to premature failure. This can lead to costly replacements and repairs, as well as unexpected downtime, loss of productivity, and potential safety hazards.

Poor filtration can also impact worker safety. Contaminants in hydraulic and lubrication systems can cause failures that can lead to accidents, such as equipment or system malfunctions or leaks that can cause slips, trips, or falls. These accidents can cause serious injury to workers, resulting in increased medical costs, insurance premiums, and loss of productivity.

To avoid the dangers of poor filtration, it is essential to establish and maintain a comprehensive maintenance program that includes regular inspections and filter replacements. Industrial distributors can play a critical role in this process by only supplying high-quality filters, such as TTI's PowerGuard™ filter elements, that are designed and manufactured to the highest standards to remove contaminants, reduce pressure drops, and extend the lifespan of equipment and systems.

In conclusion, poor filtration inside of hydraulic and lubrication equipment and systems can lead to several dangers that can negatively impact performance, safety, and cost. It is crucial for maintenance professionals and industrial distributors to recognize the importance of proper filtration and take steps to maintain the quality of the fluids used in this equipment and systems. By doing so, they can help to ensure the safe, reliable, and efficient operation of equipment and systems.



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