

# Installation instructions

For Ferham cold water feed and expansion cisterns



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# Range Cylinders

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## IMPORTANT

Always <input checked="" type="checkbox"/>	Never <input type="checkbox"/>
1. Ensure the cistern is fully supported on a flat base over the whole area of the cistern which can accommodate the weight of the cistern when full, with the load correctly spread over any joists.	1. Use a scribe tool or sharp instrument to scratch the cistern.
2. Follow the latest manual handling & lifting guidelines when handling the cistern, taking care not to damage the cistern or its components.	2. Use sealing compounds, paste or putty in the installation of plastic cisterns or their components. The use of PTFE tape is permitted.
3. Use a felt pen or crayon to mark the cistern.	3. Leave notches or abrasions when cutting holes.
4. Hole centre for float valve 60mm +/- 5mm from top of cistern; fit backplate.	4. Use heated metal tubing to create holes.
5. Use a sharp hole-saw to cut the correct size hole; support the cistern wall whilst drilling.	5. Stress the cistern by overtightening the connections.
6. Ensure that all washers, rubber and plastic seals are of a WRAS or KIWA approved material.	6. Stress the cistern by distorting it.
7. Pipes should enter at 90° to the face of the cistern.	7. Position the cistern in close proximity to heaters, light bulbs or other sources of heat.
8. Ensure adequate movement in pipework to allow for expansion without stressing cistern.	
9. Ensure that all above and underwater pipe connections are fitted internally and externally with approved washers and support washers.	
10. Support all pipework.	
11. Fit screened air inlet, screened warning pipe & vent pipe sleeve.	
12. Fit lid and insulation jacket making sure both are fastened securely in position.	
14. Fully check the installation is watertight and all components are functioning correctly including the operation of the float valve and overflow pipework.	

**NOTE:** The installer is responsible for ensuring all works are carried out following best practice and in accordance with Water Supply (Water Fittings) regulations that apply to their geographical location.

To comply with water regulations, install with close fitting lid, screened air inlet, screened warning pipe and, if applicable, vent pipe entry device and insulation jacket.

### Before entering the roof space:

1. Ensure you have all the necessary tools and components to complete the job. Check the cistern before fixing to ensure there is no transit damage.
2. Measure and mark the holes to be drilled:
  - I. Float valve 27mm diameter hole, centre 60mm (+/- 5mm) from the top of the cistern.
  - II. Warning pipe 27mm diameter hole, centre 90mm (+/-5mm) from the top of cistern.
  - III. Outlet 29mm diameter hole, centre 50mm (+/-5mm) from the base of the cistern, as far away from the float valve as possible, to ensure good circulation.
  - IV. Enclosed, Low level and FC4G models will also require 2x 40mm diameter holes on the top / lid of the cistern for vent pipe connector and breather filter. Note, ensure these are in an accessible location so they can be maintained or replaced in the future.
3. Drill the correct size holes using a sharp hole saw, taking care to ensure the hole is clean and free from any notches or abrasions.

Note: If the cistern is to be passed through a narrow opening it is advisable to leave drilling the holes until you are in the roof space to avoid weakening the cistern.
4. Make sure any straps needed to secure the lid are fitted including the clickfit fastening. Note this is not applicable on products with snap-on lids, i.e. enclosed or low-level cisterns.

### The remaining stages should be completed in the roof space:

5. Position the cistern in the desired location, ensuring it is on a fully supported flat surface, capable of bearing the weight of the cistern when full.
6. Fit a compression tank connector into the outlet hole. With the rubber washer fitted internally and the plastic washer externally, tighten the flange nut using the correct size spanner, taking care not to damage the cistern. Note, some cisterns are supplied with 22mm washers.
7. Assemble your float valve and attach to the cistern. The backplate should be fitted to the outside face of the cistern to spread the load of the continually moving ball valve.
8. Attach a service valve onto float valve and adjust float position to suit waterline in cistern.
9. Fit the screened elbow filter/mesh warning pipe into the appropriate hole and then push fit the dip tube internally into the elbow. This warning pipe accepts any 22mm overflow pipe including copper.
10. If not factory fitted, attach the breather and vent pipe fittings to the cistern or lid.
11. Now connect all pipework, ensuring pipes are fully supported, but have adequate movement that allows for expansion and contraction without stressing the cistern.

### DO NOT OVER TIGHTEN:

- I. Cold feed (inlet) pipe to the service valve. Fit a restrictor to inlet if necessary, to ensure this does not overwhelm the capacity of the warning pipe.
- II. Warning pipe to warning pipe elbow.
- III. Vent pipe to vent pipe connector.
- IV. Cold supply to system (outlet).

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12. Turn on the cold-water isolation valve and open the service valve.
13. As the cistern fills, check all cistern and pipework connections for leaks, rectifying as necessary.
14. Ensure the float valve is operating correctly and the warning pipe discharges correctly and safely.
15. Once you are satisfied everything is functioning correctly and is watertight, fasten the cistern lid into position, ensuring it is fully secured and fitted correctly.
16. Add the insulation jacket by wrapping the larger section all the way round the cistern. Secure in position using the ribbon provided, making sure to tie at an easily accessible point.

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