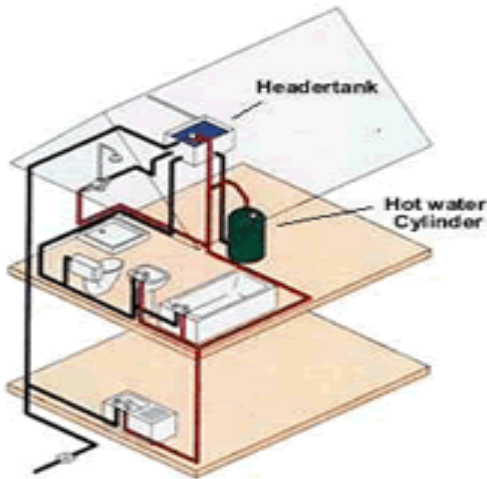
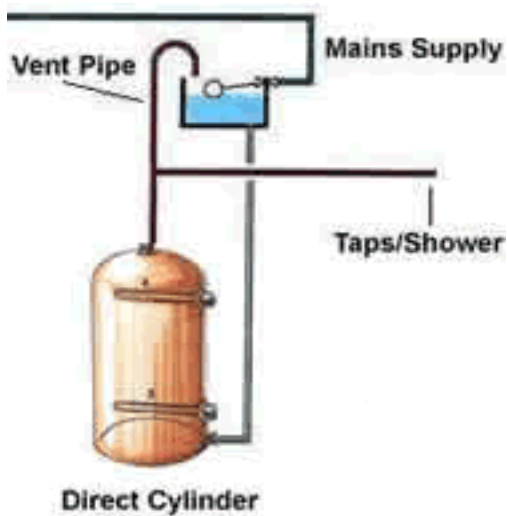


## Open vented stored hot water system



With open vented systems a large volume of cold water is stored in a header tank located at a higher level than the cylinder usually in the attic. The water storage cylinder usually located in the airing cupboard is fed at the base of the cylinder by the header tank. Water pressure and flow within the system is driven by gravity, i.e. the weight of stored water in the header tank is usually sufficient to push water down the pipe that feeds the water storage cylinder and back up to any tap or shower outlet, providing it is lower than the stored water level.



When the water is heated it rises to the top of the cylinder where it can be drawn off through the hot water supply pipes and tap or shower outlets, the water is automatically replaced in the cylinder via the header tank.

Heating causes the water within the cylinder to expand, a vent pipe allows a safe route for excess pressure, air bubbles and steam should the system overheat, it runs from the top of the cylinder back up to the cold water storage header tank where its open vent is located just above the water level.

Advantages	Disadvantages
Easy to maintain	Tanks in the attic risk of freezing
Low maintenance costs especially with electric heating	Water tanks, cylinders and pipework take up space and look unsightly
Relatively easy to install	Need to pre heat hot water to match demand
Less to go wrong when compared with a Combination boiler or pressurized cylinder	Hot water availability is restricted by the heat recovery time period and size of cylinder.
Less risk of being without a hot water supply due to breakdown	
Power shower capability depending on choice of cylinder	
Gain the traditional airing cupboard	