1988 No. 997

WEIGHTS AND MEASURES

The Measuring Equipment (Cold-water Meters) Regulations 1988

Made - - - -	*7th June 1988*
Laid before Parliament	*14th June 1988*
Coming into force -	*1st August 1988*

The Secretary of State, in exercise of the powers conferred on him by sections 11(1) and (4), 12(12), 15(1) and (2), 86(1) and 94(1) of the Weights and Measures Act 1985(a) and of all other powers enabling him in that behalf, hereby makes the following Regulations:–

Citation and commencement

1. These Regulations may be cited as the Measuring Equipment (Cold-water Meters) Regulations 1988 and shall come into force on 1st August 1988.

Interpretation

2. In these Regulations–

"the Act" means the Weights and Measures Act 1985;

"certificate of approval" means a certificate of approval of a pattern of cold-water meter granted or renewed by the Secretary of State under section 12 of the Act;

"certificate of EEC pattern approval" means a certificate of approval of a pattern of cold-water meter granted or renewed by a member State of the Economic Community in accordance with the Directive;

"cold-water meter" means an integrating measuring instrument for continuously determining the volume of water (and no other liquid) passing through it in the temperature range 0° to 30° Celsius, and which comprises a measuring device linked to an indicating device;

"the Directive" means Council Directive No. 75/33/EEC(b);

"manufacturer's mark" means a mark authorised by the Secretary of State on a meter to which these Regulations apply, which identifies all or any of the following:

(a) the manufacturer of the meter;

(b) the place and date of manufacture;

(c) the group of meters of which the meter forms part;

"mark of EEC initial verification" means the mark described in paragraph 5 of Schedule 1 to the Measuring Instruments (EEC Requirements) Regulations 1988(c);

"maximum flowrate (Qmax)" is the highest flowrate at which the meter can function over limited periods without damage, without exceeding the prescribed limits of error on passing as fit for use for trade and without exceeding the value for pressure loss stated in the certificate of approval or certificate of EEC pattern approval as the case may be;

(a) 1985 c.72: section 94(1) contains a definition of "prescribed".
(b) O.J. No. L14, 20.1.1975, p.1.
(c) S.I. 1988/186.

"minimum flowrate (Qmin)" is the flowrate fixed as a function of the nominal flowrate (Qn) and above which the meter does not exceed the prescribed limits of error on passing as fit for use for trade;

"nominal flowrate (Qn)" is the flowrate in cubic metres per hour which is used to designate the meter, being equal to half the maximum flowrate (Qmax);

"prescribed limits of error" has the meaning set out in regulation 10 below;

"quality system" means the organisation structure, responsibilities, activities, resources and events that together provide organised procedures and methods of implementation to ensure the capability of the organisation to meet quality requirements, such system having been assessed as meeting the requirements of BS 5750: Part 1: 1987(a) or BS 5750: Part 2: 1987(b) by an independent certification body accredited by the Secretary of State;

"the stamp" means the prescribed stamp(c);

"transitional flowrate (Qt)" is the flowrate fixed as a function of the nominal flowrate (Qn) and at which the prescribed limits of error on passing as fit for use for trade change from 2 per cent to 5 per cent; and

"verification scale" means the fastest-moving visible graduated element of the indicating device of a meter.

Application

3.—(1) These Regulations apply to measuring equipment installed–

(a) on or after 1st August 1988, where the equipment is installed compulsorily by or at the behest of the supplier of the water; and

(b) on or after 1st April 1989 in other cases,

for use for trade for measuring any supply of water for domestic purposes in England or Wales; and such equipment is hereby prescribed for the purposes of section 11(1) of the Act.

(2) In this regulation, "supply of water for domestic purposes" has the same meaning as in section 1(1) of the Third Schedule to the Water Act 1945(d); and a reference to a supplier of water is a reference to a water undertaker within the meaning of section 7(1) of the Public Utility Transfers and Water Charges Act 1988 (e).

(3) Nothing in these Regulations other than this regulation and regulation 4 below applies to cold-water meters bearing the mark of EEC initial verification.

Purpose of use

4. No person shall use for trade a cold-water meter to which these Regulations apply unless it is an appropriate meter for the installation in question having regard to the criteria in clause 2 of the British Standard Specification for the measurement of flow of cold potable water in closed conduits BS 5728: Part 2: 1980(f).

Principles of construction and marking

5.—(1) Measuring equipment to which these Regulations apply shall consist of a cold-water meter.

(2) Cold-water meters to which these Regulations apply shall either–

(a) be made in accordance with a certificate of EEC pattern approval; or

(b) be made in accordance with a certificate of approval and be legibly and durably marked with:–

(i) the number of the certificate of approval preceded by the words "Certification No." or "Cert. No.";

(ii) the name or trade name of the manufacturer or his trademark;

(a) ISBN 0 580 15943 4, published by the British Standards Institution on 29th May 1987.
(b) ISBN 0 580 15944 2, published by the British Standards Institution on 29th May 1987.
(c) *See* S.I. 1968/1615.
(d) 1945 c.42.
(e) 1988 c.15.
(f) ISBN 0 580 11253 5, published by the British Standards Institution on 30th April 1980, as amended in July 1986.

