

"Unparalleled Delivery Times on Custom and Standard Filtration Products"

Suction Tank Mounted Strainers

The Difference

Hydraulic suction lines are a MUST when it comes to filtering process fluid. You have heard us promote suction straining since we began operation in 1945. The pump is the most critical component in the system. If the pump goes down, the system goes down. Period. There are multiple ways to prevent this. At Ohio Fabricators we have answered your questions and solved your problems since day one. We want to now highlight tank mounted strainers.

There are situations where it is impossible to enter the inside of a reservoir, either by design or space, to install and remove a suction strainer. That is why we manufacture tank mounted strainers to filter the fluid before it passes through the pump.

This is the strainer that is installed, from the outside of the reservoir, through the sidewall. So, there is no need to enter the inside of the reservoir to accomplish this. We would like you to take a look at our tank mounted strainers, available with stainless steel mesh sizes 30, 60, 100, or 200, depending on your requirements. They are also available in stock, ready to ship, in different sizes depending on the pump's flow rate. All have either a cast iron or plated steel bushing. Do you need a bypass? We have those, as well, with a 3 psi or 5 psi option. Keep in mind, custom manufactured strainers are an option, too. Check them out on the links below and give us a call so we can help you.

[NPT Tank Mounted Strainers](#)
[SAE Tank Mounted Strainers](#)



Part 5: What is the Fluid?

Does Size Matter?



Types of Hydraulic Oil

What is the process fluid? Is it standard hydraulic fluid? Is it a petroleum-based fluid that is compatible with the equipment? The answer will let the designers and operators know if the fluid is compatible with all system components, including the filters. If it is not, be prepared for possible serious system damage or destruction.

For example, if phosphate ester is the process fluid, polyester, nylon, and stainless steel filter media are fine, but anything with polypropylene is unacceptable. Standard hydraulic oils are also compatible with filter media such as cellulose, polyester, polypropylene, stainless steel, and most other types of media. The point is to ensure that the process fluid, filter media, and all seal materials are compatible. The oil must match the application. If there are any compatibility issues in any area, there will be leaks and major contamination problems. Next time we will touch on fluid viscosity issues so stay tuned.

How Dirt Levels Affect Hydraulic System Performance...Continued

In Newsletter #25, we touched on causes that affect system performance. If we continue to review what happens when these conditions are not properly controlled, the presence of dirt can initiate one or more of the following undesirable conditions.

- **Internal leakage** – or slippage, lowering the efficiency of pumps, motors, and cylinders, wasting power and increasing heat. Valves cannot control flow and pressure accurately.
- **Corrosion** – damage to delicate component parts from fluid degradation.
- **Sticking parts** – causing erratic or intermittent component operation.

Remember these facts!

1. Dirt levels affect system performance.
2. Filters control dirt levels.

What is the cure?

In this case, the cure is simple. Filters! Quality manufactured filters, designed and made by a quality manufacturer, who knows filters is the answer. That is why we urge you to rely on OFCO manufactured filters. We have been making and selling filters since 1945; that's 80 years, and that is all we make. We are filter specialists!



Hydraulics Symbol Quiz

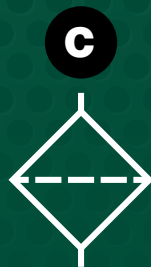
Here are some basic symbols used in most hydraulic systems. What are they and what do they do? Let's see if you can identify them. Have fun!



1. Heater
2. Cooler
3. Filter
4. Reservoir



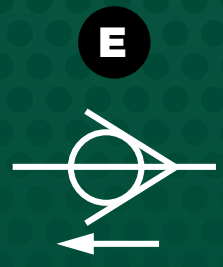
1. Cooler
2. Reservoir
3. Control valve
4. Pressure regulator



1. Electric motor
2. Filter
3. Relief valve
4. Check valve



1. Motor
2. Two way ball valve
3. Two way pump
4. Temperature indicator



1. Relief valve
2. Check valve
3. Lubricator
4. Accumulator

(A) 1. The heater is commonly used in diagrams to indicate the presence of a heating element or device. It symbolizes the generation of heat. This symbol is used to easily identify and locate heaters in various systems or equipment, such as heating systems, appliances, or industrial processes. (B) 2. The hydraulic reservoir is the storage chamber for the main function of containing the hydraulic fluid. (C) 2. The filter is the medium in the hydraulic system used to arrest and/or remove impurities and clean the oil to improve the operational efficiency of hydraulic components. (D) 3. Two way pumps are both capable of pumping fluid in one direction and reversing the flow to the pump in the opposite direction. It is commonly used in hydraulic systems where fluid needs to be moved back and forth between two locations. (E) 2. Hydraulic check valves are used in hydraulics to prevent fluid from returning to the pump that suction it from the reservoir.

Hydraulics Symbol Quiz Answers

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