

Valves for waterworks purposes —

Part 1: Predominantly key-operated cast iron gate valves — Code of practice

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Committees responsible for this British Standard

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- British Chemical Engineering Contractors Association
- BVAA — British Valve and Actuator Association
- CMF — Cast Metals Federation
- Ductile Iron Producers Association
- Energy Industries Council
- Institution of Mechanical Engineers
- Pipeline Industries Guild
- Society of British Water Industries
- Water UK

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Foreword

This part of BS 5163 has been prepared under the direction of PSE/7 to facilitate the application of BS EN 1074-1:2000 and BS EN 1074-2:2000. Along with BS 5163-2:2004, BS EN 1074-1:2000 and BS EN 1074-2:2000, this part of BS 5163 supersedes BS 5163:1986, which is withdrawn.

This standard provides guidance on certain aspects of valve selection and operation that will permit the integration of new gate valve products into water distribution networks within the UK with the minimum of physical impact and operating costs. A number of aspects of valve construction considered essential for consistency of operation are provided in this code of practice that are not detailed within BS EN 1074-1:2000 or BS EN 1074-2:2000. Guidance is also provided in this code of practice as to those aspects that might affect operating costs and thus have an impact on selection of appropriate gate valves for UK distribution networks.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

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1 Scope

This part of BS 5163 gives guidance on selection, including reference to preferred features and operation, of cast iron gate valves, complying with BS EN 1074-1 and BS EN 1074-2, with flanged ends, that are ring key and bar operated. These valves are primarily for underground use for waterworks purposes and primarily for use with water intended for human consumption in the United Kingdom.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 5163-2, *Gate valves for waterworks purposes — Part 2: Stem caps for use on isolating valves and hydrants in pipelines carrying water for human consumption — Specification.*

BS 6920-1, *Suitability of non-metallic products for use in constant contact with water intended for human consumption with regard to their effect on the quality of water — Part 1: Specification.*

BS EN 558-1:1996, *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — Part 1: PN-designated valves.*

BS EN 681-1:1996, *Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber.*

BS EN 736-2, *Valves — Terminology — Part 2: Definition of components of valves.*

BS EN 736-3, *Valves — Terminology — Part 3: Definition of terms.*

BS EN 1074-1, *Valves for water supply — Fitness for purpose requirements and appropriate verification tests — Part 1: General requirements.*

BS EN 1074-2, *Valves for water supply — Fitness for purpose requirements and appropriate verification tests — Part 2: Isolating valves.*

BS EN 1092-2, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 2: Cast iron flanges.*

BS EN 1503-3, *Valves — Materials for bodies, bonnets and covers — Part 3: Cast irons specified in European Standards.*

BS EN 1982:1999, *Copper and copper alloys — Ingots and castings.*

BS EN ISO 5210, *Industrial valves — Multi-turn valve actuator attachments.*

WRc. WIS-4-52-01, *Polymeric anti-corrosion (barrier) coatings. 1992. (www.webookshop.com)*

GREAT BRITAIN. Water Supply (Water Quality) Regulations 2000. London: The Stationery Office.

GREAT BRITAIN. Water Supply (Water Quality) (Scotland) Regulations 2001. London: The Stationery Office.

NOTE In the event of the regulations being revised, the latest version should apply, but care is advised as regulation numbering might change.

3 Terms and definitions

For the purposes of this part of BS 5163, the following terms and definitions apply.

3.1

stem cap

device to enable valves of different sizes and stem configurations to be operated by standard operating keys

NOTE 1 A stem cap is an operating element. See also BS EN 736-2.

NOTE 2 The socket end of operating keys should be dimensionally in accordance with BS 336 up to DN 300.