Dorchester DR-CC Hydraulic schemes

Unvented cold water supply

Typical pipework arrangement for a single Dorchester DR-CC water heater on an unvented system.

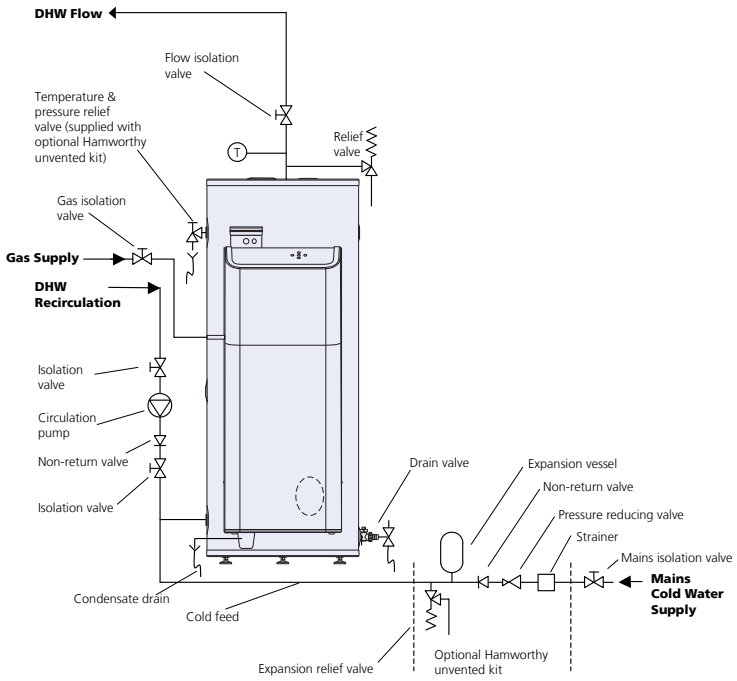
The Water Supply (Water Fittings) regulations 1999 require a number of essential controls pre-set to specific pressure and temperature settings for unvented systems. To ensure the controls are correctly sized for the application, set to appropriate levels and assembled in the correct order, Hamworthy Heating offer the unvented kit, a single "water train" with a separate T&P (temperature and pressure) relief valve sized to suit the energy input of the water heater. The T&P relief discharge should be via an air break to a tundish.

Each unvented supply kit is designed to be used with an individual water heater. Multiple heater installations require one unvented kit per water heater.

Larger systems with additional storage may require larger capacity expansion vessel.

Consult with Hamworthy Technical for a full range of Hamworthy expansion vessels.

Unvented cold water supply and single water heater



Open vented cold water supply

Typical pipework arrangement for a single Dorchester DR-CC water heater on an open vented system.

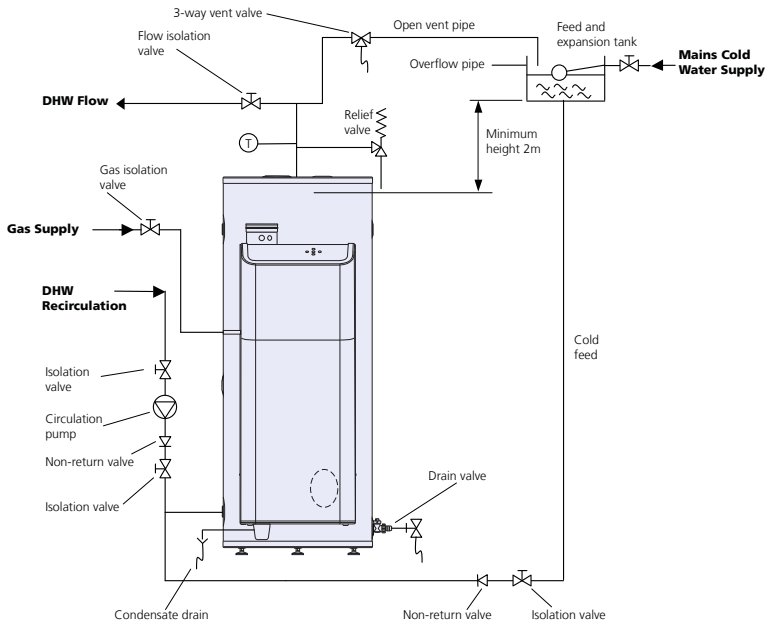
With open vented systems the feed and expansion tank must be sized to provide sufficient cold water storage and accommodate expanded system water without the risk of overflowing.

System operating pressure is directly related to the height of the feed and expansion tank. Care must be taken therefore to locate the feed and expansion tank such that it provides sufficient head pressure so that flow can be maintained at all outlets likely to be operating concurrently.

The minimum recommended height of the bottom of the feed and expansion tank above the water heater is 2m.

For comprehensive recommendations on the design, installation and testing of services supplying water within buildings please refer to BS 6700.

Open vented cold water supply and single water heater



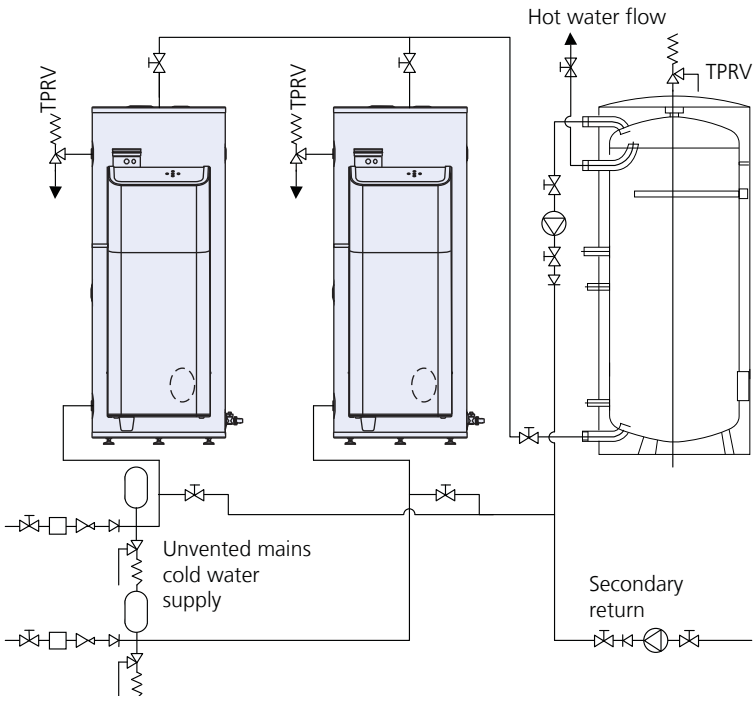
Dorchester DR-CC Hydraulic schemes

Unvented system: two water heaters and one storage tank

Typical pipework arrangement for two Dorchester DR-CC water heaters and an additional storage tank on an unvented system.

The loading pump circuit to the hot water storage tank must be run continuously throughout all anti-legionella purge periods, along with secondary circulation and top to bottom recirculation pumps to ensure the entire hot water system is fully heated to the required temperature.

Unvented system: *two water heaters and one storage tank*



Unvented system: one water heater and two storage tanks

Typical pipework arrangement for a single Dorchester DR-CC water heater and two additional storage tanks on an unvented system.

When using additional storage tanks with unvented systems, the expansion vessel volume must be increased to accommodate the additional expansion vessels.

Consult with Hamworthy technical for a full range of Hamworthy expansion vessels.

Unvented system: *one water heater and two storage tanks*