

## Fitting Instructions for the Sealed System Kit Vortex 15/21 Outdoor Module

## **Kit Contents**

The sealed system kit includes the following items:

Pressure relief valve and automatic air vent.

Manifold pipe.

10 litre expansion vessel with flexible hose and sealing washer.

Expansion vessel mounting bracket.

Filling loop kit.

Pressure gauge (mounted on compression tee).

6 m head circulating pump with 22 mm gate type valves.

15 mm copper pressure relief valve discharge pipe (in two pieces with Tectite connector).

Pump support bracket (with fixing screws).

## **Fitting procedure**

- 1. Unscrew and remove the two nuts and washers from the two cleaning door studs. Remove cleaning door from boiler.
- 2. Remove the ½" BSP black iron plug from the front of the boiler waterway, using a 3/8" drive socket wrench. Fit the ½" BSP straight connector end of the flexible expansion vessel hose into the tapping on the front of the waterway using a suitable thread sealant.
- 3. Fit the <sup>3</sup>/<sub>4</sub>" BSP connection on the flexible expansion vessel hose to the vessel using the black rubber sealing washer supplied and tighten the union nut.
- 4. Replace the cleaning door on the two door studs. Fit the expansion vessel mounting bracket onto the studs. Replace the nuts and washers and re-tighten to secure door and bracket.
- 5. Fit the pressure relief valve and automatic air vent onto the manifold pipe. Then push fit the manifold pipe end into the 22mm Tectite connector on the boiler flow pipe. Refer to Fig. 2.
- 6. Fit both 22 mm pump valves to the circulating pump using the sealing washers provided.
- 7. Fit the pump support bracket, with the screws provided, using the two holes in the left hand side panel flange (viewed from rear of boiler).
- 8. Fit the pump/pump valve assembly to the end of the pressure relief valve/auto air vent manifold pipe. Ensure that the pump shaft is horizontal and the pump motor is facing towards the right side of the boiler (viewed from the rear). Refer to Fig. 3. The flow arrow on the body of the pump must face in the required direction of flow away from the boiler flow connection downwards in this case.
- 9. Ensure that the pump/valve assembly is supported by the bracket. The upper part of the lower valve should rest on the support bracket, with the body of the valve passing through the cut-out. Connect the flow pipework to the lower pump valve.
- 10. Assemble the two sections of the pressure relief valve discharge pipe using the 15 mm straight Tectite connector provided. Adjust the pressure relief valve so that the outlet points to the rear left corner of the boiler (viewed from the rear of the boiler).
- 11. Fit the pressure relief valve discharge pipe to the pressure relief valve outlet using the nut and olive provided. Route the pipe down the left hand rear side of the boiler and locate the lower end through the slot in the bottom flange of the left hand side panel.
- 12. The circulating pump may be wired into the boiler control panel if required. Refer to Section 9 in the main Installation & Servicing manual supplied with boiler.
- 13. The pressure gauge and filling loop should be installed in a convenient position inside the building.

Refer to Section 5.6 in the main Installation and Servicing manual supplied with the boiler for details of filling the sealed heating system.

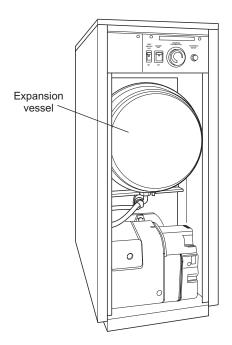


Fig. 1 - Front view (showing expansion vessel)

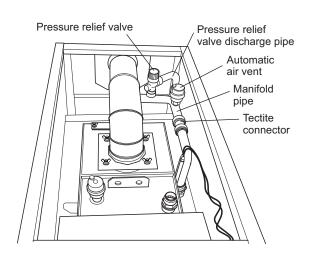


Fig. 2 - Top view (showing automatic air vent, pressure relief valve and manifold)

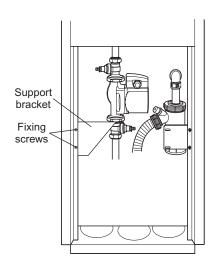


Fig. 3 - Rear view (showing pump assembly)



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