OHIO FABRICATORS COMPANY

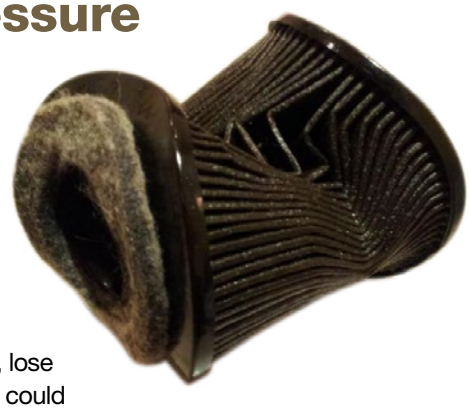
news YOU CAN use

ISSUE 25

"Unparalleled Delivery Times on Custom and Standard Filtration Products"

Part 4: Working Pressure

Does Size Matter?



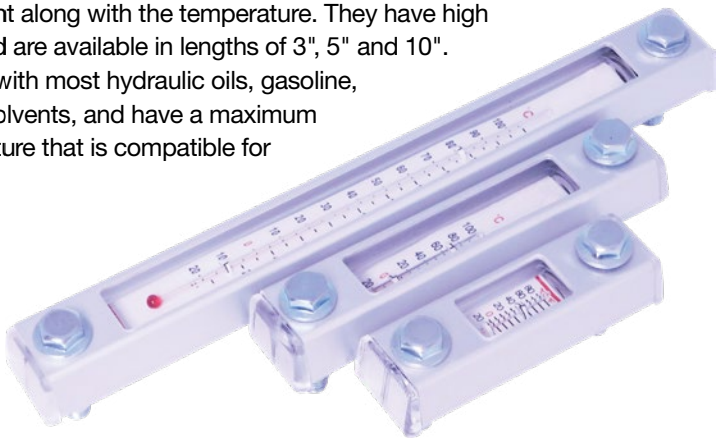
What is the working pressure of the system? The answer to this question will let designers choose a filter that will withstand that anticipated pressure. If the filter in place cannot withstand the pressure, it will collapse, lose its integrity, and break down, not to mention it could cause possible breakdown of the entire system. To make matters worse, when a filter collapses, fragments of the epoxy and media can travel downstream and cause other equipment damage. The size of the filter, too, should be able to handle the flow and pressure without adding additional restriction on the media (see Part 2). Next time we will cover different types of fuel. Stay tuned.

Introducing New Products From Ohio Fabricators!

Fluid Level/Temperature Gauges (Model OF-T)

Ohio Fabricators is striving to be your supplier for all your hydraulic components. Please take a look at our two newest items. They are great complements to your hydraulic system. OFCO Hydraulic Accessories

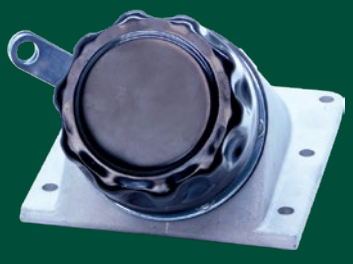
First, our new fluid level/temperature gauges have a dual function. The hydraulic oil level/thermometer gauge measures oil level in the reservoir and other industrial equipment along with the temperature. They have high tensile strength and are available in lengths of 3", 5" and 10". They can be used with most hydraulic oils, gasoline, diesel, and other solvents, and have a maximum operating temperature that is compatible for use to 212°F.

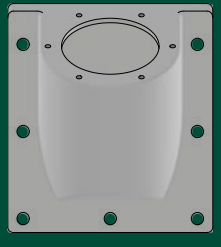


Side Mount Adapter Assembly Kit (Model SM-1)

Sometimes there is not enough room on top of the reservoir to introduce the hydraulic oil into the filler hole. Would it be more convenient to mount your filler-breather on the side of the reservoir? Well, here is the solution that will fix that issue. We now have the side mount assembly kit to meet that need. These are made of rugged cast aluminum with buna gasket. This is just another example of how OFCO strives to supply all your hydraulic component needs. Click on the "Hydraulic Accessories" link at the left to view these two new products from OFCO.

Let us know of other components you want us to carry.





How Dirt Levels Affect Hydraulic System Performance

Did you know that by controlling the level of contamination (dirt) to acceptable levels you can eliminate as much as 80 percent of the potential causes of system failure? That is extremely important when you consider high equipment costs and our dependence on today's sophisticated and complex hydraulic fluid power systems.

The reason dirt plays a large role in system inefficiencies is simple. Dirt is minute abrasive "gravel" which travels through a system and internally deteriorates and destroys sensitive hydraulic components, causing reduced efficiency and eventually system failure. Contamination is defined as "anything that is in the system that is not supposed to be there." That is why "water" can be considered contamination, as well.

Here is what happens...

- **Surface scoring.** This is produced when abrasive particles flow across contact surfaces of hydraulic seals.
- **Clearance honing.** This is caused by dirt flowing through spaces between moving parts, creating greater clearances and destroying critical tolerances.
- **Fluid degradation.** These are fine metallic particles that act as a catalyst promoting the chemical breakdown of fluid.

These are the causes affecting hydraulic system performance. Next time we will take a look at what happens if not properly controlled.

Hydraulics Quiz Time!

1. What is the main factor in pressure/cylinder calculations?

A. Force
B. Pressure
C. Area
D. Volume

2. What is the primary concern related to cavitation in hydraulic systems?

A. Loss of pressure
B. Excessive noise
C. Damage to pump components
D. Overheating of the fluid

3. Which type of pump is known for its high efficiency and quiet operation?

A. Diaphragm pump
B. Vane pump
C. Centrifugal pump
D. Gear pump

4. Which of the following is not considered one of the five basic components of a hydraulic system?

A. Conductor
B. Pressure
C. Liquid
D. Power output device
E. Control device

5. Pressure is equal to force divided by _____?

A. Weight
B. Liquid
C. Gas
D. Area

Hydraulics Quiz Time Answers
Answers: 1. C; 2. C; 3. B; 4. B; 5. D

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