

BOSS X-POT 6 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 6 ISOLATION

To isolate the unit to the main primary system, please follow the below steps:
(**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 6 DOSING

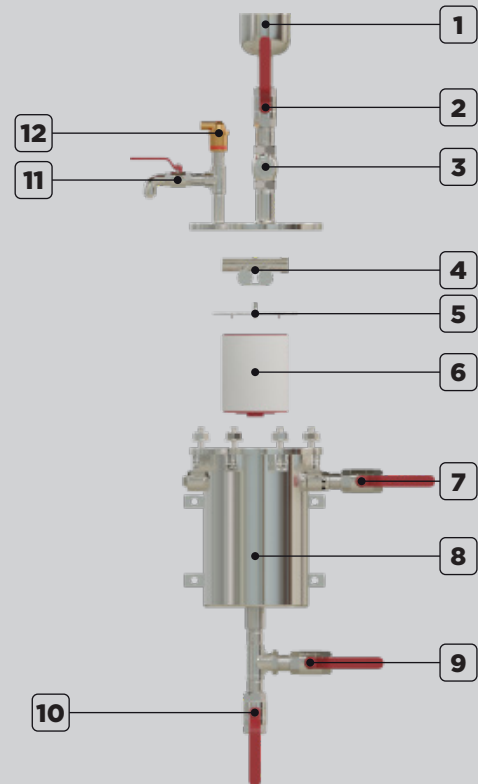
To dose with the system with additives, please follow the steps below:
(**Note:** You will need to isolate the system prior to these steps and the Part Numbers are relevant to the image on the right side of this document.)

- 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 8 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 6 UNIT PARTS



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

BOSS X-POT 6 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**)).

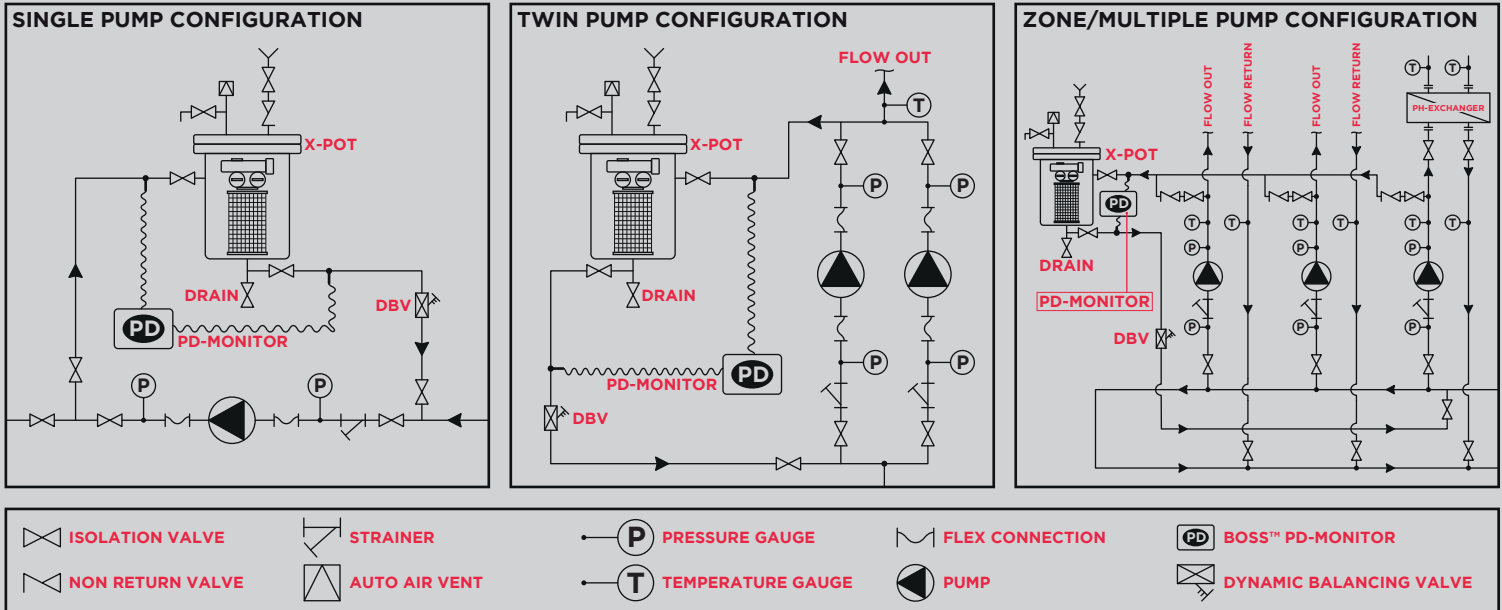
BOSS X-POT 6 INSTALLATION & COMMISSIONING INSTRUCTIONS

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:

$$\text{Total System Volume} / 86,400 \text{ seconds} = \text{l/s}$$
 - 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**

