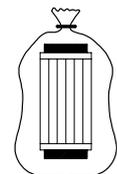
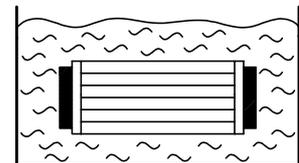
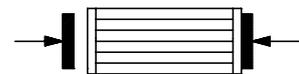
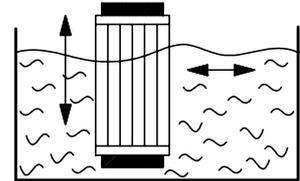


## Proceeding and comments

### Proceeding:

1. Let the used element drip off very well (1 day if possible).
2. Clean the element from oil and pre-clean roughly both inside and the outside using a soft brush and a mild solvent (benzene, diesel fuel, etc.). Try to avoid dirt on the inside!
3. If necessary flush the element with water from the inside to the outside. Only use fresh, clean water. Do not use high pressure cleaning devices!
4. Close the openings of the element tight with proper plugs.
5. Clean the element in an ultrasonic bath for at least 15 minutes at a bath temperature of + 50 °C.  
[note instructions]
6. Drain the ultrasonic bath, clean the inside, refill it and perform a secondary cleaning for minimum of 15 minutes at a temperature of +50°C.  
[note instructions]
7. Flush the element from the inside to the outside with clear water and immediately place it in an oven or treat it with IPA for drying.
8. Check the integrity of the filtration material by performing the bubble point test (ISO 2942). Pay special attention to the bellow bottoms.
9. Store the element in a dry and dust-free environment and leave it packed until it is used.



### Caution:

Do not place the element in an oven if treated with isopropyl alcohol under any circumstances  $\Rightarrow$  Danger of explosion!

### Rules and regulations:

Cleaning instructions 21070-4 B  
Listed cleaning agents  
Instructions for the ultrasonic bath  
Testing instructions for the bubble-point test  
ISO 2942

$\Rightarrow$  Check details on page 2 of this cleaning instruction.  $\Leftarrow$

**Comments:**

1. Do not use acidic or acidic acting solvents or cleaning agents. (Acids; acidic detergents etc.).
2. To help clean the element from oil use aliphatic hydrocarbon or benzene (n-heptanes; diesel fuel etc.).
3. During all cleaning processes try to make sure dirt and contamination are kept away from the clean side of the element (usually the inside).
4. An effective cleaning, even using ultrasonic waves, is only possible for filter elements with a mesh size  $\geq 25 \mu\text{m}$ .
5. Metal mesh filter elements should be cleaned 5 times maximum!
6. Do not use any sharp devices (knives, screw-drivers, etc.) to remove coarse contamination during the pre-cleaning process in order to make sure the elements meshes are not destroyed.
7. Do not perform any ultrasonic cleaning with flammable fluids (Risk of fire and explosion!). Water in combination with alkaline, non-foaming cleaning agents has proved itself.
8. In order to dry the elements after cleaning, isopropyl alcohol can be used. This drying process should be taking place in well-aerated places only. Do not use drying ovens or place the element next to a heating in any case (Risk of fire and explosion!).
9. Checking the integrity of cleaned filter element visually is not enough for unified fine threaded meshes. In such cases the examination of the bubble point pressure based on ISO 2942 is necessary (See additional sheet 39449-4).
10. Prior to packing make sure the element is completely dry (smell-check). If not chemically aggressive atmospheres may build up inside the packing.

**General advice:**

Filter elements made of stainless steel shall only be used with alkaline fluids.