

Vending machines



What are the water fittings regulations/byelaws?

These national regulations protect drinking water by ensuring plumbing systems are designed, installed and used safely.

The information provided in this leaflet will highlight the areas of risk and help installers, as well as those responsible for and using vending machines to keep the water safe.

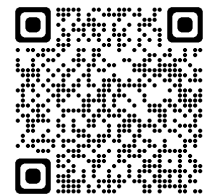


When do they apply to vending machines?

If a machine vending drinks, ice or rehydrated foodstuffs (such as soup) has any form of mains water supply the regulations/byelaws apply.

How do you comply?

1. To ensure the drinks and food are safe to consume make sure the vending machine is of an [appropriate quality and standard](#)
2. To ensure the machine is installed safely [notify](#) the [local water undertaker](#) at least 10 working days before it is installed.
3. To prevent drinks and foodstuffs contaminating drinking water supplies install the correct level of backflow protection.



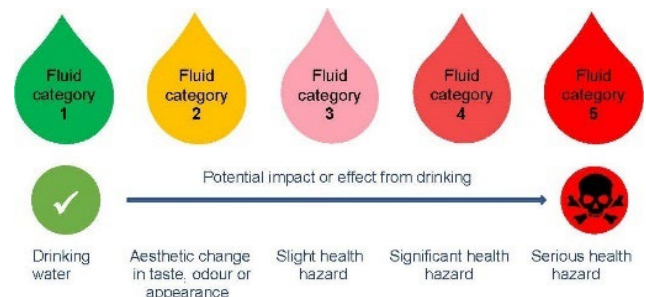
For further information please refer to the Water Reg UK website www.waterregsuk.co.uk.

Notification is a simple and essential check to help minimise the contamination risks to water supplies within premises as well as beyond, and to help prevent waste of water. Unless installed by an approved contractor, advanced notification of any proposed plumbing work involving vending machines is usually required and always recommended

What is backflow?

Backflow occurs when fluid in a plumbing system flows in the opposite to the intended or normal direction of flow. The regulations/byelaws classify backflow risks by fluid categories or risks to health.

Backflow is not theoretical rather an ever present threat to people's health.



What is backflow Protection?

To prevent backflow a barrier (backflow protection) which stops contaminated fluid flowing backwards is needed. The regulations/byelaws identify several different backflow prevention arrangements and devices, each having a rating based on fluid category and type of backflow.

What level of backflow risk is a vending machine?



Drinks and food vending machines are typically categorised as a fluid category 3 risk, a slight health hazard. Meaning backflow protection providing at least fluid category 3 backflow protection must be installed on the supply feeding the machine. Typically, a suitable double check valve is used. However, subject to the agreement of the local water undertaker, providing there is no direct contact with ingredients of any food product or CO₂ vending machines which only heat or cool water may be categorised as fluid category 2.

Checklist

- ✓ **Can the vending machine be installed?**
Check with your local water undertakers to confirm the proposed vending machine installation will be compliant.
- ✓ **Is the installation safe?**
Exposure to light can promote the growth of algae, when this occurs it can cause not only taste and odour problems but also provide nutrients which could support the growth of bacteria. For this reason, any components which could allow light through should be concealed.

Water injected with CO₂ is acidic, which can adversely affect components. This is of particular concern if the backflow prevention arrangement is a metallic check valve. Where check valves are used in connection with carbonated water systems, they must be suitable for pH values below 4.5 such as stainless steel.
- ✓ **Is all the necessary paperwork in place?**
If property was inspected by the local water undertaker, you may be asked several questions about vending machines. To help answer these it is recommended a technical file be maintained on site. This should include the letter of consent from the local water undertaker, any certificates of compliance issued by an approved contractor and the manufacturer's installation and maintenance instructions. The manufacturer's literature will help to confirm the make and model of machine. Failure to provide all the information required could result in enforcement action being taken.
- ✓ **Has the right level of backflow protection been installed?**
As part of their check the local water undertaker will confirm the level of risk associated with the vending machine and highlight any suitability issues associated with the proposed form of backflow protection. Don't forget backflow protection arrangements not only need to be suitable but also of an appropriate quality and standard. **Please note** conformity with BS EN 61770 does not satisfy UK requirements.

