**Illustration 1****Specifications:**

- Max. Operating Pressure: 5000 PSI
- Working Pressure: 3500 PSI
- Flow Rating: 15 GPM (@150 SUS fluid viscosity)
15 cu. In. per min. (or less) with heavy greases
- Standard Filter Element: 238 micron (60 mesh)
- Optional Filter Element: 149 micron (100 mesh)
- Element Crush Pressure: 350 PSID
- Bypass: None
- Materials
- Seals: Nitrile
- Filter body: Aluminum
- Plugs: Steel
- Filter screen: Stainless steel

Description:

Model 84111-filter assembly is designed so that the filter element can be changed without disconnecting pressure lines from the filter housing. The filter inlet is on the side of the filter body (1) and the outlet is opposite the element access plug (5).

If desired the filter may be used for inline applications by removing the small plug (6) in the element access plug (5) and reinstalling the plug into the side of the filter body (1).

The filter inlets and outlet are SAE -8 (9/16-18 UNF) O-ring ports. The filter body may be mounted to a suitable surface using the two mounting holes provided.

The standard filter element is 238 micron (60 mesh) is suitable for most grease lubricants, and should not filter out materials intentionally blended into the grease by the grease manufacturer.

The optional filter element is 149 micron (100 mesh) is suitable for most oils or light greases that do not have solids blended into the grease. Should the filter clog frequently or cause an extreme pressure drop the filter may not be suitable for that particular lubricant.

MODEL 84111

High Pressure Filter



Installation:

The filter should be installed so that the lubricant flows into the side inlet port and out through the end outlet port (opposite the element access plug, 5). Installing the filter in this way will allow access to the filter element without disconnecting the lubricant supply lines from the filter housing.

For inline filter use the lubricant inlet line can be installed into the optional inlet port located in the end of the element access plug (5). Plug the side inlet with the small plug (6) removed from the alternate inlet port.

There is only one filter outlet as shown on Illustration #3. Reversing flow though the filter may cause the filter element to be bypassed allowing contamination of the lube system. The alternate inlet may not be used for a second outlet port.

Operation:

When the filter is in use, the pressure differential across the filter element should not exceed 350 PSID. Systems using heavy lubricants, such as grease, will have to operate at reduced flow rates depending on the viscosity of the grease, the element in use, and the condition of the element. The flow rate of heavy grease may have to be 15 Cu. In. Per Minute or less to keep from exceeding the crush rating of the filter element.

If the pressure differential across the filter exceeds the 350 PSID maximum immediately or shortly after installation, the element should be inspected, checking for debris in the filter element. Some grease will have solids that are intentionally blended into the grease that the filter may strain out. If this is the case the system should be evaluated to determine if the large particles could safely pass through the system without harm by using an element that will pass the larger particulate.

If the filter element appears to have no visible particulate clogging the screen, this may be an indication that the

viscosity is too high to pass through the filter mesh or the flow rate must be reduced to allow more time for the lubricant to pass through the element. Temperature will also affect the lubricant viscosity. Heaters may be required when low temperatures are encountered.

The filter is designed so that it will not bypass when the filter becomes clogged. If the pressure differential across the filter exceeds the 350 PSID crush rating of the element, the pressure may crush the element. The pressure differential should be monitored with a differential gage or switch. Use two pressure gages, one on the inlet and the other on the outlet calibrated to each other. When the pressure on the inlet gage exceeds the pressure on the outlet gage by 250-300 PSID, the filter element needs attention.

Note: the filter element may be by-passed resulting in non filtered lubricant if the flow through the filter element is reversed from the recommended installation.



Relieve all pressure from the filter and lubricant lines before attempting to service these filters. Failure to relieve all pressure may result in serious injury or death.

Maintenance:

Filter elements can be cleaned using a suitable solvent for the lubricant in use by soaking then blowing through them with compressed air from the inside to the outside. Ultrasonic cleaners may also be used to clean the elements. Crushed filter elements should be replaced as quickly as possible. A crushed element may allow dirt and debris to enter the lube system. They may also disintegrate after a short period of time further contaminating the system.

In practice a regular filter element replacement/cleaning schedule should be determined and followed. The replacement or cleaning intervals should be scheduled so the element can be cleaned or replaced before the element is blocked completely causing a system shut down or element damage.

