AS 2165—1996

# Australian Standard®

# Laboratory glassware—Burettes

This Australian Standard was prepared by Committee CH/1, Laboratory Glassware and Related Apparatus. It was approved on behalf of the Council of Standards Australia on 27 September 1995 and published on 5 February 1996.

The following interests are represented on Committee CH/1:

Australian Chamber of Commerce and Industry

Australian Government Analytical Laboratories

Environment Protection Authority of N.S.W.

National Association of Testing Authorities, Australia

National Standards Commission

Royal Australian Chemical Institute

Royal College of Pathologists of Australasia

Scientific Suppliers Association of Australia

University of Sydney

**Review of Australian Standards.** To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 2165-1996

# Australian Standard®

# Laboratory glassware—Burettes

PUBLISHED BY STANDARDS AUSTRALIA (STANDARDS ASSOCIATION OF AUSTRALIA) 1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7337 0149 3

### PREFACE

This Standard was prepared by the Standards Australia Committee CH/1, Laboratory Glassware and Related Apparatus, to supersede the 1978 edition of AS 2165 *Burettes and bulb burettes*.

The objective of this Standard is to provide a specification for glass burettes required for general use in laboratories.

This Standard differs from the previous edition in that bulb burettes have been omitted. Burette dimensions given in ISO 385-1 *Laboratory glassware—Burettes*, Part 1: *General requirements*, and delivery times specified in ISO 385-2, *Laboratory glassware—Burettes* Part 2: *Burettes for which no waiting time is specified*, have been adopted. To assist Australian manufacturers, the main requirements of the previous edition of AS 2165 have not been changed.

### CONTENTS

Page

1	SCOPE	3
2	REFERENCES	3
3	DEFINITIONS	3
4	NOMINAL CAPACITIES AND TOLERANCES ON CAPACITIES	3
5	CONSTRUCTION	3
6	GRADUATION AND NUMBERING	7
7	MARKING	8

Originated as AS R10—1964. Previous edition AS 2165—1978. Second edition 1996.

#### © Copyright - STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

# STANDARDS AUSTRALIA

# Australian Standard

## Laboratory glassware—Burettes

**1 SCOPE** This Standard provides requirements for burettes suitable for general laboratory purposes.

2 **REFERENCES** The following documents are referred to in this Standard:

AS

2162 Code of practice for the use of volumetric glassware

- ISO
- 384 Laboratory glassware—Principles of design and construction of volumetric glassware

**3 DEFINITIONS** For the purposes of this Standard the definitions below apply.

**3.1 Capacity**—the capacity corresponding to any graduation line is the volume of water at 20°C, expressed in millilitres, delivered by the burette at 20°C when emptied from the zero line to that graduation line, the outflow being unrestricted until making the final setting and no period being allowed for drainage before the burette is read.

**3.2 Delivery time**—the time occupied by the descent of the water meniscus from the zero line to the lowest graduation line, the tap being fully open.

**3.3 Reference temperature**—the standard temperature of 20°C at which the burette is intended to deliver its nominal volume (nominal capacity).

**3.4 Unit of volume**—the cubic centimetre (cm<sup>3</sup>), for which the name millilitre (mL) may be used.

NOTE: The term millilitre (mL) is commonly used as a special name for the cubic centimetre  $(cm^3)$ .

## **4 NOMINAL CAPACITIES AND TOLERANCES ON CAPACITIES**

**4.1** Nominal capacities Burettes shall have the nominal capacities shown in Table 1.

**4.2 Tolerances on capacities** The tolerances on the capacities of the burettes are given in Table 1.

# **5** CONSTRUCTION

**5.1 Material** Burettes shall be constructed of glass of suitable chemical and physical properties. They shall be free from any defects that would adversely affect their performance.

Amber or other coloured tubing may be used for special purposes provided that the other requirements of this specification can be satisfactorily met.

Tubing having a white enamel back with a central coloured stripe may be used for Class B burettes, graduated in accordance with Clause 6.3.2. The stripe shall be diametrically opposite the scale of the burette.

### 5.2 Dimensions

**5.2.1** *Mandatory dimension* The mandatory dimension for the burette is the scale length, which shall comply with the values given in Table 2.