




BERMAD large control filter

<p>1. Safety First BERMAD believes that the safety of personnel working with and around our equipment is the most important consideration. Comply with all approved and established precautions for working with your type of equipment and/or environment.</p> <p>Authorized personnel should perform all maintenance tasks. Prior to performing a procedure, read it through to the end and understand it. If something is not clear, ask the appropriate authority. When performing a procedure, follow the steps in succession without omission</p>	
<p>2. Description The large control filters used for filtration of dirty control fluid that might quickly block the standard control filter. The large filter area of this control filter increases the reliability of the control valve system and aids in eliminating control valve failures. The regular large control filter has a height of – 190 mm; 7½” and the double 315 mm; 12¾”.</p>	

3. Type of Filter Elements

The large control filters were available with two types of filter element, see table below.

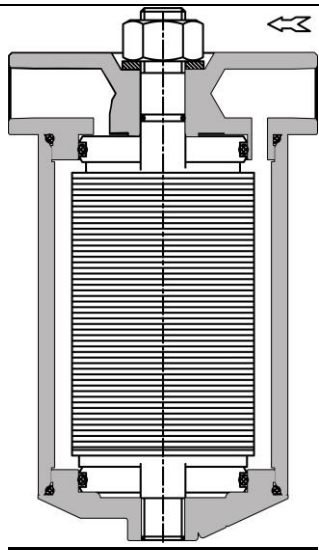
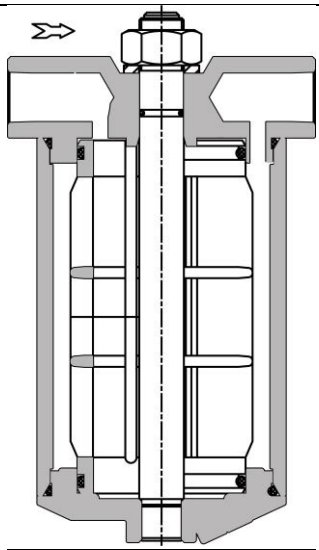
	<i>With disc filter element</i>	<i>With screen filter element</i>
Filter element's picture		
Filter element's material	Nylon	Stainless Steel 316L (*) or Polyester
Flow direction	<i>Outside to Inside</i>	Inside to Outside
Filtering degree	200 micron (μ)	300 micron (μ)

(*) Stainless Steel 316L is not compatible with seawater & corrosive media.



4. Installation

The control filter should be installed vertically, with the inlet/outlet hubs facing up. There are 2 hubs (inlet/outlet) on the filter cover with 3/8" NPT thread connections. Please note the **difference in the required connections** for each type of filter element. Please note with an arrow on the cover, which shows the flow direction.

	<i>With disc filter element</i>	<i>With screen filter element</i>
Water inlet Connection (up stream)	Use the hub (marked in arrow below) to direct the water to the external side of the filter element.	Use the hub (marked in arrow below), to direct the water to the internal side of the filter element.
Large control filter drawing	 <p>Diagram #1</p>	 <p>Diagram #2</p>

5. Replacing a filter element

When it is required to replace the screen element, use the **same type of filter element** as replacement.

When **changing** the filter element from **disc to screen or vice versa**, please note

- The required change in connections.
- Connect the water to the cover of the filter according the filter element, **as detailed in section 5 and diagram #1 diagram #2.**



6. Maintenance

The filter should be cleaned periodically at least annually.

Before proceeding to clean the filter, read carefully the maintenance instruction for the valve model, which the filter it is installed on.

See exploded views of the large control filter's part in pages 4-5.