(iii) the metrological class and nominal flowrate (Qn) in cubic metres per hour;

(iv) the year of manufacture and individual serial number;

(v) one or more arrows showing the direction of flow;

(vi) the maximum operating pressure in bar, if this can exceed 10 bar;

(vii) the letter 'V' or 'H', if the meter can operate properly only in either the vertical (V) or horizontal (H) position;

and shall be provided with such sealing arrangements as may be authorised in relation to the pattern as set out in the certificate of approval.

Testing

6.—(1) Every cold-water meter submitted for testing shall be in a clean condition.

(2) Meters shall be tested by passing a volume of water through them which is sufficient to rotate the pointer or roller on the verification scale through one or more revolutions and thus to eliminate the effects of cyclic distortion.

(3) Subject to regulation 7 below, on testing with a view to passing as fit for use for trade each meter shall be tested at a minimum of three flowrates, using testing equipment or working standards–

(a) between 0.9 times the maximum flowrate (Qmax) and the maximum flowrate (Qmax);

(b) between the transitional flowrate (Qt) and 1.1 times the transitional flowrate (Qt); and

(c) between the minimum flowrate (Qmin) and 1.1 times the minimum flowrate (Qmin).

(4) On testing in relation to obliteration of the stamp or mark the inspector shall test the meter, as far as practicable, within the flowrate bands—

(a) one-quarter to one-half the nominal flowrate (Qn); and

(b) the transitional flowrate (Qt) to five times the transitional flowrate (Qt),

using testing equipment or working standards.

(5) For the purposes of the performance by an inspector of his functions under the Act or these Regulations relating to inspection, testing, passing as fit for use for trade and stamping of any cold-water meter, a person submitting such a meter to an inspector or who an inspector has reasonable cause to believe has possession of such equipment for use for trade shall, if requested, provide for the inspector such assistance as the inspector may reasonably require.

7.—(1) Where a group of cold-water meters of the same design, the same class, the same nominal flowrate (Qn), the same manufacture and with the manufacturer's mark on each is submitted for testing, and the conditions specified in paragraph (2) below are satisfied with respect to the group, the testing may, at the request of the submitter, be confined to a number of meters determined and selected as specified in paragraph (3) below.

(2) The conditions referred to in paragraph (1) above are–

(a) the group shall be clearly identifiable and shall consist of meters which exceed 150 but do not exceed 35,000 in number;

(b) the meters in the group shall all have been produced by the same production process, such production process being the subject of a quality system;

(c) the group shall be accompanied by records of the production process, of the testing of each meter and of any subsequent action taken by the manufacturer which are adequate to show that the meters in the group are likely to fall within the prescribed limits of error; and

(d) the equipment used to test meters in the group shall comply with clause 4.6 of BS 5750: Part 3: 1987 (a).

(3) The number of meters referred to in paragraph (1) above shall be determined and the meters shall be selected by sampling plans and procedures using samples which the inspector considers to be representative, in accordance with either–

(a) ISBN No. 0 580 15945 0, published by the British Standards Institution on 29th May 1987.

(a) BS 6001: Part 1: 1972 (a) which provides an acceptable quality level equal to 1 per cent; or

(b) BS 6001: Part 2: 1984 (b) which provides a limiting quality of 5 per cent.

In either case the sample of meters chosen shall be tested for attributes, including for limits of error, as set out in paragraphs (1) to (3) of regulation 6 above.

(4) If the sample selected as specified in paragraph (3) above satisfies the test, the other meters in the group shall be treated as having satisfied the test.

8.—(1) No cold-water meter to which these Regulations apply shall be passed as fit for use for trade unless–

(a) on testing

(i) it complies with all the appropriate requirements of these Regulations; and

(ii) it falls within the prescribed limits of error: Provided that, where the errors on all the quantities indicated by the meter during the tests are all errors in excess or all errors in deficiency then, notwithstanding that they are all within the prescribed limits of error, not all the errors shall exceed one-half of the prescribed limits of error;

(b) where it has not been tested, it forms part of a group of meters treated under regulation 7(4) above as having satisfied the test.

(2) Nothing in section 11(2) of the Act shall prohibit a meter, which has been passed as fit for use for trade and which bears the manufacturer's mark undefaced otherwise than by reason of fair wear and tear, from being used for trade, notwithstanding that it does not bear the stamp.

Stamping

9.—(1) The stamp shall be placed on every plug, seal or sealing device authorised in accordance with regulation 5.

(2) On first passing as fit for use for trade, no meter shall be stamped with the stamp if it bears a manufacturer's mark or any other mark which, in the opinion of the inspector, might reasonably be mistaken for the stamp or manufacturer's mark.

