WRAS TEST & ACCEPTANCE CRITERIA

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TEST CODE SHEET

1. <u>TYPE OF TEST(S)</u>

Endurance test.

2. WATER REGULATIONS REQUIREMENTS FOR FITTINGS

Schedule 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. <u>BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY WATER REGULATIONS</u> <u>REQUIREMENTS</u>

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

4. <u>TEST PROCEDURE</u>

<u>Note</u> Unless otherwise stated the temperature of the test fluid shall be $20 \pm 10^{\circ}$ C.

4.1 Tests applicable to the following:-

PIPE INTERRUPTER WITH ATMOSPHERIC VENT & MOVING ELEMENT DB DN10 to DN20.

Devices for the prevention of contamination by backflow.

(A) <u>PIPE INTERRUPTER WITH ATMOSPHERIC VENT & MOVING ELEMENT DB</u>

(Derived from CEN TC 164 W1 112 : 1998. Clause 11.6) DN10 to DN20.

TEST METHOD

<u>APPARATUS</u> The following apparatus is required.

The test rig for the cycle test shall be arranged and constructed similar to that shown in Figure 1. The test rig consists of:

Remote control valves (S1) being of the direct acting type or so constructed that it is fully open at zero pressure differential.

Control valves (V1, 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.

<u>PROCEDURE</u> The procedure shall be as follows:-

- (1) Mount the device in the test system in its normal working position. (Reference Figure 1).
- (2) With (S1) open, adjust (V1) and (V2) together to achieve 6 bar ± 0.5 bar at (P1) with a flow rate at the inlet to the pipe interrupter with elastic membrane, as indicated in Table 1.

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- (3) Arrange the pilot operated values to be controlled automatically to give conditions in (2) above, for 6 seconds $(\pm 1.0 \text{ seconds})$.
- (4) Then close (S1) for 6 seconds (± 1.0 seconds).
- (5) One test cycle includes the sequences of (2) and (4). Changeover to be accomplished in not more than 1 second.
- (6) Subject the value to 80 000 cycles with water at 90°C (\pm 2°C) for the first hour and then with water at 65°C (\pm 2°C) for the remainder of test.

Nominal size - DN	10	15	20	
Minimum flow rate l/s	0.15	0.3	0.45	



5. <u>ACCEPTANCE CRITERIA</u>

Throughout the test, the valve shall fully drain down water in the transparent tube under no flow conditions at each cycle.

After completing the endurance test the valve shall be capable of meeting the requirements of test code sheet 2212.14.

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Key

- 1 Water supply
- 2 Test-specimen
- 3 Transparent tube
- 4 Water reservoir

Figure 1