



# SILVERMAG MAGNETIC AND PARTICULATE SYSTEM FILTER



INSTALLATION AND OPERATING INSTRUCTIONS

### BEFORE YOU BEGIN. PLEASE READ THESE INSTRUCTIONS CAREFULLY.

The following instructions have been written to help you to install and service the BWT Silvermag magnetic and particulate system filter safely and efficiently. We recommend that the unit is installed and serviced by a qualified installer or a competent person with the necessary and appropriate training at all times.

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Strong Neodymium magnet - KEEP AWAY from electrical and magnetic devices including but not limited to computers, mobile phones, <u>medical devices</u>, watches and bank cards.

High Pressure - Always release any pressure in the device before servicing.

High Temperature - Risk of scalding handle with care unit can get hot when in service.

**Important** - Always follow the electrical and safety standards when installing the BWT SilverMag ensuring pipe work is adequately supported and appropriately earth bonded.

#### **INSTALLATION**

1. Unbox the Filter check all the components are present.

- 2. Switch off the electrical supply to the pump and boiler, and then partially drain the system.
- 3. The unit features 4 possible installation configurations: Vertical, Horizontal, Left and right entry points. Select the most appropriate and a length of pipework where you would like to install the filter. Ideally this should be on the return to the boiler. Once installed this will help prevent any collected debris entering the boiler.
- 4. Measure and mark the pipe, then remove this section using a suitable pipe cutter, de burr if necessary.
- 5. Attach the filter to the pipe either side of the cutout ensuring both ends are fully engaged before tightening with a suitable spanner.
- 6. Ensure the filter sits square and it and the associated pipework is suitably supported on both sides
- 7. Always check the level of scale and corrosion inhibitor in the heating system after installation and redose with BWT Power Crystals if levels of protection are low or unknown.
- 8. Recharge and pressurise the system, start the boiler and check for leaks.

Note: BWT Silvermag can also be used with demineralized heating systems to VDI2035

#### MAINTENANCE

Regular cleaning is recommended at least during each boiler service and can be done more frequently if necessary. Maintaining the sludge filter is straightforward and the drain valve allows for quick discharge of accumulated impurities. The filter can also be disassembled to clean the mesh filter, magnetic rod casing, and interior by following the instructions below.

- 1. Shut off the upstream inlet valve (1)
- 2. Release the pressure by opening the drain valve (3), Place a container under the valve to catch any water.
- 3. unscrew the nut (9)
- 4. Remove the filter assembly, unscrew magnetic rod cap (11) and wash the mesh.
- 5. Reassemble in reverse order and close the drain valve before opening the inlet valve.

#### ADDITIONAL CLEANING

A backwash cleaning can be performed if needed. Turn off the boiler temporarily, close the inlet valve, remove the magnet, open the water return valve from the system, and open the sludge separation drain valve. Let water flow until it runs clear, then close the valves.

Note: We recommend that the filter is drained, cleaned and any maintenance is carried out by your installer at least very 12 months during your annual boiler service or more frequently if any clogging is observed.

# PRINCIPLE OF OPERATION

Water enters the via the ball valve (1). Metallic particles in the water are attracted and captured by the magnetic rod casing (7). Other impurities are retained by the stainless-steel mesh filter and directed to the sediment chamber. **Note:** The design of the BWT SILVERMAG filter prevents metallic particles from entering the filtration compartment (5).



- 1. Inlet with 3/4" ball valve. the valve can be positioned on any of the three 3/4" openings".
- 2. 1 of 3 potential connection points with 3/4" captivated nut. ('Rubber ' washer pack included)
- 3. Drain valve with barbed tail.
- 4. 800-micron stainless steel filtration mesh.
- 5. Sediment sleeve.
- 6. Magnetic rod (Neodymium magnet with a power of 12,800 Gauss).
- 7. Magnetic rod casing.
- 8. End Plate.
- 9. Nut.
- 10. Filtration assembly.
- 11. Magnetic rod cap.
- 12. Sediment chamber.
- 13. Transport cap.

## MATERIALS

Body, fittings, and valves - nickel-plated brass.

Filtration assembly - stainless steel.

Magnet - Neodymium with a power of 12,800 Gauss.

Seal ring - fiberglass and nylon.

# SPECIFICATIONS

- Inlet: 3/4" Male.
- Outlet: 3/4" Female.
- Maximum flow rate: 1,300 litres per hour.
- Maximum pressure: 10 bar.
- Pressure drop: 0.2 bar.
- Filtration fineness: 800 microns.
- Dimension A: 185 mm
- Dimension B: 68 mm
- Dimension C: 130 mm





The red sticker on the end cover marked 'DRAIN' indicates the position In operation and should be on the same side as the drain valve



### **BWT UK Limited**

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#### WARRANTY

The BWT SilverMag is guaranteed against faulty workmanship and materials for a ten year period. The guarantee is only valid if the product has been installed and used in accordance with the manufacturer's instructions and has not been dismantled or interfered with in any way. Please register your product by calling 01494 838 100 or visiting www.bwt.com.