

TECHNICAL BULLETIN

PRODUCT: FLAMCO SUPASTOR UNVENTED CYLINDERS

INSTALLATION & DRAINING ADVICE – ANTI VACUUM RELIEF:

Installation & Design advice

When installing or designing an unvented hot water storage cylinder solution, consideration must be given to the vertical position of the cylinder in relation to any possible drain points within the system; in particular how a drain down for maintenance that is not properly carried out could damage the cylinder by implosion due to atmospheric pressure.

It is for this reason that Bosch recommend that an anti-vacuum valve is always installed to prevent damage from incorrect drain down procedures.



Fig. 1 Example Flamco unvented cylinder

Pressure differentials can also build up, where water is being drawn off at a faster rate from a tap (lower than the cylinder) than the cold water main can maintain.

Anti-vacuum valves

An anti-vacuum valve is designed to safeguard against damage due to atmospheric pressure, by allowing air to enter a system which then stabilises the pressure differential.

An anti-vacuum valve should be installed adjacent to the hot water outlet, before any isolation valve (see Fig. 2).

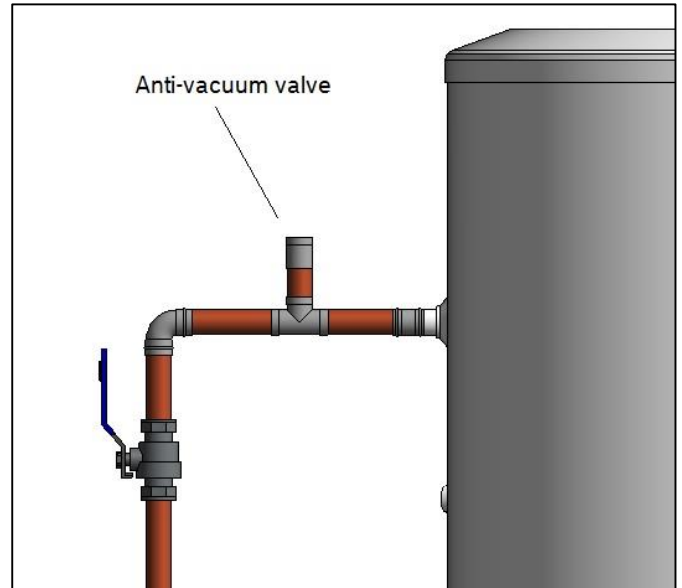


Fig. 2 Anti-vacuum valve position

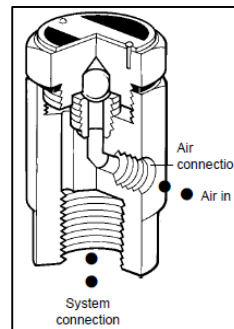


Fig. 3 Anti-vacuum valve operation

Drain down procedure

- ▶ Allow the cylinder to cool down by isolating the heat source in advance.
- ▶ Isolate the cold water supply.
- ▶ Open all hot taps to release the pressure and then keep open.
- ▶ A hose should be connected to the drain cock and directed to a suitable drain point.
- ▶ The drain cock can be opened and the water allowed to drain from the cylinder. Once drained, do not close the taps while the cylinder is still cooling down.

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