Australian Standard™

Gate valves for waterworks purposes

Part 1: Metal seated

Standards Australia

This Australian Standard was prepared by Committee WS-022, Valves for Water Supply Purposes. It was approved on behalf of the Council of Standards Australia on 21 August, 2002 and published on 6 September 2002.

The following are represented on Committee WS-022:

Association of Consulting Engineers Australia

AusPoly

Australian Chamber of Commerce and Industry

Australian Industry Group

Australian Valve Manufacturers Association

Business New Zealand

Certification Bodies (Australia)

Department of Contract and Management Services WA

Local Government New Zealand

Master Plumbers Australia

New Zealand Metal Casting Industry Association

New Zealand Water and Waste Association

Society of Mechanical Engineers of Australasia

Water Industry Alliance

Water Services Association of Australia

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/New Zealand Committee WS-022, Valves for Water Supply Purposes, to supersede AS 2638.1—1999, *Sluice valves for water works purposes—Metal seated*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify requirements for Class 16 and Class 35 metal-bodied gate valves for waterworks purposes.

This revision includes the following changes:

(a) Incorporation of gate valves intended for above ground use in both non rising and rising spindle designs.

(b) Rationalization to Class 16 and Class 35.

(c) Amendment of face to face dimensions for Class 16 flanged-gate valves to coincide with ISO Standards and align with AS 2638.2.

(d) Inclusion of DN 350, DN 400, DN 700, DN 800 and DN 900 sizes.

(e) Changes to spindle seal retainer requirements.

(f) Inclusion of a type test for strength of spindle caps and spindle extensions.

(g) Revision of test duration. (For product certification purposes for a product that has been certified to AS/NZS 2638.1—1999, it is not required to repeat corresponding type tests within this Standard, except in the case of a design change).

(h) Adoption of water industry standard maximum operating temperature of 40°C for water supply.

(i) Specifying scaling factors to be applied when testing to AS/NZS 4020.

Attention is drawn to the proposed publication of SAI/SNZ Rul PL/2, Rulings to the Joint Australia/New Zealand Standard, Gate valves for waterworks purposes. Where rulings of public significance are issued they will be available from Standards Australia through a subscription service. When rulings are included in an amendment or revision, the specific ruling will be withdrawn at the time of publication of the amendment. Enquiries should be directed to Standards Australia.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Support and contribution is acknowledged from the Water Services Association of Australia (WSAA).

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for Class 16 and Class 35 solid gate metal-bodied metal-seated gate valves for waterworks purposes, with a maximum operating temperature of 40°C. This Standard is applicable to the following versions

(a) Valves of nominal sizes DN 80 to DN 900 with inside screw and non-rising spindle design, operated by a removable key, with or without a gearbox, for buried applications.

(b) Valves of nominal size DN 80 to DN 900 with inside screw and non-rising spindle design, operated by a handwheel, with or without a gearbox, for above-ground applications.

(c) Valves of nominal size DN 80 to DN 300 with outside screw and rising spindle design, operated by a handwheel, for above-ground applications where the position of the gate is required to be visible.

The design criteria of the valve and fasteners should be based on a minimum life expectancy of 50 years.

Means for demonstrating compliance with this Standard are given in Appendix A

NOTE: Purchasing guidelines are given in Appendix B.

1.2 REFERENCED DOCUMENTS

The documents referred to in this Standard are listed in Appendix C

1.3 DEFINITIONS

For the purposes of this Standard, the definitions below apply.

1.3.1 Allowable operating pressure

The allowable internal pressure, excluding surge, that a component can safely withstand in service.

1.3.2 Allowable test pressure

The maximum internal hydrostatic pressure that can be applied on site to a component in a newly installed pipeline.

1.3.3 Bulkhead test

A test where the testing machine provides external restraint to make a watertight joint at each end of the valve.

1.3.4 Class

The allowable operating pressure of the valve expressed in hundreds of kilopascals.

