

# HRS-PF005 Particle Filter Set

Thermo-chiller

**Applicable model: HRS Series**

## Read before using

Thank you for purchasing SMC's Thermo-chiller.

This particle filter set is a set of parts for installing a particle filter into the piping used in the thermo-chiller HRS series.

Read and understand the instructions shown below before use.

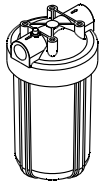
## Safety Instructions

- Safety first, only trained personnel who has knowledge of general machinery and equipment can perform the installation of this product.
- Ensure this manual and the Operation Manuals for thermo-chiller are fully understood.
- Disconnect power from the chiller before performing product installation. Be sure to check that the power supply is shut off.
- Remove all circulating fluid before performing product installation.
- Confirm that there is no fluid leakage or condensation after installation.

## 1. Parts and Accessories

- This particle filter set includes the following parts. Please confirm that all of them are present before installation.

### Parts



1. Resin filter case



2. Element  
(Part No:HRS-PF006)

\*The element should be replaced when the pressure drop reaches 0.15 MPa.



3. NPT-Rc adapters x2pcs.



4. Handle  
(For "H")

\*Use this handle only to loosen the case. Do not use to tighten the case.



5. Sealant tape



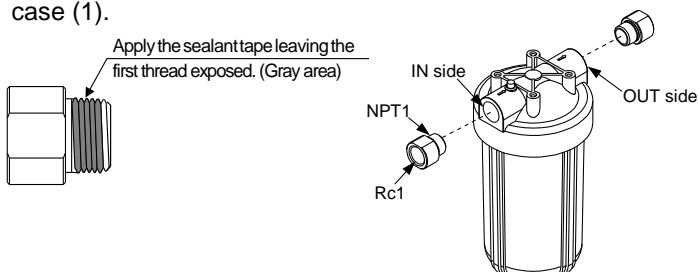
6. Operation manual  
(This manual)

[Materials of wetted parts]

Stainless Steel, Polycarbonate, PTFE, PP, NBR

## 2. Mounting

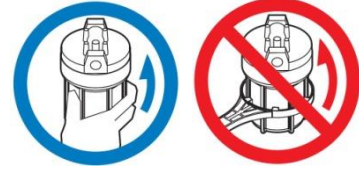
- 1) Confirm that no foreign matter such as dust or dirt is adhered to the connecting ports or the piping where this filter will be fitted.
- 2) Apply the sealant tape (5) to the NPT-Rc adapters (3), and mount them onto the inlet and outlet sides of the resin filter case (1).



### ⚠ Caution

- Apply the sealant tape on the NPT side of the nipple 4 turns. Screw in it to the filter 4 turns.
- It must not be screwed in too much as it can lead to breakage of the filter's ports and/or leakage.

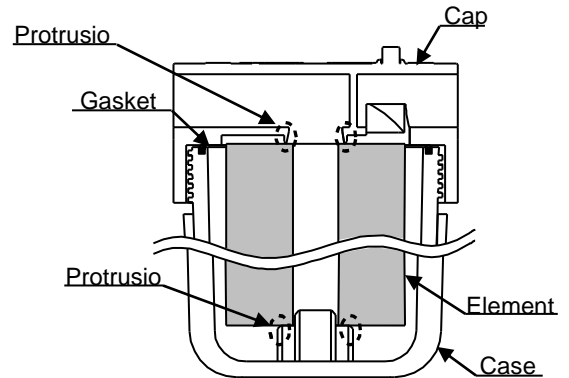
- 3) Insert the element (2) into the resin filter case (1). Mount the resin filter case by hand tighten.



### ⚠ Caution

- Mounting of the case should be performed by hand-tighten. When the case is tightened excessively by tools or handle, the case might crack or be damaged.
- Make sure that the case is held manually by hand when removing and mounting the case. If the case is dropped, it may result in cracking or breakage.

- 4) Insert the element (2) into the case.  
As shown in the figure, insert the element into the case so that the element fits into the protrusion of the case. Make sure that the gasket is mounted onto the case correctly. Please note that the gasket can be removed easily. Keep the element vertical in the case, and tighten the case into the cap by hand. Make sure that the element fits into the protrusion of the cap.



Cross section of the mounting

- 5) After connecting the piping from the filter to the user's site, operate the thermo-chiller to check that liquid does not leak. Please adjust the flow rate so that the initial pressure drop is 0.05MPa or lower. (Approx.100L/min)
- 6) If air remains in the case, press air release button to discharge the air as necessary.

\* When using the filter, the supply pressure should be 0.69 MPa (100 psi) or lower.

\* Please replace the element when the pressure drop of this product reaches 0.15MPa. For replacement of the element, confirm the pressure inside the filter is zero, and refer to mounting procedure 3) and 4).

Revision

Rev.F: Feb.2022

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Note: Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.  
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