WMTS-105:2016
Appliances
– Beverage dispensers and icemakers

WaterMark Technical Specification

2016

ABCB

WMTS-105:2016

Appliances – Beverage dispensers and icemakers

WaterMark Technical Specification

Document formerly known as:-

ATS 5200.105 – 2005 Technical Specification for Plumbing and Drainage Products
Appliances – Beverage dispensers and icemakers

Publication History:-

First published as ATS 5200.105—2005.
Revised and redesignated as WMTS-105:2016.

2016

IMPORTANT NOTICE AND DISCLAIMER

On 25 February 2013 management and administration of the WaterMark Certification Scheme transferred to the Australian Building Codes Board (ABCB). From this date all new technical specifications will be named WaterMark Technical Specifications (WMTS). Within two years all existing ATS will be renamed WMTS. During this initial period both terms may be used and accepted. All new and recertified Certificates of Conformity will reference WMTS. Certificates of Conformity that currently reference ATS will be re-issued referencing the equivalent WMTS during this initial period. The WaterMark Schedule of Specifications lists all current WMTS and, where appropriate, the former ATS name.

This Technical Specification supersedes Standards Australia ATS 5200.105 – 2005.

The rebranding of this Technical Specification has included additional information about the transition as well as changes to specific details including replacing references to Standards Australia and the National Plumbing Regulators Forum (NPRF) with the ABCB, changing the term Australian Technical Specification (ATS) to WaterMark Technical Specification (WMTS), replacing references to technical committees WS-014 and WS-031 with the WaterMark Technical Advisory Committee (WMTAC).

While the ABCB, the participating Governments and other groups or individuals who have endorsed or been involved in the development of the WMTS, have made every effort to ensure the information contained in this document is accurate and up to date, such information does in no way constitute the provision of professional advice.

The ABCB gives no warranty or guarantee and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this document.

Users should seek appropriate independent professional advice prior to relying on, or entering into any commitment based on material in this document in relation to plumbing or related activities. Its interpretation in no way overrides the approvals processes in any jurisdiction.

The ABCB welcomes suggestions for improvement in the WMTS, and encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact the ABCB via phone on 1300 134 631, email at watermark@abcb.gov.au or write to the WaterMark Administering Body, ABCB, GPO Box 9839, Canberra ACT 2601.

PREFACE

WaterMark Technical Specification WMTS-105: 2016 Technical Specification for plumbing and drainage products, Appliances – Beverage dispensers and icemakers was originally prepared by the Joint Standards Australia/Standards New Zealand Committee WS-031, Technical Procedures for Plumbing and Drainage Products Certification.

The objective of this Technical Specification is to enable product certification in accordance with the requirements of the Plumbing Code of Australia (PCA).

The word 'VOID' set against a clause indicates that the clause is not used in this Technical Specification. The inclusion of this word allows a common use clause numbering system for the WaterMark Technical Specifications.

The term 'normative' has been used in this Technical Specification to define the application of the appendices to which they apply. A 'normative' appendix is an integral part of a Technical Specification.

The test protocol and information in this Technical Specification was arranged by committee members to meet the authorization requirements given in the PCA.

The WaterMark Schedule of Specifications and List of Exempt Products are dynamic lists and change on a regular basis. Based on this function, these lists have been removed from the WaterMark Certification Scheme document known as Technical Specification for Plumbing and Drainage Products and are now located on the ABCB website (www.abcb.gov.au). These lists will be version controlled with appropriate historic references.

ACKNOWLEDGEMENTS

Australian Technical Specification ATS 5200.105 – 2005, on which this technical specification is based, was prepared by Standards Australia Committee WS-031, Technical Procedures for Plumbing and Drainage Products Certification. It was approved on behalf of the Council of Standards Australia on 14 December 2004.

The following organisations were represented on Committee WS-031 in the preparation of Australian Technical Specification ATS 5200.105 – 2005.

