

Test Code Sheet Number	1	2	1	1	23
---------------------------------------	----------	----------	----------	----------	-----------

WRAS TEST & ACCEPTANCE CRITERIA

Issue No: 1
Date of issue: July 2000

Sheet 1 of 2

TEST CODE SHEET

1. TYPE OF TEST(S)

Endurance test.

2. WATER REGULATIONS REQUIREMENTS FOR FITTINGSSchedule 2

15-(1) every water system shall contain an adequate device or devices for preventing backflow of fluid from any appliance, fitting or process from occurring.

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

3.1 Fittings with 'kitemarks' which are deemed to satisfy the requirements of regulations are listed in the directory.

4. TEST PROCEDURENote Unless otherwise stated the temperature of the test fluid shall be $20 \pm 10^{\circ}\text{C}$.

4.1 Tests applicable to the following:-

HOSE UNION BACKFLOW PREVENTER HA

DN15 to DN32.

Devices for the prevention of contamination by backflow.

(A) **HOSE UNION BACKFLOW PREVENTER HA** (Derived from prEN W1 108 : Clause 6.7)
DN15 to DN32.**TEST METHOD****APPARATUS** The following apparatus is required.

Pilot operated valve 'S1' being of the direct acting type with low pressure differential when open.

Control valves 'V1' and 'V2' capable of fine regulation (e.g. needle type valves).

A pressure gauge 'P1'.

Pipe of the same nominal size as that of the valve.

A transparent tube.

A water reservoir.

PROCEDURE The procedure shall be as follows:-

- (1) Mount the device in the test system in its normal working position. (Reference Figure 67).
- (2) With 'S1' open, adjust 'V1' and 'V2' together to achieve $10 \text{ bar} \pm 0.5 \text{ bar}$ at 'P1' with a flow velocity of $1 \text{ m/s} \pm 0.1 \text{ m/s}$ at the inlet to the hose union backflow preventer.
- (3) Arrange the pilot valve to be controlled automatically to give the above conditions for $4 \text{ seconds} \pm 0.5 \text{ seconds}$. The opening of the pilot operated solenoid valve S1 shall create no pressure peaks greater than 10 bar.

Test Code					
Sheet	1	2	1	1	23
Number					

Issue No: 1
Date of issue: July 2000

Sheet 2 of 2

- (4) Then close 'S1' for 7 seconds \pm 0.5 seconds.
- (5) One test cycle includes the sequence (2), (3) and (4). The changeover is to be completed in not more than 1 second.
- (6) Subject the valve to 80000 cycles with water at $90^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for the first hour, and then with water at $65^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for the remainder of the test.

5. ACCEPTANCE CRITERIA

Throughout the test, the valve shall fully drain down at each cycle. There shall be no leakage during the test.

After completing the endurance test the valve should be capable of complying with TCS 2212.16 and 1111.20.

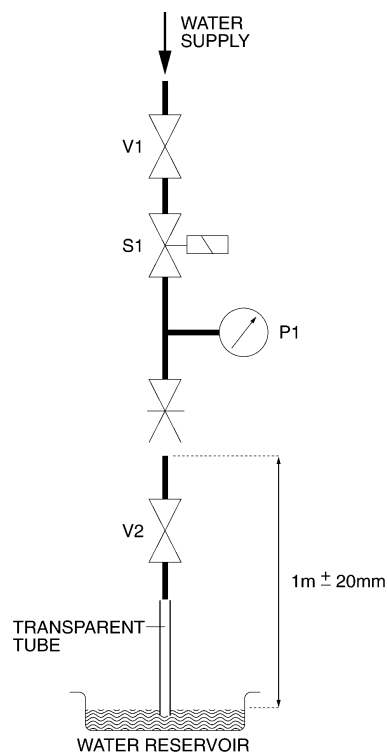


FIG 67