

The Water Supply (Water Fittings) Regulations 1999

LWS Interpretations of regulations relating to domestic and commercial irrigation installations

GENERAL

The old Water Bylaws are no longer in force (as of 1st July 1999) and the Water Supply (Water Fittings) Regulations 1999 are the current standards.

It is a requirement that NO garden watering system installation, other than a hand held hose, is started without consent of the undertaker (water authority). It will usually be a requirement that the user installs a water meter.

Fluid Category 1

Water from the mains.

Fluid Category 2

Water where temperature changes, and/or substances change taste, odour, appearance, etc. e.g. water softeners, air con units, fire sprinklers, vending machines, etc.

Fluid Category 3

Water that represents a slight hazard to health, low toxicity.

- Domestic hand held hoses with flow control or shut-off valve
- Hand held fertiliser sprays in domestic situations
- Domestic or commercial irrigation systems, without insecticide or fertiliser applicators, with fixed sprinkler heads not less than 150mm above ground level

Valve types to use:

1. EC - verifiable double check valve
2. ED - non-verifiable double check valve
3. HUK1 - hose union tap that incorporates a double check valve. Only permitted for replacement of existing hose union taps in house installations. If new installation, fit double check valve internally to house, and standard bib tap external.

Fluid Category 4

Water that represents a significant hazard to health due to concentrations of toxic substances, e.g. chemicals (insecticides, herbicides) and environmental organisms.

- Mini domestic irrigation systems, without insecticide applicators, such as fixed mini-sprays or permeable hoses at soil level (not buried in soil)
- Irrigation systems such as pop up sprinklers or permeable hoses with no greater risk than a domestic garden

Valve types to use:

1. Drip line/leaky/porous hose in domestic gardens only - As per Fluid Category 3 (double check valve) in conjunction with a type DB pipe interrupter with atmospheric vent and moving element device at the connection of the hose to the hose union tap, or not less than 300mm above the highest point of the delivery point of the mini-spray outlet or the perforated surface of the porous hose, whichever is the highest. Arrangements incorporating a Type DB device shall have **no** control valves on the downstream side of the device (solenoid valves, isolation valves, etc.) and should discharge vertically downwards. Pop-up sprinklers are not permitted with this arrangement.
2. BA - verifiable backflow preventer with reduced pressure zone. Domestic installations incorporating pop-up sprinklers are permitted with this type of valve, or no less effective.

Fluid category 5

Fluids which represent a serious hazard to health due to pathogenic organisms, radioactivity or very toxic substances, and including sewage waste, etc.

- Non-domestic hose union taps
- Permeable pipes in other than domestic garden, laid below or at ground level, with or without chemical additives.
- Grey water recycling
- Water storage for agricultural purposes

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- Commercial irrigation outlets below or at ground level including pop up sprinklers and/or permeable pipe, with or without chemical additives considered to be greater than risk of domestic garden
- Commercial insecticide or fertiliser applicators
- Commercial hydroponics systems

Valves types to use:

1. **None permissible** - use Type AA, AB or AD air gap - typically use pump and tank.

Notes

Mechanical backflow prevention devices should be installed with the following in mind:

- They should be readily accessible for inspection, maintenance and renewal
- They should not be located outside the premises, except for types HA and HUK1 (hose union bib taps and adapters)
- They should not be buried!
- Vented, verifiable (test ports fitted) or devices with relief ports should not be installed in underground chambers or where liable to flooding. This would apply to double check valves.
- Line strainers should be fitted upstream of all devices required for category 4 fluids. Where fitted, servicing valves should be fitted upstream of the line strainer and downstream of the backflow prevention device.

SUMMARY

Domestic gardens - minimum requirements

Drip irrigation such as baskets/pots etc. - Category 3 – fixed heads/emitters not less than 150mm above ground/soil level.

Use double check valve

Micro-sprays - Category 3 – sprays on riser stakes fixed not less than 150mm above ground/soil level

Use double check valve

Dripline/porous/leaky pipe - Category 4

Use double check valve and Type DB Pipe Interrupter (one per zone).

Pop-up sprinklers - Category 4

Use RPZ valve or Type AA (Pump and Tank)

Commercial Installations - minimum requirements

Drip irrigation e.g. baskets/planters etc. - Category 3 – fixed heads not less than 150mm above ground level.

Use double check valve

Micro-sprays - Category 3 – Sprays on riser stakes fixed not less than 150mm high

Use double check valve

Drip line/leaky/porous pipe – Category 4

Use RPZ valve or Type AA (Pump and Tank)

Pop-up sprinklers - Category 4

Use RPZ valve or Type AA (Pump and Tank)

Any systems using fertilisers or pesticides are minimum Category 4 or 5

This information is supplied in good faith by LWS, we cannot be held responsible for any errors or omissions.
Please contact The Water Regulations Advisory Scheme for confirmation or clarification of any point Tel: 01495 248 454
email: info@wras.co.uk

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