- AUSTAP
- Australian Electrical and Electronic Manufacturers Association
- Australian Industry Group
- CSIRO Manufacturing and Infrastructure Technology
- Certification Interests (Australia)
- Consumer Electronics Suppliers Association
- Copper Development Centre—Australia
- Gas Appliances and Services Association
- Master Plumbers Australia
- Master Plumbers and Mechanical Services Association of Australia
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- National Fire Industry Association
- New Zealand Water and Waste Association
- Plastics Industry Pipe Association of Australia
- Plumbing Industry Commission
- South Australian Water Corporation
- Water Services Association of Australia

TABLE OF CONTENTS

1 SCOPE

This Technical Specification sets out minimum product requirements for the connection of appliances to the water service or sanitary plumbing piping.

Appliances typically covered by this Technical Specification are the following:

(a) Drink dispensing machines and equipment.

(b) Drinking fountains.

(c) Ice makers.

2 APPLICATION

Appliances covered by this Technical Specification shall be those intended to directly supply drinking water or derivatives.

This Technical Specification will be referenced on the WaterMark Certification Scheme Schedule of Specifications.

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

3 REFERENCED DOCUMENTS

The following documents are referred to in this Specification:

AS

1228 Pressure equipment—Boilers

1589 Copper and copper alloy waste fittings

2845 Water supply—Backflow prevention devices

2845.2 Part 2: Air gaps and break tanks

AS/NZS

2845 Water supply—Backflow prevention devices

2845.1 Part 1: Materials, design and performance requirements

3499 Flexible tube connectors for water supply

3500 Plumbing and drainage

3500.0 Part 0: Glossary of terms

3500.1 Part 1: Water supply

4020 Testing of products in contact with drinking water

IEC

61770 Electric appliances connected to the water mains—Avoidance of back siphonage and failure of hose-sets

SA(SANZ)

HB 18.28 Guidelines third-party certification and accreditation—Guide 28—General rules for a model third-party certification system for products

4 DEFINITIONS

For the purpose of this Technical Specification, the definitions given in AS/NZS 3500.0 apply.

5 VOID

6 MARKING

Each appliance shall be permanently and legibly marked with the following:

(a) Manufacturer's name, brand or trademark.

(b) WaterMark.

(c) Licence number.

(d) Where appliances incorporate an integral backflow prevention device complying with AS/NZS 3500.1, as follows:

(i) This appliance incorporates backflow protection complying with AS/NZS 3500.1.

(ii) No further backflow protection required for connection to the water supply.

(e) The number of this Technical Specification, i.e., WMTS-105.

7 VOID

8 DESIGN

8.1 End connectors

Water service connections shall be capable of making a watertight seal to a fitting end connection complying with AS 3688.

Sanitary plumbing connections shall be capable of making a watertight connection to a waste fitting complying with AS 1589, AS 2887, a sanitary plumbing pipe or fitting complying with AS/NZS 1260.

8.2 Backflow prevention

Appliances shall—

(a) comply with the backflow prevention requirements IEC 61770;

(b) comply with the backsiphonage test of AS 2845.2; or

(c) be supplied with a backflow prevention device complying with AS/NZS 2845.1 and of a type required in AS/NZS 3500.1.

Where backflow prevention devices are required to be installed external to the appliance or apparatus, the devices shall be supplied with the appliance and include appropriate installation instructions.

8.3 Water seal

If an appliance has an integral waste trap, the water seal shall comply with AS 1589 or AS 2887 and perform in accordance with AS/NZS 3500.1.

8.4 Structural integrity (unvented pressure vessel)

The manufacturer shall demonstrate the structural integrity of all unvented pressure vessels and associated piping.

8.5 Integral components or accessories

Where the appliance incorporates integral plumbing accessories or components, they shall comply with the relevant Australian Standards.

9 PERFORMANCE REQUIREMENTS AND TEST METHODS

9.1 Products in contact with drinking water

Products in contact with drinking water shall comply with AS/NZS 4020. Products shall be tested as end of line devices.

9.2 Hose sets

Hoses shall comply with AS/NZS 3499 or IEC 61770.

9.3 Strength of assembly

When tested at twice the maximum working pressure and at the maximum working temperature the assembly shall not leak.

