

# BOSS X-POT COMPACT

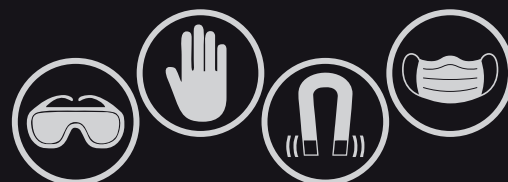
## OPERATION & MAINTENANCE INSTRUCTIONS



### WARNING!

**DO NOT OPEN WHILST FLUID IS HOT AND/OR UNDER PRESSURE!**

**PLEASE USE SAFETY GOGGLES, GLOVES & AN N95 FACE MASK WHEN WORKING ON THIS VESSEL / MAGNETIC FIELD.**



### BOSS X-POT COMPACT ISOLATION

To isolate the unit, please follow the steps below:

**(Note:** Part numbers are relevant to the image on the right side of this document.)

**1)** Close Entry/Supply IV (**7**) and the Exit/Return Valve (**9** or **10**) - This will isolate the system.

### BOSS X-POT COMPACT DOSING

To dose with the system with additives, please follow the steps below:

**(Note:** You will need to isolate the system prior to these steps and the Part Numbers are relevant to the image on the right side of this document.)

**1)** Open the Drain IV (**9** or **10**), then open the manual vent (**11**). This will drain the vessel. If water continues to pour from the manual vent (**11**) the unit is not isolated from the system.

**2)** When the vessel is depressurised carefully loosen the 6 No. locking units on the top works flange lid in an opposite order, for example - loosen the nuts at the back of the X-POT against the wall, then the side nuts and then the front.

**3)** Swing the arms of the bolts down with the nuts attached to the side of the vessel.

**4)** The top flange lid can now be carefully removed and placed on its side.

**5)** Remove (**4** - Magnet Grate), (**5** - Baffle Plate), and (**6** - Cartridge Filter). If the filter is blocked or slow to drain, use a leverage tool (screwdriver etc.) to lever the side of the internals and dislodge the filter from its seal. We would recommend wiping the internal walls and base with a cloth.

**6)** Close the Drain IV (**9** or **10**) ready for pouring of additives.

**7)** Pour the additive/s into Vessel Body (**8**) (Note: Ensure this is done in accordance with manufacturer's instructions/advice)

**8)** After the additive/s have been added, the top flange lid can be re-assembled. **(Note:** Follow steps **1** to **5** in reverse to perform this.) (Ensure that components (**4** - Magnet Grate), (**5** - Baffle Plate), and (**6** - Cartridge Filter) are not re-assembled into the vessel)

**9)** Re-pressurise the X-POT by opening Entry/Supply Valve (**7**) slightly and check for leaks. If OK, open Entry/Supply Valve (**7**) fully.

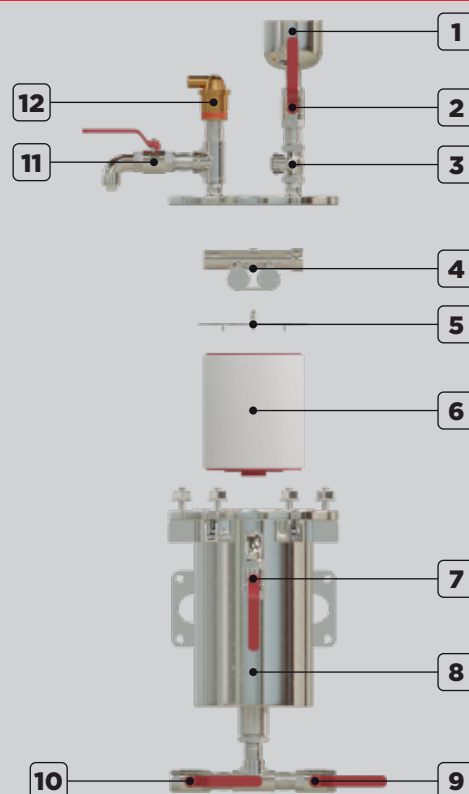
**10)** Open the X-POT fully to the system via opening Exit/Return Valve (**9** or **10**), this will allow the flow through the unit and dose the system water.

