AS 1357.1:2019

Australian STANDARD®

Valves primarily for use in heated water systems

Part 1: Protection valves

STANDARDS Australia

AS 1357.1:2019

This Australian Standard® was prepared by WS-026, Valves primarily for use in Warm and Hot Water Systems. It was approved on behalf of the Council of Standards Australia on 10 December 2019.

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The following are represented on Committee WS-026:

Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Industry Group
Gas Appliance Manufacturers Association of Australia
Institute of Healthcare Engineering
Master Plumbers Association of NSW
Master Plumbers Australia
Plumbing Products Industry Group

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Part 1: Protection valves

Originated as AS B271—1968.
Revised and redesignated as AS 1357—1972.
Revised in part and redesignated as AS 1357.1—1988.
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Fifth edition 2019.

Preface

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee WS-026, Valves Primarily for Use in Warm and Hot Water Systems, to supersede AS 1357.1—2009, *Valves for use in heated water systems, Part 1: Protection valves*.

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 manufacturers with design, materials and performance requirements for the protection of valves.

Other Standards covering heated water system valves include the following:

AS 1357.2, *Valves primarily for use in heated water systems, Part 2: Control valves*

AS 4032.1, *Water supply — Valves for the control of heated water supply temperatures, Part 1: Thermostatic mixing valves — Materials design and performance requirements*

AS 4032.2, *Water supply — Valves for the control of heated water supply temperatures, Part 2: Tempering valves and end-of-line temperature-actuated devices*

AS 4032.3, *Water supply — Valves for the control of heated water supply temperatures, Part 3: Requirements for field testing, maintenance or replacement of thermostatic mixing valves, tempering valves and end-of-line temperature control devices*

AS 4032.4, *Water supply — Valves for the control of heated water supply temperatures, Part 4: Thermostatically controlled taps for the control of heated water supply temperatures*

The terms “normative” and “informative” are used in Standards 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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Australian Standard®

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Part 1: Protection valves

Section 1 Scope and general

1.1 Scope and application

1.1.1 Scope

This Standard sets out requirements for the design, construction, testing and performance of the following types of valves, within the range of DN 15 to DN 50:

(a) Temperature/pressure-relief valves.

(b) Expansion-control valves.

(c) Non-return valves.

(d) Temperature-relief valves.

(e) Combination high-pressure expansion non-return valves (HPNR).

(f) Leak-protection devices.

The valves specified in this Standard are primarily intended for use in warm and hot water systems that are required to operate at —

(i) continuous operating temperatures not exceeding 85 °C;

(ii) temperatures under emergency conditions, not exceeding 99 °C; and

(iii) continuous working pressure not exceeding 1400 kPa.

NOTE For valves used with water heaters that are intended to operate at temperatures above 99 °C (e.g. hot water boilers), see AS 1271.

1.1.2 Application

Means for demonstrating conformance to this Standard shall be as specified in Appendix A.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

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

AS 1349, *Bourdon tube pressure and vacuum gauges*

AS 1432, *Copper tubes for plumbing, gasfitting and drainage applications*

AS 1565, *Copper and copper alloys — Ingots and castings*

AS 1572, *Copper and copper alloys — Seamless tubes for engineering purposes*

AS 1722.2, *Pipe threads of Whitworth form, Part 2: Fastening pipe threads*

AS 1834.1, *Material for soldering, Part 1: Solder alloys*