

This fact sheet explains how to correctly install a new Field Trough to ensure compliance with the Water Supply (Water Fittings) Regulations 1999. Water Troughs present a high contamination risk to water supplies and it is essential to ensure they are installed correctly to prevent contamination through backflow siphonage that would endanger public health.

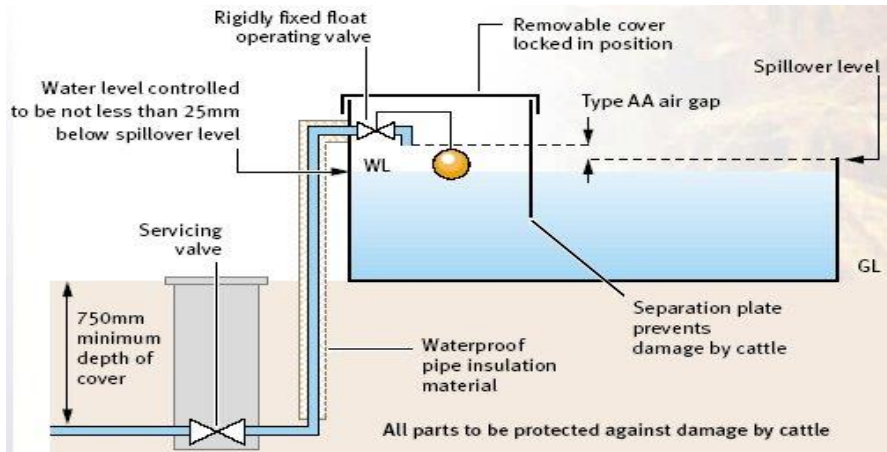
Requirements for installing a field trough water supply:

- 1) The service pipe supplying the trough should be buried at a depth of between 750mm (minimum) and 1350mm (maximum) to the crown of the pipe;
- 2) The pipe material needs to be either MDPE (compliant with Reg 4.1.a of the Water Supply (Water Fittings) Regulations 1999) in normal ground conditions or barrier pipe (complying to BS 8588) in contaminated ground conditions. Black polyethylene is recommended for use above ground, as blue MDPE will deteriorate when exposed to UV light. If blue MDPE is used above ground it will need to be adequately protected from exposure to UV light;
- 3) The service pipe must be insulated and ducted from where it raises from 750mm underground to the ground level or concrete plinth level. The duct should be a continuous non-perforated duct at least 4" in diameter and sealed at either end;
- 4) An isolation valve must be fitted on the pipe, either underground in front of the trough or just above ground where the pipe exits the duct;
- 5) To prevent damage and loss of water, the trough should be installed on a levelled hard standing concrete base;
- 6) All above ground pipework needs to be securely fixed in a housing to avoid any damage from livestock. The pipework needs to be insulated with a 19mm thick closed-cell insulation material from inside the duct and above the ground level to the trough inlet. The insulation acts as a barrier to reduce the warming of water in hot weather and to delay the onset of freezing during winter;
- 7) When installing a trough, it must have a rigidly fixed service box fitted with a removable lockable cover to protect the fittings inside. An approved float operated valve must be fitted inside the service box as this helps to create the required Type AA air gap;
- 8) The final installation of the float operated valve must provide a Type AA air gap. It must have a minimum 20mm air gap or twice the diameter of the inlet pipe, whichever is the greater, between the inlet point of the valve and the overflow level of the trough;
- 9) Where the plot boundary meets the highway (as illustrated in the quote sketch) a suitable mechanical cap end should be fitted to seal the end of the pipe and prevent the potential ingress of contaminants into the service pipe until the pipe is connected to our water main;
- 10) All fittings used for installing the service pipe and trough must be approved and comply with Regulation 4 of the Water Supply (Water Fittings) Regulations 1999.

The following page shows a diagram of a compliant water trough arrangement with a Type AA Air Gap, as well as two common types of field trough.

Please contact our Developer Services team or Water Regulations team if you require further information.

Field Trough Supply



[Example of a compliant field trough and new water supply]



[Example of a common field trough]



[Example of a common field trough]

For further information contact the Water Regulations team at
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