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 ± 10°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) PIPE INTERRUPTER WITH ATMOSPHERIC VENT & MOVING ELEMENT DB
(Derived from CEN TC 164 W1 112 : 1998. Clause 11.4)
DN10 to DN20.

TEST METHOD

APPARATUS The following apparatus is required.

A supply of water to achieve the required pressure.

A stop valve '1' at the inlet.

A pressure gauge 'P1'.

A mounting '2' to which the pipe interrupter with elastic membrane under test is fixed.

A 1m long steel pipe '3'. The pipe is threaded at one end to connect to the outlet of the pipe interrupter and the other end equipped with a connection to load (W). The pipe interrupter has the intermediate parts removed and a stop valve '4' is fitted at the pipe outlet.

PROCEDURE The procedure shall be as follows:-

(1) Mount the device in the test system in its normal working position. (Reference Figure 1).

(2) The bending moment is measured at the connection to the pipe. In calculating the bending moment, make due allowances for the mass of the pipework, valves and any loads imposed by the test equipment.

(3) Close all valves. Purge the air from the pipe '3' by means of valves '1' and '4'.

(4) Apply a load W as shown in Figure 1, to produce a bending moment given in Table 1.

(5) Gradually apply pressure through valve '1' at a rate not exceeding 1 bar per 5 seconds up to 16 bar (± 0.3 bar).

(6) Hold for 10minutes –0 + 60 seconds.

Table 1

Nominal size - DN	10	15	20
Bending moment Nm	30	50	70

Force = Mass x Acceleration

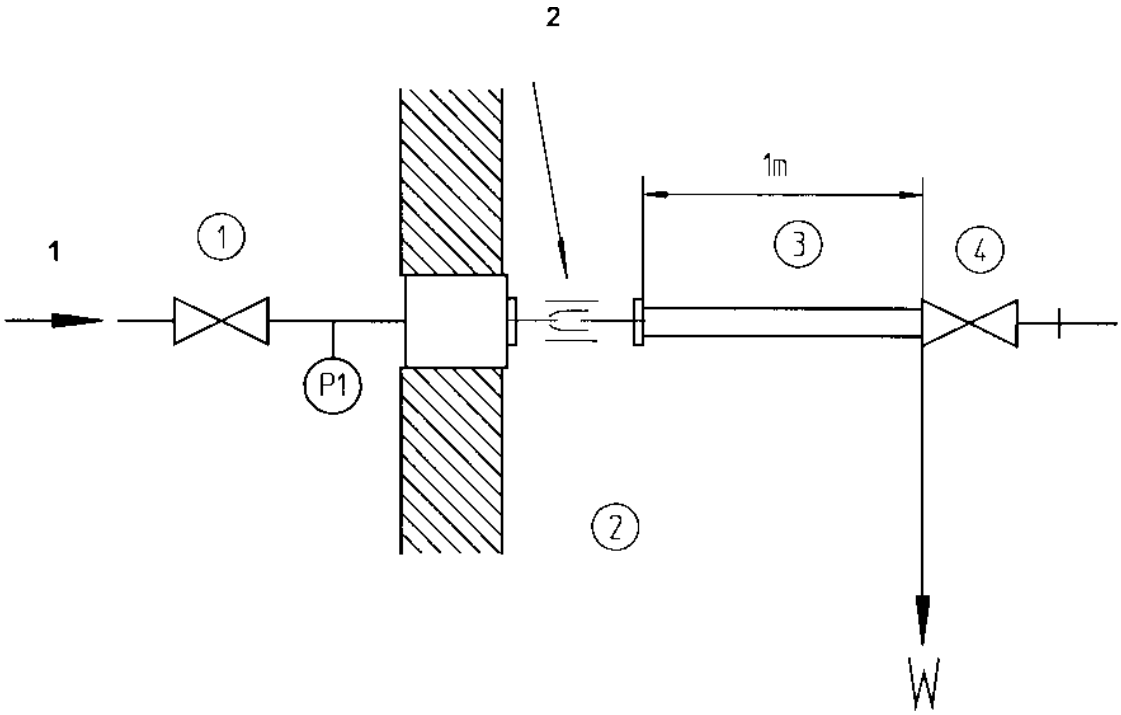
$F\ (N) = m\ (Kg) \times a\ (m/s^2)$

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

5. ACCEPTANCE CRITERIA

The test requirements shall be satisfied with the appropriate bending moment applied to the valve, as given in Table 1. There shall be no breakage of the body of the valve or leakage of the air inlets.

The valve shall also pass the vacuum test, as detailed in test code sheet 2212.14.



Key

1 Water supply
2 Test-specimen

Figure 1