10 VOID

11 PRODUCT DOCUMENTATION

11.1 Product data

Product data, which identifies critical product characteristics, such as follows, shall be available:

(a) Drainage requirements including size and position of piping.

(b) Water supply temperature and pressure limitations.

11.2 Installation and maintenance instructions

11.2.1 *Installation instructions*

Detailed installation instructions shall be provided, which shall include the following:

(a) Reference to installation in accordance with AS/NZS 3500.1 and AS/NZS 3500.2;

(b) Step-by-step instruction.

(c) Any need for special tools or training.

(d) Commissioning procedures and adjustments required.

(e) Troubleshooting guide.

(f) Contact details for after-sales, service.

11.2.2 *Operating and maintenance instructions*

Operating and maintenance instructions shall be provided which shall include the following:

(a) Any regular maintenance requirements.

(b) Care and cleaning advice.

(c) Spare parts information.

(d) Troubleshooting guide.

(e) Contact details for after-sales service.

Appendix A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS TECHNICAL SPECIFICATION

(Normative)

A.1 SCOPE

This Appendix sets out the means by which compliance with this Technical Specification shall demonstrated by a manufacturer under the WaterMark Certification Scheme.

A.2 RELEVANCE

The long-term performance of plumbing systems is critical to the durability of building infrastructure, protection of public health and safety, and protection of the environment.

A.3 PRODUCT CERTIFICATION

The purpose of product certification is to provide independent assurance of the claim by the manufacturer that products comply with this Technical Specification.

The certification scheme serves to indicate that the products consistently conform to the requirements of this Technical Specification.

The sampling and testing plan, as detailed in Paragraph A5 and Table A1, shall be used by the WaterMark Conformity Assessment Body. Where a batch release testing program is required it shall be carried out by the manufacturer as detailed in Paragraph A5.

A.4 DEFINITIONS

A.4.1 Batch release test

A test performed by the manufacturer on a batch of components, which has to be satisfactorily completed before the batch can be released.

A.4.2 Production batch

Clearly identifiable collection of units, manufactured consecutively or continuously under the same conditions, using material or compound to the same specification.

A.4.3 Sample

One or more units of product drawn from a batch, selected at random without regard to quality.

NOTE: The number of units of product in the sample is the sample size.

A.4.4 Sampling plan

A specific plan that indicates the number of units of components or assemblies to be inspected.

A.4.5 Type test batch

Schedule of units of the same type, identical dimensional characteristics, all the same nominal diameter and wall thickness, from the same compound. The batch is defined by the manufacturer.

A.4.6 Type testing (TT)

Testing performed to demonstrate that the material, component, joint or assembly is capable of conforming to the requirements given in the Technical Specification.

A.5 TESTING

A.5.1 Type testing

Table A1 sets out the requirements for type testing and frequency of re-verification.

A.5.2 Batch release testing

Where third-party certification requires a batch release test program it shall be established between the manufacturer and the WaterMark Conformity Assessment Body.

NOTE: See HB 18.28 for guidelines for third-party certification and accreditation.

A.5.3 Retesting

In the event of a test failure, the products within the batch shall be tested at an appropriate acceptable quality level (AQL) and only those batches found to comply may be claimed and/or marked as complying with this Technical Specification.

Table A1—TYPE TESTS

Characteristic	Clause	Requirement	Test method	Frequency
Marking	6	Marking	Visual Inspection	At any change of the marking process or requirements
Design	8.1	End connectors	Design review	At any change of design
	8.2	Backflow protection	Clause 8.2	
	8.3	Water Seal	AS 1589 or AS 2887	
	8.4	Structural integrity	Design Review	
Performance	9.1	Products in contact with drinking water	AS/NZS 4020 or Clause 9.1	At any change of design or materials specification or on renewal of certification, whichever occurs first
	9.2	Hose sets	AS/NZS 3499 or IEC 61770	
	9.3	Strength of assembly	Clause 9.3	
Product documentation	11	Installation instructions	Visual inspection	At any change of installation or operation specification

Australian Building Codes Board

Building Australia's Future

Australian Building Codes Board
GPO Box 9839
Canberra ACT 2601
www.abcb.gov.au