6.1 Cleaning procedure:

1. Close the isolating valves before and after the Bermad valve if applicable.
2. Close all ball valves leading to the large filter according to the main model IOM
3. Release pressure from the filter by carefully opening a trim fitting and let water to slowly discharge
4. Loosen and remove nut and washer (parts 9+10)
5. Remove lower cover (part 1) and body (part 4) note that the shaft (part 8) and lower cover (part 1) should remain attached.
6. Remove filter element (part 5) please pay attention to the orientation of the filter element.
7. Open the filter element by twisting each of the end counter-clock wise until the cartridge can be extended and the filter rings are free to move.
8. Clean and wash thoroughly to remove the debris that has accumulated on the outside of the filter elements.

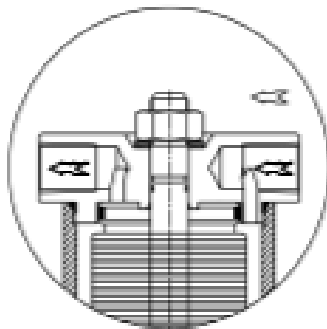
6.2 Re-assembling the filter:

1. Tools required for disassembling / reassembling the filter: Open-end wrench 15/16" or 24mm.
2. Press the filter element from both ends and rotate clock wise until the filter rings are tightly secured in place.
3. Re-install the filter element the same way that it was removed
4. Re-install the lower cover (part 1) and body (part 4)
5. Re-tighten nut (part 10) taking care not to forget to replace the washer (part 9) under the nut
6. Re tighten any loose fittings and open trim ball valves according to the main model IOM.

