WRc Evaluation & Testing Centre Ltd

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WRAS TEST & ACCEPTANCE CRITERIA

Issue No: 2

Date of issue: July 2000

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TEST CODE SHEET

1. \underline{TYPE} OF $\underline{TEST}(S)$

Vacuum 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. 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. <u>TEST PROCEDURE</u>

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

4.1 Tests applicable to the following:-

REDUCED PRESSURE ZONE (RPZ) VALVE BA

DN8 to DN250.

Devices for the prevention of contamination by backflow.

(A) REDUCED PRESSURE ZONE (RPZ) VALVE (Derived from AS 2845.1. Appendix AN) DN8 to DN250

TEST METHOD

APPARATUS The following apparatus is required.

Vacuum rig, vacuum gauge, water reservoir, scale, transparent tube.

PROCEDURE The procedure shall be as follows:-

- (1) Set up the device to be tested as shown in Figure 17 and in accordance with setting-up procedure IGN 1-50-64.
- (2) Open the full way valve and apply a vacuum of 0.5 bar and hold for 5 minutes \pm 10 seconds.
- (3) Observe the water level in the transparent tube.
- (4) Relieve the upstream vacuum.
- (5) Repeat stages (2) to (4) a total of five times at 5 ± 2 second intervals, observing and recording the water level in the transparent tube.
- (6) Foul both check valves as stated in Appendix J. (See sheet 3).
- (7) Repeat stage (5).

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5. **ACCEPTANCE CRITERIA**

The water level in the transparent tube shall not increase by more than 3 mm.

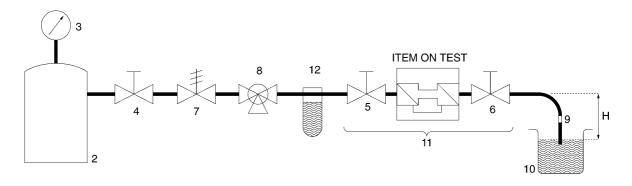


Figure 17

KEY	
2	Vacuum tank
3	Vacuum gauge
4, 5 & 6	Isolating valves
7	Vacuum regulator
8	Three-port quick-acting ball valve (third port open to atmosphere)
9	Sight glass
10	Reservoir for water
11	Device under test
12	Transparent water trap

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APPENDIX J

FOULING WIRE SIZES

Fouling wires of the sizes listed in Table J1 shall be used where required in the various tests on moving members of backflow prevention devices.

TABLE J1

Nominal size of Vacuum breaker DN	Size of fouling wire (standard hard drawn wire) mm	
Upto 20	0.8	
25	1.25	
32	1.4	
40	1.6	
50	2.0	
65	2.24	
80	2.8	
100	3.55	
150	5.6	
200	6.3	
250	7.1	

The fouling wire shall be formed to suit the contour of the non-return valve's seat of the size shown in Table J1.

The fouling wire shall be held securely in position so as to hold both non-return valve elements open.