

Specification for

Cast iron and carbon steel ball valves for general purposes

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Institute of British Foundrymen	Water Companies' Association
Institute of quality Assurance	Individual experts from manufacturing companies

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Foreword

This standard is one of a series of new and revised standards in metric units for general purpose valves prepared under the authority of the Mechanical Engineering Industry Standards Committee.

There are no International or European standards in this field but account has been taken of all relevant proposals under consideration in the ISO Technical Committee and CEN¹⁾ Working Group concerned with general purpose valves.

For flanged valves the standard is based on the use of flanges complying with the requirements of BS 4504 “*Flanges and bolting for pipes, valves and fittings. Metric series*”, but, by the use of Appendix A, the appropriate modifications can be made when using ANSI Class 125 cast iron or ANSI Class 150, Class 300, Class 400 and Class 600 carbon steel flanges.

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.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 14, an inside back cover and a back cover.

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.

¹⁾ European Committee for Standardization.

Section 1. General

1 Scope

This British Standard specifies requirements for cast iron and carbon steel straightway ball valves for general purposes.

It covers valves of nominal pressure (PN) designations of 10 bar²⁾ to 100 bar, with ends flanged in accordance with the appropriate tables of BS 4504 for nominal sizes (DN) 10 to 600, or with internal screw threads in accordance with BS 21 (ISO/R 7) for nominal sizes $\frac{1}{4}$ to 4. However, when valves are required for use in ANSI (BS 1560) flanged systems, reference should be made to clause 33 and Appendix A.

Where there is an appropriate application standard or code of practice, it is the responsibility of the purchaser to ensure that its requirements are complied with; for example, attention is drawn to BS 806 and BS 759.

No provision is made in this standard for requirements for “fire-safe” valves or for protection against electrostatic build-up. Any requirements of the purchaser should be stated in the enquiry and agreed with the manufacturer.

2 References

The titles of the British Standards and international publications referred to in this standard are listed on the inside back cover.

3 Terminology and definitions

For the purposes of this British Standard, the terminology and definitions given in BS 2591-5 are generally applicable. The following definition applies to flanged valves:

face-to-face dimension

the distance between the two planes perpendicular to the body axis located at the extremities of the body end ports

4 Patterns

Valves may be “full bore” or “reduced bore” (see Figure 1) or short or long pattern. (It should be noted that in certain large PN 10 and PN 16 short pattern flanged valves, the ball in the closed position may protrude beyond the end of the flanged faces.)

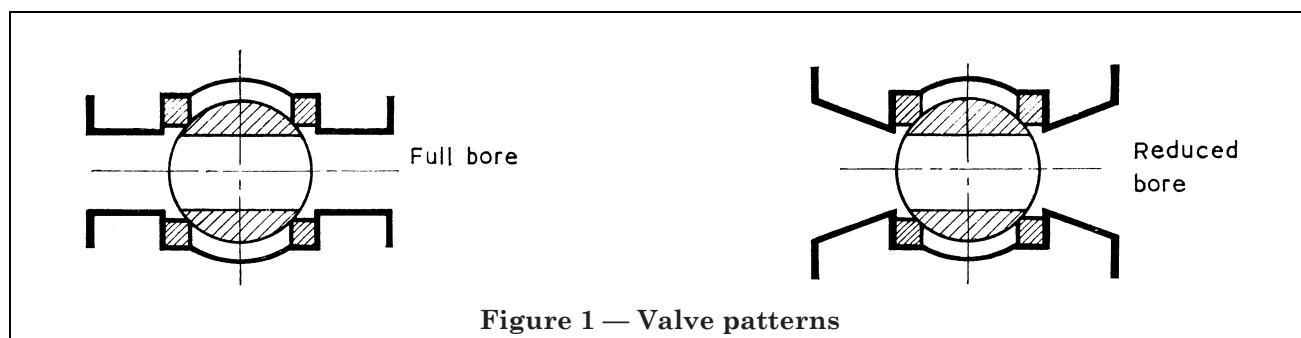


Figure 1 — Valve patterns

5 Nominal sizes

5.1 For flanged ends the nominal sizes (DN) shall be as follows:

10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600.

5.2 For screwed ends the nominal sizes shall be as follows:

$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$, 2, $2\frac{1}{2}$, 3, 4.

²⁾ 1 bar = 10^5 N/m² = 10² kPa.