TEST CODE SHEET

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1. TYPE OF TEST(S)

Deflection.

2. BYELAW REQUIREMENT FOR FITTINGS

Byelaw 42

Every float operated valve .....shall..... (e) have a float which - (I) is constructed of a material capable of withstanding without leaking any water temperature in which it operates or is likely to operate.....

Byelaw 52

Every water fitting shall be constructed of materials, the nature, the strength and the thickness of which .....will prevent, so far as is reasonably practicable, damage from.....(a) any external load; (b) stress..... (d)..... external temperature.....

3. BRITISH STANDARDS OR WATER SPECIFICATION, DEEMED TO SATISFY BYELAW REQUIREMENTS

(See Water Supply Byelaw Guide)

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

4. TEST PROCEDURE

Note Unless stated otherwise the temperature of the test fluid shall be 20 ± 10°C.

4.1 Tests applicable to the following fittings:-

FLOATS for float operated valves,
-all applications, plastics.

(A) FLOATS (PLASTIC) FOR FLOAT VALVES (Derived from BS 2456, Section 4., appendix D).

Deflection test. These fittings are not suitable for continuous use in contact with hot water and should be tested by the method specified below:

APPARATUS

The apparatus is illustrated in Figure 1. The following is required.

(i) A straight sided tank not less than 300mm deep internally and capable of containing hot water.

(ii) A means of heating the water and maintaining its temperature at 93 ± 5°C or 38 ± 5°C.

(iii) A substantial beam, fixed to the top of the tank with a guide bush.

(iv) A rod of at least 10mm diameter to slide within the bush.

(v) Rigid mountings for fixing to the rod and supporting:

(a) the float to be tested at the lower end of the rod, using the threaded boss as a means of attachment (standard spherical floats shall have their boss axis horizontal);

(b) a dial indicator gauge having its plunger touching the float and positioned so that it is directly above the centre of buoyancy of the float.

TEST METHOD

(1) Set up the float to be tested in accordance with setting-up procedure IGN 1-50-73 and as shown in Figure 1.

(2) Secure the clamping screw onto the vertical rod so that the float is almost entirely submerged and the tip of the dial indicator plunger is 12mm above the surface of the water.

(3) After a period of 5 mins ± 10 secs, set the dial gauge to zero.

(4) Heat the water in the vessel to a temperature of 93 ± 5°C, for grade H (red) or 30 ± 5°C for grade (blue) floats.

(5) Maintain the temperature for 120 ± 5 mins and then observe the deflection indicated by the dial gauge.

5. ACCEPTANCE CRITERIA

When tested by the method described above floats shall not deflect more than 7mm.

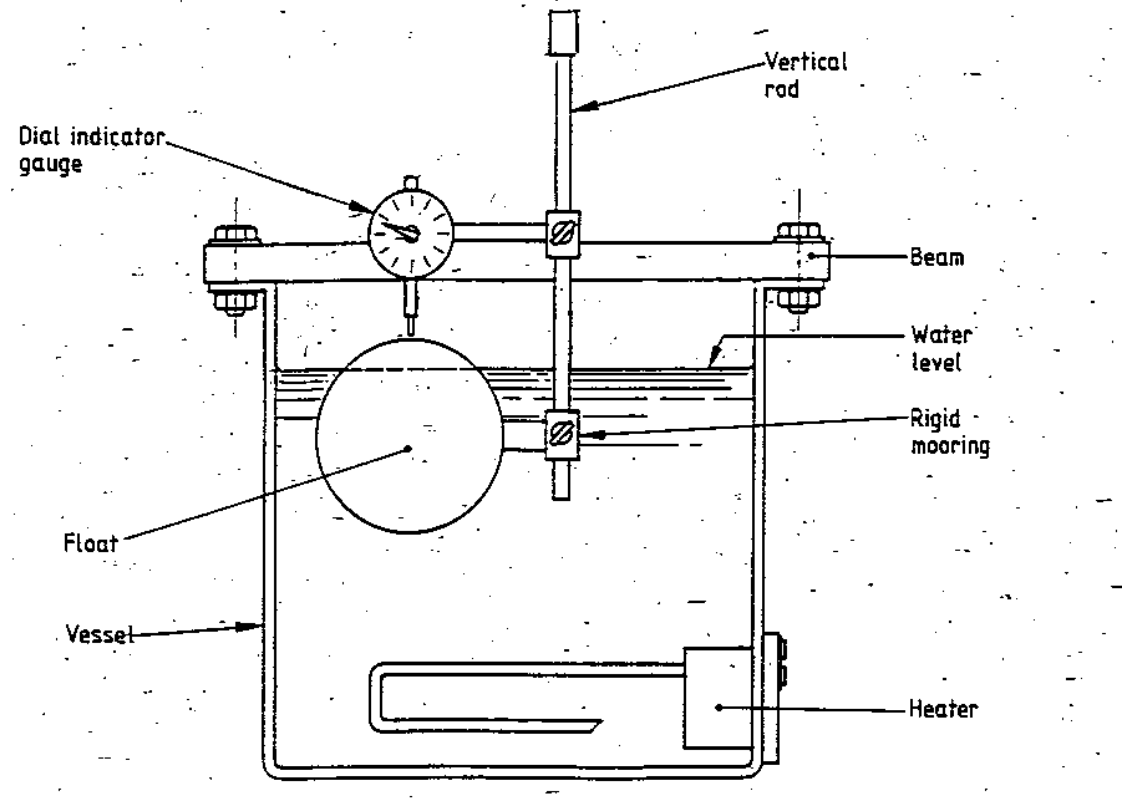

Figure 1. Deflection test rig