AS 5830.1—2012

Australian Standard®

In-line ball valves for use in plumbing water supply systems

Part 1: Metal-bodied

This Australian Standard® was prepared by Committee WS-022, Valves for Waterworks Purposes. It was approved on behalf of the Council of Standards Australia on 3 February 2012.
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The following are represented on Committee WS-022:

- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Stainless Steel Development Association
- Australian Water Association
- Engineers Australia
- Institute of Instrumentation, Control and Automation Australia
- Master Plumbers Australia
- Plastics Industry Pipe Association of Australia
- Plumbing Products Industry Group
- Water Corporation Western Australia
- Water Industry Alliance
- Water New Zealand
- Water Services Association of Australia

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Part 1: Metal-bodied

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS-022, Valves for Waterworks Purposes, to supersede in part ATS 5200.012—2005, *Technical Specification for plumbing and drainage products* Part 012: *In-line valves for use in plumbing water supply systems—Miscellaneous types metallic and non-metallic*.

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 provide suitable materials and performance tests for metal-bodied ball valves used in plumbing water supply systems together with compliance requirements for the use of manufacturers and conformity assessment bodies.

Many of the requirements within this Standard are taken from AS 4617, *Manual shut off gas valves*, due to safety and performance requirements being applicable to this Standard.

While it was recognized that three-piece ball valves are manufactured for a range of industrial applications, it was decided that, for the purposes of plumbing water supply systems, three-piece ball valves would not be addressed until it could be demonstrated that such valves were appropriate for plumbing water supply systems and there were relevant fully documented design, manufacturing, performance and testing requirements available.

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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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements for DN 6 to DN 100 one-piece and two-piece metal-bodied in-line ball valves for use in plumbing water supply systems, which includes, but is not limited to, 2 way and 3 way valves.

The valves are designed for non-buried installations operating at temperatures up to 65°C or greater, as specified by the manufacturer.

NOTES:

1 Purchasing guidelines are given in Appendix B.

2 The requirements for end of line 'ball' taps are set out in AS/NZS 3718.

3 The requirements for valves for connection of property services are set out in AS 4796.

1.2 DEMONSTRATION OF COMPLIANCE

Appendix A sets out the means by which compliance with this Standard shall be demonstrated by a manufacturer for the purpose of product certification.

1.3 NORMATIVE REFERENCES

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS

681 Elastomeric seals—Material requirements for pipe joint seals used in water and drainage applications

681.1 Part 1: Vulcanized rubber

1432 Copper tubes for plumbing, gasfitting and drainage applications

1565 Copper and copper alloys—Ingots and castings

1572 Copper and copper alloys—Seamless tubes for engineering purposes

1646 Elastomeric seals for waterworks purposes

1831 Ductile cast iron

2129 Flanges for pipes, valves and fittings

2136 Method for detecting the susceptibility of copper and its alloys to stress corrosion cracking using the mercurous nitrate test

2345 Dezincification resistance of copper alloys

2738 Copper and copper alloys—Compositions and designations of refinery products, wrought products, ingots and castings

3688 Water supply—Metallic fittings and end connectors

