

Australian/New Zealand Standard™

**Gate valves for waterworks purposes**

**Part 1: Metal seated**



## **AS/NZS 2638.1:2011**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee WS-022, Valves for Water Supply Purposes. It was approved on behalf of the Council of Standards Australia on 22 March 2011 and on behalf of the Council of Standards New Zealand on 13 May 2011.  
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The following are represented on Committee WS-022:

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Australian Industry Group  
Australian Stainless Steel Development Association  
Australian Water Association  
Engineers Australia  
Institute of Instrumentation, Control and Automation Australia  
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## Gate valves for waterworks purposes

### Part 1: Metal seated

Originated in Australia as part of AS 2638—1983.  
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Jointly revised and designated AS/NZS 2638.1:2011.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/New Zealand Committee WS-022, Valves for Water Supply Purposes, to supersede AS 2638.1—2002.

*This Standard incorporates Amendment No. 1 (August 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

A1 | The objective of this Standard is to specify requirements for PN 16 and PN 35 metal-bodied gate valves for waterworks purposes.

This revision includes the following changes:

- (a) Incorporation of integral bypass arrangements for sizes DN 450 to DN 900.
- (b) Alignment with AS 2638.2 terminologies.
- (c) Inclusion of alternative materials.
- (d) A statement that gate valves are not designed for throttling purposes.
- (e) The thread standard has been changed to DIN 103 or ASME B1.5 as B202 has been withdrawn. Trapezoidal threads are recognized as an equivalent to ACME threads.

Statements expressed in mandatory terms in notes to 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.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard**  
**Gate valves for waterworks purposes**

**Part 1: Metal seated**

SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements for PN 16 and PN 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.
- (d) Valves of nominal sizes DN 450 to DN 900 with an integral bypass arrangement.

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

**1.2 APPLICATION**

- A1 | Means for demonstrating conformity with this Standard shall be in accordance with Appendix A.

**1.3 NORMATIVE REFERENCES**

The following are the normative documents referenced in this Standard.

## AS

1111	ISO metric hexagon commercial bolts and screws
1111.1	Part 1: Product grade C—Bolts
1111.2	Part 2: Product grade C—Screws
1442	Carbon steels and carbon-manganese steels—Hot rolled bars and semi-finished products
1565	Copper and copper alloys—Ingots and castings
1646	Elastomeric seals for waterworks purposes
1683	Methods of test for elastomers
1683.15.1	Part 15.1: International rubber hardness
1831	Ductile cast iron