

SPECTRUM Aqualyze Single Round Polypropylene and SAN Filter Housings

Instruction Scope

This document provides the necessary information to ensure the correct installation, operation and maintenance procedures for the removal and change out of various filter housings. For safety and environmental protection reasons, the safety instructions given in this document must be strictly followed. Although these instructions offer a reference to correct practices for a range of products, some system installations will not be included. The person installing or maintaining the equipment should have the following:

- Sufficient training in filter cartridges and housings
- Knowledge of fluid being filtered and chemical compatibility
- Knowledge of water and filtration system installation.
- Suitable plumbing skills

When to change a filter cartridge

Regular maintenance and/or replacement of a filter cartridge is recommended to ensure that the system's integrity is preserved and remains effective. The following parameters should be used to determine when the cartridge should be replaced:



Parameter/Instrument	Detail
Differential Pressure	When the differential pressure is greater than 2 bar (30psi). A pressure gauge is required for housings with gauge ports.
Filter capacity	When the calculated or approximate volume or daily capacity of the filter has been reached

Maximum Operating Parameters		
	Pressure (bar)	Temperature (°C)

Housing Type	Pressure (bar)	Temperature (°C)
SPECTRUM AQUALYZE EFH-PK-1-10/EFH-PK-1-20	8.6	40
SPECTRUM AQUALYZE EFH-SC-1-10/EFH-SC-1-20	6.9	40
SPECTRUM AQUALYZE EFH-PK-1-10LD/EFH-SC-1-10LD	6.9	40
SPECTRUM AQUALYZE EFH-PK-1-20LD/EFH-SC-1-20LD	6.9	40

Installation & Cartridge changeout

Tools required:

- Protective/waterproof clothing and gloves.
- Safety glasses.
- Cloths/mop/bucket for any spillages.
- Suitable container for liquid drained from the system.
- Food grade lubricant (such as DOW corning or petroleum jelly).
- Soapy warm water.
- Clean, warm water for rinsing.
- Application suitable fluid for sanitising such as unscented bleach (5.25% Sodium Hypochlorite).
- Replacement filter cartridge.
- Bowl removal tool spanner - specific to each housing please see below

Housing Type	Bowl Removal Tool
SPECTRUM AQUALYZE EFH-PK-1-10/EFH-SC-1-10	EFH-SW10-Spanner
SPECTRUM AQUALYZE EFH-PK-1-20/EFH-SC-1-20	EFH-SW20-Spanner
SPECTRUM AQUALYZE EFH-PK-1-10LD/EFH-SC-1-10LD	EFH-SWLD-Spanner
SPECTRUM AQUALYZE EFH-PK-1-20LD/EFH-SC-1-20LD	EFH-SWLD-Spanner

Personnel

Only qualified and professional personnel, with the relevant training and experience are recommended to carry out the necessary work. Knowledge of the applicable regulations, safety rules and operator considerations are required prior to installation.

Pre-installation checks

Before starting work please check the following:

- Ensure that there are no signs of damage to the packaging and that the product has not come into contact with liquid or any external contamination during transport, storage or handling.
- Type of fluid being filtered is compatible with the housing and cartridge materials. Also check that all relevant PPE is available.
- Make sure the incoming water line has been turned off and depressurised.
- The workspace is clear of any obstructions or electrical hazards.
- All protective packaging has been removed before bag installation.

Full product specification: including minimum operating temperature, recommended changeout pressure drop and maximum flow rates can be found on the relevant product datasheet available from our website.

Procedure

NOTE: If installing filter cartridge for the first time in a new system, follow steps 1, 4, and 7 onwards.

1. Close the stopcock or turn off the incoming feed supply.
2. Depressurise the housing(s) using the vent, or by opening an outlet downstream of the system.
3. Drain any remaining liquid in the housing through the drain valve.

4. Remove filter housing sump using the appropriate bowl removal tool (discard any remaining liquid in the sump as appropriate)
5. Remove the used cartridge from the housing and dispose in accordance with company guidelines and local authority recommendations.
6. Remove the O-ring from the sump and wipe both the groove and O-ring clean. Put to one side.

NOTE: When opening a housing to change a filter, it is usual for the O-ring to stick and remain attached to the head.

7. Clean and sanitise the filter sump with warm soapy water or application suitable fluid then, wipe the inside of the sump with a non-abrasive cloth. Rinse with clean water.
8. Inspect the O-ring for any damage, such as nicks or cuts and replace with a new O-ring if necessary (contact housing supplier for information regarding replacement O-rings).
9. Lubricate the O-ring with an even coating of lubricant and place back into the groove in the sump, do not use too much.
10. Remove the new filter cartridge from its packaging and place into the sump. Ensure that the O-ring seal of the cartridge, if present, is correctly fitted. If using a Double-Open Ended (DOE) cartridge, ensure that a knife edge seal is formed between the housing and the gasket at each end of the filter.
11. Secure the sump of the housing back on to the head tighten using the required spanner, ensure that the cartridge is located correctly and that the bowl is not over tightened or cross threaded.
12. Repeat for each individual filter cartridge needing to be replaced. Make sure that the correct filter cartridge is in the correct housing.

NOTE: Generally, the larger micron rating cartridges should be situated upstream of lower micron ratings. Check the direction of flow on the filter housing head if unsure.

13. Slowly turn the liquid supply back on, allow the system to fill and check for leaks. If a leak is detected check that the bowl is secure enough. If this does not solve the leak remove the bowl and check the seating of the O-ring and the fitting of the cartridge. Air can be purged from the system using the vent, or by slowly opening an outlet downstream of the system.
14. Flush the cartridges thoroughly and discard the liquid passed through the system during the first 5 minutes of start-up or until the liquid runs clear.
15. The system is now ready to use.