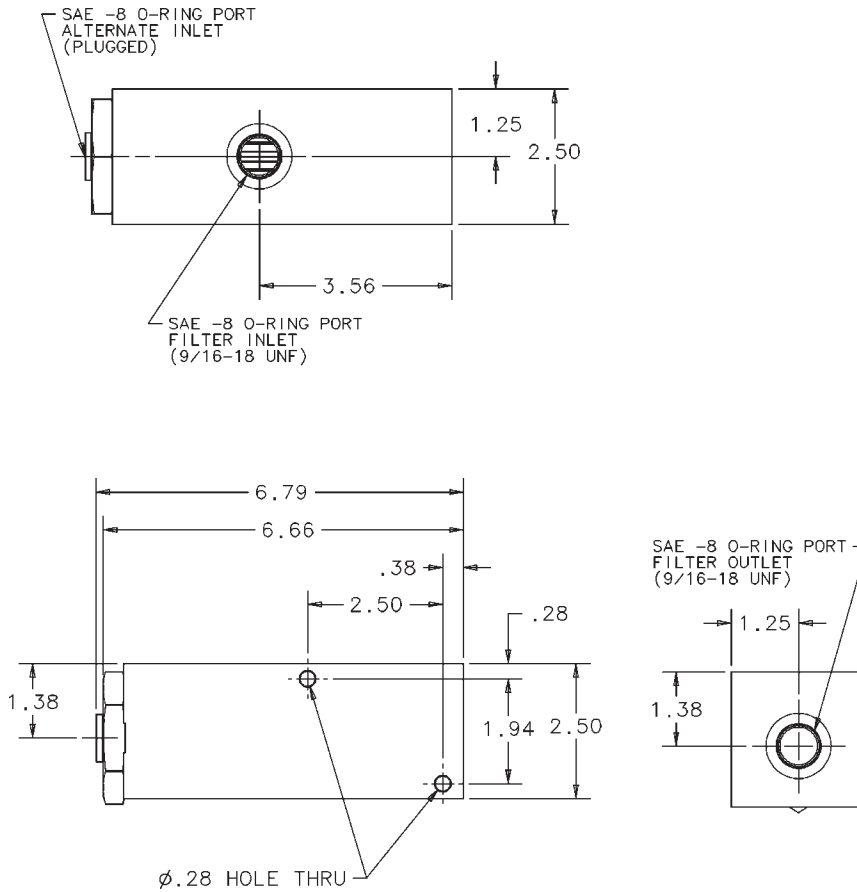
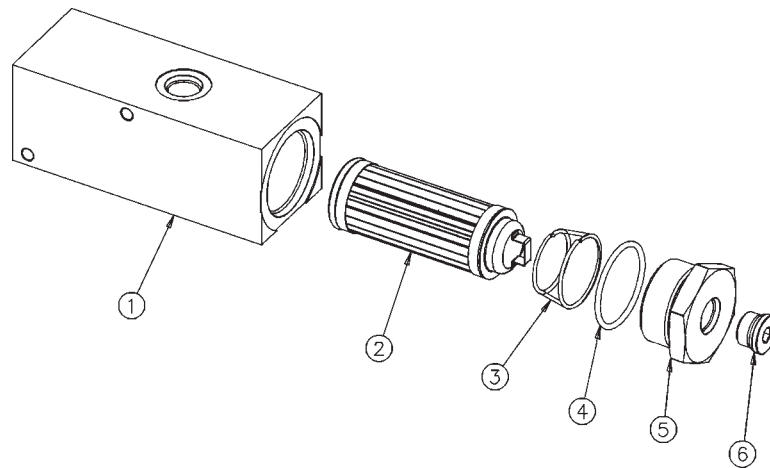


Illustration 2



SERVICE PARTS

Item	Description	Part No.	Req.
2	238 Micron Element	272896	As Req'd
*2	149 Micron Element	272897	As Req'd
3	Spring	272895	1
4	O-Ring	272899	1

MODEL 84111

High Pressure Filter



Trouble Shooting Chart

Symptom	Possible Cause	Possible Solution
No lube flow through filter.	Clogged or crushed filter element.	Clean or replace filter element.
Pressure differential exceeds 350 PSI Maximum.	Filter element is too fine for lubricant in use.	Install filter with larger micron rating.
	Lubricant viscosity too high for element installed.	Reduce flow rate across filter, or increase temperature of lubricant to reduce lubricant viscosity.
	Flow rate of lubricant through filter too high.	Reduce flow rate to reduce pressure drop.
Lubricant does not appear to be filtered.	Filter installed improperly or spring missing.	Install per instructions
	Filter element missing, crushed or damaged, or installed improperly.	Replace element or check for proper installation. Make sure that o-ring on element is present and in good condition.
Pressure differential exceeds 350 PSID but no dirt or debris is found in element.	Lubricant viscosity too high for element installed	Reduce flow rate across filter, or increase temperature of lubricant to reduce lubricant viscosity.
Pressure differential builds gradually over time then starts to rise quickly.	Filter gradually starting to become clogged with dirt or debris.	Clean or replace element.
Pressure differential changes through the day or from day to day with temperature changes.	Lubricant viscosity changes with temperature and may cause variations in pressure differential across filter	Normal operation. No attention needed unless differential pressure exceeds 250-300 PSID

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