WRc Evaluation & Testing Centre Ltd

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WRAS TEST & ACCEPTANCE CRITERIA

Issue No: 2

Date of issue: June 2000

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TEST CODE SHEET

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

Bending strength

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:-

NON-VERIFIABLE DISCONNECTOR CA

DN6 to DN50.

Devices for the prevention of contamination by backflow.

(A) NON-VERIFIABLE DISCONNECTOR CA (Derived from prEN W1097 C25: 1999. Clause 9.4.2) DN6 to DN50.

TEST METHOD

APPARATUS The following apparatus is required.

A supply of water at the required pressure.

Pressure gauges.

Test bench, Test loads.

PROCEDURE The procedure shall be as follows:

- (1) Mount the device on the test bench in its normal working position.
- (2) Upstream of the device apply a pressure of 16 bar \pm 0.02 bar. (Reference setting-up procedure 1-50-61).
- (3) Apply a load W as shown in Figure 26 to produce the bending moment given in Table 1.
- (4) Hold the bending moment and pressure for 10 min 0 + 60 sec.

NOTE: When calculating the load W corresponding to the bending moment, loads introduced by the pipework, and any loads imposed by the test equipment must be accounted for.

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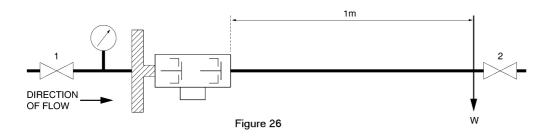
Table 1

DN	6	8	10	15	20	25	32	40	50
Bending moment n/m	10	30	40	80	150	300	400	500	600

Force = Mass x Acceleration

$$F(N) = m(Kg) \times a(m/s^2)$$

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$$m (Kg) = \frac{F (N) \times 1 (m)}{a (m/s^2)}$$
 [a = 10 m/s²]



5. <u>ACCEPTANCE CRITERIA</u>

There shall be no rupture nor permanent deformation or leakage of the body of the device.