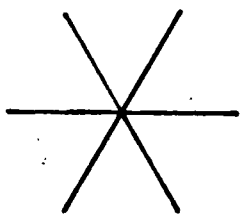
(3) On subsequent passing as fit for use for trade, no meter shall be stamped with the stamp if it bears any mark (other than the manufacturer's mark) which, in the opinion of the inspector, might reasonably be mistaken for the stamp or manufacturer's mark.

Prescribed limits of error

10. The prescribed limits of error relating to cold-water meters shall be those set out in the Schedule to these Regulations.

Obliteration of stamps and manufacturer's marks

11.—(1) The stamp or manufacturer's mark shall be obliterated by an inspector, in accordance with the requirements of this regulation, by means of punches or pincers of suitable sizes of a six-pointed star design as shown in the following illustration:



(a) ISBN No. 580 07081 6, published by the British Standards Institution on 30th March 1972, as amended in February 1984 and April 1986.

(b) ISBN No. 0580 13581 0, published by the British Standards Institution on 29th February 1984, as amended in April 1986.

(2) Where any cold-water meter–

(a) fails upon testing to fall within the prescribed limits of error (other than for loss of pressure); or

(b) fails to comply with any other appropriate requirement of these Regulations,

the inspector shall give to the proprietor or person in charge of the meter a notice calling on him to have the equipment corrected within a stated period not exceeding 28 days, and shall obliterate the stamp or manufacturer's mark if the correction has not been made within the stated period.

(3) An inspector shall obliterate the stamp or manufacturer's mark on any meter which has, since it was last stamped or marked, had any adjustment, alteration, addition, repair or replacement made to it such that it could not be passed as fit for use for trade under regulation 8 above.

(4) Where any meter has, since it was last stamped or marked, been the subject of any adjustment, alteration, addition, repair or replacement which could, in the opinion of the inspector, have affected its accuracy or function, he may obliterate the stamp or manufacturer's mark on that meter.

(5) In any case where an inspector obliterates the stamp or manufacturer's mark on a meter in accordance with the foregoing provisions of this regulation, he shall, within two working days of such obliteration, inform the proprietor or person in charge of the meter that the stamp or mark has been obliterated.

(6) In paragraph (5) above, the reference to two working days is a reference to a period of forty-eight hours calculated after disregarding any time falling on a Saturday or Sunday or on Christmas Day, Good Friday or any day which is a bank holiday in England and Wales under the Banking and Financial Dealings Act 1971(a).

John Butcher
Parliamentary Under-Secretary of State,
Department of Trade and Industry

7th June 1988

SCHEDULE

Regulation 10

PRESCRIBED LIMITS OF ERROR

Flowrate range	*Prescribed limits of error on passing as fit for use for trade*	*Prescribed limits of error in relation to the obliteration of the stamp or mark*
From the transitional flowrate (Qt) to the maximum flowrate (Qmax) inclusive.	2 per cent of quantity delivered, in excess or in deficiency.	2.5 per cent of quantity delivered, in excess or in deficiency.
From the minimum flowrate (Qmin) up to, but not including, the transitional flowrate (Qt).	5 per cent of quantity delivered, in excess or in deficiency.	6 per cent of quantity delivered, in excess or in deficiency.

(a) 1971 c.80.

EXPLANATORY NOTE

(This note is not part of the Regulations)

1. These Regulations apply to cold-water meters for use for trade in the measuring of any supply of water for domestic purposes in England and Wales. The Regulations only apply to those meters installed on or after 1st August 1988, and prescribe such meters for the purposes of section 11(1) of the Weights and Measures Act 1985. The effect of prescription is to make it unlawful to use these meters for trade unless they have been tested, passed as fit for such use and either marked by the manufacturer in accordance with the Regulations or stamped by an inspector of weights and measures. These requirements of prescription are also satisfied by a cold-water meter complying with Council Directive No 75/33/EEC and bearing the sign of EEC pattern approval and mark of EEC initial verification.

2. The Regulations make provision for:–

(a) the installation of appropriate meters (regulation 4);

(b) the principles of construction of meters, namely a requirement for pattern approval either in accordance with Council Directive No 75/33/EEC or to satisfy the Secretary of State as to a pattern's suitability for use for trade (regulation 5);

(c) the marking of meters when made in accordance with a certificate of approval (regulation 5);

(d) their testing, including testing based on the results of testing a sample from a group of meters where these have been tested by the manufacturer and marked with a manufacturer's mark (regulations 6 and 7); and

(e) passing as fit for use for trade, stamping (where no manufacturer's mark has been placed on the meters), prescribed limits of error and obliteration of stamps and manufacturer's marks (regulations 7 to 11).

3. Copies of British Standards (see regulations 2, 4 and 7) can be obtained from any of the sales outlets operated by the British Standards Institution (BSI) or by post from the BSI at Linford Wood, Milton Keynes, MK14 6LE.

ISBN 0-11-086997-4

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£1.55

Reprinted 1996

Printed in the United Kingdom for HMSO

DTI WO120 C1 3/96 1731/1 50423 O/N 341630