



PP Filter Housing Operators Manual

1. Standard Package

1.1 **Standard package:** One housing shell with one Viton gasket, one cover, one basket, one set of stands, and one filter holder. All made of Pure Polypropylene.

2. Transportation

2.1 **Fragile:** the Housing is made of polypropylene. Rough handling will cause physical damages.

2.2 **Flammable:** polypropylene is flammable. No smoke and fire allowed.

2.3 **Shipping Position:** New Filter housings are shock mounted in the packing cartons, and can stand upward or lay on side during transportation. When moving about a housing that is already in commission, the housing must be completely drained first, and stand upright during transportation.

3. Installation

3.1 **Mounting:** The polypropylene stand set provided enables the filter housing to stand up right, and positions the housing on the floor. It is NOT designed for withstand any torque force, such as tightening and loosening the cover. In most cases these housings are either mounted to pipelines, or use our leg from stainless steel stand to withstand torque force.

3.2 **Leakage Prevention:** the housing seals on side against the seal surface inside the cover. DO NOT over-tighten the cover ,as the gasket will miss the seal surface and cause leakage.

3.3 **Pipeline Connection:** The pressure rating of the pipeline should be no less than the rated housing pressure rating.

3.4 **Pressure Relief Valve:** Recommended by SAAR for system over loading protection on Inlet line.

3.5 **Gasket Seals:** For wear protection, gaskets are not installed at factory, rather they are placed together with this Manual in a package inside the basket. Gaskets must be installed before each use. For safety reason, use genuine SAAR gaskets only.

4. Cleaning

4.1 Before the first time commissioning, flush housing interior with hot clean with hot clean water, then dry it up by compressed air. This will assure the removal of dust accumulated during transportation. The same procedure should be followed for routine filter housing cleanings.

5. Filter Change-out

The following operating procedure must be strictly followed for safe operation.

5.1 **System Off.** Turn off and lock pump, close inlet and outlet valves.

5.2 **Pressure Release.** To prevent injury, make sure that the nozzle is point at a safe direction. Open vent valve on Inlet Line slowly to depressurize the housing.

5.3 **Open Cover.** Must make sure that the interior pressure is zero before opening the cover.

5.4 **Take out Used Filter.** It is important to dispose used filters according to related environmental regulations.

5.5 **Basket Inspection.** Inspect for external damages. Warning: operating without basket or with damaged basket will cause major filter failure. It is the basket that supports the bag filter to withstand pressure. The bag filter by itself can not take any pressure.

5.6 **Install New Filter.** Filter bags must be inserted into the basket. The SOE connector on the cartridge must be insert properly into cartridge plate.

5.7 **Gasket Inspection.** Choose chemically compatible gasket for specified operation. Replace worn gasket immediately with genuine gaskets.

5.8 **Close Cover.** Pay special attention when close housing cover. DO NOT over-tighten the cover, sa the gasket will miss the seal surface inside the cover and cause leakage.

5.9 **Close Vent Valve.**

5.10 **Turn Pump back on.**

5.11 **Open Inlet Valve.** Open valve slowing to observe leaks. Shall leakage take place, shut off inlet valve and start over from Item 5.8.

5.12 **Open Outlet Valve.** A new round of filtration starts.

Need to Knows.

- 1.1 **Differential Pressure:** It is important to check pressure differential regularly during operation. Operating above the recommended 1.00kg/cm² change out pressure differential will negatively affect flow rate, reduce production efficiency.
- 1.2 **System Failure:** If pressure differential suddenly drops, stop operation immediately and check for possible seal failure and/or filter rupture.
- 1.3 **By-pass:** Filtration brings about pressure differential. Pressure differential will gradually build up as filters retain more and more contaminants. No pressure differential and/or no pressure differential increase means no actual filtration is taking place. Stop operation and check for possible seal failure and/or filter rupture.

Filter housing Features

1. Designed to use SAAR Double Seal Ring (SAAR™) bags for complete bypass free filtration
2. Accommodate stainless steel ring bags
3. PP housing is molded by pure polypropylene.
4. The standard inlet/outlet connection type is 2 inch NPT
5. Single Seal for the entire filter housing, the rest are sealed by SAAR™ Ring. This mechanism has completely eliminated under basket gasket and any addition seals that are often required in other brand filter housings. Therefore greatly simplified filter housing operation.

SAAR Double Seal Ring (SAAR™) Features

1. Automatic installation-SAAR™ Ring locks into the seal coupling structure on housing collar by the closing housing cover, eliminating the need for manual installation.
2. Double Seals: Two sealing lines are integrated on SAAR™ Ring, generating double protections against liquid by-pass
3. Collapse Free: Once installed, SAAR™ Ring is pressed tightly by the filter positioner. The rigid ring structure resists de formation under excessive pressure, effectively prevent the ring from collapsing into the basket
4. Easy Change-out: The patented bevel shaped seal structure enables SAAR™ Ring slide n and out of the seal coupling structure with minimum effort. By pulling slightly, the operator can easily remove filter bag without splashing
5. Universal Compatibility: Filter bags topped with SAAR™ Ring can be fitted in most other brand filter housings without compromising seal effectiveness.

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