**11)** After 2 minutes, the system would have dosed the additive/s through the system, follow steps **1** to **5** to isolate the system and remove the top flange lid to enable you to re-assemble the (**4** - Magnet Grate), (**5** - Baffle Plate), and (**6** - Cartridge Filter) in the Vessel Body (**8**).

#### Operative Advice:

After dosing with additives, wash through the Tundish (**1**) with water.

### BOSS X-POT COMPACT UNIT PARTS



Part No.	Description	Part No.	Description
1	304 Stainless Steel Dosing Tundish (4.5ltrs)	7	1/2" Isolation Valve (Entry/Supply)
2	1/2" Isolation Valve (Dosing shut off)	8	304 Stainless Steel Vessel Body
3	304 Stainless Non-Return Valve	9	1/2" Isolation Valve (Exit/Return)
4	316 Stainless Steel Magnetic Grate	10	1/2" Isolation Valve (Drain Valve)
5	316 Stainless Steel Baffle Plate	11	3/4" Isolation Valve (Manual Vent)
6	Polypropylene Spun Bonded Fibre Cartridge Filter	12	Brass Automatic Air Vent

### BOSS X-POT COMPACT FILTER CLEAN/CHANGE

**1)** Carry out the steps **1** to **6** as above.

**2)** Cleaning the Magnet Grate (**4**); unscrew the end caps of each of the sections on the Magnet Grate (**4**) and remove the magnets one by one using grips on the end of the magnet screws. Wash the Magnet Grate (**4**) under cold water tap or bucket of water and wipe down until all the magnetic debris has been washed off. (Note: Place each magnet a minimum of 150mm apart to prevent attraction) Then insert the magnets back into the Magnet Grate (**4**) and ensure that the end caps are tightened sufficiently.

**3)** Replacing the Cartridge Filter (**6**); fix the Cartridge Filter (**6**) locating holes on the top works with the locating pegs/spigots on the underside of the Baffle Plate (**5**).

**4)** Re-assemble the X-POT internal components (**4** - Magnet Grate), (**5** - Baffle Plate), and (**6** - Cartridge Filter) in the Vessel Body (**8**). (Note: Ensure that the EPDM flat faced washer is located around the bottom connection of the cartridge filter, providing a secure seal on the cartridge insert hole/flow channel at the bottom of the Vessel Body (**8**)).

**5)** Re-pressurise the X-POT and open it fully to the system. **(Note:** Follow steps **10** and **11** above making sure to close the Manual Vent (**11**) and make sure that all air is vented through the Automatic Air Vent (**12**)).

