Industrial Suction Filters

Suction filters serve to protect hydraulic pumps from coarse particulate contamination. They are located before the inlet to the pump. These elements are constructed with relatively open media in order to avoid pressure drop leading into the pump. Pressure differential can lead to cavitation within the pump. For this reason, they are not used as primary protection against contamination. In fact, some pump manufacturers do not recommend the use of a suction filter, so not every system will employ this type of filtration.

Hydraulic systems benefit from an industrial suction filter when operating under a particularly high risk of damage from coarse contamination. Typical applications of this sort include:

- Systems with a common oil reservoir for working hydraulics and gear transmissions
- Units with oil tanks of large dimension or complex shape or those which are welded or cast
- Systems that are serviced under difficult conditions in the field

The benefit of these filters is filtered oil is fed to the pump without significant pressure reduction; this helps avoid the risk of cavitation in the pump, thereby providing excellent cold-start characteristics.
Relatively coarse industrial suction filters (mesh the size of 40–250 micron) can only guarantee functional protection for the pump. Therefore, required protection from wear of the hydraulic components must be provided by a more efficient filter located elsewhere within the system.

Did you know?
Cavitation is the formation of gas bubbles of a flowing liquid in a region where the pressure of the liquid falls below its vapor pressure. Bubbles reduce pump output and may result in noise, vibration and damage to the pump.

The Industry’s Largest Selection of Replacement Filters!

NAPA offers a complete line of industrial-filter elements for your application. Our comprehensive cross-reference guide is available and updated daily at www.napafilters.com.

NAPA Industrial Filters keeps equipment running smoothly, resulting in efficient systems with superior performance. Whether it’s located on rolling equipment or inside a manufacturing plant, NAPA has it covered.

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