TEST CODE SHEET

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1. TYPE OF TEST(S)

Provision for backflow prevention.

2. BYELAW REQUIREMENT FOR FITTINGS

Byelaw 11

Backflow Prevention Device means either a Type A or Type B air gap, a check valve, a double valve, a double check valve assembly, combination of check valve and vacuum breaker, a pipe interrupter, or some other water fitting or arrangement of water fittings designed to prevent the backflow or backsiphonage of water;

check valve means a mechanical device which -

(a) by means of a resilient elastic seal or seals permits water to flow in one direction only and is closed when there is no flow;

(b)
- (i) is resistant to corrosion, and
- (ii) is immune from, or resistant to, dizincification, and
- (iii) will continue to operate in a continuous water temperature not exceeding 65°C, and
- (iv) when shut will prevent the passage of water from inlet to outlet where the water pressure at the valve inlet does not exceed 10mbar;

critical water level in relation to a Type B air gap means the steady water level in a cistern, vessel or other water fitting when there is a maximum inflow of water and all outlets, except any overflow, are closed;

double check valve assembly means a mechanical device comprising two check valves with a test cock between them;

pipe Interrupter means a non-mechanical device without any moving, flexible or elastic parts which -

(a) in the event of any vacuum in a pipe in which it is installed will admit air into it to prevent the backflow of water; and

(b)
- (i) is resistant to water corrosion and is immune from, or resistant to, dezincification; and
- (ii) has an obstructed air inlet-aperture, or apertures which, when a vacuum occurs on the inlet side, produces a corresponding vacuum on the outlet side not exceeding 5mbar below atmosphere.

Type A air gap occurs if there is an arrangement of water fittings whereby -

(a) water is discharged into a cistern, vessel or other fitting which has at all times an unrestricted overflow to the atmosphere; and

(b) the pipe discharging into that cistern, vessel or other water fitting is not obstructed; and

(c) water is discharged downwards into the cistern, vessel or other fitting at not more than 15° from vertical; and

(d) the vertical distance from the spill-over level of the unrestricted overflow of that cistern, vessel or other fitting to the point above that spill-over level which is the lowest point of any pipe or fitting which discharges into that cistern or vessel or fitting is not less than the figure mentioned in the Table below in relation to a pipe of the appropriate bore;

TABLE

1 Bore of pipe or outlet	2 Vertical distance of point of outlet above spill-over level
1. not exceeding 14mm 2. exceeding 14mm but not exceeding 21mm 3. exceeding 21mm but not exceeding 41mm 4. exceeding 41mm	20mm 25mm 70mm twice the bore of the outlet

Type B air gap occurs when water is discharged into a cistern, vessel or other water fitting which is open at all times to the atmosphere, and the vertical distance between the lowest point of discharge into that cistern, vessel or water fittings and its critical water level is either -

(i) sufficient to ensure that, if there were a vacuum in that discharge pipe or fitting, no water in the cistern, vessel or water fitting would be siphoned back into that pipe or fitting, or

(ii) not less than the figure mentioned in the preceding Table in relation to a pipe of the appropriate bore;

vacuum breaker means a mechanical device with an air inlet which is closed when water flow past it at or above atmospheric pressure but which opens to admit air if there is a vacuum in the pipe and closes so as to be watertight when the flow of water is resumed at normal pressure.

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(1) Every pipe through which water is supplied for domestic purposes to a point of use or draw-off where backflow or backsiphonage is, or is likely to be, harmful to health by reason of a substance which -

(a) is continuously or frequently present in contaminated water, shall incorporate a type A air gap, or

(b) may be present in contaminated water, shall incorporate a type A or Type B air gap, a pipe interrupter, a combination of check valve and vacuum breaker, double check valve assembly, or some other no less effective backflow prevention device.

(2) Every pipe through which water is supplied for domestic purposes to a point of use or draw-off where backflow or backsiphonage is not, or is not likely to be, harmful to health, shall incorporate a check valve or some other no less effective backflow prevention device.

3. BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY BYELAW REQUIREMENTS

(See Water Supply Byelaw Guide)

3.1 Fittings with ‘kitemarks’ which are deemed to satisfy the requirements of byelaws are listed in the directory.

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Issue No: 2
Date of Issue: January 1990

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4. TEST PROCEDURE

Note Unless stated otherwise the temperature of the test fluid shall be 20 ± 10°C.

4.1 Tests applicable to the following fittings:

HAEMODIALYSIS MACHINES (home dialysing machines)
- with or without membrane washing facility.

(A) HAEMODIALYSIS MACHINES

TEST METHOD

Carry out a visual examination of the fitting to establish the provision made for backflow prevention

5. ACCEPTANCE CRITERIA

Machines incorporating a membrane washing facility shall be supplied with at least one of the following devices at the inlet:-
(a) a type A air gap
(b) a type B air gap
(c) a pipe interrupter meeting the acceptance criteria of the appropriate test code sheets.
(d) a combination of a check valve and a vacuum breaker, both meeting the acceptance criteria of the appropriate test code sheets, on an appropriate upstand (to be dealt with by way of installation requirements and notes if necessary).
(e) a double check valve assembly meeting the acceptance criteria of the appropriate test code sheets.
(See Byelaw 11 - extracts on earlier pages - for detailed descriptions of all of these devices).

Machines not incorporating a membrane washing facility shall be supplied with a check valve, meeting the acceptance criteria of the appropriate test code sheets, at the inlet.