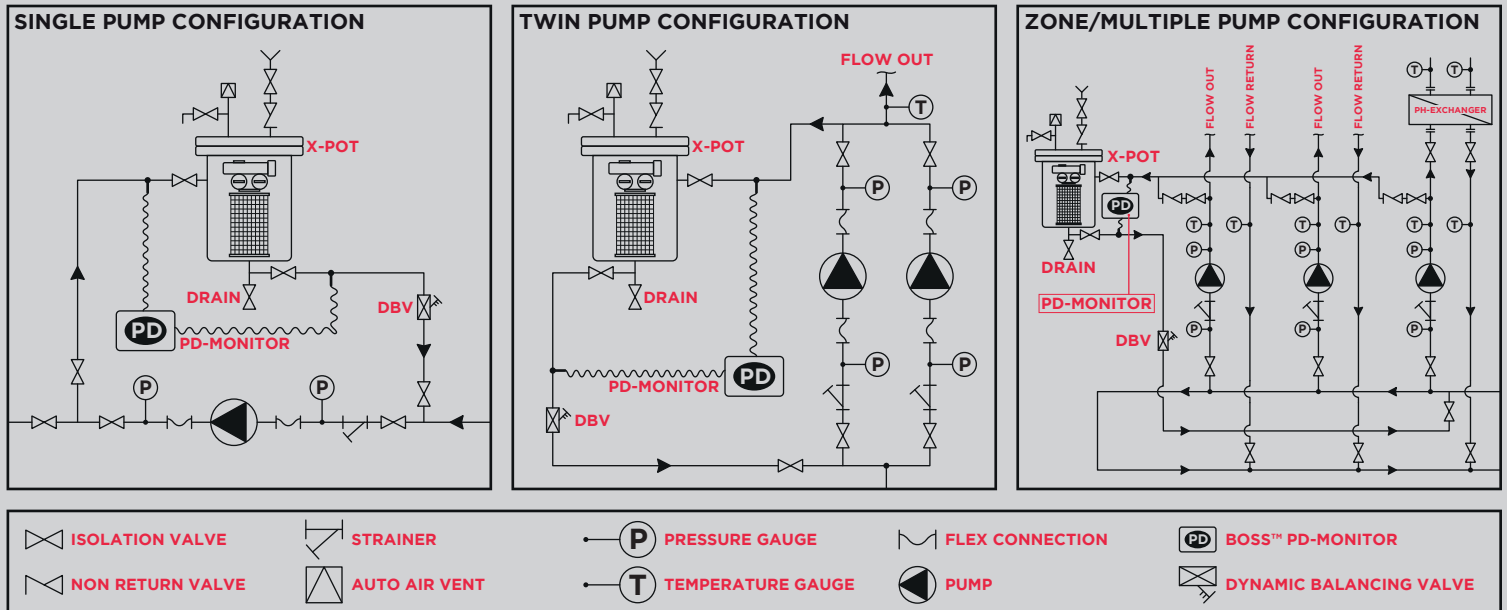
# BOSS X-POT COMPACT INSTALLATION & COMMISSIONING INSTRUCTIONS

## BOSS X-POT INSTALLATION

1) X-POT assembly as per the drawing/image (figure.1) on page 1 of this document whilst using a suitable jointing compound i.e., PTFE/Teflon tape on threads. Note: Parts 9 + 10 have interchangeable uses.

2) X-POT should be installed around a system pump or pump set to ensure that there is sufficient head pressure to overcome differential pressure caused by a blocked filter.

Examples below:



3) The X-POT inlet pipework must be piped from the system pump(s) discharge to X-POT, Entry/Supply Valve (7) and return to pump suction side or a common return line in the system. The maximum pipe run lengths from the system pipework to the X-POT is to be <5m. In the event of multiple zone/pump configurations, a isolation valve and double check valve should be installed on each of the individual pipe runs from the circulating pumps.

### 4) Critical Installation Requirements:

- In a frost-free area (>5°C) and must also be protected from adverse environmental conditions.
- In a well-lit area to allow for safe changing of the filter media and chemical dosing.
- On a flat, vertical, level wall with good access to the X-POT itself.

5) X-POT requires a minimum clearance at the top of the unit of 500mm for servicing and maintenance purposes.

6) X-POT is to be installed alongside a Dynamic Balancing Valve and Pressure Monitoring Device in compliance with BSRIA BG29/21 & BG50/2021 ensuring effective maintenance.

## BOSS X-POT COMMISSIONING

- Ensure that all components connected to the X-POT vessel have been leak tested prior to commissioning.
- Depending on the results of the system water quality tests, you may either commission the X-POT with either 1) Magnets Only or 2) Cartridge Filter and Magnets.
- Ensure that all the top flange securing nuts and bolts are adequately fastened to ensure leak tightness.
- Ensure that the following isolation valves are fully closed at time of commissioning: Dosing Shut Off Valve (2), Manual Vent Valve (11), and Drain Valve (10 or 9).
- Ensure that you fill the pressure vessel with opening the entry/supply isolation valve (7).
- Ensure that the AAV is removing the remaining air held in the X-POT body.
- Ensure that the insulation jacket has been installed around the X-POT vessel body.
- Ensure that the direction of operation for the Dynamic Balancing Valve is in the correct direction with the flow.
- Ensure that the Dynamic Balancing Valve's flowrate has been correctly set for the system requirements. To calculate the flowrate required for the X-POT the following calculation will need to be completed:
- Total System Volume / 86,400 seconds = l/s - This provides a litres per second flowrate for the Dynamic Balancing Valve.
- If installed, ensure that the differential setpoint alarm has been set for the pressure monitoring device.

**PLEASE ENSURE THAT THESE  
INSTALLATION & O&M INSTRUCTIONS  
ARE FIXED/PLACED ADJACENT TO  
THE X-POT FOR OPERATIVE USE**