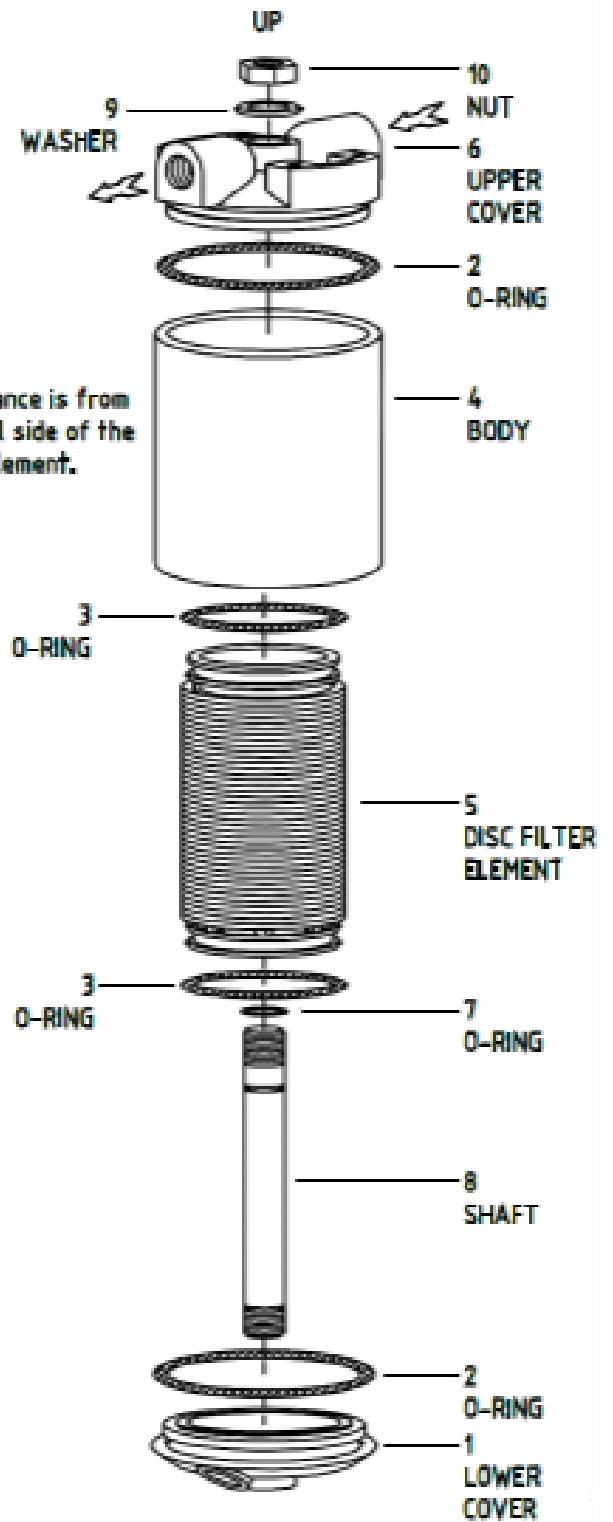


Large control filter with disc filter element

Water exit is from the internal side of the disc filter element

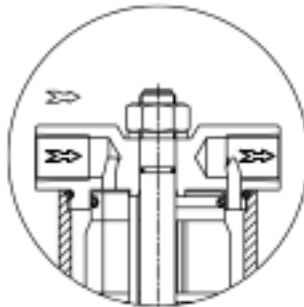


Water entrance is from the external side of the disc filter element.

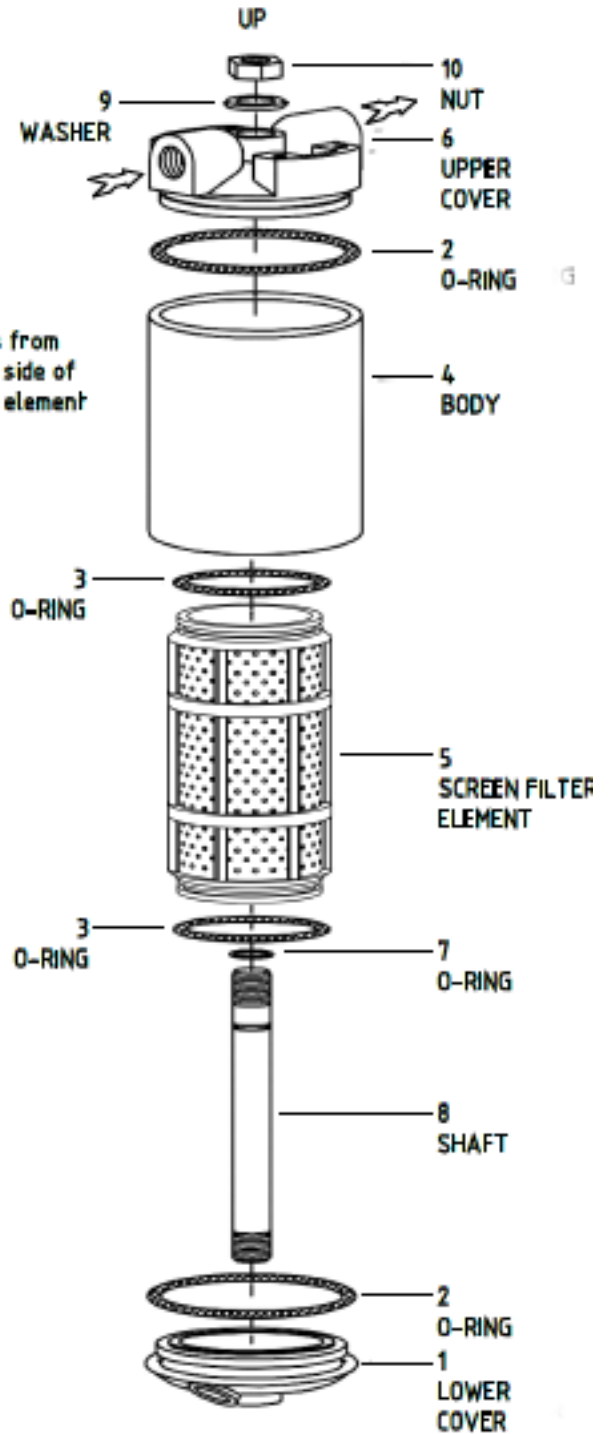


Large control filter with screen filter element

Water entrance is from the internal side of the screen filter element.



Water exit is from the external side of screen filter element



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