

HRW-CF002

Filter Element

Operation Manual

Applicable model : HRW Series
(Thermo Chiller)



Introduction

This operation manual is for personnel with adequate knowledge of general industrial equipment and device, and also the knowledge of assembly, operation and maintenance of them. Do not start assembly, operation, maintenance before thoroughly reading and understanding of this operation manual and the manual for Thermo Chiller, HRW series.

Please refer the operation manual of Thermo Chiller for the guarantee.
 This manual is subject to change without prior notice.

Safety caution

- Please read through after understanding display and symbol

Display	Meaning
 Warning	Incorrect operation leads to cause loss of life or serious injury of operator
 Caution	Incorrect operation leads to cause injury or damage or failure to the product, facility and equipment

Warning

- **Confirm the specification range**
 This product is designed as filter element (spare part) of contaminant filter for Thermo Chiller, HRW series (HRW-CF00). Do not use this for application other than that in specification range.
- **Operation manual and procedure shall be fully understood**
 Read Thermo Chiller operation manual (HRX-OM-K003) thoroughly to understand the contents, especially for operating environment and specification range.
- **Do not supply power during mounting**
 Ensure lock out and tag out of the power supply.
 Otherwise, Thermo Chiller may start by mistake.
- **Mount parts while Circulating fluid is room temperature**
 Circulating fluid temperature shall be back to room temperature before discharge to avoid burn.

Caution

- **Do not disassemble nor remove to avoid fluid leakage and operation failure**
 Fluid leakage and performance fall are led to cause.
- **Do not drop or strongly impact the unit**
 The components may shift from their proper mounting position or leakage and performance fall may occur.
- **Ensure no leakage after mounting**
 Operate the Thermo Chiller and ensure no fluid leakage. If fluid leaks, stop operation immediately and check the cause of leakage, and operate again after taking proper countermeasure to the part of leakage.
- **Use under steady state condition with no fluctuation of circulating fluid flow rate and pressure**
 There should be no fluctuation of flow rate and pressure in circulating fluid circuit caused by water hammer or so. Performance fall and breakage of element may occur.
- **Exchange filter element periodically**
 Filter element needs to be exchanged periodically. Circulating fluid flow rate decreases gradually by clog generated after using the filter for long time. Set a standard for exchanging period after considering the influence on the system caused by decrease of flow rate. At longest, exchange the filter element when the pressure drop comes to be 0.1 MPa, or 12 months from start to use (variable by the operating condition). Circulating fluid low flow alarm and breakage of element may occur.

手順1.

フィルタの断熱材を取り外します。

手順2.

循環液を排出するための容器をフィルタ下部に用意し、フィルタ下部のバルブを開きます（図1参照）。フィルタ内の容量は約2Lです。フィルタの循環液吐出口側にバルブがない場合、循環液配管内部の循環液も排出されますので、配管内部の容量を含めた容器をご用意ください。

手順3.

フィルタ上部のエアメントを開き、循環液を排出します（図2参照）。

手順4.

フィルタ止め金具のねじを緩め、ケースを取り外します。ケースを反時計方向に約20°回転させ、突き当たってから下方に下げてカバーから外します（図3参照）。

手順5.

ケースからフィルタエレメントを取り出し、新しいフィルタエレメントを取り付けます。このとき、フィルタエレメントの上下にパッキンが付いていることを確認してください。（図4参照）

手順6.

ケースを手順4と逆の手順でカバーに取り付け、フィルタ止め金具をセットし、ねじを締めて固定します。

手順7.

フィルタ上部のエアメントおよび下部のバルブを閉じます。

手順8.

コンタミフィルタの断熱材を取り付けます。

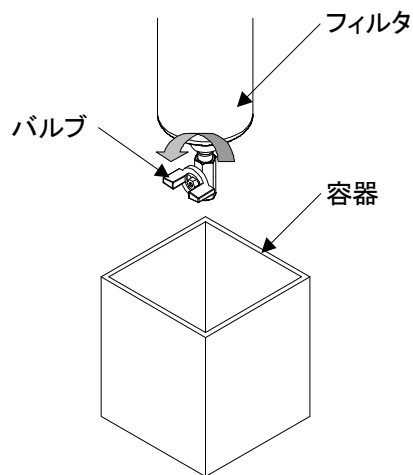


図 1

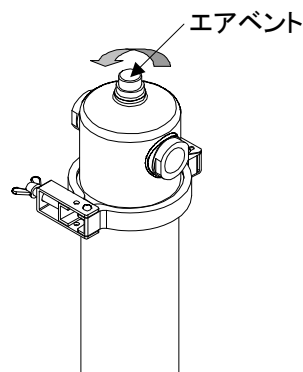


図 2

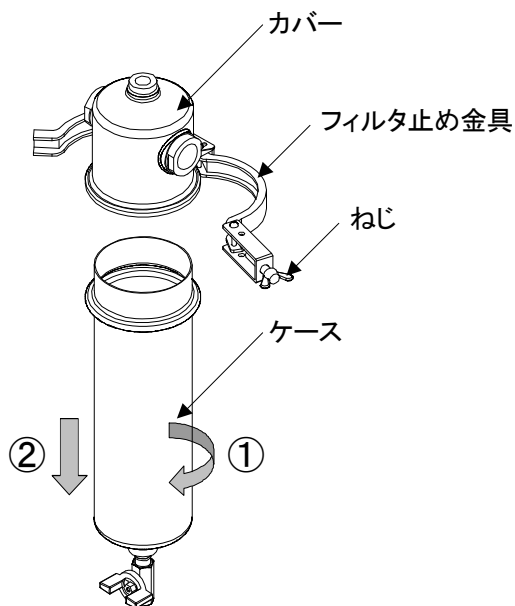


図 3

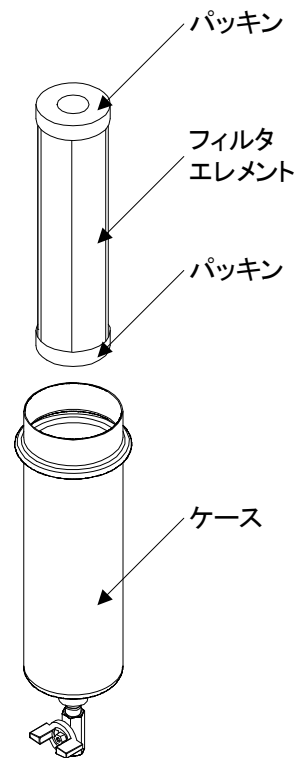


図 4