

Specification for

Mixing valves —

**Part 1: Non-thermostatic,
non-compensating mixing valves**

UDC 621.646.7:644.6:696.117

Cooperating organizations

The Sanitary Appliances Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations.

British Bath Manufacturers' Association*	Institution of Public Health Engineers
British Plastics Federation*	Metal Sink Manufacturers' Association
Council of British Ceramic Sanitaryware Manufacturers*	Ministry of Defence
Department of the Environment*	National Brassfoundry Association*
Environmental Health Officers Association	National Federation of Builders' and Plumbers' Merchants*
Greater London Council*	National Water Council*
Institute of Plumbing*	Royal Institute of British Architects
Institution of Heating and Ventilating Engineers*	Royal Institute of Public Health and Hygiene
Institution of Municipal Engineers*	Royal Society of Health*
	Water Companies Association*

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard.

Association of Manufacturers of Domestic Electrical Appliances	Heating and Ventilating Contractors' Association
British Gas Corporation	Institute of British Foundrymen
British Non-Ferrous Metals Technology Centre	Institution of Gas Engineers
British Valve Manufacturers' Association	Institution of Production Engineers
Copper Ball Manufacturers' Association	Institution of Water Engineers and Scientists
Copper Development Association	National Association of Plumbing, Heating and Mechanical Services Contractors
Copper Tube Fittings Manufacturers' Association	Society of British Gas Industries
Department of the Environment, Building Research Establishment	South London Consortium
Department of Prices and Consumer Protection	Thames Water Authority — Metropolitan Water Division Individual experts

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Foreword

This revised British Standard has been prepared under the authority of the Sanitary Appliances Standards Committee. The purpose of the standard is to provide basic requirements to ensure that the mixing valves operate satisfactorily and to provide certain essential safeguards in their use. This Part of BS 1415 deals only with mixing valves of the manually operated type. Mixing valves of the automatic compensating or thermostatic type will be dealt with in subsequent Parts. Combined taps are dealt with in BS 1010.

It is emphasized particularly that mixing valves of the type described in this Part of this British Standard shall be installed in such a manner that both hot and cold supplies are from storage, or from a common source on balanced pressures. This is essential in order to comply with Byelaw 47 of the Model Water Byelaws (1966 edition) and Byelaw 51 of the Model Water Byelaws (Scotland) (1967 edition). Furthermore, unless both the hot and cold waters are supplied at equalized pressures, satisfactory operation may be impracticable and there may be some risk of scalding.

Where the valve does not incorporate a shut-off facility, it is essential that the Water Authority shall be consulted as to its requirements for the prevention of cross flow.

The hot or cold water circuit should be designed so that its supply to other apparatus does not reduce appreciably the pressure and volume available at the inlets of the mixing valve.

Terminal fittings fed by the mixing valve, e.g. shower rose or nozzle, have an important effect upon the performance of the installation and will usually govern the size of mixing valve to be used. Purchasers are advised to provide manufacturers with the fullest information regarding the operating conditions so that the most appropriate designs may be offered for any particular application.

Attention is drawn to the recommendations of the following British Standard codes of practice:

- a) clause **320 a)** of CP 310:1965 which states that the connection of the feed pipe (or the cistern) to the cylinder should be not less than 12 mm ($\frac{1}{2}$ in) higher than the connection for the cold water draw-off pipe, and
- b) clause **3** of CP 342-1:1970, which recommends that, in general, the temperature of the stored water should not exceed 65 °C and that a stored water temperature of 60 °C is considered sufficient to meet all normal requirements.

In specifying the minimum flow rates for mixing valves, cognizance has been taken of the fact that:

- 1) the water pressure available at the inlets of the valve will vary from installation to installation,
- 2) the hydraulic properties of shower heads vary, and
- 3) the rate of discharge from a shower fitting which is considered satisfactory depends upon the individual requirements.

Three categories of minimum flow rates for each size of mixing valve are specified so that the purchaser can select the valve most appropriate to his needs and the conditions of installation.

Values given in Table 1 and Table 2 are flow requirements against a set pressure when tested in the manner shown in Figure 1, and do not indicate the quantity of water which may issue from a spray head attachment when in use.

This standard has been revised in metric terms, except that pipe thread designations are in accordance with BS 2779.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

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This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.