WRc Evaluation & Testing Centre Ltd

Test Code Sheet Number	1	3	1	2	14

WRAS TEST & ACCEPTANCE CRITERIA

Issue No: 1
Date of issue: July 2000

Sheet 1 of 2

TEST CODE SHEET

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1. **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. **TEST PROCEDURE**

Note   Unless otherwise stated the temperature of the test fluid shall be $20 \pm 10°C$

4.1   Tests applicable to the following:-

REDUCED PRESSURE ZONE (RPZ) VALVE BA
DN8 to DN100
Devices for the prevention of contamination by backflow.

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(A) **REDUCED PRESSURE ZONE (RPZ) VALVE BA** (Derived from prEN 12729. Clause 9.4.3)
DN8 to DN100

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)   Apply a load 'W' as shown in Figure 26 to produce the bending moment given in Table 1.

(3)   Upstream of the device apply a pressure of 16 bar ± 0.5 bar. (Reference setting-up procedure 1-50-61).

(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		8	10	15	20	25	32	40
Bending moment Nm	Threaded and flanged ends	40	40	80	150	300	400	500
	Compression and flanged ends	30	30	50	85	125	160	200
DN		50	65	80	100			
Bending moment Nm	Threaded and flanged ends	600	750	950	1 300			
	Compression and flanged ends	300	375					

Force = Mass x Acceleration

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

$\therefore\ m\ (Kg) = \dfrac{F\ (N)\ x\ 1\ (m)}{a\ (m/s^2)}$ $[a = 10\ m/s^2]$
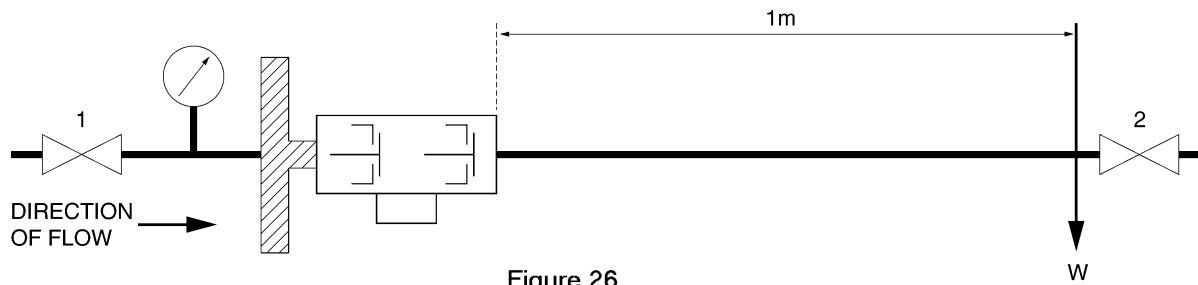

Figure 26

5.   **ACCEPTANCE CRITERIA**

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