



INDUSTRIES LIMITED

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Why Do Conventional Expansion Tanks Waterlog?

Conventional expansion tanks trap a cushion of air in the top of the tank; the system fluid and the air are in contact with each other. If these tanks fill completely with water, or 'waterlog', there is no room for fluid expansion and the system pressure can increase beyond the relief valve threshold. There are two main reasons why this can happen.

The first is one-pipe gravity flow between the system and the tank. Hot water from the system flows up to the tank and slowly absorbs the air until the tank is filled with water. A sure sign that this is happening is a hot tank. This situation can usually be corrected by installing an airtrol fitting on the tank. These fittings are designed to prevent gravity flow, and provide several other benefits as well.

The second cause is the sight glass that is quite often installed on this type of tank. The top gasket on the glass, being above the normal waterline, dries out and starts to allow the air to get pushed out of the tank by the system pressure. The solution is simple – either remove the gauge glass altogether or valve it off.

These tanks should operate without attention for years with the initial air charge.

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